Compilation of Records of Surface Waters of the United States through September 1950

Part 10. The Great Basin

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1314

Compilation of Records of Surface Waters of the United States through September 1950

Part 10. The Great Basin

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1314

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1960

UNITED STATES DEPARTMENT OF THE INTERIOR

FRED A. SEATON, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington 25, D.C.

PREFACE

This report contains summaries of streamflow records in the Great Basin. It was prepared by the United States Geological Survey in the Water Resources Division, C. G. Paulsen, chief, succeeded by L. B. Leopold, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and B. J. Peterson, chief, Basic Records Section, succeeded by F. J. Flynn.

The data were compiled under general supervision of J. S. Gatewood, project engineer, succeeded by Alfonso Wilson, by personnel in district offices under supervision of district engineers, Surface Water Branch, as follows:

R. C. Briggs (succeeded by R. S. Lord)---------- Menlo Park, Calif.
T. R. Newell----------Boise, Idaho
K. N. Phillips----------Portland, Oreg.
M. T. Wilson----------Salt Lake City, Utah

CONTENTS

[See bar chart, p. 16–23, for list of gaging stations and individual page numbers in this report]

ILLUSTRATIONS

COMPILATION OF RECORDS OF SURFACE WATERS OF THE GREAT BASIN, THROUGH 1950

PURPOSE AND SCOPE

This volume is one of a series of reports presenting monthly and yearly summaries of streamflow and reservoir data collected by the Geological Survey. Included with these data are some records furnished by other Federal, State, and private agencies.

The purpose of this series of reports is to make available in summarized form all the surface-water records collected up to September 30, 1950.

The first known streamflow records to be systematically collected in the United States are those for Eaton and Madison Brooks in Madison County, N. Y., by John B. Jervis during 1835. Stream gaging by the United States Geological Survey was begun in 1888. At that time the Congress authorized the Irrigation Survey to be conducted by the Geological Survey in connection with special studies relating to irrigation. The work consisted of the measurements of stage and discharge of a few streams in the West. Since that time the work has expanded so that measurements of stage and discharge of streams and of stage and content of lakes and reservoirs have been made at more than 12,000 gaging stations in the 48 states and the territories of Hawaii and Alaska, of which about 6,400 were in operation on September 30, 1950. The details of the records collected at those stations are contained in annual reports, bulletins, and water-supply papers, which have been issued usually on an annual basis. Most of the records collected over the years are found only in numerous individual volumes, many of which are out of print and difficult to obtain.

The records have been collected mainly in cooperation with State, municipal and other Federal cooperating agencies and published in annual reports by the Geological Survey. This series of compilation reports has been prepared by the Geological Survey as a special project not included in the cooperative program.

The data presented in this series of reports consist of records of discharge of streams and contents of reservoirs summarized on a monthly and yearly basis. Results of miscellaneous discharge measurements and, in general, stage records have been excluded. Also included are bar charts showing the period of record covered by each gaging station and a map of the area showing the location of each station (pl. 1). The reports of this series are uniform in the type of data they contain and in the form of presentation.

In compiling the data for these summary reports, one important feature of the project was to review the analyses and computations originally made on the basis of all information now available. For some stations additional base data, obtained subsequently, allowed for reinterpretation and recomputation of more accurate records of discharge. All records were examined for major computation errors and tested wherever possible by comparison with records of discharge at other stations and weather data. Records that were found to be in need of substantial revision were recomputed or omitted if revision was not feasible. Estimates of discharge were made to fill short gaps to complete the continuity of the record, whenever practical.

Records furnished by other agencies are incorporated in these reports when they supplement records collected by the Geological Survey, and appeared consistent and reliable. Furnished records were reviewed in the same manner as Geological Survey records whenever base data were available and detailed study was feasible.

STREAM-GAGING PROGRAM

The Great Basin comprises practically all of Nevada, the northwestern half of Utah, the eastern edge and a large area in the southern part of California, about 17,300 square miles in southeastern Oregon, and smaller parts of southeastern Idaho and southwestern Wyoming. It is the largest of the few areas in the North American continent that have no outward drainage to the ocean; no surface runoff has left it during historic time, and probably none prehistoric Lake Bonneville. Contrary to the implication of the name, the Great Basin is not a single depression gathering water to a common center, but is rather a broad area divided into a large number of independent basins.

The Mormon pioneers entered the Great Salt Lake Valley on July 24, 1847, and immediately diverted water from City Creek near Salt Lake City for irrigation of the dry desert land. Mormon

leaders early recognized the value of streamflow data, and as a consequence some of the first cooperative stream-gaging work by the Geological Survey was started in the Great Basin. This work was soon established on a continuing basis.

Several Mormon communities cooperated with the Geological Survey in operating some of the first gaging stations in the Utah territory. During 1889, eight stream-gaging stations were established in the Great Salt Lake basin, and two in the Truckee River basin of California and Nevada. During the next 6 years, 26 additional gaging stations were established, including 5 on small streams near Salt Lake City, 7 in the Humboldt River basin of Nevada, and 6 in the Truckee River basin of California and Nevada.

The stream-gaging program remained relatively small until accelerated by cooperation with the States and other organizations. A systematic program of State cooperation with the Geological Survey was begun in Wyoming in 1895, and by 1909 all States in the Great basin had entered into formal cooperative agreements with the Geological Survey for water-resources investigations. Cooperation with the States has been continuous to the present except for a few short periods.

The stream-gaging program increased rapidly after 1902 when the Reclamation Act was passed creating the U. S. Bureau of Reclamation for the development of irrigation in the West. Of the first four Bureau of Reclamation projects authorized, the Strawberry Project in Utah and Newland's Project in Nevada were within the Great Basin. Between 1900 and 1905, new gaging stations were established at 55 sites fairly well distributed throughout the Great Basin but with the largest concentration in the Truckee River basin. During the same period, records were also collected on some streams in the Mojave River basin and at several canals in the Salton Sea and Owens Lake basins in California. Several additional stations were installed in the Owens Lake basin in 1906, when shortages developed in the municipal water supply of the city of Los Angeles.

The Geological Survey cooperated with the Utah state engineer from 1912 to 1919 in a detailed water-resources investigation of the Sevier River basin in Utah. During this period many gaging stations were established, including several on irrigation diversions.

The stream-gaging program expanded considerably during the 1940's owing to the need for water-supply information for proposed irrigation projects sponsored principally by the Bureau of Reclamation. This expansion was largely in the Weber and Provo River basins of Utah, the Humboldt River basin of Nevada, and the Carson, Truckee, and Walker River basins of California and Nevada.

In the early 1940's the States of Idaho, Utah, and Wyoming anticipated development and Federal authorization of an interstate water compact defining their rights to the waters of the Bear River basin. Beginning in July 1943, the Geological Survey cooperated with the three States and with the Bureau of Reclamation in the establishmnet of numerous gaging stations in the basin. This cooperation resulted also in the collection of records of about 430 irrigation diversions. Most of these records of irrigation diversions, as well as many seasonal records, are not published in this report, but may be found in the annual reports on Bear River Hydrometric Data (U. S. Geological Survey open-file reports).

Numerous municipal and private organizations have assisted the Geological Survey in the stream-gaging program, as have several bureaus of the Federal Government. Details of the cooperation have been acknowledged in the annual water-supply papers.

DESCRIPTION OF DATA

The gaging-station records are arranged in a downstream order. The order used in this report is the same as that adopted for use in the annual series of reports on surface-water supply beginning with the water year 1951. 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 bar chart (see p. 16) 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 in the annual reports through the water year 1950 was different. In those reports all stations on the main stem are listed first in order, proceeding from the headwaters toward the mouth, then all stations on the uppermost tributary from its source to mouth, followed by all stations from source to mouth on the tributaries to the tributary.

The data presented for most of the gaging stations comprise a description of the station, tables of monthly discharge and runoff, and a yearly summary table. The station description gives the location of the gaging station, drainage area, supplemental records available (for some stations), types and datums of gages, average

discharge, extremes of discharge, and general remarks concerning the data. When records were furnished by another agency the fact is so stated.

The location of the gaging station and the drainage area are obtained from the best available maps. When more than one site was used and the difference in drainage areas is significant, the area for the latest site is shown first followed by the areas for other sites in chronological order. In some instances drainage-area figures have not been obtained because of the lack of suitable maps or because the boundaries cannot be defined or the effective drainage area determined.

For some stations a paragraph headed "Supplemental records available" gives reference to records other than those given in the present report. Such records may consist of gage-height records for periods other than those for which discharge records are presented, records concerning quality of the water, or the results of periodic discharge measurements.

The gage discribed first is the present gage or the one used most recently. Information is then given in chronological order for all gages used earlier, giving changes in location, type of gage, or datum. The location or datum of all earlier gages is given with reference to the present or most recently used gage. The datum of the gage is the elevation of the zero of the gage above mean sea level. Where information as to datum is not available, the altitude of the gage is given. This may be determined from topographic maps, river-profile surveys, barometric levels, or where nothing better is available, by estimates based on average fall between a known elevation and the gage or on other known factors. The degree of accuracy of an altitude determination is indicated by the source of the information and to some extent by the refinement to which the figure is given.

The average discharge for a station is the average of all complete water years and is published only if there are five or more complete water years of record. The years used to determine the average are not necessarily consecutive. The average discharge is not published for some stations because of extensive changes in diversion or storage, or other water development that have occurred upstream. For some streams in the Salton Sea, Mojave River, and Antelope Valley basins there is a considerable difference between the median of the yearly mean discharges and the average because of one or two exceptionally high or low years. The median of the yearly mean discharges is given when there are 10 or more years of record and when the difference between the median and the average is more than 10 percent of the average.

In general, the momentary maximum and minimum discharges and stages for the entire period of record are published in the "Extremes" paragraph. These are qualified if necessary according to the type of gage used and the completeness of the record. Maximum and minimum discharges at nonrecording gaging stations are qualified as "observed" unless determined from a graph drawn through actual gage heights which approximates the actual hydrograph or from floodmarks.

Under "Remarks" information is given on factors which affect the basin yield and runoff characteristics. These include upstream regulation, diversion, and utilization—a history of changes in these items is given when known. Also, references are made to the records of storage or diversion upstream, if published. When discharge records are furnished by another agency, credit is given under "Cooperation."

The streamflow data summarized in this paper are generally contained in two monthly tables and one yearly table. The first monthly table is a tabulation of monthly and yearly mean discharge in cubic feet per second. These figures represent discharge passing the station; they are unadjusted for storage or diversion upstream unless otherwise specified in the Remarks paragraph of the individual station. Each monthly figure is the mean flow for the entire month; generally no record for part of a month is tabulated. Likewise, each yearly figure is the mean flow for a full year, and no figure is shown for a partial year. Usually the months are arranged on a water-year basis. Exceptions to this rule are made in connection with seasonal records wherein the months are grouped to give a complete season for each calendar year.

The second monthly table is a tabulation of monthly and yearly runoff in acre-feet. The third table contains a yearly summary of the streamflow data. The column head "W. S. P. no." lists the number of the water-supply paper or other publication in which the figures of daily and monthly discharge are published; for early years for which daily discharges were not published, that column lists the report that contains daily gage heights, rating tables, and monthly discharge. If a part of the record has been revised and published, then references is made to both the original report and the one containing the revised record; if the daily discharge record for the entire year has been republished to include revisions, then only the later report is listed. For some stations the third table is omitted; however, the report containing records for any particular year can generally be found by reference to the tables given on p. 10, 11.

In the third table the momentary maximum discharge for each water year and the date of its occurrence is given whenever obtainable. This is maximum discharge for the water year unless otherwise qualified. For nonrecording gage records, momentary maximums were often obtained from graphs drawn through the gage readings. If a graph was not feasible, then the discharge was computed from the maximum gage height observed, provided it was believed to be of significant value. The momentary maximum discharge is given for some years for which the record, as shown in the first two tables, is incomplete. The maximum discharge when so given is believed to be representative of the absolute maximum of the water year and is not qualified in any way. Occasionally maximum daily discharges are tabulated, but only when it was not practicable to give momentary maximums and when figures may have general statistical value.

The minimum daily discharge for each water year is listed if known. The annual mean discharge listed in the third table is the same as that given in the yearly column in the first table.

Other data in this table are given for both the water and calendar year and consist of runoff in acre-feet, or both. These are adjusted or unadjusted for storage or diversion as the occasion demands, but in general no adjustments have been made in the West. In arid regions where the average annual precipitation is less than 20 inches, the computation of runoff in cubic feet per second per square mile and in depth in inches is not ordinarily made.

Most canal and diversion records are given in a single table. There are some records for large canals, however, that are published in the same detail as those for streams. Records of reservoirs also are given in a single table which shows the contents at the end of each month.

Figures of discharge that have been revised as the result of the review made in connection with this compilation are so noted; however, revisions that have been previously published are not indicated as revisions in this report. Revised daily discharges made in connection with this compilation will be published in a later annual water-supply paper. If only annual maximum discharges are revised and no revision of daily discharge is made for a station, revised annual maximums are given only in this report and will not be republished in a later annual report. Figures that represent corrections of typographical or computational errors where no figures of daily discharge have been revised or changed are indicated as "corrected" in this report. Estimates of discharge made to complete months or years for this report are noted as estimates and as "not previously published."

After reviewing the past records of a few stations, it was found that part of the previously published records was grossly in error; yet the base data were such that the record could not be improved or revised. For such stations a note listing the periods of record that have been discredited and not republished is given with the records published herein. Stations for which the entire period of record previously published has been discredited are omitted from this report. The following is the only station so omitted.

Prosser Creek near Boca, Calif. ..... 1889-90; 1902-3.

In addition to the above, records for some other stations in the area, previously published by the Geological Survey in the annual series of reports, are omitted from this compilation. In general, the records for such stations either are too fragmentary to allow computation of monthly mean discharge or are records that did not measure streamflow, total diversion, or return flow and were considered not important enough to warrant publication in this report. These stations are listed in the following table:

Previously published records that are not compiled in this report

Station	Period of record
Bear Lake inlet canal near Dingle, Idaho[1]	1911-13.
Bear River at Soda Springs, Idaho	1896; 1898; (1944-50)[2]
Bear River below Grace Dam, near Grace, Idaho	(1944-50)[2] 1945-46.
B. Q. West Side Canal at Kennedy Ranch, near Randolph, Utah	(1944-49)[2] 1949-50.
Buena Vista Canal near Narrows, Oreg	1915-20.
Cub River Canal near Preston, Idaho	(1944, 45)[2] 1946-50.
Cub River - Worm Creek Canal near Preston, Idaho	1943-50.
Dunn Field Ditch near Narrows, Oreg[1]	1917.
East Fork Carson River at Silver King Valley, near Markleeville, Calif.	1910-12.
Flagstaff Lake Inlet near Plush, Oreg	1914.
Hyrum City power canal near Hyrum, Utah[1]	1904-10; 1914-17
Logan Northern Canal near Logan, Utah	1913-16; (1944, 45)[2]
Logan River below Logan Northern Canal, near Logan, Utah	1915-17.
Logan River below State dam, near Logan, Utah	1913-14.
Minersville Canal at Minersville, Utah	1906, 1914, 1931-50.
Mink Creek Canal near Mink Creek, Idaho[1]	1949-50.
New River near Brawley, Calif.	1909-10.
New River near International Boundary, near Calexico, Calif.	1905.
Owens Lake basin, 15 canals	1903-05.
Paris power canal near Paris, Idaho[1]	1943-47.
Preston-Riverdale & Mink Creek Canal near Mink Creek, Idaho	1943-50.
Preston-Whitney Canal near Preston, Idaho	(1944, 45)[2]; 1946-50.
Red Rock Creek near Red Rock, Calif	1917.
Rock Quarry Creek near Suntex, Oreg	1922.
Salton Sea basin, 8 canals	1904-05.
Saroni Canal near Wellington, Nev.	1920-23.
Sevier Lake basin, 54 canals and ditches	1912-20.
Silver Lake Inlet near Silver Lake, Oreg	1922.
Treasureton Canal near Swan Lake, Idaho[1]	1939-46.
Twin Lakes Canal near Mink Creek, Idaho	1943-50.
United States Reclamation Service power canal near Spanish Fork, Utah[1]	1909-17.
Warner Lakes basin, 6 canals	1913-15, 1921.

[1]Used to adjust mainstream records.
[2]Published in reports on Bear River Hydrometric Data (U. S. Geological Survey open-file report).

PUBLICATIONS

To facilitate publication of streamflow records, the area of the United States is divided into 14 parts whose boundaries coincide with certain natural drainage lines. Formerly, the annual series of water-supply papers on the surface-water supply of the United States was published in 14 volumes, 1 for each of the 14 parts. Beginning with the reports for 1951, the records are published in 18 volumes, including 2 volumes each for parts, 1, 2, 3, and 6. This system is used in publishing the present series of compilation reports with the exception of part 11 which is published in 2 volumes for the compilation report series only. The boundaries of the various parts are indicated in the following list and on figure 1.

Part 1. North Atlantic slope basins, in two volumes:
- A, North Atlantic slope basins, Maine to Connecticut.
- B, North Atlantic slope basins, New York to York River.

2. South Atlantic slope and eastern Gulf of Mexico basins, in two volumes:
- A, South Altantic 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, in two volumes:
- A, Pacific slope basins in California except Central Valley.
- B, Pacific slope basins in California, Central Valley.

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.

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 Report; B = Bulletin; W = Water-Supply Paper)

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 rating.	1893–94.
16th A, pt. 2	Descriptive information only.....	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
W 11.....	Gage heights.....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1895–96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
W 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.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 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.
W 35 to 39.....	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52.....	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Reports on surface-water supply containing records from 1899 to 1950 for drainage basins in this report are listed in the following table. 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 streamflow records in the Great Basin, 1899–1950

Year	W. S. P. no.	Year	W. S. P. no.	Year	W. S. P. no.	Year	W. S. P. no.	Year	W. S. P. no.
1899	38	1911	310	1923	570	1934	765	1945	1040
1900	51	1912	330	1924	590	1935	790	1946	1060
1901	66, 75	1913	360	1925	610	1936	810	1947	1090
1902	85	1914	390	1926	630	1937	830	1948	1120
1903	100	1915	410	1927	650	1938	860	1949	1150
1904	133	1916	440	1928	670	1939	880	1950	1180
1905	176	1917	460	1929	690	1940	900	.....	.....
1906	212	1918	480	1930	705	1941	930	.....	.....
1907–8	250	1919–20	510	1931	720	1942	960	.....	.....
1909	270	1921	530	1932	735	1943	980	.....	.....
1910	290	1922	550	1933	750	1944	1010	.....	.....

Note.—Records for all stations in Oregon through September 1910 have been republished in WSP 370 with some revisions, superseding all earlier reports for these stations. Also, records for all stations in California through September 1910 have been republished in WSP 300 with some revisions, superseding all earlier reports for these stations.

538662 O - 60 - 2

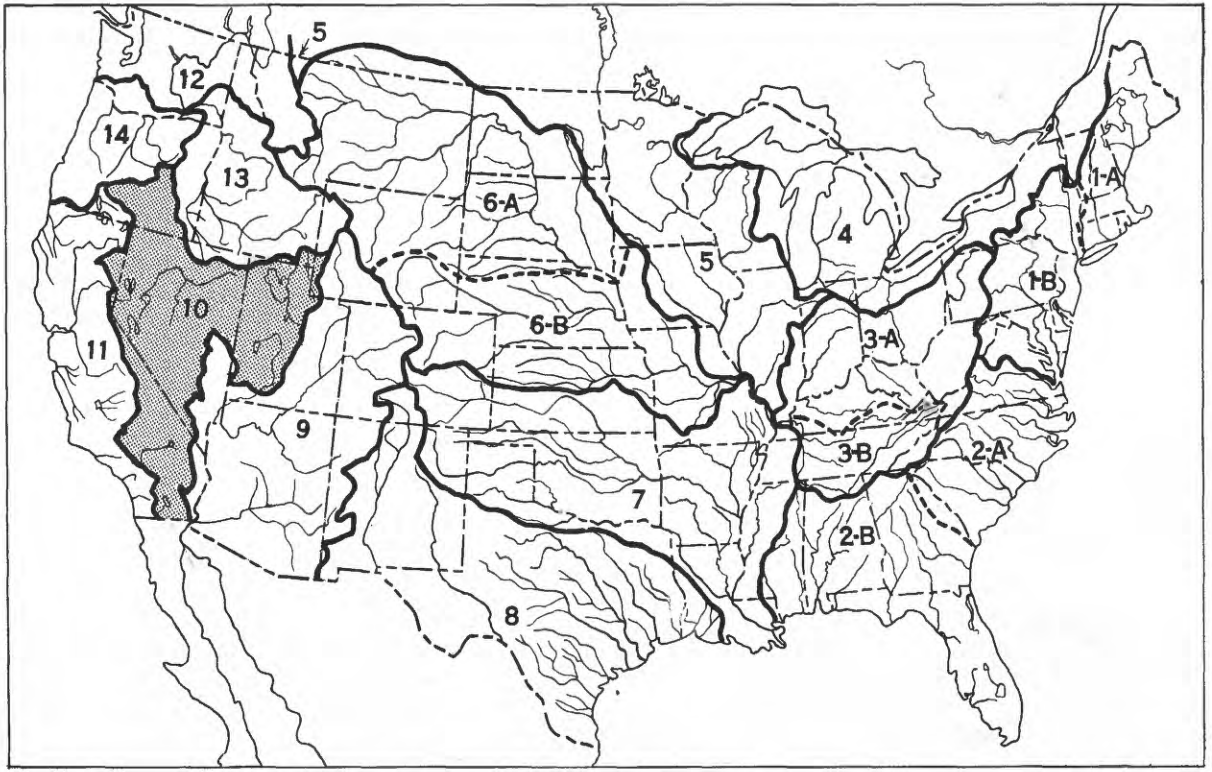


Figure 1.—Map of the United States showing areas covered by the annual reports on surface-water supply and by the present series of compilation reports. The area covered by this report is shaded.

The records at most of the stations discussed in these reports extend over many years. Miscellaneous 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.

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 present series of reports. Such reports for the area covered by this report are as follows:

Reports containing compilation of discharge by States or drainage basins

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

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

State reports containing compilations of records of discharge in the Great Basin

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 and Nevada have issued annual or biennial reports in which are included records of discharge.

Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of

these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

Report

W. S. P. 771: Floods in the United States, magnitude and frequency.
W. S. P. 843: Floods of December 1937 in northern California.
W. S. P. 844: Floods of March 1938 in southern California.
W. S. P. 847: Maximum discharges at stream-measurement stations through September 1938.
W. S. P. 994: Cloudburst floods in Utah, 1850 to 1938.

HYDROLOGIC CONDITIONS

Hydrologic conditions vary greatly in the Great Basin because of the rugged topography and the variations in the pattern of cyclonic storms. The basin consists of a series of short mountain ranges generally trending in a north-south direction with intervening arid and semiarid valleys. Shallow lakes, more or less salty, occupy many of the depressions. The basin is bounded on the west by the Sierra Nevada and the California Coast Ranges, and on the east essentially by the Wasatch Range. The remainder of the boundary does not follow any continuous mountain divide, but crosses mountain ranges, which are devoid of conspicuous elevations, and the valleys between.

Most moisture reaching the basin comes from the Pacific Ocean. In the winter the basin derives moisture from the Pacific air masses, and in the summer from the Continental air masses. In some years, large quantities are derived from the Gulf of Mexico during the summer months.

Streamflow is the residual of precipitation after other demands have been met. It varies considerably from year to year, much more than does precipitation. This variation is due to several factors. The precipitation over semiarid or desert areas is often inadequate to meet or exceed evapotranspiration losses, leaving little or no residual for runoff. In these regions, occasional intense storms result in flash runoff from small areas. The economically more important streams rise in mountainous regions where runoff depends upon the melting of snows that have accumulated during the preceding winter. High-water runoff occurs each spring and early summer and then recedes in a fairly uniform pattern to low flows in the fall and winter. Peak flows from these mountainous areas usually occur at the time of maximum snowmelt. The mean annual discharge for three widely-separated streams of long record are shown in figure 2. The pattern of yearly runoff shown by these streams is generally representative of hydrologic conditions in their parts of the report area.

Water supplies in the Great Basin show a downward trend from the turn of the century to the drought of the early 1930's. During this period the average decline for many streams in the basin was more than 50 percent. Runoff from the Wasatch front for 1924–41 was 35 percent less than that for 1906–23. Although water supplies during 1940–50 have shown considerable increase over those of the 1924–41 drought period, still they have not reached the 1906–23 levels.

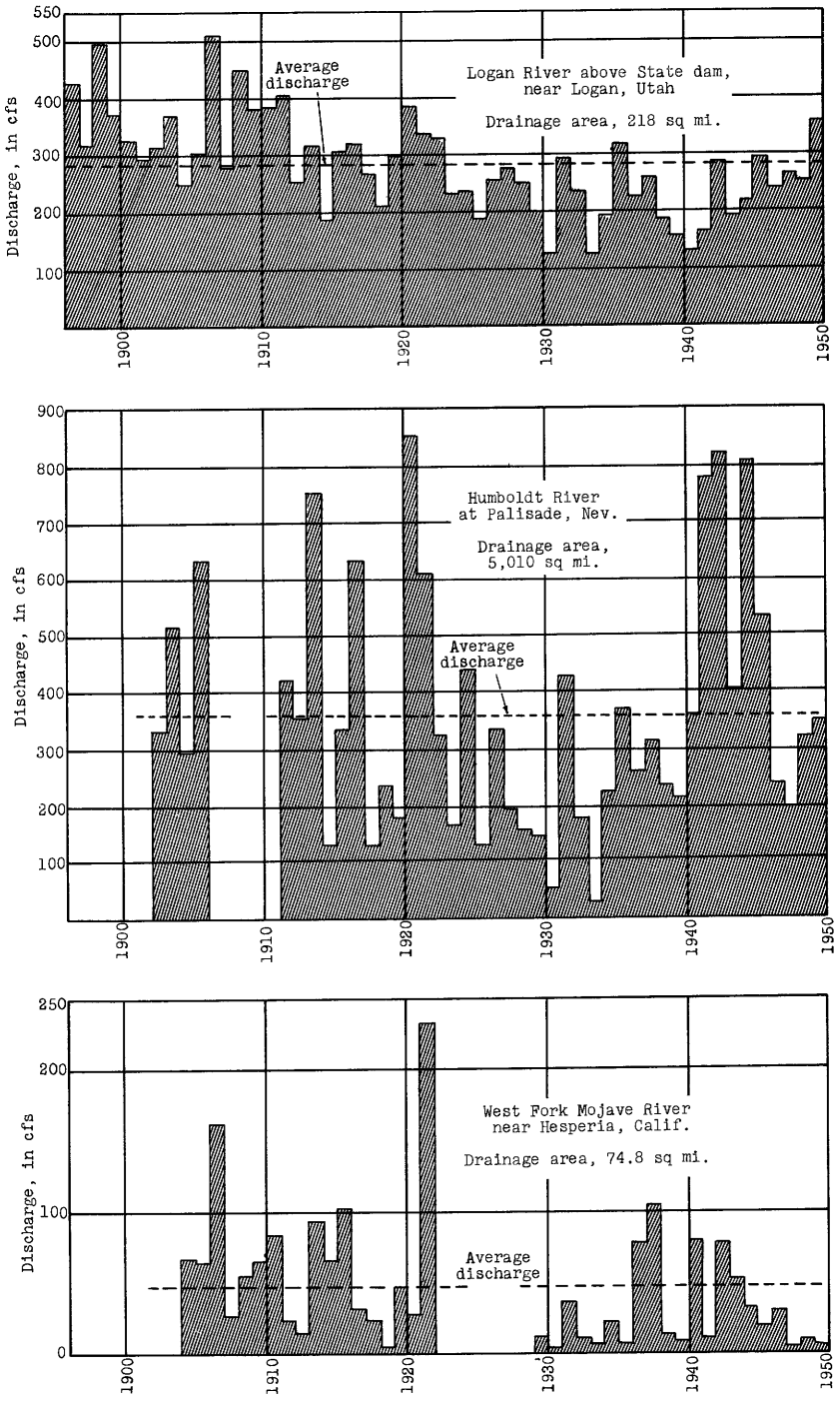


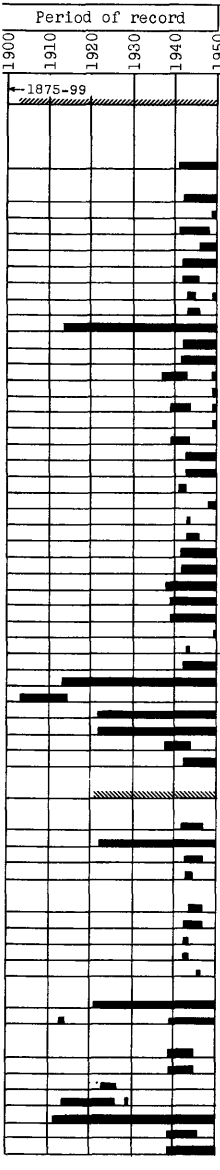
Figure 2.--Yearly discharge at three representative gaging stations in the Great Basin.

BAR CHART

The following bar chart shows the period of record of discharge of streams and contents of reservoirs for all stations compiled in this report through September 30, 1950. Periods of record of stage only are not included. The stations are listed in downstream order (see p. 4) and are numbered consecutively. The number is used to identify the station on the map (pl. 1) showing location of gaging stations.

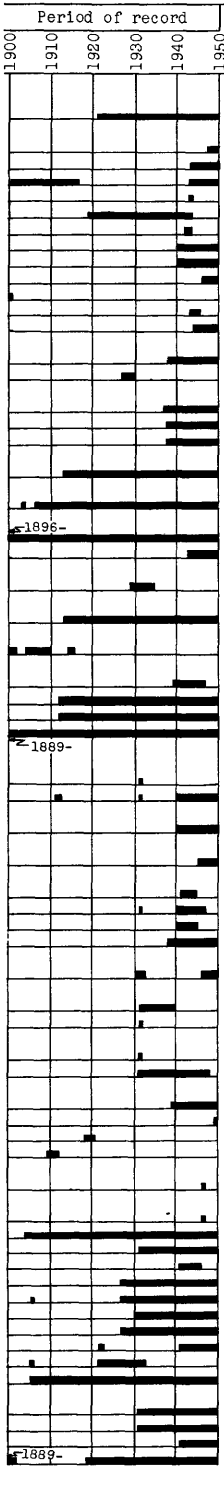
Bar chart of gaging-station records

Legend: ▬▬ Streamflow ▒▒▒▒ Reservoir contents



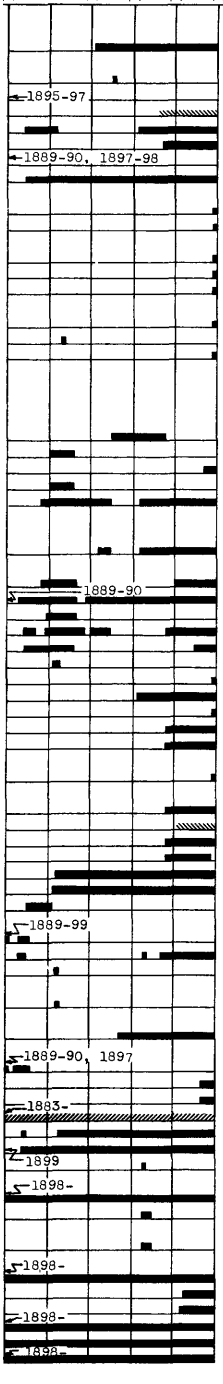
Gaging station	Map no.	Page no.
Great Salt Lake basin:		
Great Salt Lake, Utah	1	24
Bear River basin:		
Bear River:		
East Fork Bear River:		
....Hilliard-East Fork Canal near State line, near Evanston, Wyo.	2	26
..Bear River near Utah-Wyoming State line	3	27
....Mill Creek at Utah-Wyoming State line	4	28
....Mill Creek near Evanston, Wyo.	5	28
..Bear River above Sulphur Creek, near Evanston, Wyo.	6	29
....Sulphur Creek near Evanston, Wyo.	7	29
..Bear River at Millis, near Evanston, Wyo.	8	30
....Yellow Creek near Evanston, Wyo.	9	30
......Coyote Creek near Evanston, Wyo.	10	31
..Bear River near Evanston, Wyo.	11	32
....Chapman Canal at State line, near Evanston, Wyo.	12	33
..Bear River near Woodruff, Utah	13	34
....Woodruff Creek near Woodruff, Utah	14	35
......Birch Creek near Woodruff, Utah	15	36
....Big Creek near Randolph, Utah	16	36
....Randolph Creek near Randolph, Utah	17	37
....Otter Creek near Randolph, Utah	18	37
..Bear River near Randolph, Utah	19	38
...Twin Creek at Sage, Wyo.	20	39
..Bear River below Pixley Dam, near Cokeville, Wyo.	21	40
..Bear River above Sublette Creek, near Cokeville, Wyo.	22	40
....Smiths Fork near Smoot, Wyo.	23	41
......Hobble Creek near Geneva, Idaho	24	41
....Smiths Fork near Border, Wyo.	25	41
....Smiths Fork at Cokeville, Wyo.	26	42
..Bear River at Border, Wyo.	27	43
....Thomas Fork near Geneva, Idaho	28	44
......Salt Creek near Geneva, Idaho	29	45
....Thomas Fork near Wyoming-Idaho State line	30	45
......Preuss Creek near Geneva, Idaho	31	46
....Thomas Fork near Raymond, Idaho	32	46
..Bear River at Harer, Idaho	33	47
..Bear River at Dingle, Idaho	34	49
....Rainbow inlet canal near Dingle, Idaho	35	50
..Bear River below Stewart Dam, near Montpelier, Idaho	36	51
....Montpelier Creek near Montpelier, Idaho	37	53
....Montpelier Creek at irrigators weir, near Montpelier, Idaho	38	53
....Bear Lake at Lifton, near St. Charles, Idaho	39	54
Bear Lake outlet canal:		
......Bloomington Creek near Bloomington, Idaho	40	55
....Bear Lake outlet canal near Paris, Idaho	41	55
......Paris Creek near Paris, Idaho	42	57
......Slight Canyon Creek near Paris, Idaho	43	58
Bear River:		
....Mill Creek above West Fork, near Liberty, Idaho	44	58
....Mill Creek near Liberty, Idaho	45	59
......North Creek near Liberty, Idaho	46	59
........Emigration Creek near Liberty, Idaho	47	60
....North Creek below Emigration Creek, near Liberty, Idaho	48	60
..Bear River at Pescadero, Idaho	49	61
....Georgetown Creek near Georgetown, Idaho	50	62
Stauffer Creek:		
....Skinner Creek at Nounan, Idaho	51	63
....Stauffer Creek near Nounan, Idaho	52	64
....Soda Creek at Lau Ranch, near Soda Springs, Idaho	53	65
....Soda Creek near Soda Springs, Idaho	54	65
..Bear River at Alexander, Idaho	55	66
....Cottonwood Creek near Swan Lake, Idaho	56	68
....Cottonwood Creek near Cleveland, Idaho	57	69

Bar chart of gaging-station records--Continued



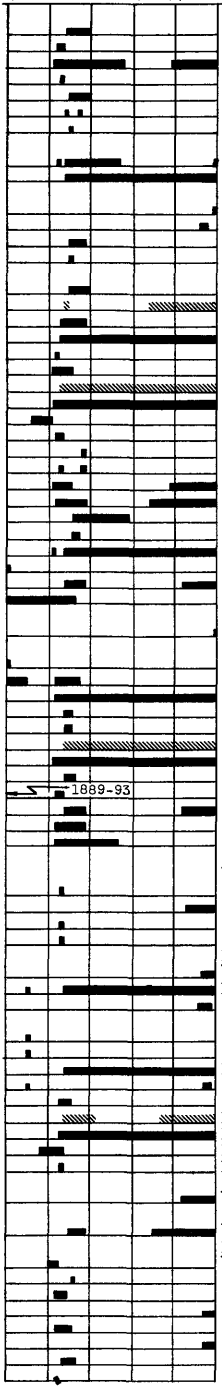
Gaging station	Map no.	Page no.
Great Salt Lake basin--Continued		
Bear River basin--Continued		
..Bear River below Utah Power & Light Co.'s tailrace, at Oneida, Idaho	58	70
....Mink Creek below Dry Fork, near Mink Creek, Idaho	59	72
....Mink Creek near Mink Creek, Idaho	60	72
..Bear River near Preston, Idaho	61	73
....Battle Creek near Treasureton, Idaho	62	75
..Bear River near Weston, Idaho	63	75
....Weston Creek at Weston, Idaho	64	77
....Cub River near Preston, Idaho	65	77
....Cub River above Maple Creek, near Franklin, Idaho	66	78
......Maple Creek near Franklin, Idaho	67	79
....Cub River at Franklin, Idaho	68	79
......Worm Creek near Preston, Idaho	69	80
......High Creek near Richmond, Utah	70	80
Little Bear River:		
....East Fork Little Bear River near Avon, Utah	71	81
....East Fork Little Bear River below Pole Creek, near Avon, Utah	72	82
....Little Bear River near Paradise, Utah	73	83
....Hyrum Reservoir near Hyrum, Utah	74	84
....Little Bear River near Hyrum, Utah	75	84
Logan River:		
....Utah Power & Light Co's. tailrace near Logan, Utah	76	85
....Logan, Hyde Park & Smithfield Canal near Logan, Utah	77	86
....Logan River above State dam, near Logan, Utah	78	87
....Blacksmith Fork at Hardware Ranch, near Hyrum, Utah	79	89
....Blacksmith Fork at municipal powerplant, near Hyrum, Utah	80	90
....Blacksmith Fork above Utah Power & Light Co's. dam, near Hyrum, Utah	81	91
....Blacksmith Fork below Utah Power & Light Co's. plant, near Hyrum, Utah	82	93
....Clarkston Creek near Newton, Utah	83	94
....Hammond (East Side) Canal near Collinston, Utah	84	95
....West Side Canal near Collinston, Utah	85	97
..Bear River near Collinston, Utah	86	99
Malad River:		
Little Malad River:		
....Wright Creek near Daniels, Idaho	87	102
....Little Malad River above Elkhorn Reservoir, near Malad City, Idaho	88	102
....Little Malad River below Elkhorn Reservoir, near Malad City, Idaho	89	103
....Little Malad River below Sand Ridge dam site, near Malad City, Idaho	90	104
....Warm Springs Canal near Samaria, Idaho	91	105
....Malad River below springs, near Malad City, Idaho	92	105
....Malad River near Samaria, Idaho	93	106
....Devil Creek above Campbell Creek, near Malad City, Idaho	94	107
....Devil Creek above Evans dividers, near Malad City, Idaho	95	108
....Devil Creek near Malad City, Idaho	96	109
....Deep Creek above Third Creek, near Malad City, Idaho	97	109
....Third Creek near Malad City, Idaho	98	110
....Deep Creek below First Creek, near Malad City, Idaho	99	110
....Malad River at Woodruff, Idaho	100	111
..Bear River near Corinne, Utah	101	112
....Box Elder Creek near Brigham City, Utah	102	113
....Box Elder Creek at Brigham City, Utah	103	113
Weber River basin:		
..Weber River above Smith and Morehouse Creek, near Oakley, Utah	104	114
....Smith and Morehouse Creek near Oakley, Utah	105	114
..Weber River near Oakley, Utah	106	115
....Weber-Provo diversion canal at Oakley, Utah	107	117
....Silver Creek near Wanship, Utah	108	118
..Weber River near Coalville, Utah	109	119
....Chalk Creek at Coalville, Utah	110	120
..Echo Reservoir at Echo, Utah	111	122
..Weber River at Echo, Utah	112	122
....Lost Creek near Croydon, Utah	113	124
....Lost Creek at Devils Slide, Utah	114	125
..Weber River at Devils Slide, Utah	115	126
East Canyon Creek:		
....East Canyon Reservoir near Morgan, Utah	116	128
....East Canyon Creek near Morgan, Utah	117	129
......Hardscrabble Creek near Porterville, Utah	118	130
..Weber River at Gateway, Utah	119	131

Bar chart of gaging-station records--Continued



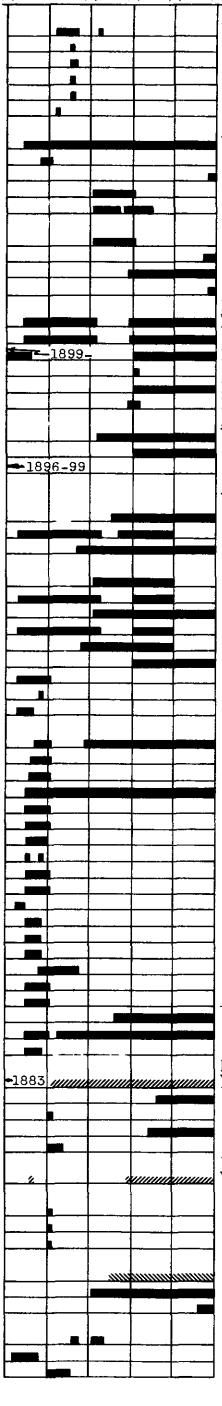
Gaging station	Map no.	Page no.
Great Salt Lake basin--Continued		
Weber River basin--Continued		
....South Fork Ogden River near Huntsville, Utah	120	133
North Fork Ogden River:		
.....Middle Fork Ogden River near Huntsville, Utah	121	135
....Ogden River at Eden, Utah	122	135
....Pine View Reservoir near Ogden, Utah	123	135
....Ogden River near Ogden, Utah	124	136
....Ogden River below Pine View Dam, near Ogden, Utah	125	138
....Ogden River at powder mill, near Ogden, Utah	126	139
..Weber River near Plain City, Utah	127	140
Tributaries between Weber and Jordan Rivers:		
..Holmes Creek near Kaysville, Utah	128	142
..Farmington Creek above diversions, near Farmington, Utah	129	142
..Ricks Creek above diversions, near Centerville, Utah	130	143
..Parrish Creek above diversions, near Centerville, Utah	131	143
..Centerville Creek above diversions, near Centerville, Utah	132	143
..Stone Creek above diversions, near Bountiful, Utah	133	144
..Mill Creek near Bountiful, Utah	134	144
..Mill Creek at Mueller Park, near Bountiful, Utah	135	144
Jordan River basin:		
Utah Lake (head of Jordan River):		
Currant Creek:		
West Creek:		
.....Salt Creek near Nephi, Utah	136	145
....Summit Creek near Santaquin, Utah	137	146
....Payson Creek above diversions, near Payson, Utah	138	146
....Payson Creek near Payson, Utah	139	147
....Spanish Fork at Thistle, Utah	140	148
Diamond Fork:		
Sixth Water Creek:		
.....Strawberry tunnel at West Portal, near Thistle, Utah	141	150
.....Diamond Fork near Thistle, Utah	142	151
....Spanish Fork at Castilla, Utah	143	153
....Spanish Fork near Spanish Fork, Utah	144	155
....Spanish Fork near Lake Shore, Utah	145	156
....Hobble Creek near Springville, Utah	146	158
.....Maple Creek near Springville, Utah	147	160
....Provo River near Kamas, Utah	148	160
.....Weber-Provo diversion canal near Woodland, Utah	149	161
....Provo River near Hailstone, Utah	150	162
....Provo River near Charleston, Utah	151	162
.....Snake Creek near Charleston, Utah	152	163
Daniels Creek:		
.....Transmountain diversions from Colorado River basin to Jordan River basin, Utah	153	164
.....Round Valley Creek near Wallsburg, Utah	154	165
....Deer Creek Reservoir near Charleston, Utah	155	166
.....Deer Creek near Wildwood, Utah	156	166
....Provo River near Wildwood, Utah	157	167
....Provo River at Vivian Park, Utah	158	168
.....South Fork Provo River at Vivian Park, Utah	159	170
....Provo River above Telluride Power Co.'s dam, near Provo, Utah	160	172
....Provo River at mouth of canyon, near Provo, Utah	161	173
....Provo River at Provo, Utah	162	174
....American Fork above South Fork, near American Fork, Utah	163	176
.....South Fork of American Fork near American Fork, Utah	164	176
....American Fork above upper powerplant, near American Fork, Utah	165	177
....American Fork near American Fork, Utah	166	178
....Dry Creek near Alpine, Utah	167	179
.....Fort Creek at Alpine, Utah	168	180
..Utah Lake near Lehi, Utah	169	180
..Jordan River at narrows, near Lehi, Utah	170	182
....Little Cottonwood Creek near Salt Lake City, Utah	171	184
....Little Cottonwood Creek at Second West Street, near Murray, Utah	172	186
....Big Cottonwood Creek near Salt Lake City, Utah	173	187
.....Spring Run at 9th East and 48th South Streets, near Murray, Utah	174	189
....Big Cottonwood Creek at Second West Street, near Murray, Utah	175	190
....Mill Creek near Salt Lake City, Utah	176	190
....Surplus Canal at Salt Lake City, Utah	177	193
..Jordan River at Salt Lake City, Utah	178	193
....Parleys Creek near Salt Lake City, Utah	179	195
.....Emigration Creek near Salt Lake City, Utah	180	198
....City Creek near Salt Lake City, Utah	181	201

Bar chart of gaging-station records--Continued



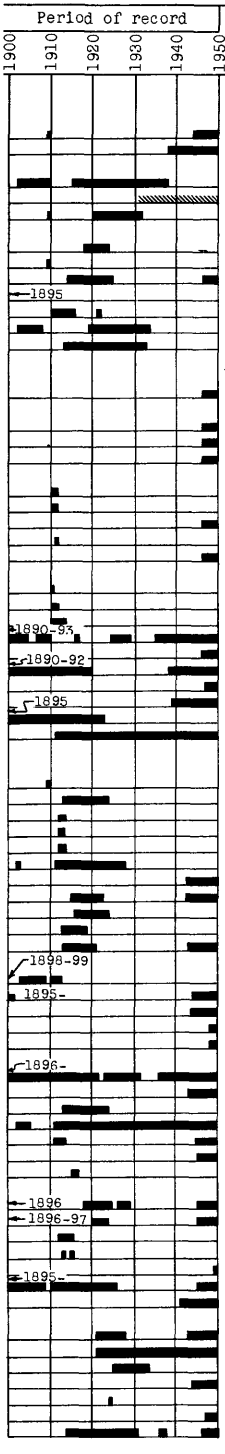
Gaging station	Map no.	Page no.
Sevier Lake basin:		
..Mammoth Creek (head of Sevier River) near Hatch, Utah..	182	203
....Asay Creek near Hatch, Utah....	183	204
..Sevier River at Hatch, Utah....	184	205
..Sevier River near Panguitch, Utah....	185	206
....Panguitch Creek above canals, near Panguitch, Utah...	186	207
....Panguitch Creek below canals, at Panguitch, Utah.....	187	207
..Sevier River below Old Houston Canal, near Panguitch, Utah....	188	208
..Sevier River near Circleville, Utah....	189	208
..Sevier River near Kingston, Utah....	190	209
East Fork Sevier River:		
.....Tropic and East Fork Canal near Tropic, Utah.....	191	211
.....Antimony Creek near Antimony, Utah.....	192	212
....East Fork Sevier River at Antimony, Utah.....	193	212
....East Fork Sevier River above Otter Creek, near Antimony, Utah....	194	213
.....Otter Creek above reservoir, near Antimony, Utah...	195	213
.....Otter Creek Reservoir near Antimony, Utah.....	196	214
.....Otter Creek near Antimony, Utah.....	197	214
....East Fork Sevier River near Kingston, Utah.....	198	215
....East Fork Sevier River near Junction, Utah.....	199	217
..Sevier River near Junction, Utah.....	200	217
..Piute Reservoir near Marysvale, Utah.....	201	218
..Sevier River below Piute Dam, near Marysvale, Utah.....	202	219
..Sevier River near Marysvale, Utah.....	203	221
..Sevier River at Marysvale, Utah.....	204	222
....Pine Creek near Marysvale, Utah.....	205	222
....Pine Creek at Marysvale, Utah.....	206	222
..Sevier River above Clear Creek, near Sevier, Utah.....	207	223
....Clear Creek at Sevier, Utah.....	208	224
..Sevier River at Sevier, Utah.....	209	226
..Sevier River near Richfield, Utah.....	210	226
..Sevier River near Sigurd, Utah.....	211	227
....Salina Creek near Salina, Utah.....	212	229
....Salina Creek at Salina, Utah.....	213	229
..Sevier River near Gunnison, Utah.....	214	230
San Pitch River:		
.....Transmountain diversions from Colorado River basin to Sevier Lake basin, Utah.....	215	232
.....Manti Creek near Manti, Utah.....	216	235
....San Pitch River near Gunnison, Utah.....	217	235
..Sevier River below San Pitch River, near Gunnison, Utah	218	236
..Sevier River at Clark's bridge, near Fayette, Utah.....	219	238
..Sevier River at McArtie's ford, near Fayette, Utah.....	220	239
..Sevier Bridge Reservoir near Juab, Utah.....	221	239
..Sevier River near Juab, Utah.....	222	240
..Sevier River near Mills, Utah.....	223	242
..Sevier River at Leamington, Utah.....	224	243
..Sevier River near Lynndyl, Utah.....	225	243
..Sevier River near Delta, Utah.....	226	244
..Sevier River at Oasis, Utah.....	227	245
Pavant Valley:		
Chalk Creek:		
....Pine Creek near Fillmore, Utah.....	228	246
..Chalk Creek near Fillmore, Utah.....	229	247
..Meadow Creek near Meadow, Utah.....	230	247
..Corn Creek near Kanosh, Utah.....	231	248
Beaver River basin:		
Three Creeks (head of Beaver River) near Beaver, Utah....	232	248
Beaver River near Beaver, Utah.....	233	249
..North Fork North Creek above Pole Creek, near Beaver, Utah.....	234	251
..North Fork North Creek near Beaver, Utah.....	235	251
....South Fork North Creek near Beaver, Utah.....	236	251
Beaver River at Adamsville, Utah.....	237	252
..Indian Creek near Beaver, Utah.....	238	253
..Indian Creek at Adamsville, Utah.....	239	254
Rockyford Reservoir near Minersville, Utah.....	240	255
Beaver River at Rockyford Dam, near Minersville, Utah....	241	255
Beaver River at Minersville, Utah.....	242	257
Beaver River at Milford, Utah.....	243	258
Parowan Valley:		
..Center Creek near Parowan, Utah.....	244	258
Cedar City Valley:		
..Coal Creek near Cedar City, Utah.....	245	259
Minor basins in Nevada:		
..Thousand Springs Creek near Tecoma, Nev.....	246	260
..Overland Creek near Ruby Valley, Nev.....	247	261
..Snake Creek near Baker, Nev.....	248	261
..Baker Creek at narrows, near Baker, Nev.....	249	262
..Baker Creek near Baker, Nev.....	250	262
....Lehman Creek near Baker, Nev.....	251	263
..Cleveland Creek near Osceola, Nev.....	252	263
..Currant Creek at ranger station, near Currant, Nev.....	253	264

Bar chart of gaging-station records--Continued



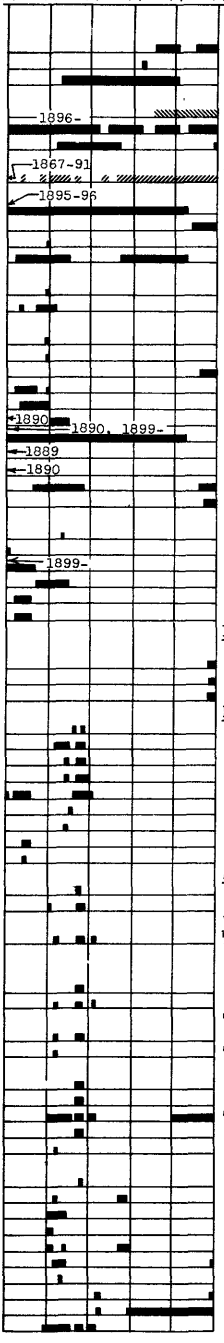
Gaging station	Map no.	Page no.
Minor basins in Nevada:--Continued		
..Currant Creek near Currant, Nev.	254	264
..Big Warm Spring near Duckwater, Nev.	255	265
..Duckwater Creek near Duckwater, Nev.	256	265
..Lees Creek near Pahrump, Nev.	257	266
..Intermittent Springs near Pahrump, Nev.	258	266
..Birch Creek near Austin, Nev.	259	266
Salton Sea basin:		
Salton Sea, Calif.	260	267
..Alamo River near Brawley, Calif.	261	268
..Whitewater River at Whitewater, Calif.	262	269
....Snow Creek near Whitewater, Calif.	263	269
......Southern Pacific Co.'s ditch near Whitewater, Calif.	264	270
......Falls Creek near Whitewater, Calif.	265	271
....Tahquitz Creek near Palm Springs, Calif.	266	271
......Palm Canyon Creek near Palm Springs, Calif.	267	272
........Andreas Creek near Palm Springs, Calif.	268	273
Mojave River basin:		
Deep Creek (head of Mojave River) near Hesperia, Calif.	269	274
..West Fork Mojave River near Hesperia, Calif.	270	276
Mojave River at lower narrows, near Victorville, Calif.	271	278
Mojave River near Hodge, Calif.	272	280
Mojave River at Barstow, Calif.	273	280
Mojave River at Afton, Calif.	274	281
Antelope Valley:		
..Big Rock Creek near Valyermo, Calif.	275	282
..Little Rock Creek near Little Rock, Calif.	276	283
..Little Rock Creek near Palmdale, Calif.	277	285
Owens Lake basin:		
Owens River:		
....Convict Creek near Mammoth Lakes, Calif.	278	285
..Owens River near Round Valley, Calif.	279	287
....Rock Creek at Little Round Valley, near Bishop, Calif.	280	289
....Rock Creek at Sherwin Hill, near Bishop, Calif.	281	290
....Rock Creek near Round Valley, Calif.	282	292
......Pine Creek at division box, near Bishop, Calif.	283	293
......Pine Creek near Round Valley, Calif.	284	295
..Owens River at Pleasant Valley, near Bishop, Calif.	285	297
....Silver Canyon Creek near Laws, Calif.	286	298
....Bishop Creek near Bishop, Calif.	287	300
....Baker Creek near Big Pine, Calif.	288	300
....Big Pine Creek above Little Pine Creek, near Big Pine, Calif.	289	301
....Big Pine Creek near Big Pine, Calif.	290	302
....Tinemaha Creek near Big Pine, Calif.	291	304
......Birch Creek near Big Pine, Calif.	292	304
..Owens River near Big Pine, Calif.	293	305
....Taboose Creek near Aberdeen, Calif.	294	307
....Goodale Creek near Aberdeen, Calif.	295	308
....Division Creek near Independence, Calif.	296	309
....Sawmill Creek near Independence, Calif.	297	309
....Oak Creek near Independence, Calif.	298	310
....Independence Creek near Independence, Calif.	299	311
..Owens River near Citrus, Calif.	300	311
....Shepard Creek near Thebe, Calif.	301	312
....Bairs Creek near Thebe, Calif.	302	312
....George Creek near Thebe, Calif.	303	313
..Owens River near Lone Pine, Calif.	304	313
....Lone Pine Creek near Lone Pine, Calif.	305	314
....Tuttle Creek near Lone Pine, Calif.	306	315
..Owens River at Keeler Bridge, near Lone Pine, Calif.	307	315
..Cottonwood Creek near Olancha, Calif.	308	317
..Ash Creek near Lone Pine, Calif.	309	319
Mono Lake basin:		
Mono Lake near Mono Lake, Calif.	310	319
..Rush Creek above Grant Lake, near June Lake, Calif.	311	320
..Rush Creek near Mono Lake, Calif.	312	321
..Lee Vining Creek near Lee Vining, Calif.	313	322
..Lee Vining Creek near Mono Lake, Calif.	314	323
Walker Lake basin:		
Walker Lake near Hawthorne, Nev.	315	323
Virginia Creek (head of Walker River):		
....Robinson Creek near Bridgeport, Calif.	316	324
....Buckeye Creek near Bridgeport, Calif.	317	325
......Swager Creek near Bridgeport, Calif.	318	325
East Walker River (continuation of Virginia Creek):		
..Bridgeport Reservoir near Bridgeport, Calif.	319	326
..East Walker River near Bridgeport, Calif.	320	326
..East Walker River above Strosnider ditch, near Mason, Nev.	321	328
..East Walker River above Mason Valley, near Mason, Nev.	322	329
..East Walker River near Yerington, Nev.	323	329
..East Walker River near Mason, Nev.	324	330

Bar chart of gaging-station records--Continued



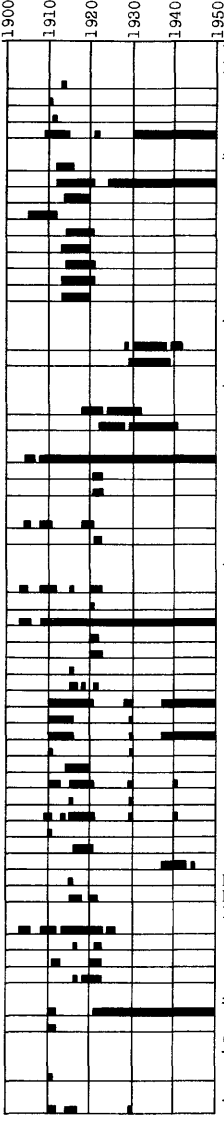
Gaging station	Map no.	Page no.
Walker Lake basin--Continued		
East Walker River--Continued		
West Walker River:		
.....East Fork West Walker River near Bridgeport, Calif.	325	331
....West Walker River below East Fork, near Coleville, Calif.	326	331
....West Walker River near Coleville, Calif.	327	332
.....Topaz Reservoir near Topaz, Calif.	328	334
....West Walker River at Hoye Bridge, near Wellington, Nev.	329	335
....West Walker River near Wellington, Nev.	330	336
....West Walker River at Smith, Nev.	331	337
....West Walker River near Hudson, Nev.	332	337
..Walker River near Nordyke, Nev.	333	339
..Walker River at Mason, Nev.	334	339
..Walker River near Wabuska, Nev.	335	340
..Walker River at Schurz, Nev.	336	341
Humboldt-Carson Sink basin:		
Carson River basin:		
..East Fork Carson River above Soda Springs ranger station, near Markleeville, Calif.	337	343
....Silver King Creek near Coleville, Calif.	338	343
....Wolf Creek near Markleeville, Calif.	339	344
....Silver Creek below Pennsylvania Creek, near Markleeville, Calif.	340	344
....Silver Creek near Markleeville, Calif.	341	345
..East Fork Carson River near Markleeville, Calif.	342	345
....Hot Springs Creek near Markleeville, Calif.	343	346
....Hot Springs Creek at Markleeville, Calif.	344	346
.....Pleasant Valley Creek above Raymond Canyon Creek, near Markleeville, Calif.	345	347
.....Pleasant Valley Creek near Markleeville, Calif.	346	347
...Markleeville Creek at Markleeville, Calif.	347	348
..East Fork Carson River at California-Nevada State line.	348	348
..East Fork Carson River near Gardnerville, Nev.	349	349
....West Fork Carson River above Woodfords, Calif.	350	351
....West Fork Carson River at Woodfords, Calif.	351	351
....Clear Creek near Carson City, Nev.	352	353
..Carson River near Carson City, Nev.	353	354
..Carson River near Empire, Nev.	354	355
..Carson River near Fort Churchill, Nev.	355	356
Humboldt River basin:		
Humboldt River:		
....Bishop Creek near Wells, Nev.	356	358
....Starr Creek near Deeth, Nev.	357	359
....Marys River at Marys River cabin, near Deeth, Nev.	358	359
.....Hanks Creek near Deeth, Nev.	359	360
....Marys River at Buena Vista Ranch, near Deeth, Nev.	360	360
....Marys River near Deeth, Nev.	361	361
....Marys River above Hot Springs Creek, near Deeth, Nev.	362	362
....Lamoille Creek near Lamoille, Nev.	363	363
....Secret Creek near Halleck, Nev.	364	364
....Lamoille Creek near Halleck, Nev.	365	365
....North Fork Humboldt River at Devils Gate, near Halleck, Nev.	366	365
....North Fork Humboldt River near Halleck, Nev.	367	367
..Humboldt River near Elko, Nev.	368	368
....South Fork Humboldt River near Lee, Nev.	369	369
.....Huntington Creek near Lee, Nev.	370	369
....South Fork Humboldt River above Dixie Creek, near Elko, Nev.	371	370
....South Fork Humboldt River near Elko, Nev.	372	370
..Humboldt River near Carlin, Nev.	373	373
....Maggie Creek at Carlin, Nev.	374	374
..Humboldt River at Palisade, Nev.	375	375
....Pine Creek near Palisade, Nev.	376	377
..Humboldt River near Argenta, Nev.	377	378
....Rock Creek at Rock Creek Ranch, near Battle Mountain, Nev.	378	378
....Rock Creek near Battle Mountain, Nev.	379	379
..Humboldt River at Battle Mountain, Nev.	380	380
....Reese River near Berlin, Nev.	381	381
.....Big Creek near Austin, Nev.	382	381
..Humboldt River near Valmy, Nev.	383	382
..Humboldt River at Comus, Nev.	384	382
....Little Humboldt River at Chimney dam site, near Paradise Valley, Nev.	385	384
....Little Humboldt River near Paradise Valley, Nev.	386	385
.....Martin Creek near Paradise Valley, Nev.	387	386
.....Cottonwood Creek near Paradise Valley, Nev.	388	387
.....Cottonwood Creek at Paradise Valley, Nev.	389	388
..Humboldt River at Winnemucca, Nev.	390	388
..Humboldt River near Rose Creek, Nev.	391	389
....Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Imlay, Nev.	392	389

Bar chart of gaging-station records--Continued



Gaging station	Map no.	Page no.
Humboldt-Carson Sink basin--Continued		
Humboldt River basin--Continued		
..Humboldt River near Imlay, Nev.	393	390
..Humboldt River near Humboldt, Nev.	394	391
....Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev.	395	391
..Rye Patch Reservoir near Rye Patch, Nev.	396	392
..Humboldt River near Rye Patch, Nev.	397	393
..Humboldt River near Lovelock, Nev.	398	395
Pyramid and Winnemucca Lakes basin:		
Pyramid Lake near Nixon, Nev.	399	396
Truckee River:		
..Truckee River at Tahoe, Calif.	400	397
..Truckee River near Truckee, Calif.	401	400
....Donner Creek at Donner Lake, near Truckee, Calif.	402	400
....Donner Creek near Truckee, Calif.	403	401
Prosser Creek:		
......South Fork Prosser Creek near Truckee, Calif.	404	402
....Prosser Creek near Truckee, Calif.	405	403
Little Truckee River:		
......Webber Creek near Truckee, Calif.	406	403
....Little Truckee River near Truckee, Calif.	407	404
....Little Truckee River near Hobart Mills, Calif.	408	404
......Independence Creek near Truckee, Calif.	409	405
....Little Truckee River at Starr, Calif.	410	405
....Little Truckee River at Boca, Calif.	411	406
..Truckee River at Farad, Calif.	412	407
..Truckee River near Essex, Nev.	413	409
..Truckee River at Laughtons, Nev.	414	409
..Truckee River at Reno, Nev.	415	410
....Franktown Creek (head of Steamboat Creek) at Franktown, Nev.	416	411
......Galena Creek near Washoe, Nev.	417	411
....Steamboat Creek at Steamboat Springs, Nev.	418	412
..Truckee River at Vista, Nev.	419	412
..Truckee River at Clarks, Nev.	420	413
..Truckee River near Wadsworth, Nev.	421	414
....Lake Winnemucca Inlet near Wadsworth, Nev.	422	415
Black Rock Desert basin:		
Quinn River:		
....McDermitt Creek near McDermitt, Nev.	423	415
....East Fork Quinn River near McDermitt, Nev.	424	416
..Quinn River near McDermitt, Nev.	425	416
Honey Lake basin:		
..Long Valley Creek near Scotts, Calif.	426	417
..Baxter Creek near Janesville, Calif.	427	417
....Schloss Creek at Janesville, Calif.	428	418
....Janesville Creek at Janesville, Calif.	429	418
..Susan River at Susanville, Calif.	430	419
....Gold Run Creek near Susanville, Calif.	431	420
....Lassen Creek near Susanville, Calif.	432	420
....Willow Creek at Merrillville, Calif.	433	421
....Willow Creek near Standish, Calif.	434	421
Surprise Valley:		
..Bidwell Creek near Fort Bidwell, Calif.	435	422
..Bidwell Creek at Fort Bidwell, Calif.	436	422
Warner Lakes basin:		
Twelvemile Creek (head of Warner Lakes basin) near Fort Bidwell, Calif.	437	423
Cowhead Lake Outlet:		
....Keeno Creek near Fort Bidwell, Calif.	438	423
..Fifteenmile Creek near Warner Lake, Oreg.	439	424
Twentymile Creek (continuation of Twelvemile Creek):		
..Rock Creek near Fort Bidwell, Calif.	440	424
Twentymile Creek below Rock Creek, near Fort Bidwell, Calif.	441	425
..West Fork Horse Creek near Fort Bidwell, Calif.	442	425
....East Fork Horse Creek near Fort Bidwell, Calif.	443	426
Twentymile Creek near Adel, Oreg.	444	426
..Deep Creek above Dismal Creek, near Warner Lake, Oreg.	445	428
....Dismal Creek above Big Valley, near Warner Lake, Oreg.	446	428
....Dismal Creek near Warner Lake, Oreg.	447	429
..Deep Creek below Dismal Creek, near Warner Lake, Oreg.	448	429
..Deep Creek at Big Valley, near Lakeview, Oreg.	449	430
....Camas Creek near Plush, Oreg.	450	430
......Mud Creek near Plush, Oreg.	451	431
....Camas Creek near Lakeview, Oreg.	452	432
......Crane Creek near Lakeview, Oreg.	453	432
....Drake Creek near Adel, Oreg.	454	433
..Deep Creek above Adel, Oreg.	455	433
..Deep Creek at Adel, Oreg.	456	435

Bar chart of gaging-station records--Continued



Gaging station	Map no.	Page no.
Warner Lakes basin--Continued		
Hart Lake:		
..Fish Creek near Plush, Oreg.	457	436
..Honey Creek at Chalstrand's ranch, near Plush, Oreg.	458	436
....Twelvemile Creek near Plush, Oreg.	459	436
..Honey Creek near Plush, Oreg.	460	437
Abert Lake basin:		
..Chewaucan River at dam site, near Paisley, Oreg.	461	439
..Chewaucan River above Conn ditch, near Paisley, Oreg.	462	439
....Conn ditch near Paisley, Oreg.	463	441
..Chewaucan River at Paisley, Oreg.	464	442
....Smalls Canal at Paisley, Oreg.	465	442
......Bagley ditch at Paisley, Oreg.	466	443
....Jones-Innis ZX ditch near Paisley, Oreg.	467	443
..Chewaucan River at narrows, near Paisley, Oreg.	468	444
..Chewaucan River at Hotchkiss Ford, near Paisley, Oreg.	469	444
Summer Lake basin:		
Ana River:		
....Summer Lake Canal near Summer Lake, Oreg.	470	445
..Ana River near Summer Lake, Oreg.	471	446
Silver Lake basin:		
Silver Creek:		
....West Fork Silver Creek near Silver Lake, Oreg.	472	447
....Silver Lake Irrigation District Canal near Silver Lake, Oreg.	473	448
..Silver Creek near Silver Lake, Oreg.	474	448
....Bridge Creek near Silver Lake, Oreg.	475	450
....Buck Creek above Timothy Creek, near Silver Lake, Oreg.	476	451
....Buck Creek near Silver Lake, Oreg.	477	451
..Duncan Creek near Silver Lake, Oreg.	478	452
Malheur and Harney Lakes basin:		
Malheur Lake:		
..Silvies River near Silvies, Oreg.	479	453
....Emigrant Creek near Burns, Oreg.	480	454
..Silvies River near Burns, Oreg.	481	454
....Poison Creek near Burns, Oreg.	482	456
......Prater Creek near Burns, Oreg.	483	457
....East Fork Silvies River near Lawen, Oreg.	484	457
..West Fork Silvies River near Lawen, Oreg.	485	458
..Donner und Blitzen River near Frenchglen, Oreg.	486	458
....Mud Creek near Diamond, Oreg.	487	460
......Bridge Creek near Frenchglen, Oreg.	488	461
....Krumbo Creek near Diamond, Oreg.	489	462
..Donner und Blitzen River near Narrows, Oreg.	490	462
....Kiger Creek near Diamond, Oreg.	491	463
......Cucamonga Creek near Diamond, Oreg.	492	464
......McCoy Creek near Diamond, Oreg.	493	465
....Riddle Creek near Smith, Oreg.	494	466
....Riddle Creek near Diamond, Oreg.	495	466
..Donner und Blitzen River near Voltage, Oreg.	496	467
Malheur Lake Outlet at Narrows, Oreg.	497	468
Mud Lake Outlet near Narrows, Oreg.	498	468
Harney Lake:		
..Silver Creek above Suntex, Oreg.	499	469
....Chickahominy Creek near Suntex, Oreg.	500	470
..Silver Creek below Suntex, Oreg.	501	470
..Silver Creek near Narrows, Oreg.	502	471
Alvord Lake basin:		
..Trout Creek near Denio, Oreg.	503	472
....Little Cottonwood Creek near Denio, Oreg.	504	474
Tumtum Lake basin:		
Pueblo Slough:		
....Van Horn Creek near Denio, Oreg.	505	474
Catlow Valley:		
..Home Creek near Beckley, Oreg.	506	475

GREAT SALT LAKE BASIN

1. 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 and 17 miles west of Salt Lake City.

Gage.--Water-stage recorder at Boat Harbor since October 1938 at datum 4,186.9 ft above mean sea level, datum of 1929. Prior to October 1938, staff gages at sites and at datums above mean sea level, datum of 1929, as follows: September 1875 to October 1877, at Black Rock at datum 4,208.4 ft; November 1877 to November 1879, at Farmington Bay at datum 4,206.9 ft; November 1879 to April 1881, near Black Rock at datum 4,203.1 ft; April 1881 to December 1899, at Garfield Landing at datum 4,198.5 ft; October 1902 to July 1903, at Midlake on Lucin cutoff of Southern Pacific Railroad, 30 miles west of Ogden, at datum 4,197.9 ft (revised); and July 1903 to October 1938, at Saltair at datum 4,196.9 ft.

Extremes.--1875-99, 1902-50: Maximum elevation observed (revised), 4,210.9 ft June 30, 1876; minimum, 4,193.7 ft Oct. 15, Nov. 1, 1940.
Maximum elevation since 1851, 4,211.6 ft in 1873, computed from traditional data by E. C. LaRue (see following page).

Remarks.--To compensate for wind effect and seiches, elevations since October 1938 are taken from a mean slope line defined by several days' gage-height graph preceding and following 12:01 a.m. for the first of each month. Wind effects may cause substantial changes in elevation which are not shown in the published elevations.

Cooperation.--Records for October 1902 to June 1903, not previously published by Geological Survey, furnished by Southern Pacific Railroad, those for July 1903 to September 1929 by U. S. Weather Bureau, and those for 1933 by Saltair Beach Co.

Elevation on or near first day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1875	-	-	-	-	-	-	-	-	-	-	-	208.9
1876	208.7	208.6	208.8	209.0	209.1	209.2	209.4	209.7	210.3	210.9	210.6	210.0
1877	209.9	-	-	-	-	-	-	-	-	*210.4	-	-
1878	-	210.2	208.9	-	209.0	-	209.1	209.3	-	209.4	209.2	-
1879	-	207.9	207.8	-	-	-	-	208.1	-	-	-	-
1880	-	-	205.6	205.8	205.7	205.8	205.9	206.1	206.4	206.5	206.2	205.8
1881	205.1	205.0	204.8	204.9	205.1	205.6	205.7	206.1	206.5	206.3	206.0	205.5
1882	205.2	205.1	205.1	205.2	205.3	205.4	205.7	205.9	206.0	205.8	205.5	204.9
1883	204.6	204.5	204.5	204.5	204.5	204.6	204.7	-	-	-	-	205.0
1884	204.1	203.7	203.5	203.5	203.5	203.7	204.1	204.7	205.5	205.9	205.7	205.5
1885	205.5	205.4	205.3	205.6	205.8	206.0	206.3	206.6	207.0	207.3	207.1	206.7
1886	206.5	206.4	206.2	206.5	206.8	207.1	207.3	207.5	207.7	-	207.3	-
1887	206.7	206.5	-	206.7	206.6	206.8	206.9	206.9	207.2	207.0	206.6	206.2
1888	205.8	205.6	-	205.6	205.7	205.8	206.1	205.9	206.0	205.6	205.2	204.8
1889	204.4	203.9	204.1	204.1	204.2	204.5	204.8	204.4	204.2	203.7	203.1	202.6
1890	202.1	-	202.2	202.3	202.7	203.0	203.3	203.7	-	204.1	203.7	203.2
1891	-	202.7	202.7	202.8	202.8	203.1	203.2	203.4	203.5	-	-	202.8
1892	202.4	202.4	202.3	202.3	-	-	-	-	-	-	-	-
1893	-	-	-	201.7	201.9	202.0	202.4	202.8	203.0	202.8	202.0	201.8
1894	201.0	-	-	201.5	201.7	201.6	202.1	202.5	203.0	-	-	-
1895	201.9	201.6	-	-	-	-	-	-	-	-	-	-
1896	-	-	-	200.8	201.0	201.1	201.3	201.3	201.8	201.8	201.3	200.9
1897	200.7	200.4	200.5	200.8	201.0	201.3	201.6	201.9	202.3	202.0	201.5	201.2
1898	200.7	200.5	200.6	200.8	200.9	201.2	201.4	201.7	201.9	201.8	201.3	200.7
1899	200.3	200.0	199.8	199.9	200.2	200.5	200.8	200.9	201.2	201.2	200.8	200.5
1900	200.2	200.2	199.9	-	-	-	-	-	-	-	-	-
1903	196.9	196.5	196.6	196.7	196.9	197.0	197.3	197.6	197.7	197.7	197.1	196.7
1904	196.2	196.1	196.1	196.4	196.4	196.8	197.6	197.7	198.3	198.3	197.9	197.5
1905	197.2	196.9	196.9	196.9	197.0	197.2	197.5	197.6	197.6	197.3	196.8	196.3
1906	196.0	195.8	195.9	195.9	196.1	196.4	197.0	197.4	197.9	198.3	197.8	197.5
1907	197.3	197.1	197.1	197.4	197.7	198.4	198.9	199.5	199.9	200.5	200.4	200.1
1908	199.8	199.9	199.9	200.1	200.3	200.6	200.7	200.7	200.8	201.0	200.7	200.1
1909	199.9	200.0	200.1	200.3	200.8	201.1	201.5	201.7	202.4	202.6	202.4	202.1
1910	202.0	202.0	202.3	202.6	202.9	203.1	203.6	203.9	203.9	203.4	203.0	202.5
1911	202.1	202.0	201.9	202.0	202.3	202.7	203.0	203.2	203.1	203.0	202.7	202.1
1912	201.6	201.7	201.6	201.6	201.8	202.0	202.2	202.5	202.6	202.7	202.4	202.1
1913	201.8	201.9	202.1	202.1	202.1	202.3	202.6	202.8	202.9	202.8	202.5	202.0
1914	201.9	201.7	201.8	201.9	202.3	202.6	202.8	203.1	203.3	203.6	203.3	202.8
1915	202.4	202.5	202.4	202.5	202.6	202.9	203.1	203.2	203.2	202.9	202.4	201.9

* Revised.

Note.--Add 4,000 ft to obtain elevation above mean sea level, datum of 1929.

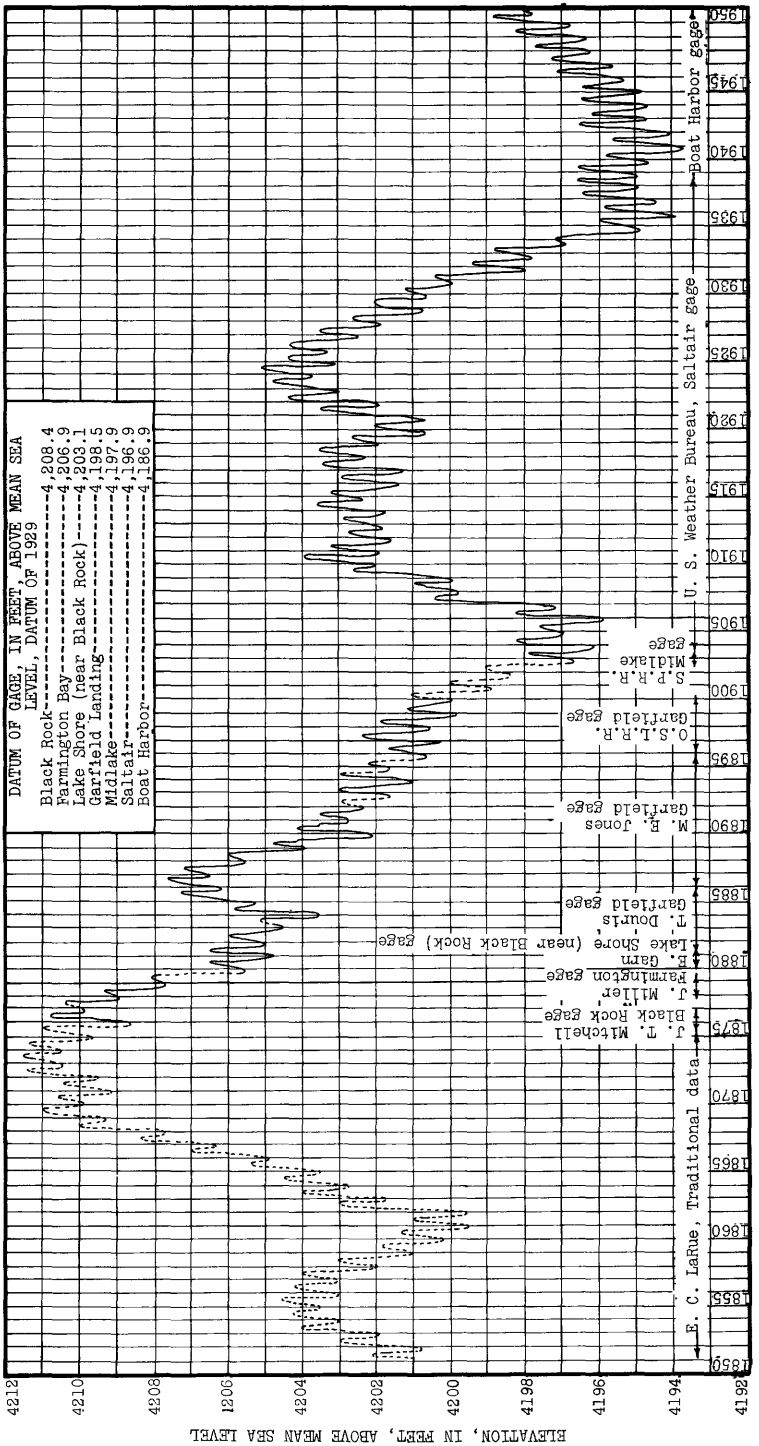


Figure 3.--Diagram showing fluctuations of Great Salt Lake, 1851 - 1950

Elevation, on or near first day of month, of Great Salt Lake, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1916	201.6	201.4	201.4	201.4	201.6	202.1	202.5	202.9	202.8	202.6	202.2	201.6
1917	201.3	201.4	201.4	201.5	201.6	201.9	202.3	202.8	203.1	203.4	203.2	202.7
1918	202.5	202.3	202.5	202.6	202.9	203.1	203.5	203.5	203.4	203.1	202.9	202.4
1919	202.1	201.9	202.0	202.2	202.3	202.5	202.7	202.7	202.6	202.0	201.5	201.1
1920	200.8	200.7	200.7	200.8	200.9	201.2	201.4	201.7	202.0	201.9	201.5	201.1
1921	200.7	200.9	201.1	201.3	201.5	201.8	202.3	202.7	203.2	203.3	202.8	202.2
1922	201.9	201.9	202.0	202.3	202.5	202.9	203.3	203.7	204.3	204.4	203.9	203.6
1923	203.1	202.9	203.1	203.3	203.7	203.8	204.1	204.4	204.9	204.8	204.4	204.1
1924	203.7	204.0	204.1	204.2	204.4	204.7	294.9	295.1	294.7	294.5	294.0	203.4
1925	203.1	203.0	203.1	203.3	203.5	203.8	204.1	204.3	204.3	204.1	203.9	203.5
1926	203.3	203.3	203.4	203.5	203.6	203.9	204.1	204.3	204.2	203.8	203.4	202.9
1927	202.5	202.4	202.4	202.5	202.6	202.9	203.3	203.4	203.5	203.2	202.8	202.1
1928	201.9	201.8	202.0	202.0	202.1	202.3	202.6	202.6	202.5	202.2	201.7	201.0
1929	200.7	200.7	200.7	200.9	201.0	201.1	201.6	201.9	202.0	201.7	201.2	200.8
1930	200.65	200.25	200.45	200.55	200.7	200.9	201.1	201.15	201.2	200.85	200.3	200.05
1931	199.7	199.85	200.0	200.1	200.15	200.45	200.4	200.35	200.2	199.6	199.2	198.65
1932	198.05	198.0	197.9	198.1	198.2	198.55	198.85	199.1	199.4	199.25	198.85	198.35
1933	198.0	197.8	197.75	197.7	197.95	198.1	198.4	198.55	198.85	198.6	198.1	197.45
1934	197.05	196.8	196.75	196.8	197.05	197.2	197.2	197.1	196.6	196.25	195.85	195.35
1935	195.0	194.8	194.95	195.15	195.3	195.55	195.7	195.75	196.05	195.7	195.15	194.6
1936	194.2	193.85	193.9	194.0	194.25	194.8	195.05	195.5	195.8	195.75	195.4	194.8
1937	194.35	194.35	194.55	194.65	194.85	195.3	196.1	196.4	196.45	196.2	195.9	195.3
1938	194.95	194.8	194.8	195.1	195.25	195.55	195.95	196.2	196.55	196.2	195.95	195.45
1939	194.9	195.05	195.2	195.5	195.7	195.9	196.3	196.55	196.25	195.95	195.45	194.95
1940	194.75	194.65	194.6	194.65	195.1	195.5	195.7	195.75	195.4	194.95	194.45	193.9
1941	193.8	193.7	193.9	194.3	194.5	195.05	195.25	195.65	195.55	195.3	194.85	194.4
1942	194.05	194.25	194.4	194.7	195.05	195.5	196.0	196.3	196.55	196.3	195.8	195.25
1943	194.85	194.65	194.8	195.1	195.3	195.65	195.85	196.2	196.2	196.05	195.6	195.05
1944	194.75	194.6	194.75	195.05	195.15	195.5	195.9	196.2	196.3	196.45	196.0	195.35
1945	194.95	194.85	194.9	195.05	195.2	195.65	195.8	195.9	196.0	196.4	195.9	195.6
1946	195.2	195.25	195.5	195.75	196.05	196.2	196.7	197.1	197.15	196.85	196.35	195.85
1947	195.4	195.55	195.85	196.25	196.35	196.9	197.0	197.2	197.15	197.15	196.8	196.35
1948	196.25	196.25	196.5	196.7	196.85	197.05	197.3	197.6	197.75	197.75	197.15	196.55
1949	196.25	196.15	196.25	196.5	196.75	197.05	197.8	198.0	198.25	198.0	197.5	197.05
1950	196.7	196.8	197.0	197.15	197.4	197.9	198.15	198.35	198.8	198.65	198.3	197.9

Note.--Add 4,000 ft to obtain elevation above mean sea level, datum of 1929.

BEAR RIVER BASIN

2. 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, 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.

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

Extremes.--1941-50: Maximum daily discharge, 28 cfs June 19-20, June 26 to July 2, July 5, 1950; no flow during winter and at other times each year.

Remarks.--Canal diverts from East Fork Bear River for irrigation of about 2,600 acres in Wyoming.

Cooperation.--Records for 1942-43, not previously published by Geological Survey, furnished by Bureau of Reclamation and published by Upper Bear River water commissioner, Utah.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	0	0	0	0	0	0	0	0.18	16.2	6.94	0.16	-
1943	‡0	0	0	0	0	0	0	5.48	7.00	13.4	6.58	3.35	‡2.98
1944	‡.49	0	0	0	0	0	0	0	0	8.72	8.97	4.59	‡1.90
1945	‡.98	0	0	0	0	0	0	0	10.8	22.3	16.7	7.54	‡4.86
1946	‡1.63	0	0	0	0	0	0	2.76	17.5	16.2	8.29	4.79	‡4.26
1947	‡2.44	0	0	0	0	0	0	0	7.91	22.9	16.0	10.6	‡4.99
1948	‡4.07	0	0	0	0	0	0	0	16.2	15.4	5.05	.40	‡3.43
1949	‡0	0	0	0	0	0	0	1.77	21.8	19.5	5.64	1.66	‡4.22
1950	.49	0	0	0	0	0	0	0	14.8	24.2	11.0	8.43	4.94

‡ Not previously published; estimated on basis of flow characteristics.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	0	0	0	0	0	0	0	10	998	413	9	-
1943	‡0	0	0	0	0	0	0	337	417	827	404	200	‡2,180
1944	‡30	0	0	0	0	0	0	0	0	536	551	273	‡1,390
1945	‡60	0	0	0	0	0	0	0	642	1,370	1,030	449	‡3,550
1946	‡100	0	0	0	0	0	0	170	1,040	996	510	285	‡3,100
1947	‡150	0	0	0	0	0	0	0	470	1,410	986	632	‡3,650
1948	‡250	0	0	0	0	0	0	0	966	946	310	24	‡2,500
1949	‡0	0	0	0	0	0	0	109	1,300	1,200	347	99	‡3,060
1950	30	0	0	0	0	0	0	0	881	1,490	675	502	3,580

‡ Not previously published; estimated on basis of flow characteristics.

Yearly discharge, in cubic feet per second, of Hilliard-East Fork Canal near State line, near Evanston, Wyo.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1942	(a)	19	July 16, 1942	0	-	-	1.96	1,430
1943	(a)	18	July 15,16,1943	0	2.98	2,180	3.02	2,220
1944	(b)	17	(c)	0	1.90	1,390	1.94	1,420
1945	(b)	25	July4-6,10,1945	0	4.86	3,550	4.91	3,590
1946	(b)	24	June 20,21,1946	0	4.26	3,100	4.33	3,150
1947	(b)	26	July 22,23,1947	0	4.99	3,650	5.12	3,750
1948	(b)	27	July 1,2,1948	0	3.43	2,500	3.09	2,250
1949	(b)	25	June 19, 1949	0	4.22	3,060	4.24	3,080
1950	1180	28	(d)	0	4.94	3,580	-	-

a Reports of Upper Bear River water commissioner, Utah.
b Reports on Bear River Hydrometric Data (U. S. Geological Survey open-file report).
c July 22-24, Aug. 4, 1944.
d June 19-20, June 26 to July 2, July 5, 1950.
Note.--Yearly figures prior to 1950 not previously published.

3. Bear River near Utah-Wyoming State line

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

Drainage area.--176 sq mi.

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

Average discharge.--8 years (1942-50), 192 cfs.

Extremes.--1942-50: Maximum discharge, 2,200 cfs May 19, 1948 (gage height, 4.23 ft); minimum, 17 cfs Nov. 30, 1949, but may have been less during periods of ice effect.

Remarks.--Two diversions above station for irrigation of about 200 acres above and 2,600 acres below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	-	‡204	59.1	40.7	-
1943	43.9	48.7	34	30	36.2	46.2	297	626	670	275	97.9	38.8	187
1944	52.0	45.7	39	37	36	31.1	37.2	69.6	982	390	62.9	35.1	204
1945	51.3	36.3	28.1	30.1	30.0	30.5	53.6	532	674	366	145	70.5	171
1946	54.6	61.3	48	43.7	42	45.7	316	633	599	145	59.2	39.4	174
1947	54.5	54.3	47.5	40	42	45.3	119	904	877	382	105	54.9	228
1948	52.9	53.6	45.3	36.6	36.0	43.2	77.8	843	578	100	55.0	31.7	163
1949	33.6	40	37.9	33.5	32	34.4	137	563	861	256	76.6	43.2	179
1950	57.6	45.5	40.3	35.2	32.3	37.7	109	582	1,264	402	75.8	59.7	229

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	-	‡12,530	3,640	2,420	-
1943	2,700	2,900	2,090	1,840	2,010	2,840	17,680	38,510	39,870	16,910	6,020	2,310	135,700
1944	3,200	2,720	2,400	2,280	2,070	1,910	2,220	42,790	58,460	23,990	3,870	2,090	148,000
1945	3,150	2,160	1,730	1,850	1,670	1,880	3,190	32,690	40,110	22,490	8,890	4,200	124,000
1946	3,360	3,650	2,950	2,690	2,330	2,810	18,810	38,940	35,670	8,930	3,640	2,350	126,100
1947	3,350	3,230	2,920	2,460	2,330	2,790	7,070	55,570	52,190	23,510	6,480	3,270	165,200
1948	3,250	3,190	2,780	2,250	2,070	2,660	4,630	51,810	34,410	6,150	3,380	1,890	118,500
1949	2,070	2,380	2,330	2,060	1,780	2,120	8,150	34,630	51,240	15,750	4,710	2,570	129,800
1950	3,540	2,710	2,480	2,160	1,800	2,320	6,520	35,790	75,190	24,730	4,660	3,550	165,400

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	960	-	-	-	-	-	-	-
1943	1010	1,140	June 1, 1943	28	187	135,700	188	136,300
1944	1010	1,760	June 26, 1944	23	204	148,000	202	146,700
1945	1040	1,170	June 22, 1945	-	171	124,000	175	126,900
1946	1060	1,540	June 5, 1946	-	174	126,100	174	125,700
1947	1090	1,780	May 7, 1947	-	228	165,200	228	164,900
1948	1120	2,200	May 19, 1948	-	163	118,500	160	116,000
1949	1150	1,720	June 13, 1949	-	179	129,800	182	131,700
1950	1180	1,960	May 30, 1950	-	229	165,400	-	-

4. 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, 2,000 ft upstream from State line and 19½ miles southeast of Evanston, Wyo.

Drainage area.--59 sq mi, approximately.

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

Extremes.--1949-50: Maximum discharge, 514 cfs May 30, 1950 (gage height, 3.87 ft); minimum, 2.5 cfs Mar. 16, 1950, but may have been less during periods of ice effect or no gage-height record.

Remarks.--Three small diversions for irrigation of hay meadows above station. Records equivalent to those for station near Evanston (see following station) except during irrigation season.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	10.9	8.89	7.07	6.40	7.40	9.22	35.5	163	202	33.6	10.4	12.3	42.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	668	529	435	393	411	567	2,110	10,030	12,010	2,060	638	734	30,580

5. Mill Creek near Evanston, Wyo.

Location.--Lat 41°00', long 110°52', in NW¼ sec. 20, T. 12 N., R. 119 W., 1.8 miles downstream from Utah-Wyoming State line and 18.8 miles south of Evanston.

Drainage area.--60.6 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 7,750 ft (from river-profile map).

Average discharge.--6 years (1942-48), 31.3 cfs.

Extremes.--1942-48: Maximum discharge, 623 cfs May 19, 1948 (gage height, 3.64 ft) from rating curve extended above 190 cfs; minimum, 2 cfs Oct. 24 to Nov. 28, 1945, caused by temporary diversion for construction.

Remarks.--Several diversions for irrigation above station.

Cooperation.--Records for 1942 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	-	15.7	7.62	6.86	-
1943	8.48	8.09	9	10	11	18.7	84.2	93.1	79.7	14.3	7.00	4.89	27.6
1944	8.09	7.6	7.2	6.8	6.2	6.0	14.9	158	149	16.1	6.21	4.45	32.6
1945	11.4	9.4	7.2	7.6	9	9	23.0	109	100	29.1	23.7	11.5	29.3
1946	10.3	2.6	13	12.6	12	19.3	106	114	57.2	13.7	9.92	6.94	31.4
1947	10.6	14	12	10	11.3	16.2	36.1	181	109	15.9	12.1	9.70	36.6
1948	18.0	17.3	15	12.6	10.0	13.6	40.7	169	44.5	8.80	5.91	4.18	30.1

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	-	962	468	408	-
1943	522	482	553	615	611	1,150	5,010	5,720	4,740	881	431	291	21,010
1944	497	452	443	418	357	369	885	9,740	8,850	988	382	265	23,650
1945	702	559	444	464	500	553	1,370	6,690	5,970	1,790	1,460	685	21,190
1946	633	153	799	774	666	1,190	6,290	6,990	3,410	842	610	413	22,770
1947	650	833	738	615	627	994	2,150	11,100	6,490	979	747	577	26,500
1948	1,110	1,030	922	774	573	837	2,420	10,410	2,650	541	364	249	21,880

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	-	-	-	-	-	-	-
1943	980	212	June 1, 1943	3.4	27.6	21,010	28.8	20,840
1944	1010	286	May 16, 1944	3.3	32.6	23,650	33.0	23,960
1945	1040	205	June 4, 1945	-	29.3	21,190	29.1	21,070
1946	1060	292	Apr. 24, 1946*	2	31.4	22,770	32.3	23,410
1947	1090	430	May 3, 1947	-	36.6	26,500	37.8	27,340
1948	1120	623	May 19, 1948	3.0	30.1	21,880	-	-

* Revised.

6. 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., 5.5 miles upstream from Sulphur Creek and 9½ miles southeast of Evanston.

Drainage area.--282 sq mi.

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

Extremes.--1946-50: Maximum discharge, 2,120 cfs May 20, 1948 (gage height, 5.01 ft); minimum, 5.5 cfs Sept. 16, 1948.

Remarks.--Diversions for irrigation of about 19,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	64.4	89.2	79.5	55	55	174	157	1,020	873	259	70.5	37.7	246
1948	59.5	76.6	66.6	56.6	57.4	73.0	342	904	517	33.8	18.9	11.2	185
1949	26.3	45.5	58.2	52.4	50	57.6	260	687	844	158	26.4	20.3	190
1950	58.9	56.9	49.1	45.2	48.9	77.6	266	763	1,312	310	57.1	45.3	257

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	3,960	5,310	4,890	3,380	3,050	10,680	9,350	62,740	51,950	15,950	4,330	2,250	177,800
1948	3,660	4,560	4,100	3,480	3,300	4,490	20,320	55,590	30,760	2,080	1,160	664	134,200
1949	1,610	2,710	3,580	3,220	2,780	3,540	15,500	42,220	50,200	9,700	1,620	1,210	137,900
1950	3,620	3,390	3,020	2,780	2,720	4,770	15,800	46,940	78,060	19,060	3,510	2,690	186,400

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1090	1,860	May 8, 1947	23	246	177,800	243	176,000
1948	1120	2,120	May 20, 1948	6.1	185	134,200	179	129,700
1949	1150	1,580	June 20, 1949	10	190	137,900	193	140,000
1950	1180	1,990	June 2, 1950	16	257	186,400	-	-

7. Sulphur Creek near Evanston, Wyo.

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

Drainage area.--80.5 sq mi.

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

Average discharge.--8 years (1942-50), 22.9 cfs.

Extremes.--1942-50: Maximum discharge, 1,070 cfs Apr. 21, 1948 (gage height, 5.01 ft, present datum); no flow Sept. 10, 1949.

Remarks.--Several diversions for irrigation above station.

Cooperation.--Records for 1942 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	-	5.52	1.63	0.87	-
1943	0.49	1.42	2.25	2.60	2.60	23.4	85.0	31.4	54.7	10.0	9.42	.47	18.6
1944	2.04	3.00	2.05	2	2	2	95.4	114	49.2	6.37	.78	.41	23.2
1945	.67	1.36	1	1.5	3	25.4	66.9	43.5	42.3	17.0	21.9	2.77	19.0
1946	3.96	14.7	8.6	9.44	7.21	41.6	117	33.2	9.53	3.22	.89	.70	20.8
1947	5.25	4.24	3.60	2.0	4.36	77.2	30.7	58.1	94.2	17.0	16.8	1.64	26.4
1948	2.97	4.24	3.58	3.65	2.95	11.0	133	60.8	†20.8	†2.08	.40	.22	20.4
1949	.32	.93	1	1	1.3	4.9	131	50.1	33.2	16.9	1.19	.79	20.1
1950	2.98	4.51	2.87	3	5.9	13.0	163	142	48.9	22.1	3.81	1.73	34.6

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	-	339	100	52	-
1943	30	84	138	160	144	1,440	5,060	1,930	3,250	618	579	28	13,460
1944	125	178	126	123	115	123	5,680	7,020	2,930	392	48	24	16,880
1945	41	81	61	92	167	1,560	3,980	2,680	2,520	1,040	1,350	165	13,740
1946	244	877	530	580	401	2,560	6,940	2,040	567	198	55	41	15,030
1947	323	252	221	123	242	4,750	1,830	3,570	5,610	1,040	1,030	98	19,090
1948	183	252	220	225	170	675	7,940	3,740	1,230	128	24	13	14,800
1949	19	55	61	61	71	300	7,780	3,080	1,980	1,040	73	47	14,570
1950	183	268	177	184	327	797	9,720	8,760	2,910	1,360	234	103	25,020

Yearly discharge, in cubic feet per second, of Sulphur Creek near Evanston, Wyo.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	-	-	-	-	-	-	-
1943	980,1040	618	Apr. 3, 1943	0.2	18.6	13,460	18.8	13,640
1944	1010	*404	Apr. 29, 1944	.3	23.2	16,880	22.9	16,640
1945	1040	740	Apr. 20, 1945	-	19.0	13,740	21.0	15,200
1946	1060	338	Mar. 31, 1946	.4	20.8	15,030	19.6	14,180
1947	1090	514	Mar. 18, 1947	.4	26.4	19,090	26.2	18,950
1948	1120	1,070	Apr. 21, 1948	.1	20.4	14,800	19.7	14,280
1949	1150	a500	Apr. 11, 1949	.1	20.1	14,570	20.8	15,060
1950	1180	748	Apr. 17, 1950	1.0	34.6	25,020	-	-

* Revised.
a Maximum daily.

8. Bear River at Millis, near Evanston, Wyo.

Location.--Lat 41°14'15", long 110°55'10", in NW¼ sec. 35, T. 15 N., R. 120 W., 2.9 miles southeast of Evanston and 4.6 miles downstream from Stowe Creek.

Drainage area.--420 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,850 ft (from river-profile map).

Extremes.--1942-46: Maximum discharge, 2,000 cfs June 2, 1943 (gage height, 4.85 ft); no flow Sept. 23-26, 1943.

Remarks.--Many diversions above station for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	20.2	27.7	36.5	40.2	56.2	90.7	494	682	731	129	22.1	2.70	194
1944	38.5	50.8	37.4	35	36.6	50.7	266	949	1,024	219	1.88	4.39	226
1945	24.2	34.0	26.4	40.6	43.1	79.7	229	661	698	212	137	42.1	186
1946	52.6	77.1	71.0	63.9	55.5	134	597	693	439	22.2	6.20	3.99	185

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	1,240	1,650	2,250	2,470	3,120	5,580	29,400	41,940	43,520	7,900	1,360	161	140,600
1944	2,370	3,020	2,300	2,150	2,100	3,120	15,850	58,320	60,940	13,460	115	261	164,000
1945	1,490	2,020	1,620	2,500	2,400	4,900	13,630	40,630	41,550	13,020	8,450	2,510	134,700
1946	3,240	4,590	4,370	3,930	3,080	8,230	35,520	42,630	26,140	1,360	381	238	133,700

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	2,000	June 2, 1943	0	194	140,600	198	143,100
1944	1010	1,920	May 17, 1944	.1	226	164,000	222	161,400
1945	1040	1,210	June 23, 1945	6.0	186	134,700	196	141,800
1946	1060	1,320	Apr. 27, 1946	.3	185	133,700	-	-

9. Yellow Creek near Evanston, Wyo.

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

Drainage area.--80 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,920 ft (from river-profile map). Prior to Oct. 1, 1944, staff gage at site 1½ miles downstream, and Oct. 1, 1944, to Sept. 30, 1945, water-stage recorder at site 500 ft upstream, at different datums.

Extremes.--1943-45, 1949-50: Maximum discharge, 303 cfs Apr. 20, 1945 (gage height, 7.52 ft, site and datum then in use); no flow at times each year.

Remarks.--One small diversion for irrigation above station. Records prior to Oct. 1, 1944, not equivalent to later records; would be equivalent by adding flow in Wright No. 2 and Cook Canals, in reports on Bear River Hydrometric Data, 1944 (U. S. Geological Survey open-file report).

Monthly and yearly mean discharge, in cubic feet per second, of Yellow Creek near Evanston, Wyo.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	0.2	2	42.2	25.8	14.2	1.14	0.27	0.2	-
1944	0.2	0.2	0.2	0.2	.2	1.0	67.9	57.2	12.3	1.23	.22	.2	11.7
1945	0	0	0	0	0	21.3	55.7	22.3	8.42	.69	1.29	0	9.14
1950	.17	.73	.48	.5	.79	1.85	101	129	48.0	7.15	.73	.75	24.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	12	123	2,510	1,680	842	70	17	12	-
1944	12	12	12	12	12	61	4,040	3,520	733	76	13	12	8,520
1945	0	0	0	0	0	1,310	3,320	1,370	501	43	79	0	6,620
1950	10	43	30	31	44	114	5,990	7,940	2,860	440	45	45	17,590

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1010	a77	Apr. 16, 1943	0.2	-	-	-	-
1944	1010	a192	Apr. 5, 1944	.2	11.7	8,520	11.7	8,480
1945	1040	303	Apr. 20, 1945	0	9.14	6,620	-	-
1950	1180	240	Apr. 23, 1950	0	24.3	17,590	-	-

a Maximum observed.

10. Coyote Creek near Evanston, Wyo.

Location.--Lat 41°10', long 111°02', in NW¼ sec. 26, T. 14 N., R. 121 W., 800 ft upstream from mouth and 8 miles southwest of Evanston.

Drainage area.--28 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 6,880 ft (from river-profile map).

Extremes.--1943-45: Maximum discharge observed, 67 cfs Apr. 8, 1945; no flow many months each year.

Remarks.--A few small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	‡0	‡0	‡0	‡0	‡0	‡1.0	6.32	0.56	0.38	0.23	0	0	‡0.69
1944	0	0	0	0	0	0	18.0	1.63	1.64	.04	0	0	1.75
1945	0	0	0	0	0	4.2	12.3	.13	.10	0	0	0	1.39

‡ Not previously published; estimated on basis of observer's notes and runoff characteristics.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	‡0	‡0	‡0	‡0	‡0	‡61	376	35	23	1.4	0	0	‡496
1944	0	0	0	0	0	0	1,070	100	98	2.6	0	0	1,270
1945	0	0	0	0	0	260	734	7.7	5.8	0	0	0	1,010

‡ Not previously published; estimated on basis of observer's notes and runoff characteristics.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1040	‡52	Apr. 4, 1943	‡0	‡0.69	‡496	‡0.69	‡496
1944	1040	a60	Apr.5,10,1944	0	1.75	1,270	1.75	1,270
1945	1040	‡67	Apr. 8, 1945	0	1.39	1,010	-	-

‡ Not previously published.
a Maximum daily.

11. Bear River near Evanston, Wyo.

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

Drainage area.--715 sq mi.

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

Average discharge.--37 years (1913-50), 236 cfs.

Extremes.--1913-50: Maximum discharge observed, 3,690 cfs June 14, 1921 (gage height, 6.35 ft), from rating curve extended above 2,700 cfs; no flow during some periods in 1924, 1931, 1933, 1934, 1939, 1940, 1942, 1946, 1948.

Remarks.--Diversions for irrigation of about 31,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	‡109	96.4	‡73	‡75	‡79	‡195	611	1,480	1,210	326	131	32.9	‡368
1915	121	‡67	‡54	‡54	‡63	‡151	487	472	877	*162	*8.5	*61.1	‡215
1916	74.6	61.2	‡60	‡59	‡61	‡683	653	872	1,040	101	46.1	21.0	‡311
1917	88.8	‡59	‡65	‡70	‡61	‡63	‡756	911	1,790	701	141	81.1	‡399
1918	65.2	65.8	‡127	‡117	‡95	‡237	215	570	1,180	149	20.8	10.4	‡238
1919	61.0	‡67	‡73	‡49	‡56	‡190	262	781	395	5.84	2.42	12.4	‡163
1920	78.6	98.0	‡49	‡49	‡71	‡127	411	1,700	1,190	163	56.3	46.5	‡337
1921	84.7	123	‡99	‡94	‡101	‡407	387	1,170	1,940	398	147	111	‡422
1922	61.8	‡72	‡106	‡75	‡77	‡166	409	1,500	1,430	184	140	70.2	‡358
1923	42.7	‡76	‡106	‡112	‡95	‡106	535	1,700	1,320	511	116	67.1	‡399
1924	165	‡126	‡108	‡94	‡129	‡114	763	993	384	14.4	0.71	0	‡241
1925	17.1	‡52	‡46	‡63	‡72	‡195	‡252	‡740	547	184	43.0	94.9	‡192
1926	107	73.2	‡67	‡54	‡70	264	413	990	510	52.3	30.2	7.3	‡220
1927	20.7	‡34	‡42	‡47	‡54	‡132	*424	834	883	*113	*31.1	76.6	‡224
1928	113	‡101	‡85	‡88	‡80	‡285	320	1,640	587	51.4	6.73	3.61	‡280
1929	15.0	‡55	‡42	‡49	‡45	257	390	958	1,090	196	75.1	124	‡275
1930	85.2	77.4	‡52	‡42	‡63	‡218	445	552	632	21.7	148	55.1	‡199
1931	64.5	43.3	45.0	50.0	75.0	310	161	296	201	6.1	4.3	4.2	105
1932	9.6	31.2	35	35	40	158	380	934	948	143	9.8	17.2	228
1933	28.2	46.9	27.8	25	35	127	219	435	898	20.1	3.22	.09	155
1934	4.84	10.5	35	25	65	91.4	180	188	4.00	0	6.50	.22	50.8
1935	3.06	6.44	16	35	60	81.9	182	356	990	50.2	5.22	4.52	148
1936	3.33	9.20	22.5	28.1	36.1	52.5	575	1,315	540	155	97.5	40.3	240
1937	39.3	70.9	45.7	32.0	26.5	83.2	632	1,032	360	165	6.31	8.12	209
1938	26.6	28.8	30.1	35.5	49.9	145	526	878	808	83.6	15.3	25.4	221
1939	48.8	57.3	51.4	54.8	53.0	278	333	564	261	34.4	1.55	6.96	146
1940	19.8	17.0	19.3	19.2	44.2	97.1	174	686	131	1.40	0	13.3	102
1941	49.6	48.0	32.5	28.5	38.8	123	149	685	855	109	45.7	24.5	183
1942	78.3	79.7	70.2	56.4	65.0	119	595	716	777	40.1	.93	.52	216
1943	9.26	20.2	35.5	40.2	57.0	127	592	718	707	124	22.6	2.79	204
1944	35.0	53.1	37.9	40.0	43.1	73.9	460	988	1,015	207	1.57	1.37	247
1945	17.7	35.0	26.5	41.3	49.1	148	372	668	679	209	138	37.4	202
1946	51.5	78.9	75.9	70.4	61.1	165	680	723	442	11.7	3.37	1.95	197
1947	38.8	88.4	78.6	61.0	68.8	339	243	1,030	937	212	47.0	25.4	265
1948	47.7	83.7	85.4	73.2	72.4	115	665	1,030	490	9.55	1.20	.25	222
1949	11.0	24.4	57.9	57.4	55	70.9	504	817	826	136	7.78	5.75	214
1950	46.7	58.4	54.6	51.5	64.8	110	729	1,227	1,445	281	40.1	34.4	337

* Revised.
‡ Not previously published; estimated on basis of records for station at Harer.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	‡6,700	5,740	‡4,500	‡4,600	‡4,400	‡12,000	36,400	91,000	72,000	20,000	8,060	1,960	‡267,000
1915	7,440	‡4,000	‡3,300	‡3,300	‡3,500	‡9,300	29,000	29,000	52,200	*9,940	*524	*3,640	‡155,000
1916	4,590	3,640	‡3,700	‡3,600	‡3,500	‡42,000	38,900	53,600	61,900	6,210	2,830	1,250	‡226,000
1917	5,460	‡3,500	‡4,000	‡4,300	‡3,400	‡3,900	‡45,000	56,000	107,000	43,100	8,670	4,830	‡289,000
1918	4,010	3,920	‡7,800	‡7,200	‡5,300	‡14,600	12,800	35,000	70,200	9,160	1,280	619	‡172,000
1919	3,750	‡4,000	‡4,500	‡3,000	‡3,100	‡11,700	15,600	48,000	23,500	359	149	738	‡118,000
1920	4,830	5,830	‡3,000	‡3,000	‡4,100	‡7,800	24,500	105,000	70,800	10,000	3,460	2,770	‡245,000
1921	5,210	7,320	‡6,100	‡5,800	‡5,600	‡25,000	23,000	71,900	115,000	24,500	9,040	6,600	‡305,000
1922	3,800	‡4,300	‡6,500	‡4,600	‡4,300	‡10,200	24,300	92,200	85,100	11,300	8,610	4,180	‡259,000
1923	2,630	‡4,500	‡6,500	‡6,900	‡5,300	‡6,500	31,800	105,000	78,600	31,400	7,130	3,990	‡290,000
1924	10,100	‡7,500	‡6,500	‡5,800	‡7,400	‡7,000	45,400	61,100	22,800	885	44	0	‡175,000
1925	1,050	‡3,100	‡2,800	‡3,900	‡4,000	‡12,000	‡15,000	‡45,500	32,500	11,300	2,640	5,650	‡139,000
1926	6,580	4,360	‡4,100	‡3,300	‡3,900	16,200	24,600	60,900	30,300	3,220	1,860	434	‡160,000
1927	1,270	‡2,000	‡2,600	‡2,900	‡3,000	‡8,100	‡25,300	51,300	52,500	*6,940	*1,910	4,560	‡162,000
1928	6,950	‡6,000	‡5,200	‡5,400	‡4,600	‡17,500	19,000	101,000	34,900	3,160	414	215	‡204,000
1929	922	‡3,300	‡2,600	‡3,000	‡2,500	15,800	23,200	58,900	64,900	12,100	4,620	7,400	‡199,000
1930	5,240	4,610	‡3,200	‡2,600	‡3,500	‡13,400	26,500	33,900	37,600	1,330	9,100	3,280	‡144,000
1931	3,970	2,580	2,770	3,070	4,170	19,100	9,580	18,200	12,000	375	264	250	76,300
1932	590	1,860	2,150	2,150	2,300	9,720	22,600	57,400	56,400	8,790	603	1,020	166,000
1933	1,730	2,790	1,710	1,540	1,940	7,810	13,000	26,700	53,400	1,240	198	5	112,000
1934	298	627	2,150	1,540	3,610	5,620	10,730	11,560	238	0	399	13	36,780
1935	188	383	984	2,150	3,330	5,030	10,850	21,890	58,930	3,080	321	269	107,400

* Revised.
‡ Not previously published; estimated on basis of records for station at Harer.

Monthly and yearly runoff, in acre-feet, of Bear River near Evanston, Wyo.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	205	547	1,380	1,730	2,070	3,230	34,230	80,870	32,110	9,520	6,000	2,400	174,300
1937	2,420	4,220	2,810	1,970	1,470	5,120	37,610	63,450	21,430	10,180	388	483	151,600
1938	1,630	1,720	1,850	2,180	2,770	8,890	31,300	53,980	48,090	5,140	940	1,510	160,000
1939	3,000	3,410	3,160	3,370	2,950	17,120	19,840	34,690	15,530	2,120	95	414	105,700
1940	1,220	1,010	1,180	1,180	2,540	5,970	10,340	42,200	7,810	86	0	789	74,320
1941	3,050	2,860	2,000	1,750	2,150	7,590	8,850	42,130	50,880	6,720	2,810	1,460	132,200
1942	4,810	4,740	4,320	3,470	3,610	7,310	35,400	44,010	46,220	2,470	57	31	156,400
1943	569	1,200	2,180	2,470	3,170	7,820	35,200	44,160	42,070	7,610	1,390	166	148,000
1944	2,150	3,160	2,330	2,460	2,480	4,540	27,390	60,730	60,380	12,710	97	82	178,500
1945	1,090	2,080	1,630	2,540	2,730	9,080	22,130	41,080	40,380	12,830	8,510	2,230	146,300
1946	3,170	4,700	4,670	4,330	3,390	10,160	40,440	44,440	26,270	720	207	116	142,600
1947	2,390	5,260	4,840	3,750	3,820	20,830	14,450	63,310	55,760	13,030	2,890	1,510	191,800
1948	2,940	4,980	5,250	4,500	4,170	7,060	39,570	63,110	29,160	587	74	15	161,400
1949	673	1,450	3,560	3,530	3,050	4,360	30,000	50,250	49,170	8,340	478	342	155,200
1950	2,870	3,480	3,360	3,160	3,600	6,750	43,400	69,320	85,970	17,270	2,470	2,050	243,700

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a2,480	May 24, 1914	27	‡368	‡267,000	‡365	‡265,000
1915	1444,410	a1,240	June 2, 1915	18	‡215	‡155,000	‡211	‡152,000
1916	440	a1,670	May 9, 1916	8	‡311	‡226,000	‡312	‡227,000
1917	460	a2,500	June 17,18,1917	-	‡399	‡289,000	‡403	‡292,000
1918	480	a2,090	June 16, 1918	2	‡238	‡172,000	‡233	‡168,000
1919	510	a1,430	May 29, 1919	.1	‡163	‡118,000	‡165	‡120,000
1920	510	a2,620	May 25, 1920	-	‡337	‡245,000	‡343	‡250,000
1921	530	a3,690	June 14, 1921	-	‡422	‡305,000	‡146	‡301,000
1922	550	a2,580	May 26, 1922	-	‡358	‡259,000	‡356	‡258,000
1923	570	a3,460	May 27, 1923	-	‡399	‡290,000	‡413	‡301,000
1924	590	a2,800	Apr. 14, 1924	0	‡241	‡175,000	‡217	‡157,000
1925	610	a1,170	May21,31,1925	6	‡192	‡139,000	‡203	‡148,000
1926	630	a1,680	May 21, 1926	6	‡220	‡160,000	‡207	‡151,000
1927	1444,650	1,910	May 18, 1927	10	‡224	‡162,000	‡241	‡175,000
1928	670	2,900	May 9, 1928	2.0	‡280	‡204,000	‡264	‡193,000
1929	690	2,590	May 25, 1929	3.8	‡275	‡199,000	‡283	‡205,000
1930	705	1,420	June 12, 1930	3	‡199	‡144,000	‡194	‡141,000
1931	720	815	May 17, 1931	0	105	76,300	98.9	71,600
1932	735	2,500	May 22, 1932	2	228	166,000	230	167,000
1933	750	1,810	June 11, 1933	0	155	112,000	151	109,000
1934	765	540	May 8, 1934	0	50.8	36,780	48.7	35,260
1935	790	2,540	June 14, 1935	2.2	148	107,400	149	108,000
1936	810	2,280	May 16, 1936	2.7	240	174,300	250	181,600
1937	830	3,420	Apr. 16, 1937	.3	209	151,600	203	147,300
1938	860	1,970	May 30, 1938	5.4	221	160,000	227	164,400
1939	880	1,100	June 1, 1939	0	146	105,700	137	99,540
1940	900	1,180	May 16, 1940	0	102	74,320	109	78,820
1941	930	1,810	June 10, 1941	7.0	183	132,200	191	138,200
1942	960,1010	1,810	May 27, 1942	0	216	156,400	202	146,500
1943	980,1010	1,920	June 2, 1943	1.3	204	148,000	210	151,700
1944	1010	1,890	May 17, 1944	.5	247	178,500	242	175,700
1945	1040	1,560	Apr. 21, 1945	4.5	202	146,300	213	154,000
1946	1060	1,440	Apr. 27, 1946	0	197	142,600	197	142,600
1947	1090	1,850	June 21, 1947	7.0	265	191,800	266	122,500
1948	1120	2,120	Apr. 22, 1948	0	222	161,400	212	153,900
1949	1150	1,380	June 13, 1949	1.2	214	155,200	220	159,200
1950	1180	2,200	June 3, 1950	6.6	337	243,700	-	-

‡ Not previously published.
a Maximum observed.

12. 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., at highway bridge, 6½ miles downstream from headgates and 10 miles northwest of Evanston.

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

Average discharge.--6 years (1944-50), 15.2 cfs.

Extremes.--1942-50: Maximum daily discharge observed, 129 cfs Apr. 14, 1946; no flow at times each year.

Remarks.--Canal diverts water from Bear River in NW¼ sec. 36, T. 16 N., R. 121 W. Many diversions from canal above station for irrigation in Wyoming. Flow at station is for storage in Neponset Reservoir, Utah, and irrigation in Saleratus Basin, Utah.

Cooperation.--Records for 1942-43, not previously published by Geological Survey, furnished by Bureau of Reclamation and published by Upper Bear River water commissioner, Utah.

Monthly and yearly mean discharge, in cubic feet per second, of Chapman Canal at State line, near Evanston, Wyo.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	11.6	29.2	72.4	6.51	0	0	-
1943	-	-	-	-	-	-	-	37.7	77.0	16.3	0	0	-
1944	-	-	-	-	-	-	9.70	11.7	72.4	15.2	0	0	-
1945	4.58	16.5	0.16	0	1.00	38.7	30.1	29.1	65.6	24.1	10.3	1.45	18.5
1946	1.63	2.98	0	0	0	2.87	76.4	48.2	45.6	.06	0	0	14.8
1947	13.0	3.37	0	0	4.5	27.1	23.4	64.7	63.0	0	.72	.51	16.7
1948	.94	17.7	3.94	0	0	16.5	41.1	40.8	40.7	.28	0	0	13.4
1949	.92	3.36	1.77	0	0	0	18.3	90.8	69.4	11.3	.40	0	16.4
1950	14.0	11.5	.07	0	0	0	26.9	31.5	36.0	18.6	.49	.51	11.7

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	692	1,800	4,310	400	0	0	-
1943	-	-	-	-	-	-	-	2,320	4,580	1,000	0	0	-
1944	-	-	-	-	-	-	577	718	4,310	936	0	0	-
1945	282	984	9.9	0	56	2,378	1,788	1,789	3,903	1,480	634	86	13,390
1946	100	177	0	0	0	176	4,550	2,960	2,710	3.9	0	0	10,680
1947	802	201	0	0	248	1,660	1,390	3,980	3,750	0	44	30	12,100
1948	58	1,050	242	0	0	1,010	2,440	2,510	2,420	17	0	0	9,750
1949	56	200	109	0	0	0	1,090	5,580	4,130	694	25	0	11,890
1950	862	682	5	0	0	0	1,600	1,940	2,140	1,140	30	31	8,430

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1942	(a)	99	June 10, 1942	0	-	-	-	-
1943	(a)	119	June 2, 1943	0	-	-	-	-
1944	(b)	95	June 27, 1944	0	-	-	-	-
1945	(b)	115	Apr. 9, 1945	0	18.5	13,390	17.1	12,390
1946	1060	129	Apr. 14, 1946	0	14.8	10,680	15.8	11,400
1947	1090	c127	June 12, 1947	0	16.7	12,100	17.2	12,450
1948	1120	c99	May 17, 1948	0	13.4	9,750	12.1	8,770
1949	1150	c121	May11,12,16,1949	0	16.4	11,890	18.1	13,070
1950	1180	c69	May23,25,1950	0	11.7	8,430	-	-

a Reports of Upper Bear River water commissioner, Utah.
b Reports on Bear River Hydrometric Data (U. S. Geological Survey open-file report).
c Maximum daily.

13. 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, 2.8 miles upstream from Wyoming-Utah State line and 7.6 miles east of Woodruff.

Drainage area.--870 sq mi, approximately.

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

Average discharge.--9 years (1941-50), 224 cfs.

Extremes.--1941-50: Maximum discharge, 2,320 cfs June 4, 1950 (gage height, 4.86 ft); no flow at times each year 1941-49.

Remarks.--Diversions for irrigation of about 45,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	‡84.0	‡85.0	‡75.0	‡60.0	‡70.0	‡120	‡613	676	712	31.3	1.33	0	‡211
1943	.80	15.0	30.3	34.0	82.2	175	510	652	629	88.0	16.3	1.00	184
1944	13.0	31.0	38.3	41.5	46.7	43.7	523	1,045	998	198	1.2	0	248
1945	5.53	18.8	26.4	44.2	52.1	129	365	609	613	165	129	37.3	183
1946	56.8	97.3	86.5	80.6	66.4	175	630	675	376	7.38	.50	0	188
1947	16.8	73.0	87.1	66.0	70.9	395	243	959	909	180	46.8	20.2	256
1948	43.6	75.0	81.9	83.9	80	103	590	958	446	5.95	.20	0	205
1949	1.88	25.3	61.0	62.4	60	97.9	534	730	745	141	2.13	1.58	205
1950	29.3	48.1	56.2	53.6	70.5	132	757	1,096	1,449	254	40.1	26.8	334

‡ Not previously published; estimated or partly estimated on basis of records for station near Evanston.

Monthly and yearly runoff, in acre-feet, of Bear River near Woodruff, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	‡5,160	‡5,060	‡4,610	‡3,690	‡3,890	‡7,380	‡36,450	41,590	42,390	1,920	82	0	‡152,200
1943	49	892	1,860	2,090	3,450	10,790	30,370	40,100	37,440	5,410	1,000	59	133,500
1944	801	1,840	2,350	2,550	2,690	2,690	31,130	64,260	59,390	12,150	74	0	179,900
1945	340	1,120	1,620	2,720	2,890	7,910	21,700	37,470	36,480	10,140	7,950	2,220	132,600
1946	3,490	5,790	5,320	4,920	3,690	10,770	37,460	41,500	22,380	454	31	0	135,800
1947	1,030	4,340	5,360	4,060	3,940	24,260	14,460	58,950	54,110	11,040	2,880	1,200	185,600
1948	2,680	4,460	5,040	5,160	4,600	6,350	35,100	58,890	26,510	366	12	0	149,200
1949	116	1,510	3,750	3,840	3,330	6,020	31,760	44,900	44,310	8,650	131	94	148,400
1950	1,800	2,860	3,460	3,300	3,920	8,140	45,020	67,380	86,210	15,600	2,470	1,590	241,800

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	1,620	May 28, 1942	0	‡211	‡152,200	‡194	‡140,200
1943	980	1,720	June 3, 1943	0	184	133,500	187	135,700
1944	1010	1,860	May 18, 1944	0	248	179,900	245	178,000
1945	1040	1,350	Apr. 22, 1945	0	183	132,600	199	144,100
1946	1060	1,330	Apr. 28, 1946	0	188	135,800	182	131,900
1947	1090	1,940	Mar. 18, 1947	0	256	185,600	258	187,100
1948	1120	1,940	Apr. 24, 1948	0	205	149,200	196	142,400
1949	1150	1,240	June 21, 1949	0	205	148,400	209	151,200
1950	1180	2,320	June 4, 1950	5.8	334	241,800	-	-

‡ Not previously published.

14. Woodruff Creek near Woodruff, Utah

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

Drainage area.--65 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to June 21, 1939, staff gage ½ mile downstream at different datum. June 21, 1939, to Sept. 30, 1943, water-stage recorder at site 1½ miles upstream at different datum.

Average discharge.--7 years (1937-43, 1949-50), 22.9 cfs.

Extremes.--1937-43, 1949-50: Maximum discharge, 528 cfs May 25, 1950 (gage height, 5.72 ft); minimum observed, 1.3 cfs Aug. 1, 1940.

Remarks.--No diversion above station.

Cooperation.--Records prior to October 1949 not previously published by Geological Survey; those for 1938 furnished by State engineer of Utah and for 1939-43 by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	9.0	10.1	9.66	9.3	9.45	12.1	66.0	129	51.1	11.2	9.51	9.07	28.0
1939	a8.5	a8	a8	a8	a9	a15.7	36.1	45	12	5.8	4.1	4.7	a13.7
1940	5.43	4.76	4.63	4.66	4.98	7.52	17.2	31.2	6.2	2.78	2.27	3.54	8.00
1941	3.88	4.27	4.10	3.78	4.42	6.44	12.8	42.4	12.1	4.68	5.55	3.85	9.09
1942	5.05	4.85	4.10	4.0	4.0	4.52	39.1	70.0	22.9	6.28	3.24	4.16	14.4
1943	4.81	4.95	5.0	5.4	6.4	11.8	105	163	69.9	16.2	9.96	6.49	34.1
1950	13.4	11.7	11.2	11.2	11.7	18.7	73.0	233	172	39.4	20.1	14.8	52.7

a Estimated or partly estimated by Geological Survey on basis of records for South Fork Ogden River near Huntsville.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	554	598	594	572	525	746	3,920	7,920	3,040	691	585	540	20,290
1939	a523	a476	a492	a492	a500	a966	2,150	2,800	732	355	250	282	a10,020
1940	334	285	284	287	287	462	1,030	1,940	369	171	140	211	5,800
1941	239	254	252	233	246	396	767	2,610	725	288	342	232	6,580
1942	311	289	252	246	222	278	2,320	4,300	1,370	386	199	248	10,420
1943	296	294	307	329	355	724	6,220	10,010	4,160	994	612	386	24,690
1950	825	696	686	686	651	1,150	4,350	14,300	10,260	2,420	1,230	883	38,140

a See footnote to preceding table.

Yearly discharge, in cubic feet per second, of Woodruff Creek near Woodruff, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	(a)	b242	May 25, 1938	8.8	28.0	20,290	c27.7	c20,030
1939	(d)	b91	May 2,3,1939	3.2	c13.7	c10,020	13.0	9,430
1940	(d)	81	May 3, 1940	1.5	8.00	5,800	7.77	5,640
1941	(d)	b105	May 13, 1941	2.6	9.09	6,580	9.24	6,690
1942	(d)	206	May 24, 1942	2.6	14.4	10,420	14.5	10,470
1943	(d)	351	May 2, 1943	-	34.1	24,690	-	-
1950	1180	528	May 25, 1950	9	52.7	38,140	-	-

a Reports of State engineer of Utah.
b Maximum daily.
c Partly estimated by Geological Survey.
d Files of Bureau of Reclamation.

15. Birch Creek near Woodruff, Utah

Location.--Lat 41°30'00", long 111°17'30", in NE¼ sec. 20, T. 9 N., R. 6 E., 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.

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

Extremes.--1949-50: Maximum discharge, 172 cfs May 22, 1950 (gage height, 3.73 ft); minimum, 0.3 cfs Oct. 1, 1949.

Remarks.--No diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	1.21	1.49	1.43	1.74	1.88	3.30	23.6	75.2	35.7	6.60	4.22	1.55	13.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	75	89	88	107	104	203	1,400	4,620	2,130	406	259	92	9,570

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1950	1180	172	May 22, 1950	†0.4	13.2	9,570	-	-

† Corrected.

16. Big Creek near Randolph, Utah

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

Drainage area.--52.2 sq mi.

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 datums.

Extremes.--1939-44, 1949-50: Maximum discharge, 146 cfs May 18, 1950 (gage height, 2.46 ft); minimum daily, 0.2 cfs July 11, Aug. 7, 1940.

Remarks.--No diversions above station. Records at two sites equivalent except during a few short periods each irrigation season.

Cooperation.--Records for 1939-42 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	9.37	12.0	8.09	6.16	4.64	4.95	-
1940	5.40	6.05	4.6	5.0	4.9	4.90	4.09	2.21	1.55	1.02	1.13	1.60	3.53
1941	2.50	3.37	1.5	2.0	3.5	2.78	2.54	2.51	1.33	1.08	2.16	1.88	2.25
1942	1.98	-	-	-	-	-	9.75	-	-	-	-	-	-
1943	-	-	-	-	-	-	26.5	35.2	17.9	10.3	9.51	8.89	-
1944	9.07	8.72	8	7.5	6.53	7.65	12.3	15.3	8.31	6.31	5.25	5.78	8.39
1950	15.4	13.2	11	11	10	12.6	37.1	85.7	59.8	40.3	31.8	28.3	29.8

Monthly and yearly runoff, in acre-feet, of Big Creek near Randolph, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	558	736	482	379	285	295	-
1940	332	360	283	307	282	301	243	136	92	63	69	95	2,560
1941	154	200	92	123	194	171	151	154	79	67	133	112	1,630
1942	122	-	-	-	-	-	580	-	-	-	-	-	-
1943	-	-	-	-	-	-	1,580	2,170	1,070	635	585	529	-
1944	558	519	491	461	375	470	730	938	494	388	323	344	6,090
1950	944	785	676	676	555	778	2,210	5,270	3,560	2,480	1,950	1,680	21,560

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	980	-	-	-	-	-	-	-
1940	980	a7.2	Nov. 28, 1939	0.2	3.53	2,560	2.80	2,030
1941	980	46	Aug. 12, 1941	.3	2.25	1,630	-	-
1942	980	a15	Apr. 6, 1942	-	-	-	-	-
1943	980	117	Mar. 27, 1943	-	-	-	-	-
1944	1010	75	Mar. 31, 1944	2.7	8.39	6,090	-	-
1950	1180	146	May 18, 1950	-	29.8	21,560	-	-

a Maximum daily.

17. Randolph Creek near Randolph, Utah

Location.--Lat 41°40'30", long 111°14'00", in SW¼ sec. 23, T. 11 N., R. 6 E., a quarter of a mile downstream from confluence of Old Canyon and New Canyon, half a mile upstream from Randolph Dam, and 2¾ miles west of Randolph.

Drainage area.--30.3 sq mi.

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

Extremes.--1949-50: Maximum discharge, 22 cfs Apr. 1, 1950 (gage height, 1.35 ft); minimum, 0.7 cfs Aug. 26, 1950.

Remarks.--Diversions for irrigation of about 500 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	3.49	3.84	4.80	4.57	4.37	5.90	6.17	3.43	6.22	4.71	3.59	5.09	4.68

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	215	228	295	281	243	363	367	211	370	290	221	303	3,390

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1950	1180	22	Apr. 1, 1950	1.6	4.68	3,390	-	-

18. Otter Creek near Randolph, Utah

Location.--Lat 41°43', long 111°12', in NW¼ sec. 7, T. 11 N., R. 7 E., a quarter of a mile downstream from South Branch and 3 miles north of Randolph.

Drainage area.--36.2 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,350 ft (from topographic map). Prior to May 3, 1939, staff gage, and May 3, 1939, to Mar. 24, 1943, water-stage recorder, at site 100 ft downstream at different datum.

Extremes.--1939-44: Maximum discharge, 203 cfs July 21, 1943 (gage height, 4.52 ft), from rating curve extended above 40 cfs; minimum daily, 1.0 cfs Aug. 12, 1944.

Remarks.--Several diversions for irrigation above station.

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

Monthly and yearly mean discharge, in cubic feet per second, of Otter Creek near Randolph, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	18.2	11.6	6.95	5.50	5.02	7.02	8.34	-
1940	11.4	12.1	11.8	11	10	12.3	8.77	5.68	4.64	4.70	4.71	7.78	8.74
1941	9.96	9.34	6.78	8.52	10.4	11.7	11.3	6.86	5.58	7.12	9.11	10.1	8.91
1942	11.4	10.0	-	-	-	-	13.3	7.44	5.60	-	-	-	-
1943	-	-	-	-	-	-	14.0	9.35	7.30	7.98	11.0	7.66	-
1944	10.7	12.4	12.0	11	10	11.7	11.6	8.10	8.07	5.37	3.71	6.66	9.26

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	1,120	692	427	327	309	432	496	-
1940	700	720	728	676	575	758	522	349	276	289	290	463	6,350
1941	613	556	417	524	601	718	670	422	332	438	560	598	6,450
1942	702	596	-	-	-	-	790	457	333	-	-	-	-
1943	-	-	-	-	-	-	831	575	434	491	674	456	-
1944	655	738	738	676	575	720	689	498	480	330	228	396	6,720

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	980	a57	Mar. 17, 1939	-	-	-	-	-
1940	980	*25	Feb. 29, 1940*	3.0	8.74	6,350	7.97	5,780
1941	980	125	July 27, 1941	2.0	8.91	6,450	-	-
1942	980	b29	Apr. 6, 1942	-	-	-	-	-
1943	980	203	July 21, 1943	-	-	-	-	-
1944	1010	120	Mar. 30, 1944	1.0	9.26	6,720	-	-

* Revised.
a Maximum daily.
b Maximum recorded.

19. Bear River near Randolph, Utah

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

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

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

Average discharge.--7 years (1943-50), 218 cfs.

Extremes.--1943-50: Maximum discharge, 2,100 cfs June 6, 1950 (gage height, 8.30 ft); minimum, 14 cfs July 16, 1948.

Remarks.--Diversions for irrigation of about 96,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	‡28	‡31	38.4	42.6	60.7	78.3	665	708	769	190	42.1	27.0	‡223
1945	25.7	30.4	30.6	45.7	61.4	164	263	222	372	132	136	68.9	129
1946	56.4	89.5	90.1	94.6	78.9	436	711	635	241	37.9	32.8	29.2	212
1947	40.4	63.2	96.0	71.0	89.3	449	259	572	890	189	72.9	48.6	237
1948	61.7	112	99.1	88.9	85	127	665	769	353	25.0	30.4	26.1	203
1949	28.0	33.9	65.2	67.4	65	150	441	426	547	158	44.6	21.7	171
1950	48.3	90.5	82.8	76.0	105	286	766	1,044	1,350	248	102	41.8	353

‡ Not previously published; estimated on basis of records for station below Pixley Dam.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	‡1,720	‡1,840	2,360	2,620	3,490	4,810	39,590	43,540	45,750	11,670	2,590	1,610	‡161,600
1945	1,580	1,810	1,880	2,810	3,410	10,080	15,630	13,650	22,140	8,110	8,360	4,100	93,560
1946	3,470	5,330	5,540	5,820	4,380	26,810	42,280	39,050	14,360	2,330	2,020	1,740	153,100
1947	2,480	3,760	5,900	4,360	4,960	27,610	15,390	35,200	52,950	11,600	4,480	2,890	171,600
1948	3,790	6,640	6,100	5,460	4,890	7,830	39,550	47,270	21,000	1,540	1,870	1,560	147,500
1949	1,720	2,020	4,010	4,150	3,610	9,240	26,240	26,170	32,540	9,730	2,740	1,290	123,500
1950	2,970	5,390	5,090	4,670	5,810	17,580	45,580	64,210	80,350	15,250	6,300	2,490	255,700

‡ Not previously published; estimated on basis of records for station below Pixley Dam.

Yearly discharge, in cubic feet per second, of Bear River near Randolph, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1944	1010	1,360	Apr. 8, 1944	24	‡223	‡161,600	222	160,900
1945	1040	771	June 8, 1945	23	129	93,560	142	102,600
1946	1060	1,170	May 1, 1946	26	212	153,100	208	150,900
1947	1090	1,600	June 14, 1947	33	237	171,600	243	176,000
1948	1120	1,410	Apr. 27, 1948	16	203	147,500	191	138,700
1949	1150	923	May 21, 1949	20	171	123,500	178	129,200
1950	1180	2,100	June 6, 1950	22	353	255,700	-	-

‡ Not previously published.

20. Twin Creek at Sage, Wyo.

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

Drainage area.--246 sq mi.

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.--7 years (1943-50), 22.9 cfs.

Extremes.--1943-50: Maximum discharge, 649 cfs Mar. 18, 1947 (gage height, 6.08 ft); minimum, 1.0 cfs Dec. 17, 1946, Aug. 22, 1949, but may have been less in 1946 during period of ice effect or no gage-height record.

Remarks.--Diversions for irrigation of about 1,100 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	47.7	22.2	14.6	4.83	9.68	3.76	-
1944	8.39	6.46	5	4.5	3.5	18.3	175	32.0	76.5	7.05	4.96	4.62	28.6
1945	7.43	5.91	3.50	3.98	6.6	36.7	29.6	9.60	14.5	5.07	22.5	4.93	12.6
1946	6.03	5.41	5	5	5.8	67.5	85.3	36.6	12.1	5.99	9.61	8.15	21.1
1947	10.1	9.79	8.18	5	15.6	127	28.7	27.9	35.5	9.58	12.0	11.5	25.2
1948	11.0	7.67	6.5	6.1	4.62	28.4	90.8	47.0	24.1	8.24	6.37	4.59	20.4
1949	9.51	8.55	7.74	7.24	6.73	16.1	35.9	25.1	23.6	11.1	4.86	4.44	13.4
1950	8.96	9.22	7.99	7.29	11.1	22.6	145	126	74.6	27.8	16.2	12.1	39.1

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	2,840	1,370	868	297	595	224	-
1944	516	385	307	277	201	1,120	10,430	1,970	4,550	433	305	275	20,770
1945	457	352	215	245	369	2,260	1,760	590	862	312	1,380	294	9,100
1946	371	322	307	307	319	4,150	5,080	2,250	717	369	591	485	15,270
1947	620	583	503	307	868	7,790	1,710	1,720	2,110	589	741	682	18,220
1948	676	456	401	377	266	1,750	5,400	2,890	1,440	506	392	273	14,830
1949	585	509	476	445	374	992	2,130	1,540	1,400	684	299	264	9,700
1950	551	549	492	448	615	1,390	8,600	7,770	4,440	1,710	995	721	28,280

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	a137	Aug. 8, 1943	2.2	-	-	-	-
1944	1010	b610	Apr. 5, 1944	-	28.6	20,770	28.4	20,580
1945	1040	b204	Aug. 14, 1945	-	12.6	9,100	12.5	9,070
1946	1060	246	Mar. 28, 1946	-	21.1	15,270	22.1	15,970
1947	1090	649	Mar. 18, 1947	-	25.2	18,220	24.9	18,050
1948	1120	246	Apr. 17, 1948	-	20.4	14,830	20.5	14,860
1949	1150	139	June 12, 1949	2.0	13.4	9,700	13.4	9,720
1950	1180	460	Apr. 2, 1950	-	39.1	28,280	-	-

a Maximum observed during period April to September.
b Maximum observed.

21. Bear River below Pixley Dam, near Cokeville, Wyo.1/

Location.--Lat 41°56'20", long 110°59'05", in SE¼SE¼ sec. 25, T. 23 N., R. 120 W., 1,000 ft 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.

Gage.--Water-stage recorder. Altitude of gage is 6,185 ft (from river-profile map).

Extremes.--1941-43: Maximum discharge, 1,640 cfs Apr. 6 or 7, 1942 (gage height, 8.35 ft from highwater mark in gage well); minimum daily, 22 cfs Jan. 12, 18, 1943.

Remarks.--Diversions above station for irrigation of about 105,000 acres above and 4,000 acres below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	‡66	116	97.1	82.0	75.3	133	817	294	323	70.5	37.8	31.0	‡178
1943	32.8	31.7	28.6	26.7	54.5	307	594	401	284	125	71.8	43.3	167
1944	42.1	46.3	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of records for station near Evanston.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	‡4,060	6,890	5,970	5,040	4,180	8,190	48,620	18,050	19,220	4,340	2,320	1,840	‡128,700
1943	2,020	1,890	1,760	1,640	3,020	18,850	35,330	24,650	16,900	7,710	4,420	2,580	120,800
1944	2,590	2,760	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of records for station near Evanston.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	1,640	Apr.6or7,1942	-	‡178	‡128,700	162	117,500
1943	980	934	Mar. 29, 1943	22	167	120,800	-	-

‡ Not previously published.

22. Bear River above Sublette Creek, near Cokeville, Wyo.

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

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

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

Extremes.--1948-50: Maximum discharge, 1,820 cfs June 10, 1950 (gage height, 9.40 ft); minimum, 35 cfs Aug. 29, 1948, Sept. 17, 1949.

Remarks.--Diversions for irrigation of about 109,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	-	718	764	417	70.4	44.5	40.4	-
1949	45.8	55.3	71.8	75	75	201	478	414	606	265	72.5	40.8	200
1950	74.0	112	105	97.4	145	440	913	1,117	1,488	340	138	72.5	420

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	-	42,700	46,990	24,810	4,330	2,740	2,400	-
1949	2,820	3,290	4,410	4,610	4,170	12,370	28,440	25,440	36,030	16,270	4,460	2,430	144,700
1950	4,550	6,690	6,450	5,990	8,030	27,050	54,350	68,690	88,570	20,880	8,470	4,320	304,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120	1,270	Apr. 28, 1948	-	-	-	-	-
1949	1150	970	May 19, 1949	36	200	144,700	210	151,900
1950	1180	1,820	June 10, 1950	46	420	304,000	-	-

1/ Published as "near Cokeville".

23. Smiths Fork near Smoot, Wyo.

Location.--Lat 42°30', long 110°48', in sec. 17, T. 29 N., R. 117 W., unsurveyed, 2 miles downstream from Poker Hollow, 3½ miles upstream from North Fork, 10 miles upstream from Hobble Creek, and 11 miles southeast of Smoot.

Drainage area.--17.3 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 7,700 ft (from topographic map).

Extremes.--April to November 1943: Maximum discharge, 274 cfs June 21 (gage height, 2.94 ft); minimum, 3.1 cfs March 20.

Remarks.--No diversion above station.

Monthly mean discharge, in cubic feet per second

Year			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.			
1943			26.2	100	165	78.1	28.0	19.5	15.9	13.6			

Monthly runoff, in acre-feet

Year			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.			
1943			1,560	6,170	9,820	4,800	1,720	1,160	978	807			

24. Hobble Creek near Geneva, Idaho

Location.--Lat 42°22', long 110°51', in NW¼ sec. 34, T. 28 N., R. 118 W., in Wyoming, 0.3 mile upstream from mouth and 10.4 miles east of Geneva.

Drainage area.--86.1 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,950 ft (from topographic map).

Extremes.--1943-46: Maximum discharge, 532 cfs June 1, 1943 (gage height, 2.17 ft); minimum daily, 35 cfs Mar. 19, 1943.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	‡40.7	144	302	401	261	136	90.4	-
1944	71.8	60.1	52.8	49.0	45.6	41.7	54.5	166	305	165	97.6	71.4	98.4
1945	55.4	51.6	46.4	44.6	40.5	37.5	47.0	188	291	194	120	85.7	100
1946	68.5	57.6	53.1	48.5	48	55.2	158	294	297	159	101	74.4	118

‡ Not previously published; partly estimated on basis of records for Smiths Fork near Border.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	‡2,500	8,560	18,600	23,870	16,020	8,350	5,380	-
1944	4,410	3,580	3,250	3,010	2,620	2,560	3,240	10,180	18,130	10,170	6,000	4,250	71,400
1945	3,400	3,070	2,850	2,740	2,250	2,310	2,800	11,570	17,310	11,910	7,400	5,100	72,710
1946	4,210	3,430	3,270	2,980	2,670	3,400	9,400	18,090	17,660	9,800	6,230	4,430	85,570

‡ Not previously published; partly estimated on basis of records for Smiths Fork near Border.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	532	June 1, 1943	-	-	-	-	-
1944	1010	419	June 10, 1944	40	98.4	71,400	95.7	69,480
1945	1040	325	June 27, 1945	36	100	72,710	103	74,300
1946	1060	386	June 6, 1946	-	118	85,570	-	-

25. Smiths Fork near Border, Wyo.

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

Drainage area.--165 sq mi.

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

Average discharge.--8 years (1942-50), 198 cfs.

Extremes.--1942-50: Maximum discharge, 1,180 cfs June 7, 1950 (gage height, 4.45 ft); minimum, 37 cfs Mar. 11, 1948, but may have been less during period of ice effect.

Remarks.--One diversion for irrigation of about 200 acres above station.

Monthly and yearly mean discharge, in cubic feet per second, of Smiths Fork near Border, Wyo.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	350	155	96.7	75.2	-
1943	68.5	69.0	64	60	60	56.6	326	615	673	380	187	123	224
1944	103	85.6	76.0	70.0	62.1	56.9	104	328	531	245	136	101	158
1945	79.0	71.3	67.0	61.5	55.9	51.0	70.5	412	596	316	165	121	173
1946	89.2	79.5	71.1	66.6	66.4	78.5	385	560	493	223	137	107	197
1947	96.0	79.7	72.9	60.8	63.4	70.6	172	787	642	313	179	119	222
1948	99.5	82.8	76.0	66.9	64.8	59.4	136	670	568	229	136	100	190
1949	86.5	76.1	70.4	65	60	60.5	190	541	496	225	132	98.1	175
1950	86.5	70.1	64.4	59.6	58.4	58.1	193	618	934	460	194	127	244

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	20,850	9,560	5,950	4,480	-
1943	4,210	4,110	3,940	3,690	3,330	3,480	19,400	37,800	40,070	23,360	11,480	7,310	162,200
1944	6,320	5,090	4,670	4,300	3,570	3,500	6,180	20,180	31,600	15,060	8,330	5,990	114,800
1945	4,860	4,240	4,120	3,780	3,110	3,140	4,200	25,360	35,440	19,430	10,150	7,170	125,000
1946	5,480	4,730	4,370	4,100	3,690	4,830	22,930	34,460	29,310	13,690	8,440	6,350	142,400
1947	5,900	4,740	4,480	3,740	3,520	4,340	10,240	48,370	38,210	19,270	11,030	7,110	161,000
1948	6,120	4,930	4,670	4,110	3,730	3,650	8,080	41,190	33,770	14,090	8,370	5,920	138,600
1949	5,320	4,530	4,330	4,000	3,330	3,720	11,330	33,240	29,490	13,840	8,090	5,840	127,100
1950	5,320	4,170	3,960	3,670	3,240	3,570	11,460	38,000	55,570	28,270	11,940	7,540	176,700

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	579	May 27, 1942	-	-	-	-	-
1943	980	935	May 30, 1943	-	224	162,200	229	166,000
1944	1010	772	June 10, 1944	54	158	114,800	154	111,900
1945	1040	666	June 23, 1945	49	173	125,000	175	126,400
1946	1080	859	Apr. 26, 1946	-	197	142,400	197	142,900
1947	1090	1,120	May 9, 1947	-	222	161,000	223	161,600
1948	1120	1,100	May 20, 1948	-	190	138,600	189	137,100
1949	1150	743	May 29, 1949	-	175	127,100	174	126,300
1950	1180	1,180	June 7, 1950	-	244	176,700	-	-

26. Smiths Fork at Cokeville, Wyo.

Location.--Lat 42°06', long 110°57', in NW¼ sec. 4, T. 24 N., R. 119 W., 1 mile northeast of Cokeville and 2 miles upstream from mouth.

Drainage area.--275 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,250 ft (from topographic map). Prior to Aug. 11, 1949, at site 85 ft downstream at different datum.

Average discharge.--8 years (1942-50) 192 cfs.

Extremes.--1942-50: Maximum discharge, 1,230 cfs May 25, 1950 (gage height, 5.71 ft); minimum, 25 cfs Aug. 22, 1949.

Remarks.--Diversions above station for irrigation of about 4,000 acres above and about 5,000 acres below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	220	54.2	34.6	42.8	-
1943	56.3	71.2	68	64	64	62.7	449	657	602	277	111	102	216
1944	97.4	102	84.9	75.0	66.1	68.3	154	339	456	131	54.2	51.1	140
1945	66.4	88.0	77.5	67.0	61.3	65.6	95.2	373	513	214	92.9	115	153
1946	92.7	98.0	91.6	86.5	86.4	101	502	618	373	133	57.4	101	195
1947	107	91.0	88.6	81.0	84.0	140	233	846	581	224	122	110	227
1948	97.2	99.4	96.1	87.4	83.9	84.4	208	724	460	123	41.1	49.7	180
1949	78.5	93.6	95.5	90.0	85.0	84.3	225	519	402	127	48.9	52.5	159
1950	107	92.7	84.4	79.8	78.0	80.6	321	775	931	384	114	108	263

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	13,120	3,330	2,130	2,550	-
1943	3,460	4,240	4,180	3,940	3,550	3,860	26,720	40,390	35,850	17,060	6,850	6,080	156,200
1944	5,990	6,070	5,220	4,610	3,800	4,200	9,180	20,830	27,110	8,050	3,330	3,040	101,400
1945	4,080	5,240	4,760	4,120	3,400	4,030	5,660	22,930	30,510	13,180	5,710	6,850	110,500
1946	5,700	5,830	5,630	5,320	4,800	6,210	29,900	38,030	22,170	8,160	3,530	6,010	141,300
1947	6,550	5,420	5,450	4,980	4,670	8,630	13,880	52,000	34,570	13,780	7,530	6,550	164,000
1948	5,980	5,910	5,910	5,380	4,820	5,190	12,350	44,510	27,390	7,540	2,530	2,960	130,500
1949	4,820	5,570	5,880	5,530	4,720	5,180	13,390	31,900	23,920	7,830	3,000	3,120	114,900
1950	6,600	5,510	5,190	4,910	4,330	4,960	19,090	47,620	55,370	23,620	7,030	6,420	190,600

Yearly discharge, in cubic feet per second, of Smiths Fork at Cokeville, Wyo.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	517	May 27, 1942	-	-	-	-	-
1943	980	a1,050	May 4, 1943	45	216	156,200	223	161,600
1944	1010	†708	June 10, 1944	46	140	101,400	135	98,230
1945	1040	600	June 10, 1945	42	153	110,500	157	113,600
1946	1060	986	Apr. 30, 1946	42	195	141,300	196	141,600
1947	1090	1,090	May 12, 1947	-	227	164,000	227	164,400
1948	1120	1,070	May 21, 1948	30	180	130,500	178	128,900
1949	1150	689	May 20, 1949	26	159	114,900	160	115,900
1950	1180	1,230	May 25, 1950	62	263	190,600	-	-

† Corrected.
a Maximum daily.

27. Bear River at Border, Wyo.

Location.--Lat 42°11', long 111°03', in NE¼NE¼ sec. 15, T. 14 S., R. 46 E., in Idaho, 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.

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

Average discharge.--13 years (1937-50), 394 cfs.

Extremes.--1937-50 (revised): Maximum discharge, 2,900 cfs June 9, 1950 (gage height, 8.77 ft); minimum daily, 30 cfs Aug. 18-22, 1940.

Remarks.--Diversions for irrigation of about 124,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	143	172	158	137	144	356	949	1,443	1,067	356	141	196	439
1939	193	199	176	164	160	702	704	685	286	136	90.3	82.1	299
1940	152	140	127	94.4	128	158	130	104	122	74.9	42.3	38.5	109
1941	129	119	108	96.2	111	279	234	356	846	301	166	136	240
1942	164	234	202	149	156	268	1,246	629	641	166	93.5	73.1	334
1943	121	147	108	102	132	470	1,252	1,142	1,031	497	241	164	451
1944	185	189	133	129	156	197	1,160	1,090	1,285	448	156	110	435
1945	153	154	114	125	144	272	371	558	883	442	306	249	315
1946	186	239	217	216	173	615	1,516	1,316	637	244	170	183	477
1947	191	188	225	156	212	800	640	1,324	1,537	536	276	220	527
1948	214	236	206	186	173	283	1,027	1,421	918	245	144	118	431
1949	164	157	117	107	123	275	716	882	985	424	162	94.9	351
1950	221	239	169	169	217	589	1,268	1,928	2,460	822	317	224	719

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	8,800	10,240	9,720	8,400	7,990	21,880	56,450	88,700	63,470	21,870	8,660	11,640	317,800
1939	11,880	11,860	10,840	10,060	8,900	43,150	41,920	42,130	17,040	8,350	5,550	4,890	216,600
1940	9,340	8,320	7,830	5,810	7,340	9,730	7,760	6,400	7,260	4,610	2,600	2,290	79,290
1941	7,960	7,080	6,650	5,920	6,150	17,140	13,950	21,870	50,360	18,500	10,220	8,120	173,900
1942	10,060	13,930	12,390	9,140	8,660	16,460	74,130	38,710	38,140	10,230	5,750	4,350	242,000
1943	7,450	8,740	6,670	6,300	7,320	28,890	74,500	70,200	61,320	30,530	14,790	9,760	326,500
1944	11,400	11,270	8,190	7,940	9,000	12,120	69,020	67,040	76,450	27,530	9,610	6,520	316,100
1945	9,380	9,160	7,030	7,700	7,980	16,740	22,070	34,300	52,560	27,170	18,840	14,840	227,800
1946	11,450	14,200	13,360	13,280	9,600	37,840	90,230	80,950	37,910	14,990	10,450	10,870	345,100
1947	11,760	11,200	13,860	9,600	11,780	49,160	38,080	81,390	91,440	32,950	16,970	13,110	381,300
1948	13,160	14,020	12,690	11,440	9,950	17,410	61,090	87,380	54,600	15,090	†8,870	7,010	312,700
1949	10,060	9,370	7,180	6,570	6,820	16,920	42,590	54,220	58,620	26,070	9,930	5,640	254,000
1950	13,560	14,200	10,360	10,390	12,070	36,200	75,460	118,500	146,400	50,510	19,480	13,330	520,500

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	860	1,780	May19,23,1938	100	439	317,800	447	323,600
1939	880	1,950	Mar. 23, 1939	56	299	216,600	287	207,500
1940	900	-	-	30	109	79,290	104	75,490
1941	930	1,470	June 16, 1941	62	240	173,900	261	188,600
1942	960	2,040	Apr. 8, 1942	57	334	242,000	316	228,400
1943	980	1,900	May 6, 1943	80	451	326,500	462	334,500
1944	1010	1,860	Apr. 10, 1944	90	435	316,100	428	310,800
1945	1040	1,400	June 10, 1945	100	315	227,800	333	241,200

Yearly discharge, in cubic feet per second, of Bear River at Border, Wyo.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1946	1060	2,020	May 1, 1946	142	477	345,100	474	342,900
1947	1090	2,040	June 18, 1947	140	527	381,300	531	384,400
1948	1120	2,020	May 30, 1948	91	431	312,700	412	299,400
1949	1150	1,560	May 22, 1949	87	351	254,000	367	265,500
1950	1180	2,900	June 9, 1950	120	719	520,500	-	-

28. Thomas Fork near Geneva, Idaho

Location.--Lat 42°23'30", long 110°59'00", in NE¼ sec. 28, T. 28 N., R. 119 W., 0.8 mile upstream from Salt Creek, 3.7 miles east of Wyoming-Idaho State line, and 5.4 miles northeast of Geneva Post Office.

Drainage area.--45.3 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,400 ft (from topographic map).

Average discharge.--11 years (1939-50), 15.1 cfs.

Extremes.--1939-50: Maximum discharge, 418 cfs May 18, 1950 (gage height, 4.25 ft), from rating curve extended above 240 cfs; minimum daily, 1.3 cfs Nov. 13, 23, 1940.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡3.04	2.65	2.00	2.00	1.50	3.99	9.36	9.08	4.86	2.55	1.54	1.89	‡3.71
1941	2.34	1.87	1.70	1.60	1.60	4.16	20.6	39.1	15.4	6.62	4.46	3.27	8.60
1942	3.54	3.29	2.54	2.30	2.36	2.77	32.2	23.9	15.8	5.46	2.74	1.89	8.23
1943	2.22	2.44	2.27	2.06	1.97	2.80	85.9	73.7	34.6	11.8	6.53	4.60	19.2
1944	4.62	4.11	3.21	3.00	2.50	2.31	25.6	23.2	29.3	11.1	4.70	3.37	9.72
1945	3.17	2.78	2	2	2	2.11	8.78	47.5	51.4	18.7	8.42	5.79	12.9
1946	5.18	5.19	5.10	4.77	3.88	4.81	110	80.6	28.9	12.6	6.25	5.22	22.7
1947	5.75	4.27	4.15	3.18	3.25	21.1	42.5	81.5	38.2	16.6	9.42	6.08	19.8
1948	5.04	4.66	4.46	3.72	3.5	3.95	34.7	102	35.3	13.2	6.55	3.95	18.5
1949	4.23	4.34	4.0	3.5	3.5	4.46	30.1	53.4	26.5	9.81	5.03	3.85	12.8
1950	4.94	4.64	4.21	6.61	4.57	4.60	68.3	156	70.2	22.7	9.59	6.72	30.4

‡ Not previously published; partly estimated on basis of records for Salt River near Smoot, Wyo.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡187	158	123	123	86	245	557	558	289	157	95	113	‡2,690
1941	144	111	105	98	89	256	1,230	2,400	918	407	274	194	6,230
1942	218	196	156	141	131	171	1,920	1,470	940	336	168	112	5,960
1943	136	145	140	127	109	172	5,110	4,530	2,060	726	401	274	13,930
1944	284	244	197	184	144	142	1,520	1,420	1,750	682	289	200	7,060
1945	195	166	123	123	111	130	523	2,920	3,060	1,150	518	344	9,360
1946	318	309	314	294	215	296	6,570	4,950	1,720	775	384	311	16,460
1947	354	254	255	195	161	1,300	2,530	5,010	2,270	1,020	579	362	14,310
1948	310	277	275	228	201	243	2,070	6,280	2,100	811	403	235	13,430
1949	260	258	246	215	194	274	1,790	3,280	1,580	603	309	229	9,240
1950	304	276	259	407	254	283	4,060	9,620	4,180	1,400	590	400	22,000

‡ Not previously published; partly estimated on basis of records for Salt River near Smoot, Wyo.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	900	23	Sept.28, 1940	-	‡3.71	‡2,690	3.56	2,580
1941	930	63	May 4, 1941	-	8.60	6,230	8.96	6,440
1942	960	122	Apr. 5, 1942	-	8.23	5,960	8.02	5,810
1943	980	172	Apr. 24, 1943	1.5	19.2	13,930	19.7	14,230
1944	1010	119	Apr. 4, 1944	1.7	9.72	7,060	9.39	6,820
1945	1040	73	June 10, 1945	-	12.9	9,360	13.6	9,820
1946	1060	241	Apr. 26, 1946	-	22.7	16,460	22.6	16,380
1947	1090	*225	May 3, 1947	-	19.8	14,310	19.8	14,310
1948	1120	267	Apr. 29, 1948	-	18.5	13,430	18.4	13,340
1949	1150	78	Apr. 24, 1949	-	12.8	9,240	12.9	9,310
1950	1180	418	May 18, 1950	3.4	30.4	22,000	-	-

* Revised.
‡ Not previously published.

29. Salt Creek near Geneva, Idaho

Location.--Lat 42°24'00", long 110°59'30", in NW¼ sec. 21, T. 28 N., R. 119 W., in Wyoming, 800 ft upstream from bridge on U. S. Highway 89, 1,000 ft upstream from mouth, 3.0 miles east of Wyoming-Idaho State line, and 4⅝ miles northeast of Geneva Post Office.

Drainage area.--37.6 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,350 ft (from topographic map).

Average discharge.--11 years (1939-50), 18.4 cfs.

Extremes.--1939-50: Maximum discharge, 382 cfs May 18, 1950 (gage height, 5.02 ft); minimum, 0.5 cfs Aug. 18, 1940.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡3.42	3.08	2.46	2.44	2.64	3.96	14.4	18.7	7.47	3.32	1.05	1.73	‡5.39
1941	2.57	2.20	†1.75	1.80	1.80	3.59	18.7	62.3	23.1	9.95	5.34	4.56	11.5
1942	4.76	4.08	3.09	2.80	2.91	3.00	34.2	51.0	28.7	9.39	4.10	3.16	12.6
1943	3.33	3.59	3.14	3.16	2.93	4.44	122	92.1	36.3	15.0	7.01	4.57	24.8
1944	4.88	3.46	2.94	3.5	2.90	2.74	12.3	38.5	38.0	13.8	4.68	3.35	11.0
1945	3.58	3.74	3.01	2.64	2.87	2.86	9.44	84.0	75.8	24.5	10.2	7.00	19.2
1946	6.60	6.77	5.28	5.37	4.69	6.58	125	86.1	29.9	12.6	6.80	5.67	25.1
1947	6.81	5.40	4.94	4.21	4.06	8.95	35.3	117	47.4	19.7	10.5	7.52	22.8
1948	6.89	5.82	5.08	4.49	4.29	3.36	30.6	131	41.2	14.3	6.76	4.64	21.6
1949	4.87	4.81	4.52	4.0	4.0	4.63	38.0	73.4	35.0	12.6	6.51	5.70	16.6
1950	5.70	4.78	4.44	5.59	4.19	4.39	48.6	175	82.7	25.6	11.4	7.62	31.9

† Corrected.
‡ Not previously published; partly estimated on basis of records for Salt River near Smoot, Wyo.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡210	183	152	150	152	243	860	1,150	445	204	65	103	‡3,920
1941	158	131	108	111	100	221	1,110	3,830	1,370	612	328	272	8,350
1942	293	243	190	172	162	184	2,040	3,140	1,710	577	252	188	9,150
1943	205	214	193	194	163	273	7,280	5,660	2,160	925	431	272	17,970
1944	300	206	180	215	167	168	733	2,360	2,260	848	287	199	7,920
1945	220	223	185	162	159	176	562	5,160	4,510	1,510	628	417	13,910
1946	406	403	325	330	260	405	7,460	5,290	1,780	775	418	338	18,190
1947	419	321	303	259	226	551	2,100	7,200	2,820	1,210	646	447	16,500
1948	423	347	312	276	247	207	1,820	8,060	2,450	879	416	276	15,170
1949	300	286	278	246	222	285	2,260	4,510	2,080	773	400	339	11,980
1950	351	284	273	344	233	270	2,890	10,780	4,920	1,570	699	453	23,070

‡ Not previously published; partly estimated on basis of records for Salt River near Smoot, Wyo.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	900	37	May 4, 1940	0.7	‡5.39	‡3,920	5.19	3,770
1941	930	110	May 12, 1941	-	11.5	8,350	12.0	8,680
1942	960	73	May 24, 1942	-	12.6	9,150	12.5	9,040
1943	980	292	Apr. 24, 1943	2.5	24.8	17,970	24.9	18,040
1944	1010	69	May 10, 1944	2.3	11.0	7,920	10.8	7,860
1945	1040	159	May 7, 1945	-	19.2	13,910	19.9	14,420
1946	1060	284	Apr. 26, 1946	-	25.1	18,190	25.0	18,100
1947	1090	309	May 4, 1947	-	22.8	16,500	22.8	16,540
1948	1120	249	May 18, 1948	-	21.6	15,710	21.3	15,500
1949	1150	111	Apr. 27, 1949	-	16.6	11,980	16.6	12,020
1950	1180	382	May 18, 1950	3.6	31.9	23,070	-	-

‡ Not previously published.

30. 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, 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.

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.--1949-50: Maximum discharge, 869 cfs May 18, 1950 (gage height, 5.55 ft, datum then in use); minimum, 5.1 cfs Nov. 21, 1949, but may have been less during period of no gage-height record.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second, of Thomas Fork near Wyoming-Idaho State line

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	19.7	17.8	15.7	20.5	17.0	18.7	172	445	222	75.0	37.7	28.1	91.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	1,210	1,060	966	1,260	946	1,150	10,240	27,390	13,220	4,610	2,320	1,670	66,040

31. Preuss Creek near Geneva, Idaho

Location.--Lat 42°28', long 111°10', in NW¼ sec. 23, T. 11 S., R. 45 E., 120 ft upstream from county road bridge, 10 miles upstream from mouth, and 9 miles northwest of Geneva.

Drainage area.--3.3 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 7,000 ft (from topographic map).

Extremes.--May 1943 to September 1944: Maximum daily discharge, about 20 cfs May 1, 1943; minimum not determined.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	‡12.4	7.73	2.68	1.21	0.55	-
1944	0.37	0.36	0.2	0.2	0.2	0.2	0.95	2.93	3.09	1.82	1.05	.80	1.02

‡ Not previously published; partly estimated on basis of records for Montpelier Creek near Montpelier, Idaho and other nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	‡761	460	165	74	33	-
1944	23	22	12	12	12	12	57	180	184	112	64	48	738

‡ Not previously published; see footnote to preceding table.

32. Thomas Fork near Raymond, Idaho

Location.--Lat 42°16', long 111°05', in SE¼ sec. 28, T. 13 S., R. 46 E., at J. W. Mumford Ranch and 1½ miles southwest of Raymond.

Drainage area.--202 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,080 ft (from topographic map).

Average discharge.--8 years (1942-50), 56.8 cfs.

Extremes.--1942-50: Maximum discharge, 1,070 cfs May 19, 1950 (gage height, 7.62 ft); minimum daily, 1.6 cfs Oct. 1, 1942.

Remarks.--Diversions above station for irrigation of about 10,000 acres above and below station. One diversion below station for irrigation of about 300 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	20.7	11.4	8.87	4.93	-
1943	3.51	3.82	3.88	5.08	5	7.77	260	266	105	26.2	20.8	14.4	60.2
1944	12.5	14.2	14.0	12.6	10.5	9.48	47.5	54.9	45.6	19.8	14.6	8.14	22.0
1945	7.67	8.47	7.1	7.7	6.5	6.37	18.5	101	154	61.5	33.9	16.6	35.9
1946	14.0	13.3	15.7	16.5	13.6	17.8	339	295	74.7	34.5	26.8	18.5	73.4
1947	18.4	22.9	24.2	17.7	16.8	61.3	94.6	248	105	56.0	38.5	20.1	60.6
1948	13.2	20.1	18.8	17.9	16	14.5	79.0	279	114	41.2	16.9	14.4	54.0
1949	13.1	14.8	17.5	16.5	14.5	17.1	77.0	165	81.3	28.6	13.6	11.3	39.3
1950	12.7	16.5	16.0	20.9	16.7	16.8	200	527	303	88.6	49.2	32.9	109

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	-	-	-	-	-	1,230	701	545	293	-
1943	216	228	238	312	278	478	15,450	16,350	6,280	1,610	1,280	857	43,580
1944	769	847	861	778	605	583	2,820	3,380	2,720	1,220	900	484	15,970
1945	472	504	438	476	363	392	1,100	6,230	9,180	3,780	2,080	986	26,000
1946	861	789	968	1,020	754	1,090	20,190	18,150	4,440	2,120	1,650	1,100	53,130
1947	1,130	1,360	1,490	1,090	930	3,770	5,630	15,230	6,230	3,440	2,370	1,200	43,870
1948	813	1,200	1,160	1,100	920	893	4,700	17,160	6,800	2,530	1,040	855	39,170
1949	805	880	1,080	1,010	807	1,050	4,580	10,140	4,840	1,760	836	673	28,460
1950	780	980	986	1,290	928	1,030	11,930	32,430	18,040	5,450	3,030	1,960	78,830

Yearly discharge, in cubic feet per second, of Thomas Fork near Raymond, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	-	-	-	-	-	-	-
1943	980,1180	618	Apr. 25, 1943	1.6	60.2	43,580	62.7	45,370
1944	1010	104	Apr. 6, 1944	4.6	22.0	15,970	20.5	14,900
1945	1040	201	June11-13,1945	-	35.9	26,000	37.6	27,200
1946	1060,1180	773	Apr. 27, 1946	-	73.4	53,130	75.3	54,490
1947	1090,1180	427	May 6, 1947	-	60.6	43,870	59.5	43,060
1948	1120,1180	404	May 19, 1948	-	54.0	39,170	53.4	38,760
1949	1150	189	May 22, 1949	5.4	39.3	28,460	39.3	28,440
1950	1180	1,070	May 19, 1950	9.7	109	78,830	-	-

33. Bear River at Harer, Idaho

Location.--Lat 42°11'50", long 111°10'05", in NW¼ sec. 23, T. 14 S., R. 45 E., 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.

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 (1913-50), 523 cfs.

Extremes.--1913-50: Maximum discharge, 4,250 cfs Apr. 19, 20, 1917 (gage height, 10.8 ft); minimum daily, 26 cfs Aug. 21-27, 1934.

Remarks.--Diversions for irrigation of about 140,000 acres above station.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project; those for 1917 and 1918 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	853	355	328	-
1914	384	374	230	240	250	475	1,950	2,950	2,350	804	420	305	896
1915	380	343	200	200	210	397	630	457	795	406	187	179	365
1916	231	252	220	190	205	1,330	1,470	1,880	1,510	588	306	253	704
1917	287	283	249	224	210	210	1,530	2,460	3,040	1,660	592	384	928
1918	378	379	370	326	280	551	922	1,130	1,730	693	255	234	605
1919	265	282	250	176	196	470	720	703	465	113	108	104	321
1920	203	285	189	175	228	346	940	2,500	2,450	583	314	286	709
1921	326	416	310	276	295	1,380	1,140	2,800	3,190	945	480	413	1,020
1922	361	367	325	240	245	336	1,650	3,260	2,480	650	456	415	901
1923	322	364	325	315	280	301	1,880	2,960	2,510	1,030	463	414	932
1924	695	557	328	278	353	434	2,190	1,850	689	225	165	164	642
1925	216	219	181	210	230	662	816	1,050	902	610	233	290	470
1926	348	299	236	186	227	631	751	767	495	268	161	126	375
1927	187	182	174	167	190	354	868	1,340	1,240	556	236	267	480
1928	320	354	278	267	244	717	790	2,080	1,190	384	209	179	585
1929	199	229	172	177	177	326	1,040	1,530	1,500	534	295	367	546
1930	367	317	279	160	214	518	866	725	736	323	363	292	430
1931	314	237	188	179	192	258	299	192	104	82.6	93.0	74.2	184
1932	107	118	105	111	121	188	552	1,330	1,480	673	253	239	438
1933	227	192	125	162	153	237	378	558	1,010	307	157	146	304
1934	170	163	135	146	187	181	99.3	457	48.1	38.8	36	47	108
1935	74.8	111	101	91.4	112	151	268	374	878	249	115	82.3	217
1936	129	167	137	106	111	186	1,010	2,670	1,260	415	318	205	560
1937	235	244	175	156	162	304	1,285	1,535	661	445	195	131	462
1938	178	215	202	183	194	438	1,102	1,706	1,177	450	194	259	526
1939	283	268	237	207	188	823	862	823	361	179	119	115	373
1940	190	178	166	159	172	186	158	128	151	95.2	58.8	62.3	142
1941	142	139	131	126	143	333	273	421	909	366	205	169	280
1942	208	278	228	176	181	272	1,371	692	690	218	122	97.1	377
1943	141	165	127	121	151	525	1,516	1,504	1,148	562	290	203	539
1944	224	233	175	164	193	242	1,324	1,135	1,352	495	185	131	486
1945	183	187	133	146	172	342	435	683	1,111	599	366	296	388
1946	236	301	242	243	207	764	1,867	1,772	765	311	220	221	597
1947	239	244	265	181	256	907	768	1,582	1,742	663	348	272	624
1948	270	307	262	222	218	317	1,154	1,792	1,139	344	182	151	530
1949	207	209	170	165	173	338	837	1,115	1,166	472	206	133	433
1950	266	281	226	232	271	686	1,564	2,509	2,973	965	379	276	887

Monthly and yearly runoff, in acre-feet, of Bear River at Harer, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	52,400	21,800	19,500	-
1914	23,600	22,300	14,100	14,800	13,900	29,200	116,000	181,000	140,000	49,400	25,800	18,100	648,000
1915	23,400	20,400	12,300	12,300	11,700	24,400	37,500	28,100	47,300	25,000	11,500	10,700	265,000
1916	14,200	15,000	13,500	11,700	11,800	81,800	87,500	116,000	89,800	36,200	18,800	15,100	511,000
1917	17,600	16,800	15,300	13,800	11,600	12,900	91,100	151,000	181,000	102,000	36,400	22,900	672,000
1918	23,200	22,500	22,800	20,000	15,600	33,900	54,900	69,500	103,000	42,600	15,700	13,900	438,000
1919	16,300	16,800	15,400	10,800	10,900	28,900	42,800	43,000	27,700	6,950	6,640	6,190	232,000
1920	12,500	17,000	11,600	10,800	13,100	21,300	55,900	154,000	146,000	35,800	19,300	17,000	514,000
1921	20,000	24,800	19,100	17,000	16,400	84,800	67,800	172,000	190,000	58,100	29,500	24,600	724,000
1922	22,200	21,800	20,000	14,800	13,600	20,700	98,200	200,000	148,000	40,000	28,000	24,700	652,000
1923	19,800	21,700	20,000	19,400	15,600	18,500	112,000	182,000	149,000	63,300	28,500	24,600	674,000
1924	42,700	33,100	20,200	17,100	20,300	26,700	130,000	101,000	41,000	13,800	10,100	9,760	466,000
1925	13,300	13,000	11,100	12,900	12,800	40,700	48,600	64,600	53,700	37,500	14,300	17,300	340,000
1926	21,400	17,800	14,500	11,400	12,600	38,800	44,700	47,200	29,500	16,500	9,900	7,500	272,000
1927	11,500	10,800	10,700	10,300	10,600	21,800	51,700	82,400	73,800	34,200	14,500	15,900	348,000
1928	19,700	21,100	17,100	16,400	14,000	44,100	47,000	128,000	70,800	23,600	12,900	10,700	425,000
1929	12,200	13,600	10,600	10,900	9,830	20,000	61,900	94,100	89,300	32,800	18,100	21,800	395,000
1930	22,600	18,900	17,200	†9,870	11,900	†31,800	†51,600	44,600	43,800	19,900	22,300	17,400	312,000
1931	19,300	14,100	11,600	11,000	10,700	15,900	17,800	11,800	†6,220	5,080	5,720	4,420	134,000
1932	6,580	7,020	6,460	6,820	6,960	11,600	32,800	81,800	86,900	41,400	15,600	14,200	318,000
1933	14,000	11,440	7,690	9,960	8,500	14,600	22,500	34,300	60,100	18,900	9,650	8,690	220,000
1934	10,440	9,720	8,300	8,990	10,390	11,120	5,910	2,810	2,860	2,390	2,220	2,800	77,950
1935	4,600	6,590	6,180	5,620	6,250	9,250	15,970	22,980	52,260	15,330	7,070	4,900	157,000
1936	7,910	9,930	8,420	6,540	6,390	11,450	60,190	164,100	74,760	25,490	19,530	12,170	†406,900
1937	14,430	14,520	10,770	9,620	9,010	18,720	76,450	94,390	39,360	27,330	11,990	7,790	334,400
1938	10,970	12,810	12,390	11,240	10,750	26,950	65,600	104,900	70,020	27,670	11,940	15,430	380,700
1939	17,410	15,970	14,550	12,750	10,450	50,590	51,270	50,620	21,500	11,030	7,330	6,820	270,300
1940	11,660	10,560	10,230	9,770	9,890	11,440	9,390	7,900	8,990	5,850	3,620	3,710	103,000
1941	8,750	8,270	8,040	7,770	7,930	20,470	16,220	25,880	54,080	22,490	12,600	10,070	202,600
1942	12,780	16,510	14,040	10,810	10,070	16,700	81,570	42,540	41,060	13,390	7,500	5,780	272,800
1943	8,660	9,810	7,830	7,460	8,410	32,290	90,210	92,500	68,290	34,550	17,800	12,110	389,900
1944	13,750	13,890	10,740	10,060	11,100	14,900	78,770	69,770	80,430	30,460	11,350	7,800	353,000
1945	11,230	11,150	8,180	8,990	9,530	21,000	25,900	42,030	66,090	36,810	22,490	†17,620	281,000
1946	14,510	17,880	14,890	14,940	11,480	46,950	111,100	109,000	45,530	19,110	13,540	13,170	432,100
1947	14,670	14,500	16,260	11,150	14,190	55,780	45,710	97,280	103,600	40,780	21,400	16,200	451,500
1948	16,620	18,250	16,100	13,660	12,520	19,500	68,690	110,200	67,800	21,160	11,220	9,010	384,700
1949	12,740	12,450	10,430	10,130	9,630	20,770	49,830	68,540	69,380	28,990	12,670	7,930	313,500
1950	16,360	16,700	13,910	14,280	15,060	42,190	93,070	154,300	176,900	59,350	23,300	16,450	641,900

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	a3,450	May 26, 1914	-	896	648,000	890	644,000
1915	410	1,120	June 7, 1915	133	365	265,000	347	251,000
1916	440	3,630	Mar. 22, 1916	-	704	511,000	714	518,000
1917	(b)	4,250	Apr.19,20,1917	-	928	672,000	954	691,000
1918	(b)	2,460	June 21, 1918	210	605	438,000	577	418,000
1919	510	1,370	Mar. 29, 1919	81	321	232,000	311	225,000
1920	510	3,860	June 2, 1920	-	709	514,000	740	537,000
1921	530	3,640	June 19, 1921	-	1,020	724,000	1,000	724,000
1922	550	3,840	May 28, 1922	-	901	652,000	897	650,000
1923	570	3,700	May 30, 1923	255	932	674,000	979	709,000
1924	590	3,790	Apr. 15, 1924	135	642	466,000	562	407,000
1925	610	1,460	May 27, 1925	122	470	340,000	492	356,000
1926	630	1,380	Mar. 20, 1926	114	375	272,000	347	251,000
1927	650	1,790	May 24, 1927	140	480	348,000	514	373,000
1928	670	2,720	May 19, 1928	168	585	425,000	556	404,000
1929	690	2,260	May 27, 1929	-	546	395,000	577	417,000
1930	705	1,200	Apr. 12, 1930	140	430	312,000	412	298,000
1931	720	440	Apr. 12, 1931	60	184	134,000	150	109,000
1932	735	2,280	May 24, 1932	91	438	318,000	456	331,000
1933	750	1,330	June18,19,1933	80	304	220,000	298	216,000
1934	765	210	Feb.19-23, 1934	26	108	77,950	92.4	66,860
1935	790	1,510	June 19, 1935	48	217	157,000	229	272,300
1936	810	3,040	May 19, 1936	100	560	†406,900	579	420,300
1937	830	2,190	Apr.22,23,1937	124	462	334,400	457	330,800
1938	860	2,080	May 20, 1938	131	526	380,700	542	392,400
1939	880	2,360	Mar. 24, 1939	87	373	270,300	352	254,800
1940	900	227	Mar. 6, 1940	44	142	103,000	132	95,620
1941	930	1,580	June 15, 1941	85	280	202,600	305	220,800
1942	960	2,280	Apr. 9, 1942	76	377	272,800	353	255,700
1943	980	2,400	May 7, 1943	95	539	389,900	555	402,000
1944	1010	2,180	Apr. 11, 1944	116	486	353,000	476	345,200
1945	1040	1,680	June 11, 1945	115	388	281,000	411	297,700
1946	1060	2,680	May 2, 1946	185	597	432,100	594	430,200
1947	1090	2,300	May 15, 1947	160	624	451,500	631	457,100
1948	1120	2,290	May 31, 1948	114	530	384,700	509	369,400
1949	1150	1,810	May 22, 1949	123	433	313,500	449	324,800
1950	1180	3,780	June 10, 1950	164	887	641,900	-	-

† Corrected.
a Maximum observed.
b Files of Utah Power & Light Co.

34. Bear River at Dingle, Idaho

Location.--Lat 42°13'30", long 111°14'10", in NW¼ sec. 7, T. 14 S., R. 45 E., half a mile southeast of Dingle.

Drainage area.--2,810 sq mi (revised), approximately.

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

Average discharge.--9 years (1903-12), 657 cfs.

Extremes.--1903-14: Maximum discharge observed, 4,050 cfs May 26, June 1, 1907 (gage height, 8.75 ft); minimum daily, 60 cfs Jan. 1, 1904.

Remarks.--Many diversions for irrigation above and below station. Bear Lake inlet canal, records for which are not published separately in this report, began diverting upstream from station in May 1911. Records herein adjusted for this diversion May 1911 to September 1912. No record of diversion available after 1912. Record of canal diversion for 1924-50 in files of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	1,179	458	191	145	-
1904	159	205	218	87.3	215	854	1,059	2,302	2,177	711	305	271	714
1905	277	339	322	259	259	365	348	294	467	157	89	113	274
1906	138	141	-	-	-	-	825	1,480	2,050	732	385	389	‡550
1907	266	-	-	234	392	1,040	2,130	3,090	3,600	2,550	689	468	‡1,180
1908	393	316	351	290	298	587	596	466	859	576	306	246	440
1909	324	276	292	502	249	458	1,770	2,630	3,580	1,430	386	378	1,020
1910	272	292	234	250	210	1,380	1,330	1,300	493	172	86	128	512
1911	172	193	190	183	385	1,010	1,170	1,310	1,390	473	166	145	566
1912	202	229	200	250	252	259	741	1,210	2,550	941	616	420	656
1913	427	426	260	250	250	370	1,130	1,290	617	673	285	259	521
1914	322	295	211	217	226	334	1,230	2,890	2,290	676	369	265	780
1915	316	306	222	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; some monthly figures not available; yearly figure estimated on basis of records for station near Preston.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	70,155	28,161	11,744	8,628	-
1904	9,776	12,198	13,404	5,368	12,370	52,510	63,020	141,500	129,500	43,730	18,750	16,130	518,300
1905	17,030	20,170	19,800	15,920	14,380	22,440	20,710	18,080	27,790	9,654	5,472	6,724	198,200
1906	8,485	8,390	-	-	-	-	49,100	91,000	122,000	45,000	23,700	23,100	‡398,000
1907	16,400	-	-	14,400	21,800	64,000	127,000	190,000	214,000	157,000	42,400	27,800	‡854,000
1908	24,200	18,800	21,600	17,800	17,100	36,100	35,500	28,700	51,100	35,400	18,800	14,600	320,000
1909	19,900	16,400	18,000	30,900	15,800	28,200	105,000	162,000	213,000	87,900	23,700	22,500	741,000
1910	16,700	17,400	14,400	14,900	11,700	84,800	76,500	77,400	28,400	10,200	5,120	7,360	365,000
1911	10,200	11,100	11,300	11,300	21,400	62,100	69,600	80,400	82,700	29,000	10,200	8,630	408,000
1912	12,400	13,600	12,300	15,400	13,700	15,900	44,100	74,400	152,000	57,900	37,900	25,000	475,000
1913	26,300	25,300	16,000	15,400	13,900	22,800	67,200	79,300	36,700	41,400	17,500	15,400	377,000
1914	19,800	17,600	13,000	13,300	12,600	20,500	73,200	178,000	136,000	41,600	22,700	15,800	564,000
1915	19,400	18,200	13,600	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100	1,410	Junell,12,20,1903	-	-	-	-	-
1904	133	3,175	(a)	60	714	518,300	743	539,900
1905	176	765	June 19, 1905	75	274	198,200	‡230	‡167,000
1906	212	2,820	June 3,4, 1906	75	‡550	‡398,000	‡570	‡413,000
1907	250	4,050	May26,Junel,1907	175	‡1,180	‡854,000	1,270	923,000
1908	250	1,750	June 21, 1908	106	440	320,000	426	309,000
1909	270	3,990	June14,15,1909	106	1,020	741,000	1,020	736,000
1910	290	2,150	Apr.30,May1,1910	66	512	365,000	494	349,000
1911	310	3,650	Mar. 27, 1911	89	566	408,000	572	414,000
1912	330	3,240	June 18, 1912	†180	656	475,000	696	504,000
1913	360	1,610	May 14, 1913	194	521	377,000	497	360,000
1914	390	3,560	May 25, 1914	-	780	564,000	780	565,000

† Corrected.
‡ Not previously published.
a May 27, 28, June 4, 1904.

35. 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., 1½ miles west of Dingle and 1¾ miles downstream from head at Stewart Dam.

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

Average discharge.--28 years (1922-50), 284 cfs.

Extremes.--1922-50: Maximum daily discharge, 3,540 cfs Apr. 15, 1924; no flow on some days in 1922-24.

Remarks.--Canal diverts from Bear River at Stewart Dam in NE¼ sec. 34, T. 13 S., R. 44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough entering at 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; those prior to Oct. 1, 1945, not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	40	35	70	537	1,200	377	30	45	30	-
1923	15	17	14	13	14	22	1,460	1,300	94.2	40	40	30	255
1924	151	32.0	20	15	40	216	1,920	952	315	22	25	21	311
1925	28	25	28	30	69.8	541	547	736	491	338	63.7	90.0	249
1926	62.3	46.3	30.9	23.3	30.1	424	294	86.5	85.3	50.1	48.9	30.8	101
1927	45.6	42.2	36.5	32.9	60.4	147	800	999	342	58.3	53.9	44.7	222
1928	71.2	217	132	149	174	634	680	1,680	507	45.2	44.4	27.9	365
1929	34.5	21.8	22.0	31.3	72.2	285	950	1,320	714	39.6	55.8	87.7	303
1930	92.0	60.6	55.2	48.2	136	388	773	107	47.9	42.2	83.0	72.5	159
1931	128	58.0	43.1	37.6	54.7	178	145	21.4	14.7	8.7	11.1	12.6	59.5
1932	13.9	36.3	61.8	60.7	66.4	163	537	1,010	1,050	217	47.6	32.4	274
1933	134	157	113	147	139	223	350	360	439	41.1	26.8	24.0	180
1934	30.3	95.6	74.8	90.5	140	131	25.4	8.6	6.2	4.8	4.1	5.4	50.9
1935	20.8	34.3	36.6	41.7	57.1	93.9	137	83.6	540	102	16.6	11.0	97.4
1936	39.0	81.8	60.1	73.6	82.0	181	939	2,325	965	248	244	85.7	445
1937	20.0	168	61.9	73.1	90.2	257	1,294	1,351	298	258	77.3	24.0	332
1938	39.7	174	147	131	119	395	1,038	1,470	807	304	73.5	104	401
1939	192	167	140	135	129	726	804	492	41.0	24.5	32.2	28.1	243
1940	24.0	92.3	101	96.4	115	152	50.1	9.0	12.9	8.9	7.7	4.4	56.1
1941	5.6	9.4	9.4	26.6	70.5	287	125	50.1	538	238	141	104	134
1942	173	235	159	131	130	217	1,246	455	339	54.2	33.9	13.5	265
1943	21.5	34.1	93.0	80.8	108	512	1,380	1,195	723	324	66.6	14.3	380
1944	56.2	137	119	115	142	180	1,045	832	836	63.6	30.7	14.9	296
1945	134	129	103	114	127	274	372	475	741	376	147	237	269
1946	164	238	180	218	182	735	1,780	1,490	391	134	113	151	482
1947	211	196	237	154	215	864	721	1,301	1,281	509	259	212	515
1948	228	249	181	166	160	270	1,126	1,597	752	172	83.7	52.2	420
1949	171	168	120	114	124	296	787	776	742	328	99.3	64.2	316
1950	199	252	175	173	219	634	1,505	2,321	2,349	767	326	183	759

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	2,460	1,940	4,300	31,900	74,100	22,400	1,840	2,770	1,790	-
1923	922	1,010	861	799	778	1,350	86,900	79,900	5,610	2,460	2,460	1,790	185,000
1924	9,260	1,900	1,230	920	2,250	13,300	114,000	58,500	18,800	1,350	1,540	1,250	224,000
1925	1,720	1,490	1,720	1,840	3,880	33,200	32,500	45,300	29,200	20,800	3,920	5,350	181,000
1926	3,830	2,760	1,900	1,430	1,670	26,000	17,500	5,350	5,080	3,080	3,010	1,830	73,400
1927	2,800	2,510	2,240	2,020	3,350	9,060	47,600	61,500	20,400	3,580	3,320	2,660	161,000
1928	4,380	12,900	8,130	9,190	10,000	39,000	40,400	104,000	30,100	2,780	2,730	1,660	265,000
1929	2,120	1,300	1,350	1,920	4,010	17,500	56,500	81,500	42,500	2,440	3,430	5,220	220,000
1930	5,660	3,610	3,390	2,960	7,560	23,900	46,000	6,560	2,850	2,600	5,110	4,310	115,000
1931	7,870	3,450	2,650	2,310	3,040	10,900	8,660	1,310	873	536	680	752	43,000
1932	857	2,160	3,800	3,730	3,820	10,000	32,000	62,000	62,300	13,400	2,930	1,930	199,000
1933	8,240	9,360	6,930	9,030	7,690	13,700	20,800	22,100	26,100	2,530	1,650	1,430	130,000
1934	1,860	5,690	4,600	5,570	7,790	8,040	1,510	552	367	297	250	323	36,800
1935	1,280	2,040	2,250	2,560	3,170	5,780	8,170	5,140	32,140	6,280	1,020	657	70,490
1936	2,400	4,870	3,690	4,520	4,710	11,130	55,900	142,900	57,390	15,280	14,990	5,100	322,900
1937	1,230	9,980	3,810	4,490	5,010	15,820	77,000	83,070	17,740	15,870	4,750	1,430	240,200
1938	2,440	10,340	9,010	8,060	6,610	24,260	61,780	90,410	47,990	18,700	4,520	6,170	290,300
1939	11,820	9,940	8,610	8,280	7,150	44,610	47,860	30,260	2,440	1,500	1,980	1,670	176,100
1940	1,480	5,490	6,230	5,930	6,640	9,350	2,980	573	766	545	472	262	40,720
1941	347	561	579	1,640	3,920	17,650	7,450	3,080	32,000	14,630	8,640	6,210	96,710
1942	10,620	13,990	9,750	8,070	7,230	13,370	74,150	27,950	20,190	3,330	2,080	805	191,500
1943	1,320	2,030	5,720	4,970	6,020	31,490	82,110	73,500	43,020	19,940	4,100	853	275,100
1944	3,460	8,150	7,290	7,050	8,150	11,100	62,200	51,170	49,720	3,910	1,890	885	215,000
1945	8,210	7,660	6,360	7,010	7,050	16,840	22,120	29,200	44,090	23,110	9,020	14,130	194,800
1946	10,090	14,140	11,090	13,430	10,100	45,200	105,800	91,630	23,290	8,250	6,970	8,990	349,000
1947	12,970	11,660	14,600	9,490	11,960	53,100	42,920	80,010	76,220	31,290	15,930	12,610	372,800
1948	13,990	14,820	11,110	10,210	9,220	16,630	66,990	98,220	44,730	10,580	5,150	3,100	304,800
1949	10,520	10,010	7,350	6,980	6,900	18,190	46,800	47,740	44,170	20,190	6,110	3,820	228,800
1950	12,210	14,980	10,750	10,630	12,170	38,990	89,560	142,700	139,800	47,160	20,050	10,860	549,900

Yearly discharge, in cubic feet per second, of Rainbow inlet canal near Dingle, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1922	(a)	3,040	May 22, 1922	0	-	-	202	146,000
1923	(a)	2,750	Apr. 19, 1923	0	255	185,000	268	194,000
1924	(a)	3,540	Apr. 15, 1924	0	311	224,000	299	217,000
1925	(a)	1,120	Apr. 3, 1925	-	249	181,000	255	184,000
1926	(a)	1,200	Mar. 21, 1926	15	101	73,400	100	72,500
1927	(a)	1,340	May 24, 1927	27	222	161,000	247	179,000
1928	(a)	2,220	May 19,20,1928	17	365	265,000	336	245,000
1929	(a)	1,810	May 27, 1929	21	303	220,000	314	228,000
1930	(a)	1,110	Apr. 11, 1930	26	159	115,000	160	116,000
1931	(a)	308	Apr. 14, 1931	8	59.5	43,000	49.6	35,900
1932	(a)	1,820	May 25, 1932	13	274	199,000	298	217,000
1933	(a)	795	June 9, 1933	14	180	130,000	162	117,000
1934	(a)	182	Feb. 19, 1934	4	50.9	36,800	41.8	30,300
1935	(a)	1,000	June 18, 1935	6	97.4	70,490	105	75,880
1936	(a)	2,620	May 19, 1936	13	445	322,900	450	326,900
1937	(a)	2,100	Apr. 23, 1937	14	332	240,200	341	247,000
1938	(a)	1,750	May 4, 5,1938	11	401	290,300	413	298,900
1939	(a)	2,200	Mar. 24, 1939	10	243	176,100	220	159,000
1940	(a)	195	Mar. 9, 1940	4	56.1	40,720	40	29,000
1941	(a)	1,140	June 17, 1941	4	134	96,710	179	129,600
1942	(a)	1,970	Apr.10,11,1942	8	265	191,500	230	166,200
1943	(a)	2,070	May 7, 8,1943	11	380	275,100	394	284,900
1944	(a)	1,720	Apr. 11, 1944	11	296	215,000	301	218,300
1945	(a)	1,350	June 12, 1945	36	269	194,800	287	207,900
1946	1060	b2,820	Mar. 29, 1946	38	482	349,000	487	352,900
1947	1090	b2,070	May 15, 1947	41	515	372,800	516	373,400
1948	1120	b1,850	Apr. 30, 1948	16	420	304,800	403	292,700
1949	1150	b1,400	May 22, 1949	43	316	228,800	330	238,800
1950	1180	b3,070	June 12, 1950	55	759	549,900	-	-

a Files of Utah Power & Light Co.
b Momentary maximum.

36. 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., 300 ft downstream from Stewart Dam and 4½ miles south of Montpelier.

Drainage area.--2,820 sq mi, approximately.

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

Average discharge.--28 years (1922-50), 80.6 cfs.

Extremes.--1922-50: Maximum daily discharge, 3,050 cfs June 3, 1923; minimum daily, 1 cfs on several days in 1931, 1934, 1940, 1948.

Remarks.--Many diversions for irrigation above and below station. Water diverted to Bear Lake at Stewart Dam above station.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project; those prior to Oct. 1, 1945, not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	195	195	252	1,090	1,960	1,770	489	328	320	-
1923	225	262	240	244	214	254	290	1,270	1,960	756	359	298	532
1924	481	446	241	234	277	204	123	343	29	53	34	47	209
1925	121	113	92	110	149	54	224	55	64	128	77	145	110
1926	241	189	157	120	151	170	397	425	118	101	34	32	178
1927	81	89	71	83	83	159	9	100	534	350	79	113	146
1928	213	86	80	102	64	20	18	52	414	199	62	76	116
1929	110	170	113	135	114	41	17	17	418	339	141	183	150
1930	239	223	213	149	100	119	19	383	353	141	222	202	198
1931	143	157	140	142	133	69	56	11	8	1	2	2	72
1932	11	34	7	7	15	9	7	8	54	324	111	129	60
1933	53	9	8	9	8	8	8	11	187	103	43	26	39
1934	68	34	33	18	11	7	5	2	2	1	1	1	15
1935	4	4	4	5	6	6	4	5	6	7	7	7	5.3
1936	25	12	10	8	8	9	13	9	7	9	10	30	12.5
1937	165	35	90	68.5	61.4	14.3	12.0	9.6	9.7	16.6	33.6	28.6	45.6
1938	86.9	20.9	20.9	12.9	36.6	13.8	8.0	8.9	12.2	13.0	12.6	86.0	27.6
1939	46.3	46.8	41.0	26.5	9.4	8.7	8.0	8.0	8.0	28.6	8.4	35.9	23.1
1940	124	46.5	8.6	6.9	6.8	6.8	5.4	2.4	2.5	2.0	1.2	1.8	18.0
1941	66.6	95.5	78.0	60	33.1	5.1	3.4	10.1	12.6	9.8	9.0	8.1	32.6
1942	8.8	10.3	10.1	15.6	27.0	9.6	6.1	9.1	12.8	8.6	8.1	5.9	10.9
1943	73.9	15	17.7	14.8	15.4	12.5	14.1	24.3	25.8	22.3	156	139	52.6
1944	130	54.1	24.9	15.8	12.0	12.5	11.3	13.4	148	312	76.7	29.3	70
1945	11.5	10.5	9.9	10.7	10.9	10.6	11.0	13.3	20.7	26.8	149	26.7	26.2

Monthly and yearly mean discharge, in cubic feet per second, of Bear River below Stewart Dam, near Montpelier, Idaho--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	21.6	10.1	45.4	8.5	7.2	9.3	9.5	15.8	19.4	22.2	21.7	21.1	17.8
1947	16.2	14.8	15.1	12.4	14.6	16.9	16.8	22.5	26.0	42.3	43.0	21.4	21.9
1948	19.5	20.0	36.5	26.1	22.4	23.6	14.6	16.1	26.6	20.5	16.0	8.10	20.9
1949	10.3	10.5	12.0	11.2	10.9	15.4	14.0	23.3	20.9	13.2	15.7	11.1	14.1
1950	11.2	11.2	10.3	11.1	11.6	12.6	12.0	17.1	214	23.6	19.0	19.7	30.9

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	11,970	10,830	15,520	65,010	120,540	105,480	30,090	20,180	19,070	-
1923	13,800	15,600	14,800	15,000	11,900	15,600	17,300	78,100	117,000	46,500	22,100	17,700	385,000
1924	29,600	26,500	14,800	14,370	15,910	12,520	7,350	21,080	1,730	3,240	2,100	2,820	152,000
1925	7,430	6,720	5,650	6,760	8,280	3,320	13,300	3,380	3,810	7,870	4,730	8,630	79,880
1926	14,800	11,200	9,650	7,380	8,390	10,500	23,600	26,100	7,020	6,150	2,090	1,900	128,800
1927	4,980	5,300	4,370	5,110	4,600	9,790	563	6,160	31,800	21,500	4,840	6,710	105,700
1928	13,100	5,090	4,930	6,300	3,710	1,240	1,050	3,220	24,700	12,300	3,840	4,500	83,980
1929	6,750	10,100	6,940	8,300	6,330	2,550	1,010	1,070	24,900	20,900	8,660	10,900	108,400
1930	14,700	13,300	13,100	9,170	5,550	7,320	1,120	23,500	21,000	8,650	13,700	12,000	143,100
1931	8,810	9,340	8,620	8,750	7,410	4,270	3,350	702	480	67	119	137	52,060
1932	694	2,070	415	422	835	559	391	516	3,220	19,950	6,800	7,660	43,530
1933	3,250	532	506	553	444	492	476	676	11,100	6,330	2,640	1,550	28,550
1934	4,180	2,020	2,030	1,110	611	430	298	123	119	61	61	60	11,100
1935	246	238	246	290	313	357	240	301	337	411	426	432	3,840
1936	1,560	738	605	482	434	567	801	579	399	534	631	1,760	9,090
1937	10,170	2,100	5,540	4,210	3,410	881	716	589	575	1,020	2,070	1,700	32,980
1938	5,340	1,240	1,290	793	2,030	849	476	547	728	799	778	5,120	19,990
1939	2,850	2,790	2,520	1,630	520	538	476	492	476	1,760	516	2,140	16,710
1940	7,600	2,760	528	426	391	420	319	147	147	123	71	107	13,040
1941	4,110	5,680	4,790	3,690	1,840	311	200	619	748	603	553	484	23,630
1942	541	615	623	962	1,500	591	365	561	764	530	498	349	7,900
1943	4,550	6,830	1,090	912	857	768	841	1,490	1,540	1,370	9,570	8,270	38,090
1944	8,000	3,220	1,530	972	690	766	674	823	8,830	19,160	4,710	1,750	51,120
1945	706	623	609	659	603	655	655	815	1,230	1,650	9,150	1,590	18,940
1946	1,330	603	2,790	522	401	569	565	972	1,150	1,360	1,340	1,260	12,860
1947	996	881	926	764	811	1,040	1,000	1,380	1,550	2,600	2,640	1,270	15,858
1948	1,200	1,190	2,240	1,600	1,290	1,450	871	988	1,580	1,260	986	482	15,140
1949	635	627	738	686	603	946	833	1,430	1,240	813	966	660	10,180
1950	690	664	631	682	643	778	712	1,050	12,760	1,450	1,170	1,170	22,400

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	(a)	3,000	June 1-4,1922	-	-	-	610	442,900
1923	(a)	3,050	June 3, 1923	75	532	385,000	568	412,100
1924	(a)	576	Oct. 18, 1923	9	209	152,000	139	100,900
1925	(a)	560	Apr. 14, 1925	6	110	79,880	133	95,730
1926	(a)	635	Apr. 27, 1926	11	178	128,800	149	107,800
1927	(a)	895	June 24, 1927	7	146	105,700	157	114,200
1928	(a)	857	June 10, 1928	16	116	83,980	117	84,650
1929	(a)	925	June 12, 1929	15	150	108,400	173	125,700
1930	(a)	556	June 5, 1930	6	198	143,100	177	128,800
1931	(a)	229	Nov. 2, 1930	1	72	52,060	40	28,460
1932	(a)	515	July 14, 1932	3	60	43,530	61	44,640
1933	(a)	426	June 19, 1933	7	39	28,550	45	32,490
1934	(a)	123	Oct. 28, 1933	1	15	11,100	5	3,600
1935	(a)	12	Apr. 22, 1935	2	5.3	3,840	8.3	6,010
1936	(a)	113	Sept.25, 1936	4	12.5	9,090	32.7	24,000
1937	(a)	228	Oct. 28, 1936	8	45.6	32,980	31.9	23,040
1938	(a)	200	Sept.13, 1938	8	27.6	19,990	28.2	20,280
1939	(a)	116	Sept.27, 1939	5	23.1	16,710	26.7	19,440
1940	(a)	150	Oct. 21, 1939	1	18.0	13,040	23.0	16,730
1941	(a)	109	Nov. 11, 1940	3	32.6	23,630	15.0	10,830
1942	(a)	130	Feb.18,19,1942	4	10.9	7,900	25.8	18,590
1943	(a)	189	Aug. 12, 1943	7	52.6	38,090	52.8	38,370
1944	(a)	660	July 4, 5, 1944	10	70	51,120	55.2	40,310
1945	(a)	286	Aug. 19, 1945	8	26.2	18,940	30.0	21,730
1946	1060	162	Dec. 22, 1945	7	17.8	12,860	15.1	10,940
1947	1090	b281	July 26, 1947	6	21.9	15,858	24.4	17,700
1948	1120	161	Dec. 9, 1947	1	20.9	15,140	17.2	12,510
1949	1150	*b470	May 31, 1949	9	14.1	10,180	14.0	10,160
1950	1180	b805	June 7, 1950	9	30.9	22,400	-	-

* Revised.
a Files of Utah Power & Light Co.
b Momentary maximum.

37. Montpelier Creek near Montpelier, Idaho

Location.--Lat 42°21', long 111°11', in NE¼ sec. 34, T. 12 S., R. 45 E., 150 ft upstream from bridge on U. S. Highway 89, 275 ft upstream from South Fork, and 6.8 miles northeast of Montpelier.

Drainage area.--28.2 sq mi.

Gage.--Water-stage recorder. Datum of gage is 6,427.46 ft above mean sea level, adjustment of 1912.

Average discharge.--5 years (1939-44), 11.7 cfs.

Extremes.--1939-44: Maximum discharge, 136 cfs Apr. 24, 1943 (gage height, 3.35 ft); minimum recorded, 1.5 cfs Mar. 28, 29, 1942, but may have been less during periods of ice effect.

Remarks.--One diversion from tributary for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡5	5.16	4.36	4.58	4.73	6.42	17.7	17.4	11.2	7.16	4.11	3.96	‡7.65
1941	4.54	3.95	3.33	3.00	3.00	4.30	18.2	28.7	19.3	10.7	7.85	6.33	9.47
1942	6.03	5.31	3.99	3.60	3.77	3.87	25.0	19.8	17.4	8.98	4.86	4.52	8.92
1943	4.41	4.94	4.82	4.05	4.22	5.33	71.5	61.8	45.8	24.1	13.2	9.16	21.1
1944	9.94	7.38	5.88	5.09	3.74	4.59	22.9	24.7	25.8	13.3	7.14	5.42	11.3
1945	5.26	4.98	3.50	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of records for Salt River near Smoot, Wyo.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡307	307	268	282	272	395	1,050	1,070	667	440	253	235	‡5,550
1941	279	235	205	184	167	264	1,080	1,770	1,150	657	483	377	6,850
1942	371	316	245	221	209	238	1,490	1,220	1,040	552	299	269	6,470
1943	271	294	296	249	234	328	4,250	3,800	2,730	1,480	813	545	15,290
1944	611	439	361	313	215	282	1,360	1,520	1,540	817	439	322	8,220
1945	324	296	215	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of records for Salt River near Smoot, Wyo.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	900	35	July 1, 1940	-	‡7.65	‡5,550	7.42	5,380
1941	930	42	May 1, 1941	-	9.47	6,850	9.76	7,060
1942	960	53	Apr. 12, 1942	-	8.92	6,470	8.84	6,400
1943	980	136	Apr. 24, 1943	2.0	21.1	15,290	21.9	15,840
1944	1010	55	Apr. 12, 1944	3.0	11.3	8,220	10.5	7,640
1945	1040	-	-	-	-	-	-	-

‡ Not previously published.

38. 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., 3 miles east of Montpelier and 3½ miles downstream from South Fork.

Drainage area.--50.9 sq mi.

Gage.--Water-stage recorder and sharp-crested rectangular weir. Altitude of gage is 6,210 ft (from topographic map). Prior to Nov. 4, 1943, water-stage recorder at site 2½ miles downstream at different datum.

Average discharge.--8 years (1942-50), 23.8 cfs.

Extremes.--1942-50: Maximum discharge, 224 cfs May 18, 1950 (gage height, 2.91 ft); minimum, 1.5 cfs Jan. 20, 1944, but may have been less during periods of ice effect.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	‡5	‡5	5	4.5	4.5	7.12	80.7	78.3	57.5	28.6	16.8	12.5	‡25.5
1944	13.0	10.5	8.35	7.44	5.58	6.90	27.2	29.0	29.4	15.5	9.18	7.44	14.1
1945	7.45	6.55	5.61	6.01	6.16	6.38	13.3	45.7	61.3	27.8	15.8	12.5	17.9
1946	10.1	9.67	8.22	7.29	7.14	9.84	87.6	86.0	46.3	25.8	16.1	13.8	27.4
1947	13.8	11.0	10.8	8.97	8.18	17.4	39.3	61.5	45.6	24.0	14.9	12.4	22.4
1948	8.94	8.63	8.07	7.36	6.81	7.44	29.8	99.4	54.5	26.9	15.5	12.3	23.9
1949	11.5	10.9	9.25	8.41	7	9.42	38.2	55.5	41.6	21.2	13.5	10.5	19.8
1950	12.2	10.6	8.71	9.32	8.07	10.7	73.4	136	107	52.1	27.6	19.9	39.7

‡ Not previously published; estimated on basis of records for station near Montpelier.

Monthly and yearly runoff, in acre-feet, of Montpelier Creek at irrigators weir, near Montpelier, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	‡307	‡298	307	277	250	438	4,810	4,810	3,420	1,760	1,030	746	‡18,450
1944	799	625	514	458	321	424	1,620	1,780	1,750	952	564	443	10,250
1945	458	390	345	370	342	393	790	2,810	3,650	1,710	974	744	12,980
1946	622	576	505	448	396	605	5,210	5,290	2,750	1,590	990	819	19,800
1947	847	654	662	552	454	1,070	2,340	3,780	2,710	1,470	916	738	16,190
1948	550	514	496	452	392	457	1,770	6,110	3,240	1,650	954	730	17,320
1949	706	650	569	517	389	579	2,270	3,410	2,480	1,300	833	624	14,330
1950	750	632	536	573	448	655	4,370	8,380	6,340	3,200	1,700	1,190	28,770

‡ Not previously published; estimated on basis of records for station near Montpelier.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1010	134	Apr. 24, 1943	-	‡25.5	‡18,450	26.9	19,480
1944	1010	62	Apr. 12, 1944	5.0	14.1	10,250	13.1	9,500
1945	1040	88	June 10, 1945	3.8	17.9	12,980	18.6	13,490
1946	1060	170	Apr. 19, 1946	4.9	27.4	19,800	28.0	20,260
1947	1090	89	May 11, 1947	7.2	22.4	16,190	21.5	15,590
1948	1120	126	May 8, 1948	5.0	23.9	17,320	24.4	17,680
1949	1150	73	May 19, 1949	-	19.8	14,330	19.8	14,320
1950	1180	224	May 18, 1950	2.1	39.7	28,770	-	-

‡ Not previously published.

39. 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. and 3½ miles east of St. Charles.

Supplemental records available.--October 1903 to June 1906, fragmentary gage-height record, published as Bear Lake at Fish Haven.

Gage.--Water-stage recorder. Datum of gage is 5,900 ft above mean sea level, unadjusted (levels by Utah Power & Light Co.).

Extremes.--1921-50: 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.--Records herein show usable contents above lower limit of pumps. Outflow regulated by gates and pumps at Bear Lake and by gates in dyke at north end of Mud Lake. Inflow to lake augmented by water diverted from Bear River through Rainbow inlet canal and Dingle inlet canal, which empty into Mud Lake. 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.--Records prior to 1946, not previously published by Geological Survey, furnished by Utah Power & Light Co. Gage-height record collected 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, in thousands of acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1921	-	-	-	1,014	1,023	1,129	1,208	1,369	1,416	1,409	1,378	1,347
1922	1,332	1,312	1,304	1,276	1,277	1,271	1,308	1,391	1,420	1,393	1,361	1,335
1923	1,305	1,290	1,262	1,238	1,214	1,200	1,310	1,416	1,421	1,396	1,330	1,286
1924	1,298	1,289	1,243	1,187	1,172	1,192	1,315	1,361	1,316	1,240	1,134	1,051
1925	1,017	962.4	939.1	919.3	928.2	975.4	1,029	1,069	1,078	1,040	964.5	927.5
1926	888.6	858.7	839.1	816.3	818.3	868.2	901.6	893.4	830.4	762.0	683.5	592.4
1927	545.6	501.3	445.6	423.9	427.1	447.5	521.1	602.2	640.8	581.8	505.1	479.5
1928	466.1	476.9	482.7	489.1	502.5	573.0	628.3	747.3	799.6	744.0	655.8	580.1
1929	569.7	551.5	532.6	532.6	539.8	579.4	670.3	766.7	822.3	778.8	726.0	710.6
1930	692.8	676.3	677.6	682.2	700.0	742.6	809.6	827.7	798.9	718.0	683.5	646.7
1931	643.4	623.1	613.2	615.2	619.8	645.4	665.7	649.3	586.6	478.2	396.6	340.1
1932	326.3	312.0	322.6	337.0	352.6	380.0	450.1	518.5	602.2	602.8	542.4	508.9
1933	500.6	502.5	503.2	519.8	539.8	559.3	606.8	651.2	684.2	618.5	533.3	489.9
1934	453.9	443.7	451.3	460.3	475.7	489.7	487.2	425.8	353.9	279.7	200.8	134.1
1935	120.3	122.7	122.7	122.7	140.1	156.9	190.5	197.2	220.5	146.7	77.10	20.65
1936	4.72	1.18	3.54	20.06	49.07	71.10	158.2	337.0	414.4	383.7	362.0	328.8
1937	326.3	340.1	345.7	352.6	367.6	399.8	501.9	619.2	634.9	618.5	554.1	508.3
1938	401.9	509.6	521.7	529.4	541.1	587.9	671.7	791.5	835.7	824.4	774.8	750.0
1939	725.3	708.6	707.3	716.6	731.9	794.2	856.0	875.0	839.1	766.1	692.1	655.2
1940	638.2	630.3	633.6	641.4	655.2	678.3	684.2	643.4	577.5	488.5	403.0	381.5

Contents, in thousands of acre-feet, on last day of month, of Bear Lake at Lifton, near St. Charles, Idaho--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1941	375.8	365.7	365.1	369.5	376.4	408.0	425.2	434.7	425.2	390.3	352.6	315.1
1942	313.8	313.8	321.3	321.3	340.1	370.1	463.5	507.0	494.9	418.8	351.3	308.8
1943	294.5	284.6	280.3	281.5	295.2	356.3	475.7	567.1	628.3	592.4	545.0	492.9
1944	480.8	480.1	474.4	483.3	502.6	533.3	627.0	692.8	756.7	698.7	610.6	564.5
1945	557.4	562.6	561.9	570.4	584.6	610.0	648.0	696.7	758.0	737.2	698.7	678.3
1946	676.9	700.7	715.3	737.9	755.3	822.3	970.6	1,096	1,103	1,047	991.3	951.5
1947	944.6	937.8	953.5	928.2	957.6	1,026	1,077	1,175	1,252	1,213	1,148	1,099
1948	1,065	1,040	1,028	1,029	1,040	1,065	1,143	1,257	1,289	1,225	1,140	1,077
1949	1,035	1,006	978.9	960.4	951.5	987.8	1,035	1,113	1,145	1,109	1,026	967.2
1950	972.7	967.2	955.5	953.5	953.5	1,020	1,117	1,235	1,402	1,371	1,307	1,222

40. Bloomington Creek near Bloomington, Idaho

Location.--Lat 42°11', long 111°27', in SE¼ sec. 20, T. 14 S., R. 43 E., 2.1 miles west of Bloomington.

Drainage area.--22.1 sq mi.

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

Average discharge.--5 years (1942-47), 29.5 cfs.

Extremes.--1942-47: Maximum discharge, 184 cfs June 2, 1943 (gage height, 2.67 ft); minimum daily, 12 cfs many days in February and March 1945.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	‡13	‡13	‡13	‡12	‡12	‡16	48.8	96.7	91.9	53.3	34.3	27.4	‡36.0
1944	23.8	21.1	19.4	17.7	16.1	15.3	18.6	49.6	45.4	25.3	21.1	19.0	24.4
1945	16.7	15.7	14.8	14.4	12.5	12.2	16.5	48.1	58.7	32.1	24.2	19.9	23.9
1946	18.0	17.8	17.8	16.8	16.0	16.3	46.9	93.5	71.7	43.4	30.7	24.5	34.5
1947	21.8	19.2	17.9	16	14.7	15.4	23.0	81.9	53.6	32.1	26.2	21.6	28.7

‡ Not previously published; estimated on basis of 3 discharge measurements and records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	‡799	‡774	‡799	‡738	‡666	‡984	2,900	5,950	5,470	3,280	2,110	1,630	‡26,100
1944	1,460	1,260	1,190	1,090	928	940	1,110	3,050	2,700	1,560	1,300	1,130	17,720
1945	1,030	934	912	883	696	748	984	2,960	3,490	1,980	1,490	1,190	17,300
1946	1,100	1,060	1,100	1,030	889	1,000	2,790	5,750	4,270	2,670	1,890	1,460	25,010
1947	1,340	1,140	1,100	984	817	946	1,370	5,040	3,190	1,970	1,610	1,290	20,800

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	184	June 2, 1943	-	‡36.0	‡26,100	‡38.1	‡27,640
1944	1010	85	May 14, 1944	15	24.4	17,720	23.0	16,680
1945	1040	111	May 31, 1945	12	23.9	17,300	24.4	17,680
1946	1060	143	May 5, 1946	15	34.5	25,010	35.0	25,330
1947	1090	137	May 7, 1947	-	28.7	20,800	-	-

‡ Not previously published.

41. 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., 2,000 ft downstream from head (at dike) and 3 miles southeast of Paris.

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

Average discharge.--28 years (1922-50), 310 cfs.

Extremes.--1922-50: Maximum daily discharge, 1,870 cfs Aug. 8, 1924; minimum daily, 1 cfs May 1 to June 6, 1937.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection a Federal Power Commission project; those prior to Oct. 1, 1945, not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second, of Bear Lake outlet canal near Paris, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	612	572	514	405	214	25	337	493	262	-
1923	372	337	611	636	704	563	54.0	25	600	633	907	762	516
1924	78.3	168	933	996	519	253	61.6	383	1,060	1,170	1,430	1,040	674
1925	675	490	600	539	240	62.1	42.4	452	547	874	905	586	501
1926	284	387	276	480	243	73.2	12.7	396	890	846	1,090	1,040	502
1927	637	600	645	665	329	210	6.2	6	6	691	826	483	425
1928	127	51.0	30	24	24	24	24	24	82.0	721	992	780	242
1929	319	248	424	230	190	45	20	20	20	531	662	229	245
1930	113	30.2	30	76.1	60.7	45.1	5	87.2	442	993	627	384	241
1931	82.4	144	124	117	105	6.5	4.4	376	744	1,170	925	528	361
1932	90.8	14.9	12.4	13	13	13	13	13	13	203	742	186	111
1933	22.9	2.1	2	2	2	2	2	2	49.7	754	851	681	198
1934	42.2	10.7	10.4	10.7	5.5	3	50.4	909	766	803	847	444	325
1935	18.2	22.1	45.0	17.5	5	5.7	6	25.1	320	940	697	370	206
1936	22.9	10	7.3	3	3	3	3	3	201	598	437	276	131
1937	14.7	11.9	12.0	39.6	13	7.0	2	1	247	547	637	343	158
1938	12.9	12	11.7	4.3	3	3	3	3	239	373	474	289	120
1939	332	245	167	99.4	22.0	10	10	463	404	882	834	331	320
1940	21.3	6	10.0	10.1	6	6	6	566	773	1,039	834	209	293
1941	25.0	4	4	4	4	4	4	41.7	442	879	484	293	183
1942	144	127	14.3	184	20	20	7	7	530	822	838	417	263
1943	103	48.8	99.2	90.6	53.4	10	10	172	169	702	542	480	208
1944	48.4	29.8	163	31.7	4	4	4	25.5	25.8	630	880	361	186
1945	11.3	7.6	38.1	26.3	19.3	7.6	6.0	3.3	44.9	646	454	219	125
1946	37.5	12.0	11.1	10.2	9.3	8.5	7.2	55.7	404	770	855	442	220
1947	151	266	224	539	42.5	14.0	10.7	104	281	1,096	1,189	836	399
1948	443	491	391	272	155	63.0	10.8	59.9	581	1,091	1,022	787	449
1949	488	482	590	727	509	21.8	7.8	8.2	416	933	934	568	475
1950	252	334	321	550	469	24.1	10.3	10.0	946	1,412	1,595	1,371	608

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	37,600	31,700	31,600	24,100	13,200	1,490	20,700	30,300	15,600	-
1923	22,900	20,100	37,600	39,100	39,100	34,600	3,210	1,540	35,700	38,900	55,800	45,300	374,000
1924	4,800	10,000	57,400	61,300	29,900	15,600	3,660	23,500	63,100	72,000	88,500	61,600	491,000
1925	41,500	29,200	36,900	33,100	13,300	3,820	2,520	27,800	32,500	53,700	55,700	34,900	365,000
1926	17,500	23,000	17,000	29,500	13,500	4,490	774	24,300	53,000	52,000	67,000	61,900	364,000
1927	39,200	35,700	39,700	40,900	18,300	12,900	371	369	357	42,500	50,800	28,700	310,000
1928	7,810	3,030	1,840	1,480	1,380	1,480	1,430	1,480	4,880	44,300	61,000	46,400	177,000
1929	19,600	14,800	26,100	14,100	10,500	2,780	1,190	1,230	1,190	32,600	40,700	13,600	178,000
1930	6,920	1,800	1,840	4,680	3,370	2,770	298	5,360	26,300	61,000	38,600	22,900	176,000
1931	5,010	8,560	7,650	7,160	5,810	403	264	23,100	44,300	72,000	56,900	31,400	263,000
1932	5,590	887	760	799	748	799	774	799	774	12,500	45,600	11,100	81,100
1933	1,410	125	123	123	111	123	119	123	2,980	46,400	52,300	40,500	144,000
1934	2,580	655	615	676	333	184	2,980	55,900	45,600	49,400	52,100	26,400	237,000
1935	1,110	1,310	2,770	1,080	278	349	357	1,540	19,040	57,800	42,860	22,030	150,500
1936	1,410	595	448	184	173	184	179	184	11,950	36,740	26,860	16,430	95,340
1937	902	706	738	2,440	722	432	119	61	14,700	33,620	39,170	20,420	114,000
1938	793	714	722	264	167	184	179	184	14,240	22,910	29,170	17,220	86,750
1939	20,400	14,590	10,280	6,110	1,220	615	595	28,460	24,030	54,240	51,280	19,690	231,500
1940	1,310	357	617	623	345	369	357	34,820	45,980	63,910	51,260	12,440	212,400
1941	1,540	238	246	246	222	246	238	2,570	26,310	54,070	29,750	17,410	133,100
1942	8,860	7,540	879	11,300	1,110	1,230	417	430	31,510	50,550	51,500	24,830	190,200
1943	6,330	2,900	6,100	5,570	2,960	615	595	10,550	10,070	43,190	33,310	28,550	150,700
1944	2,980	1,780	9,990	1,950	230	246	238	1,560	1,540	38,760	54,130	21,480	134,900
1945	692	450	2,340	1,610	1,070	466	357	204	2,670	39,720	27,940	13,010	90,530
1946	2,310	714	680	627	518	524	426	3,430	24,060	47,360	52,580	26,320	159,500
1947	9,270	15,830	13,770	33,130	2,360	863	635	6,400	16,740	67,380	73,080	49,730	289,200
1948	27,210	29,230	24,020	16,750	8,910	3,880	643	3,690	34,560	67,090	62,840	46,830	325,700
1949	29,990	28,680	36,310	44,710	28,280	1,340	466	502	24,750	57,340	57,430	33,800	343,600
1950	15,500	19,870	19,750	33,820	26,070	1,480	611	615	56,280	86,820	98,100	81,590	440,500

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1922	(a)	-	-	-	-	-	396	287,000
1923	(a)	1,360	July 9, 1923	25	516	374,000	505	365,000
1924	(a)	1,870	Aug. 8, 1924	25	674	491,000	726	527,000
1925	(a)	1,180	July16,17,1925	20	501	365,000	435	315,000
1926	(a)	1,480	Aug. 5, 1926	10	502	364,000	581	421,000
1927	(a)	1,160	July 29, 1927	6	425	310,000	287	208,000
1928	(a)	1,140	Aug.2-4, 1928	-	242	177,000	309	224,000
1929	(a)	830	Oct. 4, 1928	-	245	178,000	178	128,000
1930	(a)	1,120	Aug. 3, 1930	5	241	176,000	258	186,000
1931	(a)	1,400	July29,30,1931	4	361	263,000	343	249,000
1932	(a)	934	Aug.16,17,1932	12	111	81,100	104	75,600
1933	(a)	1,010	Aug. 3, 1933	2	198	144,000	203	147,000
1934	(a)	1,060	May18,24,1934	3	325	237,000	330	239,000
1935	(a)	1,080	July8-10,1935	3	206	150,500	204	147,800

a Files of Utah Power & Light Co.

Yearly discharge, in cubic feet per second, of Bear Lake outlet canal near Paris, Idaho--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1936	(a)	734	July 10, 1936	-	131	95,340	131	95,230
1937	(a)	823	July 6, 1937	1	158	114,000	157	113,900
1938	(a)	690	(b)	3	120	86,750	179	129,800
1939	(a)	1,120	May 26, 1939	10	320	231,500	260	188,500
1940	(a)	1,340	July 11, 1940	6	293	212,400	292	212,100
1941	(a)	1,290	July 1, 1941	4	183	133,100	205	148,300
1942	(a)	1,120	July 15, 1942	7	263	190,200	260	188,200
1943	(a)	885	July 25, 1943	2	208	150,700	207	150,200
1944	(a)	1,100	July21,22,1944	4	186	134,900	170	123,600
1945	(a)	961	July 24, 1945	3	125	90,530	125	90,750
1946	1060	1,140	July 25, 1946	5	220	159,500	269	194,700
1947	1090	1,420	(c)	8	399	289,200	457	330,800
1948	1120	1,400	July14,15,1948	10	449	325,700	469	340,200
1949	1150	1,190	Aug.15,16,1949	7	475	343,600	420	303,700
1950	1180	1,800	Aug. 5, 1950	10	608	440,500	-	-

a Files of Utah Power & Light Co.
b July 23, Sept. 22, 1938.
c July 17, Aug. 16, 1947.

42. Paris Creek near Paris, Idaho

Location.--Lat 42°13', long 111°27', in NE¼ sec. 17, T. 14 S., R. 43 E., half a mile upstream from Utah Power & Light Co. powerplant and 3 miles southwest of Paris.

Drainage area.--18.6 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,270 ft (from topographic map).

Extremes.--1943-47: Maximum discharge, 118 cfs May 10, 1947 (gage height 2.31 ft); minimum not determined.

Remarks.--Two small diversions for irrigation above station. Paris power canal diverts about 1½ miles above station from right bank of creek in NE¼ sec. 13, T. 14 S., R. 42 E. Water returned to creek in NW¼SW¼ sec. 9, T. 14 S., R. 43 E., half a mile below station. One small canal diverts for irrigation from powerplant forebay. Records herein show flow past station except third table, which shows combined runoff of creek and diversion by power canal.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	7.29	2.85	2.15	2.01	2.00	1.66	4.76	25.5	16.5	3.79	3.08	2.63	6.20
1945	17.4	2.01	1.50	1.35	1.31	1.40	3.61	24.0	35.1	5.48	2.97	2.53	8.25
1946	2.07	2.43	2.79	2.89	2.65	3.17	20.4	63.2	33.4	9.35	4.24	8.67	13.0
1947	4.62	4.30	4.67	3.5	3.95	5.63	7.77	53.8	28.9	6.38	3.85	3.44	11.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	448	170	132	124	115	102	283	1,570	980	233	190	156	4,500
1945	1,070	120	92	83	73	86	215	1,480	2,090	337	183	151	5,980
1946	128	145	172	178	147	195	1,220	3,890	1,990	575	261	516	9,420
1947	284	256	287	215	219	346	462	3,310	1,720	392	236	205	7,930

Combined monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	1,760	1,490	1,360	1,180	1,020	979	1,130	3,610	3,450	2,080	1,720	1,370	21,140
1945	1,200	1,010	985	930	751	772	889	3,470	4,230	2,480	1,810	1,510	20,040
1946	1,330	1,220	1,250	1,080	855	939	2,680	6,180	4,300	2,880	2,180	1,810	26,720
1947	1,560	1,390	1,370	1,180	1,010	1,210	1,400	5,410	3,940	2,600	2,020	1,600	24,670

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1944	1010	78	May 17, 1944	1.2	6.20	4,500	6.93	5,040
1945	1040	78	June 1, 1945	-	8.25	5,980	7.09	5,140
1946	1060	103	May 7, 1946	1.9	13.0	9,420	13.5	9,800
1947	1090	118	May 10, 1947	-	11.0	7,930	-	-

43. Slight Canyon Creek near Paris, Idaho

Location.--Lat 42°14', long 111°27', in SE¼ sec. 5, T. 14 S., R. 43 E., 2½ miles west of Paris.

Drainage area.--6.81 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,250 ft (from topographic map).

Extremes.--1943-45: Maximum discharge, 48 cfs Apr. 16, 1943 (corrected; gage height, 2.06 ft); no flow during a large part of each year.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	5.07	1.58	0.37	0.19	0	-
1944	0	0	0	0	0	0	2.94	3.21	.91	.15	0	0	0.60
1945	0	0	0	0	0	0	3.32	5.33	2.16	.33	0	0	.93

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	312	94	23	12	0	-
1944	0	0	0	0	0	0	175	197	54	8.9	0	0	435
1945	0	0	0	0	0	0	198	328	129	20	0	0	675

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1010	48	Apr. 16, 1943†	0	-	-	-	-
1944	1010	13	May 9, 1944	0	0.60	435	0.60	435
1945	1040	19	May 1, 1945	0	.93	675	-	-

† Corrected.

44. Mill Creek above West Fork, near Liberty, Idaho

Location.--Lat 42°19', long 111°30', in about SE¼ sec. 2, T. 13 S., R. 42 E. (unsurveyed), a third of a mile upstream from West Fork and 3 miles west of Liberty.

Drainage area.--18.4 sq mi (revised).

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

Extremes.--1944-47: Maximum discharge, 80 cfs Apr. 25, 1946 (gage height, 2.41 ft); no flow during large part of each year.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	0	0	0	0	0	0	1.45	11.0	8.48	0.19	0	0	1.77
1946	0	0	0	0	0	.07	17.4	13.0	2.78	.10	0	0	2.77
1947	0	0	0	0	0	.37	6.59	12.8	2.67	.19	.10	.12	1.92

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	0	0	0	0	0	0	86	678	505	12	0	0	1,280
1946	0	0	0	0	0	4.4	1,030	798	165	6.1	0	0	2,000
1947	0	0	0	0	0	23	392	789	159	12	6.1	6.9	1,390

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1945	1040	56	May 31, 1945	0	1.77	1,280	1.77	1,280
1946	1060	80	Apr. 25, 1946	0	2.77	2,000	2.77	2,000
1947	1090	60	Apr. 15, 1947	0	1.92	1,390	-	-

45. Mill Creek near Liberty, Idaho

Location.--Lat 42°20', long 111°29', in SE¼ sec. 36, T. 12 S., R. 42 E., 2 miles northwest of Liberty and 3½ miles upstream from North Creek.

Drainage area.--27.2 sq mi (revised).

Gage.--Water-stage recorder. Altitude of gage is 6,290 ft (from topographic map).

Extremes.--1943-47: Maximum discharge, 150 cfs May 31, 1945, May 6, 1946; maximum gage height, 2.93 ft May 6, 1946; minimum discharge not determined, occurred during period of ice effect or no gage-height record.

Remarks.--One diversion for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	65.1	46.7	13.3	7.83	6.72	-
1944	6.30	6.16	5.20	5.0	4.26	4.07	8.84	27.9	21.7	8.81	6.71	4.64	9.15
1945	3.16	3.42	2.81	2.74	2.77	3.25	7.80	49.0	60.1	12.0	8.19	7.87	13.6
1946	7.68	6.41	4.87	4.39	3.76	4.88	57.1	77.5	29.5	9.24	7.73	5.63	18.3
1947	7.26	5.94	6.41	4	4.35	5.84	21.6	62.2	21.8	9.00	8.35	5.43	13.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	4,000	2,780	815	482	400	-
1944	387	367	320	307	245	250	526	1,720	1,290	541	413	276	6,640
1945	194	204	173	169	154	200	464	3,010	3,580	736	504	468	9,860
1946	472	381	300	270	209	300	3,400	4,770	1,760	568	475	335	13,240
1947	447	354	394	246	241	359	1,290	3,820	1,300	554	513	323	9,840

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	144	June 1, 1943	-	-	-	-	-
1944	1010	104	June 8, 1944	2.6	9.15	6,640	8.46	6,140
1945	1040	150	May 31, 1945	-	13.6	9,860	14.4	10,440
1946	1060	150	May 6, 1946	-	18.3	13,240	18.3	13,280
1947	1090	141	May 8, 1947	-	13.6	9,840	-	-

46. North Creek near Liberty, Idaho

Location.--Lat 42°24', long 111°31', in SE¼ sec. 11, T 12 S., R. 42 E., 3½ miles upstream from Emigration Creek and 6 miles northwest of Liberty.

Drainage area.--10.9 sq mi.

Gage.--Water-stage recorder. Elevation of gage is 6,850 ft (from topographic map).

Extremes.--1943-44: Maximum discharge, 50 cfs June 8, 1944 (gage height, 1.75 ft); minimum daily, 0.5 cfs Nov. 12, 13, 1944.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	24.5	17.0	5.18	2.25	1.50	-
1944	1.55	1.01	1.00	0.6	0.6	0.6	2.65	12.9	12.4	3.40	1.54	1.06	3.28

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	1,510	1,010	319	139	89	-
1944	95	60	61	37	35	37	157	791	738	209	94	63	2,380

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	47	May 4, 1943	-	-	-	-	-
1944	1010	50	June 8, 1944	0.5	3.28	2,380	-	-

47. Emigration Creek near Liberty, Idaho

Location.--Lat 42°22', long 111°29', in SW¼ sec. 19, T. 12 S., R. 43 E., half a mile upstream from mouth and 3½ miles northwest of Liberty.

Drainage area.--9.18 sq mi.

Gage.--Staff gage. Altitude of gage is 6,280 ft (from topographic map).

Extremes.--1943-44: Maximum discharge observed, 170 cfs June 8, 1944 (gage height, 3.30 ft), from rating curve extended above 40 cfs; minimum daily, 0.9 cfs Aug. 30, Sept. 2-27, Dec. 2, 3, 1943, Feb. 5, Sept. 4-17, 26-29, 1944.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	19.6	10.3	2.73	1.51	0.93	-
1944	1.56	1.33	1.09	1.10	1.05	1.23	10.2	9.88	8.92	2.06	1.09	1.06	3.37

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	1,210	612	168	93	56	-
1944	96	79	67	67	60	76	604	608	531	127	67	63	2,440

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	50	May 4, 1943	-	-	-	-	-
1944	1010	170	June 8, 1944	0.9	3.37	2,440	-	-

48. North Creek below Emigration Creek, near Liberty, Idaho

Location.--Lat 42°21', long 111°28', in NE¼ sec. 30, T. 12 S., R. 43 E., 1,000 ft downstream from Emigration Creek and 3 miles northwest of Liberty.

Drainage area.--26.5 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,150 ft (from topographic map). Prior to Oct. 23, 1946, staff gage at same site and datum.

Extremes.--1946-47: Maximum discharge, 109 cfs June 8, 1947 (gage height, 2.50 ft); minimum, 1.8 cfs Nov. 10, 1946, but may have been less during periods of ice effect or no gage-height record.

Remarks.--Two small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	-	-	-	-	-	-	-	‡67.5	20.1	5.86	3.15	2.48	-
1947	3.78	3.17	3.82	2.7	3.00	13.7	32.5	45.4	22.7	6.74	4.74	3.29	12.2

‡ Not previously published; partly estimated on basis of weather records and records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	-	-	-	-	-	-	-	‡4,150	1,200	360	194	148	-
1947	233	188	235	166	167	843	1,930	2,790	1,350	414	291	196	8,800

‡ Not previously published; see footnote to preceding table.

49. Bear River at Pescadero, Idaho

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

Drainage area.--3,680 sq mi, approximately.

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

Average discharge.--29 years (1921-50), 534 cfs.

Extremes.--1921-50: Maximum daily discharge, 3,840 cfs June 10, 1923; minimum daily, 23 cfs Mar. 14-17, 1936.

Remarks.--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; those prior to Oct. 1, 1945, not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	a630	a770	a1,020	911	858	861	1,800	2,820	2,450	1,010	954	688	a1,230
1923	731	752	1,010	1,040	1,070	901	892	1,700	3,120	1,590	1,400	1,240	1,290
1924	619	778	1,360	1,340	958	540	628	945	1,200	1,260	1,480	1,120	1,030
1925	836	657	769	732	518	311	395	702	808	1,050	995	815	718
1926	595	659	507	688	472	397	546	903	1,090	985	1,120	1,080	755
1927	769	745	776	820	549	491	340	393	782	1,170	1,020	699	714
1928	406	246	195	210	171	272	246	414	703	991	1,090	891	487
1929	520	524	590	437	372	264	409	402	635	940	837	491	537
1930	426	324	293	257	232	301	206	601	904	1,150	890	644	522
1931	314	343	295	289	281	143	119	434	753	1,127	926	554	467
1932	137	100	62	48	70	87	357	342	340	591	902	345	283
1933	136	80	65	60	60	86	247	259	385	909	886	734	327
1934	166	109	130	89	95	97	97	894	765	792	847	471	382
1935	44	58	86	53	43	62	155	199	471	964	703	388	270
1936	70	77	58	36	30	25	507	552	473	709	511	364	285
1937	221	115	151	163	136	87.3	351	290	453	672	687	423	314
1938	150	104	123	80.5	109	149	426	429	463	516	527	398	290
1939	428	356	290	184	84.5	226	190	553	554	955	859	417	428
1940	189	105	63.2	73.2	69.9	123	93.8	596	795	1,039	839	248	355
1941	126	142	120	95	67.2	110	165	283	661	982	532	347	304
1942	213	190	98.7	252	107	91.7	266	237	683	878	857	477	374
1943	198	215	180	152	121	153	575	494	609	876	753	656	416
1944	230	146	243	93.9	60.9	67.7	257	245	470	998	1,006	431	356
1945	82.6	68.8	87.3	87.5	102	102	251	191	440	778	675	317	324
1946	125	105	137	82.5	60	185	616	476	627	933	945	541	405
1947	250	398	337	596	142	226	215	441	666	1,236	1,256	904	559
1948	537	597	504	380	236	223	394	374	824	1,229	1,061	816	599
1949	550	585	684	793	600	199	269	255	673	1,033	972	596	601
1950	343	453	403	616	579	280	724	534	1,600	1,716	1,671	1,474	866

a Estimated by Geological Survey on basis of records for station at Alexander.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	a38,740	a45,820	a62,720	56,030	47,660	52,950	107,100	173,500	145,700	62,240	58,660	40,900	a892,000
1923	44,900	44,700	62,100	64,000	59,400	55,400	53,100	105,000	186,000	97,800	86,100	73,800	932,000
1924	42,990	46,270	83,880	82,390	55,130	33,180	37,380	58,100	71,390	77,370	90,960	66,390	745,400
1925	51,380	39,070	47,280	45,020	28,740	19,130	23,520	43,170	48,060	64,540	61,170	48,490	519,600
1926	36,560	39,200	31,200	42,300	26,190	24,430	32,500	55,520	64,740	60,540	69,020	64,460	546,700
1927	47,310	44,330	47,720	50,400	30,490	30,170	20,260	24,150	46,530	71,790	62,420	41,620	517,200
1928	25,000	14,600	12,000	12,900	9,840	16,700	14,600	25,500	41,800	60,900	67,000	53,000	353,800
1929	32,000	31,200	36,300	26,900	20,670	16,200	24,340	24,710	37,780	57,820	51,440	29,210	388,600
1930	26,210	19,300	18,010	15,810	12,870	18,510	12,260	36,940	53,760	70,910	54,740	38,320	377,600
1931	19,290	20,430	18,130	17,760	15,600	8,800	7,110	26,710	44,790	69,330	56,950	32,990	337,900
1932	8,440	5,950	3,990	2,980	4,020	5,370	21,260	21,050	20,230	36,310	55,480	20,540	205,600
1933	8,360	4,770	4,020	3,690	3,330	5,320	14,720	15,900	22,900	55,890	54,470	43,700	237,100
1934	10,220	6,470	8,010	5,450	5,280	5,960	5,760	54,950	45,540	48,680	52,090	28,050	276,500
1935	2,690	3,450	5,280	3,250	2,370	3,850	9,240	12,260	28,030	59,300	43,230	23,060	196,000
1936	4,310	4,570	3,570	2,240	1,720	1,560	30,180	33,960	28,170	43,610	31,440	21,690	207,000
1937	13,560	6,850	9,270	10,010	7,530	5,370	20,900	17,840	26,940	41,300	42,260	25,170	227,000
1938	9,220	6,200	7,540	4,950	6,040	9,140	25,350	26,390	27,560	31,710	32,390	23,660	210,200
1939	26,310	21,160	17,800	11,310	4,690	13,920	11,300	34,000	32,990	58,710	52,830	24,830	309,800
1940	11,590	6,220	3,890	4,500	4,020	7,580	5,580	36,620	47,290	63,920	51,600	14,760	257,600
1941	7,760	8,440	7,380	5,840	3,730	6,790	9,840	17,390	39,350	60,360	32,720	20,620	220,200
1942	13,110	11,290	6,070	15,470	5,920	5,640	15,850	14,590	40,630	54,000	52,710	28,400	263,700
1943	12,190	12,770	11,070	9,320	6,720	9,410	34,220	30,370	36,220	53,840	46,290	39,030	301,400
1944	14,140	8,690	14,920	5,770	3,500	4,160	15,280	15,090	27,960	61,380	61,860	25,620	258,400
1945	5,080	4,090	5,370	5,380	5,650	6,280	14,940	11,720	26,200	47,820	41,500	18,850	235,200
1946	7,700	6,260	8,450	5,070	3,330	11,380	36,680	29,270	37,300	57,390	58,080	32,190	293,100
1947	15,380	23,680	20,710	36,670	7,870	13,880	12,770	27,100	39,610	75,980	77,250	53,810	404,700
1948	33,010	35,550	30,980	23,360	13,560	13,720	23,430	23,030	49,010	75,590	65,220	48,550	435,000
1949	33,790	34,800	42,050	48,730	33,340	12,230	16,030	15,660	40,020	63,510	59,770	35,480	435,400
1950	21,110	26,940	24,760	37,880	32,130	17,190	43,060	32,820	95,190	105,500	102,800	87,730	627,100

a Estimated by Geological Survey on basis of records for station at Alexander.

Yearly discharge, in cubic feet per second, of Bear River at Pescadero, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	(a)	3,730	June 1, 2, 1922	-	1,230	892,000	1,240	896,400
1923	(a)	3,840	June 10, 1923	469	1,290	932,000	1,310	953,700
1924	(a)	1,800	Aug.11,12, 1924	322	1,030	745,400	978	710,000
1925	(a)	1,280	July 22, 1925	161	718	519,600	674	488,800
1926	(a)	1,410	Aug. 6, 1926	276	755	546,700	798	579,100
1927	(a)	1,390	July 30, 1927	160	714	517,200	593	429,400
1928	(a)	1,210	Aug. 3, 1928	110	487	353,800	552	401,700
1929	(a)	1,150	July 18, 1929	120	537	388,600	486	352,600
1930	(a)	1,260	July 10, 1930	100	522	377,600	511	372,000
1931	(a)	1,330	July 30, 1931	50	467	337,900	410	298,400
1932	(a)	1,050	(b)	45	283	205,600	280	204,400
1933	(a)	1,030	(c)	50	327	237,100	336	244,600
1934	(a)	1,060	(d)	45	382	276,500	361	263,200
1935	(a)	1,120	July 9, 1935	40	270	196,000	270	197,000
1936	(a)	1,300	Apr. 20, 1936	23	285	207,000	308	224,200
1937	(a)	920	July 6, 1937	65	314	227,000	303	220,300
1938	(a)	760	Sept.23, 1938	55	290	210,200	348	252,500
1939	(a)	1,160	May 31, 1939	55	428	309,800	365	266,300
1940	(a)	1,320	July11,12,1940	45	355	257,600	355	259,400
1941	(a)	1,390	July 2, 1941	40	304	220,200	312	227,100
1942	(a)	1,170	July 16, 1942	60	374	263,700	370	269,200
1943	(a)	1,020	June 30, 1943	85	416	301,400	417	303,200
1944	(a)	1,250	July 22, 1944	55	356	258,400	322	235,200
1945	(a)	1,060	July 31, 1945	50	324	235,200	277	200,300
1946	1060	1,210	July 26, 1946	50	405	293,100	456	330,500
1947	1090	e1,500	July 26, 1947	80	559	404,700	614	444,500
1948	1120	1,500	July15,16,1948	95	599	435,000	615	448,100
1949	1150	e1,260	July 13, 1949	95	601	435,400	549	397,600
1950	1180	e2,640	June 12, 1950	112	866	627,100	-	-

a Files of Utah Power & Light Co.
b July 31, Aug. 17, 18, 1932.
c July 13, 14, Aug. 3, 4, 1933.
d May 18-20, 22, 1934.
e Momentary maximum.

50. Georgetown Creek near Georgetown, Idaho

Location.--Lat 42°30', long 111°19', in NE¼ sec. 4, T. 11 S., R. 44 E., 150 ft downstream from Little Right Hand Fork and 3 miles northeast of Georgetown.

Drainage area.--22.2 sq mi.

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 (1911-12, 1913-14, 1939-50), 31.4 cfs.

Extremes.--1911-14, 1939-50: Maximum discharge observed, 162 cfs June 8, 1912, caused by failure of power dam gates; minimum daily, 18 cfs on many days February to May 1941.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	‡26	28	26.9	26.2	27.8	26.3	26.5	45.5	96.3	48.1	44.7	39.4	‡38.5
1913	36	35	32	30	30	28	-	-	-	-	32	31	-
1914	31.4	34.0	31.0	30.0	30.0	28.7	37.5	81.7	66.4	50.3	47.3	41.6	42.6
1940	‡25	‡23	22.1	21.4	20.3	19.5	20.9	28.7	27.8	24.7	24.0	24.0	‡23.5
1941	23.5	21.7	20.0	19.2	18.6	18.2	18.1	25.9	29.5	27.6	26.7	25.5	22.9
1942	24.3	23.5	22.0	21.2	20.6	20.0	21.9	27.1	32.3	27.0	25.8	24.4	24.2
1943	23.9	22.6	21.5	20.9	20.0	19.7	26.9	42.8	47.9	41.9	35.0	34.0	29.8
1944	32.6	30.9	28.8	25.4	22.9	22.4	23.2	29.2	38.1	34.5	32.2	31.5	29.3
1945	27.8	25.3	25.1	25.5	23.8	23.7	22.0	28.1	45.7	38.0	35.8	32.9	29.5
1946	30.9	30.2	28.4	28.4	25.4	25.0	30.0	48.5	43.6	39.0	36.4	34.9	33.4
1947	33.8	32.1	30.2	27.7	25.9	25.8	25.7	36.3	38.2	35.0	32.9	31.8	31.3
1948	31.6	31.7	29.3	27.3	25.6	25.0	26.1	49.5	48.5	39.0	36.7	34.7	33.8
1949	32.4	32.7	28.5	26.5	26.0	25.8	25.2	32.1	37.3	34.2	33.2	31.9	30.5
1950	31.7	28.3	26.4	25.2	25.1	25.4	30.3	56.9	76.6	53.6	47.4	42.1	39.1

‡ Not previously published; estimated or partly estimated on basis of one discharge measurement and flow characteristics.

Monthly and yearly runoff, in acre-feet, of Georgetown Creek near Georgetown, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	‡1,600	1,670	1,650	1,610	1,600	1,620	1,580	2,800	5,730	2,960	2,750	2,340	‡27,900
1913	2,210	2,090	1,980	1,840	1,670	1,720	-	-	-	-	1,970	1,840	-
1914	1,930	2,020	1,910	1,840	1,670	1,760	2,230	5,020	3,950	3,090	2,910	2,480	30,800
1940	‡1,540	‡1,370	1,360	1,310	1,170	1,200	1,240	1,770	1,650	1,520	1,480	1,430	‡17,040
1941	1,440	1,290	1,230	1,180	1,030	1,120	1,080	1,590	1,760	1,700	1,640	1,520	16,580
1942	1,490	1,400	1,350	1,310	1,140	1,230	1,300	1,660	1,920	1,660	1,590	1,450	17,500
1943	1,470	1,340	1,320	1,290	1,110	1,210	1,600	2,630	2,850	2,570	2,150	2,020	21,560
1944	2,010	1,840	1,770	1,560	1,320	1,380	1,380	1,790	2,270	2,120	1,980	1,870	21,290
1945	1,710	1,510	1,540	1,570	1,320	1,460	1,310	1,730	2,720	2,340	2,200	1,960	21,370
1946	1,900	1,800	1,750	1,740	1,410	1,540	1,790	2,980	2,590	2,400	2,240	2,080	24,220
1947	2,080	1,910	1,860	1,700	1,440	1,590	1,530	2,230	2,270	2,150	2,020	1,890	22,670
1948	1,940	1,880	1,800	1,680	1,470	1,540	1,550	3,040	2,890	2,400	2,260	2,060	24,510
1949	1,990	1,950	1,750	1,630	1,440	1,590	1,500	1,980	2,220	2,100	2,040	1,900	22,090
1950	1,950	1,690	1,620	1,550	1,400	1,560	1,800	3,500	4,560	3,300	2,920	2,510	28,360

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	a162	June 8, 1912	-	‡38.5	‡27,900	40.3	29,270
1913	360	-	-	-	-	-	-	-
1914	390	a100	May 21, 1914	-	42.6	30,800	-	-
1940	900	38	June 30, 1940	19	‡23.5	‡17,040	23.1	16,730
1941	930	43	Aug. 12, 1941	18	22.9	16,580	23.3	16,860
1942	960	34	(b)	19	24.2	17,500	24.0	17,390
1943	980	51	June 15, 1943	19	29.8	21,560	31.8	23,050
1944	1010	40	June16-22,1944	22	29.3	21,290	28.1	20,430
1945	1040	51	June 15, 1945	21	29.5	21,370	30.4	22,060
1946	1060	55	Apr. 30, 1946	24	33.4	24,220	34.0	24,620
1947	1090	41	May 11, 1947	25	31.3	22,670	31.0	22,440
1948	1120	88	May 20, 1948	25	33.8	24,510	33.9	24,580
1949	1150	44	June 6, 1949	25	30.5	22,090	29.9	21,660
1950	1180	110	June 2, 1950	24	39.1	28,360	-	-

‡ Not previously published.
a Maximum observed.
b May 28, June 1-15, 1942.

51. Skinner Creek at Nounan, Idaho

Location.--Lat 42°29', long 111°28', in SW¼ sec. 8, T. 11 S., R. 43 E., 330 ft downstream from point where flow through Minnig Mill is returned to creek and three-quarters of a mile west of Nounan Post Office.

Drainage area.--5.41 sq mi (revised).

Gage.--Staff gage. Altitude of gage is 6,100 ft (from topographic map)

Average discharge.--6 years (1939-45), 4.12 cfs.

Extremes.--1939-45: Maximum discharge observed, 60 cfs June 8, 1944; no flow July 19, 20, 1942.

Remarks.--One small diversion for irrigation above station. Minnig Mill is operated by water diverted a third of a mile upstream and returned to creek above station. Possibly some regulation at low stages but observations were made when none was effective. There are facilities to permit a small diversion from Co-op Creek to Skinner Creek about 2½ miles above station to augment low-water supply for Minnig Mill. None was so diverted during period of record.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡1.6	1.77	1.80	1.80	1.93	2.40	4.74	11.1	4.99	1.69	1.14	1.34	‡3.03
1941	1.47	1.62	1.41	1.46	1.36	1.66	3.15	15.4	7.10	2.61	1.82	1.64	3.41
1942	1.67	1.67	1.52	1.51	1.52	1.84	8.03	11.4	8.94	2.66	1.39	1.38	3.63
1943	1.35	1.71	1.68	1.45	1.62	2.15	17.0	23.9	19.6	5.56	2.24	1.47	6.66
1944	2.02	2.25	2.14	1.96	1.66	1.70	3.61	10.9	11.0	2.52	1.35	1.13	3.52
1945	1.46	1.50	1.27	‡1.4	‡1.4	‡1.6	*2.70	14.6	18.2	5.05	2.01	2.35	‡4.47

* Revised; differs from figure published in reports on Bear River Hydrometric Data.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet, of Skinner Creek at Nounan, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡98	106	111	111	111	148	282	684	297	104	70	80	‡2,200
1941	90	96	86	90	76	102	188	948	422	160	112	98	2,470
1942	103	99	93	93	84	113	478	700	532	164	85	82	2,630
1943	83	102	103	89	90	132	1,010	1,470	1,170	342	137	88	4,820
1944	124	134	131	120	95	104	215	671	652	155	83	67	2,550
1945	90	89	78	‡86	‡78	‡98	*161	896	1,080	310	124	140	‡3,230

* Revised; differs from figure published in reports on Bear River Hydrometric Data.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	900	20	May 13, 1940	0.4	‡3.03	‡2,200	2.97	2,160
1941	930	32	May12,13,1941	.6	3.41	2,470	3.44	2,490
1942	960	20	Apr. 21, 1942	0	3.63	2,630	3.62	2,620
1943	980	50	May 4, 1943	.3	6.66	4,820	6.80	4,920
1944	1010	60	June 8, 1944	.2	3.52	2,550	3.33	2,420
1945	a,1040	‡35	June 9, 1945	-	‡4.47	‡3,230	-	-

‡ Not previously published.
a Reports on Bear River Hydrometric Data (U.S. Geological Survey open-file report).
Note.--Figure of daily discharge for Apr. 14, 1945, published in reports on Bear River Hydrometric Data, has been revised to 1.7 cfs.

52. Stauffer Creek near Nounan, Idaho

Location.--Lat 42°28', long 111°25', in N½ sec. 15, T. 11 S., R. 43 E., 0.6 mile upstream from mouth, 2 miles east of Nounan Post Office, and 2½ miles west of Georgetown.

Gage.--Water-stage recorder. Altitude of gage is 5,900 ft (from topographic map). Prior to Dec. 11, 1942, at site 100 ft downstream at different datum.

Average discharge.--5 years (1939-44), 11.9 cfs.

Extremes.--1939-44: Maximum discharge, 186 cfs May 28, 1941 (gage height, 3.85 ft), from rating curve extended above 50 cfs; no flow July 13, 1941.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡2.7	‡3.0	3.00	3.00	4.84	21.8	18.5	22.4	6.66	2.21	1.03	1.32	‡7.56
1941	2.43	3.49	3.50	3.50	3.50	17.6	26.4	37.7	18.5	2.66	2.19	2.32	10.3
1942	4.31	4.95	5.79	5.50	5.50	6.27	45.2	30.7	15.1	1.32	.91	1.45	10.6
1943	2.53	3.81	5.7	6.4	7.0	9.8	86.8	66.5	49.2	6.69	3.22	2.94	20.6
1944	4.11	4.45	4.0	4.0	4.5	5.0	28.1	32.0	35.7	2.84	1.44	1.95	10.6
1945	2.55	3.02	2.52	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	‡166	‡179	184	184	278	1,340	1,100	1,380	396	136	63	79	‡5,480
1941	149	208	215	215	194	1,080	1,570	2,320	1,100	163	135	138	7,490
1942	265	294	356	338	305	385	2,690	1,890	897	81	56	86	7,640
1943	156	227	353	391	389	605	5,160	4,090	2,930	412	198	175	15,090
1944	252	265	246	246	259	307	1,670	1,970	2,130	174	88	116	7,720
1945	156	180	155	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	900	150	May 27, 1940	0.2	‡7.56	‡5,480	7.62	5,530
1941	930	186	May 28, 1941	0	10.3	7,490	10.8	7,830
1942	960	144	Apr. 6, 1942	.2	10.6	7,640	10.3	7,460
1943	980	133	May 5, 1943	1.8	20.6	15,090	20.9	15,110
1944	1010	113	Apr. 4, 1944	.3	10.6	7,720	10.3	7,450
1945	1040	-	-	-	-	-	-	-

‡ Not previously published.

53. Soda Creek at Lau ranch, near Soda Springs, Idaho

Location.--Lat 42°43'45", long 111°36'55", in SE¼NW¼ sec. 13 (revised), T. 8 S., R. 41 E., 100 ft east of Lau ranchhouse and 5 miles (revised) north of Soda Springs.

Drainage area.--About 49 sq mi.

Gage.--Staff gage. Altitude of gage is 5,980 ft (from topographic map).

Extremes.--1923-26: Maximum discharge observed, 172 cfs Apr. 14, 1924 (gage height, 2.88 ft), from rating curve extended above 30 cfs; minimum, about 0.5 cfs Jan. 1-31, Dec. 18-31, 1924.

Remarks.--Flow regulated by outlet dam of Fivemile Meadows about 400 ft above gage. Schmidt ditch, 150 ft above station, records for which are not published separately in this report, diverted about 100 acre-ft each summer.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	-	-	-	-	-	-	38.4	17.2	12.1	9.85	10.4	9.62	-
1924	9.76	8.45	5.80	0.50	2.62	2.33	45.5	11.4	8.00	7.93	5.52	3.07	9.20
1925	2.34	2.02	1.21	1.00	1.62	14.3	12.8	6.87	7.18	8.07	4.77	4.34	5.57
1926	3.87	4.04	4.70	1.44	2.22	18.1	15.2	6.83	7.29	4.21	3.06	1.71	6.08
1927	1.73	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	-	-	-	-	-	-	2,280	1,060	720	606	640	572	-
1924	600	503	357	31	151	143	2,710	701	476	488	339	183	6,680
1925	144	120	74.4	61.5	90.0	879	762	422	427	496	293	258	4,030
1926	238	240	289	88.5	123	1,110	904	420	434	259	188	102	4,400
1927	106	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1923	570	160	Apr. 18, 1923	-	-	-	-	-
1924	590	172	Apr. 14, 1924	-	9.20	6,680	7.66	5,560
1925	610	108	Mar. 30, 1925	-	5.57	4,030	6.16	4,460
1926	630	104	Mar. 19, 1926	-	6.08	4,400	-	-

54. Soda Creek near Soda Springs, Idaho

Location.--Lat 42°42'35", long 111°37'15", SW¼SW¼ sec. 24, T. 8 S., R. 41 E., at George Schmidt Ranch, one-eighth mile below unnamed tributary and 4 miles (revised) north of Soda Springs.

Drainage area.--About 52 sq mi.

Gage.--Staff gage. Altitude of gage is 5,960 ft (from topographic map). Prior to Aug. 1, 1913, at site 30 ft upstream at datum about 3.10 ft lower. Aug. 1, 1913, to June 28, 1921, at datum 3.30 ft lower.

Average discharge.--13 years (1913-26), 61.5 cfs.

Extremes.--1913-26, 1928, 1929: Maximum discharge observed, 324 cfs Apr. 6, 1913 (gage height, 5.30 ft, site and datum then in use); minimum observed, 38 cfs Jan. 8, 12-15, 1919.

Remarks.--Flow regulated by outlet of Fivemile Meadows. One small diversion for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	‡87.1	180	109	109	97.7	85.2	79.8	-
1914	81.8	76.2	60.6	56.1	51.4	53.4	123	98.5	98.5	88.3	82.1	87.6	79.9
1915	79.8	68.7	60.2	59.0	58.0	65.5	65.1	61.8	52.8	47.4	46.7	46.4	59.3
1916	44.7	44.9	44.7	40.7	40.8	56.0	55.1	55.3	60.0	51.5	48.4	47.7	49.2
1917	46.8	46.8	46.2	46.0	47.0	45.9	72.0	77.1	68.6	62.8	59.4	60.0	56.6
1918	57.6	55.8	55.0	55.1	53.4	69.8	71.0	61.6	62.9	59.8	53.2	50.1	58.8
1919	57.3	61.0	54.0	41.5	42.0	48.2	106	73.9	60.9	55.8	51.3	51.3	58.6
1920	55.5	62.5	54.1	49.3	47.6	48.3	84.5	85.0	71.2	72.6	67.5	69.3	64.0
1921	62.6	59.2	53.9	49.2	49.4	68.6	92.4	75.4	70.8	69.1	71.2	75.9	66.5
1922	69.5	70.3	64.8	70.9	61.6	59.2	97.9	90.2	70.3	76.5	78.3	65.5	73.0
1923	62.4	63.1	64.9	70.6	69.4	70.7	101	74.5	64.3	60.0	58.1	60.8	68.3
1924	61.4	54.2	48.5	42.8	46.5	48.9	108	68.2	61.5	59.8	53.8	50.7	58.7
1925	50.8	50.9	47.9	46.4	49.6	61.3	68.9	61.1	58.0	54.5	49.1	51.1	54.1
1926	51.5	49.5	52.2	49.5	49.6	70.3	66.8	53.0	50.5	48.1	47.4	44.0	52.7
1927	45.1	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	47.5	54.9	45.8	51.0	-
1929	-	-	-	-	-	-	-	-	62.0	69.3	68.2	75.3	-

‡ Not previously published; partly estimated on basis of flow characteristics.

Monthly and yearly runoff, in acre-feet, of Soda Creek near Soda Springs, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	$5,360	10,700	6,700	6,490	6,010	5,240	4,750	-
1914	5,030	4,530	3,730	3,450	2,850	3,280	7,320	6,060	5,860	5,430	5,050	5,210	57,800
1915	4,910	4,090	3,700	3,630	3,220	4,030	3,870	3,800	3,140	2,910	2,870	2,760	42,900
1916	2,750	2,670	2,750	2,500	2,350	3,440	3,280	3,400	3,570	3,170	2,980	2,840	35,700
1917	2,880	2,780	2,840	2,930	2,610	2,820	4,280	4,740	4,080	3,860	3,650	3,570	40,900
1918	3,540	3,320	3,380	3,390	2,970	4,290	4,220	3,790	3,740	3,680	3,270	2,980	42,600
1919	3,520	3,630	3,320	2,550	2,330	2,960	6,310	4,540	3,620	3,430	3,150	3,050	42,400
1920	3,410	3.720	3,330	3,030	2,740	2,970	5,030	5,230	4,240	4,460	4,150	4,120	46,400
1921	3,850	3,520	3,310	3,030	2,740	4,220	5,500	4,640	4,210	4,250	4,380	4,520	48,200
1922	4,270	4,180	3,980	4,360	3,420	3,640	5,830	5,550	4,180	4,700	4,810	3,900	52,800
1923	3,840	3,750	3,990	4,340	3,850	4,350	6,010	4,580	3,830	3,690	3,570	3,620	49,400
1924	3,780	3,230	2,980	2,630	2,670	3,010	6,430	4,190	3,660	3,680	3,310	3,020	42,600
1925	3,120	3,030	2,950	2,850	2,750	3,770	4,100	3,760	3,450	3,350	3,020	3,040	39,200
1926	3,170	2,950	3,210	3,040	2,750	4,320	3,970	3,260	3,000	2,960	2,910	2,620	38,200
1927	2,770	-	-	-	-	-	-	-	-	-	-	-	-
1928	-	-	-	-	-	-	-	-	2,830	3,380	2,820	3,030	-
1929	-	-	-	-	-	-	-	-	3,690	4,260	4,190	4,480	-

$ Not previously published; partly estimated on basis of flow characteristics.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	324	Apr. 6, 1913	-	-	-	-	-
1914	390	241	Apr.12-13,1914	48	79.9	57,800	79.0	57,200
1915	410	108	Mar. 28, 1915	45	59.3	42,900	53.0	38,400
1916	440	95	Mar. 24, 1916	38	49.2	35,700	49.6	36,000
1917	460	193	Apr. 30, 1917	44	56.6	40,900	59.0	42,700
1918	480	150	Mar.29,31, 1918	49	58.8	42,600	59.1	42,800
1919	510	231	Apr.1-2, 1919	38	58.6	42,400	58.6	42,400
1920	510	200	Apr. 13, 1920	46	64.0	46,400	64.3	46,600
1921	530	159	Apr. 4, 1921	45	66.5	48,200	68.9	49,900
1922	550	229	Apr.28,29,1922	53	73.0	52,800	71.8	52,000
1923	570	217	Apr. 18, 1923	55	68.3	49,400	66.0	47,800
1924	590	241	Apr.13,14,1924	40	58.7	42,600	57.4	41,700
1925	610	155	Mar. 30, 1925	45	54.1	39,200	54.4	39,400
1926	630	140	Mar. 19, 1926	43	52.7	38,200	-	-
1927	630	-	-	-	-	-	-	-
1928	670	-	-	-	-	-	-	-
1929	690	-	-	-	-	-	-	-

55. Bear River at Alexander, Idaho

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

Gage.--Water-stage recorder. Altitude of gage is 5,650 ft (from topographic map). Prior to Jan. 1, 1912, staff gage at site 400 ft upstream at different datum. Jan. 1, 1912 to July 14, 1925, staff gage or water-stage recorder at site 600 ft downstream at different datum.

Average discharge.--39 years (1911-50), 778 cfs.

Extremes.--1911-50: Maximum discharge observed (revised), 4,740 cfs Mar. 31, 1911; maximum gage height, 15.95 ft Dec. 11, 1919, site and datum then in use; minimum discharge, 28 cfs at times when reservoir gates are closed.

Remarks.--Many diversions above station for irrigation. Flow regulated by Bear Lake 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; those for October 1916 to April 1919 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	2,320	2,000	1,800	851	564	589	-
1912	642	442	500	504	497	471	1,460	1,920	3,320	1,950	1,260	861	1,150
1913	918	933	735	565	700	762	2,700	2,000	1,070	1,180	802	879	1,100
1914	837	799	604	650	685	997	2,410	3,470	3,140	1,440	979	941	1,410
1915	945	803	870	850	856	892	837	573	675	887	710	583	790
1916	471	443	550	850	647	1,010	878	915	1,160	1,090	1,040	974	838
1917	661	603	825	1,020	1,000	977	1,260	2,150	4,070	2,320	1,530	1,250	1,470
1918	1,100	1,040	1,030	977	832	881	762	847	1,060	1,270	1,160	1,110	1,010
1919	866	906	1,000	1,000	842	811	579	557	848	1,150	1,040	955	881
1920	698	596	871	962	797	672	822	1,160	1,240	1,230	1,120	897	923

Monthly and yearly mean discharge, in cubic feet per second, of Bear River at Alexander, Idaho--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	678	631	844	819	716	713	838	1,230	3,180	1,170	‡1,050	‡849	‡1,060
1922	784	976	1,160	1,130	1,060	1,100	2,300	3,600	2,830	1,110	1,110	920	1,510
1923	925	958	1,180	1,170	1,200	1,150	1,370	2,110	3,300	1,690	1,480	1,410	1,490
1924	919	972	1,520	1,500	1,120	722	1,080	1,140	1,260	1,210	1,350	1,200	1,170
1925	894	827	895	906	721	547	757	861	952	1,100	1,090	991	880
1926	788	800	682	746	705	636	805	1,060	1,100	1,110	1,150	1,170	896
1927	910	888	911	958	771	739	669	732	951	1,220	1,080	864	892
1928	496	431	387	356	367	511	733	518	822	1,150	1,050	1,050	656
1929	613	682	653	600	524	404	903	625	847	982	935	583	697
1930	616	454	452	358	417	462	456	742	878	1,110	845	699	626
1931	446	411	414	399	394	341	334	462	751	1,130	885	551	545
1932	189	199	160	177	204	205	662	574	507	660	805	409	396
1933	245	175	184	157	200	187	481	386	525	989	1,010	811	448
1934	239	210	229	207	234	247	250	880	795	865	915	553	471
1935	121	191	195	145	191	213	390	366	570	1,010	713	418	378
1936	150	175	159	146	209	219	852	934	607	748	538	406	429
1937	304	267	278	297	268	348	427	526	568	707	698	450	430
1938	251	213	258	191	294	423	672	776	602	578	616	568	454
1939	474	509	434	308	277	458	396	715	584	928	839	487	537
1940	227	201	218	185	240	426	197	584	820	1,021	805	325	439
1941	206	273	238	217	210	379	368	394	734	992	569	374	414
1942	287	286	254	366	271	275	549	423	694	906	878	572	481
1943	285	342	308	274	325	279	993	794	832	926	804	713	573
1944	335	310	403	228	254	295	506	468	598	1,031	973	484	492
1945	169	212	213	190	249	343	514	438	735	873	766	469	432
1946	281	302	311	250	292	438	1,020	786	778	957	992	681	592
1947	450	610	594	717	338	543	462	743	818	1,292	1,340	1,050	750
1948	713	754	692	494	395	398	718	744	970	1,227	1,148	925	766
1949	788	686	823	934	809	483	630	472	826	1,047	1,047	770	777
1950	598	533	553	769	772	558	1,169	1,077	1,976	1,893	1,777	1,587	1,106

‡ Not previously published; partly estimated on basis of records for station near Weston.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	138,000	123,000	107,000	52,300	34,700	35,000	-
1912	39,500	26,300	30,700	31,000	28,600	29,000	86,900	118,000	198,000	120,000	77,500	51,200	837,000
1913	56,400	55,500	45,200	34,700	38,900	46,900	161,000	123,000	63,700	72,600	49,300	52,300	800,000
1914	51,500	47,500	37,100	40,000	38,000	61,300	143,000	213,000	187,000	88,500	60,200	56,000	1,020,000
1915	58,100	47,800	53,500	52,300	47,500	54,800	49,800	35,200	40,200	54,500	43,700	34,700	572,000
1916	29,000	26,400	33,800	52,300	37,200	62,100	52,200	56,300	69,000	67,000	64,000	58,000	607,000
1917	40,700	35,900	50,700	62,700	55,600	60,100	75,000	132,200	242,100	142,600	94,400	74,300	1,070,000
1918	67,700	62,100	63,300	60,100	46,200	54,200	45,400	52,100	63,300	77,900	71,100	65,900	729,000
1919	53,200	53,900	61,500	61,700	46,800	49,900	34,500	34,200	50,500	70,700	64,000	56,800	638,000
1920	42,900	35,500	53,600	59,200	45,800	41,300	48,900	71,300	73,800	75,600	68,900	53,400	670,000
1921	41,700	37,500	51,900	50,400	39,800	43,800	49,900	75,600	189,000	71,900	‡64,500	‡50,500	‡766,000
1922	48,200	58,100	71,300	69,500	58,900	67,600	137,000	221,000	168,000	68,200	68,200	54,700	1,090,000
1923	56,900	57,000	72,600	71,900	66,600	70,700	81,500	130,000	196,000	104,000	91,000	‡84,000	1,080,000
1924	56,500	57,800	93,500	92,200	64,400	44,400	64,300	70,100	75,000	74,400	83,000	71,400	847,000
1925	55,000	49,200	55,000	55,700	40,000	33,600	45,000	52,900	56,600	67,600	67,000	59,000	637,000
1926	48,500	47,600	41,900	45,900	39,200	39,100	47,900	65,200	65,500	68,200	70,700	69,600	649,000
1927	56,000	52,800	56,000	58,900	42,800	45,400	39,800	45,000	56,600	75,000	66,400	51,400	646,000
1928	30,500	25,600	23,800	21,900	21,100	31,400	42,400	31,900	48,900	70,700	64,600	62,500	475,000
1929	37,700	40,600	40,200	36,900	29,100	24,800	53,700	38,400	50,400	60,400	57,500	34,700	504,000
1930	37,900	27,000	27,800	22,000	23,200	28,200	27,100	45,600	†52,300	†68,500	†51,900	41,600	453,000
1931	27,400	24,500	†25,400	†24,600	21,900	21,000	19,900	28,400	44,700	†69,300	54,400	32,800	394,000
1932	11,600	11,400	9,840	10,900	11,700	12,600	39,400	35,300	30,200	40,600	49,500	24,300	287,000
1933	15,100	10,400	11,300	9,650	11,100	11,500	28,600	23,700	31,200	60,800	62,100	48,300	324,000
1934	14,710	12,500	14,110	12,760	13,000	15,210	14,850	54,120	47,300	53,190	56,230	32,910	340,900
1935	7,460	11,340	11,990	8,900	10,620	13,120	23,220	22,480	33,890	61,980	43,810	24,860	273,700
1936	9,220	10,420	9,800	9,000	12,000	13,480	50,700	57,440	36,140	46,000	33,050	24,170	311,400
1937	18,700	15,880	17,080	18,260	14,890	21,410	25,410	32,340	33,810	43,500	42,920	26,750	311,000
1938	15,420	12,660	15,860	11,720	16,340	26,040	39,980	47,720	35,840	35,540	37,880	33,780	328,800
1939	29,160	30,270	26,660	18,960	15,360	28,140	23,580	43,930	34,730	57,060	51,570	28,980	388,400
1940	13,960	11,960	13,430	11,350	13,780	26,190	11,740	35,880	48,790	62,780	49,520	19,320	318,700
1941	12,670	16,260	14,630	13,320	11,640	23,330	21,870	24,210	43,680	60,970	34,980	22,230	299,800
1942	17,650	17,040	15,590	22,490	15,040	16,920	32,670	25,990	41,320	55,680	53,960	34,010	348,400
1943	17,550	20,370	18,910	16,860	18,060	17,170	59,110	48,840	49,520	56,950	49,410	42,440	415,200
1944	20,580	18,450	24,770	14,010	14,640	18,170	30,110	28,770	35,580	63,420	59,820	28,780	357,100
1945	10,400	12,590	13,110	11,710	13,810	21,070	30,580	26,950	43,750	53,660	47,110	27,890	312,600
1946	17,280	17,990	19,110	15,370	16,210	26,910	60,690	48,360	46,260	58,820	60,970	40,530	428,500
1947	27,670	36,280	36,510	44,100	18,800	33,360	27,480	45,700	48,690	79,430	82,390	62,460	542,900
1948	43,830	44,870	42,540	30,380	22,730	24,500	42,720	45,730	57,730	75,430	70,580	55,010	556,000
1949	48,430	40,830	50,600	57,450	44,910	29,700	37,500	29,010	49,140	64,390	64,380	45,840	562,200
1950	36,780	31,730	34,000	47,300	42,850	34,320	69,550	66,200	117,600	116,400	109,300	94,450	800,500

† Corrected.
‡ Not previously published; partly estimated on basis of records for station near Weston.

Yearly discharge, in cubic feet per second, of Bear River at Alexander, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	*4,740	Mar. 31, 1911*	-	-	-	-	-
1912	330	3,900	June17-20, 1912	-	1,150	837,000	1,240	897,000
1913	360	-	-	-	1,100	800,000	1,080	778,000
1914	390	3,940	May25-28,1914	-	1,410	1,020,000	1,450	1,050,000
1915	410	1,150	Apr. 24, 1915	415	790	572,000	693	502,000
1916	440	b2,170	Mar. 25, 1916	-	838	607,000	888	645,000
1917	(a)	b4,580	June 26,27,1917	480	1,470	1,070,000	1,560	1,130,000
1918	(a)	b1,400	July 10, 1918	615	1,010	729,000	973	705,000
1919	a,510	1,280	July 20,21,1919	-	881	638,000	830	601,000
1920	510	b1,520	May 24, 1920	-	923	670,000	922	669,000
1921	530	b3,870	June 13, 1921	536	‡1,060	‡766,000	‡1,120	‡813,000
1922	550	b4,590	May 9, 1922	-	1,510	1,090,000	1,520	1,100,000
1923	570	3,910	June 10,11,1923	671	1,490	1,080,000	1,520	1,100,000
1924	590	b2,440	Apr. 13, 1924	656	1,170	847,000	1,100	798,000
1925	610	b2,460	Oct. 31, 1924	368	880	637,000	851	615,000
1926	630	1,330	Sept. 1, 1926	340	896	649,000	933	676,000
1927	650	1,540	July 14, 1927	358	892	646,000	775	561,000
1928	670	1,660	Apr. 4, 1928	36	656	475,000	709	514,000
1929	690	1,200	July 13,23,1929	222	697	504,000	661	479,000
1930	705	1,260	July 6, 31,1930	219	626	453,000	605	438,000
1931	720	1,370	July 25, 1931	152	545	394,000	484	350,000
1932	735	1,060	(c)	35	396	287,000	401	291,000
1933	750	1,140	July 16,17,1933	77	448	324,000	454	328,000
1934	765	1,220	July 19, 1934	70	471	340,900	456	330,400
1935	790	1,150	July 9, 1935	44	378	273,700	376	272,300
1936	810	2,450	Apr. 21, 1936	47	429	311,400	460	333,600
1937	830	1,070	Apr. 21, 1937	54	430	311,000	419	303,200
1938	860	1,040	May 18, 1938	46	454	328,800	512	370,900
1939	880	1,240	July 26, 1939	44	537	388,400	472	341,700
1940	900	1,340	June27-29, 1940	35	439	318,700	445	322,900
1941	930	1,400	June 28, 1941	44	414	299,800	423	306,500
1942	960	1,220	July 23, 1942	58	481	348,400	490	354,900
1943	980	1,550	Apr. 4, 1943	54	573	415,200	583	422,200
1944	1010	1,330	July 19, 1944	49	492	357,100	454	329,400
1945	1040	1,250	July 20, 1945	68	432	312,600	457	330,900
1946	1060	1,350	Apr. 8, 1946	64	592	428,500	656	474,600
1947	1090	1,520	Aug. 19, 1947	56	750	542,900	792	573,700
1948	1120	1,770	July 12, 1948	49	766	556,000	778	564,700
1949	1150	1,420	July 12, 1949	105	777	562,200	725	524,800
1950	1180	2,580	June 10, 1950	68	1,106	800,500	-	-

* Revised.
‡ Not previously published.
a Files of Utah Power & Light Co.
b Momentary maximum.
c July 31, Aug. 2, 1932.

56. Cottonwood Creek near Swan Lake, Idaho

Location.--Lat 42°23', long 111°55', in SW¼ sec. 16, T. 12 S., R. 39 E., 1 mile downstream from Treasureton Canal headgate, 6½ miles northeast of Swan Lake, and 11½ miles upstream from mouth.

Drainage area.--42.6 sq mi.

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

Average discharge.--7 years (1939-46), 22.9 cfs.

Extremes.--1939-46: Maximum discharge, 497 cfs Apr. 16, 1946 (gage height, 3.54 ft), from rating curve extended above 270 cfs; no flow Aug. 17, 18, 1940.

Remarks.--Treasureton Canal diverts 1 mile above station. Records herein, except third table, show flow past station. Third table shows combined runoff of Creek and Treasureton Canal. Some small diversions for irrigation of meadowland in Cottonwood Valley.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	101	26.7	6.44	3.26	1.03	1.23	-
1940	6.36	4.21	6.90	7.08	7.08	25.3	62.7	13.8	3.20	1.06	.19	4.20	11.8
1941	5.17	4.40	5.73	7.58	9.93	11.1	79.9	77.8	4.69	3.61	4.61	3.14	18.2
1942	7.53	6.99	6.99	6	5	10	124	51.6	7.04	4.90	1.34	2.27	19.4
1943	2.29	6.73	5.1	5.6	7.1	25.1	202	56.8	20.6	7.98	6.62	2.91	28.9
1944	4.82	9.57	8.87	9.00	8.72	9.42	51.0	40.3	25.3	4.92	1.32	.83	14.5
1945	1.90	4.72	6.3	6.8	8.6	10.9	73.3	153	92.6	8.09	11.4	11.8	32.5
1946	11.6	13.5	10.0	13.6	12	26.5	219	89.4	11.8	5.22	7.01	4.58	35.3

Monthly and yearly runoff, in acre-feet, of Cottonwood Creek near Swan Lake, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	6,010	1,640	384	200	64	73	-
1940	391	250	424	435	407	1,560	3,730	849	191	65	11	250	8,560
1941	318	262	352	466	553	681	4,760	4,780	279	222	284	187	13,140
1942	463	416	430	369	278	615	7,370	3,180	419	301	82	135	14,060
1943	141	400	313	343	397	1,540	12,030	3,490	1,220	491	407	173	20,940
1944	297	569	545	553	502	579	3,030	2,480	1,510	302	81	49	10,500
1945	117	281	385	420	478	668	4,360	9,400	5,510	497	704	701	23,520
1946	714	801	617	835	666	1,630	13,050	5,490	703	321	431	273	25,530

Combined monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	-	2,450	858	322	233	335	-
1940	391	340	424	435	407	1,560	4,470	2,200	508	240	130	263	11,370
1941	508	615	729	466	553	681	4,760	6,080	1,200	538	576	376	17,080
1942	-	-	-	-	-	-	-	-	1,570	680	368	356	-
1943	466	469	313	343	397	1,540	12,030	4,320	2,290	793	508	383	23,850
1944	527	578	545	553	502	579	3,030	3,350	2,620	629	265	239	13,420
1945	322	483	385	420	478	668	4,430	9,780	5,880	1,310	861	701	25,720
1946	714	801	617	835	666	1,630	13,050	5,680	1,750	837	561	547	27,690

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	980	192	Apr. 2, 1939	-	-	-	-	-
1940	980	156	Mar. 27, 1940	0	11.8	8,560	11.6	8,430
1941	980	170	Apr. 29, 1941	.9	18.2	13,140	18.7	13,520
1942	980	305	Apr. 11, 1942	.6	19.4	14,060	18.8	13,600
1943	980	379	Apr. 6, 1943	.7	28.9	20,940	29.7	21,500
1944	1010	161	June 9, 1944	.7	14.5	10,500	13.6	9,870
1945	1040	363	Apr. 20, 1945	1.0	32.5	23,520	34.4	24,870
1946	1060	497	Apr. 16, 1946	2.6	35.3	25,530	-	-

57. Cottonwood Creek near Cleveland, Idaho

Location.--Lat 42°20', long 111°46', in SW¼ sec. 34, T. 12 S., R. 40 E., 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.

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.--11 years (1939-50), 32.4 cfs.

Extremes.--1938-50: Maximum discharge, 680 cfs Apr. 21, 1948 (gage height, 3.60 ft); minimum observed, 0.5 cfs Aug. 17, 1940.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	11.6	10.3	9.0	62.7	136	32.5	9.4	4.1	1.6	2.3	-
1940	6.86	7.17	5.55	8.19	9.66	35.0	69.8	18.5	6.40	1.95	.71	2.80	14.3
1941	6.42	6.31	5.80	7.33	8.85	23.1	118	92.5	11.0	6.01	7.95	5.49	24.9
1942	8.92	8.03	11.3	8.8	10.0	17.5	150	71.5	13.7	6.79	3.56	4.16	26.1
1943	3.50	9.96	9.34	11.6	12.3	43.4	287	79.8	32.4	12.1	8.82	4.18	42.7
1944	7.24	11.6	10.4	9.82	9.54	10.6	66.9	49.0	32.5	8.19	2.57	2.25	18.3
1945	4.8	8.0	8.42	9.1	11.2	16.8	109	177	125	15.1	15.4	14.0	42.8
1946	12.3	14.5	12.7	17.1	15.0	40.7	282	115	22.2	10.2	9.51	6.15	46.4
1947	11.6	13.9	15.8	11.9	16.4	51.7	87.9	74.1	20.6	6.05	5.40	4.18	26.7
1948	4.51	9.20	9.49	8.08	7.46	10.8	143	155	23.4	6.22	5.43	6.19	32.4
1949	8.52	10.5	10.5	9.4	6.84	21.9	161	86.3	20.4	7.35	5.60	3.99	29.3
1950	11.4	13.5	10.2	14.4	14.3	30.6	220	224	62.6	16.0	9.89	8.52	53.0

Monthly and yearly runoff, in acre-feet, of Cottonwood Creek near Cleveland, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	714	633	500	3,860	8,090	2,000	557	254	97	137	-
1940	422	426	341	503	556	2,150	4,150	1,140	381	120	44	167	10,400
1941	395	375	356	451	491	1,420	7,020	5,680	656	370	489	327	18,030
1942	549	478	694	543	553	1,080	8,940	4,400	816	418	219	247	18,940
1943	215	592	574	711	682	2,670	17,100	4,910	1,930	742	543	249	30,920
1944	445	690	641	604	549	649	3,980	3,010	1,930	503	158	134	13,290
1945	298	474	517	561	623	1,030	6,460	10,870	7,450	931	946	831	30,990
1946	754	864	783	1,050	833	2,500	16,800	7,080	1,320	630	585	366	33,560
1947	713	829	970	732	910	3,180	5,230	4,550	1,230	372	332	249	19,300
1948	277	547	584	497	429	667	8,510	9,560	1,390	382	334	368	23,540
1949	524	624	644	575	380	1,350	9,600	5,310	1,210	452	344	238	21,250
1950	699	803	628	885	793	1,880	13,100	13,740	3,720	985	608	507	38,350

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	880	a330	Apr. 1, 1939	-	-	-	23.9	17,320
1940	900	a186	Mar. 27, 1940	0.5	14.3	10,400	14.2	10,340
1941	930	a197	May 4, 1941	2.3	24.9	18,030	25.7	18,620
1942	960	a250	Apr. 14, 1942	2.8	26.1	18,940	25.7	18,600
1943	980	a380	Apr. 3, 4, 6, 1943	2.3	42.7	30,920	43.2	31,310
1944	1010	b120	May 6, 1944	1.8	18.3	13,290	17.6	12,810
1945	1040	486	Apr. 20, 1945	-	42.8	30,990	44.4	32,100
1946	1060	660	Apr. 16, 1946	3.5	46.4	33,560	46.5	33,680
1947	1090	205	Mar. 21, 1947	2.7	26.7	19,300	25.1	18,190
1948	1120	680	Apr. 21, 1948	-	32.4	23,540	33.0	23,930
1949	1150	308	Apr. 25, 1949	-	29.3	21,250	29.8	21,590
1950	1180	584	May 18, 1950	4.9	53.0	38,350	-	-

a Maximum observed.
b Maximum daily.

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

Location.--Lat 42°16', long 111°45', in N½sec. 26, T. 13 S., R. 40 E., 200 ft downstream from tailrace of Oneida plant and 6 miles south of Cleveland.

Drainage area.--4,180 sq mi, approximately.

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

Average discharge.--29 years (1921-50), 772 cfs.

Extremes.--1921-50: Maximum daily discharge, 5,480 cfs May 8, 1922; minimum daily, 15 cfs May 3, 4, 1925.

Remarks.--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; those prior to 1946, not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	888	1,160	1,360	1,260	1,230	1,320	2,610	4,260	2,690	985	1,020	1,010	1,650
1923	1,060	1,150	1,340	1,460	1,320	1,350	1,900	2,410	3,120	1,470	1,310	1,330	1,600
1924	1,220	1,220	1,700	1,610	1,430	1,030	1,460	914	1,010	1,100	1,210	1,190	1,260
1925	1,060	1,010	1,030	1,080	939	792	1,090	892	724	886	975	946	952
1926	951	947	846	884	868	790	962	812	841	922	1,090	1,110	919
1927	968	1,060	1,080	1,110	1,020	951	1,030	887	785	845	940	797	956
1928	687	622	587	540	541	778	942	652	486	830	1,020	1,030	721
1929	768	850	808	723	694	684	1,190	816	522	694	727	639	759
1930	788	618	649	580	677	687	709	598	628	1,020	894	718	716
1931	665	650	620	609	590	547	415	411	729	955	952	604	647
1932	300	306	301	318	355	373	1,040	673	313	486	788	491	479
1933	374	319	378	344	371	391	837	577	304	824	858	797	532
1934	354	355	398	372	351	343	323	698	697	723	794	604	502
1935	226	277	313	257	371	410	605	325	286	802	626	435	412
1936	255	284	276	282	364	399	1,510	1,260	430	618	530	505	559
1937	473	478	464	506	503	637	813	959	282	514	605	588	569
1938	413	408	478	356	506	645	1,112	961	402	438	639	530	574
1939	641	726	645	461	464	716	707	572	464	794	788	585	632
1940	375	339	392	361	420	622	387	500	648	851	749	384	504

Monthly and yearly mean discharge, in cubic feet per second, of Bear River below Utah Power & Light Co.'s tailrace, at Oneida, Idaho--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	328	394	367	344	376	584	650	388	470	840	601	457	484
1942	446	463	436	501	422	487	866	591	481	680	794	634	567
1943	439	469	469	482	494	544	1,490	745	701	714	721	717	665
1944	564	535	571	375	410	497	723	502	419	811	854	571	570
1945	317	390	397	352	472	567	795	797	871	673	673	500	567
1946	517	500	550	412	450	688	1,641	873	594	789	957	764	729
1947	647	776	790	813	540	723	683	670	603	1,049	1,185	1,075	798
1948	938	950	893	682	618	588	1,101	1,022	740	1,014	1,025	1,017	883
1949	968	856	1,012	1,088	988	695	1,028	615	604	834	1,043	866	883
1950	866	759	784	976	1,044	884	1,740	1,575	1,822	1,744	1,676	1,723	1,300

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	54,600	69,000	83,600	77,500	68,300	81,200	155,000	262,000	160,000	60,600	62,700	60,100	1,190,000
1923	65,200	68,400	82,400	89,800	73,300	83,000	113,000	148,000	186,000	90,400	80,600	79,100	1,160,000
1924	75,000	72,600	105,000	99,000	82,200	63,300	86,900	56,200	60,100	67,600	74,400	70,800	913,000
1925	65,200	60,100	63,300	66,400	52,100	48,700	64,900	54,800	43,100	54,500	60,000	56,300	689,000
1926	58,500	56,300	52,000	54,300	48,200	48,600	57,300	49,900	50,100	56,700	67,100	66,300	665,000
1927	59,500	63,100	66,400	68,200	56,600	58,500	61,300	54,500	46,700	52,000	57,800	47,400	692,000
1928	42,200	37,000	36,100	33,200	31,100	47,800	56,100	40,100	28,900	51,000	62,700	61,300	528,000
1929	47,200	50,600	49,700	44,500	38,500	42,100	70,800	50,200	31,100	42,700	44,700	38,000	550,000
1930	48,500	36,800	39,900	35,700	37,600	42,200	42,200	36,800	37,400	62,700	55,000	42,700	518,000
1931	40,900	38,700	38,100	37,400	32,800	33,600	24,700	25,300	43,400	58,700	58,500	35,900	468,000
1932	18,400	18,200	18,500	19,600	20,400	22,900	61,900	41,400	18,600	29,900	48,500	29,200	348,000
1933	23,000	19,000	23,200	21,200	20,600	24,000	49,800	35,500	18,100	50,700	52,800	47,400	385,000
1934	21,750	21,100	24,480	22,870	19,470	21,070	19,220	42,930	41,490	44,450	48,800	35,930	363,600
1935	13,920	16,490	19,270	15,800	20,630	25,230	35,980	19,980	17,010	49,290	38,470	25,900	298,000
1936	15,690	16,920	16,980	17,310	20,950	24,550	89,950	77,530	25,610	37,980	32,610	30,040	406,100
1937	29,080	28,470	28,510	31,100	27,920	39,150	48,400	58,980	16,770	31,590	37,180	35,010	412,200
1938	25,380	24,290	29,400	21,910	28,100	39,670	66,190	59,090	23,890	26,950	39,320	31,530	415,700
1939	39,400	43,200	39,650	28,350	25,750	44,040	42,060	35,170	27,620	48,810	48,460	34,790	457,300
1940	23,050	20,190	24,080	22,170	24,180	38,260	23,020	30,770	38,570	52,350	46,040	22,880	365,600
1941	20,190	23,460	22,590	21,180	20,850	35,930	38,700	23,880	27,980	51,660	36,940	27,180	350,500
1942	27,440	27,560	26,810	30,840	23,430	29,930	51,510	36,320	28,610	41,820	48,830	37,750	410,800
1943	27,010	27,910	28,820	29,620	27,430	33,450	88,680	45,800	41,710	43,920	44,330	42,690	481,400
1944	34,700	31,840	35,130	23,030	23,610	30,550	43,010	30,870	24,960	49,860	52,500	33,970	414,000
1945	19,520	23,230	24,380	21,620	26,210	34,890	47,330	49,010	51,800	41,380	41,410	29,730	410,500
1946	31,800	29,740	33,820	25,310	25,000	42,310	97,660	53,680	35,350	48,490	58,830	45,460	527,400
1947	39,800	46,170	48,600	49,960	29,980	44,430	40,640	41,190	35,910	64,490	72,880	63,960	578,000
1948	57,660	56,550	54,890	41,340	35,520	36,130	65,500	62,850	44,020	62,350	63,030	60,490	640,900
1949	59,540	50,920	62,230	66,900	54,850	42,730	61,140	37,810	35,930	51,290	64,100	51,560	639,000
1950	53,270	45,150	48,190	60,040	57,990	54,340	103,600	96,870	108,400	107,200	103,100	102,500	940,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	(a)	5,480	May 8, 1922	280	1,650	1,190,000	1,660	1,203,000
1923	(a)	4,120	June 4, 1923	235	1,600	1,160,000	1,650	1,196,000
1924	(a)	2,630	Apr. 14, 1924	60	1,260	913,000	1,170	849,000
1925	(a)	2,320	May 1, 1925	15	952	689,000	922	668,000
1926	(a)	1,580	Sept.24, 1926	32	919	665,000	949	688,000
1927	(a)	1,670	June 30, 1927	167	956	692,000	855	618,000
1928	(a)	1,990	Apr. 2, 1928	170	721	528,000	770	560,000
1929	(a)	1,690	Apr. 14, 1929	265	759	550,000	723	528,000
1930	(a)	1,450	Aug. 8, 1930	70	716	518,000	704	510,000
1931	(a)	1,230	Aug. 12, 1931	41	647	468,000	560	405,000
1932	(a)	1,720	Apr. 15, 1932	45	479	348,000	492	358,000
1933	(a)	1,370	July 25, 1933	98	532	385,000	534	387,000
1934	(a)	1,220	Aug. 1, 1934	43	502	363,600	478	345,900
1935	(a)	1,260	Apr. 16, 1935	31	412	298,000	411	297,900
1936	(a)	3,680	Apr21,22,1936	81	559	406,100	609	442,600
1937	(a)	1,680	Apr. 23, 1937	64	569	412,200	559	405,200
1938	(a)	1,750	Apr. 14, 1938	70	574	415,700	663	458,900
1939	(a)	1,770	Mar. 23, 1939	78	632	457,300	555	402,400
1940	(a)	1,490	June 29, 1940	54	504	365,600	501	364,500
1941	(a)	1,430	July 3, 1941	35	484	350,500	505	366,100
1942	(a)	1,480	Apr. 27, 1942	31	567	410,800	569	412,800
1943	(a)	2,560	Apr. 5, 1943	28	665	481,400	690	499,300
1944	(a)	1,650	Apr. 20, 1944	39	570	414,000	523	379,500
1945	(a)	2,010	June 11, 1945	42	567	410,500	606	438,700
1946	1060	2,360	Apr. 8, 1946	35	729	527,400	783	566,600
1947	1090	1,790	Sept.13, 1947	37	798	578,000	846	612,500
1948	1120	2,180	Apr. 19, 1948	37	883	640,900	888	644,500
1949	1150	1,750	Apr. 16, 1949	74	883	639,000	847	612,900
1950	1180	3,240	Apr. 17, 1950	69	1,300	940,600	-	-

a Files of Utah Power & Light Co.

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

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

Drainage area.--19.3 sq mi.

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

Extremes.--1947-50: Maximum discharge, 600 cfs May 29, 1948 (gage height, 3.65 ft); minimum, 26 cfs Feb. 12-16, 1948.

Remarks.--Mink Creek Canal began diverting above station in June 1950 (corrected). Diversion is routed through Glendale Reservoir in Worm Creek basin for irrigation near Preston and in 1950 was as follows:

June	442 acre-ft	August	1,810 acre-ft
July	1,710 acre-ft	September	1,480 acre-ft

Records herein not adjusted for this diversion. Two other diversions above station for irrigation of about 200 acres above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	75.6	297	187	84.3	54.7	42.7	-
1948	40.6	35.8	33.5	31.4	27.6	28.6	78.7	276	300	105	56.3	44.2	88.2
1949	38.6	38.3	33.9	31.5	29.6	39.1	92.2	271	168	67.3	45.4	40.6	74.8
1950	40.1	35.3	32.7	35.8	38.3	50.1	110	250	414	155	50.2	34.1	104

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	4,500	18,240	11,110	5,180	3,360	2,540	-
1948	2,490	2,120	2,060	1,930	1,590	1,760	4,680	16,980	17,870	6,480	3,460	2,630	64,050
1949	2,370	2,280	2,090	1,940	1,650	2,410	5,490	16,640	9,980	4,140	2,790	2,420	54,200
1950	2,470	2,100	2,010	2,200	2,130	3,080	6,540	15,400	24,620	9,530	3,090	2,030	75,200

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1090	415	May 8, 1947	-	-	-	-	-
1948	1120	600	May 29, 1948	26	88.2	64,050	88.3	64,120
1949	1150	373	May 18, 1949	29	74.8	54,200	74.6	54,040
1950	1180	548	June 2, 1950	31	104	75,200	-	-

60. Mink Creek near Mink Creek, Idaho

Location.--Lat 42°12', long 111°46', in SE¼ sec. 15, T. 14 S., R. 40 E., 1,000 ft upstream from Bear Hollow, 1¼ miles upstream from mouth, and 3 miles southwest of town of Mink Creek.

Drainage area.--58.7 sq mi; 54.5 sq mi for site used prior to Sept. 30, 1946; 59.0 sq mi for site used Apr. 2 to June 6, 1948.

Gage.--Water-stage recorder. Altitude of gage is 4,750 ft (from topographic map). Water-stage recorder, prior to Sept. 30, 1946, 1.4 miles upstream, Oct. 1, 1946, to Apr. 1, 1948, 700 ft downstream, and Apr. 2 to June 6, 1948, half a mile downstream, all at different datums. June 7 to Sept. 7, 1948, staff gage at site 400 ft downstream at different datum.

Average discharge.--7 years (1943-50), 50.4 cfs.

Extremes.--1943-50: Maximum daily discharge, 427 cfs June 2, 1950; minimum daily, 0.7 cfs on many days in August and September 1944.

Remarks.--Diversions above station for storage and for irrigation of 21,500 acres above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	124	233	180	7.89	3.57	1.71	-
1944	1.38	33.6	41.3	35.6	30.9	1.86	3.94	133	59.6	1.42	1.05	.84	28.8
1945	6.96	30.6	38.8	36.6	26.7	7.39	10.2	132	258	8.91	3.94	11.4	47.5
1946	51.5	52.1	52.7	50.2	35.7	45.1	185	247	95.7	3.16	3.03	5.09	68.9
1947	17.8	33.5	52.3	42.2	44.6	9.52	22.6	172	118	7.15	9.89	8.46	44.8
1948	8.09	39.0	40.2	39.3	36.4	10.1	60.0	226	165	8.47	2.89	4.20	53.3
1949	3.15	7.16	41.8	38.6	37.0	59.4	45.4	158	50.3	6.57	3.07	4.16	38.0
1950	5.94	6.90	28.4	52.6	54.9	28.8	101	244	288	37.4	5.43	5.47	71.4

Monthly and yearly runoff, in acre-feet, of Mink Creek near Mink Creek, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	7,350	14,340	10,710	485	219	102	-
1944	85	2,000	2,540	2,190	1,780	114	234	8,200	3,550	87	65	50	20,900
1945	428	1,820	2,390	2,250	1,480	454	607	8,140	15,360	548	242	681	34,400
1946	3,160	3,100	3,240	3,090	1,980	2,770	10,990	15,210	5,700	195	186	303	49,920
1947	1,090	1,990	3,220	2,590	2,470	585	1,340	10,590	7,010	440	608	503	32,440
1948	497	2,320	2,470	2,410	2,090	624	3,570	13,910	9,850	521	178	250	38,690
1949	194	426	2,570	2,370	2,060	3,650	2,700	9,720	2,990	404	189	248	27,520
1950	365	411	1,750	3,240	3,050	1,770	6,030	15,020	17,110	2,300	334	325	51,700

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	413	June 2, 1943	-	-	-	-	-
1944	1010	340	May 15, 1944	0.7	28.8	20,900	28.8	20,910
1945	1040	393	June 10, 1945	1.3	47.5	34,400	54.2	39,260
1946	1060	348	May 7, 1946	1.6	68.9	49,920	64.5	46,720
1947	1090	283	June 11, 1947	2.1	44.8	32,440	43.4	31,420
1948	1120	413	May 28, 1948	2.2	53.3	38,690	50.4	36,590
1949	1150	a302	May 20, 1949	1.9	38.0	27,520	37.1	26,860
1950	1180	427	June 2, 1950	2.8	71.4	51,700	-	-

a Momentary maximum.

61. Bear River near Preston, Idaho 1/

Location.--Lat 42°10', long 111°51', in NW¼ sec. 36, T. 14 S., R. 39 E., 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.--4,300 sq mi (revised), approximately.

Supplemental records available.--January to September 1917, gage heights only.

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

Average discharge.--7 years (1943-50), 835 cfs.

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

1943-50: Maximum discharge, 4,420 cfs Apr. 17, 1950 (gage height, 5.61 ft); minimum, 0.6 cfs June 14, 1949; minimum daily, 14 cfs July 4, 1944, July 4, 1945, July 5, 1947.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	‡321	487	565	875	809	1,271	2,978	5,199	4,074	1,582	1,000	843	‡1,667
1891	854	783	748	690	780	790	1,623	2,652	2,245	1,288	835	798	1,175
1892	980	957	1,053	800	855	1,304	1,824	2,710	4,446	2,345	1,025	793	1,591
1893	780	687	880	909	873	861	2,131	3,401	3,577	1,567	772	690	1,428
1894	737	890	1,019	980	980	1,355	3,824	5,927	6,169	1,997	1,175	1,295	2,196
1895	1,239	1,138	987	922	911	1,095	2,268	3,086	1,932	967	658	628	1,321
1896	666	680	680	645	621	802	1,836	2,231	4,333	1,650	917	800	1,331
1897	812	1,096	1,024	950	870	900	2,923	5,062	3,593	1,335	838	789	1,685
1898	1,115	1,127	979	950	783	845	2,377	2,788	2,342	1,017	543	535	1,284
1899	582	660	660	660	635	657	2,133	3,026	‡4,348	‡3,480	‡1,615	‡1,186	‡1,637
1900	1,227	1,310	1,149	841	729	1,484	1,654	2,268	1,544	660	482	486	1,155
1901	617	692	654	503	663	1,217	1,619	2,726	1,425	487	418	436	955
1902	505	561	614	464	480	514	1,438	1,493	1,570	493	508	406	754
1903	467	485	464	‡450	‡500	a723	a1,475	a1,388	‡1,900	‡870	‡340	‡310	‡781
1904	‡440	a426	a371	608	765	1,584	2,824	4,063	3,621	1,041	550	609	‡1,408
1905	697	700	680	607	650	907	871	991	599	201	176	250	610
1906	490	495	423	459	522	717	2,450	2,880	3,360	1,090	545	796	1,190
1907	642	719	824	777	980	2,360	4,560	5,280	5,860	3,250	1,170	953	2,280
1908	954	897	865	854	783	1,320	1,500	1,010	1,730	827	475	561	981
1909	758	761	737	1,140	868	1,030	3,510	4,480	5,570	2,520	1,220	1,450	2,000
1910	1,340	1,480	1,540	677	569	3,450	2,850	2,640	899	301	311	446	1,380

‡ Not previously published; estimated or partly estimated on basis of records for station near Collinston.

a Not previously published; computed by usual method using gage heights and discharge measurements.

1/ Published as "at Battlecreek," prior to 1903.

Monthly and yearly mean discharge, in cubic feet per second, of Bear River near Preston, Idaho--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	610	706	720	1,100	1,370	1,720	2,920	2,480	1,940	780	446	594	1,280
1912	851	742	784	811	724	781	2,000	2,610	3,560	1,750	1,160	943	1,390
1913	1,070	1,100	886	739	900	997	3,350	2,310	889	1,030	668	924	1,240
1914	976	982	874	828	883	1,540	3,360	4,370	3,390	1,350	915	961	1,700
1915	1,200	1,070	1,010	1,160	1,130	1,120	1,000	759	497	641	475	590	888
1916	565	558	714	892	858	1,470	1,540	1,280	1,140	890	883	927	977
1917	865	803	1,110	-	-	-	-	-	-	-	-	-	-
1944	‡510	‡560	‡620	‡450	469	569	796	671	426	659	740	478	‡579
1945	273	415	448	391	523	615	834	939	1,031	532	601	436	586
1946	534	532	594	485	510	774	1,873	1,020	590	691	931	735	773
1947	685	861	887	921	609	770	730	761	687	950	1,161	1,044	841
1948	960	994	966	731	661	594	1,146	1,195	756	860	883	905	888
1949	930	874	1,070	1,160	1,030	785	1,100	723	497	664	900	737	872
1950	832	732	817	1,045	1,117	931	1,891	1,785	1,903	1,594	1,489	1,580	1,309

‡ Not previously published; estimated or partly estimated on basis of records for station near Collinston.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	‡19,750	28,980	34,750	53,810	44,900	78,170	177,200	519,700	242,400	97,290	61,500	50,150	‡1,209,000
1891	52,500	46,600	46,000	42,440	43,290	48,580	96,510	163,100	133,600	79,210	51,350	47,480	850,700
1892	60,270	56,940	64,760	49,200	49,160	80,200	108,500	166,700	264,500	144,200	63,040	47,180	1,155,000
1893	47,970	40,880	54,120	55,900	48,450	52,950	126,800	209,200	212,800	96,370	47,480	41,060	1,034,000
1894	45,330	52,960	62,670	60,260	54,430	83,320	227,500	564,400	367,100	122,800	72,250	77,060	1,590,000
1895	76,180	67,720	60,690	56,690	50,590	67,330	135,000	189,800	115,000	59,460	40,460	37,370	956,300
1896	40,950	40,460	41,810	39,660	35,720	49,310	109,200	137,200	266,400	101,500	56,380	47,600	966,200
1897	49,930	65,220	62,960	58,410	48,320	55,340	173,900	511,300	213,800	82,090	51,530	46,950	1,220,000
1898	68,560	67,060	60,200	58,410	43,490	51,960	141,400	171,400	139,400	62,530	33,390	31,840	929,600
1899	35,790	39,270	40,580	40,580	35,270	40,400	126,900	186,100	‡258,700	‡214,000	‡99,310	‡70,570	‡1,187,000
1900	75,440	77,950	70,650	51,710	40,490	91,250	98,420	139,500	91,870	40,580	29,640	28,920	836,400
1901	37,940	41,180	40,210	30,930	36,820	74,830	96,340	167,600	84,790	29,940	25,700	25,940	692,200
1902	31,050	33,380	37,750	28,530	26,660	31,600	85,570	91,800	93,420	30,310	31,240	24,160	545,500
1903	28,720	28,860	28,530	‡27,670	‡27,770	a44,480	a87,790	a85,370	‡113,100	‡53,490	‡20,910	‡18,450	‡565,100
1904	‡27,050	a25,370	a22,830	37,380	44,000	97,400	168,000	249,800	215,500	64,010	33,820	36,240	‡1,021,000
1905	42,860	41,650	41,810	37,300	36,100	55,770	51,830	60,930	35,640	12,360	10,820	14,880	441,900
1906	30,100	29,500	26,000	28,200	29,000	44,100	146,000	177,000	200,000	67,000	33,500	47,400	858,000
1907	39,500	42,800	50,700	47,800	54,400	145,000	271,000	525,000	349,000	200,000	71,900	56,700	1,650,000
1908	58,700	53,400	53,200	52,500	45,000	81,200	89,300	62,100	103,000	50,800	29,200	33,400	712,000
1909	46,600	45,300	45,300	70,100	48,200	63,300	209,000	275,000	331,000	155,000	75,000	86,300	1,450,000
1910	82,400	88,100	94,700	41,600	31,600	212,000	170,000	162,000	53,500	18,500	19,100	26,500	1,000,000
1911	37,500	42,000	44,300	68,200	76,100	106,000	174,000	152,000	115,000	48,000	27,400	35,300	926,000
1912	52,300	44,200	48,200	49,900	41,600	48,000	119,000	160,000	212,000	108,000	71,300	56,100	1,010,000
1913	65,800	65,500	54,500	45,400	50,000	61,300	199,000	142,000	52,900	63,300	41,100	55,000	896,000
1914	60,000	58,400	53,700	50,900	49,000	94,700	200,000	269,000	202,000	83,000	56,300	57,200	1,230,000
1915	73,800	63,700	62,100	71,300	62,800	68,900	59,500	46,700	29,600	39,400	29,200	35,100	642,000
1916	34,700	33,200	43,900	54,800	49,400	90,400	91,600	78,700	67,800	54,700	54,300	55,200	709,000
1917	53,200	47,800	68,200	-	-	-	-	-	-	-	-	-	-
1944	‡31,360	‡33,320	‡38,120	‡27,640	26,960	35,010	47,390	41,260	25,330	40,540	45,520	28,440	‡420,900
1945	16,800	24,720	27,530	24,040	29,040	37,830	49,640	57,720	61,320	32,740	36,970	25,930	424,300
1946	32,850	31,680	36,530	29,830	28,350	47,560	111,400	62,740	35,130	42,480	57,220	43,740	559,500
1947	42,140	51,220	54,520	56,650	33,850	47,360	43,440	46,810	40,870	58,430	71,370	62,130	608,800
1948	59,020	59,140	59,420	44,940	37,990	36,530	68,200	73,510	44,970	52,880	54,310	53,840	644,800
1949	57,200	52,020	65,810	71,410	57,280	48,290	65,280	44,490	29,550	40,820	55,320	43,850	631,300
1950	51,140	43,560	50,250	64,090	62,030	57,250	112,500	109,700	113,300	98,020	91,580	94,020	947,400

‡, a Not previously published; see footnotes to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1890	(a)	5,980	(b)	270	‡1,667	‡1,209,000	1,751	1,270,000
1891	(a)	3,030	May22-25,1891	690	1,175	850,700	1,224	887,500
1892	(a)	5,260	June8-12,1892	780	1,591	1,155,000	1,537	1,116,000
1893	(a)	3,960	(c)	600	1,428	1,034,000	1,452	1,052,000
1894	Bull.131	7,980	(d)	690	2,196	1,590,000	2,257	1,634,000
1895	Bull.140	3,640	May 4,5, 1895	612	1,321	956,300	1,207	874,800
1896	(e)	*6,000	June 11, 1896	580	1,331	966,200	1,397	1,021,000
1897	(f)	6,100	May 27, 1897	780	1,685	1,220,000	1,707	1,237,000
1898	(g)	3,480	Apr.23-25,1898	534	1,284	929,600	1,174	849,500
1899	(h)	-	-	534	‡1,637	‡1,187,000	‡1,786	‡1,296,000
1900	(i)	2,540	May 14, 1900	455	1,155	836,400	1,009	731,700
1901	75	2,920	May5,12, 1901	400	955	692,200	931	675,100
1902	85	2,340	June 16, 1902	302	754	545,500	732	529,400
1903	100	-	-	-	‡781	‡565,100	‡766	‡554,300
1904	133	5,050	June 3, 1904	483	‡1,408	‡1,021,000	1,478	1,072,000
1905	176,250	1,320	May 3, 1905	158	610	441,900	555	401,000

* Revised.
‡ Not previously published.
a 14th Ann. Rept., Pt. 2.
b May 30, June 1, 2, 1890.
c May 22-29, June 8-12, 1893.
d May 31, June 1-5, 1894.
e 18th Ann. Rept., Pt. 4.
f 19th Ann. Rept., Pt. 4.
g 20th Ann. Rept., Pt. 4.
h 21st Ann. Rept., Pt. 4.
i 22nd Ann. Rept., Pt. 4.

Yearly discharge, in cubic feet per second, of Bear River near Preston, Idaho--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	250	4,650	June 6, 1906	328	1,190	858,000	1,250	905,000
1907	250	j8,500	June9,10,1907	635	2,280	1,650,000	2,330	1,690,000
1908	250	2,210	June 23, 1908	395	981	712,000	943	684,000
1909	270	6,090	June4-10,1909	600	2,000	1,450,000	2,180	1,580,000
1910	290	6,380	Mar. 15, 1910	-	1,380	1,000,000	1,190	859,000
1911	310	5,890	Jan. 31, 1911	395	1,280	926,000	1,310	947,000
1912	330	4,730	May 23, 1912	583	1,390	1,010,000	1,450	1,050,000
1913	360	5,600	Apr. 7, 1913	-	1,240	896,000	1,220	882,000
1914	390	4,920	May21-27,1914	275	1,700	1,230,000	1,740	1,260,000
1915	410	2,260	Jan. 28, 1915	249	888	642,000	766	554,000
1916	440	2,770	Mar. 26, 1916	296	977	709,000	1,060	766,000
1917	460	-	-	-	-	-	-	-
1944	1010	k2,850	Mar. 9, 1944	14	‡579	‡420,900	‡533	‡387,100
1945	1040	k3,800	June 11, 1945	14	586	424,300	630	456,300
1946	1060	k3,940	Apr.21,29,1946	130	773	559,500	838	606,300
1947	1090	k3,200	June 14, 1947	14	841	608,800	882	638,500
1948	1120	k3,220	May 21, 1948	20	888	644,800	885	642,200
1949	1150	k3,300	Jan. 10, 1949	120	872	631,300	830	601,200
1950	1180	k4,420	Apr. 17, 1950	256	1,309	947,400	-	-

‡ Not previously published.
j About.
k Momentary maximum.

62. Battle Creek near Treasureton, Idaho

Location.--Lat 42°15', long 111°50', in NE¼ sec. 36, T. 13 S., R. 39 E., 0.7 mile south of Treasureton and 1.6 miles upstream from Strongarm Reservoir Dam.

Drainage area.--23.1 sq mi.

Gage.--Staff gage. Altitude of gage 4,960 ft (from topographic map).

Extremes.--1943-44. Maximum discharge observed, 10 cfs June 3, 1943 (gage height, 2.53 ft, corrected); no flow at times during 1944.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	-	3.61	1.49	1.10	.85	-
1944	1.09	1.56	1.55	1.55	1.80	2.44	5.42	1.47	2.46	.65	.06	.18	1.68

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	-	215	92	67	51	-
1944	67	93	96	96	104	150	323	90	147	40	4.0	11	1,220

63. Bear River near Weston, Idaho

Location.--Lat 42°01'50", long 111°55'15", in SW¼SE¼ sec. 17, T. 16 S., R. 39 E., at Weston-Fairview highway bridge and 3 miles east of Weston.

Drainage area.--4,480 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,430 ft (from topographic map).

Average discharge.--25 years (1919-44), 845 cfs.

Extremes.--1919-44: Maximum discharge, 6,100 cfs May 8 or 9, 1922 (gage height, 12.1 ft, from floodmarks), from rating curve extended above 4,000 cfs; minimum daily, 30 cfs Apr. 29, 1934, June 27, 1937.

Remarks.--Station was 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.

Cooperation.--Records since 1922 furnished by Utah Power & Light Co.

538662 O - 60 - 6

Monthly and yearly mean discharge, in cubic feet per second, of Bear River near Weston, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1920	a930	897	1,070	1,200	1,080	1,010	1,210	2,210	1,450	949	781	961	a1,150
1921	904	875	1,090	1,120	1,030	1,420	1,560	2,450	3,700	915	865	967	1,410
1922	865	1,220	1,520	1,400	1,380	1,810	3,230	4,560	3,010	1,040	987	964	1,830
1923	1,080	1,180	1,420	1,490	1,390	1,460	2,310	2,780	3,370	1,700	1,540	1,550	1,770
1924	1,370	1,250	1,760	1,680	1,600	1,310	1,760	1,130	1,030	1,150	1,230	1,220	1,370
1925	1,140	1,120	1,130	1,100	1,170	963	1,240	1,120	801	913	946	994	1,050
1926	1,020	1,070	1,000	1,110	1,010	957	1,170	964	827	896	1,070	1,130	1,020
1927	973	1,100	1,160	1,180	1,100	1,060	1,140	1,050	865	863	920	823	1,020
1928	760	719	713	631	615	989	1,200	982	532	830	1,090	1,210	856
1929	867	1,050	1,070	800	818	794	1,700	1,170	589	614	705	685	904
1930	931	778	713	655	779	722	822	589	635	981	859	722	766
1931	686	683	697	687	722	601	443	323	629	924	960	572	661
1932	295	*353	*365	*376	*412	*475	1,330	1,050	489	345	633	421	*545
1933	382	389	-	-	-	-	-	-	-	-	-	-	b560
1934	‡357	‡388	‡455	‡466	444	434	227	569	606	576	649	538	‡477
1935	216	309	332	300	450	460	692	406	313	713	532	386	425
1936	267	313	306	310	400	450	1,650	1,510	556	516	390	407	588
1937	470	560	547	584	625	771	938	1,110	295	426	495	531	613
1938	452	462	576	407	553	740	1,282	1,169	423	346	471	410	608
1939	567	728	680	536	550	903	790	533	376	666	665	545	629
1940	355	330	406	425	516	691	437	427	489	695	648	390	485
1941	345	449	467	449	452	642	756	467	343	735	512	388	501
1942	426	500	512	590	500	560	973	782	417	525	666	543	583
1943	426	520	560	565	568	610	1,610	909	845	655	623	651	711
1944	556	600	648	432	469	558	809	717	479	700	803	521	609

* Revised; only monthly figures revised; revised daily figures not available.
‡ Not previously published; estimated on basis of records for station at Oneida.
a Not previously published; partly estimated on basis of records for station at Alexander.
b Not previously published; some monthly figures not available; yearly figure estimated on basis of records for station at Oneida.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1920	a57,200	53,400	65,800	73,800	62,100	62,100	72,000	136,000	86,300	58,400	48,000	57,200	a832,000
1921	55,600	52,100	67,000	68,900	57,200	87,300	92,800	151,000	220,000	56,300	53,200	57,500	1,020,000
1922	53,200	72,600	93,500	86,100	76,600	111,000	192,000	280,000	179,000	64,000	60,700	57,400	1,330,000
1923	66,400	70,200	87,300	91,600	77,200	89,800	137,000	171,000	201,000	105,000	94,700	92,200	1,280,000
1924	84,200	74,400	108,000	103,000	92,000	80,600	105,000	69,500	61,300	70,700	75,600	72,600	997,000
1925	70,100	66,600	69,500	67,600	65,000	59,200	73,800	68,900	47,700	56,100	58,200	59,100	762,000
1926	62,700	63,700	61,500	68,200	56,100	58,800	69,600	59,300	49,200	55,100	65,800	67,200	737,000
1927	59,800	65,500	71,300	72,600	61,100	65,200	67,800	64,600	51,500	53,100	56,600	49,000	738,000
1928	46,700	42,800	43,800	38,800	35,300	60,800	71,300	60,400	31,700	51,000	67,000	72,000	622,000
1929	53,300	62,500	65,800	49,200	45,400	48,800	101,000	71,900	35,000	37,800	43,300	40,800	655,000
1930	57,200	46,300	43,800	40,300	43,200	44,400	48,900	36,200	37,800	60,300	52,800	42,900	554,000
1931	42,200	40,600	42,900	42,200	40,100	37,000	26,400	19,900	37,400	56,800	59,000	34,000	478,000
1932	18,100	*21,000	*22,500	*23,100	*23,700	*29,200	79,100	64,600	29,100	21,200	38,900	25,100	*396,000
1933	23,500	23,100	-	-	-	-	-	-	-	-	-	-	b405,000
1934	‡22,000	‡23,100	‡28,000	‡28,700	24,660	26,710	13,540	35,000	36,050	35,410	39,910	32,010	‡345,000
1935	13,250	18,380	20,380	18,450	24,990	28,250	41,180	24,940	18,630	43,860	32,720	22,990	308,000
1936	16,410	18,640	18,820	19,060	23,010	27,670	97,940	92,620	33,060	31,710	23,960	24,230	427,100
1937	28,880	33,300	33,650	35,900	34,710	47,430	55,810	68,250	17,530	26,200	30,460	31,600	443,700
1938	27,810	27,500	35,410	25,030	30,710	45,490	76,260	71,850	25,180	21,300	28,950	24,410	439,900
1939	34,860	43,350	41,810	32,940	30,550	55,550	47,030	32,800	22,400	40,940	40,910	32,450	455,600
1940	21,830	19,650	24,950	26,100	29,700	42,470	26,030	26,250	29,070	42,730	39,820	23,210	351,800
1941	21,230	26,710	28,740	27,610	25,120	39,470	44,990	28,730	20,380	45,200	31,460	23,120	362,800
1942	26,180	29,750	31,470	36,280	27,770	34,430	57,920	48,080	24,820	32,300	40,970	32,280	422,200
1943	26,190	30,940	34,430	34,710	31,540	37,490	95,810	55,920	50,270	40,270	38,300	38,740	514,600
1944	34,220	35,700	39,870	26,580	26,980	34,310	48,170	44,060	28,510	43,020	49,380	31,030	441,800

* Revised.
‡, a, b Not previously published; see footnotes to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1920	510	3,540	May 26, 1920	174	‡1,150	‡832,000	1,140	831,000
1921	530	-	-	223	1,410	1,020,000	1,470	1,060,000
1922	550	a6,100	May 8or9,1922	433	1,830	1,330,000	1,840	1,330,000
1923	570	4,260	June 4, 1923	562	1,770	1,280,000	1,830	1,330,000
1924	590	a3,470	Apr. 15, 1924	400	1,370	997,000	1,290	936,000
1925	610	2,420	May 2, 1925	160	1,050	762,000	1,030	744,000
1926	630	1,810	Jan. 5, 1926	100	1,020	737,000	1,030	746,000
1927	650	1,730	June 30, 1927	210	1,020	738,000	932	675,000
1928	670	2,500	Apr. 2, 1928	173	856	622,000	923	670,000
1929	690	2,680	Apr. 14, 1929	297	904	655,000	857	620,000
1930	705	1,520	July 18, 1930	80	766	554,000	736	532,000
1931	720	1,400	Aug. 6, 1931	82	661	478,000	*573	*414,000
1932	735	2,060	Apr. 16, 1932	-	*545	*396,000	‡561	‡407,000
1933	750	-	-	-	‡560	‡405,000	‡560	‡405,000
1934	765	1,020	June 19, 1934	30	‡477	‡345,000	‡447	‡324,000
1935	790	1,230	Apr. 17, 1935	31	425	308,000	428	309,900

* Revised. ‡ Not previously published. a Momentary maximum.

Yearly discharge, in cubic feet per second, of Bear River near Weston, Idaho--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1936	810	2,990	Apr. 22, 1936	128	588	427,100	646	469,100
1937	830	1,590	May 9, 1937	30	613	443,700	606	438,600
1938	860	1,850	(b)	42	608	439,900	648	469,200
1939	880	1,950	Mar. 24, 1939	100	629	455,600	555	402,000
1940	900	1,200	June 29, 1940	46	485	351,800	499	362,100
1941	930	1,160	July 3, 1941	41	501	362,800	516	373,500
1942	960	1,720	Apr. 28, 1942	106	583	422,200	589	426,400
1943	980	2,210	Apr. 6, 1943	-	711	514,600	736	532,800
1944	1010	1,650	Apr. 21, 1944	-	609	441,800	-	-

b Apr. 26, 27, May 1, 1938.

64. Weston Creek at Weston, Idaho

Location.--Lat 42°02', long 111°59', in SW¼ sec. 14, T. 16 S., T. 38 E., a quarter of a mile southwest of Weston and 4 miles upstream from mouth.

Drainage area.--63 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,700 ft (from topographic map). Prior to Mar. 12, 1943, staff gage at same site and datum.

Extremes.--1942, 1943-44: Maximum discharge recorded, 48 cfs Mar. 18, 1944 (gage height, 3.29 ft), from rating curve extended above 10 cfs; minimum daily, 1.6 cfs Aug. 25, 26, 1944.
Flood of Feb. 23, 1943, was estimated between 400 and 700 cfs.

Remarks.--Practically entire flow of creek diverted for irrigation above station and storage in Weston Reservoir about 12 miles upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	3.10	3.08	3.63	6.10	5.51	4.10	3.88	3.07	-	-
1943	-	-	-	-	-	-	8.79	3.71	4.41	3.18	2.36	2.34	-
1944	3.29	3.38	2.96	3.25	3.31	7.22	5.75	3.40	4.71	3.88	2.10	2.04	3.78

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	-	-	-	191	171	224	363	339	245	239	189	-	-
1943	-	-	-	-	-	-	523	228	263	196	145	139	-
1944	203	201	182	200	191	444	342	209	280	238	129	122	2,740

Note.--Records for 1942-44 are published in WSP 1010.

65. Cub River near Preston, Idaho

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

Drainage area,--19.4 sq mi.

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

Average discharge.--10 years (1940-50), 86.2 cfs.

Extremes.--1940-50: Maximum discharge, 705 cfs June 2, 1943 (gage height, 3.83 ft); minimum, 12 cfs Jan. 17, 1950, result of ice jam upstream.

Remarks.--No diversion above station.

Cooperation.--Records prior to October 1942 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	-	-	-	-	-	33.7	69.1	309	119	45.3	28.4	23.2	-
1941	20.3	18.2	16.3	16.0	17.5	26.1	46.1	27.7	138	48.3	31.0	24.8	56.9
1942	23.9	22.3	20.3	20.0	20.0	22.0	118	206	262	73.1	39.5	27.9	71.2
1943	24.7	22	21	21.5	23.4	33.6	201	353	357	123	56.4	34.9	106
1944	30.6	29.5	24.9	21.5	21.8	22.1	46.9	263	277	79.1	42.5	32.0	74.3
1945	26.9	23.7	19.8	18.7	18.7	22.6	43.6	253	340	117	48.8	36.0	80.9
1946	29.6	28.8	26.1	25.4	23.4	40.9	192	372	278	92.8	51.4	36.0	100
1947	31.4	27.9	27.7	22.0	24.6	34.7	70.7	392	234	80.7	46.1	33.5	85.9
1948	28.5	25.4	24.5	23.8	20.6	20.9	70.1	327	367	99.3	55.0	39.9	91.8
1949	30.6	25.7	23.2	21.3	18.2	30.5	98.6	343	190	70.4	43.4	32.6	77.7
1950	29.1	26.8	25.5	26.6	23.8	35.9	104	281	522	†202	74.0	46.9	117

† Corrected.

Monthly and yearly runoff, in acre-feet, of Cub River near Preston, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	-	-	-	-	-	2,070	4,110	19,010	7,070	2,790	1,750	1,380	-
1941	1,250	1,080	1,000	984	970	1,610	2,750	17,010	8,210	2,970	1,910	1,470	41,210
1942	1,470	1,330	1,250	1,230	1,100	1,350	7,030	12,850	15,590	4,490	2,430	1,660	51,580
1943	1,520	1,310	1,290	1,320	1,300	2,070	11,970	21,680	21,250	7,540	3,470	2,070	76,790
1944	1,880	1,750	1,530	1,320	1,250	1,360	2,790	16,160	16,500	4,870	2,620	1,900	53,930
1945	1,650	1,410	1,220	1,150	1,040	1,390	2,590	15,540	20,240	7,180	3,000	2,140	58,550
1946	1,820	1,710	1,600	1,560	1,300	2,520	11,400	22,850	16,620	5,710	3,160	2,140	72,400
1947	1,930	1,660	1,710	1,350	1,360	2,130	4,210	24,090	15,920	4,960	2,830	1,990	62,140
1948	1,750	1,510	1,500	1,460	1,180	1,280	4,170	20,110	21,820	6,100	3,380	2,370	66,630
1949	1,880	1,530	1,430	1,310	1,010	1,880	5,870	21,110	11,290	4,330	2,670	1,940	56,230
1950	1,790	1,590	1,570	1,630	1,320	2,210	6,170	17,300	31,080	12,410	4,550	2,790	84,390

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	980	498	May 14, 1940	-	-	-	-	-
1941	980	431	May 14, 1941	15	56.9	41,210	57.9	41,930
1942	980	499	May 26, 1942	19	71.2	51,580	71.3	51,650
1943	980	705	June 2, 1943	-	106	76,790	108	77,830
1944	1010	498	May 17, 1944	21	74.3	53,930	73.1	53,050
1945	1040	474	June 4, 1945	18	80.9	58,550	82.1	59,400
1946	1060	574	May 7, 1946	20	100	72,400	100	72,560
1947	1090	566	May 9, 1947	19	85.9	62,140	85.1	61,600
1948	1120	650	May 29, 1948	18	91.8	66,630	91.9	66,710
1949	1150	533	May 20, 1949	18	77.7	56,230	77.8	56,360
1950	1180	692	June 7, 1950	20	117	84,390	-	-

66. Cub River above Maple Creek, near Franklin, Idaho

Location.--Lat 42°03', long 111°47', in SW¼ sec. 9, T. 16 S., R. 40 E., 1½ miles upstream from Maple Creek and 2½ miles north of Franklin.

Drainage area.--53.7 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (from topographic map). Prior to Aug. 9, 1941, staff gage at same site and datum.

Average discharge.--10 years (1940-50), 63.1 cfs.

Extremes.--1940-50: Maximum discharge, 740 cfs May 25, 1950 (gage height, 3.80 ft); minimum daily, 0.6 cfs Sept. 16, 1948.

Remarks.--Natural flow of stream affected by transmountain diversion, diversions for irrigation, and return flow from irrigated areas.

Cooperation.--Records prior to October 1942 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	-	-	-	-	-	52.6	88.4	95.1	8.00	2.25	1.70	2.04	-
1941	12.4	4.64	9.45	12.0	18.9	34.0	82.8	209	17.7	2.0	3.05	2.45	34.3
1942	3.63	2.96	10.7	23.8	28.5	39.3	198	240	114	2.99	1.68	4.02	55.7
1943	2.58	5.19	12.9	20.7	28.8	49.9	275	255	207	3.74	2.46	3.46	72.1
1944	3.94	6.77	8.88	20.0	15.6	21.2	85.5	275	208	2.76	1.98	2.06	54.2
1945	3.30	5.70	13.3	16.0	26.0	24.9	72.0	265	310	9.95	5.25	6.74	63.1
1946	3.49	8.42	32.5	34.9	31.1	82.4	296	274	113	4.64	4.27	7.27	74.3
1947	16.7	16.1	24.7	27.9	25.5	43.2	108	298	161	4.18	2.77	8.44	61.5
1948	3.87	9.00	23.6	19.8	23.6	17.2	136	353	225	7.32	2.08	6.51	68.8
1949	7.63	12.0	17.2	23.9	31.4	69.6	112	281	82.7	4.93	1.94	3.84	54.2
1950	14.1	3.79	17.0	41.9	40.8	55.8	153	360	362	48.9	8.03	6.61	92.7

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1940	-	-	-	-	-	3,230	5,260	5,850	476	138	105	121	-
1941	761	276	581	738	1,050	2,090	4,930	12,870	1,060	123	187	146	24,810
1942	223	176	659	1,460	1,580	2,420	11,770	14,760	6,770	184	104	239	40,340
1943	158	309	795	1,270	1,600	3,070	16,380	15,710	12,300	230	151	206	52,180
1944	242	403	546	1,230	897	1,310	5,090	16,900	12,370	170	122	123	39,400
1945	203	339	816	982	1,440	1,530	4,290	16,280	18,460	612	323	401	45,680
1946	215	501	2,000	2,140	1,730	5,070	17,600	16,870	6,710	285	262	433	53,810
1947	1,030	959	1,520	1,720	1,410	2,660	6,410	18,320	9,610	257	170	502	44,570
1948	238	536	1,450	1,220	1,360	1,060	8,070	21,680	13,410	450	128	387	49,990
1949	469	711	1,060	1,470	1,750	4,280	6,670	17,290	4,920	303	119	229	39,270
1950	868	225	1,040	2,580	2,270	3,430	9,120	22,160	21,520	3,010	494	394	67,110

Yearly discharge, in cubic feet per second, of Cub River above Maple Creek, near Franklin, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1940	980	a223	May 13, 1940	-	-	-	-	-
1941	980	a449	May 14, 1941	1.5	34.3	24,810	33.5	24,250
1942	980	†565	May 26, 1942	1.5	55.7	40,340	56.0	40,550
1943	980	617	June 2, 1943	2.3	72.1	52,180	72.0	52,110
1944	1010	578	May 17, 1944	1.4	54.2	39,400	54.5	39,570
1945	1040	505	June 6, 1945	2.3	63.1	45,680	65.0	47,030
1946	1060	550	Apr. 27, 1946	3.2	74.3	53,810	75.4	54,610
1947	1090	521	May 6,11,1947	2.2	61.5	44,570	59.8	43,280
1948	1120	585	May 20, 1948	.6	68.8	49,990	68.9	49,990
1949	1150	514	May 21, 1949	1.7	54.2	39,270	54.1	39,160
1950	1180	740	May 25, 1950	3.5	92.7	67,110	-	-

† Corrected.
a Maximum observed.

67. Maple Creek near Franklin, Idaho

Location.--Lat 42°02'30", long 111°45'00", in NW¼ sec. 14, T. 16 S., R. 40 E., 30 feet downstream from Deep Creek and 3 miles east of Franklin.

Drainage area.--21.2 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,850 ft (from topographic map). Prior to Sept. 27, 1946, staff gage at same site and datum.

Extremes.--1946-50: Maximum discharge, 315 cfs May 18, 1950 (gage height, 3.15 ft); minimum daily, 1.0 cfs Sept. 26-30, 1948.

Remarks.--A few small diversions for irrigation above the station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	-	-	-	-	-	-	102	77.7	49.1	7.34	4.57	2.69	-
1947	4.71	4.71	11.3	4.94	10.7	24.6	54.9	82.3	37.5	7.74	2.85	1.91	20.7
1948	2.02	2.08	3.69	5.50	2.89	6.65	65.0	120	41.6	8.01	2.48	1.25	21.8
1949	1.85	1.78	1.94	2.02	1.75	13.7	66.4	83.3	25.9	5.27	2.12	1.53	17.4
1950	2.16	2.78	2.80	7.95	8.73	26.8	78.5	138	86.5	17.2	4.25	2.48	31.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	-	-	-	-	-	-	6,070	4,780	2,920	452	281	160	-
1947	289	280	692	304	592	1,510	3,260	5,060	2,230	476	175	113	14,980
1948	124	124	227	338	166	409	3,870	7,410	2,470	492	152	74	15,860
1949	113	106	119	124	97	843	3,950	5,120	1,540	324	131	91	12,560
1950	133	165	172	489	485	1,650	4,670	8,510	5,150	1,060	261	148	22,890

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1946	1060	a224	Apr. 19, 1946	-	-	-	-	-
1947	1090	160	May 4, 1947	1.4	20.7	14,980	19.6	14,200
1948	1120	229	May 17, 1948	1.0	21.8	15,860	21.7	15,720
1949	1150	146	May 20, 1949	1.1	17.4	12,560	17.5	12,690
1950	1180	315	May 18, 1950	1.7	31.6	22,890	-	-

a Maximum observed.

68. Cub River at Franklin, Idaho

Location.--Lat 42°04'30", long 111°45'30", in SE¼ sec. 34, T. 15 S., R. 40 E., just upstream from Cub River (Lewiston) Canal and 4½ miles northeast of Franklin.

Drainage area.--47.1 sq mi.

Gage.--Staff gage. Altitude of gage is 4,630 ft (from topographic map).

Extremes.--August to December 1900: Maximum discharge observed, 77 cfs July 23 to Aug. 2, 1900 (gage height, 2.20 ft); minimum not determined.
Measurement of 462 cfs made May 29, 1900, stage unknown.

Remarks.--Diversions above station for storage and for irrigation of several thousand acres below station.

Monthly mean discharge, in cubic feet per second, of Cub River at Franklin, Idaho

Year					Aug.	Sept.	Oct.	Nov.	Dec.				
1900					66	60	57	44	42				

Monthly runoff, in acre-feet

Year					Aug.	Sept.	Oct.	Nov.	Dec.				
1900					4,060	3,570	3,500	2,620	2,590				

69. Worm Creek near Preston, Idaho

Location.--Lat 42°08', long 111°46', in NW¼ sec. 10, T. 15 S., R. 40 E., 0.3 mile upstream from backwater of Glendale (Preston-Whitney) Reservoir and 6 miles northeast of Preston.

Gage.--Water-stage recorder. Altitude of gage is 4,990 ft (from topographic map). Prior to Oct. 1, 1943, at site 75 ft downstream at different datum.

Extremes.--1943-46: Maximum discharge, 106 cfs Mar. 28, 1946 (gage height, 3.09 ft), from rating curve extended above 41 cfs; minimum daily, 0.1 cfs Oct. 10, 1943.

Remarks.--Several small diversions for irrigation above the station. Most of the flow past station was from Cub River-Worm Creek Canal which diverted from Cub River into Worm Creek basin and entered Worm Creek 1 mile above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	16.6	35.8	56.5	39.3	6.92	1.72	-
1944	3.07	4.67	22.9	10.0	18.6	13.6	24.6	14.4	26.4	21.3	4.38	.21	13.6
1945	2.75	9.70	15.0	11.4	8.35	27.5	25.1	39.1	41.7	39.7	9.29	2.73	19.4
1946	7.17	8.31	11.7	7.64	3.85	23.3	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	990	2,200	3,360	2,440	425	103	-
1944	189	278	1,410	617	1,070	839	1,460	887	1,570	1,310	269	13	9,910
1945	169	577	925	700	464	1,690	1,500	2,410	2,480	2,440	571	162	14,090
1946	441	494	717	470	214	1,430	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	79	May 24, 1943	-	-	-	-	-
1944	1010	61	June 1, 1944	0.1	13.6	9,910	13.4	9,710
1945	1040	82	June 26, 1945	.2	19.4	14,090	19.4	14,070
1946	1060	a106	Mar. 28, 1946	-	-	-	-	-

a Maximum during period October 1 to April 15, 1946.

70. High Creek near Richmond, Utah

Location.--Lat 41°59', long 111°45', in SW¼SE¼ sec. 5, T. 14 N., R. 2 E., at forest boundary, 2 miles downstream from North Fork and 5 miles northeast of Richmond.

Drainage area.--16.2 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 5,250 ft (from topographic map).

Extremes.--1944-50: Maximum discharge, 250 cfs May 24, 1950 (gage height, 2.31 ft); minimum observed, 2.6 cfs Jan. 5, 1950, result of ice jams upstream.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	-	-	-	-	-	-	32.0	87.7	107	30.8	15.8	11.2	-
1945	-	-	-	-	-	-	22.2	96.4	137	45.0	17.9	11.7	-
1946	-	-	-	-	-	-	86.7	116	104	41.0	17.2	10.9	-
1947	11.5	12.5	10.6	7.40	11.3	18.1	43.2	124	77.9	31.1	15.4	11.6	31.3
1948	10.1	10.6	10.3	9.53	5.95	7.98	40.6	127	107	35.5	16.7	11.8	32.8
1949	10.2	8.45	8.39	7.74	7.01	14.4	51.5	121	75.2	26.0	13.2	8.99	29.5
1950	10.7	11.3	9.21	12.8	12.3	18.5	51.1	122	164	69.4	23.3	13.5	43.3

Monthly and yearly runoff, in acre-feet, of High Creek near Richmond, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	-	-	-	-	-	-	1,900	5,360	6,380	1,900	970	668	-
1945	-	-	-	-	-	-	1,320	5,920	8,170	2,770	1,100	696	-
1946	-	-	-	-	-	-	5,160	7,120	6,190	2,520	1,060	647	-
1947	706	746	649	455	626	1,110	2,570	7,630	4,640	1,910	946	689	22,680
1948	619	629	633	586	342	491	2,420	7,820	6,380	2,180	1,030	702	23,830
1949	626	503	516	476	389	885	3,060	7,470	4,480	1,600	811	535	21,350
1950	656	671	566	789	684	1,130	3,040	7,520	9,750	4,270	1,430	801	31,310

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30				Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1944	(a)	‡154	June 3, 1944	-	-	-	-	-
1945	(a)	‡184	June 6, 1945	-	-	-	-	-
1946	1060	b169	Apr. 26, 1946	-	-	-	-	-
1947	1090	207	May 7, 1947	-	31.3	22,680	31.0	22,460
1948	1120	242	May 19, 1948	5.0	32.8	23,830	32.5	23,600
1949	1150	228	May 19, 1949	-	29.5	21,350	29.8	21,600
1950	1180	250	May 24, 1950	7.0	43.3	31,310	-	-

‡ Not previously published; maximum for water year.
a Reports on Bear River hydrometric data (U. S. Geological Survey open-file report).
b Maximum for water year.

71. East Fork Little Bear River near Avon, Utah 1/

Location.--Lat 41°31', long 111°45', in NE¼ sec. 17, T. 9 N., R. 2 E., 0.2 mile downstream from Porcupine Creek, 0.4 mile upstream from Pole Creek, and 4 miles east of Avon.

Drainage area.--50 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,250 ft (from topographic map). Prior to Mar. 29, 1939, staff gage, and Mar. 30, 1939, to Oct. 31, 1945, water-stage recorder, at site 0.3 mile downstream at different datum.

Average discharge.--12 years (1938-50), 36.3 cfs.

Extremes.--1938-50: Maximum discharge, 960 cfs Apr. 18, 1946 (gage height, 5.30 ft); minimum, 5.0 cfs Feb. 14, 1949.

Remarks.--No diversion above station.

Cooperation.--Records prior to October 1942 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	12.3	13.1	32.7	144	167	57.4	29.5	‡20	‡18	-
1939	‡11	‡11.7	‡11.2	‡11	‡10.6	‡34.5	98.6	58.7	24.2	13.6	10.2	9.8	‡25.4
1940	10.5	9.32	9.23	9.03	9.41	22.1	67.6	42.6	16.0	10.6	8.21	8.65	18.6
1941	9.40	*8.38	*7.86	7.65	9.12	13.9	55.4	70.5	20.1	12.0	9.27	8.58	*19.4
1942	8.71	9.23	9.95	9.24	9.79	13.3	110	91.7	47.6	19.1	14.2	11.4	29.5
1943	10	10	10.6	11.5	17.9	26.7	206	111	56.9	24.7	16.6	13	42.9
1944	12.5	12.4	10.9	10.3	10.2	11.7	51.7	117	55.2	23.3	14.0	11.8	28.5
1945	10.8	11.2	10.8	11.1	12.1	15.4	55.6	144	127	35.5	20.7	15.6	39.2
1946	13.9	16.0	19.8	20.9	18.1	46.0	285	128	49.6	24.9	17.6	14.8	54.5
1947	15.4	14.6	14.4	12.1	13.0	28.2	95.7	93.0	38.2	20.0	14.5	12.6	31.0
1948	12.0	11.7	11.0	10.4	11.4	11.7	106	251	66.4	25.9	16.1	13.6	45.6
1949	13.3	13.0	12.3	11.6	12.2	28.8	180	144	55.1	24.8	16.2	13.7	43.7
1950	14.5	13.7	12.1	17.1	19.8	33.0	192	232	87.1	31.6	20.5	15.7	57.6

* Revised.
‡ Not previously published; estimated or partly estimated on basis of fragmentary gage-height record and records for Little Bear River near Paradise.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	754	730	2,010	8,580	10,290	3,410	1,810	‡1,230	‡1,070	-
1939	‡676	‡694	‡686	‡676	‡587	‡2,120	5,870	3,610	1,440	839	628	581	‡18,410
1940	643	554	567	555	541	1,360	4,020	2,620	952	653	505	515	13,480
1941	578	*499	*483	470	507	855	3,300	4,330	1,200	740	570	511	*14,040
1942	536	549	612	568	543	815	6,560	5,640	2,830	1,170	875	678	21,380
1943	615	595	651	704	996	1,640	12,290	6,850	3,390	1,520	1,020	774	31,040
1944	772	736	668	635	587	720	3,080	7,190	3,280	1,430	863	704	20,660
1945	664	666	666	685	669	946	3,310	8,840	7,580	2,180	1,270	926	28,400

* Revised.
‡ Not previously published; see footnote to preceding table.

1/ Records published under this name 1927-30 are not equivalent to records herein; those records are published in this report as East Fork Little Bear River below Pole Creek, near Avon.

Monthly and yearly runoff, in acre-feet, of East Fork Little Bear River near Avon, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	855	954	1,220	1,280	1,010	2,830	16,980	7,860	2,950	1,530	1,080	879	39,430
1947	948	871	885	744	722	1,730	5,690	5,720	2,280	1,230	891	748	22,460
1948	736	696	674	641	657	718	6,300	15,430	3,950	1,590	992	807	33,190
1949	819	772	756	716	678	1,770	10,680	8,850	3,280	1,530	996	813	31,660
1950	895	813	742	1,050	1,100	2,030	11,440	14,280	5,180	1,940	1,260	936	41,670

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	980	a276	Apr. 25, 1938	-	-	-	‡44.0	‡31,940
1939	980	‡198	Apr. 3, 1939	-	‡25.4	‡18,410	‡25.0	‡18,120
1940	980	110	Apr. 15, 1940	6.5	18.6	13,480	*18.3	*13,280
1941	980,1514	146	Apr.28,29, 1941	*7.0	*19.4	*14,040	19.6	14,180
1942	980	249	Apr. 11, 1942	8.0	29.5	21,380	29.7	21,540
1943	980	449	Apr. 20, 1943	-	42.9	31,040	43.3	31,360
1944	1010	274	May 6, 1944	10	28.5	20,660	28.2	20,480
1945	1040	364	May 4, 1945	8.8	39.2	28,400	40.7	29,440
1946	1060	960	Apr. 18, 1946	12	54.5	39,430	55.4	40,100
1947	1090	225	Apr. 15, 1947	12	31.0	22,460	30.2	21,860
1948	1120	569	May 7, 1948	8	45.6	33,190	46.1	33,430
1949	1150	475	Apr. 23, 1949	9	43.7	31,660	43.9	31,760
1950	1180	539	Apr. 22, 1950	9.8	57.6	41,670	58.4	42,290

* Revised. ‡ Not previously published. a Maximum observed.

Note.--Station discontinued Dec. 31, 1950. Monthly mean discharge for October to December 1950 was 15.5 cfs, 17.1 cfs, and 17.9 cfs, respectively.

72. East Fork Little Bear River below Pole Creek, near Avon, Utah 1/

Location.--Lat 41°31'20", long 111°46'20", in NW¼ sec. 18, T. 9 N., R. 2 E., at mouth of canyon, 1.8 miles downstream from Pole Creek, 1½ miles upstream from diversion dam of Avon-Paradise Canal, and 2 miles east of Avon.

Drainage area.--67 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,120 ft (from topographic map).

Extremes.--1927-30: Maximum discharge, about 800 cfs Apr. 27, 1927 (gage height unknown); minimum, 14 cfs several days in August and September 1930.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	-	-	-	‡151	208	68.4	31.7	22.5	20.7	-
1928	23.4	21.7	21.0	21.0	21.1	61.9	171	250	49.8	27.5	19.6	17.8	58.9
1929	17.2	17.0	17.0	17.0	17.0	30.3	105	210	57.6	27.7	22.3	21.4	46.8
1930	18.1	17.2	16.0	15	16	18.7	‡91.1	‡52.6	24.3	18	16.5	14.6	‡26.5

‡ Not previously published; estimated or partly estimated on basis of two discharge measurements and records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	-	-	-	‡8,960	12,800	4,070	1,950	1,380	1,230	-
1928	1,440	1,290	1,290	1,290	1,210	3,810	10,200	15,400	2,960	1,690	1,210	1,060	42,800
1929	1,060	1,010	1,050	1,050	944	1,860	6,250	12,900	3,430	1,700	1,370	1,270	33,900
1930	1,110	1,020	984	922	889	1,150	‡5,420	‡3,240	1,450	1,110	1,010	869	‡19,200

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1927	650	a800	Apr. 27, 1927	-	-	-	-	-
1928	670	550	(b)	17	58.9	42,800	57.6	42,000
1929	690	334	May15,16,1929	17	46.8	33,900	46.8	33,900
1930	705	-	-	-	‡26.5	‡19,200	-	-

‡ Not previously published.
a About.
b Apr. 28 to May 1, 1928.

1/ Previously published as East Fork of Little Bear River near Avon, Utah.

73. 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., 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.

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

Average discharge.--13 years (1937-50), 85.0 cfs.

Extremes.--1937-50: Maximum discharge, 926 cfs Apr. 19, 1946 (gage height, 5.15 ft); minimum, 4 cfs Aug. 14, 1940.

Remarks.--Diversions above station for irrigation of about 400 acres above and 2,400 acres below station.

Cooperation.--Records prior to October 1938, not previously published by Geological Survey, furnished by Little Bear River water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1937	-	-	-	52.3	30.2	84.3	32.0	397	51.7	23.7	17.1	16.2	-
1938	34.2	47.6	49.6	53.8	53.3	124	31.8	306	64.4	27.8	17.9	17.6	92.8
1939	33.9	48.2	46.6	43.1	41.9	130	235	91.5	24.6	13.0	11.2	13.0	61.0
1940	35.0	35.7	34.4	38.7	44.9	87.2	140	59.3	13.1	8.5	6.6	9.7	42.7
1941	24.9	35.4	35.5	31.7	44.1	66.2	157	134	26.0	12.0	9.2	9.7	48.7
1942	29.9	35.8	41.1	35.3	39.5	53.6	312	223	55.0	15.7	10.0	11.3	71.8
1943	21.1	40.5	44.1	54.5	67.4	135	398	188	86.6	21.7	17.3	15.1	90.5
1944	27.7	39.2	41.7	45.1	43.0	48.4	163	237	94.0	15.9	10.8	12.1	64.8
1945	24.0	39.1	37.4	38.5	61.7	74.3	183	344	237	31.3	23.5	32.6	93.9
1946	53.1	63.8	76.3	72.5	60.9	179	514	240	69.5	27.9	23.8	31.0	117
1947	50.5	71.9	61.4	55.2	62.6	119	209	171	61.0	21.5	19.7	28.5	77.6
1948	44.8	55.0	51.6	51.7	58.7	65.9	342	478	111	24.3	19.7	23.6	111
1949	41.8	57.0	54.5	52.4	55.6	115	383	318	87.8	25.7	19.4	22.3	103
1950	53.1	60.6	56.0	90.5	95.4	128	365	443	174	41.8	24.8	32.3	130

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1937	-	-	-	3,240	1,690	5,230	19,190	24,640	3,100	1,470	1,060	975	-
1938	2,120	2,860	3,080	3,310	2,960	7,670	18,940	18,840	3,830	1,710	1,110	1,060	67,490
1939	2,080	2,870	2,860	2,650	2,330	8,000	13,990	5,630	1,460	801	686	776	44,130
1940	2,150	2,120	2,110	2,380	2,580	5,360	8,320	3,650	781	522	405	579	30,960
1941	1,530	2,110	2,180	1,950	2,450	4,070	9,320	8,230	1,550	738	567	577	35,270
1942	1,840	2,130	2,530	2,170	2,190	3,300	18,580	13,730	3,280	964	615	670	52,000
1943	1,300	2,410	2,710	3,350	3,740	8,310	23,680	11,580	5,160	1,340	1,060	897	65,540
1944	1,700	2,330	2,560	2,770	2,480	2,970	9,720	14,560	5,590	980	663	720	47,040
1945	1,480	2,330	2,300	2,370	3,430	4,570	10,910	21,170	14,120	1,930	1,450	1,940	68,000
1946	3,260	3,790	4,690	4,460	3,380	11,010	30,560	14,740	4,130	1,710	1,460	1,840	85,030
1947	3,110	4,280	3,780	3,390	3,480	7,330	12,410	10,520	3,630	1,320	1,220	1,690	56,160
1948	2,760	3,270	3,180	3,180	3,380	4,050	20,360	29,370	6,600	1,490	1,210	1,400	80,250
1949	2,570	3,390	3,350	3,220	3,090	7,100	22,800	19,540	5,220	1,580	1,190	1,330	74,380
1950	3,260	3,600	3,440	5,560	5,300	7,860	21,720	27,220	10,360	2,570	1,530	1,920	94,340

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1937	(a)	b699	May 12, 1937	-	-	-	94.8	68,650
1938	(a)	b702	Apr. 23, 1938	16	92.8	67,490	93.1	67,390
1939	880	491	Apr. 4, 1939	8	61.0	44,130	59.0	42,700
1940	900	390	Mar. 27, 1940	5	42.7	30,960	42.0	30,400
1941	930	416	Apr. 6, 1941	7	48.7	35,270	49.6	35,950
1942	960	720	Apr. 5, 1942	8	71.8	52,000	71.7	51,920
1943	980	640	Apr. 20, 1943	11	90.5	65,540	90.8	65,710
1944	1010	457	Apr. 29, 1944	9	64.8	47,040	64.1	46,560
1945	1040	852	June 6, 1945	13	93.9	68,000	102	73,630
1946	1060	926	Apr. 19, 1946	20	117	85,030	117	84,460
1947	1090	404	Apr. 22, 1947	16	77.6	56,160	74.9	54,200
1948	1120	766	Apr. 22, 1948	17	111	80,250	111	80,350
1949	1150	796	Apr. 20, 1949	18	103	74,380	104	75,370
1950	1180	763	May 18, 1950	22	130	94,340	-	-

a Reports of Little Bear River water commissioner.
b Maximum daily.

74. 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.

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

Extremes.--1938-50: Maximum contents observed, 15,660 acre-ft May 17, 1950 (elevation, 4,672.8 ft); minimum observed since initial filling, 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). Elevation of spillway crest, 4,660 ft. Water used for irrigation on Hyrum project. Figures given herein show usable contents; those published in annual reports of Geological Survey prior to 1946 show total contents.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1938	-	-	-	-	-	-	-	-	-	-	-	4,100
1939	4,290	6,460	9,120	10,310	10,390	10,870	15,280	14,620	12,580	7,780	4,060	2,280
1940	2,750	4,530	6,490	8,910	10,260	14,580	a15,280	a13,810	10,140	5,860	2,510	1,180
1941	1,540	2,600	4,600	6,570	9,080	11,090	15,280	15,280	13,540	9,120	5,010	2,080
1942	2,780	4,060	6,680	9,000	10,180	10,260	15,280	15,280	13,500	9,460	5,320	2,450
1943	2,310	4,230	6,840	10,350	10,390	11,450	15,230	15,280	15,140	10,740	6,800	4,190
1944	4,190	6,270	8,830	10,310	10,310	12,800	15,280	15,280	14,860	10,050	6,230	3,580
1945	3,140	4,940	7,300	9,840	10,440	10,700	15,280	15,040	15,230	11,450	8,790	8,260
1946	10,140	10,440	10,650	10,570	10,740	12,170	15,040	15,280	13,590	10,010	7,070	6,310
1947	8,500	10,700	10,570	10,520	10,480	11,900	15,230	14,810	14,720	10,520	8,060	7,150
1948	8,830	a10,390	10,390	10,520	a10,480	10,700	14,670	15,420	14,810	10,260	7,620	5,180
1949	a7,340	a9,960	10,050	10,050	10,570	10,790	11,940	15,280	13,870	10,140	6,460	4,900
1950	a7,860	a10,260	a10,310	10,350	a10,570	a10,570	15,470	15,470	a14,900	11,540	8,260	a6,840

a Interpolated.

75. Little Bear River near Hyrum, Utah

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

Drainage area.--222 sq mi.

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.--12 years (1938-50), 60.9 cfs.

Extremes.--1938-50: Maximum discharge, 885 cfs Apr. 20, 1946 (gage height, 4.55 ft, site and datum then in use); minimum daily, 0.6 cfs Nov. 23-25, 1943.

Remarks.--Diversions above the station for irrigation of about 2,800 acres above and about 7,600 acres below station. Flow regulated by Hyrum Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	7.6	8.2	7.2	31.5	53.0	135	161	62.3	2.9	1.4	1.0	3.1	39.4
1940	8.3	6.5	1.5	5.0	23.4	21.9	126	12.3	1.1	1.0	1.2	1.4	17.2
1941	4.5	6.3	2.3	3.4	4.8	39.1	88.2	92.0	3.0	1.3	1.2	2.4	20.8
1942	9.0	10.1	2.0	3.7	24.5	54.5	245	221	21.1	2.9	3.8	5.0	50.2
1943	5.50	5.07	4.06	6.57	64.3	130	337	143	60.7	3.56	2.33	3.51	63.4
1944	7.93	6.49	2.07	21.3	46.7	14.1	119	239	76.6	3.80	2.37	2.99	45.1
1945	12.1	8.23	3.32	3.77	5.79	75.8	99.1	348	200	4.15	3.46	17.2	69.4
1946	3.25	54.0	79.8	90.2	63.0	146	490	194	34.6	4.26	2.99	3.68	96.9
1947	3.40	34.8	68.8	57.0	62.9	98.1	153	148	31.5	3.52	2.08	2.39	55.3
1948	1.93	22.0	50.5	52.0	62.0	66.8	266	436	51.4	4.06	2.88	4.50	85.1
1949	4.61	3.76	59.6	56.1	59.7	115	375	231	52.6	4.84	5.39	5.37	80.9
1950	4.29	20.8	68.4	113	100	146	307	404	95.1	11.0	8.07	6.46	107

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	466	488	444	1,930	2,940	8,310	9,590	3,830	173	85	61	182	28,500
1940	510	389	89	307	1,340	1,340	7,490	758	63	63	75	81	12,500
1941	280	373	139	210	264	2,400	5,250	5,660	177	77	71	145	15,040
1942	551	603	123	228	1,360	3,350	14,610	13,570	1,250	179	234	300	36,360
1943	338	302	250	404	3,570	8,020	20,030	8,790	3,610	219	143	209	45,880
1944	488	386	128	1,310	2,690	867	7,050	14,720	4,560	234	146	178	32,760
1945	750	490	204	233	3,220	4,660	5,900	21,420	11,900	255	213	1,030	50,280

Monthly and yearly runoff, in acre-feet, of Little Bear River near Hyrum, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	200	3,210	4,910	5,540	3,500	8,980	29,180	11,930	2,060	262	184	219	70,180
1947	209	2,070	4,230	3,510	3,490	6,030	9,090	9,080	1,880	217	128	142	40,080
1948	119	1,310	3,100	3,200	3,570	4,110	15,830	26,820	3,060	250	177	268	61,810
1949	283	224	3,670	3,450	3,320	7,040	22,320	14,200	3,130	297	331	320	58,580
1950	264	1,240	4,200	6,920	5,560	8,970	18,290	24,820	5,660	677	496	384	77,480

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	880	421	Mar. 25, 1939	1	39.4	28,500	38.8	28,090
1940	900	199	Apr.16,17,1940	1	17.2	12,500	17.0	12,320
1941	930	258	(a)	1	20.8	15,040	21.4	15,530
1942	960	464	Apr. 6, 1942	2	50.2	36,360	49.7	35,970
1943	980	528	Apr. 23, 1943	1.2	63.4	45,880	63.5	46,000
1944	1010	465	Apr. 30, 1944	.6	45.1	32,760	47.7	33,200
1945	1040	642	June 7, 1945	2.1	69.4	50,280	78.9	57,150
1946	1060	885	Apr. 20, 1946	1.6	96.9	70,180	94.4	68,360
1947	1090	355	May 5, 1947	1.0	55.3	40,080	52.6	38,100
1948	1120	853	May 19, 1948	1.5	85.1	61,810	84.6	61,460
1949	1150	882	May 19, 1949	1.3	80.9	58,580	83.0	60,110
1950	1180	822	May 16, 1950	-	107	77,480	-	-

a Apr. 30, May 1, 1941.

76. 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., 100 ft downstream from powerhouse of Utah Power & Light Co. and 2½ miles east of Logan.

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

Average discharge.--37 years (1913-50), 107 cfs.

Extremes.--1913-50: Maximum daily discharge, 198 cfs Apr. 28-30, 1947; no flow for periods during several years.

Remarks.--Flow regulated by powerplant above gage. Power canal diverts from right bank of Logan River in SE¼SW¼ sec. 29, T. 12 N., R. 2 E. Water returns to river 125 ft below Logan River above State dam (see p. 87).

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

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	‡8,880	8,870	9,160	8,670	8,270	-
1914	8,120	6,780	6,150	5,980	5,130	7,070	8,450	8,610	7,560	7,380	7,440	7,910	86,600
1915	8,120	7,620	6,000	1,220	989	953	863	1,540	3,590	5,560	5,370	5,240	47,100
1916	5,690	5,150	4,750	4,210	4,180	5,130	4,340	2,500	1,710	4,510	5,390	5,110	52,700
1917	5,700	6,010	5,980	4,480	3,570	3,580	5,190	5,840	†5,220	6,130	6,270	6,660	64,600
1918	7,260	6,840	6,760	5,180	3,990	5,850	5,880	1,750	3,210	6,950	6,950	6,250	66,900
1919	6,950	5,610	4,310	713	1,420	2,790	1,870	4,750	4,650	4,810	4,720	4,720	47,300
1920	4,950	4,330	3,230	3,090	3,420	3,530	2,070	2,990	4,910	4,980	4,560	4,650	46,700
1921	5,200	5,140	4,650	3,930	3,180	2,430	4,680	4,870	4,330	4,280	4,110	4,010	50,800
1922	4,590	4,530	3,950	2,540	2,430	2,000	119	123	107	0	0	0	20,400
1923	0	0	0	5,970	5,400	5,790	8,270	8,550	9,520	9,350	9,410	9,280	71,500
1924	9,530	8,870	7,810	6,820	5,920	5,850	9,100	9,590	9,840	9,650	7,620	6,070	96,500
1925	5,950	5,410	5,240	5,010	4,530	5,570	9,640	10,300	10,400	10,700	7,620	7,020	87,400
1926	6,820	6,370	5,880	5,230	4,700	6,520	10,400	11,700	10,800	8,420	6,270	5,170	88,300
1927	5,610	5,270	4,950	4,810	4,210	5,070	8,690	9,280	9,100	10,300	10,300	8,450	86,000
1928	8,550	7,970	†7,260	6,580	5,410	6,400	7,560	9,900	9,880	11,000	9,720	7,740	†98,000
1929	8,120	7,200	6,020	5,750	4,870	6,060	5,470	10,700	10,000	10,400	9,900	8,390	92,900
1930	8,120	7,020	6,400	5,720	4,950	5,480	9,640	10,600	10,400	9,960	7,440	5,860	91,600
1931	6,150	5,360	5,230	4,800	4,030	4,490	5,600	10,800	8,090	4,960	4,220	3,560	67,300
1932	3,700	3,560	3,750	3,620	3,350	4,550	9,280	11,100	10,800	11,400	11,300	9,640	86,000
1933	9,040	7,680	6,520	6,110	4,780	5,360	7,850	10,800	†9,880	11,200	9,100	6,550	94,900
1934	6,540	5,920	5,630	4,970	4,390	5,710	8,650	8,560	5,710	4,510	3,740	3,220	67,550
1935	3,520	3,690	3,720	3,600	3,520	4,220	8,140	11,460	11,250	11,300	8,330	6,080	78,830
1936	5,710	5,290	4,550	4,270	4,110	4,900	4,980	9,760	10,090	10,600	10,560	8,520	83,340
1937	8,610	7,470	6,610	5,570	4,900	5,500	7,950	10,170	10,310	10,540	9,230	7,110	93,970
1938	7,350	6,760	5,670	5,490	4,940	5,650	6,330	10,620	10,050	10,470	9,960	7,390	90,680
1939	7,320	6,780	5,880	5,360	4,680	6,430	9,400	10,470	9,610	8,790	6,760	5,060	86,540
1940	5,250	5,140	4,830	4,600	4,250	5,320	8,240	10,960	10,250	7,240	5,420	4,610	76,110

† Corrected.
‡ Not previously published; May 1-6 extrapolated.

Monthly and yearly diversions, in acre-feet, of Utah Power & Light Co.'s tailrace near Logan, Utah --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	5,080	4,460	3,950	3,760	3,530	4,330	4,010	11,130	10,390	6,880	5,080	4,290	66,890
1942	4,850	4,310	4,070	3,770	3,330	3,840	6,010	11,420	11,310	9,870	6,720	5,000	74,500
1943	4,990	4,860	4,450	4,270	4,100	5,650	8,660	9,670	11,000	†11,240	10,680	8,330	†87,900
1944	8,440	7,280	5,950	5,370	4,660	4,790	7,480	6,650	10,310	10,210	7,730	5,380	84,250
1945	5,540	5,370	4,690	4,560	4,020	4,500	5,910	9,910	10,690	11,050	10,010	8,070	84,320
1946	8,050	7,160	5,960	5,670	4,940	6,590	11,070	11,490	11,360	11,480	10,600	7,990	102,400
1947	8,820	7,770	7,000	5,810	5,320	7,010	10,250	11,520	9,740	5,710	5,940	4,900	89,790
1948	5,630	5,860	5,870	5,400	4,820	5,050	5,910	6,010	5,570	6,030	6,110	6,030	68,290
1949	6,320	6,150	6,220	5,750	5,040	6,170	5,380	10,090	10,340	10,770	9,120	7,560	88,910
1950	8,730	6,960	6,270	5,840	5,260	6,360	9,350	11,880	11,290	11,480	11,620	11,090	106,100

† Corrected.

77. 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., 1¼ miles downstream from head of canal and 2½ miles east of Logan.

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

Average discharge.--27 years (1923-50), 28.9 cfs.

Extremes.--1923-50: Maximum daily discharge, 136 cfs May 30, 31, 1930; no flow at times in most years.

Remarks.--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

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	-	-	-	‡5,050	6,460	5,900	-	-
1906	-	-	-	1,010	850	517	503	842	2,370	5,370	3,570	1,480	-
1907	682	898	1,110	1,080	‡957	-	625	1,690	-	-	-	-	-
1908	-	1,610	1,410	-	-	-	-	-	-	-	-	-	-
1909	-	-	-	1,190	492	750	637	2,400	4,280	5,120	4,980	2,430	-
1910	1,710	1,190	1,230	-	-	-	-	-	-	-	-	-	-
1911	‡1,540	‡1,130	‡1,110	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	-	2,580	3,930	5,700	3,810	2,890	-
1913	-	361	409	516	478	578	-	-	‡4,760	4,060	3,150	1,800	-
1914	1,090	-	-	-	-	-	246	4,420	3,490	6,110	4,070	2,520	-
1915	1,280	-	-	-	-	-	-	4,410	4,600	2,980	2,070	1,590	-
1916	1,410	863	689	526	-	-	-	4,620	5,470	6,460	5,160	2,550	-
1917	1,530	-	-	-	-	-	-	-	-	6,700	5,950	-	-
1918	-	-	-	-	-	-	-	3,390	5,560	6,060	3,070	1,750	-
1919	1,170	-	-	-	-	-	-	5,440	6,130	3,330	2,170	1,290	-
1920	-	-	-	-	-	-	-	-	6,840	7,130	4,830	3,000	-
1921	-	-	-	-	-	-	-	-	6,310	7,130	6,520	4,080	-
1922	-	-	-	-	-	-	-	-	5,090	5,830	5,590	5,560	-
1923	2,900	-	-	-	-	-	-	3,780	3,710	6,700	-	-	-
1924	1,320	1,030	295	0	81	307	3,360	5,590	5,620	2,740	2,080	1,790	24,200
1925	1,650	595	307	307	278	307	2,290	4,430	4,190	4,940	2,430	1,670	23,400
1926	535	238	184	184	167	154	1,940	5,770	4,380	2,120	1,750	1,540	19,000
1927	676	351	357	307	283	394	744	3,400	5,660	6,820	2,910	2,140	24,000
1928	1,110	1,330	566	277	224	215	791	6,010	6,550	4,940	2,670	1,970	26,700
1929	855	357	369	369	278	307	214	4,960	5,870	6,030	2,630	1,790	24,000
1930	430	417	357	307	278	184	2,500	4,250	6,660	2,610	2,040	1,640	21,700
1931	402	238	307	368	333	368	1,090	4,190	2,780	1,690	1,410	1,100	14,300
1932	664	500	369	307	230	246	464	4,430	6,190	7,380	3,910	1,990	26,700
1933	1,020	595	369	369	333	307	434	1,430	7,680	4,810	2,450	2,100	21,900
1934	1,140	595	369	369	333	258	3,090	2,850	1,940	1,240	1,050	930	14,160
1935	549	298	246	246	218	87	914	3,010	6,420	4,020	1,950	1,450	19,410
1936	668	373	369	307	288	73	660	5,220	6,340	6,130	3,010	2,390	25,830
1937	1,170	506	307	307	278	286	337	4,860	5,160	4,900	2,320	1,750	22,180
1938	855	357	307	357	284	331	325	3,160	6,800	4,510	2,520	1,960	21,770
1939	875	452	430	430	389	290	958	5,990	4,380	2,280	1,710	1,530	19,710
1940	1,020	298	307	307	288	129	321	6,480	3,530	2,070	1,550	1,160	17,460
1941	383	298	315	278	270	238	373	4,870	3,460	1,860	1,390	869	14,600
1942	272	248	278	339	307	266	87	797	6,420	2,670	1,880	1,550	15,110
1943	733	238	246	246	200	221	4.6	4,620	3,770	6,760	3,460	2,060	22,560
1944	812	296	281	414	240	6.5	0	2,310	2,300	3,400	1,890	1,550	13,500
1945	924	255	250	187	184	136	148	2,740	3,690	6,370	2,880	1,770	19,530
1946	569	414	293	269	203	83	804	5,200	6,470	5,930	3,080	1,890	25,200
1947	656	361	315	276	263	170	65	3,700	4,600	4,780	2,890	1,740	19,820
1948	1,140	770	360	368	334	157	10	2,060	5,890	6,120	3,170	2,130	22,500
1949	1,520	875	398	384	328	193	371	3,270	5,680	4,830	2,950	2,400	23,200
1950	849	359	307	268	270	178	567	1,690	6,130	6,100	4,240	2,200	23,160

‡ Not previously published; estimated or partly estimated on basis of fragmentary gage-height record and diversion practice.

78. Logan River above State dam, near Logan, Utah 1/

Location.--Lat 41°44'40", long 111°47'00", in NE¼ sec. 36, T. 12 N., R. 1 E., 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.

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

Average discharge.--54 years (1896-1950), 285 cfs, combined discharge of river, Logan, Hyde Park & Smithfield Canal, and Utah Power & Light Co.'s tailrace.

Extremes.--1896-1950: Maximum combined observed discharge, 2,480 cfs May 24, 1907.
1924-50: Minimum combined daily discharge, 61 cfs Feb. 19, 1942.

Remarks.--Logan, Hyde Park, and Smithfield Canal diverts 1.3 miles above station. Utah Power & Light Co. race diverts 1.8 miles above station and re-enters 125 ft below. Records herein show flow in river combined with that of Logan, Hyde Park, and Smithfield Canal (see preceding station) and Utah Power & Light Co.'s tailrace (see p. 85). Combined flow excludes Logan City culinary pipeline and one small irrigation diversion from power flume that siphons across canyon 400 ft upstream from station.

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

Combined monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	-	-	-	1,503	593	359	286	-
1897	260	239	224	170	170	170	347	1,304	1,030	548	375	315	429
1898	304	252	208	172	162	159	342	639	708	365	274	222	317
1899	200	176	146	239	236	241	383	703	1,523	1,153	568	414	498
1900	358	319	295	*284	*247	*237	320	761	744	396	282	241	*374
1901	220	200	178	171	167	168	256	941	691	361	290	247	326
1902	217	193	180	125	140	140	200	591	973	316	246	208	294
1903	200	186	180	173	173	175	253	518	919	456	308	252	316
1904	180	183	140	85	160	305	370	913	961	553	345	274	372
1905	226	192	175	157	146	159	192	393	571	323	251	198	249
1906	167	149	136	121	113	111	275	768	908	476	267	182	306
1907	140	125	141	126	169	259	666	1,180	1,620	945	479	332	515
1908	271	233	195	177	157	147	250	399	741	406	236	160	281
1909	155	123	102	144	107	120	416	1,040	1,650	822	470	254	450
1910	178	204	150	128	97	292	694	1,200	793	392	294	227	387
1911	208	169	146	135	168	175	383	1,030	1,300	523	275	203	393
1912	184	153	115	113	127	143	269	887	1,600	756	319	250	410
1913	192	160	142	133	134	159	360	614	490	294	217	186	256
1914	166	148	131	126	120	151	387	933	815	387	249	212	319
1915	188	162	129	113	112	116	253	329	353	203	157	142	188
1916	132	120	105	103	109	195	434	750	813	480	269	206	310
1917	183	155	138	119	111	111	199	606	1,010	660	329	250	323
1918	202	164	159	132	126	178	290	568	691	305	221	179	268
1919	166	145	131	114	114	121	214	635	404	207	160	144	213
1920	130	118	108	103	107	109	183	864	1,010	428	261	212	304
1921	179	167	138	127	125	176	329	955	1,260	585	337	257	387
1922	215	174	171	147	139	154	229	831	1,010	439	289	243	338
1923	191	164	150	145	123	120	273	974	851	453	287	233	331
1924	204	182	152	135	130	120	326	674	360	225	173	148	236
1925	142	121	108	101	102	117	265	685	511	303	205	171	237
1926	142	129	117	107	106	129	298	466	286	188	147	130	188
1927	119	111	101	98.6	96.9	109	234	581	800	408	243	194	258
1928	172	171	142	131	119	157	234	881	592	311	218	178	276
1929	160	141	122	118	109	121	188	608	677	360	223	187	252
1930	162	141	125	114	111	110	271	411	421	226	171	142	201
1931	129	110	104	98.0	91.9	93.1	128	272	196	120	102	88.3	128
1932	80.1	76.8	76.8	75.9	73.8	92.7	255	877	965	498	270	210	296
1933	175	151	125	118	106	106	169	397	815	302	203	164	236
1934	136	120	108	97.2	94.6	112	215	212	140	103	88.2	79.9	126
1935	74.1	74.9	72.7	70.9	76.3	81.4	188	479	631	275	179	139	195
1936	115	103	89.0	83.4	85.9	94.7	410	1,190	866	386	254	198	323
1937	170	146	125	110	106	106	169	624	525	291	200	160	228
1938	143	129	117	109	103	119	330	707	681	319	221	172	263
1939	147	133	120	108	104	128	284	466	307	195	150	125	189
1940	114	100	95.4	91.6	91.0	104	167	432	268	165	127	110	156

* Revised; only monthly figure for Logan River revised; revised daily figures not available. Revised monthly figures for Logan River only are as follows: January, 272 cfs; February, 235 cfs; March, 225 cfs.

Note.--Discharge for Logan River only for June, July 1901, November 1901 to April 1904, January to May 1913, not previously published; estimated or partly estimated on basis of fragmentary gage-height record, frequent discharge measurements, and records for Bear River near Collinston and Weber River at Devils Slide.

1/ Published as Logan River near Logan prior to 1913.

Combined monthly and yearly mean discharge, in cubic feet per second, of Logan River above State dam, near Logan, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	98.5	89.0	78.3	74.6	78.4	85.9	119	342	264	159	120	98.2	134
1942	94.1	87.5	82.9	79.1	77.2	80.3	225	329	427	224	155	125	166
1943	106	99.3	89.6	88.1	92.6	114	493	742	780	424	245	190	289
1944	165	139	119	107	97.8	93.1	147	434	460	248	174	137	194
1945	121	109	93.0	90.8	92.5	90.8	122	454	654	383	232	185	220
1946	156	143	127	119	109	145	561	781	659	355	240	190	299
1947	170	149	132	115	115	137	215	709	509	282	202	164	242
1948	145	128	115	106	102	97.7	226	763	776	342	227	182	268
1949	161	142	125	114	109	124	312	697	557	299	211	182	254
1950	170	135	121	125	120	140	367	799	1,156	651	322	241	363

Combined monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	-	-	-	89,430	36,470	22,080	17,020	-
1897	15,990	14,280	13,770	10,450	9,440	10,450	20,650	80,180	61,290	33,690	23,060	18,750	312,000
1898	18,690	14,990	12,790	10,580	8,990	9,780	20,350	39,290	42,130	22,440	16,840	13,210	230,100
1899	12,300	10,470	8,980	14,700	13,100	14,820	22,790	43,220	90,620	70,900	34,920	24,650	361,400
1900	22,010	18,980	18,140	*17,460	*13,720	*14,570	19,040	46,790	44,270	24,340	17,340	14,340	*271,000
1901	13,530	11,900	10,950	10,520	9,280	10,330	15,230	57,860	41,090	22,190	17,830	14,690	235,300
1902	13,340	11,480	11,060	7,690	7,770	8,610	11,900	36,360	57,910	19,450	15,130	12,380	213,100
1903	12,300	11,070	11,060	10,660	9,590	10,760	15,030	31,820	54,680	28,060	18,940	15,000	229,000
1904	11,070	10,890	8,600	5,220	9,200	18,750	22,020	56,140	57,180	34,010	21,210	16,320	270,600
1905	13,890	11,430	10,760	9,650	8,110	9,770	11,420	24,170	33,970	19,860	15,430	11,780	180,000
1906	10,300	8,870	8,370	7,470	6,260	6,850	16,400	47,200	54,000	29,300	16,500	10,800	222,000
1907	8,610	7,450	8,670	7,720	9,400	15,900	39,600	72,400	96,500	58,100	29,400	19,800	374,000
1908	16,700	13,900	12,000	10,900	9,030	9,040	14,900	24,500	44,100	25,000	14,500	9,520	204,000
1909	9,530	7,320	6,280	8,880	5,970	7,390	24,700	63,600	98,300	50,500	28,900	15,100	326,000
1910	10,900	12,100	9,220	7,870	5,400	17,900	41,300	73,800	47,200	24,100	18,100	13,500	281,000
1911	12,800	10,100	8,980	8,300	9,340	10,700	22,800	63,500	77,100	32,100	16,900	12,100	285,000
1912	11,300	9,100	7,070	6,950	7,310	8,790	16,000	54,600	94,900	46,500	19,600	14,900	297,000
1913	11,800	9,520	8,710	8,210	7,420	9,800	21,400	37,800	28,500	18,100	13,400	11,100	186,000
1914	10,200	8,840	8,040	7,730	6,680	9,250	23,000	57,300	48,400	23,800	15,300	12,600	231,000
1915	11,600	9,620	7,930	6,970	6,200	7,160	15,100	20,200	21,100	12,500	9,650	8,440	136,000
1916	8,130	7,150	6,470	6,320	6,290	12,000	25,800	46,100	48,400	29,600	16,500	12,200	225,000
1917	11,300	9,230	8,520	7,290	6,160	6,850	11,900	37,200	59,900	40,500	20,200	14,900	234,000
1918	12,400	9,740	9,760	8,100	7,020	10,900	17,300	34,900	41,100	18,700	13,600	10,600	194,000
1919	10,200	8,640	8,030	7,020	6,340	7,450	12,700	39,000	24,100	12,700	9,830	8,540	155,000
1920	8,030	6,990	6,670	6,440	6,180	6,690	10,900	53,200	60,400	26,300	16,000	12,600	220,000
1921	11,000	9,920	8,510	7,810	6,960	10,800	19,600	58,800	74,900	35,900	20,700	15,300	280,000
1922	13,200	10,400	10,500	9,060	7,710	9,440	13,600	51,100	60,300	27,000	17,800	14,500	245,000
1923	11,800	9,760	9,230	8,900	6,830	7,360	16,200	59,900	50,600	27,800	17,600	13,800	240,000
1924	12,600	10,900	9,360	8,280	7,490	7,380	19,400	41,500	21,400	13,800	10,600	8,840	172,000
1925	8,740	7,200	6,670	6,190	5,660	7,210	15,800	42,100	30,500	18,600	12,600	10,200	171,000
1926	8,700	7,690	7,180	6,590	5,880	7,960	17,700	28,700	17,100	11,600	9,060	7,720	136,000
1927	7,300	6,620	6,220	6,060	5,380	6,720	13,900	35,800	47,600	25,000	14,900	11,500	187,000
1928	10,600	10,200	8,750	8,070	6,860	9,680	13,900	54,100	35,200	19,100	13,400	10,600	200,000
1929	9,870	8,400	7,530	7,230	6,060	7,460	11,200	37,400	40,300	22,200	13,700	11,100	182,000
1930	9,990	8,410	7,670	7,020	6,150	6,780	16,200	25,200	25,100	13,900	10,500	8,480	145,000
1931	7,920	6,570	6,420	6,030	5,100	5,740	7,640	16,800	11,700	7,400	6,260	5,260	92,800
1932	4,920	4,570	4,720	4,670	4,250	5,700	15,200	53,900	57,500	30,600	16,600	12,500	215,000
1933	10,800	8,960	7,700	7,280	5,860	6,520	10,100	24,400	48,500	18,600	12,500	9,740	171,000
1934	8,390	7,130	6,660	5,980	5,260	6,870	12,790	13,040	8,370	6,340	5,420	4,750	91,000
1935	4,560	4,460	4,470	4,360	4,240	5,000	11,200	29,470	37,510	16,910	10,980	8,280	141,400
1936	7,060	6,150	5,480	5,130	4,940	5,820	24,360	72,950	51,560	23,720	15,590	11,770	234,500
1937	10,430	8,640	7,720	6,740	5,870	6,520	10,010	38,410	31,260	17,900	12,290	9,490	165,300
1938	8,780	7,700	7,200	6,730	5,700	7,330	19,650	43,450	40,540	19,620	13,570	10,240	190,500
1939	9,030	7,930	7,400	6,650	5,760	7,840	16,890	28,660	18,260	11,990	9,240	7,460	137,100
1940	7,030	5,970	5,860	5,630	5,240	6,420	9,940	26,550	15,980	10,150	7,800	6,540	113,100
1941	6,060	5,300	4,810	4,590	4,350	5,280	7,070	21,050	15,740	9,800	7,350	5,850	97,250
1942	5,780	5,210	5,100	4,870	4,290	4,940	13,390	20,230	25,430	13,790	9,550	7,420	120,000
1943	6,520	5,910	5,510	5,420	5,150	7,030	29,360	45,600	46,440	26,090	15,050	11,330	209,400
1944	10,160	8,280	7,320	6,560	5,630	5,720	8,760	26,660	27,360	15,280	10,670	8,170	140,600
1945	7,450	6,500	5,720	5,580	5,140	5,580	7,280	27,920	38,920	23,580	14,290	11,020	159,000
1946	9,580	8,510	7,790	7,290	6,040	8,910	33,360	48,000	39,200	21,850	14,730	11,310	216,600
1947	10,430	8,870	8,130	7,050	6,400	8,450	12,770	43,590	30,270	17,320	12,450	9,760	175,500
1948	8,890	7,630	7,070	6,510	5,860	6,000	13,430	46,880	46,150	21,040	13,980	10,860	194,300
1949	9,860	8,480	7,700	6,990	6,020	7,670	18,610	42,900	33,130	18,350	13,020	10,840	183,600
1950	10,480	8,060	7,450	7,660	6,670	8,610	21,820	49,110	68,780	40,020	19,790	14,330	262,800

* Revised.

Note.-- Discharge for Logan River only for June, July 1901, November 1901 to April 1904, January to May 1913, not previously published; estimated or partly estimated on basis of fragmentary gage-height record, frequent discharge measurements, and records for Bear River near Collinston and Weber River at Devils Slide.

Combined yearly discharge, in cubic feet per second, of Logan River above State dam, near Logan, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1896	(a)	b1,900	June 6, 1896	-	-	-	-	-
1897	(c)	b1,860	May 20,21, 1897	-	429	312,000	433	314,400
1898	(d)	b807	May 28, 1898	e125	317	230,100	297	215,300
1899	(f)	b1,980	June 20, 1899	e108	498	361,400	536	388,900
1900	(g)	b1,070	May 28, 1900	e152	*374	*271,000	*343	*248,200
1901	75	b1,480	May 19,20, 1901	e110	326	235,500	324	234,900
1902	85	b1,370	June 4, 1902	-	294	213,100	292	211,600
1903	100	b1,270	June 12, 1903	-	316	229,000	311	225,100
1904	133	b1,420	May 24, 1904	-	372	270,600	380	276,100
1905	176	b690	June 6, 1905	-	249	180,000	236	171,700
1906	250	h1,220	May 28, 1906	77	306	222,000	302	219,000
1907	250	h2,480	May 24, 1907	74	515	374,000	541	391,000
1908	250	b1,040	June 24, 1908	e100	281	204,000	255	185,000
1909	270	b1,760	June 22, 1909	e55	450	326,000	463	335,000
1910	290	b1,500	May 13, 1910	e76	387	281,000	388	281,000
1911	310	b1,580	June 5, 1911	e94	393	285,000	388	280,000
1912	330	h2,100	June 14, 1912	e91	410	297,000	413	300,000
1913	360	h750	May 10, 1913	-	256	186,000	251	182,000
1914	390	h1,420	June 4, 1914	e101	319	231,000	322	233,000
1915	410	471	June 2, 1915	e87	188	136,000	178	129,000
1916	440	12,100	Mar. 21, 1916	109	310	225,000	320	232,000
1917	460	11,180	June 10, 1917	-	323	234,000	327	237,000
1918	480	875	June 8, 1918	-	268	194,000	261	189,000
1919	510	845	May 30, 1919	e95	213	155,000	206	149,000
1920	510	1,420	May 30, 1920	e87	304	220,000	314	228,000
1921	530	1,570	June 14, 1921	e102	387	280,000	393	285,000
1922	550	1,310	June 8, 1922	e116	338	245,000	333	241,000
1923	570	1,480	May 27, 1923	e98	331	240,000	334	242,000
1924	590	879	May 13, 1924	111	236	172,000	222	161,000
1925	610	1,030	May 21, 1925	73	237	171,000	238	172,000
1926	630	651	May 5, 1926	98	188	136,000	183	132,000
1927	650	1,110	May 18, 1927	79	258	187,000	272	196,000
1928	670	1,140	May 25, 1928	115	276	200,000	271	197,000
1929	690	1,060	May 25, 1929	102	252	182,000	252	183,000
1930	705	699	May 28, 1930	100	201	145,000	194	140,000
1931	720	372	May 28, 1931	87	128	92,800	119	86,100
1932	735	1,500	May 22, 1932	62	296	215,000	315	228,000
1933	750	1,160	June 3, 1933	86	236	171,000	229	166,000
1934	765	332	Apr. 25, 1934	77	126	91,000	114	82,310
1935	790	896	May 28, 1935	50	195	141,400	203	146,600
1936	810	1,630	May 15, 1936	62	323	234,500	334	242,600
1937	830	1,030	May 30, 1937	82	228	165,300	224	162,200
1938	860	1,150	May 17, 1938	95	263	190,500	264	191,200
1939	880	643	May 5, 1939	96	189	137,100	182	131,600
1940	900	617	May 14, 1940	79	156	113,100	152	110,400
1941	930	693	May 23, 1941	62	134	97,250	138	97,170
1942	960	696	May 26, 1942	61	166	120,000	168	121,800
1943	980	1,190	June 1, 1943	67	289	209,400	300	217,200
1944	1010	721	May 16, 1944	82	194	140,600	185	134,500
1945	1040	853	June 6, 1945	77	220	159,000	228	165,200
1946	1060	1,030	Apr. 30, 1946	97	299	216,600	301	218,100
1947	1090	997	May 11, 1947	99	242	175,500	237	171,600
1948	1120	1,320	May 28, 1948	84	268	194,300	271	196,800
1949	1150	1,080	May 18, 1949	94	254	183,600	253	183,500
1950	1180	1,540	May 31, 1950	98	363	262,800	-	-

* Revised.
a 18th Ann. Rept., Pt. 4.
b Maximum observed; canal diversion estimated.
c 19th Ann. Rept., Pt. 4.
d 20th Ann. Rept., Pt. 4
e Canal diversion not included.
f 21st Ann. Rept., Pt. 4.
g 22nd Ann. Rept., Pt. 4.
h Maximum observed.
i Canal diversion estimated.

Note.--Combined records not heretofore published; those prior to 1924 based on estimated or partly estimated diversion by Logan, Hyde Park, & Smithfield Canal.

79. Blacksmith Fork at Hardware Ranch, near Hyrum, Utah

Location.--Lat 41°37', long 111°37', in NE¼ sec. 17, T. 10 N., R. 3 E., 0.6 mile upstream from South Cottonwood Canyon, 2.1 miles downstream from Rock Creek, and 12½ miles east of Hyrum.

Drainage area.--130 sq mi (revised), approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,340 ft (from topographic map). Prior to Apr. 24, 1945, at site 0.9 mile upstream at different datum.

Average discharge.--7 years (1943-50), 88.9 cfs.

Extremes.--1943-50: Maximum discharge, 488 cfs Apr. 18, 1946 (gage height, 4.08 ft); minimum, 36 cfs Mar. 12, 1948.

Remarks.--Small diversions for irrigation of about 200 acres above station.

Monthly and yearly mean discharge, in cubic feet per second, of Blacksmith Fork at Hardware Ranch, near Hyrum, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	-	-	81.6	77.5	70.3	-
1944	67.8	66.4	64.6	58.0	53.8	54.3	71.4	90.4	77.8	67.1	63.1	60.8	66.3
1945	60.4	60.6	56.3	56.3	61.8	65.6	73.4	99.7	114	71.8	68.0	60.5	70.7
1946	59.7	67.1	69.5	69.4	60.1	107	259	186	128	109	101	91.6	109
1947	87.7	82.9	71.3	59.5	67.1	82.8	84.7	110	84.9	77.7	74.3	70.0	79.5
1948	67.2	63.9	59.5	56.6	55.3	61.8	146	181	115	91.7	86.8	79.1	88.7
1949	75.3	73.2	67.5	62.3	64.2	89.1	147	133	103	93.8	88.8	84.9	90.3
1950	79.7	75.0	70.5	78.2	75.1	96.3	194	206	177	131	121	109	118

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	-	-	-	-	-	-	-	5,020	4,760	4,180	-
1944	4,170	3,950	3,970	3,570	3,090	3,340	4,250	5,560	4,630	4,130	3,880	3,620	48,160
1945	3,710	3,610	3,460	3,460	3,430	4,040	4,370	6,130	6,770	4,420	4,180	3,600	51,180
1946	3,670	3,990	4,270	4,270	3,340	6,580	15,420	11,470	7,600	6,700	6,180	5,450	78,940
1947	5,390	4,930	4,380	3,660	3,730	5,090	5,040	6,760	5,050	4,780	4,570	4,160	57,550
1948	4,130	3,800	3,660	3,480	3,180	3,800	8,680	11,160	6,820	5,640	5,340	4,710	64,400
1949	4,630	4,360	4,150	3,830	3,570	5,480	8,720	8,200	6,140	5,770	5,460	5,050	65,360
1950	4,900	4,460	4,330	4,810	4,170	5,920	11,550	12,680	10,530	8,040	7,450	6,480	85,320

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	980	-	-	-	-	-	-	-
1944	1010	141	Apr. 22, 1944	50	66.3	48,160	64.5	46,850
1945	1040	249	June 6, 1945	51	70.7	51,180	72.3	52,330
1946	1060	488	Apr. 18, 1946	56	109	78,940	113	81,710
1947	1090	202	Mar. 16, 1947	54	79.5	57,550	75.2	54,430
1948	1120	370	Apr. 17, 1948	43	88.7	64,400	90.8	65,950
1949	1150	262	Apr. 20, 1949	54	90.3	65,360	91.0	65,910
1950	1180	297	Apr. 13, 1950	63	118	85,320	124	89,840

Note.--Station discontinued Dec. 31, 1950. Monthly mean discharge for October to December 1950 was 104 cfs, 99.2 cfs, and 95.8 cfs, respectively.

80. Blacksmith Fork at municipal powerplant, near Hyrum, Utah

Location.--Lat 41°37'40", long 111°41'20" (revised), in SE¼ sec. 2, T. 10 N., R. 2 E., 200 ft downstream from Hyrum municipal powerplant, 1 mile above Left Fork, and 8½ miles east of Hyrum.

Drainage area.--153 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (from topographic map). Prior to Apr. 7, 1931, at datum 2 ft lower.

Average discharge.--6 years (1929-35), 75.4 cfs.

Extremes.--1929-35: Maximum discharge, 469 cfs May 15, 1932 (gage height, 3.12 ft); minimum daily, 38 cfs Oct. 7, 1934.

Remarks.--Some regulation by powerplant above station. A few small diversions for irrigation of about 200 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	75	72	70	58	68.7	69.7	113	104	84.0	72.6	74.5	68.9	77.5
1931	63.7	62.6	57	56	52.0	56	55.7	71.3	56.6	49.7	48.4	46.7	56.4
1932	47.3	48.4	48.9	48.6	50.6	80.0	212	327	153	104	99.0	80.9	108
1933	71.4	66.4	58.9	58.9	58.9	65.4	99.0	157	134	84.5	76.9	74.6	84.0
1934	76.1	72.1	68.2	64.0	62.2	61.9	64.0	56.4	51.5	46.5	46.5	45.7	59.6
1935	43.6	46.4	44.2	42.9	43.3	51.0	114	138	93.9	65.0	63.2	58.5	67.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	4,610	4,280	4,300	3,570	3,820	4,290	6,720	6,400	5,000	4,460	4,580	4,100	56,100
1931	3,920	3,720	3,500	3,440	2,890	3,440	3,310	4,380	3,370	3,060	2,980	2,780	40,800
1932	2,910	2,880	3,010	2,990	2,910	4,920	12,600	20,100	9,100	6,400	6,090	4,810	78,700
1933	4,390	3,950	3,620	3,620	3,270	4,020	5,890	9,650	7,970	5,200	4,730	4,440	60,800
1934	4,680	4,290	4,200	3,930	3,450	3,810	3,810	3,470	3,060	2,860	2,860	2,720	43,140
1935	2,680	2,760	2,720	2,640	2,400	3,130	6,780	8,470	5,590	4,000	3,890	3,480	48,540

Yearly discharge, in cubic feet per second, of Blacksmith Fork at municipal powerplant, near Hyrum, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1930	705	250	Apr. 25, 1930	-	77.5	56,100	74.7	54,100
1931	720	133	Nov. 16, 1930	43	56.4	40,800	53.1	38,400
1932	735	469	May 15, 1932	41	108	78,700	113	81,900
1933	750	235	May 22, 1933	-	84.0	60,800	85.6	61,960
1934	765	a80	Oct. 22, 1933	43	59.6	43,140	52.7	38,130
1935	790	‡241	Apr. 22, 1935	38	67.0	48,540	-	-

‡ Not previously published.
a Maximum daily.

81. 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., three-quarters of a mile upstream from diversion dam, 3½ miles upstream from powerplant of Utah Power & Light Co., and 6 miles east of Hyrum.

Drainage area.--260 sq mi, approximately.

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

Average discharge.--37 years (1913-50), 124 cfs.

Extremes.--1913-50: Maximum discharge, 1,620 cfs May 15, 1917 (gage height, 6.5 ft, from floodmarks, site and datum then in use), from rating curve extended above 800 cfs (revised); minimum daily, 29 cfs Jan. 3, 1935.

Remarks.--A few small diversions for irrigation of about 200 acres above station. Statements in annual water-supply papers that records for this station are available July 1900 to December 1902 are in error; those records are published in this report as Blacksmith Fork below Utah Power and Light Co.'s plant near Hyrum (see following station).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	‡100	‡92	79.6	85.7	81.6	124	354	386	212	156	144	138	‡163
1915	109	102	106	93.4	93.6	91.9	103	101	97.5	82.0	70.8	76.5	93.9
1916	80.9	80.0	71.0	68.5	74.0	176	454	371	194	152	129	124	165
1917	113	97.8	89.2	82.7	80.1	81.5	228	682	436	228	180	156	205
1918	138	126	114	102	104	160	215	265	150	135	123	105	145
1919	99.0	92.1	86.3	79.4	81.4	98.0	167	166	112	85.0	79.6	79.8	102
1920	78.9	73.1	67.1	69.5	68.3	77.0	161	573	233	153	133	123	151
1921	114	111	100	92.9	99.2	187	293	682	341	198	171	156	213
1922	141	128	119	112	105	121	235	616	276	172	159	142	195
1923	128	117	113	108	93.2	95.2	251	631	250	185	161	140	190
1924	138	122	107	102	97.0	94.6	213	239	129	108	95.4	92.4	128
1925	90.8	84.7	82.5	*72.1	*73.2	*96.9	225	255	150	115	89.6	95.0	*119
1926	89.3	82.0	82.4	78.7	69.8	81.4	172	128	90.4	83.6	80.6	74.1	92.7
1927	72.6	73.8	69.1	68.5	69.7	80.4	210	329	170	113	105	96.4	122
1928	92.9	90.6	82.7	75.3	78.0	119	202	321	130	114	104	92.6	125
1929	91.1	89.5	75	70	70.6	89.3	175	327	165	114	101	96.3	122
1930	90.2	87.6	81.4	83.5	75.9	81.6	144	128	98.5	86.5	88.4	78.5	92.0
1931	73.9	65.5	59.4	58.2	54.9	59.8	63.9	72.8	58.8	50.0	50.3	48.0	59.7
1932	48.3	50.4	50.0	49.0	51.9	75.9	295	518	202	136	118	96.3	141
1933	90.9	83.4	70.8	65.8	63.5	69.5	122	224	173	105	87.5	79.4	103
1934	74.6	71.5	65.5	60.6	58.7	62.1	64.6	58.6	49.9	45.3	44.1	43.1	58.2
1935	43.4	46.0	45.1	43.3	46.6	52.5	128	171	105	69.6	60.5	55.2	72.2
1936	54.7	55.6	51.0	50.5	51.4	70.5	406	566	184	128	107	94.5	152
1937	89.0	87.7	76.2	69.2	66.9	82.4	161	356	159	113	93.2	83.3	120
1938	82.3	80.2	76.0	70.1	68.5	102	263	265	150	114	99.9	90.7	122
1939	86.8	85.1	79.7	69.6	64.9	99.9	152	122	87.9	71.1	63.7	61.4	87.1
1940	60.5	59.0	56.9	56.8	56.0	67.3	92.7	88.5	63.4	53.4	48.7	48.1	62.6
1941	49.1	48.4	47.4	46.2	49.4	51.4	64.9	83.4	57.6	48.3	45.9	43.6	53.0
1942	46.7	46.5	46.1	45.8	43.7	47.3	113	100	83.9	66.6	55.5	53.1	62.3
1943	52.0	54.9	54.8	57.5	60.9	98.1	348	235	147	112	99.1	86.2	117
1944	82.2	76.4	70.4	66.3	61.3	62.8	92.9	150	110	86.8	75.3	67.8	83.5
1945	69.0	69.1	60.3	58.2	66.5	70.4	93.5	192	207	115	100	89.3	99.3
1946	85.2	85.0	82.2	81.3	73.7	132	566	368	206	150	129	112	173
1947	112	104	93.3	83.9	84.6	105	157	204	122	103	93.3	86.0	113
1948	85.8	80.5	74.7	69.7	71.2	78.9	213	437	202	138	119	104	140
1949	99.1	96.2	85.4	79.5	84.4	115	283	268	163	132	117	106	136
1950	105	93.1	86.6	97.1	97.5	125	382	500	315	191	164	150	193

* Revised.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet, of Blacksmith Fork above Utah Power & Light Co.'s dam, near Hyrum, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	‡6,150	‡5,470	4,890	5,270	4,530	7,620	21,100	23,700	12,600	9,590	8,850	8,210	‡118,000
1915	6,700	6,070	6,520	5,740	5,200	5,650	6,130	6,210	5,800	5,040	4,350	4,550	68,000
1916	4,970	4,760	4,370	4,210	4,260	10,800	27,000	22,800	11,500	9,350	7,930	7,380	119,000
1917	6,950	5,820	5,480	5,080	4,450	5,010	13,600	41,900	25,900	14,000	11,100	9,280	149,000
1918	8,480	7,500	7,010	6,270	5,780	9,840	12,800	16,300	8,930	8,300	7,560	6,250	105,000
1919	6,090	5,480	5,310	4,880	4,520	6,030	9,940	10,200	6,660	5,230	4,890	4,750	74,000
1920	4,850	4,350	4,130	4,270	3,930	4,730	9,580	35,200	13,900	9,410	8,180	7,320	110,000
1921	7,010	6,600	6,150	5,710	5,510	11,500	17,400	41,900	20,300	12,200	10,500	9,280	154,000
1922	8,670	7,620	7,320	6,890	5,830	7,440	14,000	37,900	16,400	10,600	9,780	8,450	141,000
1923	7,870	6,960	6,950	6,640	5,180	5,850	14,900	38,800	14,900	11,400	9,900	8,330	138,000
1924	8,480	7,260	6,580	6,270	5,580	5,820	12,700	14,700	7,680	6,640	5,870	5,500	93,100
1925	5,580	5,040	5,070	*4,440	*4,060	*5,960	13,400	15,700	8,930	7,070	5,510	5,650	*86,400
1926	5,490	4,880	5,070	4,840	3,880	5,010	10,200	7,870	5,380	5,140	4,960	4,410	67,100
1927	4,460	4,390	4,250	4,210	3,870	4,940	12,500	20,200	10,100	6,950	6,460	5,740	88,100
1928	5,710	5,390	5,080	4,630	4,490	7,320	12,000	19,700	7,740	7,010	6,400	5,510	91,000
1929	5,600	5,330	4,610	4,300	3,920	5,490	10,400	20,100	9,820	7,010	6,210	5,730	88,500
1930	5,550	5,210	5,010	3,900	4,220	5,020	8,570	7,870	5,860	5,320	5,440	4,670	66,600
1931	4,540	3,900	3,650	3,580	3,050	3,680	3,800	4,480	3,500	3,070	3,090	2,860	43,200
1932	2,970	3,000	3,070	3,010	2,990	4,670	17,600	31,900	12,000	8,360	7,260	5,730	103,000
1933	5,590	4,960	4,350	4,050	3,530	4,270	7,260	13,800	10,300	6,460	5,380	4,720	74,700
1934	4,590	4,250	4,030	3,730	3,260	3,820	3,840	3,610	2,970	2,780	2,710	2,570	42,160
1935	2,670	2,740	2,770	2,660	2,590	3,230	7,600	10,500	6,250	4,280	3,720	3,290	52,300
1936	3,360	3,310	3,140	3,100	2,960	4,330	24,170	34,810	10,940	7,860	6,590	5,620	110,200
1937	5,470	5,220	4,680	4,250	3,720	5,060	9,590	21,910	9,470	6,920	5,730	4,960	86,980
1938	5,060	4,770	4,670	4,310	3,800	6,260	15,670	16,270	8,910	7,020	6,140	5,400	88,280
1939	5,340	5,070	4,900	4,280	3,600	6,140	9,050	7,530	5,230	4,370	3,920	3,650	63,080
1940	3,720	3,510	3,500	3,490	3,220	4,140	5,520	5,440	3,770	3,280	3,000	2,860	45,450
1941	3,020	2,880	2,910	2,840	2,740	3,160	3,860	5,130	3,430	2,970	2,820	2,590	38,350
1942	2,870	2,760	2,830	2,730	2,420	2,910	6,750	6,170	4,990	4,090	3,420	3,160	45,100
1943	3,200	3,270	3,370	3,530	3,380	6,030	20,690	14,480	8,730	6,900	6,100	5,130	84,810
1944	5,060	4,540	4,330	4,080	3,530	3,860	5,530	9,190	6,530	5,340	4,630	4,030	60,650
1945	4,240	4,110	3,710	3,580	3,700	4,330	5,570	11,810	12,310	7,060	6,180	5,320	71,920
1946	5,240	5,060	5,060	5,000	4,090	8,130	33,680	22,600	12,270	9,240	7,960	6,690	125,000
1947	6,890	6,160	5,740	5,160	4,700	6,480	9,360	12,540	7,280	6,330	5,740	5,120	81,500
1948	5,270	4,790	4,600	4,280	4,100	4,850	12,680	26,870	12,050	8,500	7,300	6,170	101,500
1949	6,090	5,720	5,250	4,890	4,690	7,090	16,850	16,500	9,710	8,140	7,220	6,320	98,470
1950	6,430	5,540	5,330	5,970	5,410	7,710	22,760	30,760	18,770	11,770	10,100	8,930	139,500

* Revised.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	669	Apr. 21, 1914	65	‡163	‡118,000	167	121,000
1915	410	124	Oct. 1, 1914	68	93.9	68,000	86.7	62,800
1916	440	1,020	Apr. 28, 1916	-	165	119,000	170	124,000
1917	460	1,620	May 15, 1917	71	205	149,000	212	153,000
1918	480	-	-	87	145	105,000	137	98,900
1919	510	289	Apr. 24, 1919	66	102	74,000	97.4	70,400
1920	510	880	May 22, 1920	39	151	110,000	160	116,000
1921	530	975	May 5, 1921	76	213	154,000	218	158,000
1922	550	1,100	May 6, 1922	88	195	141,000	192	139,000
1923	570	a998	May 10, 1923	79	190	138,000	191	138,000
1924	590	a415	Apr. 23, 1924	81	128	93,100	119	86,400
1925	610,1514	362	Apr. 17, 1925	*53	*119	*86,400	*119	*86,200
1926	630	264	Apr. 6, 1926	66	92.7	67,100	89.5	64,800
1927	650	738	May 2, 1927	-	122	88,100	126	91,200
1928	670	842	Apr. 29, 1928	-	125	91,000	124	90,300
1929	690	467	May 9, 1929	-	122	88,500	123	88,800
1930	705	244	Apr. 25, 1930	-	92.0	66,600	87.0	63,000
1931	720	115	Oct. 22, 1930	46	59.7	43,200	55.5	40,200
1932	735	787	May 14, 1932	-	141	103,000	149	108,000
1933	750	346	May 22, 1933	-	103	74,700	100	72,600
1934	765	127	Oct. 22, 1933	42	58.2	42,160	51.7	37,470
1935	790	328	Apr. 22, 1935	29	72.2	52,300	74.5	53,920
1936	810	1,270	May 5, 1936	41	152	110,200	159	115,800
1937	830	674	May 8, 1937	55	120	86,980	119	86,110
1938	860	810	Apr. 23, 1938	67	122	88,280	123	89,090
1939	880	208	Mar. 22, 1939	56	87.1	63,080	80.8	58,500
1940	900	134	May 12, 1940	45	62.6	45,450	60.0	43,530
1941	930	106	May 4, 1941	40	53.0	38,350	52.5	38,000
1942	960	201	Apr. 14, 1942	37	62.3	45,100	64.2	46,480
1943	980	610	Apr. 20, 1943	-	117	84,810	123	88,900
1944	1010	238	Apr. 30, 1944	58	83.5	60,650	81.0	58,780
1945	1040	417	June 6, 1945	53	99.3	71,920	104	75,220
1946	1060	1,230	Apr. 19, 1946	70	173	125,000	177	128,400
1947	1090	305	May 4, 1947	73	113	81,500	107	77,370
1948	1120	759	May 8, 1948	52	140	101,500	143	103,900
1949	1150	538	Apr. 23, 1949	61	136	98,470	136	98,710
1950	1180	856	May 18, 1950	72	193	139,500	-	-

* Revised.
‡ Not previously published.
a Maximum daily.

82. Blacksmith Fork below Utah Power & Light Co.'s plant, near Hyrum, Utah 1/

Location.--Lat 41°37'40", long 111°48'00", in S½ sec. 2, T. 10 N., R. 1 E., 600 ft downstream from intake of Hyrum City power canal, 700 ft downstream from Utah Power & Light Co.'s tailrace, and 2½ miles east of Hyrum.

Drainage area.--286 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,740 ft (from topographic map). Prior to Jan. 1, 1903, staff gage at site 1,800 ft upstream, above diversions, and May 16, 1904, to Dec. 31, 1910, staff gage at site 200 ft upstream, both at different datums.

Average discharge.--10 years (1900-1902, 1904-10, 1914-16), 196 cfs.

Extremes.--1900-1902, 1904-10, 1914-16: Maximum combined discharge observed, 1,900 cfs Apr. 16, 1907; minimum combined daily, 46 cfs Dec. 31, 1915.

Remarks.--A few small diversions for irrigation of about 200 acres above station. Records herein show total flow in Blacksmith Fork; those after 1903 adjusted for diversion by Hyrum City power canal.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	-	130	139	-
1901	129	120	117	115	113	119	*198	*342	*230	133	134	122	*156
1902	131	120	119	109	111	112	120	119	146	109	109	109	118
1903	113	112	112	-	-	-	-	-	-	-	-	-	-
1904	-	-	-	-	-	-	-	-	299	209	204	173	-
1905	168	143	140	136	131	145	197	245	211	164	a134	a126	a162
1906	124	117	101	113	104	111	a199	274	249	159	156	134	a156
1907	133	107	108	117	184	215	865	1,070	-787	350	273	237	362
1908	193	177	163	145	128	136	160	160	183	164	152	141	159
1909	131	129	120	194	179	186	333	730	681	353	288	286	301
1910	232	229	194	200	198	378	540	409	290	248	196	194	276
1911	194	179	166	-	-	-	-	-	-	-	-	-	-
1914	-	-	-	-	-	-	-	390	229	176	148	135	-
1915	129	117	107	105	97.0	96.8	122	112	99.4	80.9	77.4	81.4	102
1916	81.1	78.8	69.9	68.0	67.1	171	468	‡406	‡207	‡165	141	134	‡171
1917	115	116	-	-	-	-	-	-	-	-	-	-	-

* Revised; only monthly figures revised; revised daily figures not available.
‡ Not previously published; diversion by Hyrum City power canal partly estimated on basis of observer's notes and records for Blacksmith Fork.
a Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	-	7,990	8,270	-
1901	7,930	7,140	7,190	7,070	6,280	7,320	*11,800	*21,040	*13,690	8,180	8,240	7,260	*113,200
1902	8,060	7,140	7,320	6,700	6,160	6,890	7,140	7,320	8,690	6,700	6,700	6,490	85,310
1903	6,950	6,660	6,890	-	-	-	-	-	-	-	-	-	-
1904	-	-	-	-	-	-	-	-	17,810	12,870	12,570	10,310	-
1905	10,370	8,810	8,640	8,380	7,260	8,920	11,750	15,040	12,540	10,090	*8,270	*7,520	*117,600
1906	7,600	6,970	6,190	6,930	5,790	6,800	*11,900	16,800	14,800	9,780	9,570	8,500	*112,000
1907	8,190	6,340	6,630	7,170	10,200	13,200	51,500	65,800	46,800	21,600	16,800	14,100	268,000
1908	11,900	10,500	10,000	8,940	7,380	8,390	9,520	9,820	10,900	10,100	9,350	8,380	115,000
1909	8,050	7,690	7,370	11,900	9,950	11,400	19,800	44,800	40,500	21,700	17,800	17,000	218,000
1910	14,300	13,600	11,900	12,300	11,000	23,200	32,200	25,100	17,200	15,300	12,000	11,600	200,000
1911	11,900	10,600	10,200	-	-	-	-	-	-	-	-	-	-
1914	-	-	-	-	-	-	-	21,980	13,600	10,790	9,090	8,050	-
1915	7,930	6,960	6,600	6,460	5,388	5,950	7,260	6,910	5,910	4,970	5,540	4,840	73,900
1916	4,990	4,690	4,300	4,180	3,860	10,500	27,800	‡25,000	‡12,300	‡10,170	8,690	7,970	‡124,000
1917	7,660	6,920	-	-	-	-	-	-	-	-	-	-	-

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1900	(a)	-	-	-	-	-	-	-
1901	75	-	-	108	*156	*113,200	*157	*113,400
1902	85	293	Oct.28,29,1901	108	118	85,310	115	83,290
1903	85	-	-	-	-	-	-	-
1904	133	-	-	-	-	-	-	-
1905	176	282	(b)	113	*162	*117,600	*153	*110,500

* Revised. a 22nd Ann. Rept., Pt. 4. b May 24 to June 5, 1905.
Note.--Figures of daily discharge of Blacksmith Fork for Aug. 31, Sept. 1-14, 1905, revised to 115 cfs. Diversion by Hyrum City power canal Apr. 1-5, 1906, revised to 96 cfs and Apr. 14-20, 1906, revised to 104 cfs.

1/ Published as Blacksmith Fork at Hyrum, 1900-1902, and as "near Hyrum", 1904-10.

Yearly discharge, in cubic feet per second, of Blacksmith Fork below Utah Power & Light Co.'s plant, near Hyrum, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	212	392	May29-31,1906	76	*156	*112,000	*155	*112,000
1907	250	1,900	Apr. 16, 1907	95	362	268,000	386	280,000
1908	250	266	June19,20, 1908	110	159	115,000	146	106,000
1909	270	-	-	-	301	218,000	324	235,000
1910	290	652	Apr.9-12,1910	-	276	200,000	266	193,000
1911	290	-	-	-	-	-	-	-
1914	390	c537	Apr. 22, 1914	-	-	-	-	-
1915	410	c172	Oct. 5, 1914	74	102	73,900	91.8	67,200
1916	440	c929	Apr. 28, 1916	46	‡171	‡124,000	-	-
1917	460	-	-	-	-	-	-	-

* Revised. ‡ Not previously published. c Momentary maximum.

Note.--Figures of daily discharge of Blacksmith Fork for Aug. 31, Sept. 1-14, 1905, revised to 115 cfs. Diversion by Hyrum City power canal Apr. 1-5, 1906, revised to 96 cfs and Apr. 14-20, 1906, revised to 104 cfs.

83. Clarkston Creek near Newton, Utah

Location.--Lat 41°54', long 111°58', in SE¼ sec. 5, T. 13 N., R. 1 W., 500 ft (revised) downstream from Newton Dam and 2½ miles north of Newton.

Drainage area.--43 sq mi, approximately.

Gage.--Staff gage in concrete outlet flume. Altitude of gage is 4,700 ft (from topographic map). Prior to Apr. 11, 1946, water-stage recorder and staff gages at several sites within 1.5 miles at different datums.

Average discharge.--8 years (1939-47), 8.68 cfs.

Extremes.--1939-47: Maximum discharge observed, 282 cfs Dec. 29-31, 1945; no flow at times most years.

Remarks.--Main (Highline) Canal first diverted from outlet flume, about 300 ft above gage, on May 16, 1946; records for May 1946 to September 1947 adjusted for this diversion. Flow regulated by Newton Dam. Diversions above station for irrigation of several hundred acres above and below station.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	‡24.0	11.1	5.19	7.12	9.91	6.18	2.57	-
1940	1.19	1.53	0.43	1.53	7.21	9.36	8.56	4.82	9.24	6.45	3.89	.69	4.56
1941	1.50	1.03	.85	.73	8.06	27.3	14.3	4.66	11.4	8.07	6.97	3.67	7.37
1942	1.47	1.77	2.24	6.70	7.11	8.65	20.6	14.4	10.2	13.5	5.26	.14	7.66
1943	5.69	3.43	.98	23.8	42.6	34.1	5.34	9.75	8.54	13.3	6.88	1.30	12.8
1944	1.73	1.51	2.93	5.05	5.34	5.46	9.93	4.35	9.25	14.9	2.82	.46	5.31
1945	1.48	1.09	.72	0	0	22.9	0	6.21	17.7	20.1	6.77	6.46	7.02
1946	0	0	21.7	13.4	8.57	42.7	12.7	19.2	17.8	18.8	18.1	3.86	14.9
1947	1.37	.50	0	6.45	9.60	15.8	11.5	16.5	10.4	25.5	13.6	6.28	9.83

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	‡1,480	660	319	424	609	380	153	-
1940	73	91	26	94	415	575	510	296	550	396	239	41	3,310
1941	92	61	52	45	447	1,680	849	286	680	496	429	218	5,340
1942	90	105	138	412	395	532	1,220	884	605	829	324	8.3	5,540
1943	350	204	60	1,460	2,360	2,100	318	599	508	816	423	77	9,280
1944	107	90	180	311	307	336	591	268	550	917	174	27	3,860
1945	91	65	44	0	0	1,410	0	382	1,060	1,240	416	384	5,090
1946	0	0	1,340	821	476	2,630	758	1,180	1,060	1,160	1,110	229	10,760
1947	84	30	0	396	533	970	686	1,020	621	1,560	837	374	7,110

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second, of Clarkston Creek near Newton, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	980	a70	Mar. 23, 1939	-	-	-	-	-
1940	980	b28	Apr. 4, 1940	0.2	4.56	3,310	4.58	3,320
1941	980	b119	Mar. 2, 1941	.2	7.37	5,340	7.55	5,460
1942	980	a69	Aug.5, 6, 1942	0	7.66	5,540	8.05	5,820
1943	980	261	Feb. 23, 1943	.2	12.8	9,280	12.5	9,040
1944	1010	23	July 2-5,1944	0	5.31	3,860	5.07	3,680
1945	1040	76	Mar.18-22, 1945	0	7.02	5,090	8.59	6,230
1946	1060	282	Dec.29-31, 1945	0	14.9	10,760	13.2	9,540
1947	1090	a40	July 12, 1947	0	9.83	7,110	-	-

a Maximum daily.
b Momentary maximum.

84. Hammond (East Side) Canal near Collinston, Utah 1/

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

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

Average discharge.--38 years (1912-50), 48.2 cfs.

Extremes.--1912-50: Maximum daily discharge, 182 cfs June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

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

Cooperation.--Records for 1918-32, 1935 furnished by the Utah Power & Light Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	75.6	91.2	72.4	53.6	-
1913	‡8.59	0	0	0	0	0	0	‡13.9	59.0	63.5	82.3	40.5	‡22.5
1914	6.76	‡3.63	0	0	0	0	0	62.9	67.1	75.6	92.7	65.8	‡31.4
1915	‡17.1	0	0	0	0	0	‡19.8	43.2	64.3	94.4	85.0	43.8	‡30.9
1916	10.5	‡2.51	0	0	0	0	0	‡46.5	88.8	107	113	94.2	‡38.6
1917	‡11.9	0	0	0	0	0	0	0	‡25.9	96.8	91.0	68.4	‡24.7
1918	10.9	8.80	.4	0	0	0	0	50.9	85.8	101	113	85.8	38.3
1919	24.0	5.5	0	0	0	0	0	73.3	80.4	82.9	127	89.1	40.5
1920	23.2	7.7	0	0	0	0	0	23.5	107	128	117	80.5	40.7
1921	23.9	.2	0	0	0	0	0	17.7	90.4	136	127	94.2	41.0
1922	50.3	0	0	0	0	0	0	12.2	131	132	129	115	47.7
1923	72.1	12.4	0	0	0	0	1.6	72.9	72.5	128	98.0	109	47.6
1924	23.4	9.9	0	0	0	0	7.6	133	127	147	139	106	58.0
1925	51.0	.3	0	0	0	0	13.5	69.9	80.9	128	117	78.3	45.3
1926	37.8	8.9	1.5	0	0	0	7.1	81.3	137	134	132	106	54.1
1927	38.6	8.7	.7	0	0	0	6.4	80.0	122	156	145	108	55.8
1928	56.3	12.9	.9	0	0	0	18.0	113	122	160	158	128	64.4
1929	67.1	.4	0	0	0	0	0	82.5	116	158	156	75.5	55.2
1930	52.2	4.7	0	0	0	0	13.8	82.7	149	164	114	105	57.5
1931	34.3	6.9	0	0	0	0	5.5	119	150	159	153	128	63.4
1932	58.2	7.6	0	0	0	0	0	62.5	122	163	150	136	58.4
1933	73.3	25.4	4.8	0	0	0	0	18.9	157	166	173	150	64.3
1934	101	15.4	0	0	0	0	26.1	115	95.8	95.6	89.5	61.0	50.3
1935	31.8	14.8	0	0	0	0	8.7	60.0	119	119	111	69.6	44.7
1936	45.9	12.6	0	0	0	0	0	115	107	125	121	97.8	52.3
1937	41.2	1.8	0	0	0	0	0	80.6	106	102	137	104	48.1
1938	36.0	12.5	0	0	0	0	3.1	62.5	137	94.9	139	118	50.4
1939	44.6	7.0	0	0	0	0	1.4	125	120	145	138	66.9	54.4
1940	38.3	14.3	6.1	0	0	0	0	122	125	136	144	36.5	52.2
1941	21.5	4.3	0	0	0	0	0	82.2	109	136	125	96.0	48.1
1942	18.5	9.5	0	0	0	0	0	24.0	124	143	143	91.5	46.5
1943	36.2	8.6	0	0	0	0	2.1	114	76.0	142	131	97.9	51.1
1944	32.9	7.5	0	0	0	0	0	51.3	52.9	152	148	121	47.4
1945	43.5	5.2	0	0	0	0	0	47.9	82.3	154	124	81.1	45.2
1946	45.8	7.57	0	0	0	0	1.5	121	129	153	137	92.7	57.8
1947	19.1	0	0	0	0	0	0	103	83.9	154	128	79.5	47.7
1948	34.3	0	0	0	0	0	0	69.5	101	152	149	114	51.8
1949	30.5	.3	0	0	0	0	0	56.9	124	151	146	102	51.3
1950	31.4	2.17	.4	0	0	0	0	64.2	156	110	152	106	52.0

‡ Not previously published; days of no flow included to obtain monthly mean.

1/ Published as Hammond ditch, 1912-14.

Monthly and yearly diversions, in acre-feet, of Hammond (East Side) Canal near Collinston, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	4,500	5,610	4,450	3,190	-
1913	‡528	0	0	0	0	0	0	‡853	3,510	3,900	5,060	2,410	‡16,300
1914	416	‡216	0	0	0	0	0	3,870	3,990	4,650	5,700	3,920	‡22,800
1915	‡1,050	0	0	0	0	0	‡1,180	2,660	3,830	5,800	5,230	2,610	‡22,400
1916	646	‡149	0	0	0	0	0	‡2,860	5,280	6,580	6,950	5,610	‡28,100
1917	‡730	0	0	0	0	0	0	0	‡1,540	5,950	5,600	4,070	‡17,900
1918	670	524	26	0	0	0	0	3,130	5,110	6,210	6,950	5,110	27,700
1919	1,480	325	0	0	0	0	0	4,510	4,780	5,100	7,810	5,300	29,300
1920	1,430	458	0	0	0	0	0	1,440	6,370	7,870	7,190	4,790	29,500
1921	1,470	10	0	0	0	0	0	1,090	5,380	8,360	7,810	5,610	29,700
1922	3,090	0	0	0	0	0	0	750	7,800	8,120	7,930	6,840	34,500
1923	4,430	738	0	0	0	0	95	4,480	4,310	7,870	6,030	6,490	34,400
1924	1,440	589	0	0	0	0	452	8,180	7,560	9,040	8,550	6,310	42,100
1925	3,140	18	0	0	0	0	803	4,300	4,810	7,870	7,190	4,660	32,800
1926	2,320	530	92	0	0	0	422	5,000	8,150	8,240	8,120	6,310	39,200
1927	2,370	518	43	0	0	0	381	4,920	7,260	9,590	8,920	6,430	40,400
1928	3,460	768	55	0	0	0	1,070	6,970	7,290	9,830	9,690	7,640	46,800
1929	4,130	24	0	0	0	0	0	5,070	6,900	9,720	9,590	4,490	39,900
1930	3,210	280	0	0	0	0	821	5,080	8,870	10,100	7,010	6,250	41,600
1931	2,110	411	0	0	0	0	329	7,320	8,930	9,780	9,410	7,620	45,900
1932	3,580	452	0	0	0	0	0	3,840	7,260	10,000	9,220	8,090	42,400
1933	4,510	1,510	296	0	0	0	0	1,160	9,340	10,200	10,600	8,920	46,500
1934	6,190	916	0	0	0	0	1,550	7,070	5,700	5,880	5,500	3,630	36,440
1935	1,950	880	0	0	0	0	518	3,690	7,060	7,320	6,810	4,140	32,370
1936	2,820	750	0	0	0	0	0	7,050	6,370	7,710	7,450	5,820	37,970
1937	2,530	109	0	0	0	0	0	4,950	6,320	6,300	8,440	6,190	34,840
1938	2,220	746	0	0	0	0	186	3,840	8,130	5,840	8,520	7,000	36,480
1939	2,750	419	0	0	0	0	81	7,690	7,120	8,910	8,480	3,980	39,430
1940	2,350	853	377	0	0	0	0	7,510	7,420	8,360	8,840	2,170	37,880
1941	1,320	256	0	0	0	0	0	5,060	6,500	8,330	7,680	5,710	34,860
1942	1,130	565	0	0	0	0	0	1,480	7,400	8,790	8,820	5,440	33,640
1943	2,230	510	0	0	0	0	127	6,980	4,520	8,750	8,050	5,820	36,990
1944	2,030	446	0	0	0	0	0	3,150	3,150	9,350	9,090	7,210	34,430
1945	2,670	306	0	0	0	0	0	2,950	4,900	9,450	7,620	4,820	32,720
1946	2,820	451	0	0	0	0	91	7,410	7,700	9,410	8,430	5,520	41,830
1947	1,180	0	0	0	0	0	0	6,300	4,990	9,480	7,840	4,730	34,520
1948	2,110	0	0	0	0	0	0	4,270	6,010	9,340	9,150	6,760	37,640
1949	1,870	16	0	0	0	0	0	3,500	7,360	9,280	9,000	6,100	37,130
1950	1,930	129	22	0	0	0	0	3,950	9,250	6,750	9,320	6,320	37,670

‡ Not previously published; days of no flow included to obtain monthly mean.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1912	330	113	July 18, 1912	-	-	-	-	-
1913	360	113	June 11, 1913	0	‡22.5	‡16,300	‡22.6	‡16,400
1914	390	105	June 30, 1914	0	‡31.4	‡22,800	‡32.0	‡23,200
1915	410	102	Aug. 27, 1915	0	‡30.9	‡22,400	‡30.5	‡22,100
1916	440	128	Sept. 2, 1916	0	‡38.6	‡28,100	‡38.5	‡28,000
1917	460	113	(a)	0	‡24.7	‡17,900	‡25.4	‡18,400
1918	480	120	Aug. 23, 1918	0	38.3	27,700	39.1	28,300
1919	510	137	Aug. 19, 1919	0	40.5	29,300	40.6	29,400
1920	510	142	July 21, 1920	0	40.7	29,500	40.2	29,100
1921	530	154	Aug.28,29,1921	0	41.0	29,700	43.2	31,300
1922	550	164	July 17, 1922	0	47.7	34,500	50.6	36,600
1923	570	142	July 18, 1923	0	47.6	34,400	43.2	31,300
1924	590	161	July 24, 1924	0	58.0	42,100	59.6	43,200
1925	610	147	June 28, 1925	0	45.3	32,800	50.0	32,600
1926	630	147	(b)	0	54.1	39,200	54.0	39,200
1927	650	165	(c)	0	55.8	40,400	57.7	41,800
1928	670	168	(d)	0	64.4	46,800	64.2	46,600
1929	690	165	July 20, 1929	0	55.2	39,900	54.3	39,300
1930	705	168	July 15, 1930	0	57.5	41,600	56.1	40,600
1931	720	167	(e)	0	63.4	45,900	65.5	47,400
1932	735	182	(f)	0	58.4	42,400	61.6	44,700
1933	750	182	June27,28,1933	0	64.3	46,500	65.4	47,300
1934	765	160	May 3-5, 1934	0	50.3	36,440	44.4	32,160
1935	790	156	June16,17,1935	0	44.7	32,370	45.7	33,100
1936	810	153	June25-27,1936	0	52.3	37,970	51.0	37,040
1937	830	154	July 3-5,1937	0	48.1	34,840	48.6	35,170
1938	860	148	July20,20,1938	0	50.4	36,480	50.7	36,680
1939	880	150	July 7, 1939	0	54.4	39,430	55.0	39,840
1940	900	165	June 23, 1940	0	52.2	37,880	49.4	35,880

‡ Not previously published.
a July 17, 19-21, 1917.
b June 26, July 20, 21, 24, 1926.
c June 30 to July 11, 1927.
d June 30, July 1, 2, 7, 1928.
e June 25-30, July 1, 7-11, 1931.
f June 28, July 1, 1932.

Yearly discharge, in cubic feet per second, of Hammond (East Side) Canal near Collinston, Utah--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1941	930	161	June 26, 1941	0	48.1	34,860	48.3	34,980
1942	960	157	July11-15,1942	0	46.5	33,640	47.9	34,670
1943	980	158	July 1, 1943	0	51.1	36,990	50.7	36,720
1944	1010	160	Aug.17-22,1944	0	47.4	34,430	48.2	34,930
1945	1040	166	July11,12,1945	0	45.2	32,720	45.6	33,010
1946	1060	160	July4,8,9,1946	0	57.8	41,830	54.9	39,740
1947	1090	165	May 28, 1947	0	47.7	34,520	49.0	35,450
1948	1120	169	July 10, 1948	0	51.8	37,640	51.5	37,410
1949	1150	159	July9,10,1949	0	51.3	37,130	51.5	37,320
1950	1180	176	(g)	0	52.0	37,670	-	-

g July 23, 24, 26, 27, 1950.

85. West Side Canal near Collinston, Utah

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

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

Average discharge.--38 years (1912-50), 226 cfs.

Extremes.--1912-50: Maximum daily discharge, 729 cfs May 19, 1946; no flow during periods in every year except 1914.

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

Cooperation.--Records for 1918-32, 1934-35 furnished by Utah Power & Light Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	438	476	284	337	-
1913	165	71.7	63.7	88.0	30.5	17.5	4.6	259	414	360	464	226	182
1914	127	118	69.6	45.9	25.8	16.5	4.97	242	317	450	463	292	182
1915	156	86.6	‡48	‡35	‡20	17.9	6.4	107	308	479	416	255	‡162
1916	117	58.0	37.2	35.0	17.8	2.74	4.50	195	438	499	497	377	190
1917	133	80.7	58.9	36.4	35.0	21.8	1.57	32.8	261	507	479	421	†173
1918	196	139	59.3	50	50	25.4	1.70	360	492	487	461	423	230
1919	255	131	44.2	74.9	55.8	39.1	6.1	381	496	538	524	375	245
1920	162	98.5	52.1	53.4	22.9	0	0	130	565	594	550	344	215
1921	131	70.4	66.2	36.1	18.0	12.7	16.3	117	419	578	593	451	213
1922	329	95.9	70.5	51.3	48.6	13.5	1.07	128	527	545	546	505	239
1923	315	80.3	49.8	31.2	31.9	13.4	4.4	283	358	603	574	456	235
1924	146	58.6	50.8	70.2	57.6	20.5	24.9	523	578	591	594	451	265
1925	247	106	47.1	46.1	12.3	3.3	0	254	358	552	439	406	207
1926	278	153	68.6	30.1	20.1	9.5	0	306	590	511	545	477	250
1927	207	76.9	37.0	20	15	12.5	6.8	355	567	619	542	459	245
1928	200	64.2	28.7	32	33	4.8	20.7	456	523	576	576	487	251
1929	236	90.3	44.0	37.7	16.4	8.5	.1	271	497	591	533	371	226
1930	233	89.8	42.5	32.6	27.9	22.3	21.1	305	652	604	454	461	247
1931	144	85.6	38.3	24.2	24.0	9.3	13.2	348	616	590	554	466	244
1932	227	77.4	23.0	12	10	10	3.3	232	521	610	593	478	234
1933	317	99.5	35.2	20	15	9.9	2.9	90.6	630	581	640	528	249
1934	352	83.8	31.5	13.2	13.1	7.7	107	523	440	423	431	292	228
1935	108	40.0	18.9	18.8	16.6	8.2	20.7	266	559	517	442	317	196
1936	173	55.3	35.5	14	13	13.1	6.1	455	515	505	491	449	228
1937	226	72.9	30.4	19.2	14	7.6	.4	309	507	487	560	496	228
1938	215	73.7	18.3	12.6	15.5	14.3	6.0	309	610	448	606	503	237
1939	217	59.6	33.3	26.9	21.4	14.6	.4	514	525	621	587	312	246
1940	158	80.8	58.5	32.5	11.1	0	0	520	568	581	618	223	239
1941	108	63.3	35.2	18.0	14.2	2.5	0	359	514	559	510	436	220
1942	126	85.7	62.9	19.0	19.0	10.2	6.5	116	572	619	576	443	222
1943	200	85.1	48.4	17.9	10.2	0	6.9	465	362	595	546	458	235
1944	181	93.7	53.7	18.0	16.4	2.94	0	243	300	660	580	511	223
1945	245	105	47.6	27.0	2.3	0	0	269	377	640	475	382	216
1946	228	33.3	21.2	0	0	0	5.3	482	542	616	572	473	250
1947	176	84.4	29.5	10.4	9.50	7.82	0	443	420	638	537	407	232
1948	175	47.7	36.6	17.2	12.3	2.9	0	318	540	605	559	480	234
1949	189	66.4	22.0	13.6	11.1	7.9	0	253	585	595	611	474	237
1950	137	56.1	27.8	10.5	9.8	0	0	217	653	596	589	451	230

† Corrected.
‡ Not previously published; estimated or partly estimated on basis of diversion practices.

Monthly and yearly diversions, in acre-feet, of West Side Canal near Collinston, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	26,100	29,300	17,500	20,100	-
1913	10,100	4,270	3,920	5,410	1,690	1,080	274	15,900	24,600	22,100	28,500	13,400	131,000
1914	7,810	7,020	4,280	2,820	1,430	1,010	296	14,900	18,900	27,700	28,500	17,400	132,000
1915	9,590	5,150	‡2,950	‡2,150	‡1,110	1,100	383	6,580	18,300	29,500	25,600	15,200	‡118,000
1916	7,190	3,450	2,290	2,150	1,020	168	268	12,000	26,100	30,700	30,600	22,400	138,000
1917	8,180	4,800	3,620	2,240	1,940	1,340	93	2,020	15,500	31,200	29,500	25,100	126,000
1918	12,100	8,270	3,650	3,070	2,780	1,560	101	22,100	29,300	29,900	28,300	25,200	166,000
1919	15,700	7,800	2,720	4,610	3,100	2,400	360	23,400	29,500	33,100	32,200	22,300	177,000
1920	9,960	5,860	3,200	3,280	1,320	0	0	7,990	33,600	36,500	33,800	20,500	156,000
1921	8,060	4,190	4,070	2,220	1,000	780	970	7,190	24,900	35,500	36,500	26,800	152,000
1922	20,200	5,710	4,330	3,150	2,700	830	64	7,870	31,400	33,500	33,600	30,000	173,000
1923	19,400	4,780	3,060	1,920	1,770	824	262	17,400	21,300	37,100	35,300	27,100	170,000
1924	8,980	3,490	3,120	4,320	3,310	1,260	1,480	32,200	34,400	36,300	36,500	26,800	192,000
1925	15,200	6,310	2,900	2,830	683	203	0	15,600	21,300	33,900	27,000	24,200	150,000
1926	17,100	9,100	4,220	1,850	1,120	584	0	18,800	35,100	31,400	33,500	28,400	181,000
1927	12,700	4,580	2,280	1,230	833	769	405	21,800	33,700	38,100	33,300	27,300	177,000
1928	12,300	3,820	1,760	1,970	1,900	295	1,230	28,000	31,100	35,400	35,400	29,000	182,000
1929	14,500	5,370	2,710	2,320	911	523	6	16,700	29,600	36,300	32,800	22,100	164,000
1930	14,300	5,340	2,610	2,000	1,550	1,370	1,260	18,800	38,800	37,100	27,900	27,400	178,000
1931	8,850	5,090	2,360	1,490	1,330	572	786	21,400	36,700	36,300	34,100	27,700	177,000
1932	14,000	4,610	1,410	738	575	615	196	14,300	31,000	37,500	36,500	28,400	170,000
1933	19,500	5,920	2,160	1,230	833	†607	171	5,570	37,500	35,700	39,400	31,400	180,000
1934	21,630	4,990	1,940	813	726	476	6,380	32,130	26,180	25,990	26,530	17,350	165,100
1935	6,610	2,380	1,160	1,160	924	506	1,230	16,380	33,240	31,770	27,190	18,850	141,400
1936	10,640	3,290	2,180	861	748	807	363	27,990	30,650	31,070	30,180	26,720	165,500
1937	13,890	4,340	1,870	1,180	778	466	24	18,970	30,100	29,970	34,460	28,920	165,000
1938	13,190	4,390	1,120	778	863	877	359	19,030	36,270	27,530	37,260	29,910	171,600
1939	13,340	3,550	2,040	1,660	1,190	897	24	31,590	31,250	38,170	36,070	18,570	178,400
1940	9,720	4,810	3,600	2,000	639	0	0	31,990	33,810	35,710	38,030	13,290	173,600
1941	6,630	3,770	2,170	1,110	789	153	0	22,070	30,600	34,400	31,360	25,940	159,000
1942	7,720	5,100	3,870	1,170	1,060	627	387	7,130	34,020	38,040	35,390	26,380	160,900
1943	12,270	5,060	2,970	1,100	565	0	412	28,610	21,540	36,600	33,580	27,270	170,000
1944	11,120	5,570	3,300	1,110	946	180	0	14,960	17,850	40,570	35,680	30,430	161,700
1945	15,090	6,260	2,930	1,660	129	0	0	16,540	22,430	39,330	29,190	22,750	156,300
1946	14,010	1,980	1,310	0	0	0	317	29,660	32,250	37,890	35,140	28,150	180,700
1947	10,810	5,020	1,810	639	528	481	0	27,270	24,980	39,240	32,990	24,210	168,000
1948	10,770	2,840	2,250	1,060	706	177	0	19,540	32,110	37,190	34,390	28,540	169,600
1949	11,600	3,950	1,350	839	615	486	0	15,540	34,820	36,560	37,570	28,200	171,500
1950	8,450	3,340	1,710	645	545	0	0	13,360	38,880	36,620	36,220	26,810	166,600

† Corrected.
‡ Not previously published; estimated or partly estimated on basis of diversion practice.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1912	330	563	July 1, 1912	-	-	-	-	-
1913	360	555	July 26, 1913	0	182	131,000	184	134,000
1914	390	526	Aug. 20, 1914	-	182	132,000	‡180	‡131,000
1915	410	516	June21,22,1915	0	‡162	‡118,000	‡156	‡113,000
1916	440	532	Aug. 30, 1916	0	190	138,000	196	142,000
1917	460	554	July 27, 1917	0	†173	126,000	183	133,000
1918	480	539	(a)	0	230	166,000	233	168,000
1919	510	557	June 19, 1919	0	245	177,000	235	170,000
1920	510	609	July14,15,1920	0	215	156,000	211	153,000
1921	530	602	(b)	0	213	152,000	230	166,000
1922	550	604	July 17, 1922	0	239	173,000	235	170,000
1923	570	616	July23-26,1923	0	235	170,000	219	159,000
1924	590	628	June 5,6,1924	0	265	192,000	277	201,000
1925	610	590	July 19, 1925	0	207	150,000	216	156,000
1926	630	604	June24,25,1926	0	250	181,000	235	170,000
1927	650	635	July1,8,9,1927	0	245	177,000	242	175,000
1928	670	640	June1,2,4,1928	0	251	182,000	258	187,000
1929	690	607	July 19, 1929	0	226	164,000	226	164,000
1930	705	673	June 4, 1930	0	247	178,000	238	172,000
1931	720	634	July 6, 1931	0	244	177,000	249	180,000
1932	735	659	June27-29,1932	0	234	170,000	244	177,000
1933	750	677	(c)	0	249	180,000	250	181,000
1934	765	552	May 9, 1934	0	228	165,100	203	146,900
1935	790	658	June 13, 1935	0	196	141,400	204	147,400
1936	810	646	May 30, 1936	0	228	165,500	233	169,500
1937	830	653	July2,3, 1937	0	228	165,000	226	163,600
1938	860	690	July20,21,1938	0	237	171,600	237	171,800
1939	880	664	May 23, 1939	0	246	178,400	245	177,600
1940	900	700	June25,26,1940	0	239	173,600	231	168,000

† Corrected.
‡ Not previously published.
a June 30, July 1-3, 1918.
b July 17-20, Aug. 28, 1921.
c July 12, 13, 15, 17, 1933.

Yearly discharge, in cubic feet per second, of West Side Canal near Collinston, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1941	930	709	June 20, 1941	0	220	159,000	225	163,100
1942	960	694	July 12, 1942	0	222	160,900	227	164,500
1943	980	686	May 28, 1943	0	235	170,000	234	169,700
1944	1010	710	July10,11,1944	0	223	161,700	229	166,000
1945	1040	688	July 6-8,1945	0	216	156,300	206	149,300
1946	1060	729	May 19, 1946	0	250	180,700	250	181,000
1947	1090	720	May 30, 1947	0	232	168,000	230	166,200
1948	1120	709	July 10, 1948	0	234	169,600	235	170,600
1949	1150	719	June 17, 1949	0	237	171,500	232	168,100
1950	1180	727	June 3, 1950	0	230	166,600	-	-

86. Bear River near Collinston, Utah 1/

Location.--Lat 41°50', long 112°08', in NW¼SE¼ sec. 27, T. 13 N., R. 2 W., 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.

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

Extremes.--1889-1950: 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, 1950.

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

Cooperation.--Records for 1928-32 furnished by Utah Power & Light Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	800	455	417	509	-
1890	728	848	1,395	1,500	1,000	3,188	4,953	7,924	6,234	3,250	1,754	1,344	2,853
1891	1,544	1,403	1,243	1,000	1,308	1,766	2,729	4,569	3,595	1,565	938	986	1,889
1892	1,235	1,262	1,216	1,202	1,209	2,037	2,397	3,869	5,660	3,037	1,195	1,000	2,110
1893	1,131	1,195	1,235	1,052	969	1,340	3,579	4,920	4,645	2,000	765	760	1,968
1894	990	1,090	1,144	1,280	1,340	2,435	5,355	6,786	6,357	2,780	1,250	1,525	2,696
1895	1,650	1,465	1,525	1,610	1,630	2,030	3,244	4,329	2,627	961	813	873	1,897
1896	1,192	1,341	1,455	1,324	1,108	1,310	2,986	3,890	6,401	2,233	1,361	1,247	2,130
1897	1,308	1,520	1,556	1,429	1,466	1,582	5,822	9,566	5,637	1,807	1,082	1,224	2,837
1898	1,769	1,351	1,626	1,716	1,573	1,989	3,802	4,609	3,889	1,322	734	771	2,096
1899	1,104	1,202	967	1,299	1,266	1,875	3,839	5,129	6,247	4,873	2,309	1,448	2,635
1900	1,887	2,132	1,753	1,735	1,549	2,400	2,592	3,902	2,298	677	621	763	1,861
1901	1,180	1,432	1,316	1,239	1,555	2,032	2,399	4,469	2,029	686	574	724	1,637
1902	1,006	1,144	1,197	1,139	1,191	1,191	2,176	2,656	2,138	292	*77.9	*206	*1,199
1903	427	420	312	781	1,044	1,782	2,480	2,474	2,570	448	38	264	1,083
1904	902	1,115	924	610	1,443	3,187	4,740	6,303	5,055	1,207	376	514	2,195
1905	908	1,021	1,067	1,199	1,199	1,605	1,800	2,201	895	36.4	13.0	158	1,007
1906	806	976	767	783	1,100	1,700	3,700	4,210	5,090	‡1,240	‡822	‡1,340	‡1,875
1907	‡1,120	‡1,280	‡1,490	1,320	2,340	3,410	7,270	7,350	8,600	4,740	1,870	1,590	‡3,529
1908	1,940	1,980	1,960	1,890	1,810	2,610	2,800	1,870	3,980	1,020	646	803	1,940
1909	1,580	1,670	1,360	2,850	2,210	3,020	5,370	7,300	9,220	3,300	1,200	2,010	3,420
1910	2,120	2,610	2,370	2,460	2,130	5,950	5,060	3,900	1,050	141	262	515	2,380
1911	1,100	1,220	1,320	1,790	2,720	2,950	3,970	3,930	2,780	769	331	666	1,960
1912	1,350	1,340	1,260	1,320	1,500	1,700	3,170	4,530	5,730	2,170	1,560	1,280	2,240
1913	1,660	2,280	1,130	1,320	1,540	1,960	4,980	3,620	1,220	1,140	360	1,090	1,860
1914	1,410	1,470	1,360	1,800	1,760	2,650	5,090	5,920	4,870	1,390	700	1,170	2,460
1915	1,640	1,560	1,540	1,520	1,800	1,640	1,720	1,320	855	214	145	630	1,210
1916	899	1,000	1,080	1,360	1,550	3,610	3,650	3,140	2,060	763	548	788	1,700
1917	1,430	1,390	1,600	1,780	1,860	1,940	4,250	6,060	7,140	2,810	1,300	1,410	2,740
1918	1,870	1,970	1,960	1,910	1,810	2,590	2,590	1,940	1,370	639	554	830	1,670
1919	1,500	1,650	1,790	1,670	1,730	2,270	2,610	1,640	465	124	226	668	1,360
1920	1,280	1,470	1,520	1,740	1,670	1,720	2,510	4,920	2,360	467	354	1,040	1,750
1921	1,610	1,570	1,650	1,900	1,890	3,140	3,420	5,410	5,620	1,190	588	1,050	2,420
1922	1,250	1,840	2,180	2,260	2,240	3,210	5,190	7,970	4,730	947	822	813	2,790
1923	1,340	1,840	2,220	2,280	2,140	2,630	4,490	5,270	4,680	1,130	931	1,220	2,510
1924	1,970	1,840	2,310	2,360	2,550	1,990	3,050	1,620	641	422	418	786	1,660
1925	1,180	1,430	1,540	1,690	2,170	1,840	2,520	2,350	1,510	306	559	911	1,490

* Revised.

‡ Not previously published; partly estimated on basis of weekly gage-height readings and records for station near Preston.

1/ Published as "at Collinston" prior to 1900.

Monthly and yearly mean discharge, in cubic feet per second, of Bear River near Collinston, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1926	1,250	1,440	1,420	1,370	1,540	1,760	2,410	1,570	200	387	473	711	1,210
1927	1,260	1,440	1,540	1,680	2,060	1,870	2,420	2,610	1,770	307	434	557	1,490
1928	1,100	1,280	1,270	1,290	1,270	1,990	2,060	2,430	813	57.6	315	644	1,210
1929	1,030	1,370	1,390	1,220	1,260	2,340	2,680	2,390	928	124	46.3	542	1,280
1930	1,150	1,180	1,110	831	1,620	1,430	1,580	1,110	157	78	519	615	945
1931	942	1,090	1,010	1,010	1,140	1,220	874	166	28.4	26.4	25.8	26.4	627
1932	200	582	724	719	894	1,890	2,810	3,250	1,440	150	40.6	214	1,070
1933	498	747	860	848	928	1,450	1,930	2,230	785	33.5	31.8	32.5	863
1934	327	737	981	929	876	792	485	27.3	23.6	22.2	19.5	111	442
1935	308	719	701	589	915	1,106	1,215	1,268	630	21.3	20.0	18.9	623
1936	345	666	630	830	1,155	1,303	3,488	3,806	1,331	21.0	20.8	102	1,139
1937	732	1,085	996	907	1,069	2,162	2,258	2,580	678	104	17.6	54.0	1,054
1938	839	870	1,146	956	1,290	1,819	2,662	2,804	553	332	17.8	96.3	1,115
1939	872	1,440	1,340	971	1,110	2,090	1,770	845	49.5	20.9	19.7	428	911
1940	732	668	789	879	1,145	1,398	1,230	257	34.8	20.3	19.6	258	617
1941	608	808	850	773	1,322	1,371	1,480	867	113	22.2	70.4	155	699
1942	780	852	1,003	943	1,104	1,625	2,671	2,160	343	†35.5	†21.0	115	970
1943	594	930	1,086	1,287	1,436	1,837	3,464	2,053	2,001	148	†113	230	1,259
1944	925	1,135	1,056	915	1,004	1,409	1,729	1,921	1,309	32.2	25.5	30.2	956
1945	448	892	763	805	1,657	1,502	1,544	2,238	2,733	93.1	366	682	1,136
1946	780	1,402	1,399	1,409	1,189	2,462	4,351	2,593	1,085	133	572	709	1,505
1947	1,228	1,670	1,760	1,459	1,692	1,801	1,946	2,106	1,459	238	831	1,019	1,431
1948	1,325	1,593	1,610	1,285	1,624	1,440	2,895	3,476	1,758	298	464	846	1,516
1949	1,308	1,438	1,572	1,651	1,825	2,437	2,673	2,528	882	129	294	602	1,442
1950	1,548	1,387	1,472	2,088	2,348	2,244	3,630	4,393	3,436	1,869	1,353	1,590	2,275

† Corrected.

Monthly and yearly runoff, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	47.60	28.00	25.64	30.28	-
1890	44.77	50.46	85.79	92.25	55.50	196.1	294.7	487.3	370.9	199.9	107.90	79.97	2,066
1891	94.96	83.48	76.44	61.50	72.59	108.7	162.4	281.0	213.9	96.06	57.69	58.67	1,367
1892	75.95	75.09	74.78	73.92	69.52	125.3	142.6	237.9	336.8	186.8	73.49	59.50	1,532
1893	69.56	71.10	75.95	64.70	53.78	82.41	213.0	302.6	276.4	123.0	47.05	45.22	1,425
1894	60.88	64.86	70.36	78.70	74.42	149.7	318.6	417.3	378.3	170.9	76.86	90.74	1,952
1895	101.50	87.18	93.77	99.00	90.53	124.8	193.0	266.2	156.3	59.09	49.99	51.95	1,373
1896	73.29	79.80	89.46	81.41	63.73	80.55	177.7	231.6	380.9	132.9	80.98	74.20	1,547
1897	80.42	90.45	95.67	87.87	81.42	97.27	346.4	588.2	335.4	111.1	66.53	72.83	2,054
1898	108.80	80.39	99.98	105.5	87.36	122.3	226.2	283.4	231.4	81.29	45.13	45.88	1,518
1899	67.88	71.52	59.46	79.87	70.31	115.3	228.4	315.4	371.7	299.6	142.0	86.16	1,908
1900	116.0	126.9	107.8	106.7	86.03	147.6	154.2	239.9	136.7	41.63	38.18	45.40	1,347
1901	72.56	85.21	80.92	76.18	86.35	124.9	142.8	274.8	120.7	42.18	35.29	43.08	1,185
1902	61.86	68.07	73.60	70.03	66.14	73.23	129.5	163.3	127.2	17.95	*4.79	*12.26	*867.9
1903	26.26	24.99	19.18	48.00	57.98	109.6	147.6	152.1	152.9	27.55	2.34	15.70	784.2
1904	55.46	66.35	56.82	37.51	83.00	196.0	282.0	387.6	300.8	74.22	23.12	30.58	1,593
1905	55.83	60.75	65.61	73.72	66.59	98.69	107.1	135.3	53.26	2.24	.779	9.40	729.3
1906	49.56	58.08	47.16	48.1	61.1	105	220	259	303	‡76.2	‡50.5	‡80.0	‡1,358
1907	‡68.9	‡76.2	‡91.6	81.2	130	210	433	452	512	291	115	94.6	‡2,556
1908	119	118	121	116	104	160	167	115	237	62.7	39.7	47.8	1,410
1909	97.2	99.4	83.6	175	123	186	320	449	549	203	73.8	120	2,480
1910	130	155	146	151	118	366	301	240	62.5	8.67	16.1	30.6	1,720
1911	67.6	72.6	81.2	110	151	181	236	242	165	47.3	20.4	39.6	1,410
1912	83.0	79.7	77.5	81.2	86.3	105	189	279	341	133	95.9	76.2	1,630
1913	102	136	69.5	81.2	85.5	121	296	223	72.6	70.1	22.1	64.9	1,340
1914	86.7	87.5	83.6	111	97.8	163	303	364	290	85.5	43.0	69.6	1,780
1915	101	92.8	94.7	93.5	100	101	102	81.2	50.9	13.2	8.92	37.5	877
1916	55.3	59.5	66.4	83.6	89.2	222	217	193	123	46.9	33.7	45.7	1,240
1917	87.9	82.7	98.4	109	103	119	253	373	425	173	79.9	83.9	1,990
1918	115	117	121	117	101	159	154	119	81.5	39.3	34.1	49.4	1,210
1919	92.2	98.2	110	103	96.1	140	155	101	27.7	7.62	13.9	39.7	984
1920	78.7	87.5	93.5	107	96.1	106	149	303	140	28.7	21.8	61.9	1,270
1921	99.0	93.4	101	117	105	193	204	333	334	73.2	36.2	62.5	1,750
1922	76.9	109	134	139	124	197	309	490	281	58.2	50.5	48.4	2,020
1923	82.4	109	136	140	119	162	267	324	277	69.5	57.2	72.6	1,820
1924	121	109	142	145	147	122	181	99.6	38.1	25.9	25.7	46.8	1,200
1925	72.6	85.1	94.7	104	121	113	150	144	89.8	18.8	34.4	54.2	1,080
1926	76.9	85.7	87.3	84.2	85.5	108	143	96.5	11.9	23.8	29.1	42.3	874
1927	77.5	85.7	94.7	103	114	115	144	160	105	18.9	26.7	33.1	1,080
1928	67.6	76.2	78.1	79.3	73.0	122	123	149	48.4	3.54	19.4	38.3	878
1929	63.3	81.5	85.5	75.0	70.0	144	159	147	55.2	7.62	2.85	32.3	923
1930	70.7	70.2	68.2	51.1	89.9	88.2	94.3	68.3	9.34	4.77	31.9	36.6	684
1931	57.9	64.9	62.1	62.1	63.3	75.0	52.0	10.2	1.69	1.62	1.59	1.57	454
1932	12.3	34.6	44.5	44.2	51.4	116	167	200	85.7	9.22	2.50	12.7	780
1933	30.6	44.4	52.9	52.1	51.5	89.2	115	137	46.7	2.06	1.96	1.93	625
1934	20.09	43.86	60.31	57.11	48.65	48.70	28.86	1.68	1.40	1.37	1.20	6.59	319.8
1935	18.97	42.79	43.11	36.21	50.81	67.98	72.32	77.97	37.50	1.31	1.23	1.12	451.3
1936	21.21	39.61	38.76	51.06	66.45	80.13	207.5	234.0	79.18	1.29	1.28	6.08	826.6
1937	45.01	64.58	61.23	55.78	59.35	132.9	134.4	158.6	40.31	6.38	1.08	3.22	762.8
1938	51.60	51.79	70.47	58.76	71.67	111.8	158.4	172.4	32.88	20.44	1.09	5.73	807.0
1939	53.61	85.75	82.16	59.68	61.71	128.7	105.4	51.94	2.95	1.29	1.21	25.49	659.9
1940	45.00	39.76	48.50	54.05	65.87	85.96	73.21	15.79	2.07	1.25	1.21	15.38	448.0

* Revised.

‡ Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in thousands of acre-feet, of Bear River near Collinston, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	37.38	48.06	52.28	47.55	73.45	84.29	88.06	53.34	6.71	1.36	4.33	9.24	506.0
1942	47.93	50.70	61.68	57.98	61.32	99.90	159.0	132.8	20.43	2.18	1.29	6.85	702.1
1943	36.52	55.34	66.75	79.15	79.38	113.0	206.1	126.2	119.1	9.09	6.92	13.69	911.2
1944	56.90	67.56	64.92	56.27	57.74	86.61	102.9	118.1	77.89	1.98	1.57	1.80	694.2
1945	27.52	53.09	46.91	49.50	92.04	92.37	91.88	137.6	162.6	5.72	22.48	40.56	822.3
1946	47.95	83.41	86.04	86.62	66.06	151.4	258.9	159.4	64.55	8.17	35.18	42.20	1,090
1947	75.49	99.34	108.2	89.73	93.94	110.7	115.8	129.5	86.81	14.63	51.12	60.63	1,036
1948	81.46	94.79	98.98	79.01	93.44	88.57	160.3	213.7	104.6	18.31	28.52	38.42	1,100
1949	80.44	85.58	96.96	101.5	101.4	149.8	159.1	155.4	52.48	7.93	18.09	35.83	1,045
1950	95.18	82.52	90.51	127.1	130.4	138.0	216.0	270.1	204.4	114.9	83.21	94.61	1,647

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(a)	b8,220	May 10, 1890	610	2,853	2,066,000	2,945	2,139,000
1891	(a)	b5,000	(c)	-	1,889	1,367,000	1,847	1,338,000
1892	(a)	b6,260	(d)	1,000	2,110	1,532,000	2,097	1,522,000
1893	(a)	b6,470	May 22, 1893	675	1,968	1,425,000	1,938	1,404,000
1894	Bull.131	b7,770	June3-5, 1894	825	2,696	1,952,000	2,815	2,038,000
1895	Bull.140	b4,990	May 11, 1895	540	1,897	1,373,000	1,842	1,333,000
1896	(e)	b7,420	June14,15,1896	1,100	2,130	1,547,000	2,187	1,571,000
1897	(f)	b10,600	May23-26,1897	990	2,837	2,054,000	2,863	2,076,000
1898	(g)	b5,320	June 2-5,1898	718	2,096	1,518,000	1,973	1,427,000
1899	(h)	b6,640	(i)	848	2,835	1,908,000	2,839	2,059,000
1900	(j)	b4,650	May14,15,1900	415	1,861	1,347,000	1,705	1,235,000
1901	75	b4,950	(k)	415	1,637	1,185,000	1,588	1,150,000
1902	85,1564	b3,340	June 2,3,1902	*34	*1,199	*867,900	*1,015	*734,800
1903	100	*b4,500	Mar.16,17, 1903	31	1,083	784,200	1,235	892,400
1904	133	b6,700	May25-28,1904	270	2,195	1,593,000	2,203	1,597,000
1905	176	b2,760	May 4, 1905	10	1,007	729,300	971	701,900
1906	212	b7,080	June 2, 1906	-	‡1,875	‡1,358,000	‡1,989	‡1,440,000
1907	250	b10,200	June 11, 1907	‡810	‡3,529	‡2,556,000	3,700	2,680,000
1908	250	b5,470	June 20, 1908	385	1,940	1,410,000	1,840	1,330,000
1909	270	b11,600	June7-10,1909	500	3,420	2,480,000	3,630	2,630,000
1910	290	b7,800	Mar. 18, 1910	20	2,380	1,720,000	2,090	1,520,000
1911	310	b8,800	Feb. 2, 1911	275	1,960	1,410,000	1,980	1,430,000
1912	330	b6,380	June 17, 1912	905	2,240	1,630,000	2,330	1,690,000
1913	360	b6,250	Apr. 10, 1913	228	1,860	1,340,000	1,790	1,300,000
1914	390	6,580	(l)	437	2,460	1,780,000	2,510	1,820,000
1915	410	2,610	Feb. 11, 1915	71	1,210	877,000	1,060	769,000
1916	440	6,340	Mar. 23, 1916	286	1,700	1,240,000	1,820	1,320,000
1917	460	8,170	May 19, 1917	898	2,740	1,990,000	2,860	2,070,000
1918	480	4,650	Mar. 13, 1918	223	1,670	1,210,000	1,600	1,160,000
1919	510	3,840	Apr. 1, 1919	62	1,360	984,000	1,300	944,000
1920	510	6,510	May 25, 1920	30	1,750	1,270,000	1,800	1,310,000
1921	530	6,760	June 16, 1921	318	2,420	1,750,000	2,460	1,780,000
1922	550	10,100	May 10, 1922	351	2,790	2,020,000	2,800	2,020,000
1923	570	6,060	June 2, 1923	516	2,510	1,820,000	2,570	1,860,000
1924	590	4,870	Apr. 16, 1924	73	1,660	1,200,000	1,490	1,080,000
1925	610	4,280	Feb. 5, 1925	80	1,490	1,080,000	1,490	1,080,000
1926	630	3,380	Apr. 9, 1926	40	1,210	874,000	1,220	882,000
1927	650	m4,310	Feb. 22, 1927	18	1,490	1,080,000	1,440	1,040,000
1928	670	m4,210	Mar. 25, 1928	19	1,210	878,000	1,220	886,000
1929	690	m4,000	Mar.12,13,1929	29	1,280	923,000	1,250	902,000
1930	705	m3,100	Feb. 20, 1930	23	945	684,000	911	659,000
1931	720	m1,720	Mar. 11, 1931	23	627	454,000	498	360,000
1932	735	m4,550	May 16, 1932	23	1,070	780,000	1,120	817,000
1933	750	m3,410	May 28, 1933	28	863	625,000	858	622,000
1934	765	m1,640	Dec. 21, 1933	17	442	319,800	415	300,400
1935	790	m2,920	May 29, 1935	18	623	451,300	616	446,000
1936	810	7,260	Apr. 26, 1936	18	1,139	826,600	1,237	897,800
1937	830	5,330	May12,13,1937	14	1,054	762,800	1,058	765,900
1938	860	5,520	Apr. 28, 1938	16	1,115	807,000	1,180	854,700
1939	880	3,940	Mar.22-23,1939	18	911	659,900	790	571,600
1940	900	3,610	Jan. 17, 1940	18	617	448,000	623	452,500
1941	930	3,610	Feb. 21, 1941	15	699	506,000	730	528,600
1942	960	3,890	May 25, 1942	17	970	702,100	967	700,400
1943	980	4,830	Apr. 23, 1943	18	1,259	911,200	1,301	942,000
1944	1010	3,650	(n)	19	956	694,200	871	632,400
1945	1040	6,210	June 10, 1945	22	1,136	822,300	1,260	912,200
1946	1060	7,160	Apr. 21, 1946	24	1,505	1,090,000	1,596	1,156,000
1947	1090	3,760	(o)	24	1,431	1,036,000	1,420	1,028,000
1948	1120	3,900	May 5, 1948	20	1,516	1,100,000	1,498	1,088,000
1949	1150	3,840	May24,25,1949	23	1,442	1,045,000	1,450	1,050,000
1950	1180	6,790	June 13, 1950	192	2,275	1,647,000	-	-

* Revised.
‡ Not previously published.
a 14th Ann. Rept., Pt. 2.
b Maximum observed.
c Apr. 28, 29, May 25-27, 1891.
d May 31-June 1, 1892.
e 18th Ann. Rept., Pt. 4.
f 19th Ann. Rept., Pt. 4.
g 20th Ann. Rept., Pt. 4.
h 21st Ann. Rept., Pt. 4.
i June 15, 22-27, 29, 30, July 1, 1899.
j 22nd Ann. Rept., Pt. 4.
k May 6, 19, 21, 1901
l May 27, June 6, 1914.
m Maximum daily.
n Many times in May and June 1944.
o Several days in June 1947.

87. Wright Creek near Daniels, Idaho

Location.--Lat 42°24', long 112°24', in NW¼ sec. 8, T. 12 S., R. 35 E., a quarter of a mile downstream from Dairy Creek, 2 miles north of Daniels, 4 miles (revised) upstream from Little Malad River, and 17 miles (revised) northwest of Malad City.

Drainage area.--73 sq mi, approximately.

Gage.--Staff gage and Cipolletti weir. Altitude of gage is 5,410 ft (by barometer).

Extremes.--1931-32: Maximum discharge observed, 8.2 cfs Apr. 20, 1932 (gage height, 0.87 ft); minimum not determined, occurred during period of no gage-height record, Oct. 1 to Nov. 24, 1931.

Remarks.--Small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	1.20	1.24	1.67	1.77	1.75	2.50	5.67	5.25	4.48	3.34	2.02	1.63	2.71

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	74	74	103	109	101	154	337	323	267	205	124	97	1,970

88. Little Malad River above Elkhorn Reservoir, near Malad City, Idaho 1/

Location.--Lat 42°20', long 112°26', on line between sections 35 and 36, T. 12 S., R. 34 E., three-quarters of a mile upstream from county road 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.

Gage.--Water-stage recorder and Cipolletti weir. Altitude of gage is 5,050 ft (by barometer). Prior to Dec. 5, 1940, staff gages at about same site but different datums.

Average discharge.--12 years (1911-12, 1931-32, 1940-50), 17.5 cfs.

Extremes.--1911-13, 1931-32, 1940-50: Maximum discharge, 270 cfs Feb. 22, 1948 (gage height, 3.26 ft), from rating curve extended above 50 cfs on basis of computation of flood flow by weir formula; minimum, 6.8 cfs Aug. 19, 1948 (gage height, 0.31 ft).

Remarks.--Diversions for irrigation of about 400 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	-	-	‡13.0	13.0	-
1912	13.2	14.2	13.0	15.8	18.2	29.6	35.8	28.9	24.8	21.2	22.4	17.0	21.2
1913	17.5	17.5	13.9	13.5	13.5	18.0	26.4	22.2	19.6	18.1	-	-	-
1932	11.0	11.5	12.0	12.4	12.5	13.6	17.3	17.2	16.0	14.1	13.4	12.9	13.7
1941	‡11.4	‡12.5	12.6	13.6	13.7	26.1	20.8	17.8	15.0	14.4	14.1	13.8	‡15.5
1942	13.5	13.1	13.6	12.8	13.7	14.7	25.0	21.0	18.1	14.8	13.5	14.0	15.6
1943	14.1	14.2	13.4	14.2	14.8	18.5	22.9	20.0	18.6	16.9	14.4	13.5	16.3
1944	14.1	15.0	15.1	15.9	15.2	22.5	24.2	16.7	18.6	14.7	12.7	11.9	16.4
1945	12.9	14.5	14.0	12.6	13.3	16.4	17.3	20.1	23.0	17.9	15.6	15.6	16.1
1946	16.1	16.7	18.1	17.0	16.8	22.5	27.9	22.5	17.7	17.7	16.8	15.7	18.8
1947	15.9	16.7	17.1	15.2	26.6	25.1	19.4	19.6	18.0	16.7	15.4	14.9	18.3
1948	15.2	15.2	14.6	16.3	26.7	28.9	41.3	22.9	18.7	16.5	14.3	15.3	20.4
1949	15.8	15.8	17.0	16.6	15.4	19.7	26.3	24.4	17.7	17.0	14.4	14.3	17.9
1950	16.1	16.5	15.6	16.6	21.0	25.5	29.1	26.2	22.2	18.4	16.9	16.8	20.1

‡ Not previously published; for August 1911, partly estimated on basis of discharge measurement August 2 and recorded flow after August 7; for October, November 1940, estimated on basis of records for Deep Creek and Devil Creek.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	-	-	‡799	774	-
1912	812	845	799	972	1,050	1,820	2,130	1,780	1,480	1,300	1,380	1,010	15,400
1913	1,080	1,040	855	830	750	1,110	1,570	1,360	1,170	1,110	-	-	-
1932	676	684	738	762	719	836	1,030	1,060	952	867	824	768	9,920
1941	‡698	‡744	778	835	760	1,600	1,240	1,090	893	885	865	821	‡11,210
1942	831	781	837	785	762	906	1,490	1,290	1,080	910	827	831	11,330
1943	869	843	823	871	819	1,140	1,380	1,230	1,110	1,040	887	805	11,800
1944	869	893	930	978	875	1,380	1,440	1,030	1,110	902	780	708	11,900
1945	791	865	863	776	740	1,010	1,030	1,240	1,370	1,100	960	926	11,670

‡ Not previously published; see footnote to preceding table.

1/ Published as Little Malad River near Malad, 1911-13, and as Little Malad River above Elkhorn Reservoir, near Malad, 1931-32, 1940-48.

Monthly and yearly runoff, in acre-feet, of Little Malad River above Elkhorn Reservoir, near Malad City, Idaho--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	990	994	1,110	1,050	934	1,380	1,660	1,380	1,050	1,090	1,030	936	13,600
1947	976	996	1,050	936	1,480	1,540	1,150	1,210	1,070	1,030	946	887	13,270
1948	936	904	900	1,000	1,530	1,780	2,460	1,410	1,110	1,020	877	912	14,840
1949	972	940	1,040	1,020	855	1,210	1,570	1,500	1,050	1,040	887	853	12,940
1950	992	980	958	1,020	1,170	1,570	1,730	1,610	1,320	1,130	1,040	1,000	14,520

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	a61	Aug. 2, 1912	13	21.2	15,400	21.9	15,900
1913	360	b61	Apr. 1, 1913	-	-	-	-	-
1932	735	a21	Apr. 12, 1932	-	13.7	9,920	-	-
1941	930	118	Mar. 17, 1941	-	‡15.5	‡11,210	15.8	11,440
1942	960	126	Apr. 4, 1942	12	15.6	11,330	15.8	11,420
1943	980	63	Mar. 8, 1943	11	16.3	11,800	16.5	11,950
1944	1010	116	Mar. 30, 1944	11	16.4	11,900	16.1	11,720
1945	1040	100	Aug. 14, 1945	11	16.1	11,670	16.9	12,250
1946	1060	197	Aug. 23, 1946	14	18.8	13,600	18.7	13,530
1947	1090	199	Feb. 13, 1947	14	18.3	13,270	17.9	12,990
1948	1120	270	Feb. 22, 1948	13	20.4	14,840	20.7	15,050
1949	1150	130	May 15, 1949	13	17.9	12,940	17.8	12,920
1950	1180	84	Feb. 25, 1950	13	20.1	14,520	-	-

‡ Not previously published.
a Maximum daily.
b Maximum daily during period October 1 to August 16.

89. Little Malad River below Elkhorn Reservoir, near Malad City, Idaho 1/

Location.--Lat 42°18', long 112°25', in sec. 7, T. 13 S., R. 35 E., just downstream from Elkhorn Dam, 4½ miles downstream from Wright Creek, and 11½ miles northwest of Malad City.

Drainage area.--153 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,970 ft (by barometer). Prior to Sept. 6, 1941, at weir 50 ft upstream at datum 4.36 ft higher.

Average discharge.--9 years (1941-50), 13.4 cfs.

Extremes.--1940-50: Maximum discharge, 113 cfs Aug. 23, 1946, from computation of flow over weir 50 ft upstream; maximum gage height, 3.63 ft Jan. 24, 1949 (ice jam); no flow at times during most years.

Remarks.--Flow regulated by Elkhorn Reservoir. Diversions for irrigation of about 400 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	-	-	‡4.60	5.41	4.79	2.88	12.5	‡17.3	‡14.5	‡13.3	14.9	‡12.6	-
1942	12.9	12.1	7.46	5.53	5.40	5.31	9.72	19.2	18.9	15.0	12.5	12.6	11.4
1943	12.5	12.0	5.73	5.35	5.65	6.39	13.6	19.5	19.0	17.0	14.0	14.0	12.1
1944	15.2	11.1	7.62	5.23	4.60	4.95	18.0	17.2	17.9	13.9	12.6	11.8	11.7
1945	12.5	14.3	6.80	2.78	2.28	2.29	3.32	19.1	23.4	19.0	16.8	15.1	11.5
1946	7.73	5.97	1.48	12.8	9.15	6.33	13.3	25.7	19.7	18.2	16.8	15.7	12.8
1947	16.8	17.8	18.6	15.9	22.7	13.1	10.5	19.2	19.0	15.7	14.7	14.7	16.5
1948	15.5	15.5	15.0	16.3	20.9	22.2	35.8	22.7	19.2	15.6	13.6	13.7	18.8
1949	14.3	14.6	15.2	15.2	10.7	.30	8.58	24.5	18.1	15.4	13.4	14.1	13.7
1950	14.7	15.4	6.73	3.55	2.29	.46	8.81	21.4	20.6	18.3	15.7	15.2	12.0

‡ Not previously published; partly estimated on basis of records for Elkhorn Reservoir and for river station above reservoir.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	-	-	‡283	333	266	177	746	‡1,060	‡863	‡817	918	‡748	-
1942	793	722	459	340	300	326	578	1,180	1,120	920	768	748	8,250
1943	770	716	352	329	314	393	806	1,200	1,130	1,050	861	835	8,760
1944	934	661	468	322	264	305	1,070	1,060	1,060	855	778	702	8,480
1945	770	851	418	171	127	141	198	1,180	1,390	1,170	1,030	897	8,340
1946	475	355	91	789	508	389	790	1,580	1,170	1,120	1,030	936	9,230
1947	1,030	1,060	1,140	980	1,260	806	626	1,180	1,130	964	904	877	11,960
1948	952	922	922	1,000	1,200	1,360	2,130	1,400	1,140	958	839	817	13,640
1949	879	871	932	934	594	18	511	1,510	1,080	944	825	839	9,940
1950	906	916	414	218	127	28	524	1,320	1,220	1,120	964	904	8,660

‡ Not previously published; see footnote to preceding table.

1/ Published as "near Malad" prior to 1949.

Yearly discharge, in cubic feet per second, of Little Malad River below Elkhorn Reservoir, near Malad City, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	‡34	Aug. 10, 1941	0	-	-	10.9	7,900
1942	960	44	June 8, 1942	4.8	11.4	8,250	11.2	8,120
1943	980	52	Aug. 30, 1943	5.0	12.1	8,760	12.4	8,980
1944	1010	66	June 18, 1944	4.1	11.7	8,480	11.6	8,460
1945	1040	52	June 9, 1945	0	11.5	8,340	9.98	7,220
1946	1060	113	Aug. 23, 1946	1.3	12.8	9,230	16.0	11,540
1947	1090	52	Feb. 20, 1947	0	16.5	11,960	15.9	11,520
1948	1120	108	May 18, 1948	3.4	18.8	13,640	18.6	13,530
1949	1150	60	July 29, 1949	0	13.7	9,940	13.1	9,490
1950	1180	52	July 8, 1950	.2	12.0	8,660	-	-

‡ Not previously published; maximum recorded.

90. Little Malad River below Sand Ridge dam site, near Malad City, Idaho 1/

Location.--Lat 42°12', long 112°20', in SE¼ sec. 14, T. 14 S., R. 35 E., 0.6 mile below proposed Sand Ridge dam site, 3½ miles west of Malad City, and 9 miles downstream from Elkhorn Reservoir.

Drainage area.--223 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,560 ft (by barometer).

Average discharge.--5 years (1945-50), 5.08 cfs.

Extremes.--1945-50: Maximum discharge, 240 cfs Feb. 22, 1948 (gage height, 9.6 ft, from floodmark), by submerged-orifice method; minimum discharge recorded, 0.1 cfs Sept. 7, 1947; minimum gage height observed, 1.52 ft Aug. 26, Sept. 9, 16, 23, 1949.

Remarks.--Diversions for irrigation of about 4,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	0.62	1.26	3.99	4.13	4.96	9.55	6.04	1.36	1.11	0.63	0.58	0.60	2.89
1947	4.42	11.9	13.7	12.8	19.6	13.3	4.75	.78	.59	.45	.34	.40	6.85
1948	4.39	9.40	11.0	13.9	24.0	17.6	27.0	6.05	1.38	.55	.39	.47	9.60
1949	1.04	8.29	11.8	7.18	4.63	2.92	2.77	2.16	1.17	.55	.33	.25	3.59
1950	3.21	9.00	4.87	1.97	1.75	2.36	1.78	1.77	1.22	.80	.44	.24	2.45

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	38	75	245	254	275	588	360	84	66	38	36	36	2,100
1947	272	706	845	790	1,090	817	283	48	35	28	21	24	4,960
1948	270	559	673	857	1,380	1,080	1,600	372	82	34	24	28	6,960
1949	64	493	727	441	257	180	165	133	70	34	20	15	2,600
1950	197	535	300	121	97	145	106	109	73	49	27	14	1,770

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1946	1060	a25	Mar. 20, 1946	0.5	2.89	2,100	4.92	3,560
1947	1090	54	Feb. 13, 1947	.2	6.85	4,960	6.41	4,640
1948	1120	240	Feb. 22, 1948	.3	9.60	6,960	9.30	6,740
1949	1150	-	-	.2	3.59	2,600	3.24	2,350
1950	1180	14	(b)	.2	2.45	1,770	-	-

a Maximum recorded.
b Nov. 27-29, Dec. 1-3, 5-7, 1949.

1/ Published as "near Malad" prior to 1949.

91. Warm Springs Canal near Samaria, Idaho

Location.--Lat 42°09', long 112°21', in sec. 3, T. 15 S., R. 35 E., at Elmer Price Ranch, 50 ft downstream from Malad River bypass channel crossing, a quarter of a mile south of Malad-Pleasantview highway, 0.6 mile southwest of Pleasantview School, and 2½ miles northwest of Samaria.

Gage.--Water-stage recorder. Altitude of gage is 4,520 ft (by barometer).

Extremes.--1940-45: Maximum discharge recorded, 28 cfs Jan. 22, 1943, from rating curve extended above 15 cfs, but may have been greater Jan. 23, 1943; maximum gage height recorded, 1.64 ft May 16, 1944, affected by backwater from aquatic vegetation; minimum discharge, 2.7 cfs June 18, 1943.

Remarks.--Warm Springs Canal diverts water from springs in NE¼ sec. 3, T. 15 S., R. 35 E., for irrigation in east half of T. 15 S., R. 35 E., above and below Samaria. Diversion may be made to or from Malad River bypass channel, which crosses canal above station.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	-	-	-	490	509	361	411	691	557	541	562	668	-
1942	785	627	497	405	334	355	406	521	675	500	429	514	6,050
1943	733	647	520	392	327	411	505	615	611	670	501	414	6,350
1944	588	861	566	445	505	496	542	577	729	591	480	489	6,870
1945	674	619	507	480	415	533	431	589	622	518	592	655	6,640

92. Malad River below springs, near Malad City, Idaho 1/

Location.--Lat 42°13', long 112°22', in sec. 10, T. 14 S., R. 35 E., half a mile downstream from springs which form river, 1 3/8 miles upstream from Samaria Dam, and 5¾ miles northwest of Malad City.

Drainage area.--3.3 sq mi, approximately. Flow derived almost entirely from springs.

Supplementary records available.--December 1947 to September 1950, periodic discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 4,700 ft (by barometer). Prior to Nov. 24, 1940, staff gage at site 1½ miles downstream at different datum. Nov. 24, 1940, to Jan. 27, 1941, staff gage at present site and datum.

Average discharge.--8 years (1931-32, 1940-47), 10.5 cfs.

Extremes.--1931-32, 1940-47: Maximum discharge, 40 cfs July 21, 1947 (gage height, 2.90 ft), by broad-crested weir formula; minimum observed, 4.4 cfs Nov. 3, 1931 (discharge measurement).

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	4.40	4.74	6.32	8.41	9.64	10.6	11.5	9.96	8.0	7.59	7.19	7.77	8.00
1941	‡6.23	‡5.87	6.41	7.94	8.89	10.6	13.1	13.2	10.7	9.25	8.23	8.08	‡9.04
1942	7.79	7.19	6.53	7.51	9.10	9.75	11.1	13.6	11.6	9.58	8.84	8.07	9.22
1943	7.35	7.20	8.20	10.1	11.7	13.5	15.3	14.2	12.7	11.0	9.82	9.72	10.9
1944	8.94	9.04	10.6	12.5	13.4	14.1	14.5	14.0	12.6	10.8	10.0	9.18	11.6
1945	8.37	8.06	8.31	9.77	12.0	13.0	13.1	15.2	14.1	10.1	9.46	9.42	10.9
1946	9.98	11.7	13.8	14.1	13.3	13.6	15.5	17.1	13.8	11.9	11.8	11.0	13.1
1947	10.5	10.1	9.75	9.77	9.59	11.5	12.9	14.5	12.7	11.3	10.7	9.93	11.1
1948	9.08	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of succeeding flows, normal behavior of spring source, and records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	271	282	389	517	554	652	684	612	476	467	442	462	5,810
1941	‡383	‡349	394	488	493	649	781	811	637	568	506	481	‡6,540
1942	479	428	401	462	506	599	660	835	688	589	544	480	6,670
1943	452	428	504	620	651	829	912	873	754	678	604	578	7,880
1944	550	538	654	770	772	865	863	863	752	664	618	546	8,460
1945	515	480	511	600	664	801	778	934	839	619	582	561	7,880
1946	614	696	847	867	740	839	922	1,050	819	730	728	653	9,500
1947	649	599	600	601	533	710	766	889	758	692	659	591	8,050
1948	559	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; see footnote to preceding table.

1/ Previously published as "near Malad".

Yearly discharge, in cubic feet per second, of Malad River below springs, near Malad City, Idaho

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1932	735	13	Apr.13,14,1932	-	8.00	5,810	-	-
1941	930	19	Aug. 18, 1941	-	‡9.04	‡6,540	9.29	6,720
1942	960	14	May 6-24,1942	6.3	9.22	6,670	9.32	6,750
1943	980	16	(a)	6.9	10.9	7,880	11.4	8,240
1944	1010	16	Mar.17,18,1944	8.6	11.6	8,460	11.3	8,220
1945	1040	18	July 19, 1945	7.9	10.9	7,880	11.8	8,540
1946	1060	20	Feb.27or28,1946	9.4	13.1	9,500	12.7	9,200
1947	1090	40	July 21, 1947	8.8	11.1	8,050	-	-

‡ Not previously published.
a Apr. 20-28, 30, May 3, 4, 1943.

93. Malad River near Samaria, Idaho

Location.--Lat 42°08', long 112°20', in sec. 11, T. 15 S., R. 35 E., at Lewis Waldron Ranch, a quarter of a mile upstream from bridge on Malad-Samaria highway, three-eighths of a mile downstream from intake for Gwenford Mill ditch, and 1½ miles north of Samaria.

Drainage area.--31 sq mi, approximately.

Supplemental records available.--December 1940 to September 1945, periodic discharge measurements only of Gwenford Mill ditch, which bypasses river station.

Gage.--Water-stage recorder. Altitude of gage is 4,420 ft (by barometer). Prior to Jan. 29, 1941, staff gage at same site and datum.

Extremes.--1940-45: Maximum discharge, 147 cfs Jan. 23, 1943 (gage height, 3.46 ft), based on extension of previous and subsequent ratings above 15 cfs; minimum, 0.2 cfs several days during 1941, 1943-45.

Remarks.--Flow regulated by Samaria Reservoir and augmented by waste from Malad River by-pass channel and from Warm Springs Canal. Many diversions for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	-	-	-	7.53	8.66	7.88	7.02	2.37	2.13	2.32	3.54	2.13	-
1942	5.62	6.31	7.81	8.83	9.41	9.65	9.75	6.88	1.95	1.79	2.61	2.10	6.04
1943	4.28	7.48	10.1	12.8	9.34	11.8	7.54	.52	1.51	3.23	3.21	2.02	6.15
1944	4.02	6.52	11.2	8.33	9.71	11.8	10.1	2.42	1.63	3.21	2.35	1.32	6.04
1945	2.46	8.21	10.2	9.18	13.1	13.1	9.67	.80	.65	1.86	1.32	2.11	6.01

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	-	-	-	463	481	484	418	146	127	143	217	127	-
1942	345	375	480	543	522	593	580	423	116	110	160	125	4,370
1943	263	445	620	790	519	728	449	32	90	199	197	120	4,450
1944	247	388	690	512	559	724	601	149	97	197	145	78	4,390
1945	152	489	629	564	729	803	575	49	39	114	81	125	4,350

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	64	Aug. 17, 1941	-	-	-	5.26	3,810
1942	960	48	Aug. 25, 1942	0.3	6.04	4,370	6.22	4,500
1943	980	147	Jan. 23, 1943	.3	6.15	4,450	6.14	4,450
1944	1010	20	Mar. 10, 1944	.3	6.04	4,390	5.97	4,330
1945	1040	49	Feb. 2, 1945	.2	6.01	4,350	-	-

94. Devil Creek above Campbell Creek, near Malad City, Idaho 1/

Location.--Lat 42°18', long 112°12', in sec. 12, T. 13 S., R. 36 E., 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.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (from river-profile survey). Prior to Dec. 16, 1943, staff gage at same site and datum.

Average discharge.--12 years (1938-50), 10.4 cfs.

Extremes.--1938-50: Maximum discharge observed, 160 cfs (revised) Apr. 2, 1943 (gage height, 2.10 ft), from rating curve extended above 47 cfs on basis of logarithmic plotting and discharge measurement of 126 cfs made in 1952; minimum recorded, 1.6 cfs Jan. 13, 1950 (gage height, 0.43 ft).

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	‡8	‡8.55	8.66	8.59	8.25	24.0	13.7	10.9	7.45	6.12	5.93	6.40	‡9.74
1940	7.04	6.65	7.99	7.74	8.06	13.1	9.98	10.4	7.47	6.06	4.75	5.68	7.91
1941	5.50	7.02	7.20	7.50	7.66	10.8	16.2	14.2	9.13	6.86	6.87	6.54	8.79
1942	6.92	7.00	7.82	7.69	7.80	8.85	*22.5	15.7	13.6	7.07	5.86	6.14	*9.74
1943	6.18	6.03	8.74	7.47	7.68	25.5	41.4	16.8	11.8	9.1	8.23	6.75	13.0
1944	7.46	9.50	9.83	8.49	8.16	8.45	11.0	10.4	11.6	7.66	6.52	6.08	8.75
1945	6.20	7.16	7.07	8.54	8.40	9.85	16.9	18.7	21.7	9.25	9.25	8.39	10.9
1946	8.52	9.41	9.42	9.65	9.81	16.8	26.8	17.2	11.3	8.98	8.25	7.69	12.0
1947	7.63	8.44	8.63	9.10	11.6	13.5	12.6	13.5	9.05	7.63	6.65	7.08	9.61
1948	7.37	8.49	7.57	8.75	8.60	10.8	23.0	19.6	10.6	8.27	7.01	6.39	10.5
1949	8.83	8.63	8.14	8.44	6.19	10.3	22.5	17.2	13.2	8.95	6.79	6.64	10.5
1950	9.25	7.48	8.32	8.28	9.81	16.4	27.2	21.1	17.6	11.1	8.12	8.85	12.8

* Revised.
‡ Not previously published; estimated on basis of weather records and records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	‡492	‡509	533	528	458	1,480	814	673	443	376	364	381	‡7,050
1940	433	396	491	476	464	804	594	638	445	373	292	338	5,740
1941	338	418	443	461	426	661	966	873	543	422	422	389	6,360
1942	426	417	481	473	433	544	*1,340	964	812	435	360	366	*7,050
1943	380	359	538	460	426	1,570	2,460	1,030	704	557	506	401	9,390
1944	459	565	604	522	469	520	654	641	687	471	401	362	6,360
1945	381	426	435	525	467	606	1,000	1,150	1,290	569	568	499	7,920
1946	524	560	579	593	545	1,040	1,590	1,060	674	552	507	458	8,680
1947	469	502	531	559	646	833	748	829	538	469	409	421	6,950
1948	453	505	465	538	495	662	1,370	1,210	630	509	431	380	7,650
1949	543	513	500	519	344	632	1,340	1,060	785	551	417	395	7,600
1950	568	445	512	509	545	1,010	1,620	1,300	1,050	681	500	527	9,270

* Revised.
‡ Not previously published; estimated on basis of weather records and records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	880	a79	Mar. 25, 1939	4.1	‡9.74	‡7,050	9.44	6,840
1940	900	90	Mar. 27, 1940	4.1	7.91	5,740	7.74	5,620
1941	930	a42	Apr. 14, 1941	5.2	8.79	6,360	8.96	6,490
1942	960,1514	a65	Apr.7,8, 1942	5.8	*9.74	*7,050	*9.68	*7,000
1943	980	*a160	Apr. 2, 1943	-	13.0	9,390	13.5	9,740
1944	1010	56	June 9, 1944	5.7	8.75	6,360	8.22	5,970
1945	1040	57	June 6, 1945	5.7	10.9	7,920	11.5	8,340
1946	1060	86	Mar. 30, 1946	7.2	12.0	8,680	11.8	8,520
1947	1090	85	Aug. 8, 1947	6.0	9.61	6,950	9.50	6,880
1948	1120	72	Apr. 2, 1948	2.8	10.5	7,650	10.7	7,780
1949	1150	80	Apr. 11, 1949	2.8	10.5	7,600	10.5	7,570
1950	1180	78	Apr. 7, 1950	1.8	12.8	9,270	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

1/ Published as "near Malad" prior to 1949.

95. Devil Creek above Evans dividers, near Malad City, Idaho 1/

Location.--Lat 42°15', long 112°13', in sec. 35, T. 13 S., R. 36 E., 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.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (by barometer). Prior to June 11, 1942, at site 400 ft downstream at datum about 0.13 ft higher. June 11, 1942, to Dec. 14, 1943, at present site at datum about 0.2 ft higher. Apr. 23 to Dec. 12, 1946, at site 200 ft downstream at present datum.

Average discharge.--7 years (1940-43, 1946-50), 13.6 cfs.

Extremes.--1940-43, 1946-50: Maximum discharge, 220 cfs (revised) Mar. 30, 1943 (gage height, 5.29 ft, present site, datum then in use), from rating curve extended above 60 cfs on basis of high-stage measurements made in 1952; minimum, 0.9 cfs Nov. 7, 1949 (gage height, 1.18 ft).

Remarks.--Diversions for irrigation of 600 to 800 acres above station. See Remarks for station above Campbell Creek.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	‡6.5	‡8.0	‡7.52	7.61	8.32	12.8	22.3	21.9	10.0	8.0	7.08	6.59	‡10.6
1942	7.17	8.49	7.95	7.60	7.72	9.18	30.6	25.9	16.8	8.62	5.98	6.29	11.9
1943	7.54	7.61	9.47	8.71	9.49	35.3	60.1	25.6	16.4	10.6	8.64	7.54	17.2
1944	9.59	11.2	‡10.5	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	22.5	10.6	8.97	8.09	7.75	-
1947	9.68	11.0	12.1	12.0	18.1	20.2	17.4	18.0	11.9	7.45	7.68	7.52	12.7
1948	8.34	8.97	8.26	9.67	10.2	14.6	36.3	25.5	14.0	7.52	6.39	7.55	13.1
1949	9.15	9.90	9.15	9.26	7.67	13.9	34.3	24.6	13.4	7.11	5.47	6.30	12.5
1950	10.5	8.01	9.02	9.02	11.8	22.5	40.8	34.6	23.4	14.9	10.7	9.10	17.0

‡ Not previously published; estimated on basis of records for station above Campbell Creek and weather record.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	‡400	‡476	‡462	468	462	788	1,330	1,350	595	492	436	392	‡7,650
1942	441	505	489	467	429	564	1,820	1,590	1,000	530	368	374	8,580
1943	463	453	582	535	527	2,170	3,570	1,580	974	653	531	449	12,490
1944	590	664	‡643	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	-	1,380	628	551	497	461	-
1947	595	655	746	738	1,000	1,240	1,040	1,100	706	458	472	447	9,200
1948	513	534	508	594	589	900	2,160	1,570	834	462	393	449	9,510
1949	563	589	562	569	426	857	2,040	1,510	797	437	336	375	9,060
1950	645	477	555	555	654	1,380	2,430	2,130	1,390	917	659	541	12,330

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	100	Aug. 17, 1941	-	‡10.6	‡7,650	10.7	7,750
1942	960	78	Apr. 8, 1942	3.6	11.9	8,580	11.9	8,640
1943	980	*220	Mar. 30, 1943	5.1	17.2	12,490	‡17.8	‡12,890
1946	1060	-	-	-	-	-	-	-
1947	1090	116	Mar.16or17,1947	5.0	12.7	9,200	12.1	8,760
1948	1120	151	Apr. 2, 1948	4.0	13.1	9,510	13.3	9,660
1949	1150	81	Apr. 8, 1949	3.5	12.5	9,060	12.5	9,020
1950	1180	93	Apr. 7, 1950	1.1	17.0	12,330	-	-

* Revised.
‡ Not previously published.

1/ Published as "near Malad" prior to 1949.

96. Devil Creek near Malad City, Idaho 1/

Location.--Lat 42°13', long 112°17', in sec. 8, T. 14 S., R. 36 E., 400 ft downstream from dam site for proposed reservoir, half a mile northeast of St. John, 2½ miles northwest of Malad City, and 9 miles upstream from mouth.

Drainage area.--39 sq mi, approximately.

Gage.--Staff gage and wooden weir with Cippoletti notch. Altitude of gage is 4,695 ft (from river-profile survey). Prior to Oct. 10, 1936, staff gage and weir at site 180 ft downstream at different datum. Supplemental staff gage 180 ft upstream at different datum used for periods during 1936 and 1937.

Average discharge.--9 years (1931-40), 4.51 cfs.

Extremes.--1931-40: Maximum discharge, 60 cfs Aug. 17, 1936 (gage height, 2.35 ft on supplemental gage, from floodmark), from rating curve extended above 30 cfs; minimum observed, 0.5 cfs Sept. 10, 1934.

Remarks.--Several small diversions for irrigation above station. Flow regulated by Evans dividers (an irrigation diversion works) 3 miles above station. See Remarks for station above Campbell Creek.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	1.27	1.80	1.06	0.97	1.01	1.16	13.2	14.3	8.83	2.46	2.73	3.34	4.34
1933	3.39	2.18	1.93	1.90	1.87	1.81	8.07	13.7	8.72	2.61	3.13	3.21	4.39
1934	3.23	2.38	2.22	2.07	1.95	3.27	3.57	1.83	1.86	2.19	2.83	2.47	2.49
1935	2.93	1.19	1.17	1.17	1.05	2.59	7.43	7.79	3.02	1.13	2.09	2.49	2.84
1936	2.47	1.34	1.54	1.56	1.43	2.37	18.5	14.8	8.55	4.17	3.87	4.46	5.41
1937	4.52	3.07	3.06	3.06	2.84	2.94	11.5	16.9	8.86	5.33	6.04	5.40	6.14
1938	4.92	3.32	3.16	2.89	2.74	4.84	14.4	16.2	9.09	6.21	4.31	5.90	6.51
1939	4.09	2.46	3.57	3.66	3.64	10.4	8.94	8.35	4.00	2.75	3.52	4.30	4.99
1940	4.18	2.71	1.81	1.49	1.58	3.63	8.41	7.04	2.33	2.66	2.84	3.27	3.50
1941	3.41	2.36	1.73	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	78	107	65	60	58	71	786	879	525	151	168	199	3,150
1933	208	130	119	117	104	111	480	842	519	160	192	191	3,170
1934	199	142	136	127	108	201	212	113	110	134	174	147	1,800
1935	180	71	72	72	58	159	442	479	180	69	128	148	2,060
1936	152	80	95	96	82	146	1,100	910	509	256	238	266	3,930
1937	278	179	188	188	157	181	683	1,040	527	328	371	321	4,440
1938	302	198	194	178	152	298	858	994	541	382	265	351	4,710
1939	251	146	220	225	202	641	532	513	238	169	217	256	3,610
1940	257	161	111	92	91	223	500	433	139	164	175	195	2,540
1941	209	140	106	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1932	735	18	(a)	0.9	4.34	3,150	4.62	1,690
1933	750	20	Apr.18,May6,1933	1.8	4.39	3,170	4.41	3,380
1934	765	5.5	Aug. 30, 1934	.6	2.49	1,800	2.28	1,650
1935	790	16	Apr. 9, 1935	.6	2.84	2,060	2.85	2,060
1936	810	b60	Aug. 17, 1936	.9	5.41	3,930	5.85	4,250
1937	830	29	Apr. 15, 1937	2.6	6.14	4,440	6.21	4,490
1938	880	28	Apr. 20, 1938	2.6	6.51	4,710	6.40	4,640
1939	880	28	Mar.26,27,1939	1.8	4.99	3,610	4.87	3,520
1940	900	17	Mar. 27, 1940	1.3	3.50	2,540	3.40	2,470

a Apr. 5, 12, May 5, 1932.
b Momentary maximum.

97. Deep Creek above Third Creek, near Malad City, Idaho 1/

Location.--Lat 42°11'40", long 112°08'50", in sec. 21, T. 14 S., R. 37 E., a third of a mile upstream from Third Creek, 14½ miles upstream from mouth, and 5 miles east of Malad City.

Drainage area.--3.9 sq mi, approximately.

Gage.--Staff gage and Cippoletti weir. Altitude of gage is 5,320 ft (by barometer).

Extremes.--1931-32: Maximum discharge observed, 3.7 cfs May 5, 6, 1932 (gage height, 0.62 ft); minimum observed, 0.05 cfs Aug. 24, 25, 1932 (gage height, 0.02 ft).

Remarks.--Several small diversions for irrigation above station.

1/ Previously published as "near Malad."

Monthly and yearly mean discharge, in cubic feet per second, of Deep Creek above Third Creek, near Malad City, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	0.23	0.16	0.20	0.24	0.26	0.67	2.32	2.28	1.05	0.26	0.20	0.19	0.67

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	14	9.5	12	15	15	41	138	140	62	16	12	11	486

98. Third Creek near Malad City, Idaho 1/

Location.--Lat 42°11'40", long 112°08'50", in sec. 21, T. 14 S., R. 37 E., half a mile upstream from mouth, and 5½ miles east of Malad City.

Drainage area.--13 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,370 ft (by barometer).

Extremes.--1931-32: Maximum discharge observed, 42 cfs May 14, 1932 (gage height, 2.20 ft); no flow Oct. 1, 1931, to Mar. 31, 1932, Aug. 24 to Sept. 30, 1932.

Remarks.--Entire flow diverted half a mile upstream to Deep Creek, except during flood season.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	0	0	0	0	0	0	10.5	26.3	6.55	1.70	0.07	0	3.77

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	0	0	0	0	0	0	625	1,620	390	105	4.3	0	2,740

99. Deep Creek below First Creek, near Malad City, Idaho 1/

Location.--Lat 42°14', long 112°11', in sec. 7, T. 14 S., R. 37 E., just downstream from site of proposed reservoir, 1 mile north and 3½ miles east of Malad City, and 12 miles upstream from mouth.

Drainage area.--32 sq mi, approximately.

Gage.--Water-stage recorder and wooden control. Altitude of gage is 5,074 ft (from river-profile survey). Prior to Dec. 16, 1940, staff gages or staff gage and wooden weir at sites within 40 ft downstream and at different datums.

Average discharge.--17 years (1931-48), 9.11 cfs.

Extremes.--1931-48: Maximum discharge observed, 172 cfs July 8, 1937, from rating curve extended above 40 cfs by logarithmic plotting; minimum observed, 0.3 cfs Aug. 29, 1934.

Remarks.--Small diversions above station. Flow regulated at times 2½ miles upstream by reservoir (capacity, 261 acre-ft, from Eleventh Biennial Report of the Idaho Bureau of Reclamation).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	1.0	1.36	1.34	2.53	2.96	4.91	29.6	51.2	22.1	7.94	4.47	3.28	11.1
1933	2.49	2.82	2.98	3.29	3.38	4.07	13.0	25.4	21.8	9.22	3.17	2.68	7.87
1934	2.55	2.48	2.45	2.67	3.04	3.88	4.64	3.03	2.08	.84	.44	.52	2.38
1935	.97	1.43	1.75	2.00	2.75	4.84	11.5	19.9	14.7	9.66	3.62	1.57	6.24
1936	1.79	1.86	1.64	1.90	2.50	4.43	58.9	44.5	18.9	12.2	6.69	4.18	13.3
1937	3.46	3.43	2.78	2.10	2.34	4.65	23.9	39.4	19.9	14.9	11.5	2.59	11.0
1938	3.51	2.77	3.92	3.85	4.07	8.71	18.6	30.5	20.3	12.9	6.43	2.85	9.89
1939	3.55	3.79	3.43	3.13	3.11	9.71	16.4	13.1	12.2	7.88	1.91	1.85	6.68
1940	2.69	2.50	2.33	2.55	3.01	6.37	12.0	16.3	14.7	5.04	1.67	1.88	5.92

1/ Previously published as "near Malad."

Monthly and yearly mean discharge, in cubic feet per second, of Deep Creek below First Creek, near Malad City, Idaho--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	2.05	1.99	2.08	2.64	4.59	8.34	14.7	31.0	19.1	12.3	*7.00	4.81	*9.25
1942	4.42	3.88	3.98	3.92	†3.77	5.80	29.8	39.7	22.6	14.4	6.82	2.97	11.9
1943	4.52	3.33	3.51	3.79	7.70	16.4	43.7	26.6	20.1	14.8	7.07	3.27	12.9
1944	3.16	3.61	3.49	2.81	3.00	3.52	6.28	8.91	13.2	12.1	7.24	2.00	5.79
1945	1.98	2.97	2.93	2.77	4.07	6.30	10.7	25.7	30.4	14.0	10.8	8.20	10.1
1946	5.41	4.62	4.85	3.96	4.23	13.4	51.7	35.2	16.3	11.6	7.39	3.68	13.6
1947	5.48	4.74	4.45	3.45	6.27	9.06	8.81	15.4	12.5	10.8	3.92	2.82	7.32
1948	2.91	3.43	3.54	3.50	3.83	5.84	21.6	31.6	19.6	13.4	4.45	2.38	9.66
1949	2.88	2.91	2.17	-	-	-	-	-	-	-	-	-	-

* Revised; only monthly figure revised; revised daily figures not available.
† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	61	81	82	156	170	302	1,760	3,150	1,320	488	275	195	8,040
1933	153	168	183	202	188	250	774	1,560	1,300	567	195	159	5,700
1934	157	148	151	164	169	239	276	186	124	52	27	31	1,720
1935	60	85	108	123	153	298	682	1,220	875	594	222	93	4,510
1936	110	110	101	117	144	273	3,500	2,740	1,120	750	411	249	9,620
1937	213	204	171	129	130	286	1,420	2,420	1,190	918	704	154	7,940
1938	216	165	241	236	226	536	1,100	1,870	1,210	793	395	170	7,160
1939	219	225	211	193	173	597	976	803	725	485	117	110	4,830
1940	166	149	143	157	173	392	715	1,000	874	310	103	112	4,290
1941	126	119	128	162	255	513	873	1,910	1,140	758	*431	286	*6,700
1942	272	231	245	241	209	357	1,770	2,440	1,340	885	420	177	8,590
1943	278	198	216	233	427	1,010	2,600	1,640	1,190	907	435	194	9,330
1944	194	215	214	173	173	216	374	548	788	743	445	119	4,200
1945	122	177	180	171	226	387	637	1,580	1,810	859	661	488	7,300
1946	333	275	299	244	235	826	3,080	2,160	972	715	454	219	9,810
1947	337	282	274	212	348	557	524	946	745	662	241	168	5,300
1948	179	204	205	215	220	359	1,280	1,940	1,160	826	274	142	7,000
1949	177	173	134	-	-	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1932	735	a64	May 14, 1932	-	11.1	8,040	11.4	8,320
1933	750	a34	May 22, 1933	1.9	7.87	5,700	7.80	5,650
1934	765	a5.5	Apr. 6, 1934	.3	2.38	1,720	2.10	1,520
1935	790	a23	Apr.30,May30,1935	.7	6.24	4,510	6.33	4,580
1936	810	a113	Apr. 18, 1936	1.3	13.3	9,620	13.6	9,890
1937	830	a172	July 8, 1937	1.2	11.0	7,940	11.0	7,970
1938	860	a40.8	May 1, 1938	2.3	9.89	7,160	9.94	7,190
1939	880	a25	Mar.27,31,1939	1.2	6.68	4,830	6.40	4,640
1940	900	a21	(b)	1.2	5.92	4,290	5.80	4,210
1941	930	a103	Aug. 17, 1941	1.2	*9.25	*6,700	*9.76	*7,080
1942	960	62	May 16, 1942	2.2	11.9	8,590	11.8	8,530
1943	980	125	July 21, 1943	2.0	12.9	9,330	12.8	9,260
1944	1010	76	June 9, 1944	1.6	5.79	4,200	5.59	4,060
1945	1040	61	June 9, 1945	1.7	10.1	7,300	10.7	7,730
1946	1060	85	Apr. 19, 1946	1.9	13.6	9,810	13.5	9,800
1947	1090	46	Mar. 10, 1947	1.4	7.32	5,300	6.90	4,990
1948	1120	60	Apr. 2, 1948	1.7	9.66	7,000	9.52	6,900

* Revised.
a Maximum observed.
b May 11, 14, June 15, 1940.

100. Malad River at Woodruff, Idaho

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

Drainage area.--485 sq mi.

Gage.--Staff gage. Altitude of gage is 4,355 ft (by barometer).

Extremes.--1938-50: 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.--Flow regulated by several small reservoirs above station. Diversions for irrigation of 25,000 to 30,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second, of Malad River at Woodruff, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	75.8	65.7	66.8	179	79.5	33.3	21.0	18.6	20.5	20.2	-
1940	31.3	38.4	47.9	76.2	119	83.6	68.8	24.2	17.9	16.6	17.4	19.4	46.5
1941	29.8	47.6	52.5	50.5	139	130	106	47.9	27.5	17.9	35.2	22.5	58.2
1942	31.3	59.0	64.1	59.3	67.4	142	160	98.8	34.3	22.8	19.9	21.2	64.9
1943	25.3	62.5	75.1	125	114	148	140	52.2	52.2	24.9	22.5	20.6	71.5
1944	29.2	62.8	73.6	61.2	91.7	156	88.2	45.5	59.5	22.6	20.6	18.0	60.6
1945	25.9	58.8	54.2	67.9	180	114	94.7	54.6	89.2	27.8	28.0	28.0	67.7
1946	50.8	95.3	120	90.5	92.5	249	193	68.2	29.3	23.1	23.1	25.5	88.4
1947	51.0	99.4	114	70.0	152	143	83.9	35.3	33.5	23.1	22.4	27.5	70.7
1948	49.6	81.7	80.2	66.5	178	153	175	79.7	28.1	23.1	20.8	21.7	79.3
1949	26.6	49.1	55.9	56.7	62.6	213	88.6	64.6	27.3	23.0	21.6	22.1	59.4
1950	45.8	68.8	59.1	95.4	129	162	113	114	42.7	29.8	25.7	25.2	75.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	4,660	4,040	3,710	11,030	4,730	2,040	1,250	1,140	1,260	1,200	-
1940	1,920	2,280	2,950	4,680	6,860	5,140	4,100	1,490	1,070	1,020	1,070	1,150	33,730
1941	1,830	2,830	3,230	3,100	7,710	7,960	6,300	2,940	1,630	1,100	2,170	1,340	42,140
1942	1,920	3,510	3,940	3,650	3,740	8,740	9,520	6,070	2,040	1,400	1,220	1,260	47,010
1943	1,560	3,720	4,620	7,680	6,330	9,080	8,360	3,210	3,110	1,530	1,380	1,230	51,810
1944	1,790	3,740	4,520	3,760	5,270	9,600	5,250	2,800	3,540	1,390	1,270	1,070	44,000
1945	1,590	3,500	3,330	4,170	10,010	6,990	5,630	3,360	5,310	1,710	1,720	1,670	48,990
1946	3,120	5,670	7,370	5,560	5,140	15,330	11,470	4,190	1,740	1,420	1,420	1,520	63,950
1947	3,130	5,920	7,020	4,300	8,430	8,810	4,990	2,170	1,990	1,420	1,370	1,640	51,190
1948	3,050	4,860	4,930	4,090	10,260	9,420	10,410	4,900	1,670	1,420	1,280	1,290	57,580
1949	1,640	2,920	3,440	3,490	3,480	13,130	5,270	3,970	1,620	1,410	1,330	1,320	43,020
1950	2,820	4,100	3,630	5,870	7,170	9,960	6,740	7,030	2,540	1,830	1,580	1,500	54,770

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	880	360	Mar.20,21,1939	-	-	-	51.9	37,550
1940	900	199	Feb.5-8, 1940	15	46.5	33,730	47.5	34,470
1941	930	360	Mar. 2, 1941	16	58.2	42,140	60.3	43,620
1942	960	341	Apr. 1, 1942	18	64.9	47,010	65.7	47,540
1943	980	a650	Jan.22or23,1943	19	71.5	51,810	71.8	51,960
1944	1010	223	Mar. 19, 1944	17	60.6	44,000	58.4	42,370
1945	1040	348	Feb. 15, 1945	20	67.7	48,990	78.4	56,730
1946	1060	490	Dec. 29, 1945	21	88.4	63,950	88.2	63,860
1947	1090	250	Mar. 12, 1947	19	70.7	51,190	66.3	47,960
1948	1120	a628	Feb. 23, 1948	19	79.3	57,580	72.6	52,740
1949	1150	375	(b)	20	59.4	43,020	62.9	45,570
1950	1180	340	Feb. 27, 1950	23	75.6	54,770	-	-

a Momentary maximum.
b Mar. 18, 20, 21, 1949.

101. Bear River near Corinne, Utah

Location (revised).--Lat 41°34'35", long 112°06'00", in SE¼NE¼ sec. 30, T. 10 N., R. 2 W., 1.2 miles downstream from Salt Creek, 2.0 miles northeast of Corinne, and 2.8 miles downstream from Malad River.

Drainage area.--6,800 sq mi, approximately.

Gage.--Water-stage recorder. Datum of gage is 4,204.6 ft, unadjusted. Since July 27, 1950, auxiliary staff gage 7,800 ft downstream.

Extremes.--1949-50: Maximum discharge, 5,920 cfs Apr. 23, 1950 (gage height, 13.36 ft); minimum, 506 cfs Sept. 5, 1950.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	1,713	1,618	1,612	2,174	2,595	2,620	3,840	4,698	3,705	2,088	1,427	1,714	2,480

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	105,300	96,300	99,130	133,700	144,100	161,100	228,500	†288,900	220,400	128,400	87,750	102,000	1,796,000

† Corrected.

102. Box Elder Creek near Brigham City, Utah 1/

Location.--Lat 41°30', long 111°59', in SE¼ sec. 20, T. 9 N., R. 1 W., at highway bridge 0.3 mile downstream from Brigham municipal powerplant then in use and 1.6 miles east of Brigham City.

Drainage area.--30 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is about 4,700 ft (from adjacent topographic map). Prior to Oct. 1, 1920, water-stage recorder at same site and datum.

Extremes.--1919-21: Maximum discharge observed, 120 cfs Apr. 21, 1921 (gage height, 4.80 ft); minimum, 16 cfs Dec. 11, 1919.

Remarks.--Many diversions from tributaries for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	-	-	-	-	-	-	-	‡25.8	25.4	-
1919	27.1	29.5	24.6	22.9	27.6	39.2	46.3	36.0	23.0	24.9	20.8	22.5	28.7
1920	30.2	31.2	30.2	30.1	32.4	38.5	53.4	57.1	26.3	22.0	21.9	25.3	33.2
1921	35.5	34.2	32.0	31.3	34.0	38.3	82.4	84.4	43.4	31.2	29.2	29.7	42.2

‡ Not previously published; partly estimated on basis of streamflow characteristics.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	-	-	-	-	-	-	-	‡1,580	1,510	-
1919	1,670	1,760	1,510	1,410	1,530	2,410	2,760	2,210	1,370	1,530	1,280	1,340	20,800
1920	1,860	1,860	1,860	1,850	1,860	2,370	3,180	3,510	1,560	1,350	1,350	1,510	24,100
1921	2,180	2,040	1,970	1,920	1,890	2,360	4,900	5,190	2,580	1,920	1,800	1,770	30,500

‡ Not previously published; partly estimated on basis of streamflow characteristics.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	-	-	-	-	-	-	-
1919	510	83	Mar. 20, 1919	19	28.7	20,800	29.6	21,400
1920	510	90	Apr. 15, 1920	19	33.2	24,100	34.1	24,700
1921	530	a120	Apr. 21, 1921	28	42.2	30,500	-	-

a Maximum observed.

103. Box Elder Creek at Brigham City, Utah 2/

Location.--Lat 41°31'15", long 112°1'10", in NW¼NW¼ sec. 13, T. 9 N., R. 2 W., on Third West Street Bridge in Brigham City.

Drainage area.--35 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,320 ft (from topographic map). Prior to Feb. 24, 1910, at datum 2.0 ft higher.

Extremes.--1909-12: Maximum discharge observed, 159 cfs Feb. 1, 1911 (gage height, 4.9 ft); no flow during most of irrigation season each year.

Remarks.--During most of irrigation season entire flow is diverted for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	-	12	0	0	2	-
1910	2	32	20	20	27	31	54	21	2	0	0	10	18.1
1911	15	15	15	37.7	25.9	33.0	35.6	12.2	0	0	0	0	15.7
1912	5.8	9.7	11.2	10.5	13.9	23.5	36.8	59.2	2.7	0	0	0	†14.5
1913	8.11	11.8	9	-	-	-	-	-	-	-	-	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	-	714	0	0	119	-
1910	123	1,900	1,230	1,230	1,500	1,910	3,210	1,290	119	0	0	595	13,100
1911	922	893	922	2,320	1,440	2,030	2,120	750	0	0	0	0	11,400
1912	360	580	689	646	800	1,440	2,190	3,640	161	0	0	0	10,500
1913	499	702	553	-	-	-	-	-	-	-	-	-	-

1/ Published as "near Brigham."
2/ Published as "at Brigham."

Yearly discharge, in cubic feet per second, of Box Elder Creek at Brigham City, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1909	290	-	-	-	-	-	-	-
1910	290	88	Mar. 31, 1910	0	18.1	13,100	17.4	12,600
1911	310	159	Feb. 1, 1911	0	15.7	11,400	14.2	10,300
1912	330	122	May 18, 1912	0	†14.5	10,500	14.6	10,600
1913	360	-	-	-	-	-	-	-

† Corrected.

WEBER RIVER BASIN

104. Weber River above Smith and Morehouse Creek, near Oakley, Utah

Location.--Lat 40°48', long 111°06', in NE¼ sec. 25, T. 1 N., R. 7 E., about 3 miles upstream from Smith and Morehouse Creek and 12 miles northeast of Oakley.

Gage.--Water-stage recorder. Altitude of gage is 7,400 ft (from topographic map).

Extremes.--1946-47: Maximum discharge, 686 cfs June 7, 1947 (gage height, 4.48 ft); minimum not determined, occurred during period of ice effect.

Remarks.--A few small diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	33	34.0	34.5	28	28	31.7	68.8	412	364	127	63.1	56.1	107

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	2,030	2,030	2,120	1,720	1,560	1,950	4,090	25,340	21,660	7,790	3,880	3,340	77,510

105. Smith and Morehouse Creek near Oakley, Utah

Location.--Lat 40°47', long 111°06', in SW¼ sec. 36, T. 1 N., R. 7 E., 3½ miles (revised) upstream from mouth and 10½ miles northeast of Oakley.

Gage.--Water-stage recorder. Altitude of gage is 7,500 ft (from river-profile map).

Extremes.--1946-47: Maximum discharge, 517 cfs May 8, 1947 (gage height, 3.92 ft); minimum, 9.3 cfs Feb. 8, but may have been less during period of no gage-height record.

Remarks.--Flow partially regulated by small reservoir about 1 mile upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	12	11.9	12.5	11.6	11.0	12.0	27.2	277	213	58.5	24.4	13.9	57.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	738	708	770	714	611	738	1,620	17,030	12,670	3,600	1,500	825	41,520

106. Weber River near Oakley, Utah

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

Drainage area.--163 sq mi.

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

Average discharge.--46 years (1904-50), 227 cfs.

Extremes.--1904-50: Maximum discharge observed (revised), 4,170 cfs June 13, 1921 (gage height, 9.0 ft), from rating curve extended above 2,000 cfs by logarithmic plotting; minimum recorded, 16 cfs Mar. 12, 1941.

Remarks.--Several small diversions for irrigation above station. Flow slightly regulated by several small lakes on headwaters and a small reservoir on Smith and Morehouse Creek (total capacity of all reservoirs, about 3,200 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	‡79.9	‡70.8	‡60	‡55	‡53	64.3	124	372	808	156	70.4	58.9	‡164
1906	73.0	59.9	‡45.3	‡43	‡40	‡49.1	182	760	1,150	419	153	116	‡258
1907	74.8	‡63.4	‡64.6	66.0	67.0	91.3	341	*795	*1,575	*1,486	226	106	‡415
1908	85.5	71.6	74.2	58.0	52.2	52.2	160	415	*997	*398	160	92.2	*218
1909	128	87.8	69.4	66	58	58	149	*745	*2,180	*658	232	161	*382
1910	114	112	95	85	75	180	515	952	608	141	80.8	71.9	252
1911	80.4	68.2	58.2	75	85	70.2	188	*684	*1,310	a287	90.9	65.3	*255
1912	85.2	76.5	75	65	75	*68.6	†99.7	*566	*1,600	365	165	120	*279
1913	132	122	77.9	70	70	84.1	228	831	680	232	122	129	232
1914	141	108	81.0	86.2	80.8	94.5	289	1,280	1,280	319	139	91.5	333
1915	120	87.9	75	80	86.1	82.2	225	439	782	194	74.9	86.5	194
1916	82.3	91.2	90.6	65	69.2	102	301	728	1,310	279	124	79.6	276
1917	123	95.7	98.8	49.0	60	70.9	146	541	1,730	766	136	92.4	325
1918	77.5	74.9	66.0	66.0	62.0	78.8	134	525	1,120	147	75.0	62.6	207
1919	102	64.0	65	50	56.3	60.3	164	791	416	97.7	64.7	68.3	167
1920	91.4	75.9	55.8	56.2	62.0	65.1	90.9	961	1,330	273	120	85.3	272
1921	105	108	75	70	75	109	222	847	*2,130	465	160	117	*373
1922	99.2	89.9	77.6	70	66.5	68.9	125	*953	*1,790	282	144	89.5	*321
1923	74.5	76.5	72.0	72.0	76.2	83.6	141	908	1,160	450	133	94.1	279
1924	109	77.6	62.2	60	66.4	74.6	129	706	325	96.0	62.4	52.8	152
1925	55.7	57.5	55.9	51.1	54.7	73.4	208	798	572	187	96.6	93.8	193
1926	106	76.4	68.2	50	61.8	80.1	266	769	463	119	80.2	55.7	184
1927	58.4	55.6	55.1	55.0	55.4	58.5	143	723	1,120	237	111	86.1	230
1928	93.9	99.2	67.7	60	55	83.2	146	1,160	670	179	92.7	63.7	232
1929	64.5	65.8	60	55	60	63.5	112	754	1,200	302	139	109	249
1930	74.8	63.2	60	50	55	70	250	522	710	155	124	82.5	185
1931	106	57.0	50	55	55	49.8	94.0	410	268	69.1	43.4	33.4	108
1932	39.5	47.6	50	50	55	60.9	161	884	1,260	253	97.3	63.5	252
1933	56.3	52.7	46.7	45	45	45.8	83.4	315	1,320	158	78.1	47.1	190
1934	45.7	44.0	42	43	42.9	56.6	177	285	81.0	41.7	34.4	32.9	77.4
1935	36.2	43.0	45	45	45	50	127	408	1,240	184	92.4	56.3	197
1936	50.5	51.7	50	50	50	55	278	1,230	681	206	152	98.7	247
1937	69.1	65	55	50	50	55	149	924	411	142	84.1	62.0	177
1938	71.4	75	60	55	55	60.5	230	707	895	182	99.2	77.9	214
1939	77.0	81.2	71.5	60	60	74.7	227	605	314	114	67.4	52.3	151
1940	55.9	49.0	39.7	38	40	52.5	136	636	231	87.5	53.2	51.3	123
1941	74.9	57.1	52	50	47	55.5	91.6	594	653	157	102	70.8	167
1942	78.8	77.4	63.4	56.6	55.9	59.8	270	521	925	180	94.1	67.7	204
1943	56.7	54.7	51.2	46.8	46.4	57.7	350	694	774	224	97.6	79.6	211
1944	73.6	68.9	54.5	48.4	48.3	50.4	82.7	731	1,037	262	111	78.0	222
1945	68.3	67.9	59.7	57.4	57.5	60.5	85.1	550	701	249	137	101	183
1946	73.0	81.3	64.9	59.4	55.6	74.8	381	694	621	153	91.2	71.9	202
1947	72.6	70.2	65.8	55	57.5	69.6	158	871	739	228	112	89.8	217
1948	75.3	70.9	66.5	64	62.0	69.8	153	872	625	153	91.8	53.5	197
1949	52.6	57.0	56	56	54	62.3	245	716	921	217	108	71.6	218
1950	82.6	74.1	63.4	58	58.6	59.4	229	748	1,304	384	135	109	276

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of weather records.
a Daily discharge for July 1-6, 28, 1911, revised, but changes were compensating so that no change in monthly figure resulted.

Monthly and yearly runoff, in acre-feet, of Weber River near Oakley, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	‡4,910	‡4,220	‡3,690	‡3,380	‡2,940	3,950	7,380	22,900	48,100	9,590	4,330	3,500	‡119,000
1906	4,490	3,560	‡2,790	‡2,640	‡2,220	‡3,020	10,800	46,700	68,400	25,800	9,410	6,900	‡187,000
1907	4,600	‡3,770	‡3,970	4,060	3,720	5,610	20,300	*48,900	*93,700	*91,400	13,900	6,310	‡300,000
1908	5,260	4,260	4,560	3,570	3,000	3,210	9,520	25,500	*59,300	*24,500	9,840	5,490	*158,000
1909	7,870	5,220	4,270	4,060	3,220	3,570	8,870	*45,800	*130,000	*40,500	14,300	9,580	*277,000
1910	7,010	6,660	5,840	5,230	4,160	11,100	30,600	58,500	36,200	8,670	4,970	4,280	183,000
1911	4,940	4,060	3,580	4,610	4,720	4,320	11,200	*42,100	*78,000	a17,600	5,590	3,890	*185,000
1912	5,240	4,550	4,610	4,000	4,310	*4,220	†5,930	*34,800	*95,000	22,400	10,100	7,140	*202,000
1913	8,120	7,260	4,790	4,300	3,890	5,170	13,600	51,100	40,500	14,300	7,500	7,680	168,000
1914	8,670	6,430	4,980	5,300	4,490	5,810	17,200	78,700	76,200	19,600	8,550	5,440	241,000
1915	7,380	5,230	4,610	4,920	4,780	5,050	13,400	27,000	46,500	11,900	4,610	5,150	141,000
1916	5,060	5,430	5,570	4,000	3,980	6,270	17,900	44,800	78,000	17,200	7,620	4,740	201,000
1917	7,560	5,690	6,080	3,010	3,330	4,360	8,330	33,300	103,000	47,100	8,360	5,500	236,000
1918	4,770	4,460	4,060	4,060	3,440	4,850	7,970	32,300	66,600	9,040	4,610	3,720	150,000
1919	6,270	3,810	4,000	3,070	3,130	3,710	9,760	48,600	24,800	6,010	3,980	4,060	121,000
1920	5,620	4,520	3,430	3,460	3,570	4,000	5,410	59,100	79,100	16,800	7,380	5,080	197,000
1921	6,460	6,430	4,610	4,300	4,160	6,700	13,200	52,100	*127,000	28,600	9,840	6,960	*270,000
1922	6,100	5,350	4,770	4,300	3,690	4,240	7,440	*58,600	*106,000	17,300	8,850	5,330	*232,000
1923	4,580	4,550	4,430	4,430	4,230	5,140	8,390	55,800	69,000	27,700	8,180	5,600	202,000
1924	6,700	4,620	3,820	3,690	3,820	4,590	7,680	43,400	19,300	5,900	3,840	3,140	110,000
1925	3,420	3,420	3,440	3,140	3,040	4,510	12,400	49,100	34,000	11,500	5,940	5,580	139,000
1926	6,520	4,550	4,190	3,070	3,430	4,930	15,800	47,300	27,600	7,320	4,930	3,310	133,000
1927	3,590	3,310	3,390	3,380	3,080	3,600	8,510	44,500	66,600	14,600	6,820	5,120	166,000
1928	5,770	5,900	4,160	3,690	3,160	5,120	8,690	71,300	39,900	11,000	5,700	3,790	168,000
1929	3,970	3,920	3,690	3,380	3,330	3,900	6,660	46,400	71,400	18,600	8,550	6,490	180,000
1930	4,600	3,760	3,690	3,070	3,050	4,300	14,900	32,100	42,200	9,530	7,620	4,910	134,000
1931	6,520	3,390	3,070	3,380	3,050	3,060	5,590	25,200	15,900	4,250	2,670	1,990	78,100
1932	2,430	2,830	3,070	3,070	3,160	3,740	9,580	54,400	75,000	15,600	5,980	3,780	183,000
1933	3,460	3,140	2,870	2,770	2,500	2,820	4,960	19,400	78,600	9,720	4,800	2,800	138,000
1934	2,810	2,620	2,580	2,640	2,380	3,480	10,550	17,540	†4,820	2,560	2,110	1,960	56,050
1935	2,230	2,560	2,770	2,770	2,500	3,070	7,550	25,090	74,060	11,280	5,680	3,350	142,900
1936	3,110	3,080	3,070	3,070	2,880	3,380	16,530	75,600	40,550	12,660	9,320	5,880	179,100
1937	4,250	3,870	3,380	3,070	2,780	3,380	8,850	56,840	24,450	8,750	5,170	3,690	128,500
1938	4,390	4,460	3,690	3,380	3,050	3,720	13,710	43,490	53,280	11,170	6,100	4,630	155,100
1939	4,740	4,830	4,390	3,690	3,330	4,590	13,500	37,200	18,710	7,010	4,150	3,110	109,200
1940	3,440	2,920	2,440	2,340	2,300	3,230	8,090	39,080	13,750	5,380	3,270	3,050	89,290
1941	4,610	3,400	3,200	3,070	2,610	3,420	5,450	36,530	38,830	9,630	6,300	4,210	121,300
1942	4,850	4,610	3,900	3,480	3,110	3,680	16,050	32,060	55,050	11,080	5,780	4,030	147,700
1943	3,480	3,250	3,150	2,880	2,580	3,550	20,800	42,700	46,080	13,780	6,000	4,730	153,000
1944	4,520	4,100	3,350	2,980	2,780	3,100	4,920	44,960	62,900	16,110	6,840	4,640	161,200
1945	4,200	4,040	3,670	3,530	3,200	3,720	5,060	33,840	41,730	15,300	8,420	5,990	132,700
1946	4,490	4,840	3,990	3,650	3,090	4,600	22,670	42,660	36,960	9,420	5,610	4,280	146,300
1947	4,460	4,180	4,040	3,380	3,190	4,280	9,390	53,580	44,000	14,030	6,920	5,340	156,800
1948	4,630	4,220	4,090	3,940	3,570	4,290	8,100	53,590	37,180	9,420	5,640	3,180	142,800
1949	3,240	3,390	3,440	3,440	3,000	3,830	14,590	44,010	54,800	13,320	6,640	4,260	158,000
1950	5,080	4,410	3,900	3,570	3,250	3,660	13,620	45,970	77,580	23,640	8,330	6,480	199,500

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of weather records.
a Daily discharge for July 1-6, 28, 1911, revised; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	176	a1,580	June 8, 1905	-	‡164	‡119,000	‡140	‡117,000
1906	212	a2,480	June 13, 1906	-	‡258	‡187,000	‡260	‡188,000
1907	250,1394	*a3,500	July 6, 1907	-	‡415	‡300,000	*417	*302,000
1908	250,1394	*a2,110	June 15, 1908	-	*218	*158,000	*222	*161,000
1909	270,1394	*a3,500	June 5, 6, 7, 1909	-	*382	*277,000	*385	*279,000
1910	290	a1,790	June 1, 1910	-	252	183,000	244	176,000
1911	310,1394	*a2,080	June 13, 1911	-	*255	*185,000	*258	*186,000
1912	330,1394	*a3,370	June 9, 1912	-	*279	*202,000	*287	*208,000
1913	360	a1,690	May 26, 1913	-	232	168,000	247	168,000
1914	390	a2,310	June 3, 1914	70	333	241,000	329	238,000
1915	410	a1,230	June 11, 1915	-	194	141,000	193	139,000
1916	530,1394	a1,940	June 13, 1916	-	276	201,000	280	204,000
1917	550,1394	a2,760	June 18, 1917	-	325	236,000	317	230,000
1918	480	a2,110	June 14, 1918	-	207	150,000	208	151,000
1919	510	a1,580	May 29, 1919	-	167	121,000	167	121,000
1920	510	a2,340	June 8,9, 1920	-	272	197,000	277	201,000
1921	530,1394	*a4,170	June 13, 1921	-	*373	*270,000	*371	*269,000
1922	550,1394	*a2,930	June 8,9, 1922	-	*321	*232,000	*317	*229,000
1923	570	a2,060	June12,13, 1923	-	279	202,000	282	204,000
1924	590	a1,290	May 19, 1924	51	152	110,000	146	106,000
1925	610	a1,290	(b)	-	193	139,000	199	144,000

* Revised.
‡ Not previously published.
a Maximum observed.
b May 21, 22, 28, 29, 1925.

Yearly discharge, in cubic feet per second, of Weber River near Oakley, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	a1,610	May 21, 1926	-	184	133,000	177	128,000
1927	650	a1,790	June 8, 1927	50	230	166,000	237	172,000
1928	670	a1,970	May 29, 1928	-	232	168,000	227	164,000
1929	690	a1,710	May 25, 1929	-	249	180,000	250	181,000
1930	705	a1,510	May 30, 1930	-	185	134,000	186	135,000
1931	720	a990	May 17, 1931	29	108	78,100	102	73,400
1932	735	a2,200	June 15, 1932	34	252	183,000	253	184,000
1933	750	a2,200	June 14, 1933	-	190	138,000	188	136,000
1934	790	610	May 9, 1934	27	77.4	56,050	76.8	55,600
1935	790	3,190	June 13, 1935	30	197	142,900	200	144,600
1936	810	2,370	May 30, 1936	47	247	179,100	250	181,400
1937	830	1,910	May 18, 1937	-	177	128,500	179	129,500
1938	860	2,100	June 6, 1938	-	214	155,100	216	156,500
1939	880	822	May 5, 1939	47	151	109,200	144	104,100
1940	900	1,180	May 17, 1940	36	123	89,290	126	91,700
1941	930	1,160	June 18, 1941	42	167	121,300	170	123,400
1942	960	1,720	June 11, 1942	50	204	147,700	199	144,200
1943	980	1,560	June 1, 1943	48	211	153,000	214	155,100
1944	1010	1,570	June 26, 1944	-	222	161,200	222	161,100
1945	1040	1,200	June 22, 1945	-	183	132,700	185	134,100
1946	1060	1,460	June 6, 1946	-	202	146,300	201	145,600
1947	1090	1,340	May 8, 1947	-	217	156,800	217	157,000
1948	1120	1,890	May 20, 1948	50	197	142,800	193	140,000
1949	1150	1,760	June 13, 1949	-	218	158,000	223	161,300
1950	1180	2,140	June 1, 1950	-	276	199,500	-	-

a Maximum observed.

107. 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., 1,400 ft downstream from head and three-quarters of a mile east of Oakley.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 6,500 ft (from topographic map). Prior to Oct. 1, 1942, recorder and two rectangular weirs at same site.

Extremes.--1931-50: Maximum daily discharge, 747 cfs June 20, 1947; no water diverted from Weber River for several months each year.

Remarks.--Canal was completed in 1932 and diverts from Weber River in SW¼SW¼ sec. 21, T. 1 S., R. 6 E., for irrigation and water supply in Jordan River basin. Figures herein represent diversions from main stem of Weber River, some of which may return to Weber River through seepage.

Cooperation.--Records prior to October 1945 not previously published by Geological Survey. Those for water years 1932-38 furnished by Weber River water commissioner and those for water years 1939-45 by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	0	0	0	0	0	0	0	0	74.1	69.4	1.2	0	12.0
1933	0	0	0	0	0	0	0	61.1	136	27.8	0	0	18.7
1934	0	0	0	0	0	0	44.4	11.2	0	0	0	0	4.6
1935	0	0	0	0	0	0	0	47.2	144	34.5	0	0	18.8
1936	0	0	0	0	0	0	64.5	88.4	155	30.7	0	0	28.1
1937	0	0	0	0	0	0	0	67.9	131	30.0	0	0	19.1
1938	0	0	0	0	0	0	0	0	73.1	49.4	0	0	10.2
1939	0	0	0	0	0	0	11.0	129	102	1.9	0	0	20.4
1940	0	0	0	0	0	0	0	21.9	60.6	0	0	0	6.8
1941	0	0	6.3	0	0	0	2.6	59.7	90.9	28.9	0	0	15.7
1942	0	0	0	0	0	0	49.0	138	138	31.2	0	0	29.8
1943	0	0	0	0	0	1.6	140	201	176	0	0	0	43.1
1944	0	0	0	0	0	0	32.3	333	491	67.5	0	0	76.8
1945	0	0	0	0	0	0	0	149	452	39.0	0	0	53.1
1946	0	0	0	0	0	35.8	238	412	263	0	0	0	79.3
1947	0	43.4	0	0	0	7.4	128	358	515	45.2	0	0	92.8
1948	0	0	18.0	0	0	0	0	0	99.1	6.95	0	0	8.71
1949	0	0	0	0	0	0	12.0	307	*161	51.5	0	0	*44.7
1950	0	0	0	0	0	0	0	.64	4.70	91.7	2.46	0	8.44

* Revised.

Monthly and yearly diversions, in acre-feet, of Weber-Provo diversion canal at Oakley, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	0	0	0	0	0	0	0	0	4,410	4,260	73	0	8,740
1933	0	0	0	0	0	0	0	3,760	8,090	1,710	0	0	13,560
1934	0	0	0	0	0	0	2,640	686	0	0	0	0	3,330
1935	0	0	0	0	0	0	0	2,900	8,580	2,120	0	0	13,600
1936	0	0	0	0	0	0	3,840	5,440	9,230	1,890	0	0	20,400
1937	0	0	0	0	0	0	0	4,170	7,790	1,850	0	0	13,810
1938	0	0	0	0	0	0	0	0	4,350	3,040	0	0	7,390
1939	0	0	0	0	0	0	655	7,920	6,050	115	0	0	14,740
1940	0	0	0	0	0	0	0	1,340	3,610	0	0	0	4,950
1941	0	0	389	0	0	0	153	3,670	5,410	1,780	0	0	11,400
1942	0	0	0	0	0	0	2,910	8,500	8,210	1,920	0	0	21,540
1943	0	0	0	0	0	97	8,320	12,360	10,450	0	0	0	31,230
1944	0	0	0	0	0	0	1,920	20,480	29,190	4,150	0	0	55,740
1945	0	0	0	0	0	0	0	9,130	26,920	2,400	0	0	38,450
1946	0	0	0	0	0	2,200	14,160	25,360	15,670	0	0	0	57,390
1947	0	2,580	1,110	0	0	452	7,600	22,040	30,620	2,780	0	0	67,180
1948	0	0	0	0	0	0	0	0	5,900	427	0	0	6,330
1949	0	0	0	0	0	0	712	18,860	*9,600	3,170	0	0	*32,340
1950	0	0	0	0	0	0	0	40	280	5,640	152	0	6,110

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1932	(a)	137	June8-16,1932	0	12.0	8,740	12.0	8,740
1933	(a)	171	June 15, 1933	0	18.7	13,560	18.7	13,560
1934	(a)	135	Apr.22-27,1934	0	4.6	3,330	4.6	3,330
1935	(a)	167	June 28, 1935	0	18.8	13,600	18.8	13,600
1936	(a)	167	June12,13,1936	0	28.1	20,400	28.1	20,400
1937	(a)	164	May25,28,1937	0	19.1	13,810	19.1	13,810
1938	(a)	152	June 18, 1938	0	10.2	7,390	10.2	7,390
1939	(b)	142	May9,10,29,1939	0	20.4	14,740	20.4	14,740
1940	(b)	116	(c)	0	6.8	4,950	7.36	5,340
1941	(b)	136	June 15, 1941	0	15.7	11,400	15.2	11,000
1942	(b)	147	(d)	0	29.8	21,540	29.8	21,540
1943	(b)	229	June 18, 1943	0	43.1	31,230	43.1	31,230
1944	(b)	530	June 26, 1944	0	76.8	55,740	76.8	55,740
1945	(b)	661	June 25, 1945	0	53.1	38,450	53.1	38,450
1946	1060	603	May 22, 1946	0	79.3	57,390	84.4	61,080
1947	1090	747	June 20, 1947	0	92.8	67,180	87.7	63,490
1948	1120	201	June 12, 1948	0	8.71	6,330	8.71	6,330
1949	1150,1284	537	May 16, 1949	0	*44.7	*32,340	*44.7	*32,340
1950	1180	144	June 6, 10,1950	0	8.44	6,110	-	-

* Revised.
a Reports of Weber River water commissioner.
b Files of Bureau of Reclamation.
c May 31 to June 3, 1940.
d Apr. 26, May 1, 2, 5-8, 1942.

108. Silver Creek near Wanship, Utah

Location.--Lat 40°45'25", long 111°28'15", in SW¼SW¼ sec. 2, T. 1 S., R. 4 E., 1.3 miles upstream from Tollgate Canyon, 5 miles southwest of Wanship, and 5¾ miles upstream from mouth.

Drainage area.--25.8 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,400 ft (from topographic map).

Average discharge.--5 years (1941-46), 7.00 cfs.

Extremes.--1941-46: Maximum discharge, 430 cfs Apr. 4, 1942 (gage height, 4.28 ft); minimum, practically no flow at times in 1942 and 1943.

Remarks.--Several diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	8.2	8.0	5.0	3.0	3.0	7.2	†45.6	11.4	2.4	1.4	0	0.4	7.9
1943	3.5	4.4	4.0	4.8	5.5	33.4	21.9	5.0	7.6	.4	.1	.4	7.6
1944	5.23	4.70	3	2	5	7.40	42.0	7.87	9.82	.39	.30	.49	7.29
1945	2.26	2.77	2.11	2.24	4.31	14.5	28.6	4.40	4.06	.60	1.47	1.68	5.72
1946	2.63	5.61	4.14	3.22	5.19	24.5	21.3	8.74	.86	.41	.75	.66	6.50

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	504	474	307	184	167	444	2,720	700	145	87	0	22	5,750
1943	218	262	246	294	305	2,050	1,300	309	454	26	8	24	5,500
1944	322	280	184	123	288	455	2,500	484	584	24	18	29	5,290
1945	139	165	130	138	240	893	1,700	271	242	37	91	100	4,150
1946	162	334	255	198	288	1,500	1,270	537	51	25	46	39	4,700

Yearly discharge, in cubic feet per second, of Silver Creek near Wanship, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	430	Apr. 4, 1942	0	7.9	5,750	7.2	5,200
1943	980	272	Mar. 28, 1943	0	7.6	5,500	7.68	5,560
1944	1010	334	Apr. 4, 1944	.3	7.29	5,290	6.80	4,940
1945	1040	134	Apr. 19, 1945	-	5.72	4,150	6.16	4,460
1946	1060	134	Mar. 30, 1946	.3	6.50	4,700	-	-

109. Weber River near Coalville, Utah

Location.--Lat 40°53'40", long 111°24'00", in SE¼NE¼ sec. 20, T. 2 N., R. 5 E., 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.

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

Average discharge.--23 years (1927-50), 204 cfs.

Extremes.--1927-50: Maximum discharge observed, 1,960 cfs June 17, 1929 (gage height, 4.30 ft); minimum 6 cfs Sept. 20, 1934 (gage height, -0.23 ft).

Remarks.--Many diversions above station for irrigation. No diversion between station and Echo Reservoir. Records do not include water diverted from Weber River basin through Weber-Provo diversion canal (see elsewhere in this report). Flow slightly regulated by several small reservoirs above station. During periods when flow is greater than about 1,500 cfs undetermined discharge which may have bypassed gage is not included in these records except for the 1943 momentary maximum discharge.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	-	-	-	412	861	1,040	175	89.1	116	-
1928	183	218	148	135	115	243	305	1,210	587	108	42.4	45.4	277
1929	91.6	133	105	90	100	181	296	944	1,160	240	157	173	306
1930	131	123	120	110	120	150	376	488	545	53.8	103	84.2	200
1931	164	114	90	95.2	104	119	90.6	222	154	22.7	29.1	22.4	102
1932	35.5	62.6	70	70	90	143	415	946	974	123	55.7	56.9	253
1933	77.7	114	84.8	95	90	155	210	327	859	59.9	42.5	31.8	178
1934	41.4	88.6	104	100	126	117	69.5	189	43.8	14.9	21.1	9.8	77.0
1935	21.2	58.3	75	80	95	152	245	459	911	55.4	46.8	29.6	185
1936	34.6	85.2	70	85	100	155	658	1,255	508	164	134	91.0	279
1937	81.8	138	115	100	135	190	455	1,032	323	111	41.4	45.8	231
1938	102	134	123	98.4	116	245	495	924	765	92.0	83.8	94.3	273
1939	97.1	157	135	110	115	295	341	428	183	27.2	33.5	36.0	163
1940	70.1	81.3	79.9	90.6	99.0	143	175	502	108	24.2	21.3	32.1	119
1941	63.1	100	88.1	80	121	145	140	484	545	83.5	97.4	60.4	167
1942	124	154	138	128	129	158	465	503	670	76.2	44.0	58.6	220
1943	68.5	111	119	105	115	248	403	457	575	173	66.4	57.6	208
1944	92.8	129	107	86.8	96.6	108	294	546	598	112	46.2	55.9	189
1945	67.4	120	103	92.3	131	141	237	400	270	169	164	87.7	165
1946	93.2	157	129	108	105	200	349	280	222	61.4	60.4	52.6	151
1947	121	136	122	90	110	238	162	586	230	93.2	96.9	97.5	174
1948	93.6	136	127	117	104	146	375	878	396	42.4	52.5	38.3	209
1949	55.2	114	121	110	105	182	546	576	730	103	66.5	75.2	232
1950	156	145	117	129	148	200	525	957	1,282	259	91.0	132	345

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	-	-	-	24,500	52,900	61,900	10,800	5,480	6,900	-
1928	10,000	13,000	9,100	8,300	6,620	14,900	18,100	74,400	34,900	6,640	2,610	2,700	201,000
1929	5,630	7,910	6,460	5,530	5,550	11,100	17,600	58,000	69,000	14,800	9,650	10,300	222,000
1930	8,060	7,320	7,380	6,150	6,660	9,220	22,400	30,000	32,400	3,310	6,330	5,010	144,000
1931	10,100	6,780	5,530	5,850	5,780	7,320	5,390	13,600	9,160	1,400	1,790	1,330	74,000
1932	2,180	3,720	4,300	4,300	5,810	8,790	24,700	58,200	58,000	7,560	3,420	3,390	184,000
1933	4,780	6,780	5,210	5,840	5,000	9,530	12,500	20,100	51,100	3,680	2,610	1,890	129,000
1934	2,540	5,270	6,420	6,150	7,000	7,170	4,140	11,640	2,610	914	1,300	583	55,740
1935	1,300	3,470	4,610	4,920	5,280	9,330	14,600	28,240	54,230	3,410	2,880	1,760	134,000
1936	2,130	5,070	4,300	5,230	5,750	9,530	39,180	77,140	30,260	10,110	8,210	5,420	202,300
1937	5,030	8,230	7,070	6,150	7,500	11,680	27,060	63,450	19,200	6,810	2,550	2,730	167,500
1938	6,250	7,980	7,580	6,060	6,440	15,060	29,480	56,790	45,540	5,660	5,150	5,610	197,600
1939	5,970	9,360	8,300	6,760	6,390	18,140	20,260	26,300	10,920	1,670	2,060	2,140	118,300
1940	4,310	4,840	4,910	5,570	5,690	8,780	10,410	30,880	6,420	1,490	1,310	1,910	86,520

Monthly and yearly runoff, in acre-feet, of Weber River near Coalville, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	3,880	5,980	5,420	4,920	6,730	8,940	8,320	29,760	32,440	5,130	5,990	3,600	121,000
1942	7,640	9,150	8,510	7,890	7,140	9,740	27,670	30,950	39,880	4,680	2,710	3,490	159,400
1943	4,210	6,620	7,320	6,440	6,370	15,240	24,000	28,080	34,210	10,640	4,080	3,430	150,600
1944	5,700	7,670	6,600	5,340	5,550	6,610	17,500	33,590	35,600	6,880	2,840	3,320	137,200
1945	4,140	7,160	6,300	5,670	7,270	8,660	14,110	24,610	16,090	10,370	10,080	5,220	119,700
1946	5,730	9,340	7,930	6,650	5,810	12,310	20,790	17,190	13,230	3,770	3,710	3,130	109,600
1947	7,440	8,080	7,490	5,530	6,110	14,630	9,630	36,030	13,700	5,730	5,960	5,800	126,100
1948	5,750	8,120	7,790	7,190	6,010	9,000	22,320	54,000	23,580	2,610	3,230	2,280	151,900
1949	3,400	6,760	7,450	6,760	5,830	11,190	32,470	35,420	43,430	6,340	4,090	4,470	167,600
1950	9,590	8,620	7,210	7,900	8,240	12,270	31,220	58,820	76,280	15,920	5,590	7,870	249,500

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1927	650	a1,580	June 10, 1927	-	-	-	-	-
1928	670	a1,650	May 29, 30,1928	32	277	201,000	260	189,000
1929	690	a1,960	June 17, 1929	51	306	222,000	310	224,000
1930	705	a1,170	May 30, 1930	25	200	144,000	200	144,000
1931	720	649	May 17, 1931	14	102	74,000	85.5	61,800
1932	735	1,780	May 22, 1932	27	253	184,000	262	190,000
1933	750	1,670	June 14, 1933	29	178	129,000	175	126,000
1934	765	490	May 9, 1934	7	77.0	55,740	70.3	50,890
1935	790	1,800	June 13, 1935	9	185	134,000	188	136,100
1936	810	1,740	May 15, 1936	24	279	202,300	291	211,200
1937	830	1,740	May 30, 1937	31	231	167,500	233	168,900
1938	860	1,660	June 6, 1938	49	273	197,600	275	199,400
1939	880	1,170	Mar. 22, 1939	14	163	118,300	150	108,700
1940	900	988	May 17, 1940	12	119	86,520	121	87,740
1941	930	1,560	June 10, 1941	40	167	121,000	181	131,100
1942	960	1,380	May 27, 1942	35	220	159,400	210	152,300
1943	980	*1,720	June 2, 1943	41	208	150,600	211	152,500
1944	1010	1,630	June 3, 1944	39	189	137,200	186	134,800
1945	1040	792	May 12, 1945	56	165	119,700	173	125,100
1946	1060	781	Apr. 27, 1946	30	151	109,600	151	109,600
1947	1090	1,320	May 8, 1947	40	174	126,100	172	124,800
1948	1120	1,610	May 20, 1948	26	209	151,900	204	147,800
1949	1150	1,450	June 13, 1949	34	232	167,600	242	175,400
1950	1180	1,690	June 2, 1950	71	345	249,500	-	-

* Revised to include 150 cfs bypassing gage.
a Maximum observed.

110. Chalk Creek at Coalville, Utah

Location.--Lat 40°55'10", long 111°24'00", in NE¼SE¼ sec. 8, T. 2 N., R. 5 E., 100 ft downstream from bridge on U. S. Highway 189 in Coalville and 0.3 mile upstream from mouth.

Drainage area.--253 sq mi.

Gage.--Water-stage recorder and, since October 1941, concrete control. Datum of gage is 5,560.6 ft above mean sea level, datum of 1929. Prior to Feb. 13, 1931, staff gage 100 ft upstream at different datum. Feb. 13, 1931, to Oct. 15, 1941, water-stage recorder 400 ft upstream at different datum.

Average discharge.--23 years (1927-50), 58.4 cfs.

Extremes.--1927-50: Maximum discharge, 923 cfs May 25, 1950 (gage height 3.14 ft); minimum, less than 1 cfs for several days during June to November 1934.

Remarks.--Several diversions for irrigation above station. Flow slightly affected by Chalk Creek Reservoir (capacity, 1,200 acre-ft), completed in July 1940.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	20.2	-	-	-	26.0	55.4	139	95.2	11.0	4.8	5.9	-
1906	20.9	18.7	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	91.8	265	202	40.4	10.5	21.0	-
1928	25.6	29.7	24.2	24.1	21.2	35.0	90.8	447	135	28.3	12.1	7.4	73.8
1929	13.6	23.4	20.2	19.9	18.3	31.3	*86.5	*399	308	72.4	40.0	36.3	*89.4
1930	22.5	18.3	22.1	20	20	23.8	180	188	76.2	20	18	15	52.0
1931	20	16	10	15	15.8	18.5	28.0	42.0	9.3	3.5	2.5	2.0	15.2
1932	3.1	7.6	10.4	12.0	12.8	17.6	106	330	187	50.4	17.9	13.4	64.1
1933	14.6	20.7	17.6	18.7	17.6	20.6	45.2	118	152	21	10.5	5.8	38.5
1934	4.9	13.3	14.4	12.4	14.6	18.5	13.7	6.9	1.7	1.5	1.5	1.0	8.7
1935	1.0	4.6	9.3	11.4	12.3	16.5	46.2	159	198	28.2	11.6	9.3	42.3

* Revised.

Monthly and yearly mean discharge, in cubic feet per second, of Chalk Creek at Coalville, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	7.5	15.9	12.9	15.2	15.6	21.1	204	390	101	45.2	32.4	13.9	73.1
1937	13.0	17.0	17.5	15.8	17.6	26.8	118	299	106	51.8	8.0	9.4	58.6
1938	19.4	21.3	20.1	18.7	20.5	44.9	192	351	157	44.4	11.8	17.3	76.7
1939	16.2	21.7	18.7	15.4	14.8	76.1	110	108	48.4	8.5	6.1	6.7	37.7
1940	7.1	12.3	8.5	9.7	11.6	19.7	43.1	88.6	21.1	5.3	6.7	5.5	20.0
1941	5.5	11.7	9.8	10.7	17.8	23.5	23.8	95.2	101	25.6	32.7	5.8	30.3
1942	22.6	24.0	22.0	18.7	19.2	25.4	206	287	169	39.2	14.3	14.9	71.9
1943	10.4	19.5	18.6	19.4	21.0	52.0	196	219	179	40.4	20.6	17.0	67.7
1944	19.7	22.1	17.8	15.3	16.8	23.5	125	401	272	51.0	17.8	20.9	83.7
1945	17.6	20.5	17.3	16.4	23.4	41.4	65.7	157	98.3	26.5	35.3	18.9	45.0
1946	21.5	24.4	21.7	21.9	22.6	49.2	259	231	89.9	21.2	10.3	10.9	65.3
1947	22.5	23.7	21.7	16.2	20.0	75.2	73.6	275	155	37.4	28.6	19.6	64.3
1948	19.2	26.8	23.5	22.8	25.3	36.6	180	353	100	25	23.7	7.82	70.5
1949	10.3	18.4	18.1	17.0	18.3	28.3	165	314	206	42.0	20.1	16.8	73.0
1950	27.7	22.2	17.9	23.1	27.8	35.7	222	532	386	95.7	30.6	35.6	122

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	1,200	-	-	-	1,600	3,300	8,550	5,660	676	295	351	-
1906	1,280	1,110	-	-	-	-	-	-	-	-	-	-	-
1927	-	-	-	-	-	-	5,460	16,300	12,000	2,480	646	1,250	-
1928	1,570	1,770	1,490	1,480	1,220	2,150	5,400	27,500	8,030	1,740	744	440	53,500
1929	836	1,390	1,240	1,220	1,020	1,920	*5,150	*24,560	18,300	4,450	2,460	2,160	*64,700
1930	1,380	1,090	1,360	1,230	1,110	1,460	10,700	11,600	4,530	1,230	1,110	893	37,700
1931	1,230	952	615	922	878	1,140	1,670	2,580	550	212	152	121	11,000
1932	191	452	640	738	736	1,080	6,310	20,300	11,100	3,100	1,100	797	46,500
1933	898	1,230	1,080	1,150	978	1,270	2,690	7,260	9,040	1,290	646	345	27,900
1934	303	793	883	760	813	1,130	813	424	101	95	91	60	6,270
1935	61	272	573	700	684	1,020	2,750	9,790	11,800	1,730	712	553	30,650
1936	462	946	791	936	895	1,300	12,120	23,980	6,020	2,780	1,990	825	53,050
1937	799	1,010	1,080	974	980	1,650	6,990	18,400	6,290	3,190	494	559	42,420
1938	1,190	1,270	1,240	1,150	1,140	2,760	11,400	21,580	9,330	2,730	728	1,030	55,550
1939	994	1,290	1,150	944	821	4,680	6,540	6,660	2,880	524	373	399	27,260
1940	438	732	524	595	668	1,210	2,570	5,450	1,250	327	411	329	14,500
1941	337	694	603	660	990	1,440	1,420	5,850	5,990	1,570	2,010	347	21,910
1942	1,390	1,430	1,350	1,150	1,070	1,560	12,280	17,620	10,030	2,410	880	890	52,060
1943	641	1,160	1,150	1,110	1,170	3,200	11,640	13,440	10,630	2,490	1,270	1,010	48,990
1944	1,210	1,320	1,090	942	966	1,450	7,440	24,680	16,190	3,140	1,090	1,240	60,760
1945	1,080	1,220	1,060	1,010	1,300	2,550	3,910	9,670	5,850	1,630	2,170	1,120	32,570
1946	1,320	1,450	1,330	1,340	1,250	3,020	15,400	14,180	5,350	1,310	631	651	47,230
1947	1,380	1,410	1,330	998	1,110	4,620	4,380	16,890	9,220	2,300	1,760	1,170	46,570
1948	1,180	1,600	1,450	1,400	1,460	2,250	10,730	21,690	5,970	1,540	1,460	465	51,190
1949	631	1,100	1,110	1,050	1,020	1,740	9,830	19,300	12,280	2,590	1,240	998	52,890
1950	1,710	1,320	1,100	1,420	1,540	2,200	13,200	32,720	22,980	5,880	1,880	2,120	88,070

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	133,176	a274	May 20, 1905	-	-	-	-	-
1927	650	655	May16 or 17,1927	-		-	-	-
1928	670	a578	May 8, 1928	4	73.8	53,500	71.9	52,200
1929	690, 1564	*a686	May 25, 1929*	4	*89.4	*64,700	*89.9	*65,100
1930	705	a382	Apr. 25, 1930	-	52.0	37,700	50.6	36,660
1931	720	83	May 15, 1931	2	15.2	11,000	13.1	9,510
1932	735	603	May 14, 1932	2	64.1	46,500	66.8	48,470
1933	750	360	June 2, 1933	4	38.5	27,900	36.8	26,650
1934	765	‡24	Mar. 31, 1934	1	8.7	6,270	7.2	5,190
1935	790	392	June 9, 1935	1	42.3	30,650	44.1	31,940
1936	810	656	May 6, 1936	5	73.1	53,050	74.0	53,740
1937	830	588	Apr. 16, 1937	4	58.6	42,420	59.7	42,230
1938	860	672	May 16, 1938	6	76.7	55,550	76.4	55,280
1939	880	284	Mar. 22, 1939	4	37.7	27,260	35.2	25,520
1940	900	884	Aug. 21, 1940	3	20.0	14,500	19.9	14,440
1941	930	574	Aug. 6, 1941	2	30.3	21,910	33.8	24,447
1942	960	589	May 26, 1942	8	71.9	52,060	70.2	50,840
1943	980	444	May 5, 1943	7	67.7	48,990	68.6	49,580
1944	1010	730	May 16, 1944	11	83.7	60,760	83.3	60,500
1945	1040	818	Aug. 20, 1945	9	45.0	32,570	46.0	33,310
1946	1060	513	Apr. 27, 1946	6.2	65.3	47,230	65.3	47,250
1947	1090	444	May 5, 1947	5.8	64.3	46,570	64.5	46,670
1948	1120	725	Apr. 22, 1948	6.2	70.5	51,190	68.6	49,810
1949	1150	409	May13,20,1949	7.5	73.0	52,890	74.8	54,180
1950	1180	923	May 25, 1950	9.8	122	88,070	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

111. 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.

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

Extremes.--1930-50: 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 May 1930 (revised); dam completed in 1931. Capacity, 73,940 acre-ft between elevation 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, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931	7,250	6,450	6,160	6,200	6,760	8,180	11,900	18,900	10,800	925	188	0
1932	0	0	663	724	842	8,610	39,300	55,500	62,900	48,200	24,200	17,100
1933	16,800	16,800	18,000	18,900	18,900	24,400	39,700	63,400	69,400	48,300	23,200	12,100
1934	11,250	11,280	14,970	20,180	27,500	35,530	31,870	25,820	15,060	5,180	770	0
1935	0	2,580	6,520	11,420	16,620	26,130	41,380	71,760	71,460	44,850	20,540	6,390
1936	860	860	938	886	5,970	14,940	40,660	73,060	69,250	59,460	46,110	34,630
1937	31,720	31,440	31,590	31,920	37,150	48,980	52,440	73,940	68,690	59,800	45,650	31,590
1938	28,860	28,810	31,120	32,100	37,460	55,470	63,100	69,250	71,390	54,380	33,260	19,940
1939	16,700	16,730	18,320	18,460	18,460	37,150	62,480	69,250	58,740	31,960	12,340	2,180
1940	1,680	1,640	1,730	4,700	10,250	20,160	33,310	51,520	38,510	20,850	7,460	2,680
1941	a2,500	2,670	2,960	3,270	8,580	18,670	28,310	56,580	68,790	47,680	29,270	16,440
1942	17,010	18,260	18,150	17,480	17,160	21,550	61,630	71,600	72,400	51,910	30,010	18,790
1943	15,840	16,550	16,870	18,560	21,430	38,030	58,680	73,720	74,160	54,890	32,660	22,070
1944	20,130	19,970	20,010	20,050	19,930	25,150	50,910	73,580	73,500	46,900	20,750	2,990
1945	0	618	3,660	6,620	11,120	20,050	39,200	69,870	71,750	51,970	43,920	32,960
1946	33,400	36,100	40,440	41,550	42,160	55,340	71,460	74,240	67,440	50,480	33,490	19,200
1947	20,400	29,640	35,290	36,000	38,030	55,280	69,440	74,240	72,110	46,430	30,900	22,110
1948	22,470	23,210	23,540	24,300	27,280	38,560	62,440	73,060	72,110	44,840	20,480	7,710
1949	9,550	12,530	12,710	12,590	12,500	14,010	43,350	72,550	72,840	51,970	29,500	19,010
1950	23,130	23,840	24,130	26,140	29,450	43,920	67,440	69,440	74,240	64,920	43,460	39,520

a Contents by capacity table used beginning Oct. 1, 1940; contents Oct. 31, 1940, by capacity table used prior to Oct. 1, 1940 was 2,660 acre-ft.

112. Weber River at Echo, Utah

Location.--Lat 40°57'55", long 111°26'10", in SE¼NE¼ sec. 25, T. 3 N., R. 4 E., 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.

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

Average discharge.--23 years (1927-50), 271 cfs.

Extremes.--1927-50: Maximum discharge, 2,580 cfs May 26, 1950 (gage height, 6.96 ft); minimum daily, 2 cfs Feb. 27 to Mar. 2, Mar. 31, Apr. 3-13, 1940.

Remarks.--Many diversions above and below station for irrigation. Prior to Mar. 24, 1950, one small diversion between gage and Echo Dam. Flow regulated by Echo Reservoir (see preceding station) since May 1930.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	-	-	-	512	1,180	1,290	231	111	146	-
1928	205	263	194	175	150	302	398	1,640	732	156	64.5	64.2	363
1929	130	194	139	120	130	260	422	1,310	1,340	358	204	227	404
1930	181	160	148	141	149	197	538	517	579	200	122	133	255
1931	83.2	157	130	126	121	137	71.9	170	317	191	49.9	29.3	132
1932	42.4	68.4	75	90	110	49.5	4.4	1,040	1,020	434	451	203	300
1933	108	140	91.6	110	118	99.3	6.5	7.7	875	425	445	222	226
1934	71.6	107	66.9	31.6	13.2	6.0	163	295	235	176	97.4	23.0	108
1935	25.7	26.1	23.5	15.1	12.1	7.6	5.0	94.5	1,080	521	482	274	214

Monthly and yearly mean discharge, in cubic feet per second, of Weber River at Echo, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	137	106	86.2	105	35.2	29.5	374	1,077	673	372	389	296	307
1937	134	167	138	116	62.5	25.8	497	936	512	321	274	296	291
1938	177	163	110	111	44.2	16.6	580	1,222	933	423	441	341	381
1939	171	183	136	128	135	74.0	16.3	448	428	488	366	220	234
1940	92.6	103	97.0	67.5	31.0	18.4	4.8	312	359	321	249	129	149
1941	87.0	125	108	99.9	57.9	8.9	4.0	129	491	461	438	277	191
1942	150	169	177	173	165	131	60.2	650	828	455	422	259	304
1943	132	134	142	111	108	80.2	278	450	806	557	459	255	293
1944	156	161	130	112	132	72.2	5.26	609	890	587	476	371	309
1945	143	144	73.9	67.2	84.4	48.2	5.28	90.1	389	516	336	282	180
1946	112	150	97.3	132	133	56.0	360	476	444	358	345	301	247
1947	129	13.0	61.9	102	107	48.6	9.3	843	464	566	379	269	251
1948	117	163	163	135	97.2	19.2	195	1,069	564	526	471	257	316
1949	49.0	99.9	148	141	136	223	227	466	993	471	436	255	304
1950	139	170	144	142	135	20.4	431	1,489	1,682	538	469	238	467

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	-	-	-	30,500	72,600	76,800	14,200	6,820	8,690	-
1928	12,600	15,600	11,900	10,800	8,630	18,600	23,700	101,000	43,600	9,590	3,970	3,820	264,000
1929	7,990	11,500	8,550	7,380	7,220	16,000	25,100	80,600	79,700	22,000	12,500	13,500	292,000
1930	11,100	9,520	9,100	8,670	8,280	12,100	32,000	31,800	34,500	12,300	7,500	7,910	185,000
1931	5,120	9,340	7,990	7,750	6,720	8,420	4,280	10,500	18,900	11,700	3,070	1,740	95,500
1932	2,610	4,070	4,610	5,530	6,330	3,040	262	64,000	60,700	26,700	27,700	12,100	218,000
1933	6,640	8,330	5,630	6,760	6,550	6,110	387	4,730	52,100	26,100	27,400	13,200	164,000
1934	4,400	6,370	4,110	1,940	732	371	9,720	18,130	13,980	10,790	5,990	1,370	77,900
1935	1,580	1,550	1,440	928	674	466	300	5,810	64,270	32,030	29,650	16,320	155,000
1936	8,400	6,310	5,300	6,450	2,020	1,810	22,260	66,190	40,040	22,870	23,940	17,630	223,200
1937	8,240	9,940	8,480	7,110	3,470	1,580	29,580	57,580	30,490	19,760	16,830	17,600	210,700
1938	10,870	9,690	6,750	6,800	2,460	1,020	34,500	75,150	55,540	26,030	27,100	20,280	276,200
1939	10,530	10,900	8,390	7,880	7,480	4,550	972	27,530	25,490	29,990	22,510	13,100	169,300
1940	5,690	6,100	5,960	4,150	1,780	1,130	286	19,190	21,370	19,770	15,320	7,670	108,400
1941	5,350	7,460	6,620	6,140	3,220	547	238	7,950	29,220	28,360	26,920	16,480	138,500
1942	9,240	10,060	10,860	10,620	9,170	8,050	3,580	39,980	49,290	28,000	25,960	15,430	220,200
1943	8,140	7,990	8,700	6,810	5,990	4,930	16,560	27,690	47,960	34,220	28,200	15,170	212,400
1944	9,580	9,580	7,970	6,910	7,570	4,440	313	37,420	52,940	36,080	29,260	22,050	224,100
1945	8,800	8,570	4,540	4,130	4,690	2,960	314	5,540	21,950	31,720	20,650	16,780	130,600
1946	6,880	8,950	5,980	8,100	7,360	3,440	21,430	29,280	26,440	22,040	21,230	17,900	179,000
1947	7,900	774	3,810	6,290	5,920	2,990	554	51,840	27,590	34,790	23,290	16,010	181,800
1948	7,210	9,680	10,040	8,270	5,590	1,180	11,600	65,760	33,590	32,330	28,930	15,310	229,500
1949	3,010	5,950	9,090	8,660	7,560	13,700	13,520	28,620	59,080	28,980	26,780	15,160	220,100
1950	8,520	10,120	8,830	8,740	7,470	1,260	25,670	91,540	100,100	33,050	28,850	14,160	338,300

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1927	650	*2,410	May 17, 1927*	-	-	-	-	-
1928	670	a2,090	May 29, 1928	47	363	264,000	346	252,000
1929	690	*a2,300	May 21, 1929*	68	404	292,000	406	294,000
1930	705	a1,080	June 12, 1930	49	255	185,000	245	178,000
1931	720	437	May19,20,1931	4	132	95,500	116	84,400
1932	735	1,870	May 22, 1932	4	300	218,000	313	227,000
1933	750	1,530	June 10, 1933	6	226	164,000	218	158,000
1934	765	391	Apr. 22, 1934	4	108	77,900	93.4	67,590
1935	790	2,100	June 5, 1935	4	214	155,000	235	170,400
1936	810	1,730	June 1, 1936	3	307	223,200	317	229,900
1937	830	2,330	May30,31,1937	6	291	210,700	292	211,300
1938	860	2,090	May29,30,1938	5	381	276,200	385	278,700
1939	880	705	May 10, 1939	5	234	169,300	217	157,300
1940	900	548	May24,25,261940	2	149	108,400	150	110,100
1941	930	922	June16,17,1941	3	191	138,500	206	149,200
1942	960	1,560	(b)	3	304	220,200	297	214,900
1943	980	2,370	June 2, 1943	3	293	212,400	297	214,700
1944	1010	2,290	June 2,3,1944	4	309	224,100	302	218,900
1945	1040	680	June 10, 1945	4.3	180	130,600	180	130,500
1946	1060	1,060	Apr. 27, 1946	4.9	247	179,000	234	169,700
1947	1090	1,600	May9,10, 1947	3.7	251	181,800	271	196,200
1948	1120	2,140	May 21, 1948	6.7	316	229,500	304	220,600
1949	1150	1,740	June 14, 1949	5.8	304	220,100	317	229,500
1950	1180	2,580	May 26, 1950	5.2	467	338,300	-	-

* Revised.
a Maximum observed.
b May 27 to June 3, 1942.

113. Lost Creek near Croydon, Utah

Location.--Lat 41°10'35", long 111°24'20", in SW¼SE¼ sec. 8, T. 5 N., R. 5 E., 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.

Gage.--Water-stage recorder. Altitude of gage is 5,820 ft (by barometer). Prior to Dec. 5, 1923, 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.--11 years (1921-23, 1941-50), 37.2 cfs.

Extremes.--1921-23, 1941-50: Maximum discharge, 770 cfs May 10, 11, 18, 1923 (gage height, 4.20 ft, site and datum then in use), from rating table extended above 200 cfs; minimum, 3 cfs for several days in August and September 1941, 1942.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	19.7	45.2	111	290	85.1	24.4	16.7	16.0	-
1922	19.2	17.7	17.7	14.0	14.0	19.4	77.1	362	81.3	20.1	18.8	13.9	56.7
1923	15.5	16.2	15.3	14	12	16.1	97.2	414	88.7	30.8	14.8	18.8	63.3
1924	22.3	20.4	‡15.7	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	36.3	12.1	5.2	4.8	5.2	-
1942	7.8	8.2	6.6	5.0	5.0	6.0	72.0	52.4	17.5	6.0	3.2	4.1	16.1
1943	6.4	7.5	8.2	6.7	7.9	16.0	167	112	50.5	14.0	8.4	7.3	34.3
1944	8.88	8.30	7.95	7	8	9.11	44.8	106	49.9	13.8	6.56	5.72	23.0
1945	8.08	8.87	8.68	8.48	11.6	16.8	32.2	89.4	50.0	14.0	8.41	7.79	22.1
1946	9.48	10.8	10.4	9.29	11.0	31.5	198	108	31.3	12.3	8.29	7.64	37.3
1947	11.5	10.0	10.3	8	8.75	28.5	57.6	87.4	36.1	15.3	9.45	8.72	24.4
1948	11.0	11.6	10.8	9.29	8.59	12.4	66.8	133	38.6	12.0	7.66	7.07	27.5
1949	9.5	10.0	10	9	8	15.6	145	179	60	18.3	10.7	9.8	40.5
1950	15.4	14.0	13.5	16.5	17.7	25.6	168	313	122	30.6	15.5	15.6	64.1

‡ Not previously published; estimated on basis of records for South Fork Ogden River near Huntsville.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	1,090	2,780	6,600	17,800	5,060	1,500	1,030	952	-
1922	1,180	1,050	1,090	861	778	1,190	4,590	22,300	4,840	1,240	1,160	827	41,100
1923	953	964	941	861	666	990	5,780	25,500	5,280	1,890	910	1,120	45,900
1924	1,370	1,210	‡964	-	-	-	-	-	-	-	-	-	-
1941	-	-	-	-	-	-	-	2,230	722	321	296	311	-
1942	478	486	407	307	278	369	4,290	3,220	1,040	371	196	242	11,680
1943	391	448	506	413	436	982	9,940	6,880	3,010	863	514	436	24,820
1944	546	494	489	430	460	560	2,660	6,520	2,970	851	403	341	16,720
1945	497	528	534	522	644	1,030	1,920	5,500	2,980	861	517	463	15,990
1946	583	644	637	571	609	1,940	11,780	6,660	1,860	756	510	455	27,000
1947	705	595	630	492	486	1,760	3,430	5,370	2,150	940	581	519	17,658
1948	678	688	662	571	494	764	3,970	8,190	2,300	737	471	421	19,950
1949	583	594	615	553	444	960	8,650	10,980	3,550	1,130	655	584	29,300
1950	944	831	831	1,010	984	1,580	9,970	19,240	7,250	1,880	956	926	46,400

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1921	530	472	May 16, 1921	-	-	-	-	-
1922	550	647	May 8, 1922	-	56.7	41,100	56.0	40,640
1923	570	770	May10,11,18,1923	-	63.3	45,900	‡64.3	‡46,500
1941	960	66	May 4, 1941	-	-	-	-	-
1942	960	106	Apr. 14, 1942	3	16.1	11,680	16.1	11,660
1943	980	298	Apr. 24, 1943	5	34.3	24,820	34.5	25,000
1944	1010	184	May 13, 1944	4.8	23.0	16,720	23.1	16,750
1945	1040	216	May 6, 1945	6.5	22.1	15,990	22.5	16,300
1946	1060	400	Apr. 21, 1946	7.1	37.3	27,000	37.4	27,070
1947	1090	175	May 3, 1947	6.2	24.4	17,658	24.5	17,760
1948	1120	341	May 17, 1948	5.9	27.5	19,950	27.2	19,710
1949	1150	317	Apr. 25, 1949	5.0	40.5	29,300	41.6	30,110
1950	1180	564	May 23, 1950	-	64.1	46,400	-	-

‡ Not previously published.

114. Lost Creek at Devils Slide, Utah 1/

Location.--Lat 41°03'40", long 111°32'00", in SE¼ sec. 19, T. 4 N., R. 4 E., a quarter of a mile above mouth and half a mile east of Devils Slide.

Drainage area.--228 sq mi.

Gage.--Water-stage recorder. Feb. 2 to Dec. 31, 1905, staff gage at site about 1,200 ft downstream at different datum.

Average discharge.--12 years (1921-33), 59.8 cfs.

Extremes.--1905, 1921-33: Maximum discharge, 1,390 cfs May 11, 1923 (gage height, 4.39 ft); minimum, 2 cfs Oct. 1-7, 1931.

Remarks.--Practically all flow diverted above gage during late irrigation season.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	‡22.5	‡26.0	‡46.4	‡91.6	‡17.5	‡11.4	‡10.0	‡9.63	-
1906	‡8.20	‡8.74	‡10.6	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	257	617	133	28.6	22.8	18.7	-
1922	18.3	35.9	30.6	26.8	25.0	42.5	173	627	107	28.7	32.0	23.2	98.3
1923	18.2	31.5	26.5	28.6	23.3	29.8	196	742	126	32.7	17.4	22.0	109
1924	32.4	28.0	18.0	17.2	33.4	36.5	139	157	46.5	17.2	10.4	9.8	45.5
1925	11.9	26.0	20.2	20.5	24.9	44.4	161	166	58.1	22.3	15.5	11.9	48.6
1926	16.0	22.5	21.5	14.8	18.6	47.1	156	59.1	16.8	12.3	10.1	8.1	33.5
1927	10.3	17.4	15.8	15.4	22.5	33.2	193	414	77.9	19.9	11.3	9.5	70.4
1928	15.7	24.6	19.9	20.1	21.9	70.0	192	439	42.9	19.8	12.3	8.1	74.2
1929	9.8	21.7	15.1	15.5	14.7	39.4	130	423	69.9	21.6	15.9	21.3	67.0
1930	16.4	17.6	19.1	14.4	28.8	34.3	108	64.1	18.1	10.4	10.3	7.6	28.9
1931	14.1	19.5	12.9	15.3	22.1	22.4	22.5	32.9	18.9	9.2	6.3	3.4	16.6
1932	3.0	4.5	4.1	11.0	18.0	35.0	208	419	80.4	22.3	10.7	11.2	69.1
1933	8.9	15.1	9.8	15.8	14.6	25.1	105	323	128	17.6	10.1	7.2	56.9

‡ Not previously published; computed on basis of published gage heights and discharge measurements.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	‡1,250	‡1,600	‡2,760	‡5,630	‡1,040	‡698	‡615	‡573	-
1906	‡504	‡520	‡655	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	15,300	37,900	7,910	1,760	1,400	1,110	-
1922	1,130	2,140	1,880	1,650	1,390	2,610	10,300	38,600	6,370	1,760	1,970	1,380	71,200
1923	1,120	1,870	1,630	1,760	1,290	1,830	11,700	45,600	7,500	2,010	1,070	1,310	78,700
1924	1,990	1,670	1,110	1,060	1,920	2,240	8,270	9,650	2,770	1,060	640	583	33,000
1925	732	1,550	1,240	1,260	1,380	2,730	9,580	10,200	3,460	1,370	953	708	35,200
1926	984	1,340	1,320	910	1,030	2,900	9,280	3,630	1,000	756	621	482	24,300
1927	633	1,040	972	947	1,250	2,040	11,500	25,500	4,640	1,220	695	565	51,000
1928	965	1,460	1,220	1,240	1,260	4,300	11,400	27,000	2,550	1,220	756	482	53,900
1929	603	1,290	928	953	816	2,420	7,740	26,000	4,160	1,330	978	1,270	48,500
1930	1,010	1,050	1,170	885	1,600	2,110	6,430	3,940	1,080	640	633	450	21,000
1931	867	1,160	793	941	1,230	1,380	1,340	2,020	1,120	566	387	200	12,000
1932	184	268	252	676	1,040	2,150	12,400	25,800	4,780	1,370	658	666	50,200
1933	547	898	603	972	811	1,540	6,250	19,900	7,620	1,080	621	428	41,300

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	176	a181	May 2, 1905	-	-	-	-	-
1906	176	-	-	-	-	-	-	-
1921	530	1,040	May 17, 1921	-	-	-	-	-
1922	550	1,190	May 8, 1922	15	98.3	71,200	97.6	20,650
1923	570	1,390	May 11, 1923	14	109	78,700	109	78,840
1924	590	335	May 5, 1924	8	45.5	33,000	43.7	31,720
1925	610	325	May 7, 1925	8	48.6	35,200	48.8	35,280
1926	630	277	Apr.21,22, 1926	6	33.5	24,300	32.1	23,250
1927	650	810	May 1, 1927	6	70.4	51,000	71.8	52,000
1928	670	975	May 2, 1928	7	74.2	53,900	73	53,030
1929	690	719	May 15, 1929	7	67.0	48,500	67.5	48,900
1930	705	186	Apr. 23, 1930	6	28.9	21,000	27.4	20,590
1931	720	54	May 8, 1931	3	16.6	12,000	13.7	9,890
1932	735	765	May 14, 1932	2	69.1	50,200	70.9	51,590
1933	750	650	May 22, 1933	6	56.9	41,300	-	-

a Maximum observed.

1/ Published as "near Croyden", 1905; records not equivalent to those for station "near Croydon", 1921-23, 1941-50.

115. Weber River at Devils Slide, Utah 1/

Location.--Lat 41°03'40", long 111°34'25", in SE¼SE¼ sec. 23, T. 4 N., R. 3 E., 350 ft downstream from highway underpass on U. S. Highway 30S, 1½ miles west of Devils Slide, and 1¾ miles downstream from Lost Creek.

Drainage area.--1,100 sq mi, approximately; 1,090 sq mi, approximately, at site in use prior to Oct 1, 1934.

Gage.--Water-stage recorder. Altitude of gage is 5,300 ft (from topographic map). Prior to Oct. 1, 1934, staff gage 1½ miles upstream at different datums.

Average discharge.--45 years (1905-1950), 441 cfs.

Extremes.--1905-50: Maximum discharge observed (revised), 6,600 cfs June 6, 1909 (gage height, 8.0 ft, site and datum then in use); minimum, 18 cfs Sept. 23, 1934, Mar. 6, 1948.

Remarks.--Many diversions for irrigation above station. Flow regulated by Echo Reservoir after May 18, 1930 (see p. 122).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	175	246	346	574	876	119	52.2	73	-
1906	115	157	112	145	157	327	802	1,660	1,850	474	268	280	529
1907	192	215	236	205	408	680	1,930	2,750	2,460	1,600	382	280	945
1908	271	258	240	226	229	317	440	778	1,280	561	252	264	426
1909	330	262	248	667	307	426	1,480	3,260	3,460	971	418	494	1,030
1910	370	394	305	319	348	1,320	1,920	1,230	495	160	136	120	593
1911	168	190	198	290	399	531	593	1,190	1,350	218	119	82.3	444
1912	155	157	157	140	160	260	621	1,610	2,050	308	264	238	510
1913	278	271	170	156	154	252	992	1,130	765	377	219	232	417
1914	302	269	191	242	224	476	1,320	2,380	1,540	425	182	112	640
1915	280	206	159	178	216	316	597	482	891	117	65.2	129	302
1916	147	178	171	175	195	742	†1,410	1,640	1,440	272	224	135	†561
1917	341	240	210	163	191	224	1,060	2,360	2,910	952	239	197	759
1918	205	232	233	202	199	416	535	839	1,300	201	85.7	100	379
1919	244	227	186	125	133	350	560	1,090	376	43.9	50.2	69.3	289
1920	185	230	166	139	176	246	616	3,060	1,710	236	190	181	596
1921	315	337	251	246	247	764	1,210	2,750	2,450	506	256	208	797
1922	185	246	320	210	207	374	937	3,030	2,230	393	414	211	732
1923	161	245	241	235	198	221	1,100	2,670	1,650	603	228	231	650
1924	361	280	215	192	269	220	673	1,050	337	69.2	44.9	68.5	315
1925	106	195	175	188	228	383	590	1,100	800	259	112	160	359
1926	227	218	186	148	165	371	718	1,030	426	153	122	61.5	320
1927	123	179	184	154	180	302	788	1,680	1,370	252	127	163	459
1928	232	318	215	197	174	447	613	2,220	794	151	67.3	66.2	460
1929	125	206	163	154	165	358	641	1,780	1,490	371	241	290	499
1930	214	198	165	151	218	257	680	600	606	220	137	157	300
1931	106	192	182	165	168	171	98.2	190	316	198	64.5	34.7	157
1932	50.8	85.0	93.9	117	140	120	273	1,480	1,080	442	448	208	379
1933	123	156	115	133	168	152	138	374	1,020	442	472	256	295
1934	93.2	†128	101	60.0	46.6	43.2	188	291	234	178	96.5	28.9	125
1935	33.3	44.2	47.7	43.3	47.9	51.0	108	244	1,100	526	465	291	250
1936	142	119	104	130	75	83.8	950	1,621	714	386	418	321	423
1937	155	198	155	130	80	101	675	1,179	582	372	283	302	352
1938	199	204	145	141	85.1	129	831	1,400	904	440	476	368	445
1939	191	210	161	147	155	208	199	460	438	472	368	228	271
1940	105	111	113	91.4	67.1	59.4	79.8	348	374	317	248	132	171
1941	100	148	132	119	101	55.2	83.4	219	502	458	449	291	220
1942	165	185	193	186	176	174	357	774	844	457	418	268	350
1943	141	148	190	152	170	261	714	672	914	570	466	267	389
1944	175	184	153	137	165	128	149	875	996	609	482	382	370
1945	158	153	92.2	92.9	150	126	99.4	309	471	541	355	301	238
1946	132	181	140	162	170	164	901	711	482	369	358	308	340
1947	155	44.8	86.9	126	148	165	180	1,041	538	570	395	282	313
1948	133	188	190	170	151	88.5	459	1,513	621	537	485	279	403
1949	68.7	112	175	170	174	334	629	851	1,120	513	474	287	410
1950	169	213	169	183	208	140	1,013	2,292	1,917	599	493	279	641

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	9,720	15,130	20,590	35,290	52,130	7,320	3,210	4,340	-
1906	7,070	9,340	6,890	8,920	8,720	20,100	47,700	102,000	110,000	29,100	16,500	16,700	383,000
1907	11,800	12,800	14,500	12,600	22,700	41,800	115,000	169,000	146,000	98,400	23,500	16,700	685,000
1908	16,700	15,400	14,800	13,900	13,200	19,500	26,200	47,800	76,200	34,500	15,500	15,700	309,000
1909	20,300	15,600	15,200	41,000	17,000	26,200	88,100	200,000	206,000	59,700	25,700	29,400	744,000
1910	22,800	23,400	18,800	19,600	19,300	81,200	114,000	75,600	29,300	9,840	8,360	7,140	429,000

1/ Published as "near Croyden", 1905-8.

Monthly and yearly runoff, in acre-feet, of Weber River at Devils Slide, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	10,300	11,300	12,200	17,800	22,200	32,600	35,300	73,200	80,300	13,400	7,320	4,900	321,000
1912	9,530	9,340	9,650	8,610	9,200	16,000	37,000	99,000	122,000	18,900	16,200	14,200	370,000
1913	17,100	16,100	10,500	9,590	8,550	15,500	59,000	69,500	45,500	23,200	13,500	13,800	302,000
1914	18,600	16,000	11,700	14,900	12,400	29,300	78,500	146,000	91,600	26,100	11,200	6,660	463,000
1915	17,200	12,300	9,780	10,900	12,000	19,400	35,500	29,600	53,000	7,190	4,010	7,680	219,000
1916	9,040	10,600	10,500	10,800	11,200	45,600	†83,900	101,000	85,700	16,700	13,800	8,030	†407,000
1917	21,000	14,300	12,900	10,000	10,600	13,800	63,100	145,000	173,000	58,500	14,700	11,700	549,000
1918	12,600	13,800	14,300	12,400	11,100	25,600	31,800	51,600	77,400	12,400	5,270	5,950	274,000
1919	15,000	13,500	11,400	7,690	7,390	21,500	33,300	67,000	22,400	2,700	3,090	4,120	209,000
1920	11,400	13,700	10,200	8,550	10,100	15,100	36,700	188,000	102,000	14,500	11,700	10,800	433,000
1921	19,400	20,100	15,400	15,100	13,700	47,000	72,000	169,000	146,000	31,100	15,700	12,400	577,000
1922	11,400	14,600	19,700	12,900	11,500	23,000	55,800	186,000	133,000	24,200	25,500	12,600	530,000
1923	9,900	14,600	14,800	14,400	11,000	13,600	65,500	164,000	98,200	37,100	14,000	13,700	471,000
1924	22,200	16,700	13,200	11,800	15,500	13,500	40,000	64,600	20,100	4,250	2,760	4,080	229,000
1925	†6,520	11,600	10,800	11,600	12,700	23,600	35,100	67,600	47,600	15,900	6,890	9,520	259,000
1926	14,000	13,000	11,400	9,100	9,160	22,800	42,700	63,300	25,300	9,410	7,500	3,660	231,000
1927	7,560	10,700	11,300	9,470	10,000	18,600	46,900	103,000	81,500	15,500	7,810	9,700	332,000
1928	14,300	18,900	13,200	12,100	10,000	27,500	36,500	136,000	47,200	9,280	4,140	3,940	333,000
1929	7,690	12,300	10,000	9,470	9,160	22,000	38,100	109,000	88,700	22,800	14,800	17,300	361,000
1930	13,200	11,800	10,100	9,280	12,100	15,800	40,500	36,900	36,100	13,500	8,420	†9,340	217,000
1931	6,520	11,400	11,200	10,100	9,330	10,500	5,840	11,700	18,800	12,200	3,970	2,060	114,000
1932	3,120	5,060	5,770	7,190	8,050	7,380	16,200	91,000	64,300	27,200	27,500	12,400	275,000
1933	7,560	9,280	7,070	8,180	9,330	9,350	8,210	23,000	60,700	27,200	29,000	15,200	214,000
1934	5,730	7,640	6,210	3,690	2,590	2,660	11,170	17,880	13,950	10,970	5,930	1,720	90,140
1935	2,050	2,630	2,940	2,660	2,660	3,140	6,400	15,030	65,560	32,350	28,610	17,320	181,400
1936	8,740	7,090	6,410	7,990	4,310	5,160	56,540	99,680	42,470	23,740	25,710	19,110	306,900
1937	9,530	11,780	9,540	7,990	4,440	6,210	40,150	72,470	34,640	22,890	17,400	17,990	255,000
1938	12,260	12,130	8,890	8,640	4,730	7,910	49,430	86,070	53,820	27,050	29,270	21,910	322,100
1939	11,720	12,470	9,930	9,070	8,600	12,810	11,850	28,260	26,080	29,040	22,620	13,550	196,000
1940	6,470	6,610	6,940	5,620	3,860	3,650	4,750	21,420	22,280	19,480	15,220	7,830	124,100
1941	6,160	8,800	8,130	7,320	5,620	3,390	4,960	13,450	29,860	28,140	27,590	17,320	†160,700
1942	10,180	11,000	11,840	11,420	9,800	10,700	21,230	47,580	50,220	28,090	25,680	15,940	253,700
1943	8,640	8,800	11,670	9,370	9,420	16,020	42,520	41,290	54,370	35,040	28,670	15,900	281,700
1944	10,730	10,940	9,430	8,430	9,480	7,850	8,890	53,770	59,290	37,460	29,850	22,720	268,600
1945	9,720	9,130	5,670	5,710	8,330	7,750	5,910	19,000	28,050	33,250	21,810	17,940	172,300
1946	8,090	10,770	8,610	9,950	9,460	10,010	53,610	43,690	28,660	22,670	22,010	18,310	245,800
1947	9,510	2,670	5,350	7,780	8,190	10,150	10,730	64,030	32,000	35,040	24,260	16,780	226,500
1948	8,190	11,180	11,680	10,440	8,690	5,440	27,320	93,010	36,960	33,010	29,850	16,630	292,400
1949	4,220	6,660	10,750	10,420	9,640	20,530	37,420	52,300	66,750	31,560	29,160	17,050	296,500
1950	10,420	12,670	10,410	11,270	11,550	8,590	60,250	141,000	114,000	36,800	30,290	16,610	463,900

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	176	a1,650	June8-10,1905	-	-	-	-	-
1906	212	a3,150	June 14, 1906	73	529	383,000	550	399,000
1907	250	a4,620	May 24, 1907	166	945	685,000	955	693,000
1908	250	a2,110	June 18, 1908	175	426	309,000	432	314,000
1909	270	*a6,600	June 6, 1909	217	1,030	744,000	1,050	758,000
1910	290	a2,550	Apr. 28, 1910	106	593	429,000	550	398,000
1911	310	a2,270	Jan. 31, 1911	80	444	321,000	436	316,000
1912	330	a3,910	June 9, 1912	-	510	370,000	529	385,000
1913	360	a2,460	Apr. 2, 1913	105	417	302,000	421	305,000
1914	390	a3,420	May 24, 1914	88	640	463,000	630	456,000
1915	410	a1,430	June 11, 1915	48	302	219,000	289	209,000
1916	440	a2,970	(b)	106	†561	†407,000	586	425,000
1917	460	a4,120	May 16, 1917	-	759	549,000	749	541,000
1918	480	a2,280	June 15, 1918	69	379	274,000	378	273,000
1919	510	a1,630	May 30, 1919	31	289	209,000	282	204,000
1920	510	6,000	May 22, 1920	105	596	433,000	623	452,000
1921	530	a3,810	May 17, 1921	124	797	577,000	784	568,000
1922	550	a4,140	May 8, 1922	142	732	530,000	723	524,000
1923	570	a3,580	May 11, 1923	115	650	471,000	667	483,000
1924	590	a1,360	May 19, 1924	35	315	228,000	283	206,000
1925	610	a1,580	May 22, 1925	59	359	259,000	372	268,000
1926	630	a1,600	May 21, 1926	51	320	231,000	307	222,000
1927	650	a2,730	May 18, 1927	88	459	332,000	482	349,000
1928	670	a2,800	May 13, 1928	52	460	333,000	437	317,000
1929	690	a2,740	May 26, 1929	72	499	361,000	506	366,000
1930	705	a1,240	Apr. 25, 1930	71	300	217,000	292	211,000
1931	720	a462	Nov.25,26, 1930	21	157	114,000	136	98,400
1932	735	a2,440	May 16, 1932	40	379	275,000	393	285,000
1933	750	a1,780	June 2, 1933	30	295	214,000	289	210,000
1934	765	406	Apr.23-25, 1934	18	125	90,140	108	78,180
1935	790	1,910	June 12, 1935	24	250	181,400	271	196,000

* Revised.
† Corrected.
a Maximum observed.
b Mar. 21, Apr. 29, May 7, 1916.

Yearly discharge, in cubic feet per second, of Weber River at Devils Slide, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1936	810	2,230	May 5, 1936	60	423	306,900	435	315,600
1937	830	2,200	May 31, 1937	-	352	255,000	356	257,500
1938	860	2,120	May 17, 1938	76	445	322,100	446	323,000
1939	880	682	May 11, 1939	66	271	196,000	251	181,900
1940	900	565	May 26, 1940	47	171	124,100	175	127,200
1941	930	982	June 15, 1941	45	220	†160,700	236	170,700
1942	960	1,670	May27,28,1942	106	350	253,700	345	249,800
1943	980	2,420	June 2, 1943	98	389	281,700	392	283,700
1944	1010	2,510	June 3, 1944	82	370	268,600	361	262,100
1945	1040	934	June 10, 1945	59	238	172,300	242	175,200
1946	1060	1,990	Apr. 27, 1946	85	340	245,800	326	235,900
1947	1090	1,840	May 9, 1947	32	313	226,500	332	240,000
1948	1120	2,680	May 21, 1948	36	403	292,400	390	283,000
1949	1150	1,880	June 14, 1949	55	410	296,500	426	308,300
1950	1180	3,520	May 24, 1950	94	641	463,900	-	-

† Corrected.

116. 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.

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

Extremes.--1931-50: 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-ft 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 was replaced in 1917 by present concrete dam which forms 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. Capacity table furnished by office of State engineer of Utah. Water is used for irrigation in Davis and Weber Counties.

Cooperation.--Records furnished by Weber River water commissioner; those prior to October 1937 not previously published by Geological Survey.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932	a0	a1,620	2,700	a4,060	5,520	7,900	18,560	28,040	28,690	a22,380	a19,790	a13,310
1933	a12,470	a13,350	14,150	a15,320	a16,520	a18,820	24,900	27,650	28,470	18,220	15,540	a9,770
1934	5,800	a7,360	a9,110	a10,810	a12,710	14,680	a14,850	12,610	8,350	a4,300	589	0
1935	0	a1,940	a2,450	a3,670	a5,080	a7,840	a11,670	a15,050	17,090	15,480	14,210	a13,310
1936	a13,350	14,100	a14,760	a15,770	a17,160	a17,160	21,500	28,620	27,740	a20,810	a16,980	a15,370
1937	15,580	a16,150	a16,770	17,070	a18,150	a20,210	23,860	28,730	27,690	a19,220	3,980	0
1938	a730	a2,190	3,910	a5,320	a6,930	a11,430	a21,240	28,690	26,830	20,090	16,070	12,700
1939	a12,680	a13,730	14,800	a15,580	a16,280	a19,420	a23,380	25,700	23,420	a19,420	15,910	a14,220
1940	a14,510	a15,200	16,150	a17,280	18,530	a21,690	a25,780	27,610	a21,680	a14,870	a7,020	a5,360
1941	a5,630	a6,680	a7,760	a8,750	a10,190	a13,080	a16,500	a20,460	a21,550	17,560	16,570	15,630
1942	16,410	17,580	a18,710	a19,690	a20,580	a21,820	28,000	28,730	27,740	19,940	15,300	14,240
1943	a14,320	15,750	17,310	18,830	20,220	23,460	26,700	28,780	28,780	26,010	22,540	15,000
1944	15,160	16,520	17,720	18,750	19,860	21,650	28,670	28,480	28,760	26,870	23,780	22,310
1945	22,310	22,840	21,000	19,590	21,190	24,660	28,110	28,780	28,760	25,990	a23,020	20,750
1946	a21,110	a23,020	a21,630	a23,370	a20,550	23,150	28,130	28,820	26,650	11,350	a1,330	a100
1947	a2,140	a4,260	a6,460	a8,100	a9,920	a15,610	a22,130	28,740	28,720	a25,910	20,860	a18,790
1948	a18,930	20,160	a22,030	a23,180	23,780	a24,070	a22,960	a27,980	a27,660	a23,640	a20,010	a16,470
1949	13,780	a14,020	a15,040	a16,940	a15,430	a9,930	a24,080	28,500	a28,000	23,740	a17,570	a13,230
1950	a10,890	a11,740	a13,020	a14,690	a16,440	a19,820	23,940	a26,910	28,520	a26,100	a19,150	a14,590

a No gage-height record for last day of month; contents interpolated.

117. 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., 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.

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

Average discharge.--19 years (1931-50), 51.9 cfs.

Extremes.--1931-50: Maximum daily discharge, 412 cfs Apr. 23, 1936; minimum daily, 3.2 cfs Nov. 20, 22, 23, 1948.

Remarks.--East Canyon Reservoir (see elsewhere in this report) completely regulates flow. No diversion between reservoir and station.

Cooperation.--Records prior to October 1937, not previously published by Geological Survey, furnished by Weber River water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	14.4	7.37	7.00	7.55	8.28	11.2	15.9	18.0	65.7	116	60.7	140	39.3
1933	40.0	16.6	14.0	12.5	13.1	14.3	32.6	110	91.1	184	73.9	122	60.7
1934	95.4	14.2	12.1	9.00	9.00	10.3	25.6	52.3	78.1	76.7	73.0	15.1	39.5
1935	14.6	13.1	10.0	7.48	5.00	5.00	5.83	8.35	19.9	38.3	31.5	25.2	15.4
1936	13.2	5.73	6.00	6.68	7.21	33.5	253	119	71.7	125	89.5	43.0	64.4
1937	19.3	18.4	19.7	19.0	15.8	12.5	129	126	87.4	157	254	75.1	78.3
1938	17.9	12.8	6.8	7.0	7.0	8.4	10.9	72.1	92.8	120	88.4	82.4	44.1
1939	29.1	13.2	14.0	14.0	14.8	53.9	29.3	16.4	57.7	69.4	68.7	42.0	35.4
1940	12.2	9.4	6.0	6.0	6.6	7.5	8.8	10.7	96.7	113	129	32.5	36.7
1941	8.6	6.0	6.0	6.0	6.0	6.3	8.7	10.6	33.4	77.7	32.8	31.8	19.6
1942	15.3	9.7	10.0	11.0	11.0	14.5	140	119	86.7	130	90.2	33.9	56.1
1943	17.5	8.4	8.4	9.0	9.9	46.1	125	65.2	89.8	64.1	66.1	139	54.0
1944	25.0	8.62	8.20	8.49	9.09	9.60	26.3	151	123	55.5	60.8	38.3	43.8
1945	25.6	28.2	58.8	54.1	13.3	8.45	45.0	79.7	65.9	60.4	66.5	54.1	46.9
1946	21.7	10.4	51.4	7.3	81.0	57.9	171	128	142	228	157	39.1	91.3
1947	13.5	6.85	5.14	3.75	3.94	6.31	9.22	48.7	86.4	78.0	77.3	57.0	33.2
1948	30.2	24.5	9.22	18.3	29.6	42.0	269	175	108	83.8	73.5	77.9	78.2
1949	67.6	29.6	4.09	15.0	66.9	127	27.6	135	104	98.3	99.5	92.8	72.4
1950	63.1	21.2	10.7	8.89	9.28	13.7	204	212	99.1	73.8	115	94.7	77.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	883	438	430	464	476	686	946	1,110	3,910	7,140	3,730	8,320	28,530
1933	2,460	986	859	769	729	879	1,940	6,750	5,420	11,300	4,540	7,290	43,920
1934	5,870	845	742	553	500	631	1,530	3,220	4,650	4,710	4,490	900	28,640
1935	900	781	615	460	278	307	347	514	1,180	2,350	1,930	1,500	11,160
1936	809	341	369	411	415	2,060	15,040	7,320	4,270	7,690	5,500	2,560	46,780
1937	1,190	1,090	1,210	1,170	875	772	7,670	7,750	5,200	9,640	15,650	4,470	56,690
1938	1,100	762	420	430	389	518	649	4,430	5,520	7,360	5,440	4,900	31,920
1939	1,790	787	861	861	823	3,310	1,750	1,010	3,440	4,270	4,220	2,500	25,620
1940	748	559	369	369	381	458	522	657	5,750	6,950	7,930	1,930	26,620
1941	526	357	369	369	333	387	516	651	1,990	4,780	2,020	1,890	14,190
1942	938	577	615	674	611	893	8,310	7,310	5,160	7,990	5,550	2,020	40,650
1943	1,070	500	518	555	549	2,840	7,430	4,010	5,350	3,940	4,060	8,290	39,110
1944	1,540	513	504	522	523	590	1,560	9,300	7,310	3,420	3,740	2,280	31,800
1945	1,570	1,680	3,610	3,320	739	519	2,680	4,900	3,920	3,710	4,090	3,220	33,960
1946	1,330	620	3,160	449	4,500	3,560	10,200	7,840	8,460	14,020	9,650	2,330	66,120
1947	830	407	316	231	219	388	549	3,000	5,140	4,790	4,750	3,390	24,010
1948	1,860	1,460	567	1,130	1,700	2,580	16,000	10,780	6,400	5,150	4,520	4,640	56,790
1949	4,160	1,760	252	922	3,720	7,820	1,640	8,310	6,160	6,050	6,120	5,520	52,430
1950	3,880	1,260	656	547	515	845	12,120	13,030	5,900	4,540	7,050	5,640	55,970

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1932	(a)	247	July10,11,12,1932	7	39.3	28,530	42.8	31,090
1933	(a)	252	July 13, 1933	12.5	60.7	43,920	65.0	47,070
1934	(a)	136	Oct.1,3, 1933	9	39.5	28,640	32.4	23,480
1935	(a)	47	July 3, 1935	5	15.4	11,160	14.4	10,380
1936	(a)	412	Apr. 23, 1936	5	64.4	46,780	67.2	48,760
1937	(a)	397	Apr. 23,24,1937	7	78.3	56,690	76.6	55,480
1938	860	187	May 19, 1938	6	44.1	31,920	45.7	33,070
1939	880	185	Mar. 29, 1939	11	35.4	25,620	32.9	23,860
1940	900	150	Aug. 16, 1940	6	36.7	26,620	36.1	26,200

a Annual reports of Weber River water commissioner.

Yearly discharge, in cubic feet per second, of East Canyon Creek near Morgan, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	130	June27,28,1941	6	19.6	14,190	20.8	15,070
1942	960	259	Apr.11,12,13,1942	9	56.1	40,650	56.1	40,610
1943	980	198	June 2, 1943	7	54.0	39,110	54.7	39,570
1944	1010	†289	June 4, 1944	8.2	43.8	31,800	49.7	36,100
1945	1040	150	May 2, 1945	7.5	46.9	33,960	44.5	32,210
1946	1060	284	Apr.24,25, 1946	6.8	91.3	66,120	86.4	62,560
1947	1090	134	June 10,12,1947	3.6	33.2	24,010	36.4	26,340
1948	1120	299	Apr. 25, 1948	8.9	78.2	56,790	81.4	59,070
1949	1150	304	May 22, 1949	3.2	72.4	52,430	71.9	52,060
1950	1180	243	Apr.10,24, 1950	7.8	77.3	55,970	-	-

† Corrected.

118. Hardscrabble Creek near Porterville, Utah

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

Drainage area.--24.9 sq mi.

Supplemental records available.--December 1937 to August 1940, fragmentary records of discharge on file in office of State engineer.

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

Average discharge.--9 years (1941-50), 33.5 cfs.

Extremes.--1941-50: Maximum discharge, 464 cfs (revised) Aug. 20, 1945 (gage height, 3.60 ft); minimum recorded, 3.0 cfs Feb. 11, 1944.

Remarks.--A small trans-basin canal diverts water from Arthurs Fork, a tributary of Hardscrabble Creek, to Farmington Creek for irrigation in vicinity of Farmington.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	8.6	8.3	7.0	6.0	6.0	7.9	114	140	95.6	20.7	9.5	7.3	35.9
1943	8.9	9.3	10.3	8.7	9.9	17.1	115	92.2	73.0	20.2	10.4	7.8	31.9
1944	9.26	8.63	7.24	6.04	6.62	8.67	46.0	131	80.7	18.2	8.88	7.23	28.2
1945	7.03	6.50	6.61	6.48	11.4	12.3	36.0	120	88.8	22.2	12.1	8.97	28.2
1946	9.33	8.22	6.33	6.23	8.34	26.6	131	114	57.1	14.3	8.62	7.36	33.1
1947	9.73	8.47	8.99	6.50	6.97	23.8	66.2	127	45.7	16.1	9.49	7.41	28.2
1948	8.56	9.58	8.32	7.93	6.99	9.35	94.8	183	64.3	21.5	10.2	6.37	35.9
1949	8.27	8.24	7.57	7.0	7.54	17.2	114	179	69.3	21.0	9.68	7.80	38.2
1950	9.38	9.14	6.65	7.0	10.2	22.0	97.4	184	105	27.6	12.0	9.22	41.8

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	510	492	432	369	333	488	6,790	8,610	5,690	1,270	583	434	26,000
1943	549	555	631	536	547	1,050	6,840	5,670	4,340	1,240	639	464	23,060
1944	570	513	445	371	381	533	2,740	8,050	4,800	1,120	546	430	20,500
1945	432	387	407	399	636	757	2,140	7,370	5,270	1,370	747	534	20,450
1946	574	489	389	383	463	1,630	7,820	7,000	3,400	877	530	438	23,990
1947	598	504	553	400	387	1,460	3,940	7,830	2,720	988	584	441	20,400
1948	526	570	512	487	402	575	5,640	11,220	3,830	1,320	626	379	26,090
1949	509	490	466	430	419	1,060	6,810	11,030	4,120	1,290	595	464	27,680
1950	577	544	409	430	567	1,350	5,800	11,340	6,240	1,700	739	549	30,250

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	*311	May 25, 1942	-	35.9	26,000	36.3	26,300
1943	980	216	Apr. 17, 1943	7	31.9	23,060	31.6	22,850
1944	1010	*234	June 2, 1944	5.5	28.2	20,500	27.9	20,190
1945	1040	*464	Aug. 20, 1945	5	28.2	20,450	28.6	20,680
1946	1060	257	Apr. 26, 1946	-	33.1	23,990	33.4	24,200
1947	1090	233	May 7, 1947	6.2	28.2	20,400	28.1	20,360
1948	1120	409	May 17, 1948	5.2	35.9	26,090	35.7	25,940
1949	1150	337	Apr. 24, 1949	-	38.2	27,680	38.3	27,750
1950	1180	383	May 24, 1950	-	41.8	30,250	-	-

* Revised.

119. Weber River at Gateway, Utah 1/

Location.--Lat 41°08', long 111°50', in NW¼SW¼ sec. 27, T. 5 N., R. 1 E., 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.

Supplemental records available.--July to December 1893, gage heights only, and April to June 1903, gage heights and discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer). Prior to July 12, 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, at site 50 ft downstream at present datum.

Average discharge.--30 years (1920-50), 587 cfs.

Extremes.--1889-1903, 1919-50: Maximum discharge observed, 7,980 cfs May 31, 1896 (gage height, 8.80 ft); minimum, 45 cfs Sept. 24, 1934.

Remarks.--Many diversions for irrigation above station. Flow regulated by Echo and East Canyon Reservoirs (see p.122 and p.128). Extensive developments of diversions during period of record have changed the regimen of flow.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	208	430	457	547	1,091	2,184	4,528	2,017	549	280	265	-
1891	331	298	290	303	461	625	1,502	2,752	1,621	844	338	402	815
1892	599	573	534	599	695	800	900	2,705	2,867	819	239	187	959
1893	240	357	476	264	200	912	1,605	3,772	2,991	-	-	-	-
1894	-	-	-	-	-	-	-	-	-	-	109	238	-
1895	279	237	209	146	138	279	1,512	2,007	849	188	154	187	516
1896	278	333	339	478	480	945	1,671	3,172	3,348	536	292	274	1,011
1897	357	548	420	290	294	462	2,255	4,012	1,223	175	160	209	870
1898	462	395	339	271	320	392	1,329	1,606	752	291	92	171	535
1899	302	439	416	445	491	780	2,642	3,556	3,693	1,183	412	322	1,223
1900	-	-	-	-	-	-	-	-	-	-	123	142	-
1901	297	484	-	263	681	707	948	1,981	712	207	200	210	-
1902	272	-	-	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	-	-	-	227	174	-	-
1920	-	-	-	-	-	-	-	-	-	-	441	326	-
1921	442	482	353	382	429	1,340	2,030	4,080	3,170	719	507	360	1,190
1922	310	370	451	358	349	755	1,650	4,760	2,730	609	588	393	1,120
1923	296	376	357	368	318	448	2,060	4,030	2,160	741	474	393	1,000
1924	479	368	286	260	387	342	952	1,210	490	239	156	108	440
1925	180	281	230	231	319	652	1,080	1,500	1,000	436	310	236	538
1926	332	318	296	233	260	679	1,410	1,390	516	279	245	108	506
1927	187	251	271	235	286	524	1,380	2,440	1,700	496	326	315	702
1928	329	479	354	329	315	880	1,050	2,970	936	387	288	152	708
1929	191	308	253	241	270	638	1,170	2,570	1,720	578	456	410	736
1930	283	265	243	197	308	427	1,000	781	652	333	286	298	422
1931	247	243	233	204	214	262	254	326	333	238	164	62.7	232
1932	95.2	136	151	173	216	326	928	2,300	1,420	597	548	372	606
1933	223	247	194	204	214	267	608	1,160	1,450	645	532	356	509
1934	202	183	160	116	113	119	220	326	297	248	167	62.3	185
1935	62.0	90.5	99.3	92.5	105	141	350	668	1,313	543	488	319	356
1936	208	185	159	186	145	284	2,311	2,848	1,052	535	509	382	734
1937	237	279	235	182	182	300	1,371	2,289	907	556	520	406	622
1938	279	290	234	209	170	366	1,330	2,054	1,118	562	533	462	636
1939	286	296	241	214	208	493	636	669	531	511	412	280	399
1940	178	173	166	149	142	238	386	556	461	412	367	199	286
1941	144	195	179	168	191	182	339	643	645	524	479	350	337
1942	243	251	264	241	244	291	1,190	1,340	1,140	599	519	343	557
1943	213	226	277	246	285	545	1,430	999	1,215	623	537	413	584
1944	259	259	223	183	211	225	430	1,375	1,357	645	536	439	512
1945	242	248	206	200	323	293	405	914	868	600	479	389	431
1946	220	269	286	254	316	475	1,704	1,211	709	598	531	396	581
1947	251	149	172	190	235	412	567	1,491	772	623	497	377	480
1948	222	287	264	252	269	226	1,260	2,390	959	600	554	382	640
1949	201	212	246	250	272	655	1,310	1,600	1,420	615	573	415	649
1950	314	316	248	302	366	400	1,678	3,103	2,279	731	626	451	903

1/ Published as "near Uinta", 1889-1903.

Monthly and yearly runoff, in acre-feet, of Weber River at Gateway, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	12,380	26,440	28,100	30,360	67,100	129,900	278,500	120,000	33,760	17,220	15,770	-
1891	20,360	17,730	17,840	18,630	25,590	38,440	89,370	169,200	96,450	51,910	20,790	23,920	590,200
1892	36,840	34,090	32,840	36,840	39,960	49,200	53,550	166,400	170,600	50,370	14,700	11,130	696,500
1893	14,760	21,240	29,270	16,240	11,100	56,090	95,500	232,000	178,000	-	-	-	-
1894	-	-	-	-	-	-	-	-	-	-	6,700	14,160	-
1895	17,080	14,100	12,850	8,980	7,660	17,160	89,970	123,400	50,520	11,560	9,470	11,130	373,900
1896	17,090	19,820	20,840	29,390	27,610	58,120	99,430	195,000	199,200	32,960	17,950	16,300	733,700
1897	21,950	32,670	25,820	17,830	16,330	28,470	134,200	246,700	72,770	10,760	9,840	12,440	629,800
1898	28,410	23,500	20,840	16,660	17,770	24,100	79,080	98,750	44,750	17,890	5,660	10,180	387,600
1899	18,570	26,120	25,580	27,360	27,270	47,980	157,200	218,600	219,700	72,740	25,330	19,160	885,600
1900	-	-	-	-	-	-	-	-	-	-	7,560	8,450	-
1901	18,260	28,800	-	15,170	37,820	43,470	56,410	121,800	42,370	12,730	12,300	12,500	-
1902	16,720	-	-	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	-	-	-	14,000	10,700	-	-
1920	-	-	-	-	-	-	-	-	-	-	27,100	19,400	-
1921	27,200	28,700	21,700	23,500	23,800	82,400	121,000	251,000	189,000	44,200	31,200	21,400	865,000
1922	19,100	22,000	27,700	22,000	19,400	46,400	98,200	293,000	162,000	37,400	36,200	23,400	807,000
1923	18,200	22,400	22,000	22,600	17,700	27,500	123,000	248,000	129,000	45,600	29,100	23,400	728,000
1924	29,500	21,900	17,600	16,000	22,300	21,000	56,600	74,400	29,200	14,700	9,590	6,430	319,000
1925	11,100	16,700	14,100	14,200	17,700	40,100	64,300	92,200	59,500	26,800	19,100	14,000	390,000
1926	20,400	18,900	18,200	14,300	14,400	41,800	83,900	85,500	30,700	17,200	15,100	6,430	367,000
1927	11,500	14,900	16,700	14,400	15,900	32,200	82,100	150,000	101,000	30,500	20,000	18,700	508,000
1928	20,200	28,500	21,800	20,200	18,100	54,100	62,500	183,000	55,700	23,800	17,700	9,040	515,000
1929	11,700	18,300	15,600	14,800	15,000	39,200	69,600	158,000	102,000	35,500	28,000	24,400	532,000
1930	17,400	15,800	14,900	12,100	17,100	26,300	59,500	48,000	38,800	20,500	17,600	17,700	306,000
1931	15,200	14,500	14,300	12,500	11,900	16,100	15,100	20,000	19,800	14,600	10,100	3,730	168,000
1932	5,850	8,090	9,280	10,600	12,400	20,000	55,200	141,000	84,500	36,700	33,700	22,100	439,000
1933	13,700	14,700	11,900	12,500	11,900	16,400	36,200	71,300	86,300	39,700	32,700	21,200	368,000
1934	12,390	10,890	9,870	7,130	6,290	7,320	13,090	20,050	17,680	15,270	10,240	3,710	133,900
1935	3,810	5,390	6,110	5,680	5,840	8,700	20,820	41,100	78,110	33,410	29,980	18,960	257,900
1936	12,770	11,010	9,780	11,450	8,330	17,440	137,500	175,100	62,580	32,870	31,290	22,750	532,900
1937	14,570	16,630	14,480	11,180	10,130	18,460	79,570	140,800	53,940	34,170	31,990	24,180	450,100
1938	17,180	17,250	14,370	12,830	9,440	22,500	79,160	126,300	66,550	34,580	32,750	27,470	460,400
1939	17,600	17,610	14,800	13,150	11,550	30,330	37,870	41,150	51,620	31,410	25,330	16,680	289,100
1940	10,970	10,300	10,200	9,180	8,180	14,630	22,990	34,180	27,440	25,320	22,560	11,820	207,800
1941	8,860	11,590	10,980	10,310	10,600	11,210	20,190	39,510	38,390	32,230	29,450	20,820	244,100
1942	14,930	14,950	16,220	14,830	13,520	17,870	70,980	82,350	68,110	36,800	31,920	20,410	402,900
1943	13,110	13,420	17,060	15,130	15,840	33,490	85,080	61,450	72,290	38,290	33,030	24,570	422,800
1944	15,900	15,420	13,690	11,270	12,130	13,850	25,570	84,560	80,720	39,650	32,950	26,110	371,800
1945	14,880	14,740	12,690	12,330	17,940	18,010	24,110	56,190	51,680	36,910	29,460	23,150	312,100
1946	13,540	16,030	17,560	15,650	17,560	29,220	101,400	74,450	42,210	36,770	32,650	23,560	420,600
1947	15,460	8,860	10,600	11,710	13,040	25,300	33,760	91,650	45,920	38,330	30,580	22,440	347,600
1948	13,660	17,060	16,250	15,480	15,500	13,920	75,120	146,700	57,060	36,910	34,050	22,760	464,500
1949	12,340	12,640	15,100	15,370	15,130	40,270	78,130	98,180	84,710	37,790	35,210	24,690	469,600
1950	19,280	18,780	15,270	18,600	20,310	24,610	99,880	190,800	135,600	44,960	38,470	26,860	653,400

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(a)	b5,460	May 1890	-	-	-	1,073	776,600
1891	(a)	b4,660	May 1891	200	815	590,200	881	638,100
1892	(a)	b5,760	May 1892	100	959	696,500	906	658,000
1893	(a,c)	b7,280	May 17, 1893	-	-	-	-	-
1894	(c)	-	-	-	-	-	-	-
1895	(d)	b2,400	Apr.30,May4,1895	90	516	373,900	535	387,600
1896	(e)	b7,980	May 31, 1896	155	1,011	733,700	1,042	756,400
1897	(f)	b5,340	May 7, 1897	160	870	629,800	859	622,100
1898	(g)	b2,120	Apr. 22, 1898	65	535	387,600	532	385,100
1899	(h)	b4,770	May 12, 1899	210	1,223	885,600	-	-
1900	(i)	-	-	-	-	-	-	-
1901	66	b2,420	May 4,5, 1901	-	-	-	-	-
1902	66	-	-	-	-	-	-	-
1919	530	-	-	-	-	-	-	-
1920	530	-	-	-	-	-	-	-
1921	530	5,500	May17,18,1921	-	1,190	865,000	1,180	856,000
1922	550	6,720	May 8, 1922	-	1,120	807,000	1,110	801,000
1923	570	5,380	May 19, 1923	278	1,000	728,000	1,010	735,000
1924	590	1,740	May 4, 1924	85	440	319,000	403	292,000
1925	610	1,940	May 22, 1925	123	538	390,000	560	405,000

a 14th Ann. Rept., Pt. 2.
b Maximum observed.
c Bull. 131.
d Bull. 140.
e 18th Ann. Rept., Pt. 4.
f 19th Ann. Rept., Pt. 4.
g 20th Ann. Rept., Pt. 4.
h 21st Ann. Rept., Pt. 4.
i 22nd Ann. Rept., Pt. 4.

Yearly discharge, in cubic feet per second, of Weber River at Gateway, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	2,460	Apr. 6, 1926	95	506	367,000	487	352,000
1927	650	3,810	May 17, 1927	170	702	508,000	740	535,000
1928	670	4,070	May 10, 1928	106	708	515,000	674	490,000
1929	690	3,760	May 24, 1929	110	736	532,000	739	535,000
1930	705	1,660	Apr. 25, 1930	-	422	306,000	417	302,000
1931	720	574	May 3, 1931	48	232	168,000	203	147,000
1932	735	3,580	May 15, 1932	79	606	439,000	630	456,000
1933	750	2,870	June 1, 1933	-	509	368,000	500	361,000
1934	765	410	Apr. 26, 1934	46	185	133,900	160	116,100
1935	790	2,180	June 12, 1935	47	356	257,900	381	276,200
1936	810	4,380	Apr. 23, 1936	100	734	532,900	749	545,000
1937	830	3,230	May 15, 1937	124	622	450,100	626	453,200
1938	860	2,990	May 17, 1938	143	636	460,400	638	461,600
1939	880	1,170	Mar. 22, 1939	139	399	289,100	374	270,600
1940	900	1,100	Mar. 27, 1940	105	286	207,800	286	207,700
1941	930	1,050	June 15,16,1941	110	337	244,100	357	258,800
1942	960	2,770	Apr. 5, 1942	219	557	402,900	553	400,400
1943	980	2,970	June 3, 1943	173	584	422,800	586	424,200
1944	1010	3,270	June 4, 1944	160	512	371,800	508	369,100
1945	1040	1,770	June 6, 1945	170	431	312,100	438	316,900
1946	1060	3,320	Apr. 28, 1946	180	581	420,600	564	408,400
1947	1090	2,480	May 6, 1947	105	480	347,600	497	359,700
1948	1120	4,150	May 19, 1948	132	640	464,500	630	457,600
1949	1150	2,700	May 22, 1949	181	649	469,600	667	482,800
1950	1180	4,810	May 24, 1950	-	903	653,400	-	-

120. South Fork Ogden River near Huntsville, Utah

Location.--Lat 41°16', long 111°40', in SE¼ sec. 12, T. 6 N., R. 2 E., 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.

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 datums.

Average discharge.--29 years (1921-1950), 107 cfs.

Extremes.--1921-50: Maximum discharge, 1,780 cfs May 4, 1936 (gage height, 5.45 ft), from rating extended above 860 cfs; minimum observed, 20 cfs Nov. 25, 1931, July 28, 1934.

Remarks.--Small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	-	-	368	884	315	93.9	62.0	55.7	-
1922	53.4	54.3	53.6	53.8	53.7	104	266	834	244	77.9	57.8	50.0	159
1923	50.4	50.7	47.6	49.0	49.6	75.2	307	777	212	888	60.9	50.8	152
1924	54.5	51.7	45.2	42.2	53.1	57.1	211	314	107	52.3	40.7	38.8	88.9
1925	40.9	42.5	40.6	42.5	58.4	111	295	336	143	68.4	47.7	46.4	106
1926	46.8	44.9	43.5	37.2	39.3	84.5	327	187	62.6	41.8	35.9	35.6	82.2
1927	37.8	38.6	40.7	42.3	52.7	99.7	345	620	207	70.3	49.8	48.1	138
1928	47.5	50	52	50	55	170	284	618	117	60.0	46.5	43.3	133
1929	44.8	44.1	40	40	40.2	89.9	243	625	171	60.8	46.3	47.3	125
1930	43.6	42.6	41.8	41.0	42.1	62.2	207	165	68.2	39.4	38.7	37.1	69.1
1931	39.9	38.1	37.5	38.4	39.2	43.2	80.6	100	38.8	28.5	27.3	28.1	45.0
1932	30.8	31.6	31.5	32	39.4	91.3	390	770	198	65.5	41.0	38.5	147
1933	37.5	37.7	35.0	36	35.7	56.8	197	467	249	51.7	38.0	35.2	107
1934	39.6	38.3	38.0	38	36.5	47.5	66.8	37.7	28.4	23.8	23.1	24.2	36.8
1935	29.3	31.9	34.4	37.3	47.5	59.8	207	335	128	41.1	30.6	28.0	84.3
1936	30.5	32.4	32.2	32.2	37.1	83.7	702	818	145	60.6	43.5	38.9	172
1937	38.7	37.9	36.0	37.4	39.4	71.0	221	555	127	57.1	39.9	35.9	109
1938	39.9	41.1	41.5	41.5	38.9	98.1	353	394	119	56.2	42.5	38.9	109
1939	37.7	39.2	37.5	36	36	108	281	162	58.6	37.5	32.4	32.6	74.9
1940	33.7	32.5	32.1	32.7	38.2	83.6	183	152	43.7	29.8	26.8	28.5	59.7
1941	30.8	31.9	29.7	30.4	37.4	57.1	132	216	61.7	34.5	30.2	29.3	60.2
1942	32.7	33.4	35.0	31.7	34.3	53.6	346	258	107	43.5	32.6	31.9	86.6
1943	33.1	33.9	34.2	37.1	53.1	105	512	322	164	62.7	43.5	38.4	120
1944	39.0	38.2	36.3	36.1	37.1	43.6	121	368	177	56.6	40.1	37.7	86.1
1945	38.2	39.0	35.4	35.3	41.6	65.9	169	440	275	73.8	50.8	42.5	109
1946	42.2	47.0	51.7	52.9	51.3	142	666	348	130	58.8	45.1	41.8	139
1947	45.7	46.1	46.9	38	43.8	84.5	206	340	115	60.7	47.6	43.0	93.4
1948	42.0	41.8	41.7	43.8	42.0	47.6	293	631	152	62.8	44.0	40.1	124
1949	40.7	42.0	42.3	40	43.2	108	460	497	158	69.1	49.5	44.5	133
1950	49.3	45.3	42.9	56.1	71.9	116	453	659	285	89.8	59.2	51.0	165

Monthly and yearly runoff, in acre-feet, of South Fork Ogden River near Huntsville, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	-	-	21,900	54,400	18,700	5,770	3,810	3,310	-
1922	3,280	3,230	3,300	3,310	2,980	6,400	15,800	51,300	14,500	4,790	3,550	2,980	115,000
1923	3,100	3,020	2,930	3,010	2,750	4,620	18,300	47,800	12,600	5,460	3,740	3,020	110,000
1924	3,350	3,080	2,780	2,590	3,050	3,510	12,600	19,300	6,370	3,220	2,500	2,310	64,700
1925	2,510	2,530	2,500	2,610	3,240	6,820	17,600	20,700	8,510	4,210	2,930	2,760	76,900
1926	2,880	2,670	2,670	2,290	2,180	5,200	19,500	11,500	3,720	2,570	2,210	2,120	59,500
1927	2,320	2,300	2,500	2,600	2,930	6,130	20,500	38,100	12,300	4,320	3,060	2,860	99,900
1928	2,920	2,980	3,200	3,070	3,160	10,500	16,900	38,000	6,960	3,690	2,860	2,580	96,800
1929	2,750	2,620	2,460	2,460	2,230	5,530	14,500	38,400	10,200	3,740	2,850	2,810	90,600
1930	2,680	2,530	2,570	2,520	2,340	3,820	12,300	10,100	4,060	2,420	2,380	2,210	49,900
1931	2,450	2,270	2,310	2,360	2,180	2,660	4,800	6,150	2,310	1,750	1,680	1,670	32,600
1932	1,890	1,880	1,940	1,970	2,270	5,610	23,200	47,300	11,800	4,030	2,520	2,290	107,000
1933	2,310	2,240	2,150	2,210	1,980	3,490	11,700	28,700	14,800	3,180	2,340	2,090	77,200
1934	2,440	2,280	2,330	2,340	2,030	2,920	3,970	2,320	1,690	1,460	1,420	1,440	26,640
1935	1,800	1,900	2,110	2,290	2,640	3,680	12,300	20,580	7,640	2,530	1,880	1,670	61,020
1936	1,880	1,930	1,980	1,980	2,140	5,150	41,770	50,300	8,670	3,730	2,680	2,320	124,500
1937	2,380	2,250	2,220	2,300	2,190	4,370	13,130	34,150	7,580	3,510	2,450	2,130	78,660
1938	2,460	2,440	2,550	2,550	2,160	6,030	21,010	24,210	7,070	3,450	2,610	2,320	78,860
1939	2,320	2,330	2,300	2,210	2,000	6,630	16,700	9,990	3,480	2,310	1,990	1,940	54,200
1940	2,070	1,930	1,970	2,010	2,200	5,140	10,920	9,340	2,600	1,830	1,650	1,700	43,360
1941	1,890	1,900	1,830	1,870	2,080	3,510	7,850	13,260	3,670	2,120	1,860	1,750	43,590
1942	2,010	1,990	2,150	1,950	1,900	3,300	20,570	15,890	6,340	2,680	2,000	1,900	62,680
1943	2,030	2,020	2,100	2,280	2,950	6,450	30,490	19,800	9,760	3,860	2,680	2,280	86,700
1944	2,400	2,270	2,230	2,220	2,140	2,680	7,200	22,640	10,540	3,480	2,460	2,250	62,510
1945	2,350	2,320	2,170	2,170	2,310	4,050	10,060	27,070	16,380	4,540	3,130	2,530	79,080
1946	2,600	2,800	3,180	3,250	2,850	8,720	39,620	21,420	7,710	3,610	2,770	2,490	101,000
1947	2,810	2,750	2,880	2,340	2,430	5,200	12,270	20,880	6,850	3,730	2,930	2,560	67,630
1948	2,580	2,490	2,560	2,690	2,420	2,930	17,460	38,790	9,060	3,860	2,710	2,390	89,940
1949	2,500	2,500	2,600	2,460	2,400	6,630	27,380	30,530	9,400	4,250	3,040	2,650	96,340
1950	3,030	2,700	2,640	3,450	3,990	7,160	26,950	40,500	16,940	5,520	3,640	3,030	119,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1921	530	†1,340	May 16, 1921	-	-	-	-	-
1922	550	1,380	May 6, 1922	-	159	115,000	158	114,700
1923	570	1,450	May 10, 1923	-	152	110,000	153	110,500
1924	590	618	May 4, 1924	35	88.9	64,700	86.9	62,990
1925	610	523	May 8, 1925	30	106	76,900	107	77,600
1926	630	508	Apr. 21, 1926	32	82.2	59,500	80.6	58,410
1927	650	1,220	Apr. 30, 1927	35	138	99,900	141	101,900
1928	670	1,180	Apr. 28, 1928	42	133	96,800	132	95,550
1929	690	1,060	May 14, 1929	-	125	90,600	125	90,500
1930	705	412	Apr. 25, 1930	35	69.1	49,900	68.1	49,180
1931	720	*184	May 5, 1931	26	45.0	32,600	43.2	31,270
1932	735	1,480	May 14, 1932	-	147	107,000	148	107,700
1933	750	876	May 21, 1933	-	107	77,200	107	77,500
1934	765	113	July 21, 1934	22	36.8	26,640	35.1	25,400
1935	790	516	May 10, 1935	25	84.3	61,020	84.2	60,980
1936	810	1,780	May 4, 1936	28	172	124,500	173	125,700
1937	830	1,090	May 8, 1937	30	109	78,660	109	79,260
1938	860	944	Apr. 22, 1938	31	109	78,860	108	78,360
1939	880	397	Apr. 30, 1939	-	74.9	54,200	73.5	53,220
1940	900	282	Apr. 21, 1940	26	59.7	43,360	59.2	43,010
1941	930	353	May 2, 1941	25	60.2	43,590	60.9	44,120
1942	960	597	Apr. 13, 1942	27	86.6	62,680	86.6	62,680
1943	980	995	Apr. 23, 1943	28	120	86,700	121	87,450
1944	1010	611	May 14, 1944	33	86.1	62,510	86.0	62,450
1945	1040	985	May 4, 1945	33	109	79,080	112	80,820
1946	1060	1,430	Apr. 18, 1946	-	139	101,000	139	100,900
1947	1090	778	May 3, 1947	-	93.4	67,630	92.3	66,820
1948	1120	1,280	May 17, 1948	-	124	89,940	124	89,910
1949	1150	1,020	Apr. 24, 1949	-	133	96,340	134	97,110
1950	1180	1,300	May 18, 1950	39	165	119,600	-	-

* Revised.
† Corrected.

121. Middle Fork Ogden River near Huntsville, Utah

Location.--Lat 41°16', long 111°48', in SE¼ sec. 11, T. 6 N., R. 1 E., a quarter of a mile downstream from Spring Creek, three-quarters of a mile east of Artesian Park, 1 mile upstream from confluence with South Fork, and 1¾ miles northwest of Huntsville.

Gage.--Water-stage recorder since Nov. 20, 1925. Prior to Oct. 16, 1925, staff gage a quarter of a mile upstream at different datum.

Extremes.--1925-26: Not determined.

Remarks.--Below all diversions except two or three small ditches supplying hay meadows below station. Original site above confluence with Spring Creek, but records include flow of Spring Creek.

Cooperation.--Records for period June 22 to Oct. 15, 1925, furnished by Ogden River water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	-	-	28.1	25.3	33.0	-
1926	29.7	18.7	20.4	13.2	14.4	68.4	194	104	33.1	27.9	20.4	12.5	46.4
1927	‡15.6	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; Oct. 29-31 estimated at 12 cfs.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	-	-	1,730	1,560	1,960	-
1926	1,830	1,110	1,250	812	800	4,210	11,500	6,400	1,970	1,720	1,250	744	33,600
1927	‡962	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; Oct. 29-31 estimated at 12 cfs.

122. Ogden River at Eden, Utah

Location.--Lat 41°16', long 111°49', in sec. 15, T. 6 N., R. 1 E., just downstream from North Fork, 1½ miles upstream from Wheeler Creek, 2½ miles south of Eden, and about 10 miles east of Ogden.

Drainage area.--300 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,825 ft (from topographic map).

Remarks.--Station discontinued Dec. 31, 1896, because of backwater caused by diversion dam of Pioneer Electric Power Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	84	56	57	-
1896	66	71	63	83	87	230	-	-	-	141	90	84	-
1897	82	95	91	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	5,160	3,440	3,390	-
1896	4,060	4,220	3,870	5,100	5,000	14,100	-	-	-	8,680	5,530	5,000	-
1897	5,040	5,650	5,600	-	-	-	-	-	-	-	-	-	-

123. 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.

Gage.--Staff gage. Datum of gage is at mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Extremes.--1936-50: 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, 43,580 acre-ft between elevations 4,818 ft (sill of trash-rack structure) and 4,872 ft (top of spillway gates) above mean sea level. During September 1939 sills of radial spillway gates were raised one foot, thus changing top of spillway gates from elevation 4,871 to 4,872 ft. Dead storage, 45 acre-ft (below elevation 4,818 ft), is included in figures in table herewith. Water is used for irrigation on Ogden River project.

Contents, on last day of month, in acre-feet, of Pine View Reservoir near Ogden, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1937	-	1,460	†4,570	3,160	647	1,980	11,580	25,430	25,090	21,000	14,730	10,090
1938	10,870	12,390	10,710	13,970	16,010	26,110	32,790	41,840	39,330	35,240	28,800	24,910
1939	23,300	16,580	10,030	3,320	2,860	10,650	39,560	40,770	36,700	29,270	21,530	17,490
1940	17,630	18,340	18,760	14,040	12,770	18,680	38,140	40,690	31,700	20,990	9,270	7,200
1941	5,800	4,540	2,850	1,590	2,840	6,620	29,010	43,580	40,150	33,200	26,220	21,880
1942	19,820	18,890	15,520	10,440	7,310	6,320	41,080	43,320	39,850	32,130	22,670	17,540
1943	16,120	16,830	12,610	11,220	10,290	22,840	37,880	43,490	41,640	32,430	22,260	15,230
1944	14,530	15,270	11,100	10,320	10,080	9,410	19,900	43,370	41,670	30,650	18,740	10,120
1945	5,910	653	730	799	2,440	7,350	29,220	43,630	43,210	33,740	26,100	15,770
1946	616	527	2,690	2,530	977	13,300	41,910	43,580	36,950	25,550	14,920	8,310
1947	8,190	9,290	4,200	3,070	3,810	14,590	32,670	43,160	40,600	27,770	18,950	13,010
1948	8,700	674	2,850	3,300	1,580	1,390	26,380	43,580	41,090	29,020	17,660	9,950
1949	9,360	10,090	8,180	3,370	1,560	4,810	29,850	43,580	41,330	30,330	18,780	11,420
1950	11,220	11,820	9,160	8,920	10,680	6,190	21,910	41,300	42,740	34,400	23,570	15,410

† Corrected.

124. Ogden River near Ogden, Utah

Location.--Lat 41°15'17", long 111°50'47", in NE¼SW¼ sec. 16, T. 6 N., R. 1 E., 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.

Gage.--Water-stage recorder. Datum of gage is 4,798.30 ft above mean sea level (levels by Bureau of Reclamation). Prior to Oct. 29, 1912, hook gage, Oct. 1, 1931, to Aug. 23, 1932, chain gage, and Aug. 24, 1932, to Mar. 21, 1937, water-stage recorder, all at same site at different datums.

Average discharge.--27 years (1904-12, 1931-50), 249 cfs (combined flow of river and pipeline, unadjusted for storage in Pine View Reservoir).

Extremes.--1904-12, 1932-37: Maximum combined daily discharge (flow in river and pipeline), 3,430 cfs Apr. 23, 1936; no flow Nov. 19, 20, 22, Dec. 15, 1936, when reservoir gates were closed. For river only, momentary maximum discharge was 3,700 cfs Apr. 24, 1936 (gage height, 11.48 ft), when pipeline was not in operation.

Remarks.--Records give combined flow of river and of the pipeline which diverts water above station for irrigation and power development. Pipeline has diverted at Pine View Dam since its construction in 1936, and at a small diversion dam at about the same site prior to that. 1937-45 flow in pipeline was determined by combining the flow as distributed from it at mouth of Ogden Canyon to Ogden-Brigham Canal, South Ogden Canal, and tailrace of Utah Power & Light Co.'s powerplant. Records do not include an unmeasured discharge from pipeline which spills at No. 7 tunnel near mouth of canyon; this discharge is estimated to have been one or two cubic feet per second since 1945 and much higher prior to 1945. Flow of river affected by storage in Pine View Reservoir (capacity, 41,798 acre-ft, see p.135) beginning November 1936 and by diversions for irrigation and municipal supply above Pine View Reservoir. Records for water years 1938-50 computed by combining flow of river as published for station "below Pine View Dam, near Ogden" and flow in pipeline.

Cooperation.--Records for river prior to July 1932 furnished by Utah Power & Light Co. and those for January 1935 to September 1937 by Bureau of Reclamation. Records for pipeline for entire period furnished by Utah Power & Light Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	53.9	142	411	956	1,290	297	85.8	59.8	47.8	-
1905	63.3	62.0	56.4	55.7	69.7	136	325	595	137	67.5	52.3	48.0	139
1906	48.1	50.4	43.2	51.4	58.2	245	680	895	597	131	91	85.7	248
1907	69.4	73.0	76.3	80.5	612	787	1,680	1,440	871	193	95.3	86.7	503
1908	86.3	90.4	85.9	72.9	73.8	136	281	339	605	104	74.1	66.1	167
1909	77.5	82.4	72.9	485	237	407	1,150	1,710	898	171	92.2	94.7	458
1910	95.7	232	155	223	119	959	1,060	‡668	‡250	‡74.8	55.9	49.8	‡330
1911	58.5	64.5	68.4	198	237	332	547	702	171	72.5	47.1	47.8	212
1912	54.2	63.3	55.8	61.1	73.4	166	819	1,380	684	119	79.7	73.2	302
1932	20.1	22.9	19.9	33.9	64.7	368	1,250	1,700	357	102	47.7	44.5	337
1933	38.7	37.1	35.4	42.3	47.1	136	666	1,070	454	81.0	28.4	23.3	222
1934	31.8	33.8	37.8	49.7	62.1	75.3	89.2	41.3	18.7	6.7	4	5.8	37.8
1935	*15.3	30.8	30	35.7	64.8	149	548	755	243	53.2	28.1	37.2	165
1936	33.8	34.8	31.6	43.1	63.6	295	1,890	1,750	262	95.6	59.8	43.8	384
1937	42.4	33.3	1.0	77.5	108	239	652	1,140	275	152	152	107	249
1938	36.5	37.4	103	28.8	62.7	236	720	738	199	137	140	91.7	211
1939	72.4	185	184	184	84.0	229	253	366	154	155	137	96.1	176
1940	31.6	20.6	30.9	130	112	200	208	274	233	213	210	63.3	144

* Revised to include flow through pipeline.
‡ Not previously published; estimated on basis of records for Weber River near Plain City.

Monthly and yearly mean discharge, in cubic feet per second, of Ogden River near Ogden, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	55.6	55.9	65.0	64.6	77.1	191	147	386	248	177	149	95.2	143
1942	80.2	72.4	143	164	165	182	549	632	256	198	191	125	230
1943	53.7	37.2	134	139	185	200	878	527	362	229	214	148	259
1944	56.7	134	119	64.2	68.6	107	156	324	367	468	231	174	190
1945	106	139	35.5	41.9	132	142	173	919	734	257	223	238	261
1946	301	79.2	71.0	167	161	284	966	623	286	251	220	148	297
1947	56.3	38.7	162	84.2	80.9	120	182	450	238	271	197	142	170
1948	125	187	25.0	70.2	114	124	653	1,113	357	285	236	167	289
1949	63.3	45.6	109	141	107	358	619	830	343	263	238	158	274
1950	67.8	57.8	126	170	200	506	775	930	448	263	246	191	332

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	3,310	8,140	25,250	56,860	79,150	17,700	5,280	3,680	2,840	-
1905	3,890	3,690	3,470	3,420	3,870	8,340	19,350	36,590	8,170	4,150	3,220	2,860	101,000
1906	2,960	3,000	2,660	3,160	3,230	15,060	40,480	55,010	35,540	8,060	5,600	5,100	180,000
1907	4,270	4,340	4,690	4,950	34,000	48,370	100,100	88,760	51,850	11,890	5,860	5,160	364,000
1908	5,310	5,380	5,280	4,480	4,240	8,370	16,720	20,820	36,010	6,400	4,560	3,930	122,000
1909	4,760	4,900	4,480	29,800	13,160	25,050	68,460	105,400	53,440	10,520	5,670	5,640	331,000
1910	5,880	13,800	9,510	13,690	6,610	58,960	63,270	‡41,080	‡15,070	‡4,600	3,440	2,960	‡239,000
1911	3,600	3,840	4,210	12,200	13,200	20,400	32,500	43,200	10,200	4,460	2,900	2,840	154,000
1912	3,330	3,770	3,430	3,760	4,220	10,200	48,700	84,800	40,700	7,320	4,900	4,360	219,000
1932	1,240	1,360	1,220	2,080	3,720	22,600	74,400	105,000	21,200	6,270	2,930	2,650	245,000
1933	2,380	2,210	2,180	2,600	2,620	8,360	39,600	65,800	27,000	4,980	1,750	1,390	161,000
1934	1,950	2,010	2,330	3,060	3,450	4,630	5,310	2,540	1,110	415	246	347	27,400
1935	*942	1,830	1,840	2,200	3,600	9,140	32,630	46,400	14,440	3,270	1,730	1,620	*119,600
1936	2,080	2,070	1,940	2,650	3,660	18,110	112,600	107,800	15,620	5,880	3,680	2,600	278,700
1937	2,600	1,980	63	4,760	6,010	14,670	38,830	70,120	16,340	9,340	9,330	6,390	180,400
1938	2,250	2,230	6,350	1,770	3,480	14,520	42,830	45,390	11,840	8,410	8,590	5,460	153,100
1939	4,450	11,030	11,340	11,340	4,670	14,060	15,040	22,500	9,170	9,540	8,430	5,720	127,300
1940	1,940	1,220	1,900	8,020	6,450	12,320	12,400	16,820	13,860	13,090	12,920	3,770	104,700
1941	3,420	3,330	4,000	3,980	4,280	11,740	8,770	23,730	14,730	10,880	9,140	5,670	103,700
1942	4,930	4,310	8,770	11,090	9,160	12,170	32,650	38,840	15,310	13,150	10,120	7,450	167,900
1943	3,400	2,210	8,270	9,540	10,250	12,320	52,250	32,400	21,560	14,080	13,170	8,810	188,300
1944	3,490	7,970	7,330	3,950	3,940	6,580	9,270	19,900	21,810	28,780	14,230	10,340	137,600
1945	6,490	7,730	2,200	2,580	7,330	8,720	10,280	56,510	44,660	15,790	13,740	14,250	189,200
1946	18,530	4,710	4,370	10,290	8,970	17,480	57,500	38,310	17,040	15,450	13,540	8,830	215,000
1947	3,460	2,300	9,960	5,180	4,490	7,390	10,860	27,700	14,170	16,670	12,100	8,440	122,700
1948	7,670	11,130	1,540	4,310	6,580	7,620	38,880	68,460	21,270	17,520	14,540	9,950	209,500
1949	3,890	2,710	6,710	8,700	5,970	22,010	36,810	51,060	20,400	16,140	14,630	9,400	198,400
1950	4,170	3,440	7,740	10,460	11,080	31,100	46,100	57,190	26,630	16,200	15,130	11,380	240,600

* Revised to include flow through pipeline.
‡ Not previously published; estimated on basis of records for Weber River near Plain City.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	290	1,830	May 15, 1904	-	-	-	294	213,000
1905	290	785	May 18, 1905	42	139	101,000	135	98,600
1906	290	1,350	May 30, 1906	44	248	180,000	255	185,000
1907	290	3,260	Feb. 5, 1907	52	503	364,000	506	367,000
1908	290	935	June 5, 1908	57	167	122,000	165	120,000
1909	290	2,250	Apr. 28, 1909	56	458	331,000	478	346,000
1910	290	1,920	Mar. 23, 1910	43	‡330	‡239,000	‡305	‡221,000
1911	310	2,440	Jan. 31, 1911	38	212	154,000	210	152,000
1912	330	2,470	May 22, 1912	40	302	219,000	-	-
1932	750	2,790	May 14, 1932	17	337	245,000	340	248,000
1933	750	1,760	May 22, 1933	21	222	161,000	221	160,000
1934	765	140	Apr. 1, 1934	-	37.8	27,400	*35.5	*25,720
1935	790	a1,090	May 10, 1935	-	165	*119,600	167	121,100
1936	810	b3,430	Apr. 23, 1936	8	384	278,700	382	277,200
1937	830	1,930	May 11, 1937	0	249	180,400	-	-
1938	c860	-	-	-	211	153,100	234	169,100
1939	c880	-	-	-	176	127,300	146	105,500
1940	c900	-	-	-	144	104,700	152	110,400

* Revised.
‡ Not previously published.
a Momentary maximum, 1,130 cfs May 11, 1935.
b Momentary maximum, 3,700 cfs Apr. 24, 1936.
c Discharge computed as sum of records of flow of river at station "below Pine View Dam, near Ogden", published elsewhere in this report, and flow of pipeline records of which were furnished by Utah Power & Light Co.; no daily discharge records available.

Note.--Records since 1937 subject to small error because of unmeasured spill from pipeline.
For momentary maximum discharges and minimum days for river only for water years 1938-50, see records for Ogden River below Pine View Dam, near Ogden (following station).

Yearly discharge, in cubic feet per second, of Ogden River near Ogden, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	c930	-	-	-	143	103,700	153	110,900
1942	c960	-	-	-	230	167,900	224	163,800
1943	c980	-	-	-	259	188,300	265	193,200
1944	c1010	-	-	-	190	137,600	186	135,200
1945	c1040	-	-	-	261	189,200	277	200,400
1946	c1060	-	-	-	297	215,000	281	203,100
1947	c1090	-	-	-	170	122,700	174	125,800
1948	c1120	-	-	-	289	209,500	280	202,400
1949	c1150	-	-	-	274	198,400	277	200,500
1950	c1180	-	-	-	332	240,600	-	-

c Discharge computed as sum of records of flow of river at station "below Pine View Dam, near Ogden", published elsewhere in this report, and flow of pipeline records of which were furnished by Utah Power & Light Co.; no daily discharge records available.

Note.--Records since 1937 subject to small error because of unmeasured spill from pipeline.

For momentary maximum discharges and minimum days for river only for water years 1938-50, see records for Ogden River below Pine View Dam, near Ogden (following station).

125. 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., 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.

Gage.--Water-stage recorder. Datum of gage is 4,798.30 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Average discharge.--13 years (1937-1950), 83.7 cfs.

Extremes.--1937-50: Maximum discharge, 2,290 cfs June 7, 1945 (gage height, 6.73 ft); practically no flow at times when reservoir gates were closed.

Remarks.--Flow regulated by Pine View Reservoir (see p. 135). Pine View pipeline diverts water above station for use in irrigation and power development. Diversions for irrigation and municipal supply above Pine View Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	3.4	3.7	3.5	2.6	2.9	62.9	538	543	37.1	21.0	24.1	12.8	105
1939	4.6	3.0	2.0	1.3	1.0	171	111	170	22.9	27.8	25.5	10.7	46.4
1940	2.5	1.8	1.2	1.1	1.8	13.6	18.2	65.3	28.6	23.9	19.5	3.9	15.2
1941	2.2	1.3	1.0	1.0	1.0	7.6	27.2	179	43.7	18.0	14.0	7.6	25.6
1942	2.8	2.0	2.3	1.2	1.2	13.0	360	439	55.9	14.9	17.7	6.4	76.7
1943	3.4	1.9	1.7	2.0	2.5	12.4	693	306	142	25.5	21.8	17.3	102
1944	1.83	.79	.67	.45	.30	.34	19.9	154	177	25.4	18.9	26.1	35.5
1945	3.82	37.4	.74	.5	29.6	3.90	28.3	705	522	22.6	12.4	26.6	116
1946	103	3.0	1.13	1.32	1.9	121	777	384	43.5	29.1	23.5	18.9	126
1947	2.27	2.56	3.75	1.81	1.50	22.4	19.9	218	25.2	31.0	17.6	12.4	30.3
1948	4.08	43.3	2.24	2.72	1.30	2.72	459	883	130	37.0	23.0	15.4	134
1949	2.3	1.8	1.4	1.4	1.3	173	424	615	117	22.9	18.0	13.9	117
1950	3.84	2.90	1.82	3.12	6.38	316	574	704	190	35.8	28.9	18.6	158

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	206	222	212	161	161	3,870	32,000	33,370	2,210	1,290	1,480	764	75,900
1939	282	180	125	77	56	10,490	6,630	10,480	1,360	1,710	1,570	639	33,600
1940	155	109	75	67	105	839	1,080	4,010	1,700	1,470	1,200	230	11,040
1941	133	77	61	61	85	470	1,620	11,010	2,600	1,110	863	452	18,540
1942	174	117	143	73	69	799	21,400	27,000	3,330	918	1,090	383	55,500
1943	208	115	103	125	141	764	41,260	18,120	8,470	1,570	1,340	1,030	73,950
1944	112	47	41	28	17	21	1,190	9,470	10,540	1,560	1,160	1,550	25,740
1945	235	2,230	46	31	1,640	240	1,680	43,380	31,060	1,390	762	1,580	84,270
1946	6,340	178	69	81	103	7,440	46,210	23,590	2,590	1,790	1,450	1,120	90,960
1947	139	153	230	111	83	1,380	1,180	13,420	1,500	1,910	1,080	741	21,930
1948	251	2,580	137	167	75	167	27,290	54,320	7,740	2,280	1,410	917	97,330
1949	140	105	86.1	86.1	72.2	10,640	25,250	37,840	6,960	1,410	1,110	825	84,520
1950	236	172	99.8	192	354	19,420	34,160	43,300	11,340	2,200	1,780	1,110	114,400

Yearly discharge, in cubic feet per second, of Ogden River below Pine View Dam, near Ogden, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	860	1,260	Apr.25, 26,1938	1	105	75,900	105	75,890
1939	880	730	Apr. 1, 1939	1	46.4	33,600	46.1	33,350
1940	900	482	May 11, 1940	1	15.2	11,040	15.1	10,970
1941	930	485	May 14, 1941	-	25.6	18,540	25.8	18,700
1942	960	718	May 26, 1942	1	76.7	55,500	76.7	55,490
1943	980	1,260	Apr. 24,25,1943	0	102	73,950	102	73,720
1944	1010	1,100	June 3, 1944	-	35.5	25,740	38.6	28,050
1945	1040	2,290	June 7, 1945	-	116	84,270	122	88,350
1946	1060	1,540	Apr. 29, 1946	-	126	90,960	117	84,900
1947	1090	722	May 8, 1947	1	30.3	21,930	33.7	24,370
1948	1120	1,590	May 20, 1948	-	134	97,330	130	94,700
1949	1150	1,630	May 20, 1949	-	117	84,520	117	84,690
1950	1180	1,460	May 20, 1950	.3	158	114,400	-	-

126. Ogden River at powder mill, near Ogden, Utah

Location.--Lat 41°15', long 111°54', in Ogden Canyon about 5 miles east of Ogden near a former powder mill.

Drainage area.--360 sq mi, approximately.

Gage.--Staff gage. Prior to May 10, 1897, at site 5 miles upstream.

Extremes.--August 1889-December 1890, May 1897-December 1898: Maximum daily discharge observed, 2,430 cfs May 15, 20, 1897; minimum daily, 30 cfs on many days August-December 1898.

Remarks.--Flow does not include water diverted in 6-ft pipe by power company. Capacity of pipe, 250 cfs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	50	52	-
1890	89	105	421	382	680	978	1,449	1,818	910	458	312	206	651
1891	265	255	240	-	-	-	-	-	-	-	-	-	-
1897	-	-	-	-	-	-	-	-	379	90	56	57	-
1898	72	70	52	65	79	90	267	297	102	35	33	31	99.5
1899	32	32	32	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	3,080	3,090	-
1890	5,470	6,250	25,900	23,500	37,700	60,100	86,200	111,800	54,100	28,200	19,200	12,300	471,000
1891	16,300	15,200	14,800	-	-	-	-	-	-	-	-	-	-
1897	-	-	-	-	-	-	-	-	22,600	5,530	3,440	3,390	-
1898	4,430	4,160	3,200	4,000	4,390	5,530	15,900	18,300	6,070	2,150	2,030	1,840	72,000
1899	1,970	1,900	1,970	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(a)	2,180	-	60	651	471,000	663	479,600
1897	(b)	2,430	May15,20,1897	-	-	-	-	-
1898	(c)	517	Apr. 21, 1898	30	99.5	72,000	91.2	66,000

a 12th Ann. Rept., Pt. 2.
b 19th Ann. Rept., Pt. 4.
c 20th Ann. Rept., Pt. 4

538662 O - 60 - 10

127. 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., 1 mile downstream from Fourmile Creek, 1½ miles south of Plain City, and 6 miles upstream from mouth.

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

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.--1904-50: Maximum discharge observed, 7,580 cfs June 6, 1909 (gage height, 19.1 ft); practically no flow during latter part of several summers since 1915.

Remarks.--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 elsewhere in this report). Extensive developments of diversions during the period of record have changed the regimen of flow.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	260	731	1,154	3,051	5,048	1,761	96.6	5	18	-
1905	246	275	280	310	365	500	800	1,560	501	8.3	5.0	12.9	453
1906	45.4	148	‡193	245	299	830	2,060	2,940	3,000	241	240	238	874
1907	199	313	388	400	2,380	2,500	4,500	4,390	3,870	1,490	197	240	1,740
1908	360	375	412	381	352	679	901	1,130	2,520	176	64.7	138	622
1909	604	381	389	1,760	866	1,230	3,660	5,990	4,610	773	97.3	384	1,730
1910	349	806	846	1,160	664	3,270	3,350	2,200	441	11.1	6.7	53.9	1,100
1911	324	399	427	785	1,110	1,330	1,740	1,990	1,400	47.8	6.7	15.8	795
1912	333	392	330	330	370	758	2,290	4,040	3,130	264	200	241	1,060
1913	484	644	437	340	360	719	2,680	1,750	574	286	70.8	154	708
1914	354	416	351	586	570	1,490	4,110	4,250	2,200	284	33.7	88.8	1,230
1915	518	446	356	342	547	698	1,320	555	594	1.82	.10	133	456
1916	257	330	388	411	634	2,680	3,750	3,120	1,460	61.4	44.2	20.7	1,100
1917	698	502	532	433	557	690	3,050	4,980	3,800	846	159	315	1,360
1918	430	418	440	430	472	1,260	1,570	1,280	829	25.2	.5	27.5	599
1919	302	357	313	277	311	828	1,700	1,380	199	.2	.2	.2	472
1920	‡280	‡340	‡330	‡410	493	743	2,060	5,400	1,940	44.2	29.7	125	‡1,020
1921	535	652	540	672	764	2,130	2,920	6,000	3,440	274	40.1	126	1,510
1922	213	533	669	650	663	1,220	2,600	6,050	2,500	199	178	62.8	1,300
1923	162	485	569	551	528	660	2,940	5,360	2,160	387	78.5	112	1,170
1924	655	555	471	526	676	622	1,690	1,400	343	3	2	32.2	580
1925	88.1	309	321	315	574	1,030	1,970	1,840	1,070	93.0	17.9	160	647
1926	339	385	429	333	435	933	2,270	1,450	145	22.6	24.4	35.3	566
1927	146	257	322	302	486	927	2,190	3,200	1,500	73.8	15.2	51.4	790
1928	287	559	410	412	383	1,360	1,510	3,220	542	20	6	15.5	729
1929	181	351	301	259	312	1,090	2,200	3,560	1,510	78.8	24.0	281	847
1930	206	285	294	268	455	634	1,330	843	110	12.5	23.9	79.2	377
1931	283	289	280	268	348	392	333	120	25.8	3.4	3.6	10.0	195
1932	35.9	127	212	260	415	847	2,330	3,740	1,130	71.8	38.5	39.2	771
1933	73.0	218	214	302	331	586	1,330	2,100	1,120	42.9	13.8	15.9	529
1934	33.6	87.2	171	203	239	212	55.5	8.1	3.5	1.7	1.9	13.5	85.0
1935	21.1	54.1	205	181	238	410	885	918	735	11.6	5.6	12.2	308
1936	46.3	116	173	192	311	658	3,732	3,862	855	35.0	24.3	24.4	835
1937	132	364	302	298	424	780	1,980	2,890	529	55.6	17.9	27.9	650
1938	131	287	410	299	312	686	1,992	2,376	548	39.7	24.8	38.0	596
1939	174	485	437	406	276	817	975	504	70.4	19.1	16.2	41.2	352
1940	102	118	198	381	355	538	605	100	37.7	16.0	11.7	31.9	207
1941	120	239	309	326	390	456	636	616	269	49.0	47.9	69.0	293
1942	208	312	463	458	528	609	1,883	1,812	730	53.8	29.6	53.0	594
1943	124	270	458	431	519	789	2,357	935	1,047	74.4	49.1	47.5	589
1944	152	298	392	312	376	447	664	1,562	1,315	75.0	34.7	43.1	472
1945	156	365	294	318	536	512	638	1,430	1,187	67.6	124	114	477
1946	346	382	446	502	527	817	2,677	1,240	220	47.9	40.5	44.6	606
1947	256	243	411	361	445	593	821	1,314	412	42.4	67.5	120	424
1948	214	471	327	388	455	405	2,013	3,230	772	55.2	32.5	55.4	702
1949	104	266	439	383	401	1,116	1,959	2,180	1,193	67.3	48.2	57.2	685
1950	318	406	455	569	659	988	2,434	3,747	2,078	198	49.4	89.9	999

‡ Not previously published; estimated on basis of weather records and records for station at Devils Slide.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	16,000	42,060	70,980	181,500	310,400	104,800	5,940	315	1,080	-
1905	15,110	16,370	17,240	19,060	21,000	30,740	47,600	129,100	29,810	510	307	768	327,600
1906	2,790	8,810	‡11,800	15,060	16,600	51,000	123,000	181,000	179,000	14,800	14,800	14,200	‡632,900
1907	12,200	18,600	23,900	24,600	132,000	154,000	268,000	270,000	230,000	91,600	12,100	14,300	1,250,000
1908	22,100	22,300	25,300	23,400	20,200	41,800	53,600	69,500	150,000	10,800	3,980	8,210	451,000
1909	37,100	22,700	23,900	108,000	48,100	75,600	218,000	368,000	274,000	47,500	5,980	22,800	1,250,000
1910	21,500	48,000	52,000	71,300	35,200	201,000	199,000	135,000	26,200	682	412	3,210	793,000

‡ Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Weber River near Plain City, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	19,900	23,700	26,300	48,300	61,600	81,800	104,000	122,000	83,300	2,940	412	940	575,000
1912	20,500	23,300	20,300	20,300	21,300	46,600	136,000	248,000	186,000	16,200	12,300	14,300	765,000
1913	29,800	38,300	26,900	20,900	20,000	44,200	159,000	108,000	34,200	17,600	4,350	9,160	512,000
1914	21,800	24,800	21,600	36,000	31,700	91,600	245,000	261,000	131,000	17,500	2,070	5,280	889,000
1915	31,900	26,500	21,900	21,000	30,400	42,900	78,600	34,100	35,300	112	6	7,910	331,000
1916	15,800	19,600	23,900	25,300	36,500	165,000	223,000	192,000	86,900	3,780	2,720	1,230	795,000
1917	42,900	29,900	32,700	26,800	30,900	42,400	181,000	306,000	226,000	52,000	9,780	18,700	999,000
1918	26,400	24,900	27,100	26,400	26,200	77,500	93,400	78,700	49,300	1,550	31	1,640	433,000
1919	18,600	20,900	19,200	17,000	17,300	50,900	101,000	84,800	11,800	12	12	12	342,000
1920	‡17,200	‡20,200	‡20,300	‡25,200	28,400	45,700	123,000	332,000	115,000	2,720	1,830	7,440	‡739,000
1921	32,900	38,800	33,200	41,300	42,400	131,000	174,000	369,000	205,000	16,800	2,470	7,500	1,090,000
1922	13,100	31,700	41,100	40,000	36,800	75,000	155,000	372,000	149,000	12,200	10,900	3,740	941,000
1923	9,960	28,900	35,000	33,900	29,300	40,600	175,000	330,000	129,000	23,800	4,830	6,660	847,000
1924	40,300	33,000	29,000	32,300	38,900	38,200	101,000	86,100	20,400	184	123	1,920	421,000
1925	5,420	18,400	19,700	19,400	31,900	63,300	117,000	113,000	63,700	5,720	1,100	9,520	468,000
1926	20,800	22,900	26,400	20,500	24,200	57,400	135,000	89,200	8,630	1,390	1,500	2,100	410,000
1927	8,980	15,300	19,800	18,600	27,000	57,000	130,000	197,000	89,300	4,540	935	3,060	572,000
1928	17,600	33,300	25,200	25,300	22,000	83,600	89,800	198,000	32,300	1,230	369	922	530,000
1929	11,100	20,900	18,500	15,900	17,300	67,000	131,000	219,000	89,800	4,850	1,480	16,700	614,000
1930	12,700	17,000	18,100	16,500	25,300	39,000	79,100	51,800	6,550	769	1,470	4,710	273,000
1931	17,400	17,200	17,200	16,500	19,300	24,100	19,800	7,380	1,540	206	224	595	141,000
1932	2,210	7,560	13,000	16,000	23,900	52,100	139,000	230,000	67,200	4,410	2,370	2,330	560,000
1933	4,490	13,000	13,200	18,600	18,400	36,000	79,100	129,000	66,600	2,640	848	946	383,000
1934	2,070	5,190	10,540	12,510	13,090	13,060	3,300	500	210	105	115	805	61,500
1935	1,300	3,220	12,600	11,150	13,230	25,190	52,670	56,440	45,730	716	347	724	223,300
1936	2,850	6,890	10,640	11,790	17,900	40,480	222,100	237,400	50,870	2,150	1,490	1,450	606,000
1937	8,140	21,650	18,580	18,290	23,540	47,980	117,500	117,400	31,470	3,420	1,100	1,660	470,700
1938	8,080	17,060	25,190	18,360	17,350	42,170	118,600	146,100	32,590	2,440	1,530	2,260	431,700
1939	10,690	28,840	26,900	24,930	15,350	50,260	58,020	30,960	4,190	1,170	994	2,450	254,800
1940	6,260	7,000	12,150	23,410	20,400	33,060	36,020	6,160	2,250	986	722	1,900	150,300
1941	7,360	14,240	18,970	20,030	21,680	28,030	37,840	37,910	15,990	3,010	2,950	4,110	212,100
1942	12,790	18,550	28,460	28,150	29,310	37,480	112,060	111,400	43,430	3,310	1,820	3,150	429,900
1943	7,640	16,070	28,180	26,510	28,830	48,490	140,300	57,500	62,280	4,570	3,020	2,830	426,200
1944	9,350	17,730	24,130	19,200	21,630	27,460	39,540	96,050	78,240	4,610	2,140	2,560	342,600
1945	9,620	21,510	18,080	19,560	29,790	31,500	37,940	87,950	70,640	4,160	7,600	6,780	345,100
1946	21,280	22,760	27,440	30,890	29,260	50,210	159,300	76,250	13,090	2,950	2,490	2,660	438,600
1947	15,720	14,490	25,270	22,180	24,690	36,490	48,830	80,780	24,490	2,600	4,150	7,140	306,800
1948	13,170	28,040	20,100	23,880	26,150	24,920	119,800	198,600	45,930	3,400	2,000	3,300	509,300
1949	6,400	15,860	26,990	23,560	22,280	68,630	116,600	134,000	71,000	4,140	2,970	3,410	495,800
1950	19,540	24,130	27,990	35,010	36,620	60,740	144,900	230,400	123,600	12,200	3,040	5,350	723,500

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	(a)	-	-	-	-	-	1,077	781,800
1905	a,176	2,270	May 21, 1905	5	453	327,600	418	302,300
1906	212	5,150	May 31, 1906	10	874	‡632,900	917	664,200
1907	250	5,880	Apr. 16, 1907	58	1,740	1,250,000	1,760	1,270,000
1908	250	3,650	June 16, 1908	7	622	451,000	†641	465,000
1909	270	7,580	June 6, 1909	68	1,730	1,250,000	1,780	1,290,000
1910	290	5,130	Mar. 23, 1910	5	1,100	793,000	1,030	742,000
1911	310	5,900	Feb. 1, 1911	5	795	575,000	786	569,000
1912	330	6,450	May 22, 1912	58	1,060	765,000	1,100	796,000
1913	360	4,900	Apr. 3, 1913	5	708	512,000	670	485,000
1914	390	5,700	Apr. 17, 1914	0	1,230	889,000	1,240	901,000
1915	410	1,880	Apr. 21, 1915	0	456	331,000	427	310,000
1916	440	6,460	Mar. 22, 1916	0	1,100	795,000	1,160	842,000
1917	460	6,910	May 17, 1917	-	1,360	999,000	1,340	972,000
1918	480	2,370	Mar. 13, 1918	-	599	433,000	571	413,000
1919	510	2,680	Apr. 25, 1919	-	472	342,000	‡470	‡341,000
1920	510	7,100	May 23, 1920	0	‡1,020	‡739,000	‡1,080	‡786,000
1921	530	7,000	May 18, 1921	6	1,510	1,090,000	1,480	1,080,000
1922	550	7,270	May 8,9, 1922	15	1,300	941,000	1,280	928,000
1923	570	6,820	May 12, 1923	10	1,170	847,000	1,210	875,000
1924	590	2,520	Apr. 15, 1924	-	580	421,000	499	363,000
1925	610	2,790	Apr.19,20,1925	12	647	468,000	677	495,000
1926	630	3,410	Apr. 7, 1926	-	566	410,000	530	384,000
1927	650	5,030	May 2, 1927	4	790	572,000	834	604,000
1928	670	4,620	May 13, 1928	-	729	530,000	694	504,000
1929	690	4,780	May 17, 1929	4	847	614,000	843	611,000
1930	705	1,790	Apr. 15, 1930	3	377	273,000	382	277,000
1931	720	577	Nov. 29, 1930	1	195	141,000	155	112,000
1932	735	5,800	May 16, 1932	5	771	560,000	781	568,000
1933	750	3,300	June 1, 1933	10	529	383,000	512	370,000
1934	765	285	Feb.24,25,1934	1	85.0	61,500	84	60,820
1935	790	1,620	May 31, 1935	1	308	223,300	313	226,600

† Corrected.
‡ Not previously published.
a Reports of State engineer.

Yearly discharge, in cubic feet per second, of Weber River near Plain City, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1936	810	6,050	Apr. 25, 1936	5	835	606,000	873	634,000
1937	830	4,390	May 11, 1937	8	650	470,700	653	472,700
1938	860	3,960	Apr. 26, 1938	13	596	431,700	619	447,800
1939	880	1,610	Mar. 25, 1939	10	352	254,800	295	213,700
1940	900	1,060	Mar. 27, 1940	8	207	150,300	228	165,500
1941	930	1,220	May 7, 1941	25	293	212,100	320	231,350
1942	960	2,770	Apr. 5, 1942	15	594	429,900	583	422,000
1943	980	3,310	Apr. 6, 1943	31	589	426,200	588	425,500
1944	1010	3,740	June 4, 1944	28	472	342,600	469	340,600
1945	1040	3,430	June 8, 1945	44	477	345,100	507	367,400
1946	1060	4,470	Apr.28,291946	15	606	438,600	584	422,580
1947	1090	2,480	May 14, 1947	26	424	306,800	432	312,700
1948	1120	4,930	May 20, 1948	27	702	509,300	685	497,200
1949	1150	4,170	May 23, 1949	35	685	495,800	716	518,200
1950	1180	b5,500	May 20, 1950	34	999	723,500	-	-

b Momentary maximum.

TRIBUTARIES BETWEEN WEBER AND JORDAN RIVERS

128. Holmes Creek near Kaysville, Utah

Location.--Lat 41°03'18", long 111°53'40", in NE¼ sec. 25, T. 4 N., R. 1 W., 2 miles northeast of Kaysville.

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

Extremes.--May to September 1950: Maximum discharge, 20 cfs May 17 (gage height, 1.06 ft); minimum, 1.8 cfs Sept. 27, 28.

Remarks.--No diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	-	12.3	7.95	3.55	2.37	2.18	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	-	759	473	218	146	130	-

129. 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., 1.0 mile northeast of Farmington.

Drainage area.--9.9 sq mi, approximately.

Gage.--Water-stage recorder and masonry flume. Altitude of gage is 5,100 ft (from topographic map by U. S. Forest Service).

Extremes.--1949-50: Maximum discharge, 254 cfs May 22, 1950 (gage height, 1.74 ft); minimum, 2.5 cfs Sept. 5, 1950.

Remarks.--No regulation or diversion above station. Record includes small amount of water diverted from tributary of Hardscrabble Creek.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	‡5.5	‡5.37	4.19	4.11	6.10	7.25	26.4	67.1	42.8	11.7	3.81	3.30	‡15.7

‡ Not previously published; estimated on basis of records for Hardscrabble Creek near Porterville.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	‡338	‡320	257	252	339	446	1,570	4,130	2,550	721	234	197	‡11,350

‡ Not previously published; estimated on basis of records for Hardscrabble Creek near Porterville.

130. 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., half a mile east of alternate U. S. Highway 91 and 1.2 miles north of Centerville.

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

Extremes.--May to September 1950: Maximum discharge, 27 cfs May 23 (gage height, 1.27 ft); minimum, 0.9 cfs part of each day Aug. 29 to Sept. 6.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	-	11.0	6.45	2.43	1.37	1.08	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	-	676	384	149	84	64	-

131. 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., 1 mile northeast of Centerville.

Drainage area.--2.0 sq mi, approximately.

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

Extremes.--1949-50: Maximum discharge, 19 cfs May 24, 1950 (gage height, 2.02 ft); minimum, 0.3 cfs Sept. 23, 24, 1950.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	‡0.8	‡0.78	0.59	0.72	0.81	1.06	3.97	10.3	4.83	1.32	0.71	0.53	‡2.21

‡ Not previously published; partly estimated on basis of records for Hardscrabble Creek near Porterville.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	‡49	‡46	36	44	45	65	236	631	287	81	44	32	‡1,600

‡ Not previously published; see footnote to preceding table.

132. 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., 1.2 miles east of Centerville.

Gage.--Water-stage recorder and concrete rating flume. Altitude of gage is 5,000 ft (from topographic map by U. S. Forest Service). Supplementary water-stage recorder and Parshall flume 600 ft southeast of creek gage, since Mar. 8, 1950, on ditch diverting a quarter of a mile upstream for water spreading.

Extremes.--1949-50: Maximum discharge, 22 cfs May 17, 1950; minimum, 1.3 cfs Sept. 1-6, 1950.

Remarks.--No regulation. Records include flow of the one ditch which diverts above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	‡1.5	‡1.51	1.43	1.54	1.76	2.11	5.94	13.2	8.45	2.65	1.72	1.43	‡3.57

‡ Not previously published; estimated on basis of records for Hardscrabble Creek near Porterville.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	‡92	‡90	88	95	98	130	354	812	503	163	106	85	‡2,590

‡ Not previously published; estimated on basis of records for Hardscrabble Creek near Porterville.

133. 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., 2.2 miles east of Bountiful.

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

Extremes.--April to September 1950: Maximum discharge, 64 cfs May 16 (gage height, 1.38 ft); minimum, 0.7 cfs Aug. 23, Sept. 3, 4.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	‡9.87	24.4	9.97	2.63	1.13	1.00	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	‡587	1,500	593	162	69	60	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

134. Mill Creek near Bountiful, Utah

Location.--Lat 40°52', long 111°50', in SW¼ sec. 34, T. 2 N., R. 1 E., 20 ft above ford at Gisseman Ranch and 3 miles (revised) southeast of Bountiful.

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

Extremes.--1913-14: Maximum discharge observed, 55 cfs Apr. 16, 17 (gage height, 3.0 ft); minimum observed, 1.5 cfs on several days in December and January.

Remarks.--No diversions or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	‡2.03	2.07	2.44	7.34	28.9	30.6	20.7	8.38	4.17	3.16	-

‡ Not previously published; partly estimated on basis of record for adjacent days.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	‡125	127	136	451	1,720	1,880	1,230	515	256	188	-

‡ Not previously published; partly estimated on basis of record for adjacent days.

135. 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., in Mueller Park, 300 ft upstream from the lower boundary, and 2 miles southeast of Bountiful.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,240 ft (from topographic map). Supplementary water-stage recorder and Cippoletti weirs on pipeline that bypasses creek gage.

Extremes.--April to September 1950: Maximum discharge, 74 cfs May 15; minimum, 1.2 cfs Sept. 3.

Remarks.--Records include flow of pipeline which diverts about a quarter of a mile above station. No other known diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	‡23.6	37.8	26.5	7.94	3.22	1.98	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	-	‡1,400	2,320	1,570	488	198	118	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

136. Salt Creek near Nephi, Utah

Location.--Lat 39°42'40", long 111°46'40", in NW¼SW¼ (revised) sec. 1, T. 13 S., R. 1 E., 50 ft downstream from tailrace of Nephi municipal powerplant, 100 ft upstream from intake of Nephi Plaster Co.'s canal, 2½ miles downstream from Water Hollow (formerly South Fork), and 3 miles (revised) east of Nephi.

Drainage area.-- 95 sq mi, approximately.

Gage.--Staff gage and, after Sept. 15, 1933, Parshall flume. Altitude of gage is 5,480 ft (from topographic map). Prior to Oct. 1, 1929, at datum 1.00 ft higher.

Average discharge.--12 years (1925-37), 25.2 cfs.

Extremes.--1925-37: Maximum discharge observed, about 800 cfs July 17, 1932 (gage height, 5.0 ft), from rating curve extended above 100 cfs; minimum daily, 3 cfs Nov. 30 to Dec. 5, 1934 (revised).

Remarks.--A few small diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	61.0	41.4	21.5	11.8	12.1	-
1926	13.0	11.7	9.9	8.4	9.5	18.3	100	93.4	47.1	23.8	17.0	14.9	30.6
1927	15.4	14.8	14.5	13.1	13.8	18.7	55.9	90.7	68.9	33.6	18.5	16.9	31.3
1928	16.2	16.0	12.0	12.6	13.6	27.7	40.0	91.6	45.7	21.7	14.7	13.1	27.1
1929	13.9	13.6	12.1	11.9	12.0	16.1	56.1	144	78.6	44.0	29.2	15.5	37.4
1930	12.1	11.3	10.2	9.5	11.3	12.1	27.5	28.5	21.1	10.5	21.0	12.5	15.6
1931	10.2	8.5	7.4	8.3	8.5	7.5	12.4	25.2	12.5	14.5	14.3	7.8	11.5
1932	5.6	5.6	6.0	6.0	6.9	13.8	54.2	86.3	59.6	27.6	13.1	10.5	24.6
1933	10.4	8.70	7.03	7.58	6.75	9.23	16.3	47.4	72.1	18.1	9.55	8.93	18.5
1934	8.8	9.0	9.1	8.5	8.1	8.4	11.2	15.6	9.3	7.6	8.4	4.3	9.0
1935	4.7	4.5	5.5	5.8	6.7	7.5	31.4	55.6	85.8	29.1	19.2	13.8	22.5
1936	12.0	10.5	9.7	9.8	10.3	17.1	111	125	66.2	45.0	28.5	16.2	38.5
1937	15.1	13.3	11.7	9.6	14.2	24.5	85.0	139	51.1	37.0	18.9	15.8	36.4
1938	17.0	14.9	15.0	13.5	13.4	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	3,750	2,460	1,320	726	720	-
1926	799	696	609	516	528	1,130	5,950	5,740	2,800	1,460	1,050	887	22,200
1927	947	881	892	806	766	1,150	3,330	5,580	4,100	2,070	1,140	1,010	22,700
1928	996	952	738	775	782	1,700	2,380	5,630	2,720	1,330	904	780	19,700
1929	855	809	744	732	666	990	3,340	8,850	4,680	2,710	1,800	922	27,100
1930	744	672	627	584	628	744	1,640	1,750	1,260	646	1,290	744	11,300
1931	627	506	455	510	472	461	738	1,550	744	892	879	464	8,300
1932	344	333	369	369	397	848	3,230	5,310	3,550	1,700	806	625	17,900
1933	640	518	432	466	375	568	970	2,910	4,290	1,110	587	531	13,400
1934	543	536	559	526	450	516	664	958	553	466	514	254	6,540
1935	292	270	337	359	371	458	1,870	3,420	5,110	1,790	1,180	821	16,280
1936	740	625	595	605	595	1,050	6,610	7,670	3,940	2,760	1,750	966	27,920
1937	926	791	720	589	791	1,510	5,060	8,540	3,040	2,280	1,160	940	26,350
1938	1,050	887	922	829	744	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1925	610	-	-	-	-	-	-	-
1926	630	199	Apr. 7, May 6, 1926	7	30.6	22,200	31.5	22,800
1927	650	184	Apr. 23, May 17, 1927	11	31.3	22,700	31.2	22,600
1928	670	†144	Mar. 25, 1928	10	27.1	19,700	26.8	19,400
1929	690	600	Aug. 27, 1929	11	37.4	27,100	36.9	26,700
1930	705	550	Aug. 13, 1930	8	15.6	11,300	15.0	10,900
1931	720	336	July 30, 1931	5	11.5	8,300	10.7	7,760
1932	735	a800	July 17, 1932	4	24.6	17,900	25.4	18,400
1933	750	131	May 31, 1933	5	18.5	13,400	18.6	13,400
1934	765	240	Aug. 5, 1934	4	9.0	6,540	8.0	5,800
1935	790	260	Aug. 31, 1935	3	22.5	16,280	23.9	17,330
1936	810	300	July 22, 1936	7	38.5	27,920	39.1	28,400
1937	830	270	July 28, 1937	7	36.4	26,350	37.0	26,770
1938	860	-	-	-	-	-	-	-

† Corrected.
a About.

137. Summit Creek near Santaquin, Utah

Location.--Lat 39°57'00", long 111°46'40", in E½NW¼ sec. 13 (revised), T. 10 S., R. 1 E., at powerplant of Utah Power & Light Co. and about 1 mile south of Santaquin.

Drainage area.--19.2 sq mi (revised).

Gage.--Hook gage and sharp-crested weir in powerplant tailrace and staff gage and weir in main river channel. Altitude of gage is 5,250 ft (from topographic map).

Average discharge.--6 years (1910-16), 15.3 cfs.

Extremes.--1910-16: Maximum discharge observed, 154 cfs May 10, 1910 (gage height, 2.0 ft), from rating curve extended above 68 cfs; minimum, 1.9 cfs Jan. 28, 1916.

Remarks.--One small diversion above station for domestic use. No irrigation diversion above station. Powerplant diversion is included in records.

Cooperation.--Records after December 1910 furnished by Utah Power and Light Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	‡15.7	51.0	65.0	21.1	12.8	10.1	9.67	-
1911	9.03	7.80	6.85	7.1	6.9	7.4	10.2	20.0	14.8	8.8	6.8	6.3	9.33
1912	6.2	5.4	5.6	5.3	5.1	5.5	8.0	56.2	72.5	14.8	10.2	8.8	17.0
1913	8.7	7.9	7.1	6.3	5.9	6.1	20.2	51.4	24.6	11.9	8.8	12.8	14.4
1914	11.9	10.4	9.4	6.22	6.29	9.63	33.2	76.7	37.4	18.2	14.2	10.3	20.3
1915	11.4	9.21	7.76	6.93	5.56	6.08	21.9	32.6	29.2	13.2	10.2	9.20	13.6
1916	7.98	7.30	6.54	5.75	5.97	10.8	28.2	58.3	41.6	13.8	10.1	8.86	17.1

‡ Not previously published; partly estimated on basis of trend of subsequent records.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	‡968	3,030	4,000	1,260	787	621	575	-
1911	555	464	421	437	386	456	609	1,230	880	540	417	377	6,770
1912	382	323	346	329	295	338	478	3,460	4,310	911	624	526	12,300
1913	536	469	437	387	328	375	1,200	3,160	1,460	732	541	762	10,400
1914	732	619	578	382	349	592	1,980	4,720	2,230	1,120	873	613	14,800
1915	701	548	477	426	309	374	1,300	2,000	1,740	812	627	547	9,860
1916	491	434	402	354	343	664	1,680	3,580	2,480	848	621	527	12,400

‡ Not previously published; partly estimated on basis of trend of subsequent records.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	290	154	May 10, 1910	-	-	-	-	-
1911	330	23.1	May 8-10,1911	5.2	9.33	6,770	8.82	6,380
1912	330	135	June 10, 1912	2.3	17.0	12,300	17.5	12,700
1913	360	76.1	May 12, 1913	3.5	14.4	10,400	15.0	10,900
1914	390	105	May 20, 1914	2.8	20.3	14,800	20.1	14,600
1915	410	48.9	May 14, 1915	4.2	13.6	9,860	13.1	9,460
1916	440	97	Apr. 28, 1916	1.9	17.1	12,400	-	-

138. Payson Creek above diversions, near Payson, Utah

Location.--Lat 39°58'10" (revised), long 111°41'30", in SE¼SE¼ sec. 3, T. 10 S., R. 2 E., 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.

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

Extremes.--1947-50: Maximum discharge, 194 cfs May 14, 1948 (gage height, 2.69 ft); minimum recorded, 3.0 cfs Sept. 29, Nov. 27, 1947, but may have been less during periods of ice effect.

Remarks.--Flow affected by several small reservoirs.

Monthly and yearly mean discharge, in cubic feet per second, of Payson Creek above diversions, near Payson, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	11.3	8.84	6.98	-
1948	6.32	5.42	5.26	5.01	5.48	6.0	26.0	74.3	21.2	12.0	11.0	9.49	15.7
1949	7.05	6.57	6.44	6.08	5.76	5.77	34.1	47.2	19.4	10.6	9.61	8.49	14.0
1950	6.15	5.06	5.01	5.23	4.88	5.48	24.6	51.5	20.0	10.8	9.40	8.66	13.1

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	694	544	415	-
1948	389	323	323	308	315	369	1,550	4,570	1,260	736	678	564	11,380
1949	433	391	396	374	320	355	2,030	2,900	1,150	654	591	505	10,100
1950	378	301	308	321	271	337	1,470	3,170	1,190	667	578	515	9,510

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1150	-	-	-	-	-	-	-
1948	1150	194	May 14, 1948	3.5	15.7	11,380	15.9	11,570
1949	1150	139	Apr. 27, 1949	-	14.0	10,100	13.6	9,870
1950	1180	140	May 16, 1950	4.6	13.1	9,510	-	-

139. Payson Creek near Payson, Utah 1/

Location.--Lat 40°00', long 111°42', in SE¼SW¼ sec. 27 (revised), T. 9 S., R. 2 E., about half a mile upstream from power canal intake and 3 miles southeast of Payson.

Drainage area.--28 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,060 ft (from topographic map).

Average discharge.--6 years (1910-16), 15.9 cfs.

Extremes.--1910-16: Maximum discharge observed, 200 cfs May 10, 1914 (gage height, 4.02 ft); minimum observed, 1.7 cfs Dec. 28, 1912.

Remarks.--No diversion above station. Flow partially regulated by several small reservoirs upstream.

Cooperation.--Records after December 1910 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	-	-	-	10.3	9.99	-
1911	9.83	9.84	9.59	5.54	6.31	6.46	†16.8	†25.1	10.2	9.41	†8.42	5.52	†10.3
1912	5.95	6.00	5.39	3.6	5.0	5.4	7.7	59.2	29.5	9.4	8.0	7.7	12.7
1913	4.8	4.8	2.4	3.8	5.5	5.8	41.9	74.9	23.4	14.4	11.7	10.5	17.1
1914	7.8	7.5	7.5	9.7	9.6	9.9	55.0	107.0	25.6	13.4	12.3	8.6	22.9
1915	7.5	6.8	7.4	6.7	5.9	6.0	37.1	31.5	†19.9	10.2	9.4	8.3	13.1
1916	6.70	6.77	6.40	8.22	9.51	10.3	46.6	87.0	17.7	10.0	9.94	9.03	19.1

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	-	-	-	633	595	-
1911	604	586	590	341	350	397	991	1,540	605	578	519	329	7,420
1912	366	357	331	220	288	332	459	3,640	1,760	580	490	459	9,280
1913	297	284	147	234	306	357	2,490	4,600	1,390	885	719	625	12,300
1914	480	446	461	596	533	609	3,270	6,580	1,520	824	756	506	16,600
1915	461	405	455	412	328	369	2,210	1,940	1,180	627	578	494	9,450
1916	412	403	394	505	547	633	2,770	5,350	1,050	615	611	537	13,800

1/ Previously published as Peteetneet Creek.

Yearly discharge, in cubic feet per second, of Payson Creek near Payson, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	290	-	-	-	-	-	-	-
1911	330	38.7	May 10, 1911	5.0	†10.3	7,420	9.28	6,720
1912	330	122	May 24, 1912	2.8	12.7	9,280	12.3	8,950
1913	360	154	Apr. 29, 1913	1.7	17.1	12,300	10	13,000
1914	390	200	May 10, 1914	2.0	22.9	16,600	22.7	16,500
1915	410	93	Apr. 24, 1915	4.3	13.1	9,450	12.9	9,350
1916	440	165	Apr. 27, 1916	4.3	19.1	13,800	-	-

† Corrected.

140. Spanish Fork at Thistle, Utah

Location.--Lat 40°00', long 111°30', in SW¼ sec. 28, T. 9 S., R. 4 E., 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.

Gage.--Water-stage recorder. Altitude of gage is 4,950 ft (from topographic map). Prior to Nov. 21, 1912, staff gage 1 mile downstream at different datum. Nov. 21, 1912, to Dec. 31, 1925, staff gage at site 200 ft downstream at different datum. Jan. 1, 1933, to May 10, 1937, staff gage at present site at different datum. May 12, 1937, to Oct. 8, 1938, staff gage at present site and datum.

Average discharge.--35 years (1908-25, 1932-50), 92.5 cfs.

Extremes.--1908-25, 1932-50: Maximum discharge observed, 1,250 cfs May 26, 1922; minimum observed, 10 cfs Sept. 17, 22, 25, Oct. 25, 1934.

Remarks.--Small diversions for irrigation above station.

Cooperation.--Records for 1911-25 furnished by Bureau of Reclamation; those for 1933-36, not previously published by Geological Survey, furnished by Spanish Fork water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1908	-	-	-	‡70.5	69.0	68.2	79.9	132	106	88.0	66.0	51.2	-
1909	42.2	45.5	37.7	*80.8	48.3	104	268	661	397	120	89.3	86.1	*166
1910	70.1	72.7	66.0	a80	a75	186	307	296	114	69.1	49.9	38.7	a119
1911	47.3	56.0	55.1	*102	67.2	66.8	72.9	147	79.8	50.4	32.7	28.8	*67.3
1912	31.0	33.1	27.8	36.5	36.6	42.6	55.1	191	158	60.4	38.5	37.2	62.3
1913	40.6	40.6	34.5	41.0	46.0	72.8	214	323	116	57.7	44.3	51.3	90.4
1914	46.8	49.0	37.3	61.0	68.8	125.8	402	624	248	109	71.7	58.7	159
1915	79.5	66.5	*56.0	*52.3	55.8	79.0	162	162	112	50.1	27.5	37.9	*78.3
1916	44.0	48.8	‡49.4	‡45	‡54.7	‡117	‡280	509	188	75.8	52.3	45.5	‡126
1917	60.6	47.3	43.5	*47.5	*51.1	75.5	160	455	421	103	61.1	61.3	*132
1918	58.6	65.1	66.9	69.5	75.3	113	144	232	104	56.6	38.6	39.3	88.8
1919	51	49	52	‡59.5	‡63.9	‡80.6	168	216	68	42	34	34	‡76.8
1920	38.5	37.6	‡35.7	‡45	‡41.1	62.4	116	596	211	71.0	74.8	76.0	‡118
1921	81.5	89.8	71.1	86.2	111	243	307	208	305	112	85.8	93.9	149
1922	63.0	65.5	76.6	66	83	122	198	784	388	168	131	78	186
1923	57.2	61.8	*60.2	*55.0	*52.6	79.4	232	578	223	119	87.1	77.6	*141
1924	76.7	73.4	*66.3	64.9	60.1	51.5	77.2	121	44.5	28.9	20.5	28.2	*59.5
1925	38.5	44.8	47.9	52.0	59.3	68.2	71.3	104	52.5	38.5	30.9	29.0	53.1
1933	‡40	‡40	‡35	b36	b32	45.3	56.1	182	163	38.6	25.8	24.1	‡60.0
1934	25.3	29.8	36.6	37.7	45.9	36.5	34.2	29.3	22.1	14.3	14.6	11.9	28.1
1935	16.2	19.3	17.2	b22.1	b28.0	38.5	77.0	203	140	33.4	29.5	28.1	b54.4
1936	27.5	32.3	33.6	37.1	41.7	59.1	273	345	103	38.4	43.9	56.6	90.9
1937	42.5	51.5	35.5	35	50.7	105	184	485	143	71.7	41.0	37.6	107
1938	38.9	39.8	42.0	42	44	101	200	387	165	48.5	43.4	43.7	99.9
1939	38.3	41.1	48.8	44.9	41.2	136	118	112	47.8	24.5	21.6	26.7	58.6
1940	38.3	39.1	36.8	40.5	50.3	81.5	145	203	52.6	26.5	23.9	33.7	64.3
1941	39.4	38.7	38.8	40.4	55.6	57.2	80.4	285	135	57.6	48.4	33.5	76.1
1942	49.0	46.2	48.1	45.9	47.2	94.5	282	319	143	62.7	41.0	37.7	102
1943	43.6	51.4	52.5	51.9	81.4	77.4	115	125	126	48.5	40.5	30.7	70.1
1944	41.0	41.9	41.4	34.5	46.3	64.6	120	393	177	60.8	33.9	34.1	90.9
1945	38.5	46.2	42.1	45.2	79.2	68.4	87.5	293	144	59.2	60.6	43.0	84.0
1946	45.7	51.1	48.3	47.3	61.9	77.9	216	161	66.6	40.9	38.9	37.4	74.1
1947	41.7	48.5	48.5	41.8	59.9	104	148	279	89.7	48.4	43.9	34.7	82.5
1948	35.0	42.5	41.5	37.7	50.6	64.4	107	190	80.3	40.3	32.4	28.1	62.5
1949	30.7	37.6	36.2	38.0	47.1	76.3	140	249	128	56.9	37.5	36.3	76.2
1950	41.7	43.8	35.7	47.4	59.5	73.8	157	246	145	68.8	37.0	35.5	82.6

* Revised.

‡ Not previously published; estimated or partly estimated on basis of weather records and records for stations at Castilla, near Spanish Fork, and near Lake Shore.

a Revised; only monthly figure revised; revised daily figures not available.

b Revised; differs from figure published in reports of Spanish Fork water commissioner.

Monthly and yearly runoff, in acre-feet, of Spanish Fork at Thistle, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1908	-	-	-	‡4,340	3,970	4,190	4,750	8,120	6,310	5,410	4,060	3,050	-
1909	2,590	2,710	2,320	*4,970	2,680	6,400	15,900	40,600	23,600	7,380	5,490	5,120	120,000
1910	4,310	4,330	4,060	*4,920	*4,170	11,400	18,300	18,200	6,780	4,250	3,070	2,300	*86,100
1911	2,910	3,330	3,390	*6,290	3,730	4,110	4,340	9,070	4,750	3,100	2,010	1,720	*48,700
1912	1,910	1,970	1,710	2,240	2,100	2,620	3,280	11,770	9,400	3,720	2,370	2,210	45,300
1913	2,500	2,420	2,120	2,520	2,560	4,480	12,720	19,870	6,910	3,550	2,720	3,050	65,400
1914	2,880	2,920	2,290	3,750	3,820	7,730	23,930	38,390	14,730	6,730	4,410	3,490	115,000
1915	4,880	3,960	*3,440	*3,210	3,100	4,860	9,610	9,970	6,650	3,080	1,690	2,250	*56,700
1916	2,710	2,900	‡3,040	‡2,770	‡3,140	‡7,220	‡16,700	31,300	11,200	4,660	3,220	2,710	‡91,600
1917	3,730	2,810	2,670	*2,920	*2,840	4,640	9,520	28,000	25,100	6,330	3,760	3,650	*96,000
1918	3,600	3,870	4,110	4,270	4,180	6,950	8,570	14,300	5,190	3,480	2,370	2,340	64,200
1919	3,130	3,020	3,200	‡3,660	‡3,550	‡4,960	10,000	13,300	4,050	2,560	2,110	2,040	‡55,600
1920	2,370	2,240	‡2,200	‡2,770	‡2,360	3,840	6,900	36,600	12,600	4,370	4,600	4,520	‡85,400
1921	5,010	5,340	4,370	5,300	6,160	14,900	18,300	12,800	18,100	6,890	5,280	5,590	108,000
1922	3,880	3,900	4,710	4,070	4,600	7,510	11,800	48,200	23,100	10,300	8,030	4,620	135,000
1923	3,520	3,680	*3,700	*3,380	*2,920	4,880	13,800	35,500	13,300	7,320	5,360	4,620	*102,000
1924	4,720	4,370	*4,070	3,990	3,460	3,170	4,590	7,440	2,650	1,780	1,260	1,680	*43,180
1925	2,370	2,670	2,950	3,200	3,290	4,190	4,240	6,400	3,120	2,370	1,900	1,730	38,400
1933	‡2,460	‡2,380	‡2,150	a2,210	a1,780	2,790	3,340	11,200	9,720	2,370	1,590	1,430	‡43,420
1934	1,550	1,780	2,260	2,320	2,550	2,250	2,030	1,800	1,320	877	897	706	20,330
1935	994	1,150	1,060	a1,360	a1,560	2,370	4,580	12,470	8,330	2,050	1,810	1,670	a39,400
1936	1,690	1,920	2,070	2,280	2,400	3,630	16,260	21,180	6,150	2,360	2,700	3,370	66,010
1937	2,620	3,060	2,180	2,150	2,810	6,450	10,960	29,840	8,520	4,410	2,520	2,240	77,760
1938	2,390	2,370	2,580	2,580	2,440	6,180	11,870	23,810	9,810	2,990	2,670	2,600	72,290
1939	2,350	2,450	3,000	2,760	2,290	8,390	7,030	6,890	2,850	1,510	1,330	1,590	42,440
1940	2,350	2,330	2,260	2,490	2,890	5,010	8,630	12,470	3,130	1,630	1,470	2,010	46,670
1941	2,420	2,300	2,390	2,480	3,090	3,510	4,780	17,540	8,030	3,540	2,980	1,990	55,050
1942	3,010	2,750	2,960	2,820	2,620	5,810	16,770	19,590	8,530	3,860	2,520	2,240	73,480
1943	2,680	3,060	3,230	3,190	4,520	4,760	6,830	7,660	7,490	2,980	2,490	1,830	50,720
1944	2,520	2,490	2,540	2,120	2,670	3,970	7,160	24,130	10,540	3,740	2,090	2,030	66,950
1945	2,370	2,750	2,590	2,780	4,400	4,200	5,210	18,010	8,550	3,640	3,730	2,560	60,790
1946	2,810	3,040	2,970	2,910	3,440	4,790	12,860	9,930	3,960	2,510	2,390	2,070	53,680
1947	2,560	2,880	2,990	2,570	3,330	6,360	8,810	17,170	5,340	2,980	2,700	2,060	59,750
1948	2,150	2,530	2,550	2,320	2,910	3,960	6,340	11,680	4,780	2,480	1,990	1,670	45,360
1949	1,890	2,240	2,230	2,340	2,620	4,690	8,310	15,300	7,610	3,500	2,310	2,160	55,200
1950	2,560	2,610	2,200	2,910	3,300	4,540	9,360	15,110	8,610	4,230	2,280	2,110	59,820

* Revised.
‡ Not previously published; see footnote to preceding table.
a Revised; differs from figure published in reports of Spanish Fork water commissioner.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1908	250	582	July 28, 1908	-	-	-	‡71.5	‡51,800
1909	270,1564	865	June 4,5,1909	37	*166	120,000	*173	125,000
1910	290	485	Apr. 29, 1910	34	*119	*86,100	*115	*83,000
1911	330,1564	522	Jan. 25, 1911	23	*67.3	*48,700	*61.9	*44,700
1912	330	327	May 29, 1912	-	62.3	45,300	64.3	46,700
1913	360	434	May 10, 1913	25	90.4	65,400	91.8	66,500
1914	390	920	May 10, 1914	18	159	115,000	165	*119,000
1915	410,1564	320	May 3, 1915	20	*78.3	*56,700	‡73.3	‡53,100
1916	440	822	May 9, 1916	-	‡126	‡91,600	‡127	‡92,100
1917	460,1564	733	June 10, 1917	30	*132	*96,000	*136	*98,300
1918	480	283	May19-26,1918	38	88.8	64,200	85.7	62,000
1919	510	352	May 5, 1919	-	‡76.8	‡55,600	‡73.3	‡53,000
1920	510	1,010	May 24, 1920	-	‡118	‡85,400	‡129	‡93,300
1921	530	660	May 16, 1921	44	149	108,000	146	106,000
1922	550	1,250	May 26, 1922	45	186	135,000	184	133,000
1923	570,1564	876	May 21, 1923	-	*141	*102,000	*144	‡104,000
1924	590,1564	215	May13-17,1924	17	*59.5	*43,180	52.3	38,000
1925	610	187	July 4, 1925	23	53.1	38,400	-	-
1933	(a)	474	June 2, 1933	-	‡60.0	‡43,420	*58.0	*42,020
1934	(a)	54	Jan. 1, 1934	10	28.1	20,330	24.8	17,950
1935	(a)	401	May 28, 1935	10	*54.4	*39,400	*57.9	*41,880
1936	(a)	558	May 5, 1936	22	90.9	66,010	93.9	68,190
1937	830	b750	May 10, 1937	13	107	77,760	107	77,240
1938	860	577	May 17, 1938	28	99.9	72,290	100	72,750
1939	880	c556	Mar. 17, 1939	17	58.6	42,440	57.4	41,580
1940	900	c348	May 13, 1940	19	64.3	46,670	64.5	46,840
1941	930	c464	May 13, 1941	28	76.1	55,050	78.3	56,660
1942	960	c461	May 27, 1942	25	102	73,480	102	73,730
1943	980	c375	Feb. 22, 1943	26	70.1	50,720	68.1	49,300
1944	1010	c638	May 10, 1944	26	90.9	66,950	91.1	66,160
1945	1040	c510	Feb. 4, 1945	32	84.0	60,790	85.5	61,900
1946	1060	c334	Apr. 27, 1946	28	74.1	53,680	73.6	53,290
1947	1090	c473	May 8, 1947	29	82.5	59,750	80.9	58,550
1948	1120	c360	June 26, 1948	23	62.5	45,360	61.3	44,490
1949	1150	c710	Aug. 9, 1949	25	76.2	55,200	77.6	56,210
1950	1180	c442	July 17, 1950	27	82.6	59,820	-	-

* Revised.
‡ Not previously published.
a Reports of Spanish Fork water commissioner.
b Maximum daily.
c Momentary maximum.

141. Strawberry tunnel at West Portal, near Thistle, Utah (Transmountain diversion)

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

Gage.--Water-stage recorder and rectangular weir. Altitude of gage is 7,470 ft (by barometer).

Extremes.--1922-25, 1932-50: Maximum daily discharge, 595 cfs July 9, 1923; minimum daily, 4 cfs many times when no water was being diverted from Strawberry Reservoir.

Remarks.--Records show water diverted from Strawberry Reservoir (in Colorado River basin, usable capacity, 270,000 acre-ft) plus tunnel seepage, for use on lands of Strawberry Project. First diversion through tunnel was made in June 1915. This station is identical to station of the same name in WSP 1313 except for some additional record.

Cooperation.--Records furnished by Strawberry Water Users Association; those prior to October 1945 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	-	11.7	71.2	52.5	35.3	-
1916	5	5	5	5	5	5	5	5	109	179	104	119	45.9
1917	68.5	26.9	5	5	5	5	5	5	56.8	368	226	222	83.2
1918	140	19.8	21.3	29.4	12.6	5	5	117	298	238	165	113	97.0
1919	9.9	5	5	5	5	5	5	106	262	336	277	179	100
1920	5	5	5	9.4	5	5	5	5	153	368	220	244	85.8
1921	31.9	5	5	5	5	5	5	5	130	362	332	192	90.2
1922	106	5	5	5	5	5	5	5	167	397	218	223	93.0
1923	128	7	7	7	7	7	7	7	189	412	255	277	110
1924	48.5	24.1	7	7	7	7	60.2	417	334	403	336	199	155
1925	50.2	32.2	24	24	14.3	7	74.2	211	236	298	269	119	114
1926	30.7	17.2	15.5	16.3	7.3	5	17.0	124	396	255	227	121	103
1927	10.5	7.6	20.3	13.6	5.9	5	5	32.0	197	354	278	136	88.7
1928	11.5	6.7	21.3	9.4	5	5	5	31.0	310	366	288	147	100
1929	17.9	5	8.2	6.2	5	5	5	12.2	148	394	208	136	79.2
1930	17.4	5	5	5	5	5	63.0	153	381	248	202	120	101
1931	5	8.7	16.1	5	5	5	49.0	259	368	289	145	62.5	101
1932	15.6	5	5	5	5	5	5	30.5	207	309	229	98.1	76.6
1933	26.6	5	5	5	5	5	5	6	237	277	176	97.0	71.2
1934	27.6	4	4	4	4	4	44.7	125	85.9	74.2	50.7	32.4	38.6
1935	4.7	4	4	4	4	4	4	4	189	221	156	119	60.1
1936	8.6	4	5	5	5	5	5	82.7	244	130	132	84.4	59.2
1937	54.3	5	5	5	5	5	6	44.6	186	175	215	123	69.4
1938	40.0	5	5	5	5	5	6	11.3	343	218	187	93.6	77.1
1939	56.3	5	5	5	5	5	44.1	216	218	306	200	97.5	97.7
1940	10.9	4	4	4	4	4	4.5	157	339	173	147	35.2	74.1
1941	25.0	5	4	4	4	4	4	28.3	176	211	144	132	62.0
1942	19.5	4	4	4	4	4	4	4	255	268	191	116	73.5
1943	42.7	4	4	4	4	4	23.1	147	118	276	191	138	80.3
1944	49.5	4.0	4.0	4.0	4.0	4.0	4.5	4.5	124	349	248	137	78.5
1945	44.6	4.0	4.0	4.0	4.0	4.0	4.5	21.8	156	336	90.5	137	67.9
1946	46.2	4.5	4.5	4.5	4.5	4.5	4.5	127	352	278	170	144	95.8
1947	28.2	5	5	5	5	5	5	94.5	74.7	352	233	169	82.6
1948	59.2	4.5	4.5	4.5	4.5	4.5	4.75	109	249	338	227	182	99.7
1949	26.7	4	4	4	5	5.5	14.2	15.5	266	282	277	138	87.4
1950	47.3	5	5	5	5	5.5	6	37.3	279	236	303	206	95.5

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	-	698	4,380	3,230	2,100	-
1916	307	298	307	307	288	307	298	307	6,500	11,010	6,410	7,100	33,440
1917	4,210	1,600	307	307	278	307	298	307	3,380	22,610	13,900	13,210	60,710
1918	8,640	1,180	1,310	1,810	698	307	298	7,190	17,740	14,660	10,120	6,750	70,700
1919	607	298	307	307	278	307	298	6,500	15,570	20,660	17,060	10,680	72,870
1920	307	298	307	577	288	307	298	307	9,080	22,610	13,520	14,520	62,420
1921	1,960	298	307	307	278	307	298	307	7,740	22,250	20,410	11,420	65,880
1922	6,510	298	307	307	278	307	298	307	9,940	24,400	13,380	13,240	69,570
1923	7,860	417	430	430	389	430	417	430	11,230	25,330	15,680	16,460	79,500
1924	2,980	1,440	430	430	403	430	3,580	25,650	19,900	24,800	20,640	11,870	112,600
1925	3,090	1,920	1,480	1,480	793	430	4,420	13,000	14,020	18,310	16,570	7,070	82,580
1926	1,890	1,020	955	1,000	403	307	1,010	7,620	23,590	15,660	13,930	7,200	74,580
1927	647	452	1,250	834	327	307	298	1,970	11,700	21,750	17,100	8,110	64,740
1928	708	400	1,310	579	288	307	298	1,910	18,440	22,500	17,710	8,760	73,210
1929	1,100	298	505	381	278	307	298	749	8,790	24,240	12,760	8,090	57,800
1930	1,070	298	307	307	278	307	3,750	9,390	22,650	15,230	12,410	7,110	73,110
1931	307	517	992	307	278	307	2,920	15,910	21,920	17,760	8,900	3,720	73,840
1932	962	298	307	307	288	307	298	1,880	12,340	18,970	14,060	5,840	55,380
1933	1,640	298	307	307	278	307	298	369	14,110	17,010	10,830	5,770	51,520
1934	1,700	238	246	246	222	246	2,660	7,690	5,110	4,560	3,120	1,930	27,970
1935	290	238	246	246	222	246	238	246	11,240	13,610	9,610	7,060	43,490

Monthly and yearly diversions, in acre-feet, of Strawberry tunnel at West Portal, near Thistle, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	528	238	307	307	288	307	298	5,080	14,500	8,000	8,090	5,020	42,960
1937	3,340	298	307	307	278	307	357	2,740	11,040	10,730	13,190	7,340	50,230
1938	2,460	298	307	307	278	307	357	696	20,400	13,380	11,480	5,570	55,840
1939	3,460	298	307	307	278	307	2,620	13,300	12,980	18,800	12,300	5,800	70,760
1940	672	238	246	246	230	246	268	9,650	20,200	10,620	9,050	2,100	53,770
1941	1,540	298	246	246	222	246	238	1,740	10,460	12,950	8,880	7,840	44,910
1942	1,200	238	246	246	222	246	238	246	15,170	16,470	11,750	6,910	53,180
1943	2,620	238	246	246	222	246	1,370	9,010	7,050	16,960	11,740	8,190	58,140
1944	3,050	238	246	246	230	246	268	277	7,400	21,440	15,230	8,150	57,020
1945	2,740	238	246	246	222	246	268	1,340	9,280	20,660	5,580	8,130	49,180
1946	2,840	268	277	277	250	277	268	7,810	20,950	17,100	10,430	8,590	69,340
1947	1,740	298	307	307	278	307	298	5,810	4,440	21,640	14,320	10,040	59,780
1948	3,640	268	277	277	259	277	283	6,670	14,830	20,770	13,950	10,850	72,350
1949	1,640	238	246	246	278	337	843	950	15,850	17,350	17,080	8,230	63,270
1950	2,910	298	307	307	278	338	357	2,290	16,610	14,530	18,660	12,260	69,140

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1915	(a)	(b)	(b)	(b)	-	-	-	-
1916	(a)	(b)	(b)	(b)	45.9	33,440	-	-
1917	(a)	(b)	(b)	(b)	83.2	60,710	53.0	38,640
1918	(a)	(b)	(b)	(b)	97.0	70,700	89.9	65,730
1919	(a)	(b)	(b)	(b)	100	72,870	83.6	60,780
1920	(a)	(b)	(b)	(b)	85.8	62,420	99.6	72,570
1921	(a)	(b)	(b)	(b)	90.2	65,880	88.0	64,070
1922	(a)	(b)	(b)	(b)	93.0	69,570	96.4	70,430
1923	(a)	595	July 9, 1923	7	110	79,500	104	75,650
1924	(a)	-	-	-	155	112,600	157	114,200
1925	(a)	527	June 30, 1925	7	114	82,580	-	-
1926	(a)	(b)	(b)	(b)	103	74,580	110	79,960
1927	(a)	(b)	(b)	(b)	88.7	64,740	101	73,070
1928	(a)	(b)	(b)	(b)	100	73,210	88.8	64,810
1929	(a)	(b)	(b)	(b)	79.2	57,800	99.8	72,700
1930	(a)	(b)	(b)	(b)	101	73,110	78.9	57,570
1931	(a)	(b)	(b)	(b)	101	73,840	101	73,250
1932	(a)	(b)	(b)	(b)	76.6	55,380	101	73,590
1933	(a)	403	June 30, 1933	5	71.2	51,520	71.1	51,460
1934	(a)	196	May 9, 1934	4	38.6	27,970	36.7	26,560
1935	(a)	420	June 29, 1935	4	60.1	43,490	60.5	43,790
1936	(a)	499	June 22, 1936	4	59.2	42,960	63.2	45,840
1937	(a)	382	July 2, 1937	5	69.4	50,230	68.2	49,350
1938	(a)	444	June 6, 1938	5	77.1	55,840	78.5	56,840
1939	(a)	524	June 30, 1939	5	97.7	70,760	93.7	67,850
1940	(a)	489	June 20, 1940	4	74.1	53,770	75.3	54,690
1941	(a)	480	June 27, 1941	4	62.0	44,910	61.5	44,510
1942	(a)	426	July 8, 1942	4	73.5	53,180	75.4	54,600
1943	(a)	476	June 29, 1943	4	80.3	58,140	80.9	58,570
1944	(a)	487	July 9, 1944	4	78.5	57,020	78.1	56,710
1945	(a)	480	July 9, 1945	4	67.9	49,180	68.2	49,340
1946	1060	520	June 29, 1946	4.5	95.8	69,340	94.3	68,300
1947	1090	514	July 8, 1947	5	82.6	59,780	85.1	61,620
1948	1120	547	July 9, 1948	4.5	99.7	72,350	96.8	70,290
1949	1150	500	June 24-26, 1949	4	87.4	63,270	89.3	64,660
1950	1180	497	June 30, 1950	5	95.5	69,140	-	-

a Files of Strawberry Water Users Association.
b Not available.

142. 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., 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.

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.--19 years (1908-17, 1940-50), 94.0 cfs.

Extremes.--1908-17, 1940-50: Maximum discharge recorded, 766 cfs Aug. 8, 1949 (gage height, 3.36 ft, site and datum then in use); minimum, 1.0 cfs Nov. 9, 1948.

Remarks.--Beginning in 1915, flow supplemented by water diverted via tunnel from Strawberry Reservoir in Colorado River basin for irrigation in Jordan River basin (see preceding station).

Cooperation.--Records for period January 1911 to September 1917 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second, of Diamond Fork near Thistle, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1908	-	-	-	‡13.4	22.9	23.8	31.5	39.5	44.9	21.4	16.9	13.2	-
1909	14.4	12.2	12.3	18.8	17.5	42.6	184	596	280	76.6	47.7	31.2	112
1910	26.6	27.3	24.0	*30	*30	100	209	149	50.6	30.0	20.0	22.8	*60.1
1911	24.3	24.5	23.3	25.1	19.5	33.3	45.6	54.3	23.6	19.9	15.1	13.2	26.9
1912	16.8	‡25	‡20	12.8	20.3	25.4	32.5	112	70.8	35.2	24.8	21.9	‡34.8
1913	22.3	21.7	15.6	16.3	21.2	28.2	115	139	59.6	35.4	27.4	26.3	44.1
1914	24.2	20.6	20.3	17.0	19.5	44.7	226	276	101	54.3	36.5	29.8	72.5
1915	31.4	29.1	21.8	16.4	25.2	32.6	58.1	67.1	61.8	104	72.5	49.2	47.6
1916	26.2	26.5	21.4	8.68	15.2	59.1	203	252	210	251	169	158	117
1917	82.4	50.0	41.5	37.0	47.7	26.7	104	259	218	460	295	274	159
1940	-	-	-	-	-	-	-	225	359	183	159	42.1	-
1941	31.7	10.5	8.9	8.4	12.2	16.9	39.4	119	223	234	149	142	83.2
1942	34.4	17.3	14.6	12.3	12.8	18.3	107	105	305	287	201	127	104
1943	55.4	16.5	15.6	15.5	21.3	30.0	101	195	153	287	189	141	102
1944	61.0	12.4	10.9	9.49	12.0	16.8	44.1	164	193	378	259	153	110
1945	61.1	14.3	10.0	10.2	15.2	19.8	42.3	146	203	349	118	150	95.4
1946	61.0	15.9	13.6	15.2	16.5	31.5	159	210	386	295	182	155	129
1947	41.6	16.4	13.6	8.59	16.6	33.6	64.9	180	110	375	249	174	108
1948	69.7	13.6	12.2	11.1	15.7	18.6	65.3	220	286	343	230	183	123
1949	39.4	15.5	14.9	11.6	13.4	24.2	107	148	330	306	294	152	122
1950	70.0	19.0	15.3	16.6	21.6	30.8	108	175	342	264	323	222	135

* Revised; only monthly figures revised; revised daily figures not available.
‡ Not previously published; estimated on basis of available gage heights and records for Spanish Fork at Thistle and near Spanish Fork.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1908	-	-	-	‡825	1,320	1,460	1,870	2,430	2,670	1,320	1,040	‡86	-
1909	885	726	756	1,160	972	2,620	10,900	36,600	16,700	4,710	2,930	1,860	80,800
1910	1,640	1,620	1,480	*1,840	*1,670	6,150	12,400	9,160	3,010	1,840	1,230	1,360	*43,400
1911	1,490	1,460	1,430	1,540	1,080	2,050	2,710	3,340	1,400	1,220	928	786	19,400
1912	1,030	‡1,490	‡1,230	787	1,170	1,560	1,930	6,890	4,210	2,160	1,520	1,300	‡25,300
1913	1,370	1,290	959	1,000	1,180	1,730	6,860	8,550	3,550	2,180	1,680	1,560	31,900
1914	1,490	1,230	1,250	1,040	1,080	2,750	13,500	17,000	6,030	3,340	2,240	1,770	52,700
1915	1,930	1,730	1,340	1,010	1,400	2,000	3,460	4,130	3,680	6,420	4,460	2,930	34,500
1916	1,610	1,580	1,320	534	874	3,630	12,100	15,500	12,500	15,400	10,400	9,400	84,800
1917	5,070	2,980	2,550	2,280	2,650	1,640	6,190	15,900	13,000	28,300	18,100	16,300	115,000
1940	-	-	-	-	-	-	-	13,850	21,360	11,230	9,750	2,510	-
1941	1,950	627	547	518	676	1,040	2,340	7,300	13,260	14,370	9,190	8,430	60,250
1942	2,110	1,030	897	754	710	1,130	6,350	6,480	18,170	17,710	12,380	7,580	75,300
1943	3,410	984	958	954	1,180	1,840	6,040	11,990	9,080	17,670	11,610	8,370	74,090
1944	3,750	737	668	584	691	1,040	2,630	10,110	11,480	23,210	15,950	9,100	79,950
1945	3,750	851	617	625	844	1,220	2,520	8,960	12,110	21,440	7,260	8,900	69,100
1946	3,750	946	839	934	918	1,940	9,440	12,920	22,970	18,140	11,170	9,250	93,220
1947	2,560	978	834	528	920	2,060	3,860	11,060	6,570	23,070	15,300	10,380	78,120
1948	4,280	810	751	681	900	1,140	3,880	13,550	17,000	21,120	14,150	10,890	89,150
1949	2,420	921	916	716	744	1,490	6,390	9,070	19,640	18,790	18,070	9,030	88,200
1950	4,310	1,130	938	1,020	1,200	1,890	6,450	10,750	20,370	16,260	19,880	13,180	97,380

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Dischsrge	Date					
1908	250	a59	June16,17,18,1908	-	-	-	‡22.1	‡16,100
1909	270	a735	May 9, 1909	6	112	80,800	114	83,200
1910	290	a286	Apr. 12, 1910	-	*60.1	*43,400	*59.6	*43,000
1911	360	a76	May13,15,1911	8	26.9	19,400	‡26.0	‡18,800
1912	360	a170	May18,20,22,1912	-	‡34.8	‡25,300	34.6	25,100
1913	360	a178	May 16, 1913	10	44.1	31,900	44.5	32,300
1914	390	a364	May 5, 1914	12	72.5	52,700	74.2	53,800
1915	410	a124	July 17, 1915	9	47.6	34,500	47.0	34,000
1916	440	a457	May 7, 1916	4.2	117	84,800	125	90,900
1917	460	a560	July26,28,29,1917	14	159	115,000	-	-
1940	900	535	June 20, 1940	-	-	-	-	-
1941	930	579	June 27, 1941	2	83.2	60,250	84.5	61,160
1942	960	470	July 9, 1942	8	104	75,300	106	76,620
1943	980	486	June 30, 1943	4	102	74,090	102	73,890
1944	1010	541	July 7, 1944	6.6	110	79,950	110	80,010
1945	1040	532	July 8, 1945	4.0	95.4	69,100	95.9	69,410
1946	1060	565	June29,30, 1946	11	129	93,220	127	92,050
1947	1090	556	Aug. 21, 1947	7	108	78,120	110	79,590
1948	1120	586	July 10, 1948	6.5	123	89,150	121	87,570
1949	1150	766	Aug. 8, 1949	-	122	88,200	125	90,300
1950	1180	-	-	13	135	97,380	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

143. Spanish Fork at Castilla, Utah 1/

Location.--Lat 40°03'00", long 111°32'50" (revised), in SW¼NE¼ sec. 12, T. 9 S., R. 3 E., 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.

Supplemental records available.--May 1900 to November 1901, gage heights and discharge measurements only; published as Spanish Fork near Mapleton.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map). Prior to May 3, 1919, staff gages at various sites 1½ to 2½ miles downstream from present site at different datums and below power canal, which began diverting late in 1908. May 3, 1919, to Apr. 14, 1920, staff gage, and Apr. 15, 1920, to Apr. 19, 1940, water-stage recorder, at present site upstream from power canal at datum 2.00 ft lower.
Supplemental staff gage on Bureau of Reclamation power canal Jan. 1, 1909, to Dec. 31, 1917.

Average discharge.--12 years (1890, 1903-14), 172 cfs; 26 years (1914-17, 1919-25, 1933-50), 216 cfs (includes transmountain diversion).

Extremes.--1889-90, 1903-17, 1919-25, 1933-50: Maximum discharge observed, 1,970 cfs May 21, 1907 (gage height, 6.0 ft, site and datum then in use); minimum observed, 24 cfs Jan. 19, 1943.

Remarks.--Records herein represent total flow of Spanish Fork above power canal diversion; those for 1909-17 are sum of Spanish Fork near Spanish Fork (see following station), below canal intake, and United States Reclamation Service power canal, which began diverting late in 1908.
Transmountain diversion from Colorado River basin into Spanish Fork from Strawberry Reservoir began in June 1915. Several small diversions for irrigation above station.

Cooperation.--Records furnished by Bureau of Reclamation Jan. 1, 1911, to Sept. 30, 1925. Records for Jan. 1, 1933, to Dec. 31, 1936, not previously published by Geological Survey, furnished by Spanish Fork water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	-	50	-
1890	62	53	67	68	76	143	387	777	205	114	64	63	174
1891	64	50	50	-	-	-	-	-	-	-	-	-	-
1903	-	-	-	-	-	-	‡117	227	218	79	48	52	-
1904	55	50	50	77.6	79.1	85.8	174	343	162	94.6	75.8	68.0	110
1905	67.8	61.5	54.3	67.7	83.2	88	111	257	156	46.1	48.6	59.3	91.7
1906	58.5	60.7	54.7	66.4	76.0	158	369	661	304	132	99.5	93.6	178
1907	80.3	81.0	84.7	80.8	178	207	571	889	674	197	147	122	276
1908	118	96.3	92.0	80.4	84.4	110	126	180	177	101	85.0	81.0	110
1909	82.0	75.7	57.6	146	97.7	174	482	1,190	710	220	170	158	297
1910	143	149	130	151	147	318	502	456	183	131	89.8	91.5	208
1911	95.2	95.0	88.7	138	108	*136	147	206	134	80.1	56.7	62.7	*112
1912	69.1	66.9	61.5	68.9	75.8	88.1	105	336	254	107	75.4	77.8	116
1913	81.3	81.7	57.2	66.4	74.3	114	336	426	183	122	96.2	106	146
1914	a98.1	a96.1	71.3	97.7	106	224	671	879	327	172	131	112	a249
1915	130	110	97.0	*88.3	98.2	*131	226	252	158	159	117	104	*139
1916	82.4	84.5	78.0	b88.8	b114	306	538	659	410	330	222	220	b261
1917	171	134	*145	*119	*132	115	281	681	610	513	357	278	*296
1918	c231	c134	-	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	-	411	364	403	347	242	-
1920	75	70	62	83	84	105	217	937	481	486	329	309	271
1921	132	107	96	82	94	214	292	826	582	520	442	308	310
1922	211	121	121	93	122	250	387	1,130	601	565	367	327	360
1923	217	100	93.1	91.3	86.6	131	407	888	512	562	359	349	318
1924	140	108	70.7	77.2	92.9	93.5	172	505	367	434	368	253	224
1925	99.2	80.6	63.6	78.7	79.8	90.8	164	328	304	339	300	163	175
1933	-	-	-	58.7	54.1	81.5	115	284	525	391	247	159	-
1934	80.5	54.4	58.8	52.9	64.5	60.3	101	180	126	101	92.4	59.7	86.2
1935	33.5	43.4	44.8	47.0	57.0	58.7	135	317	406	280	202	173	150
1936	49.3	49.5	46.5	49.2	56.6	95.2	463	628	395	251	191	148	202
1937	113	62.2	57.0	58.9	89.4	169	330	697	390	289	266	173	226
1938	104	72.7	68.1	67.1	75.7	154	284	469	512	311	256	152	211
1939	114	67.9	74.5	69.4	65.2	189	236	365	264	334	233	143	181
1940	68.6	58.7	57.3	61.1	78.2	120	217	408	406	216	194	94.4	165

* Revised; based on revised figures for station near Spanish Fork.
‡ Not previously published; partly estimated on basis of records for nearby streams.
a Not previously published; based on revised figures for station near Spanish Fork and partly estimated record for diversion by power canal.
b Not previously published; based on partly estimated record for station near Spanish Fork.
c Not previously published; estimated on basis of records for stations on nearby streams.

1/ Published as "near Spanish Fork" 1889-90, 1903-8.

Monthly and yearly mean discharge, in cubic feet per second, of Spanish Fork at Castilla, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	86.5	64.7	62.0	63.0	81.8	86.9	128	408	349	300	227	198	172
1942	96.8	74.4	72.2	68.2	71.7	134	410	439	435	365	258	183	218
1943	†113	82.4	80.2	76.9	112	121	220	320	291	343	249	184	183
1944	110	65.2	63.1	56.3	72.1	98.5	191	569	377	442	296	196	212
1945	111	79.8	68.1	67.9	101	98.6	138	463	369	420	185	204	193
1946	118	79.6	72.6	74.1	90.4	124	381	410	468	359	234	194	217
1947	104	80.8	76.1	63.3	88.0	159	232	469	216	415	295	228	203
1948	117	65.5	60.5	57.9	80.6	103	190	429	389	396	276	230	200
1949	83.6	65.0	61.9	64.4	73.7	114	274	434	456	365	337	206	212
1950	123	72.4	63.4	73.5	93.1	116	302	431	498	358	367	270	231

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	-	2,980	-
1890	3,810	3,150	4,120	4,180	4,220	8,790	23,030	47,780	12,200	7,010	3,840	3,750	125,900
1891	3,940	2,980	3,080	-	-	-	-	-	-	-	-	-	-
1903	-	-	-	-	-	-	‡6,940	13,960	12,970	4,860	2,950	3,090	-
1904	3,380	2,980	3,070	4,770	4,550	5,280	10,350	21,090	9,640	5,820	4,660	4,050	79,600
1905	4,170	3,660	3,340	4,160	4,620	5,410	6,600	15,800	9,280	2,840	2,990	3,530	66,400
1906	3,600	3,610	3,360	4,080	4,220	9,720	22,000	40,600	18,100	8,120	6,120	5,570	129,000
1907	4,940	4,820	5,210	4,970	9,890	12,700	34,000	54,700	40,100	12,100	9,040	7,260	200,600
1908	7,260	5,730	5,660	4,940	4,850	6,760	7,500	11,100	10,500	6,210	5,230	4,820	80,600
1909	5,040	4,500	3,540	8,980	5,430	10,700	28,700	73,200	42,200	13,500	10,500	9,400	215,000
1910	8,830	8,870	8,020	9,300	8,150	19,500	29,900	28,000	10,900	8,040	5,520	5,450	150,000
1911	5,850	5,650	5,460	8,520	6,010	*8,350	8,730	12,700	7,970	4,930	3,490	3,730	*81,400
1912	4,250	3,980	3,780	4,240	4,360	5,420	6,240	20,600	15,100	6,580	4,640	4,630	83,800
1913	5,000	4,860	3,520	4,080	4,270	7,020	20,000	26,200	10,900	7,500	5,910	6,270	106,000
1914	a6,040	a5,720	4,380	6,010	5,900	13,800	40,000	54,100	19,400	10,600	8,030	6,700	a181,000
1915	7,980	6,520	5,960	*5,430	5,450	*8,040	13,500	15,500	9,450	9,760	7,200	6,220	*101,000
1916	5,070	5,030	4,790	b5,460	b6,570	18,800	32,000	40,500	24,400	20,300	13,600	13,100	b190,000
1917	10,500	7,980	*8,890	*7,320	*7,310	7,050	16,700	41,900	36,300	31,600	21,900	16,500	*214,000
1918	c14,200	c8,010	-	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	-	25,200	21,700	24,800	21,300	14,400	-
1920	4,620	4,160	3,830	5,100	4,820	6,450	12,900	57,600	28,600	29,900	20,200	18,400	197,000
1921	8,140	6,370	5,910	5,020	5,220	13,200	17,400	50,800	34,600	32,000	27,200	18,400	224,000
1922	13,000	7,190	7,470	5,720	6,750	15,400	23,000	69,700	35,800	34,700	22,600	19,500	261,000
1923	13,300	5,950	5,720	5,610	4,810	8,060	24,200	54,600	30,500	34,600	22,100	20,800	230,000
1924	8,610	6,430	4,350	4,750	5,340	5,750	10,200	31,100	21,800	26,700	22,600	15,100	163,000
1925	6,100	4,800	3,910	4,840	4,430	5,580	9,760	20,200	18,100	20,800	18,400	9,700	127,000
1933	-	-	-	3,610	3,010	5,010	6,870	17,500	31,300	24,000	15,200	9,480	-
1934	4,950	3,240	3,620	3,250	3,580	3,710	6,020	11,100	7,480	6,230	5,680	3,550	62,400
1935	2,060	2,580	2,760	2,890	3,170	3,610	8,010	19,490	24,150	17,240	12,430	10,300	108,700
1936	3,030	2,940	2,860	3,020	3,250	5,850	27,560	38,610	23,490	15,440	11,760	8,820	146,600
1937	6,980	3,700	3,500	3,620	4,970	10,410	19,640	42,840	23,190	17,800	16,330	10,310	163,300
1938	6,380	4,330	4,190	4,130	4,200	9,450	16,870	28,810	30,500	19,150	15,750	9,020	152,800
1939	7,010	4,040	4,580	4,260	3,620	11,650	14,040	22,430	15,720	20,540	14,300	8,540	130,700
1940	4,220	3,490	3,520	3,760	4,500	7,370	12,930	25,100	24,180	13,290	11,900	5,620	119,900
1941	5,320	3,850	3,810	3,880	4,540	5,340	7,630	25,070	20,780	18,450	13,940	11,810	124,400
1942	5,950	4,430	4,440	4,190	3,980	8,240	24,400	27,000	25,910	22,410	15,890	10,910	157,800
1943	6,970	4,900	4,930	4,730	6,200	7,420	13,080	19,650	17,330	21,080	15,300	10,970	132,600
1944	6,780	3,880	3,880	3,460	4,150	6,060	11,370	35,000	22,440	27,160	18,210	11,640	154,000
1945	6,830	4,750	4,190	4,170	5,620	6,060	8,220	28,440	21,980	25,810	11,370	12,120	139,600
1946	7,250	4,740	4,470	4,550	5,020	7,610	22,690	25,190	27,860	22,080	14,390	11,550	157,400
1947	6,410	4,810	4,680	3,890	4,890	9,780	13,830	28,810	12,860	25,510	18,160	13,570	147,200
1948	7,180	3,900	3,720	3,560	4,640	6,350	11,330	26,390	23,120	24,370	16,950	13,700	145,200
1949	5,140	3,870	3,810	3,960	4,090	6,990	16,310	26,670	27,120	22,460	20,730	12,240	153,400
1950	7,540	4,310	3,900	4,520	5,170	7,110	17,960	26,480	29,620	22,030	22,560	16,060	167,300

* Revised; based on revised figures for station near Spanish Fork.
‡ Not previously published; partly estimated on basis of records for nearby streams.
a Not previously published; see footnote to preceding table.
b Not previously published; based on partly estimated record for station near Spanish Fork.
c Not previously published; partly estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(a)	b1,040	(c)	45	174	125,900	172	124,800
1891	(a)	-	-	-	-	-	-	-
1903	100	b388	June 3, 1903	-	-	-	-	-
1904	133	b415	May 16, 1904	28	110	79,600	112	81,400
1905	176	b410	May 23, 1905	38	91.7	66,400	90.9	65,800
1906	212	b907	May 12, 1906	35	178	129,000	184	134,000
1907	250	b1,970	May 21, 1907	62	276	200,000	281	203,000
1908	250	b318	July 29, 1908	46	110	80,600	103	75,000
1909	270	d1,530	May 11, 1909	-	297	215,000	†135	228,000
1910	290	d777	Apr.27-29,1910	78	208	150,000	196	142,000

† Corrected.
a 11th Ann. Rept., Pt. 2; 12th Ann. Rept., Pt. 2; 13th Ann. Rept., Pt. 3.
b Maximum observed.
c Sometime in May 1890.
d Maximum daily.
Note.--Records herein represent total flow of Spanish Fork above power canal diversion.

Yearly discharge, in cubic feet per second, of Spanish Fork at Castilla, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	e330	d785	Jan. 31, 1911	39	*112	*81,400	*106	*76,400
1912	e330	d581	May 30, 1912	41	116	83,800	117	85,300
1913	e360	d545	May 12, 1913	34	146	106,000	‡149	‡108,000
1914	e390	d1,290	May 10, 1914	67	‡249	‡181,000	255	185,000
1915	e410	d330	Apr. 30, 1915	84	*139	*101,000	*132	*95,400
1916	e440	d1,000	(f)	40	‡261	‡190,000	‡278	‡202,000
1917	e460	d1,110	May 16, 1917	76	*296	*214,000	-	-
1919	610	d528	July 2, 1919	-	-	-	-	-
1920	610	d1,520	May 22, 1920	35	271	197,000	282	204,000
1921	610	d998	May 16, 1921	39	310	224,000	320	231,000
1922	610	d1,440	May 7, 1922	64	360	261,000	356	258,000
1923	610	d1,140	May 20, 1923	39	318	230,000	310	225,000
1924	610	d603	May 9, 1924	41	224	163,000	218	158,000
1925	610	d586	July 1, 1925	36	175	127,000	-	-
1933	(g)	d617	June 1,2,1933	-	-	-	176	128,000
1934	(g)	-	-	34	86.2	62,400	80.1	58,000
1935	(g)	d551	May 28, 1935	27	150	108,700	152	110,100
1936	(g)	d890	May 5, 1936	29	202	146,600	209	152,000
1937	830	1,010	May 10, 1937	40	226	163,300	227	164,000
1938	860	694	May 17, 1938	45	211	152,800	212	153,500
1939	880	905	May 31, 1939	44	181	130,700	175	126,300
1940	900	541	June 20, 1940	42	165	119,900	168	121,600
1941	930	776	Aug. 10, 1941	43	172	124,400	174	126,300
1942	960	627	May 26, 1942	38	218	157,800	221	159,700
1943	980	568	Aug. 11, 1943	43	183	132,600	180	130,300
1944	1010	923	May 10, 1944	42	212	154,000	214	155,300
1945	1040	696	May 12, 1945	56	193	139,600	194	140,200
1946	1060	645	Apr. 21, 1946	54	217	157,400	217	156,800
1947	1090	664	July 8, 1947	53	203	147,200	202	146,100
1948	1120	664	July 11, 1948	42	200	145,200	197	143,200
1949	1150	841	July 3, 1949	36	212	153,400	216	156,300
1950	1180	679	June29,30,1950	50	231	167,300	-	-

* Revised.
‡ Not previously published.
d Maximum daily.
e For January 1911 to September 1917 records herein are the previously unpublished sum of records for Spanish Fork near Spanish Fork (see following station) and for United States Reclamation Service power canal, which is not published separately in this report.
f Apr. 29, May 9, 1916.
g Reports of Spanish Fork water commissioner.
Note.--Records herein represent total flow of Spanish Fork above power canal diversion.

144. Spanish Fork near Spanish Fork, Utah

Location.--Lat 40°04', long 111°34', in middle half of S½ sec. 2, T. 9 S., R. 3 E., half a mile downstream from Bureau of Reclamation power canal, about half a mile above intake of East Bench Canal, and 5 miles southeast of Spanish Fork.

Drainage area.--670 sq mi, approximately.

Gage.--Staff gage at described site since Jan. 1, 1913. Prior to July 31, 1912, at site about half a mile below described site and about 600 ft above East Bench Canal diversion at different datum. Aug. 1 to Dec. 31, 1912, at site about a quarter of a mile below described site at different datum.

Average discharge.--8 years (1909-17), 106 cfs.

Extremes.--1909-17: Maximum discharge observed, 1,550 cfs May 11, 1909 (gage height, 5.6 ft, site and datum then in use); no flow for at least a few days nearly every year because of diversion by power canal.

Remarks.--Diversion by Bureau of Reclamation power canal half a mile upstream. Part or all of the water thus diverted may have been returned to the river below this station depending upon irrigation requirements. After June 1915 flow regulated also by transmountain diversion from Strawberry Reservoir. Records for Spanish Fork at Castilla (see preceding station) for 1889-90, 1903-8 were obtained at this station before diversion by power canal began.

Cooperation.--Records Jan. 1, 1911, to Sept. 30, 1917, furnished by Bureau of Reclamation.

538662 O - 60 - 11

Monthly and yearly mean discharge, in cubic feet per second, of Spanish Fork near Spanish Fork, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	91.3	39.4	145	450	1,150	663	176	124	66.9	-
1910	42.6	45.1	43.3	45.7	44.1	207	411	389	116	49.3	20.8	21.6	120
1911	25.8	14.1	7.1	64.7	34.9	*46.7	68.3	138	64.4	24.7	10.0	9.7	*42.5
1912	10.9	6.4	4.1	6.0	11.0	19.0	35.6	248	173	35.2	12.5	17.1	48.3
1913	15.7	16.2	1.7	0	12.9	43.8	244	337	111	50.0	27.2	41.9	75.3
1914	*53.3	*47.6	10.1	27.2	34.0	146	574	796	253	94.3	56.6	44.0	*179
1915	54.3	41.1	33.5	*25	29.0	*57.7	158	198	114	116	55.0	26.5	*76.0
1916	11.5	13.2	10.8	‡26.5	‡37.3	253	464	444	179	143	74.0	71.2	‡144
1917	52.9	45.8	*55.4	*46.3	*59.8	40.0	209	564	409	229	150	92.8	*163
1918	‡89.3	‡29.6	-	-	-	-	-	-	-	-	-	-	-

* Revised.

‡ Not previously published; January and February 1916 partly estimated on basis of records for station at Thistle and Diamond Fork. October and November 1917 computed from available gage height record.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	5,610	2,190	8,920	26,800	70,700	39,500	10,800	7,620	3,980	-
1910	2,620	2,680	2,660	2,810	2,450	12,700	24,500	23,900	6,900	3,030	1,280	1,290	86,800
1911	1,590	839	437	3,980	1,940	*2,870	4,070	8,500	3,820	1,520	617	579	*30,800
1912	669	381	255	371	633	1,170	2,120	15,300	10,300	2,160	767	1,020	35,100
1913	965	967	104	0	716	2,690	14,500	20,700	6,590	3,070	1,670	2,490	54,500
1914	*3,280	*2,830	621	1,670	1,890	9,000	34,200	49,000	15,100	5,800	3,480	2,620	*129,000
1915	3,340	2,450	2,060	*1,540	1,610	*3,550	9,400	12,200	6,810	7,140	3,380	1,580	*55,000
1916	707	786	664	‡1,630	‡2,140	15,600	27,600	27,300	10,700	8,790	4,550	4,240	‡105,000
1917	3,250	2,730	*3,410	*2,850	*3,320	2,460	12,400	34,700	24,300	14,100	9,220	5,520	*118,000
1918	‡5,490	‡1,760	-	-	-	-	-	-	-	-	-	-	-

* Revised.

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1909	270	‡1,550	May 11, 1909	-	-	-	254	184,000
1910	290	‡724	Apr.28,29,1910	0	120	86,800	113	81,700
1911	330,1564	694	Jan. 31, 1911	0	*42.5	*30,800	*40.3	*29,200
1912	330	500	May 30, 1912	0	48.3	35,100	49.4	35,900
1913	360	459	May 12,13,1913	0	75.3	54,500	*81.8	*59,200
1914	390,1564	1,200	May 10, 1914	0	*179	*129,000	180	131,000
1915	410,1564	283	Apr. 30, 1915	16	*76.0	*55,000	*68.1	*49,400
1916	440	879	Mar. 21, 1916	0	‡144	‡105,000	‡154	‡112,000
1917	460,1564	1,020	May 16, 1917	*4	*163	*118,000	-	-

* Revised.

‡ Not previously published.

145. Spanish Fork near Lake Shore, Utah 1/

Location.--Lat 40°10', long 111°44', in SE¼SE¼ sec. 32, T. 7 S., R. 2 E., 1 mile upstream from mouth and 2½ miles north of Lake Shore.

Drainage area.--700 sq mi, approximately.

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 to Oct. 16, 1938, water-stage recorder at present site at datum 4.00 ft lower.

Average discharge.--30 years (1904-7, 1909-19, 1920-25, 1938-50), 90.2 cfs.

Extremes.--1903-7, 1909-25, 1938-50: Maximum discharge observed, 1,430 cfs May 11, 1909; practically no flow at times during irrigation season of most years.

Remarks.--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.

Cooperation.--Records for 1911-25 furnished by Bureau of Reclamation.

1/ Published as "at Lake Shore", 1909, 1913-25.

Monthly and yearly mean discharge, in cubic feet per second, of Spanish Fork near Lake Shore, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	53.3	*70.0	88.7	168	202	0	0	0	0	-
1905	0	0	40.3	54.2	66.0	50.1	90.1	17.9	0	0	0	0	26.3
1906	0	1.1	42.7	59.0	69.9	134	305	419	54.7	0	0	0	90.4
1907	0	26.0	52.9	64.1	144	169	445	484	329	4.1	0	0	143
1909	-	-	-	-	-	‡229	549	987	386	4.26	6.98	41.8	-
1910	27.4	73.4	96.6	106	99.8	359	469	115	1.53	1.12	1.11	1.54	113
1911	20.6	47.3	69.5	146	117	152	82.2	1.6	1.8	1.5	.9	1.4	53.5
1912	1.4	39.9	54.1	70.1	78.7	88.1	98.8	97.3	25.7	1.5	1.5	2.2	46.6
1913	11.7	82.4	68.6	105	87.3	164	381	157	4.3	5.1	1.5	1.1	88.8
1914	54.4	77.6	71.7	90.1	115	248	647	654	130	4.1	3.3	3.0	175
1915	105	106	93.2	104	115	135	215	43.9	13.1	2.91	2.56	†2.52	77.7
1916	2.66	43.7	71.5	70.1	110	306	563	281	3.32	1.52	.53	1.17	121
1917	118	109	95.4	143	126	121	287	574	274	63.6	99.9	27.0	170
1918	117	73.9	104	109	123	237	188	22.4	24.1	6.00	0	.40	83.5
1919	46.5	76.3	68.8	90.2	89.8	136	256	27.3	.1	31.1	7.1	20.0	70.4
1920	69.2	100	-	-	-	-	-	762	54.8	4.2	27.4	30.6	-
1921	126	154	141	141	153	280	352	506	130	23.5	33.2	93.0	178
1922	74	171	193	157	200	340	460	874	139	75	33	6.5	227
1923	7.5	93.9	98.3	95.8	111	177	480	677	60.9	24.5	36.4	36.7	159
1924	130	109	92.5	110	128	120	103	12.1	6.1	12.2	2.2	1.7	68.7
1925	6.1	66.3	71.0	106	118	119	44.1	4.0	5.4	16.5	4.5	4.7	46.8
1938	-	-	-	‡76.8	95.1	175	213	129	2.0	1.5	1.0	.5	-
1939	15.7	71.2	83.0	80.8	75.9	202	94.9	2.5	1.0	.5	.5	.5	52.3
1940	42.8	38.4	27.2	70.5	89.8	118	95.6	6.87	.3	.3	.2	.6	40.7
1941	3.7	52.3	65.1	66.3	93.5	98.3	117	50.3	10.6	1.71	2.78	.92	46.5
1942	39.1	71.0	75.0	84.6	88.9	143	314	186	2.4	1.5	1	1	83.7
1943	17.5	66.6	73.4	81.6	124	137	58.8	1.6	33.4	1.0	1.0	.3	49.1
1944	30.0	62.1	66.5	70.0	91.2	124	208	366	35.2	2.58	.63	.78	88.3
1945	14.3	70.1	67.7	79.5	125	119	161	264	6.84	1.07	7.05	2.15	76.3
1946	33.5	76.0	79.8	84.0	103	146	347	.94	.51	.44	1.22	4.12	72.4
1947	51.3	88.2	88.3	80.1	109	174	169	43.5	5.94	.22	1.29	1.04	67.3
1948	36.2	75.2	74.8	75.7	91.7	116	191	37.8	3.46	.77	.47	.61	58.4
1949	26.0	64.2	67.0	66.6	79.8	145	163	103	4.94	3.41	1.74	.12	60.2
1950	50.0	77.8	72.1	89.0	112	130	200	147	1.33	.91	0	.25	73.1

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for stations at Spanish Fork, Castilla, and Thistle.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	3,280	*4,030	5,450	10,000	12,400	0	0	0	0	-
1905	0	0	2,480	3,330	3,660	3,080	5,360	1,100	0	0	0	0	19,000
1906	0	64	2,630	3,630	3,880	8,240	18,100	25,800	3,250	0	0	0	65,600
1907	0	1,550	3,250	3,940	8,000	10,400	26,500	29,800	19,600	254	0	0	103,000
1909	-	-	-	-	-	‡14,100	32,700	60,700	23,000	262	429	2,490	-
1910	1,680	4,370	5,940	6,520	5,540	22,100	27,900	7,070	910	68.9	68.2	91.6	81,400
1911	1,270	2,810	4,270	8,950	6,520	9,340	4,890	99	108	89	55	82	38,500
1912	86	2,370	3,330	4,310	4,530	5,410	5,880	5,990	1,530	93	94	131	33,700
1913	717	4,900	4,220	6,480	4,850	10,100	22,700	9,640	256	314	92	65	64,300
1914	3,340	4,620	4,410	5,540	6,390	15,200	38,500	40,200	7,750	252	203	178	127,000
1915	6,430	6,330	5,730	†6,370	†6,360	†8,290	†12,800	†2,700	†778	†179	†157	†150	†56,300
1916	164	2,600	4,400	4,310	6,330	18,800	33,500	17,300	198	94	32	70	87,800
1917	7,260	6,490	5,870	8,790	7,000	7,440	17,100	35,300	16,300	3,910	6,140	1,610	123,000
1918	7,190	4,400	6,400	6,700	6,830	14,600	11,200	1,380	1,430	369	0	24	60,500
1919	2,860	4,540	4,230	5,550	4,990	8,360	15,200	1,680	4	1,910	437	1,190	51,000
1920	4,250	5,950	-	-	-	-	-	46,900	3,260	258	1,680	1,820	-
1921	7,750	9,160	8,670	8,670	8,500	17,200	20,900	31,100	7,740	1,440	2,040	5,530	129,000
1922	4,570	10,100	11,900	9,640	11,100	20,900	27,400	53,800	8,280	4,590	2,040	387	165,000
1923	461	5,590	6,040	5,890	6,160	10,900	28,600	41,600	3,620	1,510	2,240	2,180	115,000
1924	7,990	6,490	5,690	6,760	7,360	7,380	6,130	744	363	750	135	101	49,900
1925	375	3,950	4,370	6,520	6,550	7,320	2,620	246	321	1,010	277	280	33,800
1938	-	-	-	‡4,720	5,280	10,760	12,670	7,950	119	92	61	30	-
1939	966	4,230	5,100	4,970	4,220	12,390	5,640	151	60	32	32	30	37,820
1940	2,630	2,280	1,670	4,330	5,160	7,270	5,690	423	18	18	12	36	29,540
1941	230	3,110	4,000	4,070	5,190	6,040	6,950	3,090	631	105	171	55	33,640
1942	2,400	4,220	4,620	5,200	4,940	8,760	18,660	11,420	143	95	61	60	60,580
1943	1,070	3,960	4,510	5,020	6,870	8,410	3,500	101	1,990	61	63	20	35,580
1944	1,840	3,700	4,090	4,310	5,240	7,650	12,400	22,510	2,090	158	39	47	64,070
1945	877	4,170	4,160	4,890	6,940	7,320	9,580	16,230	407	66	434	128	55,200
1946	2,060	4,520	4,910	5,170	5,740	8,980	20,620	58	31	27	75	245	52,440
1947	3,160	5,250	5,430	4,930	6,080	10,670	10,060	2,680	353	13	80	62	48,770
1948	2,230	4,480	4,600	4,660	5,280	7,110	11,390	2,320	206	47	29	36	42,390
1949	1,600	3,820	4,120	4,100	4,430	8,890	9,690	6,300	294	210	107	6.9	43,570
1950	3,080	4,630	4,430	5,470	6,230	8,020	11,900	9,040	79	56	0	15	52,950

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Spanish Fork near Lake Shore, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	133	a333	May11,12,13,1904	-	-	-	52.4	38,000
1905	176	a129	Apr. 10, 1905	0	26.3	19,000	26.8	19,200
1906	212	a552	May 6, 1906	0	90.4	65,600	93.4	67,700
1907	250	a608	May 21, 1907	0	143	103,000	-	-
1909	270	a1,430	May 11, 1909	-	-	-	-	-
1910	290	a675	Mar. 23, 1910	1	113	81,400	107	77,800
1911	330	a870	Jan. 31, 1911	1	53.5	38,500	49.6	35,900
1912	330	a213	May 31, 1912	1	46.6	33,700	52.1	37,800
1913	360	a945	Apr. 2, 1913	1	88.8	64,300	95.5	69,100
1914	390	a942	May 11, 1914	1	175	127,000	183	133,000
1915	410	a336	Apr. 22, 1915	2	77.7	†56,300	62.1	†44,900
1916	440	a792	Apr. 29, 1916	0	121	87,800	138	100,000
1917	460	a925	May 16, 1917	0	170	123,000	168	122,000
1918	480	a543	Mar. 25, 1918	0	83.5	60,500	75.1	54,200
1919	510	a327	Apr. 21, 1919	0	70.4	51,000	-	-
1920	510	a1,030	May23,24,1920	-	-	-	-	-
1921	530	a671	May 5, 1921	8	178	129,000	179	130,000
1922	550	a1,100	May 7, 1922	2	227	165,000	207	150,000
1923	570	a1,060	May 13, 1923	0	159	115,000	169	123,000
1924	590	a179	July 3, 1924	1	68.7	49,900	53.2	38,400
1925	610	a276	July 5, 1925	1	46.8	33,800	-	-
1938	880	437	May 19, 1938	-	-	-	‡71.8	‡51,980
1939	880	449	Mar. 18, 1939	-	52.3	37,820	47.1	34,100
1940	900	252	Mar. 28, 1940	-	40.7	29,540	41.7	30,300
1941	930	220	Aug. 11, 1941	.5	46.5	33,640	51.9	37,540
1942	960	382	Apr. 12, 1942	-	83.7	60,580	81.3	58,880
1943	980	334	Mar. 10, 1943	0	49.1	35,580	49.3	35,660
1944	1010	b720	May 15, 1944	.1	88.3	64,070	87.7	63,650
1945	1040	541	May 9, 1945	.3	76.3	55,200	79.4	57,480
1946	1060	548	Apr. 19, 1946	.2	72.4	52,440	76.6	54,790
1947	1090	b360	Mar. 23, 1947	0	67.3	48,770	63.8	46,240
1948	1120	338	Apr. 22, 1948	0	58.4	42,390	55.9	40,620
1949	1150	325	May 21, 1949	0	60.2	43,570	63.7	46,120
1950	1180	366	May 18, 1950	0	73.1	52,950	-	-

† Corrected.
‡ Not previously published.
a Maximum observed.
b Maximum daily.

Note.--Daily discharge for Feb. 18, 19, 1904, as obtained from gage height published on page 275 of WSP 133, has been revised to 55 cfs.

146. Hobble Creek near Springville, Utah

Location.--Lat 40°09'30", long 111°31'30", in NE¼ sec. 6, T. 8 S., R. 4 E., 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.

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 datums (datum lowered 2.0 ft June 1, 1907). June 1, 1909, to Dec. 31, 1916, staff gage at site 800 ft upstream at different datum.

Average discharge.--17 years (1904-16, 1945-50), 59.4 cfs.

Extremes.--1904-16, 1945-50: Maximum discharge observed, 824 cfs Apr. 29, 1916 (gage height, 6.40 ft, site and datum then in use); minimum, 1.4 cfs Feb. 12, 1946.

Remarks.--Several diversions above station for irrigation. Flow regulated by hydroelectric plants at times during low stages.

Cooperation.--Records furnished by Bureau of Reclamation, January 1911 to December 1916.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	39.7	93.9	133	45.8	31	20	16	-
1905	18	16	16	22.8	25.6	27.0	45.2	81.0	59.4	18.6	18.3	17.1	30.4
1906	12.5	16.9	14.6	‡20	‡21	‡30	‡210	‡325	‡105	‡59	‡40	‡37	‡74.5
1907	‡35	‡37	‡40	‡40	‡82	‡108	‡240	‡350	240	73.9	43.0	*37	‡110
1908	*30	*32	*32	*30	*28	*33	53.1	54.2	68.3	*38	*25	*20	*36.9
1909	*20	*25	*25	*35	*30	54.5	414	†617	252	75.9	36.9	30.8	*135
1910	24.6	31.5	30.7	30.0	28.5	141	212	112	65.2	26.9	19.5	20.6	61.9

* Revised; only monthly figures revised; revised daily figures not available.
† Corrected.
‡ Not previously published; estimated on basis of available gage-height record, previous rating curves, and comparison with records for stations on nearby streams.

Monthly and yearly mean discharge, in cubic feet per second, of Hobble Creek near Springville, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	21.5	22.5	20.5	26.9	30.2	43.2	73.6	70.7	46.2	28.2	18.8	18.4	35.0
1912	22.6	21.3	19.5	19.0	19.9	21.6	40.9	136.0	81.8	33.0	24.4	22.2	38.5
1913	22.5	24.3	20.8	22.3	22.1	25.5	162	112	51.2	28.3	22.2	24.4	44.7
1914	25.6	26.2	21.6	25.2	24.6	59.6	269	182	71.7	39.8	30.4	27.8	67.0
1915	29.3	27.6	27.0	24.2	25.5	28.5	85.0	†71.0	46.5	28.6	24.0	24.2	36.7
1916	23.5	25.7	25.8	19.9	21.3	193	531	345	165	48.6	29.9	22.7	121
1917	27.9	23.9	26.0	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	‡58.4	170	62.7	29.2	22.7	21.2	-
1946	25.1	24.8	23.4	22.2	21.8	30.9	180	70.1	35.3	21.7	19.9	18.7	41.0
1947	22.5	23.2	22.0	22.1	23.9	46.5	112	132	51.0	27.2	21.5	20.1	43.8
1948	23.1	24.3	25.0	22.2	22.7	23.1	116	141	46.1	20.9	17.3	16.8	41.5
1949	19.4	21.7	21.8	20.1	20.9	29.6	164	123	53.6	25.7	19.7	20.2	45.0
1950	21.1	20.2	22.0	21.7	22.0	33.5	141	149	65.0	30.5	21.2	22.0	47.5

† Corrected.
‡ Not previously published; estimated on basis of available gage-height record, previous rating curves, and comparison with records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	709	5,590	8,180	2,720	1,960	1,220	950	-
1905	1,090	950	980	1,402	1,420	1,660	2,690	4,980	3,530	1,140	1,120	1,020	22,000
1906	769	1,010	898	‡1,230	‡1,170	‡1,840	‡12,500	‡20,000	‡6,250	‡3,610	‡2,460	‡2,200	‡53,900
1907	‡2,150	‡2,200	‡2,460	‡2,460	‡4,550	‡6,640	‡14,300	‡21,500	14,300	4,540	2,640	*2,200	‡80,000
1908	*1,840	*1,900	*1,970	*1,840	*1,610	*2,030	3,160	3,330	4,060	*2,340	*1,540	*1,190	*26,800
1909	*1,230	*1,490	*1,540	*2,150	*1,670	3,350	24,600	†38,000	15,000	4,670	2,270	1,830	*97,800
1910	1,510	1,870	1,890	1,840	1,580	8,670	12,600	6,890	3,880	1,650	1,200	1,230	44,800
1911	1,320	1,340	1,260	1,660	1,680	2,650	4,380	4,350	2,750	1,730	1,150	1,090	25,400
1912	1,390	1,270	1,200	1,170	1,140	1,330	2,430	8,360	4,870	2,030	1,500	1,320	28,000
1913	1,360	1,450	1,280	1,370	1,230	1,570	9,640	6,870	3,050	1,740	1,360	1,450	32,400
1914	1,570	1,560	1,320	1,550	1,370	3,660	16,000	11,200	4,270	2,450	1,870	1,650	48,500
1915	1,800	1,640	1,660	1,490	1,410	1,760	5,040	†4,370	2,770	1,730	1,480	1,440	†26,600
1916	1,450	1,530	1,590	1,220	1,230	11,900	31,600	21,200	9,820	2,990	1,840	1,350	87,700
1917	1,720	1,420	1,600	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	‡3,480	10,430	3,730	1,800	1,400	1,260	-
1946	1,540	1,470	1,440	1,370	1,210	1,900	10,710	4,310	2,100	1,330	1,230	1,110	29,720
1947	1,390	1,380	1,350	1,360	1,330	2,860	6,650	8,130	3,030	1,670	1,320	1,190	31,660
1948	1,420	1,450	1,540	1,370	1,300	1,420	6,900	8,650	2,740	1,290	1,060	998	30,140
1949	1,190	1,290	1,340	1,240	1,160	1,820	9,770	7,580	3,190	1,580	1,210	1,200	32,570
1950	1,300	1,200	1,350	1,340	1,220	2,060	8,390	9,170	3,870	1,880	1,300	1,310	34,390

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	133	a188	May 6, 1904	-	-	-	-	-
1905	176	a132	May 22, 1905	-	30.4	22,000	29.9	21,600
1906	212	‡a532	(b)	-	‡74.5	‡53,900	‡80.2	‡58,100
1907	250	-	-	-	‡110	‡80,000	‡109	‡78,800
1908	250	a112	June 15, 1908	-	*36.9	*26,800	*34.9	*25,400
1909	270	c820	May 6-8, 1909	-	*135	*97,800	*136	*98,800
1910	290	a343	Mar. 22, 23, 1910	11	61.9	44,800	60.1	43,500
1911	330	a92	May 10, 1911	18	35.0	25,400	35.0	25,300
1912	330	a189	May 18, 19, 20, 1912	14	38.5	28,000	38.9	28,300
1913	360	†a268	Apr. 18, 1913	18	44.7	32,400	45.3	32,700
1914	390	a461	Apr. 16, 1914	20	67.0	48,500	67.8	49,100
1915	410	a118	Apr. 22, 23, 1915	21	36.7	†26,600	36.2	26,100
1916	440	a824	Apr. 29, 1916	17	121	87,700	121	87,900
1945	1060	393	May 6, 1945	-	-	-	-	-
1946	1060	385	Apr. 21, 1946	15	41.0	29,720	40.6	29,390
1947	1090	261	May 5, 1947	-	43.8	31,660	44.1	31,950
1948	1120	378	Apr. 21, 1948	15	41.5	30,140	40.8	29,550
1949	1150	344	Apr. 24, 1949	-	45.0	32,570	45.0	32,600
1950	1180	266	Apr. 23, 1950	18	47.5	34,390	-	-

* Revised.
† Corrected.
‡ Not previously published.

a Maximum observed.
b Apr. 18, May 6, 13, 1906.
c From floodmarks and observer's notes.

147. Maple Creek near Springville, Utah

Location.--Lat 40°07'50", long 111°32'35", in NE¼ (revised) sec. 13, T. 8 S., R. 3 E., Salt Lake meridian, half a mile above mouth of canyon, and 4 miles southeast of Springville Post Office.

Drainage area.--10.8 sq mi.

Supplemental records available.--Nov. 10 to Dec. 31, 1910, gage heights only.

Gage.--Vertical staff gage in flume. Altitude of gage is about 5,120 ft (from topographic map). Prior to Feb. 16, 1911, at site just upstream at different datum.

Extremes.--1911-13: Maximum discharge observed, 17 cfs June 4, 5, 1912, May 11, 12, 13, 1913 (gage height, 1.00 ft); no flow June 19, 1913 (result of channel work).

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	‡1.4	‡1.04	1.26	1.16	1.83	1.42	0.68	0.71	0.63	-
1912	0.62	0.52	0.15	.40	.48	.58	.92	7.55	7.58	.44	1.17	1.13	1.79
1913	.75	.75	.39	.08	.11	.17	3.02	9.05	2.05	.68	.79	.87	1.57
1914	.70	.59	.72	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated on basis of one discharge measurement, available gage-height record, and comparison with records for Summit Creek near Santaquin.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	‡86	‡58	78	69	113	84	42	44	38	-
1912	38	31	9.2	25	28	36	55	464	451	27	72	67	1,300
1913	46	45	24	4.9	6.1	10	180	556	122	42	49	52	1,140
1914	43	35	44	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	‡0.95	‡691
1912	330	17	June 4, 5,1912	-	1.79	1,300	1.84	1,340
1913	360	17	May11,12,13,1913	0	1.57	1,140	1.58	1,140
1914	390	-	-	-	-	-	-	-

‡ Not previously published.

148. Provo River near Kamas, Utah

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

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

Extremes.--1949-50: Maximum discharge, 591 cfs June 1, 1950 (gage height, 3.26 ft); minimum not determined, occurred during period of no gage-height record.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	39.7	-
1950	10.4	8.38	5.80	6.75	5.67	6.72	31.3	167	330	102	67.0	15.5	63.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	2,360	-
1950	640	499	357	415	315	413	1,860	10,300	19,610	6,280	4,120	921	45,730

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1950	1180	591	June 1, 1950	-	63.2	45,730	-	-

149. 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., 100 ft upstream from outlet to Provo River and 4½ miles northwest of Woodland.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 6,318 ft above mean sea level (levels by Bureau of Reclamation). Prior to Mar. 31, 1943, recorder and Parshall flume and Mar. 31, 1943, to June 5, 1948, recorder and rectangular weir at site 100 ft upstream.

Extremes.--1931-50: Maximum daily discharge, 676 cfs June 20, 1947; no water diverted from Weber River or Beaver Creek for several months during each year.

Remarks.--Canal was completed in 1932 and 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 during periods for which no figures are given, but there may have been small seepage flow.

Cooperation.--Records prior to 1939 furnished by Provo River water commissioner and those for 1939-48 by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	-	-	-	-	-	-	-	-	59.8	55.1	-	-	9.6
1933	-	-	-	-	-	-	-	51.9	114	21.2	-	-	15.5
1934	-	-	-	-	-	-	31.5	9.6	-	-	-	-	3.4
1935	-	-	-	-	-	-	-	38.3	124	24.7	-	-	15.6
1936	-	-	-	-	-	-	52.3	76.4	131	23.1	-	-	23.5
1937	-	-	-	-	-	-	-	57.0	114	21.5	-	-	16.0
1938	-	-	-	-	-	-	-	-	56.2	37.7	-	-	7.8
1939	-	-	-	-	-	-	5.9	110	84.4	1.0	-	-	16.8
1940	-	-	-	-	-	-	-	17.4	47.4	-	-	-	5.4
1941	-	-	1.2	-	-	-	1.8	44.7	77.9	23.6	-	-	12.5
1942	-	-	-	-	-	-	33.5	109	117	26.4	-	-	23.9
1943	-	-	-	-	-	1.0	189	223	172	-	-	-	48.7
1944	-	-	-	-	-	-	27.9	365	500	71.0	-	-	80.2
1945	-	-	-	-	-	-	2.09	183	439	41.8	-	-	55.3
1946	-	-	-	-	-	20.9	281	440	269	-	-	-	84.4
1947	-	23.2	12.0	-	-	5.22	126	364	502	46.9	-	-	89.9
1948	-	-	-	-	-	-	-	-	88.8	4.67	-	-	7.67
1949	-	-	-	-	-	-	9.32	301	158	51.0	-	-	43.7
1950	-	-	-	-	-	-	-	-	3.63	82.9	2.55	-	7.56

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1932	-	-	-	-	-	-	-	-	3,560	3,390	-	-	6,950
1933	-	-	-	-	-	-	-	3,190	6,780	1,300	-	-	11,300
1934	-	-	-	-	-	-	1,880	591	-	-	-	-	2,470
1935	-	-	-	-	-	-	-	2,350	7,400	1,520	-	-	11,270
1936	-	-	-	-	-	-	3,110	4,700	7,820	1,420	-	-	17,060
1937	-	-	-	-	-	-	-	3,500	6,780	1,320	-	-	11,600
1938	-	-	-	-	-	-	-	-	3,350	2,320	-	-	5,670
1939	-	-	-	-	-	-	349	6,740	5,020	63	-	-	12,170
1940	-	-	-	-	-	-	-	1,070	2,820	-	-	-	3,890
1941	-	-	75	-	-	-	107	2,750	4,630	1,450	-	-	9,010
1942	-	-	-	-	-	-	2,000	6,700	6,970	1,620	-	-	17,290
1943	-	-	-	-	-	61	11,260	13,710	10,240	-	-	-	35,270
1944	-	-	-	-	-	-	1,660	22,440	29,760	4,370	-	-	58,230
1945	-	-	-	-	-	-	124	11,240	26,130	2,570	-	-	40,060
1946	-	-	-	-	-	1,290	16,720	27,080	16,000	-	-	-	61,090
1947	-	1,380	738	-	-	321	7,510	22,380	29,850	2,890	-	-	65,070
1948	-	-	-	-	-	-	-	-	5,280	287	-	-	5,570
1949	-	-	-	-	-	-	554	18,530	9,420	3,130	-	-	31,630
1950	-	-	-	-	-	-	-	-	216	5,100	157	-	5,470

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1932	750	120	June 13-16, 1932	-	9.6	6,950	9.6	6,950
1933	750	152	June 14,15, 1933	-	15.5	11,300	15.5	11,300
1934	765	108	Apr.25,26,1934	-	3.4	2,470	3.4	2,470
1935	790	149	June 29, 1935	-	15.6	11,270	15.6	11,270
1936	810	144	June 12,13,1936	-	23.5	17,060	23.5	17,060
1937	830	149	May 30, 1937	-	16.0	11,600	16.0	11,600
1938	860	119	June 17, 1938	-	7.8	5,670	7.8	5,670
1939	880	122	May 29, 1939	-	16.8	12,170	16.8	12,170
1940	900	95	May 4-6, 1940	-	5.4	3,890	5.5	3,960

Yearly discharge, in cubic feet per second, of Weber-Provo diversion canal near Woodland, Utah--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1941	930	117	June 17, 1941	-	12.5	9,010	12.3	8,940
1942	960	122	June 19, 1942	-	23.9	17,290	23.9	17,290
1943	980	338	June 1, 1943	-	48.7	35,270	48.7	35,270
1944	1010	525	June 26, 1944	-	80.2	58,230	80.2	58,230
1945	1040	633	June 25,26,1945	-	55.3	40,060	55.3	40,060
1946	1060	607	May 22, 1946	-	84.4	61,090	87.3	63,210
1947	1090	676	June 20, 1947	-	89.9	65,070	86.9	62,950
1948	1120	186	June 12, 1948	-	7.67	5,570	7.67	5,570
1949	1150	505	May 16, 1949	-	43.7	31,630	-	-
1950	1180	136	July 8, 1950	-	7.56	5,470		

150. Provo River near Hailstone, Utah

Location.--Lat 40°36', long 111°22', in SE¼ sec. 34, T. 2 S., R. 5 E., 3 miles upstream from Ross Creek and Hailstone.

Gage.--Water-stage recorder. Altitude of gage is 6,100 ft (from river-profile map).

Extremes.--1949-50: Maximum discharge, 2,150 cfs June 2, 1950 (gage height, 6.24 ft); minimum, 44 cfs Sept. 4, 1950, but may have been less during periods of ice effect or no gage-height record.

Remarks.--Several small diversions above station. Records include flow of Weber-Provo diversion canal (see p. 161).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	80.6	74.6	57.1	55.0	66.3	87.3	306	758	1,046	307	123	66.0	252

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	4,960	4,440	3,510	3,380	3,680	5,370	18,220	46,590	62,260	18,870	7,530	3,930	182,700

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1950	1180	2,150	June 2, 1950	-	252	182,700	-	-

151. Provo River near Charleston, Utah

Location.--Lat 40°29', long 111°28', in SW¼ sec. 11, T. 4 S., R. 4 E., 900 ft upstream from Snake Creek and 1½ miles northeast of Charleston.

Gage.--Water-stage recorder. Altitude of gage is about 5,460 ft (from river-profile map). Prior to Oct. 16, 1943, at different site and datum. Oct. 16, 1943, to Sept. 30, 1945, at datum 0.85 ft higher. Station discontinued Sept. 30, 1950.

Average discharge.--12 years (1938-50), 192 cfs.

Extremes.--1938-50: Maximum discharge, 1,740 cfs June 2, 1950 (gage height, 4.27 ft); minimum, 13 cfs Oct. 24, 1940, Oct. 7, 1948

Remarks.--Many diversions above station for irrigation. Records include flow of Weber-Provo diversion canal. Flow also slightly affected by small lakes near headwaters that serve as reservoirs.

Cooperation.--Records prior to October 1945, not previously published by Geological Survey, furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	490	395	110	55.8	49.7	-
1939	58.1	128	100	101	103	203	215	338	147	55.1	30.7	24.8	125
1940	58.7	60.4	80.1	99.6	108	112	87.0	314	86.9	47.9	19.2	19.0	91.3
1941	21.4	73.1	91.7	93.4	122	124	117	412	308	81.4	55.9	64.9	130
1942	52.7	130	126	118	105	124	406	444	431	113	31.6	26.3	175
1943	34.6	79.2	102	124	122	190	630	712	538	82.5	39.6	37.7	224
1944	55.7	106	103	105	98.8	122	212	90.0	983	171	52.2	31.6	245
1945	28.1	77.3	95.5	96.8	130	143	178	675	815	142	55.0	67.6	208

Monthly and yearly mean discharge, in cubic feet per second, of Provo River near Charleston, Utah --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	57.6	128	124	115	120	193	710	820	420	38.9	30.6	29.0	232
1947	83.7	139	114	101	118	170	336	1,020	966	100	54.7	74.3	273
1948	56.6	118	131	114	112	113	252	482	209	36.4	36.4	33.6	141
1949	46.6	90.4	119	111	108	176	339	848	579	86.9	38.1	65.8	218
1950	125	135	101	127	140	148	326	622	850	159	65.3	51.0	237

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	30,150	23,510	6,770	3,430	2,960	-
1939	3,570	7,620	6,160	6,190	5,700	12,470	12,810	20,770	8,750	3,390	1,890	1,480	90,800
1940	3,610	3,590	4,920	6,130	6,220	6,860	5,180	19,300	5,170	2,950	1,180	1,130	66,240
1941	1,320	4,350	5,640	5,740	6,760	7,610	6,950	25,360	18,340	5,010	3,440	3,860	94,380
1942	3,240	7,710	7,760	7,280	5,830	7,630	24,170	27,330	25,660	6,930	1,950	1,560	127,000
1943	2,130	4,710	6,300	7,610	6,750	11,700	37,460	43,790	32,000	5,070	2,440	2,240	162,200
1944	3,430	6,330	6,350	6,430	5,680	7,510	12,600	55,310	58,490	10,540	3,210	1,880	177,800
1945	1,730	4,600	5,870	5,960	7,240	8,770	10,580	41,520	48,500	8,720	3,380	4,020	150,900
1946	3,540	7,620	7,600	7,040	6,680	11,880	42,250	50,440	24,980	2,390	1,880	1,720	168,000
1947	5,150	8,270	6,990	6,230	6,560	10,460	19,970	62,700	57,450	6,180	3,360	4,420	197,700
1948	3,480	7,000	8,050	6,990	6,440	6,950	15,010	29,660	12,440	2,240	2,240	2,000	102,500
1949	2,870	5,380	7,330	6,850	6,000	10,820	20,160	52,110	34,440	5,340	2,340	3,920	157,600
1950	7,710	8,020	6,200	7,790	7,800	9,110	19,380	38,220	50,560	9,790	4,010	3,030	171,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30				Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	(a)	1,650	May 29, 1938	-	-	-	-	-
1939	(a)	633	May 5, 1939	18	125	90,800	118	85,570
1940	(a)	720	May 16, 1940	17	91.3	66,240	90.1	65,430
1941	(a)	1,030	May 14, 1941	15	130	94,380	141	101,800
1942	(a)	1,300	May 27, 1942	23	175	127,000	168	121,500
1943	(a)	1,330	May 4, 1943	29	224	162,200	228	165,200
1944	(a)	1,640	June 2, 1944	29	245	177,800	239	173,800
1945	(a)	1,250	June 6, 1945	25	208	150,900	217	157,400
1946	1060	*1,280	Apr. 21, 1946	28	232	168,000	234	169,700
1947	1090	1,820	May 28, 1947	31	273	197,700	271	195,900
1948	1120	1,160	May 20, 1948	30	141	102,500	137	99,550
1949	1150	1,330	May 15, 1949	32	218	157,600	226	163,900
1950	1180	1,740	June 2, 1950	33	237	171,600	-	-

* Revised.
a From files of Bureau of Reclamation.

152. Snake Creek near Charleston, Utah

Location.--Lat 40°29', long 111°28', in SW¼ sec. 11, T. 4 S., R. 4 E., 600 ft upstream from mouth and 1½ miles northeast of Charleston.

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

Average discharge.--12 years (1938-50), 45.8 cfs.

Extremes.--1938-50: Maximum discharge, 126 cfs June 4, 1943 (gage height, 3.06 ft); minimum, 19 cfs May 1, 1941.

Remarks.--Some diversions above station for irrigation.

Cooperation.--Records prior to October 1945, not previously published by Geological Survey, furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	-	-	-	38.1	-
1939	43.3	46.1	44.6	42.5	41.9	47.4	46.8	52.1	43.6	33.7	29.9	29.6	41.8
1940	35.3	33.8	36.1	36.3	35.5	36.1	40.0	49.8	39.6	32.6	28.5	30.5	36.2
1941	35.7	37.2	38.1	35.3	33.6	40.3	36.3	44.3	52.7	43.1	37.5	35.0	39.1
1942	45.3	49.5	39.8	40.5	41.4	42.6	46.3	48.8	56.2	40.9	33.0	34.2	43.2
1943	39.2	43.0	43.0	38.4	37.4	44.5	48.9	87.5	72.6	47.2	41.3	36.8	48.4
1944	47.0	50.0	44.0	40.5	38.7	44.1	50.0	54.2	70.9	48.4	37.9	32.1	46.5
1945	41.2	54.3	51.4	49.3	55.1	52.0	57.9	51.6	67.9	51.7	49.9	48.7	52.5
1946	57.5	62.9	53.9	49.9	42.9	49.9	51.7	57.0	54.1	40.5	37.5	37.8	49.7
1947	53.4	53.2	47.6	41.3	41.9	44.6	43.1	52.5	62.5	49.0	44.1	47.7	48.4
1948	50.2	48.0	45.5	41.7	39.3	39.6	44.6	54.0	59.2	46.0	42.3	41.8	46.0
1949	50.2	48.7	43.1	40.1	37.6	48.4	47.0	62.9	60.9	50.2	43.9	43.5	48.1
1950	52.4	45.8	40.9	42.3	49.4	51.3	45.3	57.2	63.3	52.8	43.8	48.0	49.4

Monthly and yearly runoff, in acre-feet, of Snake Creek near Charleston, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	-	-	-	2,260	-
1939	2,660	2,740	2,740	2,610	2,330	2,920	2,790	3,200	2,590	2,070	1,840	1,760	30,250
1940	2,180	2,010	2,220	2,230	2,040	2,220	2,380	3,060	2,360	2,000	1,750	1,810	26,260
1941	2,190	2,220	2,340	2,170	1,870	2,480	2,160	2,720	3,140	2,650	2,310	2,080	28,330
1942	2,790	2,940	2,440	2,490	2,300	2,620	2,750	3,000	3,340	2,510	2,030	2,030	31,240
1943	2,410	2,560	2,640	2,360	2,080	2,740	2,910	5,380	4,320	2,900	2,540	2,190	35,030
1944	2,890	2,970	2,710	2,490	2,230	2,710	2,970	3,330	4,220	2,970	2,330	1,910	33,730
1945	2,540	3,230	3,160	3,030	3,060	3,200	3,440	3,170	4,040	3,180	3,070	2,900	38,020
1946	3,530	3,740	3,320	3,070	2,380	3,070	3,070	3,510	3,220	2,490	2,300	2,250	35,950
1947	3,280	3,160	2,930	2,540	2,330	2,740	2,560	3,230	3,720	3,010	2,710	2,840	35,000
1948	3,090	2,860	2,800	2,570	2,260	2,430	2,660	3,320	3,520	2,830	2,600	2,490	33,430
1949	3,090	2,900	2,650	2,470	2,090	2,980	2,790	3,870	3,620	3,090	2,700	2,590	34,840
1950	3,220	2,730	2,510	2,600	2,740	3,160	2,700	3,520	3,770	3,250	2,690	2,860	35,750

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	(a)	-	-	-	-	-	-	-
1939	(a)	63	Mar. 25, 1939	26	41.8	30,250	39.4	28,520
1940	(a)	59	May 20, 1940	26	36.2	26,260	36.7	26,600
1941	(a)	70	June 9, 1941	26	39.1	28,330	41.1	29,750
1942	(a)	74	May 27, 1942	30	43.2	31,240	42.4	30,680
1943	(a)	126	June 4, 1943	31	48.4	35,030	49.7	35,990
1944	(a)	111	June 3, 1944	31	46.5	33,730	47.0	34,090
1945	(a)	91	June 5,7,1945	37	52.5	38,020	54.8	39,680
1946	1060	91	May 10, 1946	35	49.7	35,950	48.0	34,730
1947	1090	86	June 20, 1947	36	48.4	35,000	47.6	34,430
1948	1120	88	May 20, 1948	36	46.0	33,430	45.9	33,320
1949	1150	90	May 20, 1949	-	48.1	34,840	47.9	34,650
1950	1180	81	May29,30,1950	34	49.4	35,750	-	-

a From files of Bureau of Reclamation.

153. Transmountain diversions from Colorado River basin to Jordan River basin, Utah

Water for irrigation is diverted from Strawberry River and tributaries of Strawberry River, a tributary of Duchesne River in Colorado River basin, to Daniels Creek, a tributary of Provo River in the Jordan River basin. The diversions have been made for many years but records are available only since October 1949. The tables herewith show the record at each of the three points at which the diversions are measured and the combined diversion by the group of ditches. Additional water is diverted from Strawberry Reservoir on Strawberry River to the Jordan River basin by Strawberry tunnel (see p. 150).

Upper Hobble Creek ditch near Heber, Utah

Location.--Lat 40°18', long 111°15', in NW¼ sec. 15, T. 6 S., R. 6 E., Salt Lake meridian, at Daniels Pass, 18 miles southeast of Heber.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,000 ft (from topographic map).

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	0	0	0	0	0	0	0	8	324	23	0	0	355

Lower Hobble Creek ditch near Heber, Utah

Location.--Lat 40°18', long 111°15', in NW¼ sec. 15, T. 6 S., R. 6 E., Salt Lake meridian, at Daniels Pass, 18 miles southeast of Heber.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,000 ft (from topographic map).

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	0	0	0	0	0	0	0	35	235	24	2	0	296

Strawberry River and Willow Creek ditches near Heber, Utah

Location.--Lat 40°20', long 111°14', in SE¼ sec. 34, T. 5 S., R. 6 E., Salt Lake meridian, 15 miles southeast of Heber.

Gage.--Water-stage recorder. Altitude of gage is 8,000 ft (from topographic map).

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	145	0	0	0	0	0	0	117	1,020	825	387	235	2,730

Transmountain diversions from Colorado River basin to Jordan River basin, Utah--Continued

Combined transmountain diversions from Colorado River basin to Jordan River basin, Utah

Combined monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	145	0	0	0	0	0	0	160	1,580	872	389	235	3,380

154. Round Valley Creek near Wallsburg, Utah

Location.--Lat 40°24'30", long 111°28'30", in SE¼ sec. 3, T. 5 S., R. 4 E., 1,900 ft upstream from high-water line of Deer Creek Reservoir and 3½ miles northwest of Wallsburg.

Drainage area.--71.9 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 5,480 ft (from river-profile map). Prior to Mar. 20, 1940, at site 500 ft downstream at different datum. Discontinued Sept. 30, 1950.

Average discharge.--12 years (1938-50), 13.3 cfs.

Extremes.--1938-50: Maximum discharge, 201 cfs Mar. 16, 1939 (gage height, 2.55 ft, site and datum then in use); no flow Aug. 16, 1942.

Remarks.--Many diversions above station for irrigation.

Cooperation.--Records prior to October 1945, not previously published by Geological Survey, furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	-	-	-	4.19	-
1939	7.08	10.3	10.1	8.33	10.2	23.6	22.0	4.83	4.18	1.68	1.46	1.38	8.74
1940	5.76	5.07	4.48	6.33	9.20	8.92	9.47	4.56	2.44	1.85	.83	1.16	5.00
1941	2.45	4.42	6.08	6.65	12.9	11.3	14.2	37.1	11.0	3.20	3.78	2.59	9.64
1942	4.29	6.31	10.3	10.3	10.0	16.0	44.0	27.2	6.97	2.26	1.34	3.47	11.8
1943	2.90	5.24	4.80	10.3	18.3	24.1	47.6	19.2	14.4	3.52	2.83	2.37	12.9
1944	4.72	6.40	6.80	8.40	8.37	13.2	17.5	32.4	19.3	3.11	2.00	1.81	10.3
1945	2.56	6.32	7.53	7.90	29.6	17.4	26.2	66.9	20.9	5.31	6.28	5.21	16.8
1946	6.77	10.2	12.0	9.88	14.0	15.0	57.7	14.2	4.43	2.84	2.57	2.73	12.6
1947	3.59	11.4	11.7	8.04	9.76	20.0	37.8	43.6	9.23	4.54	3.64	4.05	14.1
1948	5.60	12.5	11.3	9.95	15.2	14.2	45.0	66.7	6.98	3.61	3.45	2.37	16.4
1949	2.94	9.57	9.14	9.2	8.99	21.8	60.4	71.2	12.1	4.60	3.39	4.12	18.2
1950	9.79	10.3	10.6	16.1	18.2	19.8	65.9	83.9	19.2	6.46	5.63	6.54	22.7

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	-	-	-	249	-
1939	435	610	621	512	568	1,450	1,310	297	249	103	90	82	6,330
1940	354	301	276	389	529	549	564	280	145	114	51	69	3,620
1941	151	263	374	409	716	697	848	2,280	656	197	232	154	6,980
1942	264	375	635	633	557	981	2,620	1,670	415	139	82	206	8,580
1943	178	312	295	633	1,010	1,480	2,830	1,180	857	217	174	141	9,310
1944	290	381	418	516	481	813	1,040	1,990	1,150	191	123	108	7,500
1945	158	376	463	486	1,640	1,070	1,560	4,120	1,240	327	386	310	12,140
1946	417	609	739	608	777	924	3,430	870	264	175	158	163	9,130
1947	344	678	719	494	542	1,230	2,250	2,680	549	279	224	241	10,230
1948	344	744	695	612	874	873	2,680	4,100	416	222	212	141	11,910
1949	180	570	562	565	499	1,340	3,590	4,380	722	283	209	245	13,140
1950	602	611	654	990	1,010	1,220	3,920	5,160	1,140	397	346	389	16,440

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	(a)	-	-	-	-	-	-	-
1939	(a)	201	Mar. 16, 1939	0.5	8.74	6,330	7.73	5,590
1940	(a)	40	Feb. 28, 1940	.6	5.00	3,620	4.79	3,480
1941	(a)	90	May 13, 1941	1.2	9.64	6,980	10.3	7,460
1942	(a)	78	Dec. 3, 1941	0	11.8	8,580	11.2	8,090
1943	(a)	93	Mar. 9, 1943	1.3	12.9	9,310	13.3	9,610
1944	(a)	105	(b)	1.5	10.3	7,500	10.2	7,410
1945	(a)	163	May 8, 1945	2.0	16.8	12,140	17.8	12,900
1946	1060	179	Apr. 21, 1946	2.1	12.6	9,130	12.6	9,110
1947	1090	96	May 4, 1947	2.8	14.1	10,230	14.2	10,270
1948	1120	120	Apr. 30, 1948	1.8	16.4	11,910	15.8	11,440
1949	1150	115	Apr. 25, 1949	2.1	18.2	13,140	18.9	13,700
1950	1180	161	(c)	3.0	22.7	16,440	-	-

a Files of Bureau of Reclamation. b Between May 6-20, 1944. c Between Apr. 26 and May 15, 1950.

155. 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.

Gage.--Mercury indicating gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--1940-50: 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 cut-off wall. Storage began in October 1940. Dam completed in October 1941. 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 trashrack structure). Water used for irrigation, domestic, and industrial purposes. Contents given herein include dead storage and are computed from 12 p.m. elevations which are based on trend indicated by 8 a.m. readings.

Cooperation.--Records of daily elevations and contents furnished by Provo River water commissioner.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1941	-	-	-	-	-	2,260	3,820	4,850	6,180	5,020	3,220	1,930
1942	3,320	6,850	5,800	3,740	3,110	3,870	11,720	15,480	16,970	15,740	11,060	8,600
1943	8,980	11,890	12,840	14,080	11,560	12,310	23,100	37,140	46,030	40,740	33,170	24,840
1944	26,090	28,000	26,370	24,080	22,620	24,660	29,630	58,600	77,440	74,060	63,870	54,420
1945	53,290	54,950	56,930	54,450	56,540	51,960	53,710	63,300	85,240	80,860	72,240	64,010
1946	63,460	66,610	65,760	63,060	61,460	66,220	106,600	140,500	149,000	132,700	119,900	108,700
1947	111,400	113,900	96,500	80,480	76,680	76,300	80,290	115,900	153,000	142,100	132,900	124,600
1948	124,500	125,600	124,400	121,500	120,100	130,700	146,300	152,700	148,000	131,700	117,800	107,500
1949	108,700	110,600	108,200	105,100	101,700	105,200	119,500	153,100	152,900	141,000	127,300	118,800
1950	121,400	122,200	120,500	119,100	119,100	120,700	134,500	149,700	152,800	145,400	133,900	123,300

156. Deer Creek near Wildwood, Utah

Location.--Lat 40°24'30", long 111°32'00", in NE¼ sec. 7, T. 5 S., R. 4 E., 1,000 ft upstream from mouth and 2 miles northeast of Wildwood.

Drainage area.--26 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,300 ft (from topographic map). Station discontinued Sept. 30, 1950.

Average discharge.--12 years (1938-50), 13.3 cfs.

Extremes.--1938-50: Maximum discharge recorded, 99 cfs May 3, 1945 (gage height, 1.50 ft); minimum, 4.7 cfs July 13, 1940.

Remarks.--One small irrigation diversion above station.

Cooperation.--Records prior to October 1945, not previously published by Geological Survey, furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	-	-	-	10.0	-
1939	11.2	10.8	11.1	10.3	10.1	12.4	20.9	11.8	8.60	7.79	7.60	9.03	11.0
1940	9.61	9.90	9.32	9.92	9.57	11.2	13.5	9.32	6.34	5.60	6.35	8.01	9.05
1941	9.76	9.72	10.0	9.27	9.91	11.9	15.0	21.8	9.34	7.79	8.64	7.99	10.9
1942	9.82	9.48	10.9	12	10	10.3	33.7	23.9	11.4	8.37	8.06	9.04	13.1
1943	10.1	10.4	11.2	10.7	10.8	16.4	29.8	13.9	8.23	7.18	7.52	7.73	12.0
1944	10.3	9.85	10.1	10.2	10.1	10.9	13.2	26.8	17.7	9.89	8.54	9.07	12.2
1945	13.2	12.6	11.8	13.3	13.1	12.4	20.1	38.7	19.0	11.9	13.3	13.2	16.1
1946	13.5	14.0	12.8	11.3	10.0	14.2	36.5	18.9	11.7	9.99	8.87	8.96	14.2
1947	11.8	11.6	11.9	10.4	11.0	14.8	26.8	24.2	12.6	10.9	9.81	9.52	13.8
1948	11.5	11.9	11.9	11.2	10.9	10.3	35.1	40.5	12.9	10.6	9.93	8.84	15.5
1949	12.0	12.3	11.8	12.0	11.2	13.0	37.7	29.7	15.5	9.99	9.15	9.09	15.3
1950	10.2	10.4	10.2	9.69	12.2	14.2	45.5	32.7	17.8	11.0	9.69	10.2	16.1

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	-	-	-	594	-
1939	692	644	681	634	564	760	1,240	723	512	479	467	537	7,930
1940	591	589	573	610	551	686	804	573	377	345	391	477	6,570
1941	600	579	615	570	550	735	893	1,340	556	479	531	475	7,920
1942	604	564	671	738	555	636	2,010	1,470	679	515	496	538	9,480
1943	624	619	691	659	599	1,010	1,770	853	490	442	463	460	8,680
1944	632	586	622	626	582	670	786	1,650	1,050	608	525	540	8,880
1945	813	749	723	819	730	760	1,190	2,380	1,130	729	815	786	11,620

Monthly and yearly runoff, in acre-feet, of Deer Creek near Wildwood, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	833	833	785	694	555	875	2,170	1,160	698	614	546	533	10,300
1947	724	690	730	639	613	908	1,600	1,480	752	668	603	566	9,970
1948	706	706	734	690	625	633	2,090	2,490	768	653	611	526	11,230
1949	738	730	724	738	623	801	2,250	1,830	924	614	563	541	11,080
1950	628	619	626	596	679	875	2,710	2,010	1,060	678	596	609	11,690

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	(a)	-	-	-	-	-	-	-
1939	(a)	28	Apr. 9, 1939	6.8	11.0	7,930	10.6	7,670
1940	(a)	17	Apr. 14, 1940	5.1	9.05	6,570	9.1	6,610
1941	(a)	48	May 2, 1941	6.0	10.9	7,920	11.0	7,970
1942	(a)	68	Apr. 13, 1942	7.3	13.1	9,480	13.2	9,570
1943	(a)	59	Apr. 22, 1943	6.4	12.0	8,680	11.9	8,590
1944	(a)	-	-	7.8	12.2	8,880	12.8	9,320
1945	(a)	b99	May 3, 1945	11	16.1	11,620	16.3	11,790
1946	1060	76	Apr. 18, 1946	7.9	14.2	10,300	†13.8	9,990
1947	1090	42	Apr. 20, 1947	8.8	13.8	9,970	13.8	9,980
1948	1120	92	Apr. 28, 1948	8.2	15.5	11,230	15.5	11,280
1949	1150	73	Apr. 23, 1949	8.4	15.3	11,080	14.8	10,760
1950	1180	91	Apr. 23, 1950	9.0	16.1	11,690	-	-

† Corrected. b Maximum recorded.
a From files of Bureau of Reclamation.

157. Provo River near Wildwood, Utah

Location.--Lat 40°24', long 111°32', in NE¼ sec. 7, T. 5 S., R. 4 E., 1,500 ft downstream from Deer Creek, half a mile downstream from Deer Creek Reservoir, and 2 miles northeast of Wildwood.

Gage.--Water-stage recorder. Datum of gage is 5,262.48 ft above mean sea level (levels by Coast and Geodetic Survey). Prior to May 13, 1941, at site about two-thirds of a mile downstream at datum 11.70 ft lower.

Average discharge.--11 years (1938-49), 308 cfs.

Extremes.--1938-49: Maximum discharge, 1,440 cfs May 27, June 12, 1949 (gage height, 4.65 ft); minimum, 10 cfs Jan. 3, 1941.

Remarks.--Flow regulated by Deer Creek Reservoir since October 1940 and by small lakes at headwaters. Small transmountain diversions from Strawberry River drainage to Daniels Creek. Records include flow of Weber-Provo diversion canal.

Cooperation.--Records prior to October 1945 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	612	270	185	178	-
1939	201	250	238	210	203	332	355	474	290	160	124	122	247
1940	171	172	184	196	219	212	187	423	197	137	94.6	102.4	192
1941	117	163	192	190	207	265	202	540	460	241	210	191	249
1942	163	201	268	253	221	233	437	524	569	254	211	169	292
1943	133	147	190	236	300	339	612	612	630	326	288	305	343
1944	180	213	227	269	209	206	275	684	867	352	312	291	340
1945	172	186	194	249	266	358	315	774	621	366	351	351	351
1946	210	238	272	274	252	255	280	475	447	415	346	311	315
1947	180	249	515	454	291	324	450	600	459	390	351	332	384
1948	202	230	262	254	246	76	240	644	471	408	376	296	309
1949	137	199	275	279	261	279	328	609	869	440	383	328	366

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	-	-	36,390	16,600	11,400	10,580	-
1939	12,360	14,860	14,630	12,920	11,260	20,440	21,120	29,140	17,280	9,820	7,630	7,240	178,700
1940	10,530	10,220	11,320	12,070	12,580	13,060	11,140	26,020	11,730	8,450	5,820	6,090	139,000
1941	7,180	9,720	11,790	11,680	11,510	16,310	12,040	33,230	27,400	14,840	12,930	11,350	180,000
1942	10,050	11,970	16,480	15,580	12,280	14,330	25,980	32,190	33,840	15,590	12,970	10,060	211,300
1943	8,150	8,750	11,670	14,510	16,690	20,860	36,430	37,610	37,500	20,030	17,700	18,120	248,000
1944	11,100	12,680	13,940	16,530	12,030	12,660	16,350	42,040	51,600	21,670	19,180	17,300	247,100
1945	10,580	11,100	11,920	15,290	14,750	21,990	18,740	47,580	36,940	22,520	21,600	20,860	253,900
1946	12,890	14,140	16,740	16,880	14,010	15,710	16,640	29,190	26,590	25,550	21,260	18,510	228,100
1947	11,060	14,700	31,640	27,940	16,180	19,910	26,760	36,890	27,340	23,990	21,560	19,760	277,700
1948	12,410	13,710	16,080	15,630	14,130	4,670	14,280	39,590	28,040	25,100	23,130	17,610	224,400
1949	8,440	11,830	16,940	17,140	14,500	17,170	19,520	37,460	51,710	27,060	23,580	19,490	264,800

Yearly discharge, in cubic feet per second, of Provo River near Wildwood, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	(a)	-	-	-	-	-	-	-
1939	(a)	766	May 5, 1939	115	247	178,700	233	168,900
1940	(a)	796	May 16, 1940	90	192	139,000	187	135,600
1941	(a)	809	June 12, 1941	64	249	180,000	262	189,800
1942	(a)	900	May 28, 1942	134	292	211,300	278	201,400
1943	(a)	976	May 6, 1943	125	343	248,000	355	257,200
1944	(a)	1,100	June 11, 1944	130	340	247,100	335	243,000
1945	(a)	844	May 5, 1945	152	351	253,900	365	264,000
1946	1060	891	May 15, 1946	76	315	228,100	334	241,700
1947	1090	897	May 14, 1947	35	384	277,700	363	262,500
1948	1120	1,350	May 22, 1948	19	309	224,400	302	219,400
1949	1150	1,440	May 27, June 12, 1949	108	366	264,800	-	-

a From files of Bureau of Reclamation.

158. Provo River at Vivian Park, Utah 1/

Location (revised).--Lat 40°21'40", long 111°33'45", in NW¼NW¼ sec. 25, T. 5 S., R. 3 E., 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.

Gage.--Water-stage recorder. Altitude of gage is 5,200 ft (from topographic map). Prior to Nov. 13, 1933, staff gage at several sites about three-quarters of a mile downstream (above South Fork) at different datums.

Extremes.--1911-50: Maximum discharge observed, 3,180 cfs June 11, 1921 (gage height, 6.13 ft); minimum discharge, 23 cfs Mar. 11, 1948 (gage height, 1.00 ft).

Remarks.--Many diversions for irrigation above station in Heber Valley. Flow regulated by Deer Creek Reservoir since October 1940 and by small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Records after 1932 include flow of Weber-Provo diversion canal (see elsewhere in this report).

Cooperation.--Records for 1938-41 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	‡230	‡258	232	277	265	351	398	687	1,100	275	253	297	‡385
1913	337	373	300	284	260	327	680	757	393	248	213	235	368
1914	298	307	275	322	281	396	744	1,170	843	292	272	243	454
1915	318	279	250	246	259	341	435	285	457	234	170	190	288
1916	238	269	292	258	270	640	743	798	863	290	244	271	431
1917	401	318	306	285	281	310	748	1,130	1,660	585	288	332	554
1918	286	278	325	300	318	429	390	459	749	243	174	190	345
1919	269	267	258	191	218	361	504	785	313	174	133	174	305
1920	253	297	260	231	272	304	443	1,390	971	271	234	223	429
1921	291	325	288	277	265	514	593	1,260	1,860	365	316	315	555
1922	274	309	419	319	311	361	610	1,730	1,240	342	348	293	548
1923	257	348	357	311	290	326	792	1,680	1,060	402	336	298	539
1924	349	310	302	267	309	283	354	449	201	160	139	135	272
1925	149	228	219	204	242	297	245	446	357	252	210	232	257
1926	239	250	247	196	222	331	527	663	285	193	189	153	292
1927	192	244	261	233	246	365	630	1,020	762	331	248	234	398
1928	264	396	332	303	277	436	412	1,260	538	278	208	169	407
1929	209	272	259	240	236	361	438	800	800	290	275	300	374
1930	259	288	302	272	304	299	377	398	424	235	218	217	302
1931	309	276	263	245	241	231	170	188	131	88.5	83.2	75.6	192
1932	104	163	200	178	236	310	432	877	866	318	224	185	341
1933	164	209	226	234	203	290	296	337	759	227	152	117	268
1934	132	168	189	191	207	191	145	111	81.3	61.0	63.2	66.9	134
1935	79.5	120	183	181	190	189	193	410	854	225	157	130	242
1936	141	179	187	194	211	276	690	1,215	583	292	207	169	362
1937	179	251	228	214	246	320	469	1,055	532	287	228	179	350
1938	206	250	257	222	236	380	529	888	661	314	215	196	363
1939	220	272	253	224	223	359	377	503	331	188	144	137	270
1940	191	185	196	216	236	228	208	466	238	165	114	117	213

‡ Not previously published; estimated on basis of records for station above Telluride Power Co.'s dam.

1/ Published as "at Forks", 1911-37.

Monthly and yearly mean discharge, in cubic feet per second, of Provo River at Vivian Park, Utah --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	134	178	200	197	220	274	228	608	518	291	235	208	275
1942	175	205	260	269	243	252	478	566	640	308	236	186	319
1943	150	163	211	246	311	350	636	643	680	339	310	301	361
1944	180	208	245	250	222	222	281	709	911	397	338	299	356
1945	170	188	186	240	265	357	303	826	692	405	386	358	365
1946	216	246	279	283	268	275	304	512	487	440	359	320	333
1947	187	255	534	463	296	331	465	657	498	423	361	332	401
1948	203	238	260	253	255	86.8	259	670	508	421	372	284	318
1949	141	209	291	287	274	294	365	634	877	486	408	337	384
1950	245	267	266	295	289	301	365	729	1,053	505	411	376	425

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	‡14,100	‡15,400	14,300	17,000	15,200	21,600	23,700	42,200	65,400	16,900	15,600	17,700	‡279,100
1913	20,700	22,200	18,400	17,500	14,400	20,100	40,500	46,500	23,400	15,200	13,100	14,000	266,000
1914	18,300	18,300	16,900	19,800	15,600	24,300	44,300	71,900	50,200	18,000	16,700	14,500	329,000
1915	19,600	16,600	15,400	15,100	14,400	21,000	25,900	17,500	27,200	14,400	10,500	11,300	209,000
1916	14,600	16,000	18,000	15,900	15,500	39,400	44,200	49,100	51,400	17,800	15,000	16,100	313,000
1917	24,700	18,900	18,800	17,500	15,600	19,100	44,500	69,500	98,800	36,000	17,700	19,800	401,000
1918	17,600	16,500	20,000	18,400	17,700	26,400	23,200	28,200	44,600	14,900	10,700	11,300	250,000
1919	16,500	15,900	15,900	11,700	12,100	22,200	30,000	48,300	18,600	10,700	8,180	10,400	220,000
1920	15,600	17,700	16,000	14,200	15,600	18,700	26,400	85,500	57,800	16,700	14,400	13,300	312,000
1921	17,900	19,300	17,700	17,000	14,700	31,600	35,300	77,500	111,000	22,400	19,400	18,700	402,000
1922	16,800	18,400	25,800	19,600	17,300	22,200	36,300	106,000	73,800	21,000	21,400	17,400	396,000
1923	15,800	20,700	22,000	19,100	16,100	20,000	47,100	105,000	63,100	24,700	20,700	17,700	390,000
1924	21,500	18,400	18,600	16,400	17,800	17,400	21,100	27,600	12,000	9,840	8,550	8,030	197,000
1925	9,160	13,600	13,500	12,500	13,400	18,300	14,600	27,400	21,200	15,500	12,900	13,800	186,000
1926	14,700	14,900	15,200	12,100	12,300	20,400	31,400	40,800	17,000	11,900	11,600	9,100	211,000
1927	11,800	14,500	16,000	14,300	13,700	22,400	37,500	62,700	45,300	20,400	15,200	13,900	288,000
1928	16,200	23,600	20,400	18,600	15,900	26,800	24,500	77,500	32,000	17,100	12,800	10,100	296,000
1929	12,900	16,200	15,900	14,800	13,100	22,200	26,100	49,200	47,600	17,800	16,900	17,900	271,000
1930	15,900	17,100	18,600	16,700	16,900	18,400	22,400	24,500	25,200	14,400	13,400	12,900	216,000
1931	19,000	16,400	16,200	15,100	13,400	14,200	10,100	11,600	7,800	5,440	5,120	4,500	139,000
1932	6,400	9,700	12,300	10,900	13,600	19,100	25,700	53,900	51,500	19,600	13,800	11,000	248,000
1933	10,100	12,400	13,900	14,400	11,300	17,800	17,600	20,700	45,200	14,000	9,350	6,960	194,000
1934	8,140	9,970	11,640	11,750	11,520	11,730	8,610	6,840	4,840	3,750	3,890	3,980	96,660
1935	4,890	7,160	11,250	11,160	10,570	11,630	11,510	25,210	50,840	13,810	9,660	7,720	175,400
1936	8,670	10,670	11,470	11,900	12,120	16,990	41,040	74,720	34,680	17,960	12,750	10,030	263,000
1937	11,010	14,920	14,040	13,160	13,670	19,710	27,950	64,870	31,660	17,670	14,050	10,650	253,400
1938	12,650	14,900	15,830	13,650	13,120	23,380	31,480	54,580	39,340	19,330	13,210	11,700	263,200
1939	13,530	16,200	15,580	13,740	12,400	22,090	22,440	30,930	19,690	11,560	8,880	8,140	195,200
1940	11,730	11,000	12,040	13,260	13,560	14,030	12,400	28,620	14,150	10,140	6,990	6,960	154,900
1941	8,260	10,560	12,280	12,100	12,210	16,840	13,560	37,350	30,810	17,900	14,480	12,380	198,700
1942	10,780	12,210	16,380	16,540	13,500	15,500	28,430	34,830	38,070	18,940	14,520	11,050	230,000
1943	9,210	9,680	12,970	15,110	17,250	21,490	37,810	39,510	40,450	20,820	19,050	17,900	261,200
1944	11,080	12,390	15,040	15,400	12,790	13,650	16,740	43,620	54,210	24,390	20,780	17,800	257,900
1945	10,450	11,190	11,440	14,770	14,720	21,970	18,050	50,800	41,170	24,900	23,710	21,280	264,400
1946	13,300	14,620	17,180	17,420	14,890	16,880	18,080	31,490	29,000	27,070	22,080	19,030	241,000
1947	11,480	15,160	32,830	28,500	16,430	20,350	27,690	40,370	29,650	26,030	22,210	19,770	290,500
1948	12,470	14,130	16,000	15,580	14,660	5,340	15,410	41,200	30,230	25,880	22,880	16,900	230,700
1949	8,680	12,440	17,900	17,630	15,240	18,100	21,740	39,000	52,160	29,910	25,070	20,070	277,900
1950	15,090	15,910	16,360	18,150	16,060	18,520	21,710	44,840	62,630	31,070	25,300	22,370	308,000

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a2,110	June 8, 1912	-	‡385	‡279,100	409	297,000
1913	360	a1,160	Apr. 30, 1913	200	368	266,000	357	258,000
1914	390	‡a1,900	May 24, 1914	200	454	329,000	451	327,000
1915	410	a714	June2,12,1915	155	288	209,000	284	206,000
1916	440	a1,820	Mar. 21, 1916	208	431	313,000	450	327,000
1917	460	a2,450	June 19, 1917	227	554	401,000	543	393,000
1918	480	a1,310	June 11, 1918	149	345	250,000	337	244,000
1919	510	a1,240	May 23, 1919	126	305	220,000	306	222,000
1920	510	a2,300	May 22, 1920	202	429	312,000	437	318,000
1921	530	a3,180	June 11, 1921	160	555	402,000	564	409,000
1922	550	a2,580	May 26, 1922	230	548	396,000	545	394,000
1923	570	a2,440	May 27, 1923	242	539	390,000	539	390,000
1924	590	a800	May 18, 1924	122	272	197,000	241	175,000
1925	610	a695	May 22, 1925	124	257	186,000	269	194,000
1926	630	a1,250	May 21, 1926	135	292	211,000	288	209,000
1927	650	a1,960	May 18, 1927	159	398	288,000	422	306,000
1928	670	a1,700	May 15, 1928	157	407	296,000	386	280,000
1929	690	a1,510	May 26, 1929	164	374	271,000	383	277,000
1930	705	a1,100	May30,31,1930	183	302	216,000	202	216,000

‡ Not previously published.
a Maximum observed.

Yearly discharge, in cubic feet per second, of Provo River at Vivian Park, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	a403	May 18, 1931	62	192	139,000	160	116,000
1932	735	a1,860	May 23, 1932	85	341	248,000	352	265,000
1933	750	a1,370	June 4, 1933	102	268	194,000	258	187,000
1934	765	a252	Apr. 25, 1934	54	134	96,660	125	90,210
1935	790	1,780	June 11, 1935	70	242	175,400	253	182,900
1936	810	1,670	May 16, 1936	123	362	263,000	375	272,200
1937	830	1,620	May 31, 1937	156	350	253,400	355	256,800
1938	860	1,800	May 17, 1938	170	363	263,200	366	265,100
1939	880	806	Mar. 23, 1939	129	270	195,200	255	184,600
1940	900	869	May 16, 1940	102	213	154,900	208	151,200
1941	930	‡855	June 14, 1941	59	275	198,700	286	207,000
1942	960	955	May 29, 1942	156	319	230,000	308	223,200
1943	980	1,010	May 5, 6,1943	140	361	261,200	370	267,900
1944	1010	1,200	June 11, 1944	140	356	257,900	348	252,400
1945	1040	921	June 14, 1945	148	365	264,400	382	276,500
1946	1060	837	May 15, 1946	98	333	241,000	353	255,400
1947	1090	1,090	Dec. 8, 1946	42	401	290,500	378	273,600
1948	1120	1,500	May 23, 1948	29	318	230,700	313	227,100
1949	1150	1,420	June 12, 1949	102	384	277,900	395	286,300
1950	1180	1,920	June 3, 1950	199	425	308,000	-	-

‡ Not previously published.
a Maximum observed.

159. South Fork Provo River at Vivian Park, Utah 1/

Location.--Lat 40°21', long 111°34', in SE¼ sec. 26, T. 5 S., R. 3 E., a quarter of a mile southeast of Vivian Park and half a mile upstream from mouth.

Drainage area.--30 sq mi, approximately.

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.--39 years (1911-50), 30.1 cfs.

Extremes.--1911-50: Maximum discharge observed, 123 cfs May 27, 1922; minimum, 12 cfs Aug. 7, 1950

Remarks.--Small diversions above station for irrigation above station and for municipal supply.

Cooperation.--Records for 1938-41 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	‡36	‡33.8	33.5	32.6	29.2	28.9	30.0	32.7	45.2	30.5	34.1	37.6	‡33.8
1913	38.5	35.6	33.5	32.7	31.9	30.1	36.0	33.9	35.2	29.1	28.3	28.8	32.8
1914	28.1	28.2	28.1	28.7	27.9	28.7	43.6	51.4	46.6	40.2	40.6	41.9	36.2
1915	40.2	40.0	38.4	35.5	33.2	33.9	36.1	30.8	28.8	27.6	30.2	34.4	34.1
1916	33.5	35.1	34.5	33.3	28.5	32.9	39.5	40.7	38.3	33.1	33.8	37.5	35.1
1917	42.7	37.4	34.1	33.8	29.7	28.2	32.0	49.5	45.5	34.1	34.7	34.5	36.4
1918	37.0	38.7	38.0	35.1	31.9	33.7	31.5	28.8	27.3	29.7	26.6	30.3	32.4
1919	30.6	28.4	27.2	24.4	23.2	26.3	25.9	32.3	29.1	32.0	28.6	28.2	28.1
1920	29.4	29.0	28.5	24.9	25.6	25.5	28.0	60.7	44.1	30.2	38.6	41.1	33.8
1921	42.3	36.5	34.0	33.6	32.0	30.9	33.7	42.8	56.3	41.9	47.7	55.1	40.6
1922	52.0	51.3	49.2	42.9	41.2	43.2	50.8	79.8	68.4	40.6	43.4	45.9	50.8
1923	46.2	44.9	42.0	41.8	39.7	36.3	41.4	65.5	48.4	34.3	42.5	40.1	43.6
1924	42.1	39.8	35.9	33.6	33.0	31.5	29.8	26.7	27.2	26.0	23.8	23.8	31.1
1925	26.8	26.9	26.3	25.0	22.8	23.6	23.9	24.3	21.7	22.8	18.8	26.1	24.1
1926	28.5	27.0	28.2	26.9	22.1	21.8	26.8	30.2	18.6	21.3	25.0	21.8	24.9
1927	24.7	23.9	24.6	21.9	21.2	23.4	28.6	46.8	41.5	29.0	28.7	31.2	28.8
1928	33.5	32.6	27.8	29.2	25.6	28.0	28.9	45.5	28.0	26.7	31.5	33.1	30.9
1929	35.2	35.2	31.0	28.9	27.2	26.3	27.9	41.0	36.4	30.5	36.9	37.0	32.8
1930	35.6	35.9	36.1	31.4	30.3	28.0	27.0	27.5	26.2	23.7	23.9	24.6	29.2
1931	25.9	25.2	25.0	25.0	24.2	23.3	20.3	19.9	18.1	18.6	17.7	17.6	21.7
1932	17.7	18.3	20.0	20.5	21.4	20.4	24.3	44.2	32.9	26.4	22.4	23.3	24.3
1933	26.2	27.3	25.8	22.1	21.9	20.4	20.0	22.1	27.4	20.9	18.4	21.1	22.8
1934	23.0	24.3	25.9	22.6	22.1	20.1	16.2	15.4	15.0	14.9	13.6	13.3	18.9
1935	14.8	14.9	16.4	16.4	16.3	15.0	15.2	20.6	22.8	14.7	16.7	18.5	16.8

‡ Not previously published; estimated on basis of records for Hobble Creek.

1/ Published as "at Forks," 1911-37.

Monthly and yearly mean discharge, in cubic feet per second, of South Fork Provo River at Vivian Park, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	21.4	22.4	22.1	21.5	21.5	22.9	24.7	39.4	24.9	24.1	25.0	25.4	24.6
1937	26.6	29.0	26.1	24.5	23.3	22.4	25.1	46.9	28.0	27.6	28.0	31.3	28.3
1938	35.0	32.6	30.4	27.2	25.8	26.9	30.1	38.5	27.3	28.2	29.0	31.5	30.2
1939	32.7	30.2	27.7	25.9	26.1	27.1	25.4	22.5	23.0	22.1	22.7	25.9	25.9
1940	28.6	26.5	23.8	23.3	22.4	22.5	22.4	22.2	20.7	20.5	22.5	25.8	23.5
1941	26.3	26.2	25.2	24.2	26.2	25.3	26.2	33.5	29.6	26.9	29.5	32.6	27.6
1942	36.2	36.5	33.6	30.4	30.0	27.5	31.9	36.8	33.1	29.5	32.6	38.1	33.0
1943	37.1	36.3	31.6	31.2	32.9	33.5	34.5	30.1	27.7	25.4	28.6	29.9	31.5
1944	33.3	33.5	30.3	25.5	26.9	28.6	29.9	32.5	28.4	24.5	25.8	28.0	28.9
1945	30.4	31.1	29.0	28.8	28.8	27.3	26.1	40.4	32.9	30.3	31.8	35.7	31.1
1946	35.5	34.6	32.4	31.1	28.9	29.7	31.4	30.3	27.6	27.6	29.5	29.1	30.7
1947	34.3	32.7	30.3	26.5	25.9	27.3	28.6	36.3	30.7	28.1	31.9	37.8	30.9
1948	35.6	34.2	30.0	28.7	28.6	27.6	31.1	35.0	30.5	25.5	27.4	25.6	30.0
1949	29.5	29.1	25.6	24.3	23.8	22.9	24.6	32.0	24.3	21.7	22.6	24.3	25.4
1950	26.5	26.3	23.2	24.2	23.4	23.6	28.9	35.3	32.0	23.8	24.6	30.4	26.8

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	‡2,210	‡2,070	2,060	2,000	1,680	1,780	1,790	2,010	2,690	1,880	2,100	2,240	‡24,500
1913	2,370	2,120	2,060	2,010	1,770	1,850	2,140	2,080	2,090	1,790	1,740	1,710	23,700
1914	1,730	1,680	1,730	1,760	1,550	1,760	2,590	3,160	2,770	2,470	2,500	2,490	26,200
1915	2,470	2,380	2,360	2,180	1,840	2,080	2,150	1,890	1,710	1,700	1,860	2,050	24,700
1916	2,060	2,090	2,120	2,050	1,640	2,020	2,350	2,500	2,280	2,040	2,080	2,230	25,500
1917	2,630	2,230	2,100	2,080	1,650	1,730	1,900	3,040	2,710	2,100	2,130	2,050	26,400
1918	2,280	2,300	2,340	2,160	1,770	2,070	1,870	1,770	1,620	1,830	1,640	1,800	23,400
1919	1,880	1,690	1,670	1,500	1,290	1,620	1,540	1,990	1,730	1,970	1,760	1,680	20,300
1920	1,810	1,730	1,750	1,530	1,470	1,570	1,670	3,730	2,620	1,860	2,370	2,450	24,600
1921	2,600	2,170	2,090	2,070	1,780	1,900	2,010	2,630	3,350	2,580	2,930	3,280	29,400
1922	3,200	3,050	3,030	2,640	2,290	2,660	3,020	4,910	4,070	2,500	2,670	2,730	36,800
1923	2,840	2,670	2,580	2,570	2,200	2,230	2,460	4,030	2,880	2,110	2,610	2,390	31,600
1924	2,590	2,370	2,210	2,070	1,900	1,940	1,770	1,640	1,620	1,600	1,460	1,460	22,600
1925	1,650	1,600	1,620	1,540	1,270	1,450	1,420	1,490	1,290	1,400	1,160	1,550	17,400
1926	1,750	1,610	1,730	1,650	1,230	1,340	1,590	1,860	1,110	1,310	1,540	1,300	18,000
1927	1,520	1,420	1,510	1,350	1,180	1,440	1,700	2,880	2,470	1,780	1,760	1,860	20,900
1928	2,060	1,940	1,710	1,800	1,470	1,720	1,720	2,800	1,670	1,640	1,940	1,970	22,400
1929	2,160	2,090	1,910	1,780	1,510	1,620	1,660	2,520	2,170	1,880	2,270	2,200	23,800
1930	2,190	2,140	2,220	1,930	1,680	1,720	1,610	1,690	1,560	1,460	1,470	1,460	21,100
1931	1,590	1,500	1,540	1,540	1,340	1,430	1,210	1,220	1,080	1,140	1,090	1,050	15,700
1932	1,090	1,090	1,230	1,260	1,230	1,250	1,450	2,720	1,960	1,620	1,380	1,390	17,700
1933	1,610	1,620	1,590	1,360	1,220	1,250	1,190	1,360	1,630	1,290	1,130	1,260	16,500
1934	1,420	1,440	1,590	1,390	1,230	1,230	962	946	893	916	839	793	13,650
1935	908	885	1,010	1,010	904	922	906	1,270	1,350	906	1,030	1,100	12,200
1936	1,320	1,340	1,360	1,320	1,240	1,410	1,470	2,420	1,480	1,480	1,540	1,510	17,890
1937	1,640	1,730	1,600	1,500	1,290	1,380	1,490	2,880	1,660	1,700	1,720	1,860	20,450
1938	2,150	1,940	1,870	1,670	1,430	1,650	1,790	2,370	1,620	1,730	1,790	1,870	21,880
1939	2,010	1,800	1,700	1,590	1,450	1,660	1,510	1,390	1,370	1,360	1,400	1,540	18,780
1940	1,760	1,580	1,460	1,430	1,290	1,380	1,330	1,370	1,230	1,260	1,390	1,540	17,020
1941	1,620	1,560	1,550	1,400	1,460	1,550	1,500	2,060	1,760	1,650	1,810	1,940	19,950
1942	2,230	2,170	2,060	1,870	1,660	1,690	1,900	2,260	1,970	1,810	2,010	2,270	23,900
1943	2,280	2,160	1,940	1,920	1,820	2,060	2,050	1,850	1,650	1,560	1,750	1,780	22,820
1944	2,050	2,000	1,860	1,570	1,550	1,760	1,780	2,000	1,690	1,510	1,590	1,670	21,030
1945	1,870	1,850	1,780	1,770	1,600	1,680	1,550	2,480	1,960	1,860	1,960	2,120	22,480
1946	2,190	2,060	1,990	1,910	1,610	1,820	1,870	1,860	1,640	1,700	1,810	1,730	22,190
1947	2,110	1,950	1,860	1,630	1,440	1,680	1,700	2,230	1,830	1,730	1,960	2,250	22,370
1948	2,190	2,040	1,840	1,760	1,640	1,700	1,850	2,150	1,810	1,570	1,680	1,520	21,750
1949	1,820	1,730	1,580	1,490	1,320	1,410	1,460	1,970	1,450	1,340	1,390	1,440	18,400
1950	1,630	1,570	1,420	1,490	1,300	1,450	1,720	2,170	1,900	1,460	1,520	1,810	19,440

‡ Not previously published; estimated on basis of records for Hobble Creek.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a74	June 10, 1912	‡26	‡33.8	‡24,500	34.0	24,700
1913	360	a47	June 5, 1913	28	32.8	23,700	30.9	22,300
1914	390	a58	May 18, 1914	24	36.2	26,200	39.1	28,300
1915	410	a44	(b)	22	34.1	24,700	32.8	23,700
1916	440	a50	May 12,13,1916	24	35.1	25,500	36.0	26,200
1917	460	a72	May 16-20,1917	20	36.4	26,400	36.4	26,300
1918	480	a45	Sept. 23, 1918	22	32.4	23,400	30.1	21,800
1919	510	a45	May 30, 1919	21	28.1	20,300	28.1	20,400
1920	510	a96	May 24, 1920	20	33.8	24,600	36.0	26,100
1921	530	a85	May 31, 1921	25	40.6	29,400	43.9	31,800
1922	550	a123	May 27, 1922	36	50.8	36,800	49.1	35,600
1923	570	a106	May 27, 1923	32	43.6	31,600	42.3	30,600
1924	590	a46	Oct. 9, 1923	20	31.1	22,600	28.0	20,300
1925	610	a39	Sept. 19, 1925	15	24.1	17,400	24.4	17,700

‡ Not previously published.
a Maximum observed.
b Oct. 4, Dec. 4, 6, 1914.

Yearly discharge, in cubic feet per second, of South Fork Provo River at Vivian Park, Utah--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	a55	May 5, 1926	18	24.9	18,000	24.0	17,400
1927	650	a83	May 18, 1927	20	28.8	20,900	30.6	22,100
1928	670	a71	May 28, 1928	16	30.9	22,400	31.5	22,900
1929	690	a79	May 26, 1929	26	32.8	23,800	33.4	24,200
1930	705	a37	(c)	20	29.2	21,100	26.5	19,200
1931	720	a27	Oct.11-15,1930	16	21.7	15,700	20.0	14,500
1932	735	a104	May 21, 1932	17	24.3	17,700	26.3	19,100
1933	750	a40	June 6, 1933	15	22.8	16,500	22.3	16,100
1934	765	32	Dec. 13, 1933	13	18.9	13,650	16.6	12,000
1935	790	32	June 11, 1935	13	16.8	12,200	18.5	13,420
1936	810	56	May 16, 1936	19	24.6	17,890	26.0	18,840
1937	830	73	May 18, 1937	19	28.3	20,450	29.6	21,440
1938	860	60	May 18, 1938	23	30.2	21,880	29.6	21,430
1939	880	54	July 29, 1939	18	25.9	18,780	25.0	18,070
1940	900	31	Oct. 18, 1939	18	23.5	17,020	23.3	16,950
1941	930	46	May 14, 1941	23	27.6	19,950	30.0	21,680
1942	960	59	May 27, 1942	25	33.0	23,900	32.9	23,820
1943	980	65	Mar. 9, 1943	21	31.5	22,820	30.9	22,350
1944	1010	44	June 2, 1944	23	28.9	21,030	28.4	20,620
1945	1040	62	Feb. 2, 1945	19	31.1	22,480	32.1	23,220
1946	1060	41	Oct. 12, 1945	23	30.7	22,190	30.2	21,870
1947	1090	71	Oct. 1, 1946	22	30.9	22,370	31.1	22,520
1948	1120	48	May 21, 1948	22	30.0	21,750	28.7	20,810
1949	1150	54	May 19, 1949	18	25.4	18,400	24.7	17,890
1950	1180	59	June 1, 1950	14	26.8	19,440	-	-

a Maximum observed.
c Oct. 9, 10, Nov. 11, 12, Dec. 1, 2, 1929.

160. Provo River above Telluride Power Co.'s dam, near Provo, Utah 1/

Location.--Lat 40°21'10", long 111°34'50", in NW¼SW¼ sec. 26, T. 5 S., R. 3 E., a quarter of a mile downstream from South Fork, three-quarters of a mile upstream from dam formerly owned by Telluride Power Co., 1¼ miles downstream from North Fork, and about 11 miles northeast of Provo.

Drainage area.--640 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,180 ft (from topographic map). Prior to July 24, 1908, staff gage a quarter of a mile downstream at different datum.

Average discharge.--6 years (1905-11), 516 cfs.

Extremes.--1905-11: Maximum discharge observed, 3,620 cfs June 7, 1909 (gage height, 8.5 ft); minimum observed, 132 cfs Sept. 22, 28, Oct. 8, 1905.

Remarks.--Diversions for irrigation above station. Flow regulated by small lakes at headwaters.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	249	279	319	468	687	267	190	143	-
1906	157	226	200	274	250	360	527	973	1,090	331	260	295	412
1907	258	289	320	280	450	460	897	1,170	1,650	1,120	387	400	640
1908	381	378	378	329	330	372	515	886	1,230	579	260	253	491
1909	386	364	365	537	310	356	774	1,460	2,250	656	307	444	684
1910	395	407	345	435	341	703	904	992	441	230	217	238	471
1911	271	299	311	458	353	438	441	686	899	275	167	189	399
1912	283	336	299	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	13,800	17,200	19,000	28,800	40,900	16,400	11,700	8,510	-
1906	9,650	13,400	12,300	16,800	13,900	22,100	31,400	59,800	64,900	20,400	16,000	17,600	298,000
1907	15,900	17,200	19,700	17,200	25,000	28,300	53,400	71,900	98,200	68,900	23,800	23,800	463,000
1908	23,400	22,500	23,200	20,200	19,000	22,900	30,600	54,500	73,200	35,600	16,000	15,100	356,000
1909	23,700	21,700	22,400	33,000	17,200	21,900	46,100	89,800	134,000	40,300	18,900	26,400	495,000
1910	24,300	24,200	21,200	26,700	18,900	43,200	53,800	61,000	26,200	14,100	13,300	14,200	341,000
1911	16,700	17,800	19,100	28,200	19,600	26,900	26,200	42,200	53,500	16,900	10,300	11,200	289,000
1912	17,400	19,900	18,400	-	-	-	-	-	-	-	-	-	-

1/ Published as "Provo River near Provo", 1911.

Yearly discharge, in cubic feet per second, of Provo River above Telluride Power Co.'s dam, near Provo, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	176	1,220	June 9, 1905	-	-	-	-	-
1906	250	1,860	June 14, 1906	132	412	298,000	436	316,000
1907	250	2,340	(a)	196	640	463,000	663	480,000
1908	250	1,800	June 16, 1908	225	491	356,000	489	355,000
1909	290	3,620	June 7, 1909	240	684	495,000	687	497,000
1910	290	1,450	Apr. 28, 1910	180	471	341,000	449	325,000
1911	310	1,920	Jan. 31, 1911	148	399	289,000	402	291,000

a May 24, June 8, 1907.

161. Provo River at mouth of canyon, near Provo, Utah

Location.--Lat 40°18'55", long 111°39'10", in NW¼ sec. 7, T. 6 S., R. 3 E., about 1,000 ft upstream from Olmstead station of Denver & Rio Grande Western Railroad, 1,200 ft upstream from plant of Telluride Power Co., and 5 miles northeast of Provo.

Drainage area.--640 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,820 ft (from topographic map).

Average discharge.--13 years (1889-99, 1900-1901, 1903-5), 484 cfs.

Extremes.--1889-99, 1900-1901, 1903-6: Maximum discharge observed, 4,150 cfs May 31, 1896 (gage height, 8.50 ft); minimum not determined.

Remarks.--One small diversion above station for irrigation. Since May 15, 1904, flume 5 miles upstream has diverted water around this station to Telluride Power Co.'s plant. Capacity of flume is sufficient to divert entire normal flow. Records herein include flow in flume bypassing station. Tailrace of powerplant discharges directly into intakes of irrigation canals at mouth of canyon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	145	150	-
1890	180	224	384	305	377	519	840	1,926	1,184	314	252	244	563
1891	304	303	293	255	311	492	478	1,226	1,190	423	260	314	488
1892	364	380	343	330	351	361	377	1,079	1,511	441	201	201	496
1893	241	279	257	251	275	351	638	1,237	1,580	431	249	258	506
1894	348	388	413	380	391	485	687	1,449	1,110	312	247	430	553
1895	380	375	341	341	326	421	683	1,216	542	261	215	209	445
1896	254	300	303	322	298	398	629	1,166	1,558	384	311	309	519
1897	339	421	390	400	500	415	856	1,856	796	295	225	260	563
1898	449	433	372	283	307	390	566	957	823	202	162	167	426
1899	210	281	279	287	267	564	855	1,169	2,345	679	337	a330	‡634
1900	-	-	-	-	-	-	-	-	404	181	170	176	-
1901	218	359	‡293	314	471	333	392	1,181	399	239	238	240	‡390
1902	257	‡279	‡279	-	-	-	-	-	-	-	-	-	-
1903	-	-	-	-	-	-	-	-	-	218	187	195	-
1904	245	306	292	244	373	388	486	1,169	1,170	256	210	175	442
1905	185	202	205	142	190	280	‡341	450	733	‡131	‡129	‡166	‡262
1906	‡174	‡223	‡219	279	264	421	637	1,200	1,240	-	-	-	-

‡ Not previously published; for December 1900, partly estimated on basis of records for Weber River near Uinta; for Nov. 17 to Dec. 31, 1901, extrapolated; for April, July, August, October 1905, partly estimated on basis of interpolation of several daily discharges for Telluride Power Co.'s flume; for September, November, December 1905, partly estimated on basis of records for station above Telluride Power Co.'s dam, near Provo.

a In 21st Ann. Rept., Pt. 4, mean discharge is given as 330 cfs and runoff as 19,640 acre-ft for Sept. 1-23; these figures are actually for Sept. 1-30.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	8,920	8,920	-
1890	11,070	13,330	23,620	18,570	20,920	31,990	49,980	118,400	70,450	19,310	15,500	14,520	407,700
1891	18,700	18,020	18,020	15,700	17,240	30,260	28,430	75,400	70,800	26,010	15,990	18,680	353,200
1892	23,390	22,610	21,090	20,300	20,180	22,200	22,430	66,360	89,900	27,120	12,360	11,960	359,900
1893	14,820	16,600	15,800	15,430	15,270	21,580	39,240	76,060	94,020	26,500	15,310	15,350	366,000
1894	21,390	23,090	25,400	23,360	21,720	29,580	40,880	89,100	66,050	19,180	15,190	25,590	400,500
1895	23,360	22,320	20,970	20,970	18,100	25,890	40,640	74,770	33,250	16,050	13,220	12,440	322,000
1896	15,620	17,850	18,630	19,800	17,140	24,470	37,430	71,690	92,710	23,610	19,120	18,390	376,500
1897	20,840	25,040	23,980	24,600	27,770	25,520	50,940	114,100	47,370	18,140	13,840	15,470	407,600
1898	27,610	25,760	22,870	17,400	17,050	23,980	33,680	58,840	48,970	12,420	9,960	9,940	308,500
1899	12,910	16,720	17,160	17,650	14,830	34,680	50,880	71,880	139,500	41,750	20,720	a19,640	‡458,300
1900	-	-	-	-	-	-	-	-	24,040	11,130	10,450	10,470	-

‡ Not previously published; see footnote to preceding table.

a See footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Provo River at mouth of canyon, near Provo, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1901	13,400	21,360	‡18,010	19,310	28,160	20,480	23,330	72,620	23,740	14,700	14,630	14,280	‡282,000
1902	15,800	‡16,600	‡17,160	-	-	-	-	-	-	-	-	-	-
1903	-	-	-	-	-	-	-	-	-	13,400	11,500	11,600	-
1904	15,060	18,210	17,950	15,000	21,460	23,860	28,920	71,850	69,590	15,730	12,920	10,440	321,000
1905	11,350	12,020	12,600	8,730	10,550	17,240	‡20,290	27,650	43,600	‡8,080	‡7,940	‡9,900	‡190,000
1906	‡10,720	‡13,270	‡13,450	17,200	14,700	25,900	37,900	73,800	73,800	-	-	-	-

‡ Not previously published; see footnote to prededing table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(a)	2,260	(b)	174	563	407,700	572	414,400
1891	(a)	1,700	(c)	200	488	353,200	503	365,600
1892	(a)	1,780	(d)	174	496	359,900	469	340,000
1893	(a)	2,340	May 18, 1893	200	506	366,000	535	388,600
1894	(e)	1,950	June1,2, 1894	240	553	400,500	549	397,300
1895	(f)	1,760	May 16, 1895	192	445	322,000	423	307,400
1896	(g)	4,150	May 31, 1896	254	519	376,500	544	394,200
1897	(h)	2,600	May 24, 25,1897	-	563	407,600	571	413,900
1898	(j)	1,210	June 2,3,4,1898	146	426	308,500	386	279,000
1899	(k)	3,310	June 22, 1899	-	‡634	‡458,300	-	-
1900	(m)	n1,660	May 27, 1900	-	-	-	-	-
1901	75	2,090	May 19, 1901	-	‡390	‡282,000	‡385	‡278,800
1902	75	-	-	-	-	-	-	-
1903	100	-	-	-	-	-	-	-
1904	p133	r2,150	May 25, 1904	-	442	321,000	421	305,700
1905	p176	1,510	June 9, 1905	-	‡262	‡190,000	‡265	‡191,400
1906	250	‡s2,300	June 13, 1906	-	-	-	-	-

‡ Not previously published.
a 14th Ann. Rept., Pt. 2.
b Sometime in June 1890.
c Sometime in May 1891.
d Sometime in May 1894.
f Bull. 140.
g 18th Ann. Rept., Pt. 4.
h 19th Ann. Rept., Pt. 4.
j 20th Ann. Rept., Pt. 4.
k 21st Ann. Rept., Pt. 4.
m 22nd Ann. Rept., Pt. 4.
n Maximum day during period May 21 to Sept. 30.
r Flow in flume not included.
s Maximum observed.
p Records for river and flume, published separately, have been combined for records herein.

Note.-Telluride Power Co. flume began diverting water around river stations May 15, 1904. Records herewith after that date show combined flow of river and flume and are comparable to preceding record.

162. Provo River at Provo, Utah 1/

Location.--Lat 40°14'15", long 111°41'45", in NE¼SE¼ sec. 3, T. 7 S., R. 2 E., 1,300 ft downstream from bridge on State Highway 114, 2 miles west of Provo, and 2 miles upstream from mouth.

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.--15 years (1903-4, 1933-34, 1937-50), 173 cfs.

Extremes.--1903-5, 1933-34, 1937-50: Maximum discharge observed, 1,620 cfs May 27, 1904; no flow during several periods.

Remarks.--Station above three small diversions May 1903 to June 1905, above one small diversion January 1937 to November 1938, and below all diversions since December 1938. At times all water is diverted for irrigation above and below station. Flow regulated by Deer Creek Reservoir since October 1940 and by small lakes at headwaters. Small transmountain diversions from Strawberry River drainage to Daniels Creek for many years. Flow affected by Weber-Provo diversion canal since 1932. Factory race has diverted water above station bypassing into Provo Bay, an arm of Utah Lake, for many years. Summation of Factory race diversion and river flow is almost total direct contribution of Provo River to Utah Lake. Diversion by Factory race is given in last table herewith for those years for which record is available.

Cooperation.--Records of river flow furnished by Bureau of Reclamation for October 1938 to September 1941. Records of Factory race diversion furnished by Provo River water commissioner.

1/ Published as "at San Pedro, Los Angeles and Salt Lake Railroad bridge, near Provo", 1903-4, and as "at Rio Grande Western Railway bridge, near Provo", 1905.

Monthly and yearly mean discharge, in cubic feet per second, of Provo River at Provo, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	399	0	0	0	-
1904	a2.74	‡74.6	168	†151	253	294	353	810	653	0	0	0	‡229
1905	29	83.9	138	‡170	‡189	‡176	‡166	‡94.5	‡254	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	.74	0	0	-
1934	2.2	*18.3	*172	*180	201	130	3.0	.3	0	0	0	0	*58.4
1937	-	-	-	238	278	308	349	526	128	3.0	3.0	4.3	-
1938	110	196	220	198	214	340	383	477	193	3.0	2.0	3.6	195
1939	91.7	207	222	209	209	358	229	30.4	3.6	1.1	2.1	4.5	130
1940	118	73.2	118	198	206	241	119	47.2	1.8	1.7	1.8	1.9	93.9
1941	9.3	94.5	190	198	220	272	181	163	152	3.6	3.5	7.3	124
1942	145	188	290	281	265	264	281	257	186	32.4	2.3	4.4	183
1943	39.8	136	199	270	349	387	492	221	272	3.6	3.7	5.6	197
1944	90.8	178	229	257	245	243	275	398	523	27.0	2.01	5.37	205
1945	81.4	188	207	276	312	362	340	493	261	2.89	3.79	49.8	214
1946	161	249	298	310	297	305	206	30.2	11.2	.68	4.59	5.67	156
1947	150	251	549	495	309	342	367	214	66.6	15.2	8.04	29.1	233
1948	161	265	286	273	276	108	245	213	64.8	1.51	2.91	7.00	158
1949	66.2	193	275	280	292	307	228	228	391	4.03	1.58	37.6	191
1950	225	282	271	306	295	309	247	316	482	5.76	1.27	22.6	229

* Revised.
† Corrected
‡ Not previously published; computed on basis of available gage-height record.
a Revised; only monthly figure revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	23,720	0	0	0	-
1904	*169	‡4,440	10,330	†9,300	14,550	18,080	†21,010	49,800	38,860	0	0	0	‡166,500
1905	1,780	4,990	8,490	‡10,450	*10,510	*10,810	‡9,900	‡5,810	‡15,080	-	-	-	-
1933	-	-	-	-	-	-	-	-	-	46	0	0	-
1934	137	*1,090	*10,600	*11,090	11,190	7,990	179	20	0	0	0	0	*42,300
1937	-	-	-	14,610	15,420	18,940	20,790	32,360	7,620	184	184	258	-
1938	6,780	11,640	13,540	12,140	11,880	20,880	22,780	29,330	11,480	184	123	214	141,000
1939	5,640	12,320	13,660	12,830	11,580	21,980	13,610	1,870	214	69	127	268	94,170
1940	7,280	4,350	7,260	12,200	11,830	14,830	7,060	2,900	105	103	113	115	68,150
1941	569	5,620	11,680	12,180	12,210	16,750	10,780	10,010	9,030	220	216	434	89,700
1942	8,920	11,210	17,810	17,260	14,730	16,220	16,720	15,780	11,080	1,990	139	264	132,100
1943	2,450	8,080	12,240	16,630	19,380	23,820	29,300	13,570	16,200	222	226	335	142,500
1944	5,590	10,570	14,060	15,790	14,100	14,920	16,370	24,490	31,100	1,660	124	320	149,100
1945	5,000	11,200	12,760	16,970	17,320	22,240	20,220	30,310	15,520	178	233	2,960	154,900
1946	9,900	14,800	18,320	19,080	16,470	18,750	12,270	1,860	664	42	282	337	112,800
1947	9,230	14,920	33,780	30,420	17,140	21,060	21,830	13,170	3,970	936	494	1,730	168,700
1948	9,900	15,750	17,610	16,760	15,850	6,610	14,590	13,080	3,860	93	179	416	114,800
1949	4,070	11,470	16,900	17,240	16,200	18,860	13,560	14,030	23,260	248	97	2,240	138,200
1950	13,850	16,810	16,640	18,800	16,360	19,000	14,700	19,460	28,700	354	78	1,340	166,100

* Revised.
† Corrected.
‡ Not previously published; computed on basis of available gage-height record.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100	a832	June 9, 1903	0	-	-	-	-
1904	133	a1,620	May 27, 1904	0	‡229	‡166,500	230	†166,900
1905	176	‡a687	June 9, 1905	0	-	-	-	-
1933	750	-	-	0	-	-	-	-
1934	765,1564	a405	Dec. 14, 1933	0	58.4	*42,300	-	142,300
1937	830	1,100	May 31, 1937	-	-	-	197	140,600
1938	860	1,350	May 18, 1938	2	195	141,000	194	81,440
1939	880	‡787	Mar. 23, 1939	0	130	94,170	112	67,120
1940	900	396	Feb. 28, 1940	0	93.9	68,150	92.5	109,800
1941	930	561	June 13, 1941	0	124	89,700	152	117,000
1942	960	668	May 3, 1942	1	183	132,100	162	149,900
1943	980	617	Apr. 27, 1943	1	197	142,500	207	147,800
1944	1010	874	June 11, 1944	.9	205	149,100	204	169,000
1945	1040	744	May 7, 1945	-	214	154,900	233	127,700
1946	1060	458	Dec. 28, 1945	.3	156	112,800	176	154,000
1947	1090	987	Dec. 9, 1946	1.7	233	168,700	213	103,900
1948	1120	1,010	May 22, 1948	.3	158	114,800	143	153,000
1949	1150	915	May 29, 1949	.4	191	138,200	211	-
1950	1180	1,140	June 3, 1950	.6	229	166,100	-	

* Revised.
† Corrected.
‡ Not previously published.
a Maximum observed.

Monthly and yearly diversions, in acre-feet, by Factory race above Provo River at Provo, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1934	0	2,130	2,480	2,480	1,700	2,220	80	0	0	0	0	0	11,090
1937	-	-	-	240	2,000	2,480	2,400	2,360	1,480	0	0	0	-
1938	0	1,200	2,480	2,640	2,380	2,640	1,360	1,230	190	120	120	140	14,500
1939	415	1,760	2,050	2,080	1,900	2,170	1,670	142	60	0	0	0	12,250
1940	80	220	60	1,980	1,910	930	1,250	0	0	0	0	0	6,430
1944	80	340	90	0	0	0	0	0	0	0	0	0	510
1945	570	756	750	756	862	961	408	273	390	360	626	726	7,438
1946	583	726	930	893	806	1,104	552	552	576	527	477	420	8,146
1947	409	300	310	310	280	310	342	514	486	670	589	468	4,988
1948	378	240	248	248	232	248	480	577	570	577	484	432	4,714
1949	434	540	459	434	448	496	600	725	732	713	694	564	6,839
1950	496	720	744	744	672	620	534	657	762	595	645	744	7,933

Note.-Records not available for years not shown since 1903-50 although there was diversion by Factory race for most or all of those years.

163. American Fork above South Fork, near American Fork, Utah 1/

Location (revised).--Lat 40°27'15", long 111°39'40", in SE¼SE¼ sec. 24, T. 4 S., R. 2 E., 50 ft upstream from South Fork, 3 miles upstream from upper powerplant of Utah Power & Light Co., and about 11 miles east of American Fork.

Drainage area.--43 sq mi, approximately.

Supplemental records available.--October 1912 to September 1914, fragmentary record of daily discharge, and October 1914 to September 1915, fragmentary gage-height record.

Gage.--Staff gage. Altitude of gage is 6,030 ft (from topographic map).

Extremes.--May to September 1912: Maximum discharge observed, 349 cfs June 5 (gage height, 3.62 ft); minimum not determined.

Remarks.--No known diversions.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	164	254	102	47.9	33.2	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	10,100	15,100	6,270	2,950	1,980	-

Note.-Records for February, March, and April 1912 have not been published herein because of the lack of base data on which to evaluate them; those records should not be used.

164. South Fork of American Fork near American Fork, Utah

Location (revised).--Lat 40°27'10", long 111°39'40", in SE¼SE¼ sec. 24, T. 4 S., R. 2 E., about 150 ft upstream from mouth, 3 miles upstream from upper powerplant of Utah Power and Light Co., and 11 miles east of American Fork.

Drainage area.--8.87 sq mi (revised).

Supplemental records available.--April 1913 to September 1914, fragmentary record of daily discharge, and October 1914 to September 1915, fragmentary gage-height record.

Gage.--Staff gage. Altitude of gage is 6,070 ft (from topographic map).

Extremes.--February to September 1912: Maximum discharge observed, 63 cfs June 11 (gage height, 1.30 ft); minimum observed, 1.2 cfs in February.

Remarks.--No diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	28.2	45.7	21.4	11.8	8.7	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	1,730	2,720	1,320	726	516	-

Note.-Records for February, March, and April 1912 have not been published herein because of the lack of base data on which to evaluate them; those records should not be used.

1/ Published as "American Fork near American Fork", 1912, 1913, 1915.

165. American Fork above upper powerplant, near American Fork, Utah

Location.--Lat 40°27', long 111°41', in NE¼ sec. 26, T. 4 S., R. 2 E., 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.

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

Average discharge.--23 years (1927-50), 52.1 cfs.

Extremes.--1928-50: Maximum discharge, 455 cfs May 17, 1948 (gage height, 6.65 ft); minimum daily, 5 cfs Feb. 3, 1936.

Remarks.--No diversions above station.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project; those prior to water year 1946 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	17	18	21	58	230	288	129	48	30	-
1928	25	23	19	17	15	24	50	217	144	62	28	21	54.0
1929	18	16	15	13	14	16	28	172	224	119	53	35	60.4
1930	25	18	14	11	11	12	80	101	102	38	30	24	38.9
1931	26	16	16	16	15	16	35	81	45	23	16	14	26.6
1932	14.3	13.3	11.8	11.1	12.1	12.8	48.8	208	210	93.0	36.3	25.3	58.2
1933	19.8	16	13	14	12	13	29	79	218	60	24	18	42.8
1934	16	15	13	9	8	20	41	46	19	13	9	10	18
1935	14	14	13	10	14	14	40	113	206	79	35	18	47.5
1936	15	14	12	11	8	16	95	259	189	87	36	26	64.1
1937	25	23	16	15.9	15.4	19.1	52.6	262	188	87.0	34.2	25.8	63.9
1938	25.3	20.5	22.6	14.2	12.9	15.0	92.7	194	210	77.0	34.4	25.1	62.1
1939	21.4	18.1	16.1	12.2	12.6	17.2	76.3	148	103	41.5	19.0	16.8	41.9
1940	18.0	13.8	11.6	11.2	11.1	16.4	54.5	147	69.9	27.1	14.1	13.6	34.1
1941	11.9	11.4	10.9	10.1	11.1	15.2	30.9	178	177	93.6	34.3	29.7	51.4
1942	25.9	20.1	16.1	13.8	12.0	14.0	102	141	179	74.0	31.6	22.4	54.4
1943	20.5	15.7	14.6	10.8	12.5	14.5	89.0	132	140	73.1	30.7	20.8	47.9
1944	19.9	17.6	14.3	13.9	13.4	13.0	285	174	213	90.9	35.8	24.1	55.0
1945	20.1	18.4	13.2	12.9	13.6	13.9	31.5	203	223	131	52.5	36.3	64.4
1946	28.3	23.8	18.5	17.1	15.9	21.4	124	182	130	51.7	27.0	20.5	55.1
1947	24.9	22.4	19.6	17.1	17.7	25.3	66.5	236	155	87.5	39.7	29.2	62.1
1948	24.5	22.7	19.2	15.8	13.6	13.8	48.2	251	215	67.2	31.5	21.9	62.2
1949	19.3	17.2	17.2	15.7	15.3	18.1	86.8	224	228	98.5	35.5	24.2	66.8
1950	23.0	22.5	18.5	16.8	16.5	22.4	88.9	192	241	102	37.2	26.2	67.4

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	1,050	984	1,300	3,430	14,200	17,100	7,950	2,940	1,770	-
1928	1,530	1,390	1,150	1,030	857	1,500	2,970	13,300	8,550	3,780	1,720	1,250	39,030
1929	1,090	958	924	819	778	984	1,640	10,600	13,400	7,310	3,230	2,060	43,790
1930	1,560	1,070	837	672	595	744	4,780	6,220	6,080	2,350	1,810	1,430	28,150
1931	1,570	934	966	980	819	992	2,070	4,980	2,700	1,410	984	843	19,250
1932	877	793	724	680	696	789	2,900	12,810	12,500	5,720	2,230	1,510	42,230
1933	1,220	952	799	849	666	791	1,720	4,830	12,960	3,680	1,460	1,080	31,010
1934	984	893	799	553	444	1,230	2,440	2,830	1,130	799	553	595	13,250
1935	861	833	799	643	758	894	2,370	6,940	12,290	4,830	2,140	1,080	34,390
1936	924	863	710	668	470	992	5,650	15,930	11,250	5,350	2,200	1,550	46,560
1937	1,510	1,340	984	978	853	1,180	3,130	16,110	11,170	5,350	2,100	1,540	46,240
1938	1,560	1,220	1,390	871	718	922	5,520	11,940	12,470	4,730	2,120	1,490	44,950
1939	1,320	1,080	992	750	698	1,060	4,540	9,080	6,100	2,550	1,170	1,000	30,340
1940	1,100	821	714	686	639	1,010	3,240	9,040	4,160	1,660	869	809	24,750
1941	734	680	668	621	615	934	1,840	11,000	10,500	5,760	2,110	1,770	37,230
1942	1,590	1,190	988	847	668	863	6,070	8,660	10,670	4,550	1,940	1,330	39,370
1943	1,260	934	897	664	696	889	5,300	8,110	8,300	4,490	1,890	1,240	34,670
1944	1,220	1,050	881	857	770	797	1,700	10,730	12,680	5,590	2,200	1,440	39,920
1945	1,230	1,090	809	793	758	853	1,880	12,500	13,280	8,040	3,230	2,160	46,620
1946	1,740	1,410	1,140	1,050	881	1,310	7,410	11,160	7,710	3,180	1,660	1,220	39,870
1947	1,530	1,330	1,210	1,050	984	1,560	3,960	14,540	9,230	5,380	2,440	1,740	44,950
1948	1,510	1,350	1,180	970	783	847	2,870	15,450	12,800	4,130	1,940	1,300	45,130
1949	1,190	1,020	1,060	968	851	1,110	5,160	13,780	13,560	6,060	2,180	1,440	48,380
1950	1,420	1,340	1,130	1,040	914	1,380	5,290	11,790	14,340	6,300	2,280	1,560	48,780

Yearly discharge, in cubic feet per second, of American Fork above upper powerplant, near American Fork, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1927	(a)	b429	May 17, 1927	-	-	-	75.7	54,790
1928	(a)	b339	May 27, 1928	13	54.0	39,030	52.3	37,930
1929	(a)	b326	June 16, 1929	11	60.4	43,790	61.1	44,290
1930	(a)	b193	Apr. 24, 1930	8	38.9	28,150	38.9	28,150
1931	(a)	b124	May 16,17, 1931	11	26.6	19,250	25.1	18,170
1932	(a)	b314	May 21, 1932	8	58.2	42,230	59.0	42,810
1933	(a)	b300	June 3,8,1933	10	42.8	31,010	42.4	30,710
1934	(a)	b65	Apr.24,May6,1934	7	18	13,250	18.1	13,070
1935	(a)	b306	June 13, 1935	9	47.5	34,390	47.5	34,400
1936	(a)	b335	May 15, 1936	5	64.1	46,560	66.0	47,890
1937	(a)	b346	May 18, 1937	14	63.9	46,240	64.3	46,580
1938	(a)	b318	May 29, 1938	10	62.1	44,950	61.0	44,170
1939	(a)	b190	May 4,5,31,1939	7	41.9	30,340	40.9	29,580
1940	(a)	b210	May 17, 1940	10	34.1	24,750	33.3	24,200
1941	(a)	b285	May 26, 1941	8	51.4	37,230	53.8	38,920
1942	(a)	b265	May 26, 1942	8	54.4	39,370	53.5	38,690
1943	(a)	b208	June 1, 1943	7	47.9	34,670	48.0	34,730
1944	(a)	430	June 2, 1944	11	55.0	39,920	55.0	39,890
1945	(a)	312	June 23, 1945	10	64.4	46,620	66.0	47,780
1946	1060	315	Apr. 29, 1946	14	55.1	39,870	54.8	39,650
1947	1090	399	May 7, 1947	15	62.1	44,950	62.0	44,910
1948	1120	455	May 17, 1948	12	62.2	45,130	61.1	44,360
1949	1150	367	May 28, 1949	14	66.8	48,380	67.7	49,000
1950	1180	383	May 30, 1950	14	67.4	48,780	-	-

a Files of Utah Power and Light Co.
b Maximum daily.

166. American Fork near American Fork, Utah 1/

Location.--Lat 40°26', long 111°45', in NW¼ sec. 32, T. 4 S., R. 2 E., at diversion weir, 200 ft downstream from hydroelectric plant of Utah Power & Light Co., and 6 miles northeast of American Fork.

Drainage area.--66 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,040 ft (from topographic map). Prior to Dec. 18, 1900, at site 20 ft upstream at different datum.

Extremes.--1903-5: Maximum daily discharge, 379 cfs May 25, 1904; minimum daily, 11 cfs Feb. 12, 1905.
Maximum daily discharge known, 885 cfs during May 1890; minimum discharge known, 2.0 cfs Feb. 19, 1897 (result of snow slide).

Remarks.--Water used at powerplant is returned to channel upstream from gage. There are believed to have been no diversions above station.

Cooperation.--Records prior to June 1900 furnished by State engineer of Utah.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	38	30	-
1890	33	30	67	62	72	117	380	666	208	45	-	-	-
1897	-	-	-	24.5	25.5	26.5	-	-	-	-	-	-	-
1900	-	-	-	-	-	-	-	-	111	45	26	26	-
1901	30	29	33	34	36	36	-	-	-	-	-	-	-
1903	-	-	-	-	-	-	-	122	213	73.2	34.5	27.9	-
1904	26.4	21.4	18.6	16.1	15.4	19.1	46.9	216	201	95.3	52.8	38.1	63.9
1905	35.9	30.0	25.3	24.0	23.0	29.2	49.9	110	176	65.1	32.7	27.4	52.4
1906	24.5	21.5	17.8	-	-	-	-	-	-	-	-	-	-

1/ Published as "at Bridge in Canyon" in 11th Ann. Rept. and as American Fork River near American Fork, 1903; records for 1912, 1913, 1915 published in WSP 330, 360, 410, 517 as for this station are actually for station American Fork above South Fork, near American Fork.

Monthly and yearly runoff, in acre-feet, of American Fork near American Fork, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	2,340	1,790	-
1890	2,030	1,790	4,120	3,810	4,000	7,190	22,600	41,000	12,400	2,770	-	-	-
1897	-	-	-	1,510	1,420	1,630	-	-	-	-	-	-	-
1900	-	-	-	-	-	-	-	-	6,020	2,770	1,600	1,550	-
1901	1,840	1,730	2,030	2,090	2,000	2,210	-	-	-	-	-	-	-
1903	-	-	-	-	-	-	-	7,500	12,700	4,500	2,120	1,660	-
1904	1,620	1,270	1,140	990	886	1,170	2,790	13,300	12,000	5,860	3,250	2,270	46,500
1905	2,210	1,780	1,560	1,480	1,280	1,800	2,970	6,760	10,500	4,000	2,010	1,630	38,000
1906	1,510	1,280	1,090	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(a)	885	May 1890	-	-	-	-	-
1897	(b)	-	-	-	-	-	-	-
1900	75	-	-	-	-	-	-	-
1901	75	-	-	-	-	-	-	-
1903	133	280	June 9, 1903	-	-	-	-	-
1904	133	379	May 25, 1904	15	63.9	46,500	66.0	48,000
1905	176	239	June 8, 1905	11	52.4	38,000	50.1	36,270

a 11th Ann. Rept., Pt. 2; 13th Ann. Rept., Pt. 3.
b 20th Ann. Rept., Pt. 4.

167. Dry Creek near Alpine, Utah

Location.--Lat 40°28'30", long 111°45'30", in NE¼ sec. 18, T. 4 S., R. 2 E., 2 miles northeast of Alpine and 3½ miles upstream from Fort Creek.

Drainage area.--10 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,280 ft (from topographic map).

Extremes.--1947-50: Maximum discharge, 236 cfs May 30, 1950 (gage height, 2.55 ft); minimum, 4.7 cfs Sept. 14, 22, 23, 1948.

Remarks.--No diversion above station. Flow of Grove creek, which is usually less than 1 cfs, was diverted to Dry Creek above station from about July 10 to Oct. 1, 1948, Dec. 15, 1948, to Apr. 25, 1949, and Dec. 1, 1949, to Apr. 20, 1950. During remainder of period it was normally not included.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	27.1	11.2	6.97	-
1948	7.34	8.48	8.03	7.25	6.40	7.18	20.6	76.6	64.4	17.0	7.35	5.38	19.7
1949	5.73	5.82	5.53	5.40	5.68	8.98	41.1	77.1	101	19.4	8.49	7.76	24.3
1950	9.16	8.81	6.9	7.24	7.21	8.66	30.1	58.6	66.2	22.6	7.26	6.46	19.9

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	1,670	690	415	-
1948	451	505	494	446	368	442	1,220	4,710	3,830	1,040	452	320	14,280
1949	352	347	340	332	315	552	2,440	4,740	6,030	1,190	522	462	17,620
1950	563	524	424	445	400	533	1,790	3,600	3,940	1,390	446	384	14,440

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	-	-	-	-	-	-	-
1948	1120	187	May 17, 1948	4.8	19.7	14,280	19.1	13,870
1949	1150	196	June 12, 1949	-	24.3	17,620	25.0	18,090
1950	1180	236	May 30, 1950	5.8	19.9	14,440	-	-

168. 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., three-quarters of a mile northwest of Alpine and 1½ miles above mouth.

Drainage area.--6.1 sq mi, approximately.

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

Extremes.--1947-50: Maximum discharge, 172 cfs June 2, 1948 (gage height, 3.60 ft), from rating curve extended above 78 cfs; minimum daily, 0.1 cfs July 27, Aug. 31, Sept. 13, 1950.

Remarks.--One diversion for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	3.97	3.78	2.60	-
1948	2.55	4.54	4.28	4.64	4.78	5.21	17.1	35.0	13.8	3.78	3.61	2.96	8.53
1949	1.88	4.83	4.08	3.5	4.26	9.07	31.8	30.0	14.6	3.71	2.84	3.09	9.47
1950	3.77	4.56	4.13	4.73	6.49	8.00	17.0	23.7	12.9	3.81	2.46	2.58	7.84

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	244	232	155	-
1948	156	270	263	285	275	320	1,020	2,150	823	233	222	176	6,190
1949	116	287	251	215	236	558	1,890	1,850	871	228	175	184	6,860
1950	232	271	254	291	360	492	1,010	1,460	769	234	152	153	5,680

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	-	-	-	-	-	-	-
1948	1120	172	June 2, 1948	0.5	8.53	6,190	8.48	6,160
1949	1150	97	May 17, 1949	.2	9.47	6,860	9.62	6,960
1950	1180	70	May 21, 1950	.1	7.84	5,680	-	-

169. Utah Lake near Lehi, Utah 1/

Location.--Lat 40°21'50", long 111°53'45", in N½ sec. 25, T. 5 S., R. 1 W., at head of Jordan River, 125 ft southeast of pumping station, and about 4 miles southwest of Lehi.

Drainage area.--2,910 sq mi, approximately, including 280 sq mi in closed basin in Cedar Valley.

Gage.--Water-stage recorder. Datum of gage is 4,489.39 ft above mean sea level, datum of 1929 (levels by State engineer) and 0.05 ft above compromise level. Compromise level varies with latitude owing to orthometric adjustments. Prior to Nov. 6, 1896, staff gage near Spanish Fork (compromise level, 4,489.43 ft above mean sea level, datum of 1929), at datum 3.29 ft below compromise level prior to Aug. 1, 1891, and 3.79 ft below compromise level Aug. 1, 1891, to Nov. 5, 1896. Nov. 6, 1896, to Oct. 14, 1899, staff gage at Geneva (compromise level, 4,489.36 ft above mean sea level, datum of 1929) at datum 2.00 ft below compromise level. Oct. 15, 1899, to July 22, 1936, staff gage at present site at datum changing chronologically from compromise level in 1899 to 0.48 ft below compromise level in 1936. July 23, 1936, to Feb. 10, 1946, water-stage recorder at present site at datum 0.48 ft below compromise level. Feb. 11, 1946, to Nov. 5, 1948, water-stage recorder at present site at datum 0.16 ft below compromise level.

Since May 1, 1936, supplementary water-stage recorders at Pelican Point (compromise level, 4,489.39 ft above mean sea level, datum of 1929) and at Lincoln Point (compromise level, 4,489.43 ft above mean sea level, datum of 1929), both at datums 0.52 ft below compromise level prior to Feb. 11, 1946, and 0.20 ft below compromise level Feb. 11, 1946, to Sept. 30, 1950.

All gage readings have been reduced to stage above or below compromise level.

Extremes.--1883-1950: Maximum stage, +4.9 ft July 1, 1884; minimum observed, -12.6 ft Oct. 10, 1935.

Maximum stage known, +6.42 ft sometime in 1862, from files of Salt Lake City engineer.

Remarks.--Level of lake after 1872 affected by dam in Jordan River and since August 1902 by pumping station, at head of Jordan River, used to supply water to irrigation canals when lake level is low.

Compromise level is the height to which water of Utah Lake may be held by control structures as provided by an 1885 agreement between owners of land adjacent to the lake and users of water from the lake.

Cooperation.--Records after 1899 not previously published by Geological Survey; those for 1900-1909 furnished by Salt Lake City engineer's office and those for 1910-50 by Utah Lake and Jordan River water commissioner.

1/ Published as "near Spanish Fork", 1889-96, and as "at Geneva", 1897-1900.

Stage, in feet, above or below compromise level, on first day of month, of Utah Lake near Lehi, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1884	-1.9	-1.8	-1.4	-1.0	-0.5	0	+0.6	+1.2	+3.2	+4.9	+4.1	+2.9
1885	+2.5	+2.3	+2.2	+2.3	+2.5	+2.6	+2.5	+3.1	+4.0	+4.1	+3.3	+2.8
1886	+2.4	+2.1	+2.1	+2.2	+2.3	+2.3	+2.4	+2.8	+3.2	+3.0	+2.2	+1.2
1887	+.7	+.5	+.5	+.7	+.8	+.9	+.8	+.8	+1.2	+1.0	+.5	-.3
1888	-.9	-1.2	-1.2	-.9	-.7	-.2	0	-.1	-.5	-1.0	-1.3	-1.7
1889	-1.9	-2.2	-2.5	-2.5	-2.3	-1.9	-1.4	-1.9	-2.1	-2.7	-3.1	-3.4
1890	-4.0	-4.1	-3.6	-3.0	-2.5	-1.9	-1.4	-1.0	0	-.4	-.7	-1.2
1891	-1.3	-1.5	-1.7	-1.8	-1.6	-1.0	-.6	-.1	+.4	+.5	-.7	-1.3
1892	-1.6	-1.8	-1.8	-1.8	-1.0	-.4	-.2	-.3	0	+.3	-.5	-1.2
1893	-1.6	-1.8	-1.5	-1.0	-.8	-.4	+.2	+.7	+1.2	+1.2	0	-.7
1894	-1.0	-1.3	-1.0	-.7	-.6	-.2	+.2	+.3	+.4	+.1	-.6	-1.2
1895	-1.4	-1.4	-1.4	-1.3	-.8	-.3	0	+.1	+.3	-.5	-1.5	-2.1
1896	-2.4	-2.5	-2.4	-2.0	-1.6	-1.1	-.8	-.5	0	0	-1.2	-1.3
1897	-1.0	-.9	-.80	-.65	-.5	-.10	-.20	+.2	+.80	0	-.6	-1.20
1898	-1.60	-1.45	-1.30	-1.00	-.60	-.60	-.5	-.5	0	-.3	-1.00	-1.7
1899	-1.4	-1.25	-1.4	-1.6	-1.4	-1.20	-.7	-.50	-.3	+.2	-.30	-.9
1900	-1.4	a-1.0	a-.8	a-.5	-.46	-.46	-.41	-.43	-.73	-1.31	-1.96	-2.59
1901	-3.01	-3.07	-2.67	-2.42	-2.07	-1.47	-1.27	-1.27	-1.22	-1.82	-2.37	-2.72
1902	-3.13	-3.13	-2.98	-2.68	-2.38	-1.98	-1.83	-1.88	-1.97	-2.34	-2.96	a-3.84
1903	-3.99	-4.24	-4.14	-3.79	-3.34	-2.95	-2.20	-2.20	-2.35	-2.70	-3.50	-4.28
1904	a-4.55	-4.70	-4.54	-4.26	-3.84	-3.23	-2.43	-2.11	-1.66	-1.86	-2.66	-3.32
1905	-3.74	-3.79	-3.69	-3.45	-3.02	-2.48	-2.12	-1.82	-2.27	-2.98	-3.93	-4.66
1906	-5.13	-4.88	-4.61	-4.33	-3.83	-3.38	-2.89	-2.09	-1.54	-1.59	-2.24	-2.67
1907	-2.84	-2.84	-2.46	-2.0	-1.5	-.9	-.3	+.5	+1.0	+1.9	+1.5	+.8
1908	+.4	+.4	+.5	+.6	+.6	+.6	+.7	+.3	+.2	-.1	-.6	-1.3
1909	-1.5	-1.1	-.8	-.57	+.16	+.39	+.54	+1.02	+2.15	+2.69	+1.79	+1.28
1910	+1.00	+.80	+.88	+1.07	+1.19	+1.32	+1.61	+1.72	+1.36	+.38	-.19	-.88
1911	-1.41	-1.35	-1.23	-1.02	-.56	-.31	+.03	-.22	-.58	-1.08	-2.06	-2.74
1912	-3.34	-3.14	-2.86	-2.52	-2.06	-1.76	-1.39	-.96	-1.17	-1.69	-2.04	-3.00
1913	-3.30	-2.78	-2.32	-2.01	-1.52	-1.17	-.56	-.58	-.30	-.86	-1.68	-2.41
1914	-2.65	-2.41	-2.69	-1.49	-.75	-.24	-.11	+.45	+.90	+.71	+.06	-.75
1915	-1.00	-.94	-.70	-.52	-.29	+.25	+.40	+.43	+.08	-.46	-1.56	-2.56
1916	-2.76	-2.98	-2.80	-2.39	-1.75	-1.01	-.46	+.08	+.08	-.39	-1.37	-2.20
1917	-2.46	-2.13	-1.74	-1.20	-.82	-.39	-.16	+.40	+1.31	+1.44	+.79	+.02
1918	-.31	-.43	-.24	-.04	+.30	+.61	+.86	+.80	+.19	-.33	-1.29	-2.25
1919	-2.54	-2.35	-2.07	-1.64	-1.38	-.98	-.64	-.56	-1.16	-2.16	-3.19	-4.20
1920	-4.49	-4.14	-3.74	-3.48	-2.77	-2.00	-1.33	-.52	+.75	+.25	-.75	-1.59
1921	-2.03	-1.70	-1.05	-.80	-.38	-.02	+.46	+1.53	+1.64	+1.74	+.83	+.40
1922	-.13	-.04	+.17	+.63	+.83	+1.23	+1.64	+2.10	+3.07	+2.54	+1.58	+.93
1923	+.28	+.12	+.40	+.87	+.92	+1.21	+1.42	+1.89	+2.43	+1.83	+.98	+.31
1924	-.15	+.01	+.08	+.35	+.49	+.69	+.86	+.54	-.21	-1.28	-2.26	-3.61
1925	-4.45	-4.53	-4.16	-3.68	-3.20	-2.43	-1.93	-2.11	-2.84	-3.32	-4.34	-5.00
1926	-5.52	-5.40	-5.06	-4.54	-4.13	-3.44	-3.13	-2.73	-3.20	-3.98	-4.91	-6.03
1927	-6.47	-6.43	-5.96	-5.54	-4.90	-4.16	-3.64	-2.92	-2.84	-3.20	-4.14	-5.24
1928	-5.77	-5.44	-4.78	-4.19	-3.62	-3.11	-2.27	-2.23	-2.13	-2.86	-3.98	-5.17
1929	-6.18	-6.13	-5.58	-5.26	-4.79	-4.20	-3.35	-2.46	-2.11	-2.87	-3.87	-4.73
1930	-5.10	-5.14	-4.89	-4.40	-3.91	-3.17	-2.80	-3.00	-3.40	-4.44	-5.60	-6.38
1931	-6.64	-6.34	-5.85	-5.42	-4.93	-4.34	-4.02	-4.06	-4.92	-6.06	-7.33	-8.08
1932	-8.63	-8.82	-8.35	-7.82	-7.28	-6.47	-5.82	-5.66	-5.63	-6.11	-7.28	-7.84
1933	-8.68	-8.54	-8.19	-7.70	-7.14	-6.66	-5.94	-5.57	-5.98	-6.77	-7.84	-8.68
1934	-9.15	-9.83	-9.00	-8.60	-8.12	-7.55	-7.40	-7.95	-8.87	-9.51	-10.06	-10.86
1935	-11.80	-11.96	-11.51	-10.86	-10.26	-9.71	-9.46	-9.29	-9.47	-9.87	-10.95	-12.00
1936	-12.51	-12.42	-11.93	-11.31	-10.50	-9.58	-9.07	-8.22	-8.13	-8.41	-9.18	-9.78
1937	-10.25	-10.33	-9.65	-8.83	-8.21	-7.39	-6.67	-6.06	-5.90	-6.41	-7.08	-8.02
1938	-8.73	-8.53	-8.00	-7.35	-6.82	-6.20	-5.46	-5.02	-4.63	-5.31	-6.20	-7.15
1939	-7.91	-7.80	-7.22	-6.55	-5.92	-5.38	-4.57	-4.58	-5.32	-6.09	-7.19	-8.08
1940	-8.64	-8.42	-8.20	-7.81	-7.01	-6.20	-5.75	-5.66	-6.46	-7.52	-8.72	-9.75
1941	-10.18	-10.23	-9.70	-9.07	-8.42	-7.68	-6.99	-6.59	-6.88	-7.18	-7.89	-8.70
1942	-9.38	-8.82	-8.25	-7.52	-6.80	-6.13	-5.45	-4.84	-4.82	-5.48	-6.38	-7.41
1943	-8.14	-8.16	-7.71	-7.20	-6.67	-5.96	-5.35	-5.11	-5.56	-5.70	-6.70	-7.62
1944	-8.36	-8.26	-7.90	-7.20	-6.56	-5.87	-5.12	-4.33	-3.74	-3.70	-4.72	-5.80
1945	-6.60	-6.59	-6.06	-5.51	-4.97	-4.29	-3.52	-3.09	-2.78	-3.00	-3.82	-4.40
1946	-4.98	-4.84	-4.34	-3.65	-3.04	-2.53	-1.96	-1.42	-1.94	-2.85	-3.92	-4.64
1947	-5.42	-4.78	-4.05	-3.16	-2.46	-1.78	-1.20	-.76	-1.06	-1.45	-2.35	-3.04
1948	-3.66	-3.41	-2.88	-2.27	-1.72	-1.30	-.93	-.79	-1.27	-1.81	-2.93	-3.82
1949	-4.60	-4.60	-4.19	-3.50	-2.84	-2.21	-1.59	-1.35	-1.23	-1.63	-2.60	-3.53
1950	-4.12	-3.85	-3.45	-2.88	-2.14	-1.53	-1.16	-1.04	-.97	-1.48	-2.38	-3.25

a From diagram of fluctuations published in Fifth Biennial Report of State engineer of Utah.

Note.---Gage heights prior to August 1891 based on diagram of fluctuations published in 12th Ann. Rept., Pt. 2; those for August 1891 to October 1899 interpolated from curve through miscellaneous gage heights published in reports of Geological Survey.

170. Jordan River at narrows, near Lehi, Utah

Location.--Lat 40°26'40", long 111°55'20", in SE¼NW¼ sec. 26, T. 4 S., R. 1 W., at narrows, 5½ miles northwest of Lehi, and 7½ miles downstream from Utah Lake.

Drainage area.--2,960 sq mi, approximately, including 280 sq mi in closed basin in Cedar Valley.

Gage.--Water-stage recorder. Altitude of gage is 4,480 ft (from topographic map). 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.--37 years (1913-50), 359 cfs.

Extremes.--1913-50: Maximum daily discharge, 1,370 cfs June 8, 1922 (gage height, 7.78 ft, site and datum then in use); no flow at times when gates were closed.

Remarks.--Records represent combined flow of Jordan River, Utah & Salt Lake Canal, and East Jordan Canal. Flow completely regulated by gates and pumps at outlet of Utah Lake, pumps at Pelican Point, and diversion dam at narrows.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	-	-	-	422	410	402	392	-
1905	-	25.1	28.1	-	-	-	-	-	-	-	-	-	-
1913	-	-	-	-	-	-	-	-	-	-	607	469	-
1914	130	78	104	203	430	494	578	705	751	625	555	521	431
1915	208	112	266	468	546	623	624	602	642	707	644	456	491
1916	233	117	90.2	90.6	262	389	515	565	612	704	673	563	402
1917	178	168	165	293	373	492	549	731	880	794	642	513	482
1918	477	472	509	566	624	686	712	658	662	678	640	452	594
1919	174	167	215	178	274	412	471	697	753	760	533	519	430
1920	44.5	0	0	0	0	0	0	314	768	787	750	566	270
1921	194	258	330	407	490	576	671	821	967	838	690	598	570
1922	490	474	622	717	770	871	984	*1,250	*1,360	1,010	795	653	*833
1923	547	574	662	728	753	818	895	1,020	1,020	841	674	535	757
1924	511	542	580	627	663	687	682	799	866	917	902	743	710
1925	291	102	101	101	105	65	302	694	602	803	696	526	368
1926	218	95.0	95.9	88.0	88.9	47.6	218	618	780	788	598	329	332
1927	177	95.9	91.8	91.5	86.4	60.9	101	533	594	710	719	550	319
1928	109	77.0	77.0	77.0	74.6	50.9	110	634	701	803	714	632	339
1929	201	100	90	90	90	65	60	408	668	761	726	539	318
1930	230	103	92.6	92.0	71.8	82.5	289	549	732	718	619	495	341
1931	93.2	90.1	82.1	77.9	59.2	0	62.3	628	690	617	290	100	234
1932	128	20.5	7.4	5.3	0	0	6.1	459	458	657	505	335	216
1933	99.2	0	12.4	-.61	-7.54	-13.4	43.2	195	637	680	368	111	178
1934	54.3	4.6	-.1	-5.9	-6.6	-5.5	344	378	190	28	235	260	123
1935	62.4	6.5	6	6	6	5	3	240	314	326	193	74.2	104
1936	109	13.1	4.0	4.8	5.0	4.5	90.1	494	392	498	441	351	193
1937	194	14.2	10.4	9.4	12.8	24.6	25.7	532	536	647	648	599	273
1938	174	12.8	7.3	7.0	6.2	6.0	69.0	451	692	684	714	644	291
1939	244	20.7	24.9	9.9	10.2	7.7	190	697	640	718	667	554	318
1940	130	180	11.4	6.0	5.5	10.9	103	654	706	734	582	393	281
1941	94.3	17.3	6.7	6.0	3.8	7.2	11.0	472	320	645	651	524	240
1942	63.0	22.2	22.1	8.5	1	1.1	9.2	388	654	779	746	687	283
1943	216	18.0	15.7	6.5	4.1	1.4	149	643	387	783	720	654	302
1944	205	20.7	19.6	10.4	2.59	6.65	2.51	273	486	619	782	681	277
1945	157	17.1	17.2	2.95	2.47	2.03	1.87	518	462	798	617	655	273
1946	197	21.9	21.4	16.7	15.1	19.4	67.2	634	724	829	767	669	334
1947	115	16.2	17	16.9	22.4	18.5	130	605	501	829	714	613	302
1948	191	20.7	19.2	24.8	77.4	144	341	651	635	877	775	692	373
1949	228	20.7	15.0	18.8	64.9	205	135	502	672	836	813	644	348
1950	229	124	54.0	18.2	122	204	281	451	715	793	800	607	368

* Revised; only monthly figures revised; revised daily figures not available.
Note.-Negative figures indicate reverse flow to lake.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	-	-	-	25,110	25,210	24,720	23,330	-
1905	-	1,490	1,730	-	-	-	-	-	-	-	-	-	-
1913	-	-	-	-	-	-	-	-	-	-	37,300	27,900	-
1914	7,990	4,660	6,400	12,500	23,900	30,400	34,400	43,300	44,700	38,400	34,100	31,000	312,000
1915	12,800	6,660	16,400	28,800	30,300	38,300	37,100	37,000	38,200	43,500	39,600	27,100	356,000
1916	14,300	6,960	5,550	5,570	15,100	23,900	30,600	34,700	36,400	43,300	41,400	33,500	291,000
1917	10,900	10,000	10,100	18,000	20,700	30,300	32,700	44,900	52,400	48,800	39,500	30,500	349,000
1918	29,300	28,100	31,300	34,800	34,700	42,200	42,400	40,500	39,400	41,700	39,400	26,900	431,000
1919	10,700	9,940	13,200	10,900	15,200	25,300	28,000	42,900	44,800	46,700	32,800	30,900	311,000
1920	2,740	0	0	0	0	0	0	19,300	45,700	48,400	46,100	33,700	196,000
1921	11,900	15,400	20,300	25,000	27,200	35,400	39,900	50,500	57,500	51,500	42,400	35,600	413,000
1922	30,100	28,200	38,200	44,100	42,800	53,600	58,600	*76,500	*81,100	62,100	48,900	38,900	*603,000
1923	33,600	34,200	40,700	44,800	41,800	50,300	53,300	62,700	60,700	51,700	41,400	31,800	547,000
1924	31,400	32,300	35,700	38,600	38,100	42,200	40,600	49,100	51,500	56,400	55,500	44,200	516,000
1925	17,900	6,070	6,210	6,210	5,830	4,000	18,000	42,700	35,800	49,400	42,800	31,300	266,000

* Revised.

Monthly and yearly runoff, in acre-feet, of Jordan River at narrows, near Lehi, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1926	13,400	5,650	5,900	5,410	4,940	2,930	13,000	38,000	46,400	48,500	36,800	19,600	241,000
1927	10,900	5,710	5,640	5,630	4,800	3,740	6,010	32,800	35,300	43,700	44,200	32,700	231,000
1928	6,700	4,580	4,730	4,730	4,290	3,130	6,550	39,000	41,700	49,400	43,900	37,600	246,000
1929	12,400	5,950	5,530	5,530	5,000	4,000	3,570	25,100	39,700	46,800	44,600	32,100	230,000
1930	14,100	6,130	5,690	5,660	3,990	5,070	17,200	33,800	43,600	44,100	38,100	29,500	247,000
1931	5,730	5,360	5,050	4,790	3,290	0	3,710	38,600	41,100	37,900	17,800	5,950	169,000
1932	7,870	1,220	455	326	0	0	363	28,200	27,300	40,400	31,000	19,900	157,000
1933	6,100	0	762	-38	-419	-824	2,570	12,000	37,900	41,800	22,600	6,610	129,000
1934	3,340	274	-8	-363	-367	-341	20,480	23,220	11,310	1,720	14,450	15,450	89,160
1935	3,840	387	369	369	333	307	179	14,750	18,690	20,020	11,870	4,420	75,530
1936	668	780	246	298	288	278	5,360	30,350	23,300	30,610	27,100	20,900	140,200
1937	11,930	843	639	577	710	1,510	1,530	32,710	31,920	39,750	39,870	35,640	197,600
1938	10,720	762	450	430	343	371	4,110	27,720	41,160	42,080	43,880	38,310	210,300
1939	15,030	1,230	1,530	607	567	472	11,330	42,880	38,110	44,170	41,010	32,970	229,900
1940	7,970	1,070	702	369	317	670	6,150	40,190	42,020	45,130	35,810	23,390	203,800
1941	5,800	1,030	415	369	210	444	657	29,020	24,990	39,680	40,020	31,160	173,800
1942	3,870	1,320	1,360	520	56	69	547	23,880	38,890	47,910	45,860	40,880	205,200
1943	13,280	1,070	964	403	230	85	8,880	39,560	23,030	48,160	44,240	38,930	218,800
1944	12,610	1,230	1,210	640	149	409	149	16,780	28,940	50,390	48,080	40,540	201,100
1945	9,670	1,020	1,060	181	137	125	111	31,850	27,470	49,040	37,930	39,000	197,600
1946	12,140	1,300	1,320	1,030	836	1,190	4,000	38,990	43,080	50,950	47,170	39,820	241,800
1947	7,040	962	1,050	1,040	1,240	1,140	7,770	37,230	29,830	50,960	43,890	36,480	218,600
1948	11,740	1,230	1,180	1,520	4,450	8,830	20,300	40,020	37,800	53,910	47,630	41,200	269,800
1949	14,010	1,230	924	1,150	3,610	12,590	8,040	30,840	39,990	51,380	50,020	38,340	252,100
1950	14,110	7,370	3,320	1,120	6,750	12,570	16,730	27,700	42,560	48,750	49,200	36,140	266,300

* Revised.
† Corrected.

Note.-Negative figures indicate reverse flow to lake.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	133	-	-	-	-	-	-	-
1905	133	-	-	-	-	-	-	-
1913	360	-	-	-	-	-	-	-
1914	390	794	May 31, 1914	42	431	312,000	454	328,000
1915	410	755	July 17, 1915	112	491	356,000	479	347,000
1916	440	755	July 25, 1916	28	402	291,000	407	296,000
1917	460	922	June25,July6, 1917	114	482	349,000	562	406,000
1918	480	753	Apr. 22, 1918	196	594	431,000	519	376,000
1919	510	820	June18,20,23, 1919	0	430	311,000	387	280,000
1920	510	812	June 23, 1920	0	270	196,000	332	241,000
1921	530	1,020	June 15, 1921	136	570	413,000	638	462,000
1922	550	a1,370	June 8, 1922	-	*833	*603,000	*850	*615,000
1923	570	1,110	May 31, 1923	454	757	547,000	745	538,000
1924	590	970	June 27, 1924	387	710	516,000	615	446,000
1925	610	855	July 21, 1925	40	368	266,000	360	261,000
1926	630	845	June 28, 1926	0	332	241,000	328	238,000
1927	650	750	Aug.7,8, 1927	0	319	231,000	311	225,000
1928	670	821	July15,16,19,1928	0	339	246,000	350	254,000
1929	690	784	(b)	-	318	230,000	321	232,000
1930	705	817	July 1,2,1930	51	341	247,000	327	237,000
1931	720	727	May 31, 1931	0	234	169,000	225	163,000
1932	735	801	May 17, 1932	0	216	157,000	213	154,000
1933	750	770	July 7,8,1933	-35	178	129,000	174	126,000
1934	765	648	Apr.12-14,26,1934	-12	123	89,160	125	90,160
1935	790	486	May 17, 1935	0	104	75,530	100	72,630
1936	810	615	June 22,23, 1936	3	193	140,200	209	151,900
1937	830	727	July 5, 1937	6	273	197,600	271	196,100
1938	860	757	Aug. 9, 1938	5	291	210,300	299	216,200
1939	880	747	May 12,21, 1939	7	318	229,900	307	221,900
1940	900	793	July 8, 1940	1	281	203,800	277	201,300
1941	930	754	July 3,4, 1941	1	240	173,800	239	173,100
1942	960	807	July 8, 1942	1	283	205,200	295	213,900
1943	980	844	July 14, 1943	1	302	218,800	302	218,600
1944	1010	858	July 17, 1944	1	277	201,100	272	197,800
1945	1040	847	July 30, 1945	0	273	197,600	277	200,600
1946	1060	876	July 2,3, 1946	3	334	241,800	326	236,100
1947	1090	887	July 21, 1947	1.4	302	218,600	308	223,700
1948	1120	918	July 18, 1948	1	373	269,800	374	271,800
1949	1150	870	July 15, 1949	10	348	252,100	360	260,800
1950	1180	857	July 9, 1950	12	368	266,300	-	-

* Revised.
a Does not include ungaged bypass (probably about 10%).
b July 15, 17, 20, 26, 28, 1929.
Note.-Negative figures indicate reverse flow to lake.

171. Little Cottonwood Creek near Salt Lake City, Utah

Location.--Lat 40°34'40", long 111°47'50", in NE¼NE¼ sec. 11, T. 3 S., R. 1 E., at mouth of canyon, 100 ft west of Wasatch Drive, 2 miles downstream from Wasatch Resort, and 14 miles southeast of Salt Lake City.

Drainage area.--27.7 sq mi.

Gage.--Water-stage recorder and Parshall flume on creek. Altitude of gage is 5,080 ft (from topographic map). Supplementary gages measuring bypassed water: Cippoletti weir on City conduit, 24-inch rated gate on Farmers conduit, and separate weirs on West Side Water Co.'s conduit, Beaver Pond Springs, and Sandy ditch.

Prior to 1920, two weirs on creek at site about 1 mile downstream at different datum, stage determined by measurement from fixed point; two small irrigation ditches bypassed gage unmeasured.

1920-23, flow computed as sum of all diversions; method of measurement of flow not known.

1924 to January 1949, concrete flume 1½ miles upstream from present site and above all diversions prior to 1931; water bypassing gage after 1930 measured by separate weirs on tailrace of Murray City powerplant, Beaver Pond Springs, and Sandy ditch.

Average discharge.--11 years (1912-23), 67.1 cfs; 27 years (1923-50), 58.2 cfs.

Extremes.--1912-13, 1915-50: Maximum daily discharge, 762 cfs June 11, 1921; minimum daily, 4.2 cfs Jan. 10, 1934.

Remarks.--Some storage and regulation in several small lakes and reservoirs. Several diversions above station for irrigation above and below station. Diversions above station for municipal supply and for three powerplants, of which discharge from two upper plants returns to creek above gage. Discharge which bypasses gage through Murray City plant (lower plant) is measured at tailrace after diversion into various conduits, and is included in record published herewith. Record since 1920 includes all water bypassing gage and shows natural flow except for small irrigation diversions above and except for slight storage and regulation mentioned above. Prior to 1920, record does not include two small irrigation diversions. Records prior to 1924 not equivalent to those after 1924 due to channel losses between sites.

Cooperation.--Records, including those not previously published for 1934-50, furnished by office of city engineer of Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	-	11.9	12.0	12.1	11.3	12.4	39.0	105	-	-	-	-	-
1904	-	-	-	-	-	-	-	-	-	-	27.2	17.2	-
1905	17.5	15.1	-	-	-	-	-	-	-	-	-	-	-
1906	16.4	11.4	9.76	10.2	11.5	14.0	-	-	-	-	-	-	-
1907	-	-	-	11.5	14.6	29.1	-	-	-	-	-	-	-
1908	-	18.1	15.0	13.3	11.8	15.1	-	-	-	-	-	-	-
1909	-	-	16.9	16.9	17.5	18.4	49.0	-	-	-	-	-	-
1910	-	22.0	22.8	21.6	17.2	49.6	-	-	-	-	-	16.7	-
1911	19.9	16.5	12.0	13.6	25.8	20.6	-	-	-	-	-	-	-
1912	-	-	-	13.3	12.5	13.6	27.7	141	422	137	58.2	29.2	-
1913	26.0	26.9	17.6	14.2	14.2	14.1	54.6	191	204	138	30.9	25.5	63.3
1914	26.3	22.5	‡16.0	13.0	14.1	23.8	67.3	219	295	195	33.6	27.4	‡79.4
1915	22.5	14.4	12.9	11.2	11.2	13.2	62.2	148	233	90.2	23.1	21.6	55.4
1916	15.0	12.0	11.9	11.4	11.2	28.4	79.4	163	266	166	47.0	23.8	69.6
1917	59.5	22.7	17.6	13.5	14.4	15.4	30.6	159	250	153	43.1	19.7	66.8
1918	19.6	14.9	14.5	14.3	13.7	18.6	45.9	174	281	77.1	26.7	23.0	60.3
1919	26.4	17.6	14.6	11.3	11.3	12.6	45.6	208	163	39.9	21.3	20.8	49.5
1920	24.1	20.3	20.4	17.2	15.0	15.3	23.5	139	246	103	43.7	24.6	†57.6
1921	26.1	22.9	21.6	20.3	19.2	27.1	40.4	157	491	201	64.2	36.7	94.0
1922	18.8	17.3	20.1	15.9	15.4	17.5	30.4	115	422	120	55.6	27.6	72.9
1923	19.4	19.6	16.3	15.1	14.8	21.9	41.1	186	271	157	44.9	23.2	69.4
1924	20.0	14.9	11.8	12.6	13.2	13.0	21.1	175	112	38.4	20.8	16.1	39.2
1925	14.1	13.1	12.5	14.6	14.6	19.6	58.5	189	187	108	44.4	37.8	59.7
1926	36.9	21.0	17.4	16.0	18.9	25.5	73.6	190	157	53.6	30.7	15.4	†54.8
1927	17.2	12.5	12.5	12.2	13.8	15.4	45.1	198	408	172	39.2	23.1	80.8
1928	21.7	20.8	18.8	17.8	17.4	19.6	30.0	299	214	74.0	25.8	14.1	64.6
1929	11.7	11.5	10.2	9.13	7.21	11.8	26.5	167	324	151	44.9	31.1	67.3
1930	22.9	13.8	9.65	9.82	11.0	13.2	77.4	133	175	46.5	26.7	19.7	†46.6
1931	27.9	14.6	15.0	10.1	10.3	13.4	35.2	157	96.4	24.7	16.9	9.58	36.1
1932	8.72	8.50	9.95	11.0	12.1	14.4	39.6	206	290	131	37.7	20.2	65.8
1933	15.7	15.6	15.2	13.9	13.8	12.8	27.4	101	247	67.8	30.6	17.3	†48.1
1934	14.3	13.7	11.5	7.84	10.0	16.0	57.8	133	36.8	15.4	13.0	11.0	28.5
1935	11.9	12.5	11.9	11.9	14.7	15.7	31.1	128	270	110	30.8	17.4	55.5
1936	14.8	12.6	10.2	11.0	10.7	13.6	63.2	239	218	74.1	29.4	20.2	59.8
1937	14.8	12.8	12.1	13.0	12.1	15.9	35.6	208	203	97.0	26.1	19.4	56.0
1938	19.4	18.3	18.1	15.9	15.0	16.5	72.8	252	322	116	34.0	18.7	76.7
1939	18.9	17.5	16.4	14.0	13.5	22.0	83.9	238	200	69.8	28.9	22.3	62.3
1940	21.4	15.1	12.3	11.1	12.2	18.5	66.1	268	137	33.3	19.5	15.3	52.6

† Corrected.

‡ Not previously published; estimated on basis of records for Big Cottonwood Creek and Mill Creek near Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second, of Little Cottonwood Creek near Salt Lake City, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	16.3	14.8	13.2	12.6	14.2	19.7	34.6	231	227	144	46.3	26.4	67.0
1942	25.3	24.2	21.1	18.4	17.2	15.1	86.0	158	254	128	29.4	19.2	66.4
1943	16.3	14.7	13.7	13.1	13.7	15.5	49.5	163	190	108	31.2	21.3	54.3
1944	21.1	19.4	17.3	15.3	14.1	13.3	27.4	173	261	143	28.1	19.5	62.8
1945	18.5	18.0	13.2	11.7	13.7	14.5	22.5	177	244	158	70.0	27.0	66.0
1946	24.4	20.9	16.4	14.9	14.5	20.5	74.6	100	140	73.8	29.3	18.9	45.7
1947	23.3	23.0	18.7	15.2	16.2	22.2	50.3	170	151	102	50.9	26.6	56.0
1948	23.1	21.5	19.2	17.0	17.1	16.4	33.2	180	284	109	36.0	22.3	64.9
1949	20.0	14.7	13.3	11.3	9.16	16.3	61.2	216	278	104	37.7	24.5	67.3
1950	19.3	19.9	16.2	13.7	12.8	16.3	52.9	167	294	131	38.6	25.8	67.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	-	708	735	745	630	763	2,330	6,480	-	-	-	-	-
1904	-	-	-	-	-	-	-	-	-	-	1,670	1,020	-
1905	1,070	896	-	-	-	-	-	-	-	-	-	-	-
1906	1,010	679	600	625	640	684	-	-	-	-	-	-	-
1907	-	-	-	706	810	1,790	-	-	-	-	-	-	-
1908	-	1,070	922	817	682	930	-	-	-	-	-	-	-
1909	-	-	1,040	1,040	972	1,130	2,920	-	-	-	-	-	-
1910	-	1,310	1,400	1,330	955	3,050	-	-	-	-	-	994	-
1911	1,220	982	738	836	1,430	1,270	-	-	-	-	-	-	-
1912	-	-	-	818	719	836	1,650	8,670	25,100	8,420	3,580	1,740	-
1913	1,600	1,600	1,080	873	789	867	3,250	11,700	12,100	8,480	1,900	1,520	45,800
1914	1,620	1,340	‡984	799	783	1,460	4,000	13,500	17,600	12,000	2,070	1,630	‡57,800
1915	1,380	857	793	689	622	812	3,700	9,100	13,900	5,550	1,420	1,290	40,100
1916	922	714	732	701	644	1,750	4,720	10,000	15,800	10,200	2,890	1,420	50,500
1917	3,660	1,350	1,080	830	800	947	1,820	9,780	14,900	9,410	2,650	1,170	48,400
1918	1,210	887	892	879	761	1,140	2,730	10,700	16,700	4,740	1,640	1,370	43,600
1919	1,620	1,050	898	695	628	775	2,710	12,800	9,700	2,450	1,310	1,240	35,900
1920	1,480	1,210	1,250	1,060	863	941	1,400	8,550	14,600	6,330	2,690	1,460	41,800
1921	1,600	1,360	1,330	1,250	1,070	1,670	2,400	9,650	29,200	12,400	3,950	2,180	68,100
1922	1,160	1,030	1,240	978	855	1,080	1,810	7,070	25,100	7,380	3,420	1,640	52,800
1923	1,190	1,170	1,000	928	822	1,350	2,450	11,400	16,100	9,650	2,760	1,380	50,200
1924	1,230	887	726	775	759	799	1,260	10,800	6,660	2,360	1,280	958	28,500
1925	867	780	769	898	811	1,210	3,480	11,600	11,100	6,640	2,730	2,250	43,100
1926	2,270	1,250	1,070	984	1,050	1,570	4,380	11,700	9,340	3,300	1,890	916	†39,700
1927	1,060	744	769	750	766	947	2,680	12,200	24,300	10,600	2,410	1,370	58,600
1928	1,330	1,240	1,160	1,090	1,000	1,210	1,790	18,400	12,700	4,550	1,590	839	46,900
1929	719	684	627	561	400	726	1,580	10,300	19,300	9,280	2,760	1,850	48,800
1930	1,410	821	593	604	611	812	4,610	8,180	10,400	2,860	1,640	1,170	33,700
1931	1,720	869	922	621	572	824	2,090	9,650	5,740	1,520	1,040	570	26,100
1932	536	506	612	676	696	885	2,360	12,700	17,300	8,050	2,320	1,200	†47,800
1933	965	928	935	855	766	787	1,630	6,210	14,700	4,170	1,880	1,030	34,900
1934	879	815	707	482	555	984	3,440	8,180	2,190	947	799	655	20,630
1935	732	744	732	732	816	965	1,850	7,870	16,070	6,760	1,890	1,040	40,200
1936	910	750	627	676	615	836	3,760	14,700	12,970	4,560	1,810	1,200	43,410
1937	910	762	744	799	672	978	2,120	12,790	12,080	5,960	1,600	1,150	40,560
1938	1,190	1,090	1,110	978	833	1,010	4,330	15,490	19,160	7,130	2,090	1,110	55,520
1939	1,160	1,040	1,010	861	750	1,350	4,990	14,630	11,900	4,290	1,780	1,330	45,090
1940	1,320	899	756	683	702	1,140	3,930	16,480	8,150	2,050	1,200	910	38,220
1941	1,000	881	812	775	789	1,210	2,060	14,200	13,510	8,850	2,850	1,570	48,510
1942	1,560	1,440	1,300	1,130	955	928	5,120	9,720	15,110	7,870	1,810	1,140	48,080
1943	1,000	875	842	805	761	953	2,950	10,020	11,310	6,640	1,920	1,270	39,350
1944	1,300	1,150	1,060	941	811	818	1,630	10,640	15,530	8,790	1,730	1,160	45,560
1945	1,140	1,070	812	719	761	892	1,340	10,880	14,520	9,720	4,300	1,610	47,760
1946	1,500	1,240	1,010	916	805	1,260	4,440	6,150	8,330	4,540	1,800	1,120	33,110
1947	1,430	1,370	1,150	935	900	1,370	2,990	10,450	8,990	6,270	3,130	1,580	40,560
1948	1,420	1,280	1,180	1,050	984	1,010	1,980	11,070	16,900	6,700	2,210	1,330	47,110
1949	1,230	875	818	695	509	1,000	3,640	13,280	16,540	6,390	2,320	1,460	48,760
1950	1,190	1,180	996	844	713	1,000	3,150	10,260	17,470	8,050	2,370	1,540	48,760

† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1899	270	-	-	-	-	-	-	-
1904	270	-	-	-	-	-	-	-
1905	270	-	-	-	-	-	-	-
1906	270	-	-	-	-	-	-	-
1907	270	-	-	-	-	-	-	-
1908	270	-	-	-	-	-	-	-
1909	270	-	-	-	-	-	-	-
1910	290	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second, of Little Cottonwood Creek near Salt Lake City, Utah --Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	705	June11,13,1912	4.5	-	-	76.9	55,800
1913	360	369	May 25, 1913	12	63.3	45,800	‡62.6	‡45,400
1914	1029	-	-	-	‡79.4	‡57,800	78.4	56,900
1915	1029	329	June 18, 1915	8.4	55.4	40,100	54.4	39,500
1916	1029	322	June9,17,1916	9.9	69.6	50,500	74.8	54,200
1917	1029	†286	May 17, 1917	10	66.8	48,400	62.5	45,300
1918	1029	293	May 25, 1918	11	60.3	43,600	61.1	44,200
1919	1029	†254	May 23, 1919	9.4	49.5	35,900	50.1	36,200
1920	1029	291	June 13, 1920	13	†57.6	41,800	58.2	42,200
1921	1029	762	June 11, 1921	18	94.0	68,100	92.8	67,200
1922	1029	663	June 7, 1922	14	72.9	52,800	72.8	52,700
1923	1029	458	June 12, 1923	14	69.4	50,200	68.7	49,800
1924	1029	246	May 23, 1924	11	39.2	28,500	38.6	28,100
1925	1029	309	May 28, 1925	10	59.7	43,100	62.7	45,300
1926	1029	239	May 25, 1926	14	†54.8	†39,700	52.1	37,700
1927	1029	586	June 18, 1927	6.3	80.8	58,600	82.4	59,700
1928	1029	574	May 28, 1928	12	64.6	46,900	62.3	45,200
1929	1029	636	June 16, 1929	6.0	67.3	48,800	68.4	49,500
1930	1029	272	May 29, 1930	6.8	†46.6	33,700	47.5	34,400
1931	1029	362	May15,16,1931	7.2	36.1	26,100	33.5	24,300
1932	1029	405	June 24, 1932	7.6	65.8	†47,800	67.4	49,000
1933	1029	343	June 9, 1933	13	†48.1	34,900	47.6	34,400
1934	(a)	205	May 12, 1934	4.2	28.5	20,630	28.2	20,440
1935	(a)	373	June 14, 1935	10	55.5	40,200	55.6	40,280
1936	(a)	315	May 26, 1936	7.4	59.8	43,410	60.0	43,540
1937	(a)	306	May 29, 1937	9.5	56.0	40,560	57.4	41,540
1938	(a)	494	June 5, 1938	13	76.7	55,520	76.4	55,340
1939	(a)	317	June 4, 1939	8.3	62.3	45,090	62.0	44,860
1940	(a)	345	May16,17,1940	8.6	52.6	38,220	52.3	37,940
1941	(a)	351	May 27, 1941	9.9	67.0	48,510	69.2	50,110
1942	(a)	326	June 7, 1942	5.3	66.4	48,080	64.2	46,500
1943	(a)	267	May 28, 1943	9.2	54.3	39,350	55.4	40,140
1944	(a)	367	June 2, 1944	11	62.8	45,560	62.1	45,070
1945	(a)	365	June 23, 1945	9.8	66.0	47,760	67.0	48,490
1946	(a)	198	June 10, 1946	12	45.7	33,110	46.0	33,310
1947	(a)	220	May 8, 1947	12	56.0	40,560	55.9	40,500
1948	(a)	372	May 31, 1948	13	64.9	47,110	63.6	46,160
1949	(a)	401	June 19, 1949	6.1	67.3	48,760	68.0	49,200
1950	(a)	394	May 31, 1950	10	67.3	48,760	-	-

† Corrected.
‡ Not previously published.
a Files of office of city engineer of Salt Lake City.
Note.-Records for period August to December 1911 have not been published herein because base data were not available for their evaluation.

172. Little Cottonwood Creek at Second West Street, near Murray, Utah

Location.--Lat 40°39'50", long 111°53'55, in NW¼NE¼ sec. 12, T. 2 S., R. 1 W., at highway bridge on Second West Street in Murray.

Gage.--Water-stage recorder. Altitude of gage is 4,255 ft (from topographic map).

Extremes.--1933-34: Maximum discharge, 15 cfs Feb. 21, 1934; minimum, practically no flow July 14, 15, 1934.
A discharge of 350 cfs was measured June 13, 1935.

Remarks.--Diversions above station for irrigation above and below station. Diversions for municipal supply above station. Some storage and regulation in several small lakes and reservoirs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1933	-	-	-	-	-	-	-	-	-	-	1.18	0.95	-
1934	1.46	7.57	7.70	7.00	7.05	6.69	2.12	2.38	1.89	0.21	.20	.42	3.71

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1933	-	-	-	-	-	-	-	-	-	-	73	56	-
1934	90	451	474	431	392	411	126	147	113	13	12	25	2,680

173. Big Cottonwood Creek near Salt Lake City, Utah 1/

Location.--Lat 40°37'10", long 111°47'00", in SW¼NE¼ sec. 25, T. 2 S., R. 1 E., at mouth of canyon, about 80 ft upstream from Wasatch Boulevard bridge, a quarter of a mile downstream from Utah Power & Light Co.'s plant, and 12 miles southeast of Salt Lake City.

Drainage area.--48.5 sq mi.

Gage.--Water-stage recorder and two Cippoletti weirs. Altitude of gage is 4,880 ft (from topographic map). Prior to 1908, water-level indicating glass tube at lower side of weirs.

Average discharge.--52 years (1898-1950), 74.8 cfs.

Extremes.--1898-1950: Maximum daily discharge (corrected), 848 cfs June 7, 1912; minimum daily, 4.5 cfs Jan. 10, 1937.

Remarks.--Some regulation during low flow since beginning of record by Utah Power & Light Co.'s plant about a quarter of a mile upstream. Adjustments have been made to the record for storage of municipal water at Brighton in Lake Mary (capacity, 742 acre-ft) and Twin Lakes (capacity, 937 acre-ft). Butler ditch, which has title to 0.89 percent of creek flow, diverts about three-quarters of a mile upstream from station for irrigation below station. The flow in Butler ditch was included in records May 16 to Sept. 30, 1912, only.

Cooperation.--Records, including those not previously published for 1934-50, furnished by office of city engineer of Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	‡37	33.2	24.5	24.0	24.3	32.1	94.9	181	379	162	‡61	‡51	‡92.0
1900	‡37	‡34	‡27	‡24	‡28	‡32	‡68	‡150	170	58.0	33.7	25.3	‡57.2
1901	27.3	29.1	25.1	22.1	23.7	29.3	69.6	270	172	71.9	39.0	29.8	67.3
1902	29.0	27.8	27.2	23.1	24.2	24.6	70.4	210	194	62.2	33.0	27.9	62.8
1903	26.3	24.8	22.8	21.3	19.5	24.1	57.7	‡160	‡226	56.9	23.6	9.15	‡56.0
1904	‡31	‡30	‡26	‡24	‡27	‡31	‡88	‡253	‡310	‡217	‡48	‡47	‡94.3
1905	37.0	31.8	25.6	25.8	25.1	29.2	60.2	138	188	63.8	36.0	31.7	57.7
1906	32.0	28.2	26.4	25.9	26.9	31.5	73.4	206	200	144	74.6	57.5	77.2
1907	43.2	39.4	48.8	47.6	43.0	54.6	85	208	432	391	97.6	58.0	129
1908	51.6	44.5	37.0	32.8	31.1	34.1	84.6	193	292	164	63.7	53.9	90.2
1909	57.2	46.9	36.2	40.5	38.3	43.0	98.6	255	529	235	102	90.8	131
1910	69.8	66.5	62.7	56.1	47.8	92.7	181	285	235	88.1	62.9	51.2	108
1911	53.0	44.7	42.2	40.2	42.5	47.3	69.9	169	283	101	49.5	36.5	81.6
1912	38.4	29.3	25.1	24.7	24.0	27.3	63.2	a219	a419	a123	a63.3	a51.1	a92.8
1913	50.5	42.4	31.4	27.6	28.5	32.5	109	226	191	92.0	45.6	40.0	76.6
1914	43.2	30.5	27.4	25.7	22.8	45.5	107	295	276	130	55.5	42.9	92.1
1915	44.6	36.2	26.1	23.0	24.2	32.6	111	143	190	76.6	40.5	36.5	65.3
1916	32.0	30.5	26.5	26.3	29.3	60.9	107	195	251	106	58.3	49.2	81.0
1917	55.7	34.4	29.6	30.3	28.6	29.5	76.0	206	375	182	73.4	57.9	†98.3
1918	46.4	35.9	32.0	29.3	29.9	49.2	80.8	187	259	74.6	42.7	38.1	†75.5
1919	41.1	34.0	28.3	25.9	24.9	34.1	103	251	130	55.2	43.4	40.3	67.8
1920	44.0	42.4	31.4	29.6	27.8	34.6	66.8	322	321	106	55.6	45.9	94.0
1921	45.4	43.7	34.5	34 6	39.5	69.5	91.2	323	484	182	77.6	54.8	†124
1922	44.9	38.8	38.6	33.2	30.4	37.9	76.1	304	407	129	68.0	46.4	105
1923	37.8	36.6	33.3	32.9	30.9	37.6	81.2	285	306	160	60.1	47.7	†96.1
1924	48.6	36.6	31.2	27.7	28.0	28.8	71.7	202	116	51.0	30.3	27.4	58.4
1925	26.6	27.3	21.1	25.3	30.9	46.4	95.3	238	183	89.0	44.9	42.3	72.7
1926	35.0	29.1	26.0	23.1	24.4	37.5	106	226	135	50.4	36.7	27.8	63.3
1927	31.9	28.7	29.3	25.6	25.2	35.2	79.7	234	310	111	49.4	42.9	83.7
1928	40.4	42.9	34.7	32.5	30.5	47.2	75.4	284	159	65.5	38.0	31.6	73.7
1929	30.4	29.8	25.9	24.1	23.4	34.3	72.2	226	273	114	51.2	47.4	79.5
1930	36.7	28.3	26.1	22.7	24.2	29.2	101	140	139	44.9	35.7	35.1	55.3
1931	41.9	27.8	24.1	21.9	22.2	24.6	64.5	135	69.9	26.6	21.1	20.3	†41.7
1932	20.5	19.5	18.7	16.9	19.3	26.8	75.2	247	231	83.5	37.0	31.5	69.0
1933	27.6	24.8	20.5	20.7	18.7	27.9	56.2	140	313	69.1	32.4	25.3	64.6
1934	23.0	20.2	17.6	16.8	17.6	29.2	65.0	79.7	26.4	14.1	13.6	11.6	27.9
1935	12.2	15.5	17.3	15.0	18.0	19.5	49.8	138	261	69.0	25.0	16.8	54.7
1936	15.3	15.2	12.5	12.9	13.8	24.1	112	269	171	61.5	34.1	22.7	63.8
1937	19.3	19.2	16.1	13.1	16.2	25.2	55.6	231	150	56.5	23.6	22.0	54.2
1938	29.0	23.1	24.7	17.2	17.5	30.0	99.9	223	228	66.0	32.9	23.8	68.0
1939	23.8	23.8	21.3	17.7	17.1	35.3	91.4	168	113	42.0	20.1	19.8	49.6
1940	22.9	16.6	14.2	15.4	16.9	32.6	75.1	192	80.2	25.5	15.3	17.7	43.8
1941	19.1	19.5	15.4	15.4	18.4	27.8	52.3	236	227	82.1	41.1	29.6	65.5
1942	35.5	33.2	29.0	25.9	26.2	34.5	113	192	257	93.8	34.8	26.8	75.2
1943	23.3	23.7	22.8	20.3	23.2	29.0	96.6	158	194	84.0	34.7	24.7	61.2
1944	28.3	27.3	22.5	20.3	20.3	23.1	50.6	200	271	93.1	34.8	28.4	68.3
1945	26.1	26.9	22.4	21.0	21.1	24.0	44.7	189	208	117	48.4	29.5	65.1
1946	29.7	30.9	25.6	25.0	22.9	35.9	143	200	170	61.0	31.7	26.0	66.9
1947	33.3	34.2	29.9	23.7	25.4	36.5	71.6	254	204	102	46.6	33.0	74.8
1948	32.0	36.0	31.7	27.2	24.1	25.5	73.2	264	242	79.0	39.3	30.9	75.5
1949	29.7	28.6	27.2	23.7	24.2	31.7	86.2	214	223	90.8	37.1	27.5	70.5
1950	31.7	27.4	23.7	23.0	23.3	28.5	71.3	187	249	107	41.1	32.4	70.4

‡ Not previously published; estimated on basis of partial record and records for Mill Creek and Parleys Creek near Salt Lake City.

a Flow of Butler ditch, diverting above station, is included in records for May 16 to Sept. 30, 1912, only.

1/ Published as Cottonwood Creek in WSP 517.

Monthly and yearly runoff, in acre-feet, of Big Cottonwood Creek near Salt Lake City, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	‡2,280	1,970	1,510	1,480	1,350	1,980	5,650	11,100	22,600	9,970	‡3,750	‡3,030	‡66,700
1900	‡2,280	‡2,020	‡1,660	‡1,480	‡1,560	‡1,970	‡4,050	‡9,220	10,100	3,570	2,070	1,510	‡41,500
1901	1,680	1,730	1,540	1,360	1,320	1,800	4,140	16,600	10,200	4,420	2,400	1,770	49,000
1902	1,790	1,650	1,670	1,420	1,350	1,510	4,190	12,900	11,600	3,820	2,030	1,660	45,600
1903	1,620	1,480	1,400	1,310	1,080	1,480	3,430	‡9,840	‡13,400	3,500	1,450	544	‡40,500
1904	‡1,910	‡1,790	‡1,600	‡1,480	‡1,550	‡1,910	‡5,240	‡15,600	‡18,400	‡13,300	‡2,950	‡2,800	‡68,500
1905	2,270	1,890	1,570	1,580	1,390	1,790	3,580	8,500	11,200	3,920	2,210	1,890	41,800
1906	1,970	1,680	1,620	1,590	1,490	1,940	4,370	†12,600	11,900	8,880	4,590	3,420	56,000
1907	2,650	2,350	3,000	2,920	2,390	3,360	5,060	12,800	25,700	24,100	6,000	3,450	93,800
1908	3,170	2,650	2,280	2,020	1,790	2,090	5,030	11,900	17,400	10,100	3,910	3,210	65,600
1909	3,520	2,790	2,230	2,490	2,130	2,640	5,870	15,700	31,500	14,400	6,270	5,400	94,900
1910	4,290	3,960	3,860	3,450	2,650	5,700	10,800	17,500	14,000	5,420	3,870	3,050	78,600
1911	3,260	2,660	2,590	2,470	2,360	2,910	4,160	10,400	16,800	6,210	3,040	2,170	59,000
1912	2,360	1,740	1,540	1,520	1,380	1,680	3,760	a13,500	a24,900	a7,560	a4,260	a3,040	a67,200
1913	3,110	2,520	1,930	1,700	1,580	2,000	6,490	13,900	11,400	5,660	2,800	2,380	55,500
1914	2,660	1,810	1,680	1,580	1,270	2,800	6,370	18,100	16,400	7,990	3,410	2,550	66,600
1915	2,740	2,150	1,600	1,410	1,340	2,000	6,600	8,790	11,300	4,710	2,490	2,170	47,300
1916	1,970	1,810	1,630	1,620	1,690	3,740	6,370	12,000	14,900	6,520	3,580	2,930	58,800
1917	3,420	2,050	1,820	1,860	1,590	1,810	4,520	12,700	22,300	11,200	4,510	3,450	71,200
1918	2,850	2,140	1,970	1,800	1,660	3,030	4,810	11,500	15,400	4,590	2,630	2,270	54,600
1919	2,530	2,020	1,740	1,590	1,380	2,100	6,130	15,400	7,740	3,390	2,670	2,400	49,100
1920	2,710	2,520	1,930	1,820	1,600	2,130	3,970	19,800	19,100	6,520	3,420	2,730	68,200
1921	2,790	2,600	2,120	2,130	2,190	4,270	5,430	19,900	28,800	11,200	4,770	3,260	89,500
1922	2,760	2,310	2,370	2,040	1,690	2,330	4,530	18,700	24,200	7,930	4,180	2,760	75,800
1923	2,320	2,180	2,050	2,020	1,720	2,310	4,830	17,500	18,200	9,840	3,700	2,840	69,500
1924	2,990	2,180	1,920	1,700	1,610	1,770	4,270	12,400	6,900	3,140	1,860	1,630	42,400
1925	1,640	1,620	1,300	1,560	1,720	2,850	5,670	14,600	10,900	5,470	2,760	2,520	52,600
1926	2,150	1,730	1,600	1,420	1,360	2,310	6,310	13,900	8,030	3,100	2,260	1,650	45,800
1927	1,960	1,710	1,800	1,570	1,400	2,160	4,740	14,400	18,400	6,830	3,040	2,550	60,600
1928	2,480	2,550	2,130	2,000	1,750	2,900	4,490	17,460	9,460	4,030	2,340	1,880	53,500
1929	1,870	1,770	1,590	1,480	1,300	2,110	4,300	13,900	16,200	7,010	3,150	2,820	57,500
1930	2,260	1,680	1,600	1,400	1,340	1,800	6,010	8,610	8,270	2,760	2,200	2,090	40,000
1931	2,580	1,650	1,480	1,350	1,230	1,510	3,840	8,300	4,160	1,640	1,300	1,210	30,200
1932	1,260	1,160	1,150	1,040	1,110	1,650	4,470	15,200	13,700	5,130	2,280	1,870	50,000
1933	1,700	1,480	1,260	1,270	1,040	1,720	3,340	8,610	18,600	4,250	1,990	1,510	46,800
1934	1,410	1,200	1,080	1,030	977	1,800	3,870	4,900	1,570	867	836	690	20,230
1935	750	922	1,060	922	1,000	1,200	2,960	8,490	15,530	4,240	1,540	1,000	39,610
1936	941	904	769	793	794	1,480	6,660	16,540	10,180	3,780	2,100	1,350	46,290
1937	1,190	1,140	990	805	900	1,550	3,310	14,200	8,930	3,470	1,450	1,310	39,240
1938	1,780	1,370	1,520	1,060	972	1,840	5,940	‡13,710	13,570	4,060	2,020	1,420	49,260
1939	1,460	1,420	1,310	1,090	950	2,170	5,440	10,330	6,720	2,580	1,240	1,180	35,890
1940	1,410	988	873	947	972	2,000	4,470	11,810	4,770	1,570	941	1,050	31,800
1941	1,170	1,160	947	947	1,020	1,710	3,110	14,510	13,510	5,050	2,530	1,760	47,420
1942	2,180	1,980	1,780	1,590	1,460	2,120	6,720	11,810	15,290	5,770	2,140	1,590	54,430
1943	1,430	1,410	1,400	1,250	1,290	1,780	5,750	9,720	11,540	5,160	2,130	1,470	44,330
1944	1,740	1,620	1,380	1,250	1,170	1,420	3,010	12,300	16,130	5,720	2,140	1,690	49,570
1945	1,600	1,600	1,380	1,290	1,170	1,480	2,660	11,620	12,380	7,190	2,980	1,760	47,110
1946	1,830	1,840	1,570	1,540	1,270	2,210	8,510	12,300	10,120	3,750	1,950	1,550	48,440
1947	2,050	2,040	1,840	1,460	1,410	2,240	4,260	15,620	12,140	6,270	2,870	1,960	54,160
1948	1,970	2,140	1,950	1,670	1,390	1,570	4,360	16,230	14,400	4,860	2,420	1,840	54,800
1949	1,830	1,700	1,670	1,460	1,340	1,950	5,130	13,160	13,270	5,580	2,280	1,640	51,010
1950	1,950	1,640	1,440	1,410	1,300	1,630	4,240	11,470	14,810	6,580	2,530	1,930	50,930

‡ Not previously published; see footnote to preceding table.
a Flow of Butler ditch, diverting above station, is included in records for May 16 to Sept. 30, 1912, only.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30				Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1899	270	-	-	-	‡92.0	‡66,700	‡92.3	‡66,900
1900	270	-	-	-	‡57.2	‡41,500	‡55.9	‡40,500
1901	270	407	May 19, 1901	11	67.3	49,000	67.6	49,100
1902	270	370	May 30, 1902	14	62.8	45,600	62.0	45,000
1903	270	-	-	-	‡56.0	‡40,500	‡57.1	‡41,300
1904	-	-	-	-	‡94.3	‡68,500	‡95.0	‡69,000
1905	270	265	June 8, 1905	17	57.7	41,800	57.1	41,300
1906	270	-	-	16	77.2	56,000	80.8	58,900
1907	270	793	June 6, 1907	-	129	93,800	29.0	93,900
1908	270	520	June 15, 1908	-	90.2	65,600	90.8	66,000
1909	270	835	June 6, 1909	25	131	94,900	136	98,500
1910	290	390	June 2, 1910	44	108	78,600	104	75,000
1911	310	387	June 13, 1911	32	81.6	59,000	77.7	56,200
1912	330	†848	June 7, 1912†	20	a92.8	a67,200	a95.3	a69,200
1913	b360	376	May 26, 1913	13	76.6	55,500	74.7	54,100
1914	1029	438	May 23, 1914	20	92.1	66,600	92.6	67,000
1915	1029	261	June 2, 1915	17	65.3	47,300	63.9	46,200

† Corrected.
‡ Not previously published.
a Includes flow of Butler ditch, diverting above station; records for other years do not include it.
b Records for water year 1913 in WSP 517 for this station are actually for another station and erroneous for this station.

Yearly discharge, in cubic feet per second, of Big Cottonwood Creek near Salt Lake City, Utah--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	1029	330	June 10, 1916	17	81.0	58,800	83.6	60,600
1917	1029	499	June 18, 1917	18	†98.3	71,200	97.9	70,900
1918	1029	394	June 12, 1918	26	†75.5	54,600	74.6	54,000
1919	1029	†343	May 23, 1919	22	67.8	49,100	69.1	50,000
1920	1029	†526	May 23, 1920	20	94.0	68,200	94.5	68,600
1921	1029	†721	June 14, 1921	29	†124	89,500	123	89,400
1922	1029	531	June 7, 1922	18	105	75,800	103	74,900
1923	1029	499	May 26, 1923	22	†96.1	69,500	96.8	70,000
1924	1029	276	May 18, 1924	26	58.4	42,400	54.9	39,800
1925	1029	336	May 21, 1925	9.7	72.7	52,600	74.0	53,500
1926	1029	352	May 5, 1926	21	63.3	45,800	63.3	45,800
1927	1029	491	May 17, 1927	20	83.7	60,600	86.0	62,200
1928	1029	402	May 27, 1928	28	73.7	53,500	71.0	51,600
1929	1029	414	May 25, 1929	13	79.5	57,500	79.9	57,800
1930	1029	236	May 29, 1930	18	55.3	40,000	55.5	40,200
1931	1029	213	May 17, 1931	15	†41.7	30,200	38.8	28,100
1932	1029	414	May 21, 1932	10	69.0	50,000	70.2	50,900
1933	1029	467	June 12, 1933	10	64.6	46,800	63.6	46,000
1934	(c)	123	May 12, 1934	7.4	27.9	20,230	26.6	19,270
1935	(c)	422	June 13, 1935	8.8	54.7	39,610	54.6	39,500
1936	(c)	370	May 15, 1936	8.3	63.8	46,290	64.7	47,000
1937	(c)	326	May 18, 1937	4.5	54.2	39,240	56.1	40,600
1938	(c)	406	May 29, 1938	15	68.0	49,260	67.4	48,780
1939	(c)	219	May 31, 1939	11	49.6	35,890	48.3	34,970
1940	(c)	266	May 16, 1940	12	43.8	31,800	43.8	31,810
1941	(c)	349	May 13, 1941	10	65.5	47,420	69.2	50,090
1942	(c)	444	May 26, 1942	15	75.2	54,430	72.8	52,730
1943	(c)	331	June 1, 1943	16	61.2	44,330	61.9	44,830
1944	(c)	432	June 3, 1944	18	68.3	49,570	68.1	49,410
1945	(c)	258	June 24, 1945	14	65.1	47,110	66.0	47,770
1946	(c)	262	May 6, 1946	16	66.9	48,440	67.9	49,130
1947	(c)	348	May 8, 1947	22	74.8	54,160	75.0	54,290
1948	(c)	442	May 28, 1948	18	75.5	54,800	74.3	53,940
1949	(c)	320	May 29, 1949	10	70.5	51,010	70.2	50,840
1950	(c)	344	June 1, 1950	15	70.4	50,930	-	-

† Corrected.
‡ Not previously published.
c Files of office of city engineer of Salt Lake City.

174. Spring Run at 9th East and 48th South Streets, near Murray, Utah

Location.--Lat 40°40'00", long 111°51'50", in NE¼NW¼ sec. 8, T. 2 S., R. 1 E., at 9th East Street Bridge in Murray, 100 ft upstream from mouth.

Gage.--Water-stage recorder. Altitude of gage is 4,290 ft (from topographic map). Aug. 1 to Oct. 27, 1933, and July 6 to Nov. 27, 1934, staff gage probably at same site and datum.

Extremes.--1933-1935: Maximum daily discharge, 44 cfs May 30, 1935; minimum not determined, but was 3.0 cfs or less.

Remarks.--Flow represents spring inflow, artesian-well water, and waste irrigation water, the spring inflow probably constituting the greatest part during most seasons.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1933	-	-	-	-	-	-	-	-	-	-	24.2	18.2	-
1934	16.6	12.8	9.8	7.6	†9.0	7.6	7.0	11.7	11.3	5.7	5.4	8.0	9.4
1935	8.9	9.9	14.0	14.7	10.8	11.4	10.1	17.8	26.9	†20.7	18.8	13.4	14.8

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1933	-	-	-	-	-	-	-	-	-	-	1,490	1,080	-
1934	1,020	760	600	468	†517	465	418	721	†674	352	331	477	6,800
1935	549	589	862	904	602	700	599	1,090	1,600	1,270	1,160	798	10,720

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1933	1029	-	-	-	-	-	-	-
1934	1029	24	Oct. 9, 1933	-	9.4	6,800	8.8	6,420
1935	1029	44	May 30, 1935	7.8	14.8	10,720	-	-

175. Big Cottonwood Creek at Second West Street, near Murray, Utah

Location.--Lat 40°40'50", long 111°53'55", in NW¼NE¼ sec. 1, T. 2 S., R. 1 W., at highway bridge on Second West Street in Murray and 2.5 miles downstream from Spring Run.

Gage.--Water-stage recorder. Altitude of gage is 4,245 ft (from topographic map).

Extremes.--1933-35: Maximum discharge, 254 cfs June 14, 1935; minimum daily, 2.1 cfs July 30, 31, Aug. 3, 1934.

Remarks.--Diversions above station for irrigation above and below station. Stopping the wastage of water from a number of artesian wells in the fall of 1934 reduced flow past station by 10-12 cfs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1933	-	-	-	-	-	-	-	-	-	-	43.7	25.9	-
1934	27.9	37.4	34.3	33.4	36.8	35.5	25.9	26.3	19.2	6.3	3.3	8.5	†24.5
1935	21.3	30.1	29.8	25.1	25.5	22.9	26.0	57.0	99.2	25.9	19.5	14.3	33.0

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1933	-	-	-	-	-	-	-	-	-	-	2,690	1,540	-
1934	1,720	2,220	2,110	2,050	2,040	2,180	1,540	1,620	1,140	388	202	503	17,720
1935	1,310	1,790	1,830	1,540	1,420	1,410	1,550	3,500	5,900	1,590	1,200	852	†23,890

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1933	1029	(a)	-	-	-	-	-	-
1934	1029	‡67	Feb. 21, 1934	2.1	†24.5	17,720	22.9	16,590
1935	1029	‡254	June 14, 1935	12	33.0	†23,890	-	-

† Corrected.
‡ Not previously published.
a A discharge of 216 cfs was measured June 17, 1933, before daily record began.

176. Mill Creek near Salt Lake City, Utah

Location (revised).--Lat 40°41'20", long 111°46'55", in NW¼SE¼ sec. 36, T. 1 S., R. 1 E., 1,000 ft upstream from bridge at mouth of canyon, a quarter of a mile upstream from lower powerplant, and 7 miles southeast of Salt Lake City.

Drainage area.--21.3 sq mi.

Gage.--Water-stage recorder and rating flume on creek. Altitude of gage is 5,050 ft (from topographic map). Supplementary gage in tailrace of lower powerplant; water-stage recorder and weir a quarter of a mile downstream from creek gage. Prior to 1930 on creek, and prior to 1931 on tailrace, various type weirs at or near present sites at unknown datums; stage at creek weir determined by measurement from fixed point, and at tailrace, by hook-gage.

Average discharge.--52 years (1898-1950), 15.6 cfs.

Extremes.--1898-1910, 1912-19, 1920-22, 1923-50: Maximum daily discharge, 152 cfs May 20, 1949; minimum not determined, but about 1 cfs or less.

Remarks.--No regulation. Records include flow through powerplant, and except for small diversion above station for culinary use, show natural runoff.

Cooperation.--Records, including those not previously published for 1934-50, furnished by office of city engineer of Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	‡15.0	12.9	10.4	11.6	10.3	12.2	21.1	34.8	50.4	25.7	17.9	15.7	‡19.8
1900	14.6	13.5	11.4	12.0	10.4	11.8	12.6	21.6	16.2	10.5	9.48	8.56	12.7
1901	8.56	8.74	7.13	7.17	8.11	8.37	9.94	29.4	19.8	15.2	12.5	11.6	12.2
1902	11.6	11.4	10.2	9.33	8.88	9.66	12.8	23.6	21.7	13.7	11.0	9.33	12.8
1903	9.66	8.54	6.96	7.84	6.48	8.46	10.2	17.5	26.0	15.2	12.8	11.6	11.8
1904	11.3	11.0	9.07	9.85	9.87	11.2	18.9	41.4	40.9	25.7	14.9	15.0	18.3
1905	13.7	12.4	8.63	8.86	7.87	10.2	12.3	23.1	26.5	15.4	12.7	11.9	13.6
1906	11.6	10.1	7.18	8.69	9.44	9.52	15.2	31.3	36.9	19.0	15.5	14.0	15.7
1907	13.0	11.4	11.7	11.1	14.2	19.1	32.6	47.7	57.9	34.4	25.7	22.7	25.1
1908	18.7	16.6	15.0	12.9	12.9	13.6	15.3	29.6	46.2	30.7	22.9	19.4	21.2
1909	17.1	15.9	13.0	14.7	16.6	19.3	29.4	50.8	81.1	36.6	28.1	24.9	29.0
1910	20.8	19.5	16.3	15.4	15.1	21.5	33.0	38.4	31.0	22.1	18.3	16.2	22.3

‡ Not previously published; estimated on basis of trend of flow of Mill Creek for other years and records for Parleys Creek near Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second, of Mill Creek near Salt Lake City, Utah --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	15.1	15.2	15.2	*11.0	*9.5	*9.9	*12.0	*28.0	*22.0	*15.0	*11.0	*9.5	*14.4
1912	*9.0	*10.7	*10.0	11.0	9.58	10.9	23.8	44.5	59.4	24.4	20.6	17.2	*20.9
1913	19.8	17.3	15.6	13.2	12.7	13.9	44.6	68.9	39.1	22.6	16.7	14.5	25.0
1914	13.9	13.2	12.9	12.7	12.2	17.0	29.3	54.6	41.0	24.7	19.4	18.4	22.5
1915	14.3	13.2	11.8	9.00	9.03	9.76	16.2	24.7	24.8	17.4	13.5	12.6	14.7
1916	11.0	10.3	10.0	8.73	9.41	13.8	19.7	35.2	32.0	19.0	15.6	12.9	16.5
1917	12.1	10.0	9.16	7.75	8.09	5.84	15.2	35.2	45.0	26.2	19.5	15.2	†17.5
1918	12.2	11.0	10.3	8.55	8.68	12.9	14.4	25.7	26.8	16.3	12.4	11.6	†14.3
1919	9.91	8.31	8.40	6.36	5.93	6.37	15.2	†37.5	22.6	14.9	12.3	11.1	†13.3
1920	10.4	8.90	7.10	5.35	6.47	6.92	15.2	42.1	33.2	22.8	17.5	13.3	15.8
1921	11.2	10.4	7.79	6.88	8.08	18.6	23.3	60.5	68.6	29.1	22.7	18.7	23.9
1922	14.5	12.2	11.4	9.09	9.45	11.0	20.7	66.4	59.8	27.3	21.4	18.5	23.5
1923	13.6	12.5	14.1	11.9	10.3	10.3	17.5	‡52	‡46	24.9	20.4	18.4	‡21.0
1924	13.0	9.66	8.73	7.96	8.94	8.47	10.0	24.5	16.3	11.4	9.00	8.87	11.4
1925	8.52	7.64	7.01	6.35	6.55	8.28	12.2	28.3	27.1	15.6	11.2	9.54	12.4
1926	8.88	7.92	6.73	5.97	5.86	6.47	10.2	28.3	17.0	9.92	7.75	7.11	10.2
1927	7.25	6.66	5.01	4.45	5.70	7.32	15.6	38.3	45.8	26.3	18.3	14.0	16.3
1928	13.2	13.8	9.17	8.49	8.49	10.6	14.7	48.0	28.4	19.0	15.4	12.9	16.9
1929	12.2	11.8	8.38	7.55	6.01	8.65	15.8	43.6	43.2	24.0	16.6	14.6	17.8
1930	9.74	9.81	9.88	6.63	7.12	10.0	14.2	19.0	15.8	10.6	10.2	10.2	11.1
1931	11.1	9.55	9.01	9.60	9.72	9.75	12.1	15.4	9.91	8.99	7.13	6.67	9.92
1932	6.71	5.50	4.89	4.81	5.00	7.26	15.2	36.4	27.3	16.8	12.3	10.5	12.7
1933	9.09	8.52	7.24	7.29	7.09	7.38	10.4	20.3	36.7	16.9	12.6	10.1	12.8
1934	8.91	8.22	8.36	7.60	7.47	7.20	7.92	7.68	6.53	5.80	4.81	4.35	7.05
1935	5.05	5.61	5.25	5.15	4.95	4.74	7.62	19.2	25.7	11.6	8.36	6.49	9.15
1936	4.62	4.05	3.69	4.06	4.31	5.64	19.3	42.2	25.4	16.4	11.6	9.31	12.6
1937	7.99	7.28	5.34	3.71	4.85	3.71	11.7	36.5	23.6	15.9	9.95	7.98	11.6
1938	8.78	7.35	6.71	5.39	5.05	8.22	19.7	42.2	31.8	17.3	12.0	9.77	14.6
1939	7.35	6.62	5.05	4.98	4.61	6.28	13.0	23.2	15.5	9.02	7.57	5.93	9.12
1940	6.03	5.03	5.36	4.86	4.58	6.75	14.5	24.5	12.7	10.0	7.88	7.61	9.17
1941	7.18	5.62	4.96	4.92	5.36	6.35	11.5	36.1	27.5	16.6	13.8	11.3	12.6
1942	9.65	9.29	8.76	8.29	8.18	6.95	22.2	41.1	44.0	21.1	16.2	11.9	17.3
1943	9.54	8.70	8.17	6.89	8.64	9.05	15.8	23.7	24.9	17.7	13.2	9.41	13.0
1944	8.14	8.01	7.35	5.52	6.88	7.18	10.6	30.6	42.6	22.4	22.4	11.8	15.3
1945	10.4	11.2	9.14	7.40	5.43	5.58	8.75	18.7	23.0	17.1	13.0	8.98	11.6
1946	8.11	6.85	5.73	8.28	8.52	8.71	22.2	36.9	24.1	16.4	12.4	9.44	14.0
1947	9.05	7.09	7.51	7.00	7.99	9.01	16.0	39.7	27.2	17.4	13.6	10.8	14.4
1948	8.70	9.46	8.74	7.70	6.03	6.16	18.0	52.6	37.6	17.8	13.7	9.34	16.3
1949	5.86	6.32	7.15	6.63	6.40	6.62	18.6	56.6	33.3	19.2	14.5	12.6	16.2
1950	12.3	11.1	10.0	8.10	10.4	11.9	22.3	46.3	48.1	22.2	15.7	14.3	19.4

* Revised; only monthly figures revised; revised daily figures not available.
† Corrected.
‡ Not previously published; estimated on basis of trend of flow of Mill Creek for other years and records for Parleys Creek near Salt Lake City.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	‡922	770	640	716	570	751	1,250	2,140	3,000	1,580	1,100	933	‡14,400
1900	898	804	703	741	577	728	750	1,330	963	643	583	509	9,230
1901	526	520	438	441	450	515	591	1,810	1,180	932	770	689	8,860
1902	715	676	627	574	493	594	760	1,450	1,290	844	676	555	9,250
1903	594	508	428	482	360	520	607	1,080	1,540	932	790	689	8,530
1904	697	656	558	606	568	689	1,130	2,550	2,430	1,580	916	890	13,300
1905	840	736	531	545	437	629	730	1,420	1,580	945	778	706	9,880
1906	714	603	441	534	524	585	906	1,920	2,200	1,170	955	833	11,400
1907	802	679	720	684	786	1,180	1,940	2,930	3,450	2,110	1,580	1,350	18,200
1908	1,150	988	920	795	741	838	910	1,820	2,750	1,890	1,410	1,160	15,400
1909	1,050	948	798	904	922	1,190	1,750	3,120	4,830	2,250	1,730	1,480	21,000
1910	1,280	1,160	1,000	947	839	1,320	1,960	2,360	1,840	1,360	1,130	964	16,200
1911	928	904	935	*676	*528	*609	*714	*1,720	*1,310	*922	*676	*565	*10,500
1912	*553	*637	*615	676	551	670	1,420	2,740	3,530	1,500	1,270	1,020	*15,200
1913	1,220	1,030	959	812	705	855	2,650	4,240	2,330	1,390	1,030	863	18,100
1914	855	785	793	781	678	1,050	1,740	3,360	2,440	1,520	1,190	1,090	16,300
1915	879	785	726	553	502	600	964	1,520	1,480	1,070	830	750	10,700
1916	676	613	615	537	541	849	1,170	2,160	1,900	1,170	959	768	12,000
1917	744	595	563	477	449	359	904	2,160	2,680	1,610	1,200	904	12,600
1918	750	655	633	526	482	793	857	1,580	1,590	1,000	762	690	10,300
1919	609	494	516	391	329	392	904	†2,310	1,340	916	756	660	†9,620
1920	639	530	437	329	372	425	904	2,590	1,980	1,400	1,080	791	11,500
1921	689	619	479	423	449	1,140	1,390	3,720	4,080	1,790	1,400	1,110	17,300
1922	892	726	701	559	525	676	1,230	4,080	3,560	1,680	1,320	1,100	17,000
1923	836	744	867	732	572	633	1,040	‡3,200	‡2,740	1,530	1,250	1,090	‡15,200
1924	799	575	537	489	514	521	595	1,510	970	701	553	528	†8,290
1925	524	455	431	390	364	509	726	1,740	1,610	959	689	568	8,960
1926	546	471	414	367	325	398	607	1,740	1,010	610	477	423	7,390
1927	446	396	308	274	317	450	928	2,350	2,730	1,620	1,130	833	11,800
1928	812	821	564	522	488	652	875	2,950	1,690	1,170	947	768	12,300
1929	750	702	515	464	334	532	940	2,680	2,570	1,480	1,020	869	12,900
1930	599	584	607	408	395	615	845	1,170	940	652	627	607	8,050

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Mill Creek near Salt Lake City, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	683	568	554	590	540	600	720	947	590	553	438	397	7,180
1932	413	327	301	296	288	446	904	2,240	1,620	1,030	756	625	9,250
1933	559	507	445	448	394	454	619	1,250	2,180	1,040	775	601	9,270
1934	548	489	514	467	415	443	471	472	389	344	296	259	5,110
1935	311	334	323	317	275	291	453	1,180	1,530	713	514	386	6,630
1936	284	241	227	250	248	347	1,150	2,590	1,510	1,010	713	554	9,120
1937	491	433	328	228	269	228	696	2,240	1,400	978	612	475	8,380
1938	540	437	413	331	280	505	1,170	2,590	1,890	1,060	738	581	10,540
1939	452	394	311	306	256	386	774	1,430	922	555	465	353	6,600
1940	371	299	330	299	263	415	863	1,510	756	615	485	453	6,660
1941	441	334	305	303	298	390	684	2,220	1,640	1,020	849	672	9,160
1942	593	553	539	510	454	427	1,320	2,530	2,620	1,300	996	708	12,550
1943	587	518	502	424	480	556	940	1,460	1,480	1,090	812	580	9,410
1944	501	477	452	339	396	441	†631	1,880	2,530	1,380	1,380	702	11,110
1945	639	666	562	455	302	343	521	1,150	1,370	1,050	799	534	8,390
1946	499	408	352	509	473	536	1,320	2,270	1,430	1,010	762	562	10,130
1947	556	422	462	430	444	554	952	2,440	1,620	1,070	836	643	10,430
1948	535	563	537	473	347	379	1,070	3,230	2,240	1,090	842	556	11,860
1949	360	376	440	408	355	407	1,110	3,480	1,980	1,180	892	750	11,740
1950	756	660	615	500	575	731	1,330	2,840	2,860	1,370	967	849	14,050

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1899	270	66	June 1899	-	‡19.8	‡14,400	19.9	14,400
1900	270	31	May 24, 1900	2	12.7	9,230	11.5	8,310
1901	270	47	May 24, 1901	1	12.2	8,860	12.9	9,400
1902	270	39	May 29, 1902	4	12.8	9,250	12.1	8,770
1903	270	34	June4-9, 1903	2	11.8	8,530	12.3	8,910
1904	270	59	May 24, 1904	3	18.3	13,300	18.5	13,500
1905	270	38	May 31, 1905	1	13.6	9,880	13.1	9,530
1906	270	59	June 11,12,1906	1	15.7	11,400	16.3	11,800
1907	270	72	June 4, 1907	4	25.1	18,200	26.3	19,100
1908	270	65	June 13-16,1908	7	21.2	15,400	20.8	15,100
1909	270	112	June 17,18,1909	4	29.0	21,000	29.8	21,600
1910	290	45	(a)	7	22.3	16,200	21.4	5,500
1911	310	-	-	-	*14.4	*10,500	*13.2	*9,520
1912	330	-	-	-	*20.9	*15,200	22.8	16,600
1913	360	-	-	6.8	25.0	18,100	23.9	17,300
1914	1029	74	May 25, 1914	12	22.5	16,300	22.4	16,200
1915	1029	†33	May 18, 1915	7.1	14.7	10,700	14.1	10,200
1916	1029	43	May 6-9, 1916	8.4	16.5	12,000	16.5	12,000
1917	1029	54	June 7,8,1917	3.6	†17.5	12,600	17.7	12,800
1918	1029	37	June 6, 1918	6.0	†14.3	10,300	13.7	9,900
1919	1029	45	May19-25,1919	2.5	†13.3	†9,620	13.3	9,600
1920	1029	-	-	4.1	15.8	11,500	16.1	11,700
1921	1029	104	June 12, 1921	5.4	23.9	17,300	24.6	17,800
1922	1029	92	May24-June5,1922	6.8	23.5	17,000	23.7	17,200
1923	1029	-	-	8.7	‡21.0	*15,200	‡20.3	‡14,700
1924	1029	33	May17-22,1924	7.4	11.4	†8,290	10.7	7,790
1925	1029	35	May 23, 1925	6.0	12.4	8,960	12.4	8,990
1926	1029	35	May 20, 1926	5.7	10.2	7,390	9.82	7,110
1927	1029	60	June 11, 1927	1.2	16.3	11,800	17.7	12,800
1928	1029	67	May 11, 1928	7.2	16.9	12,300	16.6	12,000
1929	1029	68	May 25, 1929	5.5	17.8	12,900	17.5	12,700
1930	1029	24	May 31, 1930	5.6	11.1	8,050	11.1	8,060
1931	1029	23	May16,17,1931	6.2	9.92	7,180	8.86	6,420
1932	1029	55	May 21, 1932	4.2	12.7	9,250	13.4	9,720
1933	1029	57	June 2, 1933	6.5	12.8	9,270	12.9	9,310
1934	(b)	9.8	Oct.1-4, 1933	3.9	7.05	5,110	6.25	4,520
1935	(b)	42	June 8, 1935	4.1	9.15	6,630	8.86	6,410
1936	(b)	56	May16-20,1936	2.2	12.6	9,120	13.3	9,620
1937	(b)	51	May 19, 1937	2.4	11.6	8,380	11.8	8,520
1938	(b)	67	May28,29,1938	4.0	14.6	10,540	14.2	10,300
1939	(b)	29	May 11, 1939	4.4	9.12	6,600	8.91	6,450
1940	(b)	35	May16,17,1940	4.3	9.17	6,660	9.28	6,740
1941	(b)	52	May 27, 1941	4.2	12.6	9,160	13.5	9,760
1942	(b)	87	May 27, 1942	6.1	17.3	12,550	17.2	12,470
1943	(b)	36	June 2, 1943	5.8	13.0	9,410	12.8	9,230
1944	(b)	57	June 10, 1944	5.1	15.3	11,110	15.9	11,550
1945	(b)	28	June 10, 1945	4.1	11.6	8,390	10.8	7,780
1946	(b)	47	May 6-8, 1946	5.0	14.0	10,130	14.2	10,310
1947	(b)	49	May 23, 1947	6.2	14.4	10,430	14.7	10,620
1948	(b)	84	May 25, 1948	5.0	16.3	11,860	15.7	11,400
1949	(b)	152	May 20, 1949	4.0	16.2	11,740	17.4	12,590
1950	(b)	83	June 1, 1950	2.5	19.4	14,050	-	-

* Revised.
† Corrected.
‡ Not previously published.

a May 12-13, 31, June 1-3, 1910.
b Files of office of city engineer of Salt Lake City.

177. Surplus Canal at Salt Lake City, Utah

Location.--Lat 40°44', long 111°55', in SW¼SW¼ sec. 14, T. 1 S., R. 1 W., 300 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.

Gage.--Water-stage recorder. Datum of gage is 4,219.02 ft above mean sea level, datum of 1929. Since Dec. 31, 1946, auxiliary water-stage recorder about 1 mile downstream.

Average discharge.--7 years (1943-50), 139 cfs.

Extremes.--1942-50: Maximum discharge, 965 cfs June 3, 1944 (gage height, 7.50 ft); minimum daily, 31 cfs July 4, 1943.

Remarks.--Flow regulated by headgates at diversion dam 300 ft upstream from station. Canal was built to bypass floodwater of Jordan River around Salt Lake City residential area. For records of combined flow of Jordan River and Surplus Canal see page

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	‡80.5	62.4	57.6	48.5	152	199	169	82.8	81.3	89.7	-
1944	127	68.8	49.7	44.1	63.1	85.5	126	251	481	185	96.7	120	141
1945	117	83.5	76.0	58.3	62.8	55.9	63	154	257	122	132	118	108
1946	114	92.3	78.0	73.9	71.6	60.4	184	163	124	92.8	89.8	99.7	104
1947	154	136	117	76.3	90.0	79.9	161	229	264	101	138	129	140
1948	101	127	90.7	68.0	93.1	75.9	333	350	366	108	110	134	163
1949	108	101	82.3	44.0	115	333	207	325	257	117	109	86.6	157
1950	87.5	99.9	138	134	216	189	190	240	256	146	120	146	163

‡ Not previously published; partly estimated on basis of trend of discharge.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	‡4,950	3,840	3,200	2,980	9,030	12,230	10,040	5,090	5,000	5,340	-
1944	7,800	4,100	3,050	2,710	3,630	5,250	7,490	15,410	28,590	11,380	5,950	7,110	102,500
1945	7,200	4,970	4,670	3,590	3,490	3,440	3,750	9,450	15,320	7,490	8,100	7,020	78,490
1946	7,010	5,490	4,800	4,550	3,970	3,710	10,970	10,050	7,360	5,710	5,520	5,930	75,070
1947	9,460	8,110	7,220	4,690	5,000	4,920	9,590	14,070	15,720	6,190	8,460	7,680	101,100
1948	6,190	7,560	5,580	4,180	5,360	4,670	19,820	21,520	21,760	6,660	6,750	7,970	118,000
1949	6,660	6,010	5,060	2,710	6,410	20,490	12,310	19,970	15,310	7,190	6,710	5,160	114,000
1950	5,380	5,940	8,510	8,270	11,990	11,590	11,310	14,790	15,230	8,970	7,370	8,670	118,000

‡ Not previously published; partly estimated on basis of trend of discharge.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Diversions in acre-feet	Mean	Diversions in acre-feet
		Discharge	Date					
1943	980	585	June 2, 1943	-	-	-	99	71,700
1944	1010	965	June 3, 1944	39	141	102,500	144	104,400
1945	1040	436	June 5, 1945	46	108	78,490	109	78,950
1946	1060	429	May 29, 1946	42	104	75,070	114	82,560
1947	1090	545	June 12, 1947	45	140	101,100	132	95,650
1948	1120	814	June 3, 1948	54	163	118,000	160	116,400
1949	1150	635	May 21, 1949	37	157	114,000	160	116,100
1950	1180	434	June 2, 1950	32	163	118,000	-	-

178. 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.

Gage.--Water-stage recorder. Datum of gage is 4,220.73 ft above mean sea level, datum of 1929.

Average discharge.--7 years (1943-50), 145 cfs (river only); 285 cfs (combined flow, river and canal).

Extremes.--1942-50: Maximum discharge, 384 cfs June 3, 1944 (gage height, 5.55 ft); minimum daily, 13 cfs Apr. 9, 13, 14, 1943, July 19, 1944.
Maximum combined discharge (river and canal), 1,190 cfs June 3, 1944; combined minimum daily, 145 cfs May 18, 1946.

Remarks.--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 (see preceding station) diverts water 1,000 ft upstream from station. Records of combined flow also given herewith.

Monthly and yearly mean discharge, in cubic feet per second, of Jordan River at Salt Lake City, Utah (river only).

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	‡123	117	138	140	59.9	80.7	151	149	143	156	-
1944	138	132	146	145	155	154	127	138	100	83.6	113	146	131
1945	167	159	135	135	132	128	112	121	131	119	165	188	141
1946	174	149	147	140	152	158	123	125	123	145	139	166	145
1947	163	142	133	128	153	133	95.0	122	141	133	169	168	140
1948	176	153	139	148	146	154	128	51.5	114	148	149	190	141
1949	183	167	172	170	188	170	109	141	137	161	173	237	167
1950	230	174	114	119	129	114	120	118	129	162	169	222	150

‡ Not previously published; partly estimated on basis of weather records, records for stations on nearby streams, and trends of winter discharge.

Monthly and yearly runoff, in acre-feet (river only).

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	‡7,550	7,180	7,650	8,600	3,560	4,960	8,960	9,150	8,780	9,300	-
1944	8,500	7,860	8,960	8,910	8,930	9,460	7,550	8,480	5,960	5,140	6,930	8,670	95,350
1945	10,300	9,450	8,300	8,280	7,340	7,860	6,640	7,430	7,810	7,340	10,130	11,200	102,100
1946	10,670	8,880	9,030	8,580	8,430	9,710	7,330	7,670	7,340	8,920	8,580	9,880	105,000
1947	10,050	8,480	8,150	7,880	8,500	8,200	5,650	7,500	8,390	8,200	10,410	10,010	101,400
1948	10,800	9,100	8,530	9,120	8,400	9,450	7,590	3,170	6,760	9,100	9,180	11,320	102,500
1949	11,240	9,910	10,560	10,470	10,450	10,430	6,460	8,680	8,130	9,920	10,660	14,110	121,000
1950	14,170	10,330	7,020	7,290	7,140	7,030	7,140	7,260	7,690	9,940	10,400	13,200	108,600

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second (river only).

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1010	322	June 2, 1943	-	-	-	129	93,460
1944	1010	384	June 3, 1944	13	131	95,350	135	98,100
1945	1040	261	Aug. 6, 1945	46	141	102,100	142	102,600
1946	1060	265	May 29, 1946	47	145	105,000	142	103,100
1947	1090	235	June 9, 1947	76	140	101,400	143	103,200
1948	1120	219	Sept. 20, 1948	44	141	102,500	146	105,800
1949	1150	325	Sept. 11, 1949	84	167	121,000	167	120,800
1950	1180	283	Sept. 30, 1950	72	150	108,600	-	-

Monthly and yearly mean discharge, in cubic feet per second (combined flow, river and canal)

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	‡203	179	195	188	212	280	319	232	224	246	-
1944	265	201	195	189	218	239	253	389	581	269	209	265	272
1945	285	242	211	193	195	184	175	275	389	241	296	306	249
1946	287	241	225	213	223	218	307	288	247	238	229	266	249
1947	317	279	250	204	243	213	256	351	405	234	307	297	280
1948	276	280	230	216	239	229	461	402	479	256	259	324	304
1949	291	268	254	214	304	503	315	466	394	278	282	324	325
1950	318	273	253	253	345	303	310	359	385	308	289	367	313

‡ Not previously published; computed as sum of flow for river and canal.

Monthly and yearly runoff, in acre-feet (combined flow, river and canal)

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	-	-	‡12,500	11,020	10,850	11,580	12,600	17,200	19,000	14,240	13,780	14,630	-
1944	16,290	11,950	12,020	11,620	12,560	14,710	15,040	23,890	34,550	16,510	12,860	15,780	197,800
1945	17,490	14,410	12,970	11,870	10,830	11,300	10,400	16,880	23,130	14,830	18,230	18,220	180,600
1946	17,670	14,370	13,820	13,120	12,400	13,420	18,300	17,720	14,720	14,640	14,100	15,820	180,100
1947	19,510	16,590	15,370	12,570	13,500	13,120	15,240	21,570	24,110	14,390	18,870	17,690	202,500
1948	17,000	16,650	14,110	13,300	13,760	14,110	27,410	24,700	28,510	15,760	15,930	19,280	220,500
1949	17,900	15,920	15,620	13,170	16,860	30,920	18,770	28,650	23,440	17,110	17,370	19,270	235,000
1950	19,550	16,270	15,530	15,560	19,140	18,620	18,460	22,050	22,920	18,910	17,770	21,860	226,600

‡ Not previously published; computed as sum of flow for river and canal.

Yearly discharge, in cubic feet per second (combined flow, river and canal)

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1010	‡881	June 2, 1943	-	-	-	228	165,200
1944	1010	1,190	June 3, 1944	180	272	197,800	279	202,400
1945	1040	623	June 5, 1945	152	249	180,600	251	181,600
1946	1060	678	May 29, 1946	145	249	180,100	257	185,700
1947	1090	758	June 12, 1947	166	280	202,500	275	198,800
1948	1120	937	June 3, 1948	182	304	220,500	306	222,200
1949	1150	853	May 21, 1949	195	325	235,000	327	236,900
1950	1180	618	June 2, 1950	193	313	226,600	-	-

‡ Not previously published.

179. Parleys Creek near Salt Lake City, Utah

Location.--Lat 40°43'00", long 111°47'00", in SE¼ sec. 24, T. 1 S., R. 1 E., a quarter of a mile upstream from Stillman highway bridge, three-quarters of a mile upstream from mouth of canyon, and 6½ miles southeast of Salt Lake City.

Drainage area.--50.1 sq mi.

Gage.--Water-stage recorder and rating flume on creek. Altitude of gage is 4,890 ft (from topographic map). Prior to 1931, hook gage and two Cippoletti weirs about three-quarters of a mile downstream at different datum.

Supplementary gages: Water-stage recorder and Cippoletti weir on Parleys High-line conduit half a mile upstream from creek gage since beginning of records. Staff gage on Parleys surplus ditch prior to 1931 during which period ditch diverted around creek gage.

Average discharge.--52 years (1898-1950), 26.8 cfs (adjusted).

Extremes.--1898-1950: Maximum daily discharge, 317 cfs May 7, 1922; minimum daily, 1.0 cfs Oct. 26, 1934.

Remarks.--Flow regulated by Mountain Dell Reservoir (capacity, about 3,400 acre-ft) since September 1917. Diversion by Parleys High-line conduit has bypassed creek gage since beginning of records. Diversion by Parleys surplus ditch was a mile upstream from gage and bypassed gage prior to 1931. Records herein adjusted for changes in storage in the reservoir and for the diversions bypassing gage on creek.

Cooperation.--Records furnished by office of city engineer of Salt Lake City; those for 1934-50 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1898	-	-	-	-	-	-	-	-	-	-	9.26	8.90	-
1899	10.3	9.44	8.30	8.91	8.21	12.4	146	175	109	58.4	20.9	14.3	48.5
1900	16.4	14.3	11.3	11.9	10.4	16.4	20.3	29.4	15.8	9.46	7.25	6.97	14.2
1901	8.93	7.75	7.35	7.73	9.00	11.1	38.2	86.7	28.5	13.8	12.2	8.44	20.0
1902	8.59	8.19	7.67	7.08	7.34	7.39	33.4	58.5	33.6	13.4	10.6	7.59	16.9
1903	7.52	7.33	6.73	7.84	6.69	12.2	29.8	73.8	55.3	18.3	11.1	8.73	20.3
1904	9.73	8.67	5.93	7.08	10.3	19.6	123	168	52.6	26.1	16.0	11.4	38.2
1905	12.9	10.3	8.25	9.00	8.76	9.28	18.9	37.0	21.4	12.5	8.23	6.72	13.6
1906	6.79	6.58	5.86	7.51	7.71	12.8	48.5	107	69.0	24.6	17.2	11.7	27.1
1907	9.7	9.12	10.1	8.14	‡14	‡30	163	147	‡102	‡52	‡29	‡18	‡49.3
1908	‡14	13.4	11.2	11.2	10.2	13.6	27.2	49.1	74.1	34.4	22.1	15.3	‡24.6
1909	17.1	13.6	12.4	24.5	21.5	38.7	130	209	166	42.5	26.5	19.6	60.1
1910	18.6	21.0	17.6	18.6	15.4	71.9	‡125	‡112	32.9	22.7	15.7	12.2	‡40.3
1911	13.7	11.5	9.74	10.9	10.8	16.4	27.3	32.8	22.6	16.3	9.70	8.01	15.8
1912	10.1	7.89	8.39	8.27	8.82	11.7	49.5	139	121	38.2	23.1	17.4	36.9
1913	15.8	15.2	10.1	10.5	9.99	13.2	95.3	82.7	36.2	24.6	17.5	14.2	28.8
1914	15.0	12.4	10.7	12.1	12.6	31.2	77.6	100	59.3	27.0	17.5	14.0	32.5
1915	14.9	11.8	10.3	10.5	10.7	14.8	44.5	31.6	31.6	16.9	12.0	12.3	18.5
1916	10.5	10.2	8.97	9.18	11.2	39.7	69.0	82.6	45.3	22.3	15.8	11.9	28.1
1917	12.9	10.6	9.08	8.54	9.86	11.1	60.9	150	129	37.2	21.3	15.7	39.8
1918	13.6	10.8	11.2	11.1	11.4	24.1	45.1	43.3	27.2	18.3	11.4	12.1	20.0
1919	11.4	10.1	9.07	5.49	6.05	12.8	48.6	38.2	26.7	17.3	14.5	13.0	17.8
1920	8.59	9.63	12.8	9.52	10.6	16.1	66.4	172	83.6	29.1	22.0	17.4	38.2
1921	16.5	16.2	14.1	14.1	19.2	68.4	106	203	116	39.3	25.3	19.3	55.0
1922	16.8	15.5	15.3	12.9	13.3	22.5	87.3	234	105	37.1	24.2	17.5	50.3
1923	17.5	14.8	13.8	14.1	12.1	17.3	68.2	153	68.8	26.3	19.2	14.3	36.8
1924	14.0	11.1	9.98	8.62	10.7	10.3	32.6	32.4	14.8	10.2	7.44	6.57	14.0
1925	7.51	7.88	8.36	7.85	8.90	20.8	39.3	52.8	32.9	17.1	13.0	8.54	18.8
1926	9.21	8.27	7.31	6.17	7.82	15.5	52.6	43.9	19.2	13.2	7.77	8.43	16.6
1927	8.39	8.79	7.26	7.62	8.49	17.2	56.3	90.8	51.8	24.0	15.7	13.2	25.9
1928	13.0	12.7	10.5	10.2	10.2	29.6	59.1	92.8	29.1	20.1	12.2	10.8	25.9
1929	11.2	9.55	9.03	8.05	7.82	19.2	74.5	120	56.8	25.8	18.6	17.6	31.6
1930	15.5	10.9	9.10	8.45	10.1	12.6	28.3	22.6	14.0	12.2	10.4	10.1	13.7
1931	9.20	7.70	6.62	6.93	7.24	8.87	16.4	22.5	11.2	8.39	5.81	5.01	9.66
1932	5.63	5.25	6.05	5.47	6.41	12.1	60.7	†99.7	43.7	18.0	12.7	10.6	23.9
1933	10.4	9.03	6.98	4.85	6.54	11.3	31.4	79.2	56.3	17.4	9.97	9.44	21.1
1934	7.94	7.52	7.63	6.53	7.93	8.71	7.74	5.25	4.12	4.05	3.19	3.03	6.13
1935	4.16	4.27	6.40	4.97	6.07	8.03	23.4	51.0	36.2	15.6	9.31	6.74	14.7
1936	6.70	7.10	6.76	7.35	7.86	20.0	112	116	44.2	18.8	12.3	10.1	30.7
1937	8.98	9.42	8.11	8.34	10.2	16.0	58.9	110	40.6	20.4	12.0	11.3	26.3
1938	11.2	10.4	10.6	8.24	9.35	19.9	79.8	79.2	41.1	20.0	11.0	11.8	26.1
1939	9.49	9.60	8.71	8.03	8.27	18.9	45.9	32.5	16.7	9.39	7.61	8.85	15.3
1940	8.49	6.37	7.19	9.36	10.2	17.3	39.2	35.7	15.5	8.58	5.84	6.95	14.2

† Corrected.
‡ Not previously published; estimated on basis of records for Mill Creek near Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second, of Parleys Creek near Salt Lake City, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	7.04	8.54	7.90	8.05	10.3	17.0	44.6	78.9	36.1	19.6	13.3	11.3	22.0
1942	11.8	11.0	14.1	11.6	14.3	17.5	98.2	83.9	59.5	25.9	15.9	12.8	31.4
1943	12.6	12.6	11.9	11.7	12.8	25.2	65.0	45.7	36.2	19.1	12.8	11.4	23.1
1944	12.1	10.3	11.0	10.3	10.5	11.3	36.0	91.7	69.2	26.3	15.1	11.9	26.3
1945	12.1	11.0	10.4	10.4	12.3	11.6	20.8	32.3	25.0	16.0	11.7	11.9	15.5
1946	9.83	12.4	11.0	10.9	9.58	19.9	89.3	65.0	31.2	16.3	11.5	9.05	24.7
1947	9.79	11.3	10.4	10.4	12.3	20.9	54.1	80.2	42.5	21.1	14.3	14.9	25.2
1948	13.4	12.4	12.9	12.5	11.8	13.3	85.7	117	53.2	23.5	18.7	10.9	32.2
1949	12.0	14.9	11.8	10.5	9.03	18.2	80.8	98.0	50.6	23.7	15.3	11.6	29.8
1950	12.6	12.5	12.5	12.8	14.5	23.2	86.8	138	78.9	33.2	18.8	15.3	38.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1898	-	-	-	-	-	-	-	-	-	-	569	530	-
1899	634	562	510	548	456	766	8,730	10,800	6,470	3,590	1,280	853	35,200
1900	1,010	849	695	732	579	1,010	1,210	1,810	943	582	446	415	10,300
1901	549	461	452	475	500	684	2,270	5,330	1,700	852	752	502	14,500
1902	528	487	472	435	408	454	1,990	3,600	2,000	822	650	452	12,300
1903	462	436	414	482	372	747	1,780	4,540	3,290	1,000	684	519	14,700
1904	598	516	365	435	592	1,210	7,330	10,400	3,130	1,600	983	676	27,800
1905	793	611	507	553	487	571	1,130	2,270	1,270	768	506	400	9,870
1906	418	392	360	462	428	788	2,890	6,570	4,100	1,510	1,060	695	19,700
1907	596	543	618	501	‡778	‡1,840	9,690	9,030	‡6,070	‡3,200	‡1,780	‡1,070	‡35,700
1908	‡861	799	691	686	584	836	1,620	3,020	4,410	2,120	1,360	908	‡17,900
1909	1,050	809	763	1,510	1,190	2,380	7,740	12,900	9,880	2,610	1,630	1,170	43,600
1910	1,140	1,250	1,080	1,140	855	4,420	‡7,440	‡6,890	1,960	1,400	965	726	‡29,300
1911	842	684	599	670	600	1,010	1,620	2,020	1,340	1,000	596	477	11,500
1912	621	469	516	508	507	719	2,950	8,550	7,200	2,350	1,420	1,040	26,800
1913	972	904	621	646	555	812	5,670	5,080	2,150	1,510	1,080	845	20,800
1914	922	738	658	744	700	1,920	4,620	6,150	3,530	1,660	1,080	833	23,600
1915	916	702	633	646	594	910	2,650	1,940	1,880	1,040	738	732	13,400
1916	646	607	552	564	644	2,440	4,110	5,080	2,700	1,370	972	708	20,400
1917	793	643	558	525	548	683	3,620	9,220	7,680	2,290	1,310	934	28,800
1918	836	643	689	683	633	1,480	2,680	2,660	1,620	1,130	701	720	14,500
1919	701	601	558	338	336	787	2,890	2,350	1,590	1,060	892	774	12,900
1920	528	573	787	585	610	990	3,950	10,600	4,970	1,790	1,350	1,040	27,800
1921	1,010	964	867	867	1,070	4,210	6,310	12,500	6,900	2,420	1,560	1,150	39,800
1922	1,030	922	941	793	739	1,380	5,190	14,400	6,250	2,280	1,490	1,040	36,500
1923	1,080	881	849	867	672	1,060	4,060	9,410	4,090	1,620	1,180	851	26,600
1924	861	660	614	530	615	633	1,940	1,990	881	627	457	391	10,200
1925	462	469	514	483	494	1,280	2,340	3,250	1,960	1,050	799	508	13,600
1926	566	492	449	379	434	953	3,130	2,700	1,140	812	478	502	12,000
1927	516	523	446	469	472	1,060	3,350	5,580	3,080	1,480	965	785	18,700
1928	799	756	646	627	587	1,820	3,520	5,710	1,730	1,240	750	643	18,800
1929	689	568	555	495	434	1,180	4,430	7,380	3,380	1,590	1,140	1,050	22,900
1930	953	649	560	520	561	775	1,680	1,390	833	750	639	601	9,910
1931	566	458	407	426	402	545	976	1,380	666	516	357	298	7,000
1932	346	312	372	336	369	744	3,610	†6,130	2,600	1,110	781	631	17,300
1933	639	537	429	298	363	695	1,870	4,870	3,350	1,070	613	562	15,300
1934	488	447	469	402	440	536	461	323	245	249	196	180	4,440
1935	256	254	394	306	337	494	1,390	3,140	2,150	959	572	401	10,650
1936	412	422	416	452	452	1,230	6,660	7,130	2,630	1,160	756	601	22,320
1937	552	561	499	513	566	984	3,500	6,760	2,420	1,250	738	672	19,020
1938	689	619	652	507	519	1,220	4,750	4,870	2,450	1,230	676	702	18,880
1939	584	571	536	494	459	1,160	2,730	2,000	994	577	468	527	11,100
1940	522	379	442	576	587	1,060	2,330	2,200	922	528	359	414	10,320
1941	433	508	486	495	572	1,050	2,650	4,850	2,150	1,210	818	672	15,890
1942	726	655	867	713	794	1,080	5,840	5,160	3,540	1,590	978	762	22,700
1943	775	750	732	719	711	1,550	3,870	2,810	2,150	1,170	787	678	16,700
1944	744	613	676	633	604	695	2,140	5,640	4,120	1,620	928	708	19,120
1945	744	655	639	639	683	713	1,240	1,990	1,490	984	719	708	11,200
1946	604	738	676	670	532	1,220	5,310	4,000	1,860	1,000	707	539	17,860
1947	602	672	639	639	683	1,290	3,220	4,930	2,530	1,300	879	887	18,270
1948	824	738	793	769	679	818	5,100	7,190	3,170	1,440	1,150	649	23,320
1949	738	887	726	646	502	1,120	4,810	6,030	3,010	1,460	941	690	21,560
1950	775	744	769	789	806	1,430	5,170	8,500	4,690	2,040	1,160	912	27,780

† Corrected.
‡ Not previously published; estimated on basis of records for Mill Creek near Salt Lake City.

Yearly discharge, in cubic feet per second, of Parleys Creek near Salt Lake City, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1898	-	-	-	-	-	-	-	-
1899	270	-	-	4	48.5	35,200	49.6	36,000
1900	270	-	-	4	14.2	10,300	12.7	9,190
1901	270	-	-	3	20.0	14,500	20.0	14,600
1902	270	-	-	2	16.9	12,300	16.7	12,100
1903	270	-	-	3	20.3	14,700	20.5	14,900
1904	270	-	-	2	38.2	27,800	38.8	28,300
1905	270	-	-	2	13.6	9,870	12.6	9,120
1906	270	-	-	3	27.1	19,700	20.4	20,300
1907	270	-	-	-	‡49.3	‡35,700	‡50.1	‡36,300
1908	270	-	-	-	‡24.6	‡17,900	25.0	18,200
1909	270	-	-	3	60.1	43,600	61.3	44,500
1910	290	-	-	-	‡40.3	‡29,300	‡38.4	‡27,900
1911	310	-	-	4	15.8	11,500	15.1	10,900
1912	330	-	-	2	36.9	26,800	38.2	27,700
1913	360	-	-	4.3	28.8	20,800	28.5	20,700
1914	1029	-	-	5.1	32.5	23,600	32.4	23,500
1915	1029	-	-	4.3	18.5	13,400	17.9	12,900
1916	1029	-	-	3.6	28.1	20,400	28.4	20,600
1917	1029	-	-	3.0	39.8	28,800	40.0	29,000
1918	1029	-	-	5.7	20.0	14,500	19.6	14,200
1919	1029	-	-	4.1	17.8	12,900	17.8	12,900
1920	1029	-	-	6.0	38.2	27,800	39.5	28,700
1921	1029	-	-	13.4	55.0	39,800	55.1	39,900
1922	1029	-	-	9.0	50.3	36,500	50.0	36,400
1923	1029	-	-	9.9	36.8	26,600	35.8	25,900
1924	1029	-	-	5.3	14.0	10,200	13.1	9,500
1925	1029	-	-	6.2	18.8	13,600	18.9	13,700
1926	1029	-	-	5.3	16.6	12,000	16.6	12,000
1927	1029	-	-	5.7	25.9	18,700	26.9	19,400
1928	1029	-	-	9.1	25.9	18,800	25.4	18,400
1929	1029	-	-	1.5	31.6	22,900	32.1	23,200
1930	1029	-	-	5.3	13.7	9,910	12.7	9,180
1931	1029	-	-	4.4	9.66	7,000	9.11	6,600
1932	1029	-	-	3.2	23.9	17,300	24.7	17,900
1933	1029	-	-	4.2	21.1	15,300	20.9	15,100
1934	(a)	-	-	1.2	6.13	4,440	5.44	3,940
1935	(a)	-	-	1.0	14.7	10,650	15.2	11,000
1936	(a)	-	-	5.1	30.7	22,320	31.2	22,680
1937	(a)	-	-	5.0	26.3	19,020	26.7	19,360
1938	(a)	-	-	6.5	26.1	18,880	25.7	18,620
1939	(a)	-	-	6.9	15.3	11,100	14.9	10,750
1940	(a)	-	-	4.6	14.2	10,320	14.3	10,400
1941	(a)	-	-	5.6	22.0	15,890	23.1	16,720
1942	(a)	-	-	10.0	31.4	22,700	31.4	22,710
1943	(a)	-	-	8.8	23.1	16,700	22.8	16,480
1944	(a)	-	-	8.0	26.3	19,120	26.3	19,130
1945	(a)	-	-	8.6	15.5	11,200	15.4	11,180
1946	(a)	-	-	7.6	24.7	17,860	24.5	17,750
1947	(a)	-	-	9.0	25.2	18,270	25.8	18,710
1948	(a)	-	-	9.0	32.2	23,320	32.1	23,320
1949	(a)	-	-	8.0	29.8	21,560	29.6	21,500
1950	(a)	-	-	9.6	38.3	27,780	-	-

‡ Not previously published.

a Files of office of city engineer of Salt Lake City.

Note.--Records adjusted for diversion by Parleys surplus ditch prior to 1931, for diversion by Parleys Highline conduit since beginning of record, and for change in storage in Mountain Dell Reservoir after September 1917 when storage began.

180. Emigration Creek near Salt Lake City, Utah

Location.--Lat 40°45'00", long 111°48'45", in SW¼NW¼ sec. 11, T. 1 S., R. 1 E., at east boundary of Hogle Garden Zoo near mouth of canyon, 4 miles southeast of Salt Lake City.

Drainage area.--29 sq mi, approximately.

Gage.--Water-stage recorder and rating flume. Altitude of gage is 4,870 ft (from topographic map). Prior to 1927, staff gage and Cippoletti weirs at same site.

Average discharge.--50 years (1900-1950), 6.15 cfs.

Extremes.--1900-1950: Maximum daily discharge, 110 cfs Apr. 28, 1922; minimum not determined.

Remarks.--No regulation or diversion above station except diversion by pipeline from spring upstream from station for Salt Lake City water supply. This diversion is not included in first three tables herewith but is given separately in last table.

Cooperation.--Records, including those not previously published for 1934-50, furnished by office of city engineer of Salt Lake City; record of pipeline flow, not previously published, furnished by same office.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	2.41	0.91	0.54	0.52	-
1901	0.68	1.29	0.87	0.66	1.68	3.73	8.27	12.4	4.87	1.84	1.13	.82	3.20
1902	1.01	1.20	.94	.60	.87	1.46	9.69	9.92	4.87	2.05	.78	.52	2.83
1903	.69	1.10	.95	1.07	.64	3.05	8.04	9.48	8.62	2.79	.98	.83	3.19
1904	1.23	1.29	.68	.86	1.72	6.82	‡18	‡26	‡10	‡5.4	1.77	1.16	‡6.24
1905	1.55	1.43	.82	.93	1.11	1.96	5.13	9.22	4.53	1.32	.43	.44	2.41
1906	.53	.65	.64	.64	.64	4.24	15.0	14.5	10.6	4.50	2.30	1.87	‡4.69
1907	1.45	1.58	1.85	1.60	‡6.4	‡20	‡28	‡11	7.54	5.55	6.77	‡7.0	‡8.23
1908	‡5.1	2.13	2.72	1.59	1.52	2.98	5.72	8.80	7.60	6.39	6.16	4.90	‡4.63
1909	5.76	5.58	3.64	1.36	1.93	2.27	‡61	‡29	‡37	‡14	‡10	‡6.0	‡14.8
1910	‡9.9	1.69	1.19	1.69	‡9.3	‡42	‡100	‡50	‡5.8	1.37	.83	.99	‡18.7
1911	1.52	.89	.80	2.51	2.26	4.19	7.08	4.31	2.90	1.44	.63	.44	2.41
1912	.60	.56	.50	.37	.51	1.16	‡5.8	33.0	15.4	6.91	4.86	4.24	‡6.16
1913	3.61	3.72	2.84	.97	2.64	5.25	31.2	18.3	11.2	7.40	3.86	4.04	7.92
1914	2.97	2.70	1.86	2.19	2.60	14.1	16.8	19.3	12.3	4.58	2.77	2.16	7.05
1915	2.83	1.57	1.78	1.26	2.16	3.86	8.90	5.89	5.63	2.69	1.09	1.20	3.23
1916	1.20	1.37	1.26	1.56	2.58	9.19	13.3	16.6	9.90	3.57	2.03	2.03	5.38
1917	1.74	1.53	1.44	1.50	1.24	.78	20.0	37.1	23.9	10.0	5.64	4.36	9.13
1918	2.88	2.62	2.36	1.92	2.01	9.89	14.7	10.1	5.78	3.77	2.06	2.31	5.04
1919	2.22	2.05	1.81	1.40	1.32	4.48	16.4	10.5	4.99	2.62	1.13	1.70	4.22
1920	2.57	1.63	1.33	1.30	1.87	3.89	26.5	41.8	10.8	5.98	3.94	3.07	8.75
1921	2.48	2.03	1.82	1.59	4.77	33.1	45.8	51.6	32.5	12.2	10.1	5.81	17.0
1922	4.99	4.81	5.01	4.02	2.49	6.75	41.4	74.4	26.5	11.6	4.85	2.79	15.9
1923	2.04	2.04	2.37	2.14	1.61	4.98	27.0	32.1	12.6	5.50	3.29	3.85	8.31
1924	3.26	2.14	1.54	1.64	2.02	2.25	10.2	8.11	4.19	1.56	.60	.54	3.16
1925	1.00	1.28	1.12	1.30	1.66	6.95	12.8	10.4	6.18	3.51	1.98	1.60	4.15
1926	1.75	1.80	1.70	1.47	1.50	5.56	22.9	12.5	5.20	3.03	1.50	1.14	5.00
1927	1.39	1.60	1.48	1.00	1.17	6.28	17.4	21.4	11.8	5.10	3.34	2.67	6.25
1928	2.43	3.09	2.88	1.23	1.30	12.0	19.4	18.9	9.71	4.38	2.04	1.46	6.57
1929	1.79	1.82	1.38	1.10	1.15	6.31	27.1	30.8	13.5	6.49	4.64	4.71	8.41
1930	3.51	3.02	3.54	2.13	2.55	2.63	5.30	3.69	2.09	1.11	.99	1.56	2.68
1931	2.14	2.01	1.41	1.20	1.30	1.58	3.17	3.19	1.79	.64	.70	.56	1.64
1932	.60	.79	.68	.67	.74	2.77	21.8	18.3	7.10	2.77	1.42	1.12	4.90
1933	1.12	1.22	.85	.66	.75	1.80	12.2	21.7	10.1	3.25	1.25	.86	4.66
1934	1.07	1.13	1.12	.85	1.10	1.37	1.27	.81	.85	.64	.58	.50	.94
1935	.50	.62	.74	.72	.56	.65	4.13	9.51	6.68	2.30	.91	.75	2.35
1936	.72	.67	.90	1.16	.95	8.64	48.9	24.9	9.09	4.65	2.56	1.49	8.69
1937	1.75	1.77	1.47	1.30	1.35	6.52	21.3	23.1	8.70	4.88	2.36	1.46	6.35
1938	1.95	1.81	1.73	1.49	1.77	6.90	22.1	17.8	9.13	4.36	2.28	1.46	6.07
1939	1.65	1.91	1.67	1.78	1.66	9.41	14.6	7.44	4.07	1.92	1.36	1.22	4.06
1940	1.73	1.71	1.65	1.61	2.30	7.03	13.4	8.18	3.75	1.42	.64	.71	3.67
1941	.97	1.13	1.10	1.10	2.15	6.45	15.2	15.3	7.87	5.08	2.54	1.73	5.06
1942	2.13	2.56	1.88	1.88	2.22	6.79	33.3	21.9	15.9	7.55	3.88	2.68	8.56
1943	2.37	2.41	2.39	1.87	1.90	7.00	14.7	8.69	6.79	2.88	1.57	1.19	4.48
1944	1.48	1.80	1.62	1.61	1.74	2.11	11.9	17.0	15.5	7.08	3.58	2.01	5.62
1945	1.76	2.13	1.99	1.38	1.65	2.33	5.73	11.0	9.59	3.17	1.52	1.54	3.65
1946	1.39	1.3	1.3	1.3	1.3	1.3	8.4	9.88	6.16	3.57	1.80	1.38	3.26
1947	2.56	1.74	1.96	1.03	1.73	7.67	15.7	14.8	9.41	4.31	2.53	1.90	5.46
1948	2.45	2.19	1.72	1.75	1.99	3.30	25.7	23.0	9.84	4.38	1.32	.60	6.51
1949	1.96	2.15	1.53	1.30	.90	6.56	32.8	21.3	12.8	5.30	2.81	.99	7.54
1950	1.43	1.56	1.05	.7	3.1	7.9	27.0	32.4	16.3	7.3	3.1	1.8	8.64

‡ Not preciously published; estimated on basis of records for Parleys, Mill, Big Cottonwood, Little Cottonwood, and City Creeks near Salt Lake City.

Monthly and yearly runoff, in acre-feet, of Emigration Creek near Salt Lake City, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	143	56	33	31	-
1901	42	77	54	41	93	229	492	765	290	113	70	49	2,320
1902	62	71	58	37	48	90	577	610	290	126	48	31	2,050
1903	42	66	58	66	36	188	478	583	513	172	60	49	2,310
1904	76	77	42	53	99	419	‡1,070	‡1,600	‡595	‡332	109	69	‡4,540
1905	95	85	50	57	62	121	305	567	270	81	26	26	1,740
1906	33	39	39	39	36	261	894	892	630	277	141	111	3,390
1907	89	94	114	98	‡355	‡1,230	‡1,670	‡676	449	341	416	‡417	‡5,950
1908	‡314	127	167	98	87	183	340	541	452	393	379	292	‡3,370
1909	354	332	224	84	‡107	140	‡3,630	‡1,780	‡2,200	‡861	‡615	‡357	‡10,700
1910	‡609	101	73	104	‡516	‡2,580	‡5,950	‡3,070	‡345	84	51	59	‡13,500
1911	93	53	49	154	126	258	421	265	173	89	39	26	1,750
1912	37	33	31	23	29	71	‡345	2,030	916	425	299	252	‡4,490
1913	222	221	175	60	147	323	1,860	1,130	666	455	237	240	5,740
1914	183	161	114	135	144	867	1,000	1,190	732	282	170	129	5,110
1915	174	93	109	77	120	237	530	362	335	165	67	71	2,340
1916	74	82	77	96	148	565	791	1,020	589	220	125	121	3,910
1917	107	91	89	92	69	48	1,190	2,280	1,420	615	347	259	6,610
1918	177	156	145	118	112	608	875	621	344	232	127	137	3,650
1919	137	122	111	86	73	275	976	646	297	161	69	101	3,050
1920	158	97	82	80	108	239	1,580	2,570	643	368	242	183	6,350
1921	152	121	112	98	265	2,040	2,730	3,170	1,930	750	621	346	12,300
1922	307	286	308	247	138	415	2,460	4,570	1,580	713	298	166	11,500
1923	125	121	146	132	89	306	1,610	1,970	750	338	202	229	6,020
1924	200	127	95	101	116	138	607	499	249	96	37	32	2,300
1925	61	76	69	80	92	427	762	639	368	216	122	95	3,010
1926	108	107	105	90	83	342	1,360	769	309	186	92	68	3,620
1927	85	95	91	61	65	386	1,040	1,320	702	314	205	159	4,520
1928	149	184	177	76	75	738	1,150	1,160	578	269	125	87	4,770
1929	110	108	85	68	64	388	1,610	1,890	803	399	285	280	6,090
1930	216	180	218	131	142	162	315	227	124	68	61	93	1,940
1931	132	120	87	74	72	97	189	196	107	39	43	33	1,190
1932	37	47	42	41	43	170	1,300	1,130	422	170	87	67	3,560
1933	69	73	52	41	42	111	726	1,330	601	200	77	51	3,370
1934	66	67	69	52	61	84	76	50	51	39	36	30	681
1935	31	37	46	44	31	40	246	585	397	141	56	45	1,700
1936	44	40	55	71	55	531	2,910	1,530	541	286	157	89	6,310
1937	108	105	90	80	75	401	1,270	1,420	518	300	145	87	4,600
1938	120	108	106	92	98	424	1,320	1,090	543	268	140	87	4,400
1939	101	114	103	109	92	579	869	457	242	118	84	73	2,940
1940	106	102	101	99	132	432	797	503	223	87	39	42	2,660
1941	60	67	68	68	119	397	904	941	468	312	156	103	3,660
1942	131	152	116	116	123	418	1,980	1,350	946	464	239	159	6,190
1943	146	143	147	115	106	430	875	534	404	177	97	71	3,240
1944	91	107	100	99	100	130	708	1,050	922	435	220	120	4,080
1945	108	127	122	85	92	143	341	676	571	195	93	92	2,640
1946	85	77	80	80	72	80	500	607	367	220	111	82	2,360
1947	157	104	121	63	96	472	934	910	560	265	156	113	3,950
1948	151	130	106	108	114	203	1,530	1,410	586	269	81	36	4,720
1949	121	128	94	80	50	403	1,950	1,310	762	326	173	59	5,460
1950	88	93	63	45	173	487	1,600	1,990	972	450	190	107	6,260

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1900	270	-	-	-	-	-	-	-
1901	270	-	-	0.5	3.20	2,320	3.22	2,330
1902	270	19	Apr. 25, 1902	.5	2.83	2,050	2.79	2,020
1903	270	19	May30,31,1903	.5	3.19	2,310	3.23	2,340
1904	270	-	-	-	‡6.24	‡4,540	‡6.29	‡4,580
1905	270	12	May18-22,1905	-	2.41	1,740	2.25	1,630
1906	270	18	Apr. 26, 1906	.4	4.69	3,390	4.93	3,580
1907	270	-	-	.5	‡8.23	‡5,950	‡8.65	‡6,260
1908	270	12	June 15, 1908	-	‡4.63	‡3,370	‡5.05	‡3,680
1909	(a)	-	-	-	‡14.8	‡10,700	‡14.6	‡10,600
1910	a,b290	-	-	-	‡18.7	‡13,500	‡17.9	‡13,000
1911	310	8.9	Apr.7,10,1911	.4	2.41	1,750	2.28	1,650
1912	b330	-	-	.2	‡6.16	‡4,490	‡6.87	‡5,010
1913	b360	34	Apr. 14, 1913	.8	7.92	5,740	7.70	5,580
1914	1029	24	May10,11,1914	1.0	7.05	5,110	6.94	5,020
1915	1029	12	Apr. 8, 1915	.7	3.23	2,340	3.03	2,200

‡ Not previously published.

a Files of office of city engineer of Salt Lake City.

b Records published in WSP 290 for 1910, in WSP 330 for 1912, in WSP 360 for 1913, and in WSP 1029 for calendar year 1925 and January 1927 to September 1933 differ from records given herein because those records included the diversion for pipeline for Salt Lake City water supply from spring upstream from gage.

Yearly discharge, in cubic feet per second, of Emigration Creek near Salt Lake City, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	1029	25	Mar. 21, 1916	0.8	5.38	3,910	5.46	3,960
1917	1029	64	Apr. 27, 1917	.6	9.13	6,610	9.39	6,800
1918	1029	25	Apr. 11, 1918	1.2	5.04	3,650	4.90	3,540
1919	1029	23	Apr. 24, 1919	.7	4.22	3,050	4.17	3,020
1920	1029	55	May9,10,11,1920	.7	8.75	6,350	8.81	6,400
1921	1029	70	May 4, 1921	.9	17.0	12,300	17.8	12,900
1922	1029	110	Apr. 28, 1922	.8	15.9	11,500	15.2	11,000
1923	1029	48	May 11, 1923	1.5	8.31	6,020	8.35	6,050
1924	1029	15	Apr. 14, 1924	.5	3.16	2,300	2.87	2,080
1925	(b)	14	Apr.3,4, 1925	-	4.15	3,010	4.31	3,120
1926	b1029	50	Apr. 6, 1926	-	5.00	3,620	4.93	3,570
1927	(b)	27	May1,2,6,1927	-	6.25	4,520	6.58	4,760
1928	(b)	34	Mar. 27, 1928	-	6.57	4,770	6.28	4,560
1929	(b)	56	Apr. 18, 1929	-	8.41	6,090	8.84	6,400
1930	(b)	9.3	Apr. 10, 1930	-	2.68	1,940	2.30	1,660
1931	(b)	6.4	Apr. 24, 1931	-	1.64	1,190	1.35	976
1932	(b)	33	Apr. 18, 1932	-	4.90	3,560	4.99	3,620
1933	(b)	31	May 22, 1933	-	4.66	3,370	4.67	3,380
1934	(a)	1.6	Apr. 3, 1934	-	.94	681	.82	593
1935	(a)	16	May 28, 1935	-	2.35	1,700	2.38	1,720
1936	(a)	92	Apr.16,18,1936	.6	8.69	6,310	8.92	6,470
1937	(a)	35	May 9, 1937	1.2	6.35	4,600	6.40	4,630
1938	(a)	40	Apr. 23, 1938	1.2	6.07	4,400	6.05	4,380
1939	(a)	27	Mar. 26, 1939	1.1	4.06	2,940	4.05	2,930
1940	(a)	20	Mar. 28, 1940	.6	3.67	2,660	3.51	2,550
1941	(a)	23	Apr.29, 30, 1941	.9	5.06	3,660	5.34	3,870
1942	(a)	48	Apr.12,13,14,1942	1.4	8.56	6,190	8.61	6,230
1943	(a)	21	Apr. 5, 1943	1.1	4.48	3,240	4.29	3,110
1944	(a)	24	June 3, 1944	1.1	5.62	4,080	5.70	4,140
1945	(a)	15	May 2-7, 1945	1.1	3.65	2,640	3.49	2,530
1946	(a)	15	(c)	1.3	3.26	2,360	3.45	2,500
1947	(a)	23	May 13, 1947	.9	5.46	3,950	5.46	3,960
1948	(a)	46	Apr. 23, 1948	.6	6.51	4,720	6.45	4,680
1949	(a)	45	Apr. 20, 1949	.5	7.54	5,460	7.40	5,360
1950	(a)	45	May16-18,1950	.5	8.64	6,260	-	-

a Files of office of city engineer of Salt Lake City.
b Records published in WSP 290 for 1910, in WSP 330 for 1912, in WSP 360 for 1913, and in WSP 1029 for calendar year 1925 and January 1927 to September 1933 differ from records given herein because those records included the diversion for pipeline for Salt Lake City water supply from spring upstream from gage.
c Apr. 29 to May 2, 1946.

Monthly and yearly diversion, in acre-feet, by pipeline

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	116	118	111	-
1907	105	96	100	93	72	82	98	113	99	100	104	102	1,160
1908	106	103	116	139	124	138	133	141	154	162	168	157	1,640
1909	149	133	136	136	124	144	174	228	243	220	200	169	2,060
1910	168	135	137	134	121	86	99	153	152	151	142	133	1,610
1911	138	127	108	106	90	100	96	100	96	100	97	98	1,250
1912	100	95	94	92	92	100	105	128	132	126	126	118	1,310
1913	107	64	52	125	64	36	70	132	160	170	151	155	1,290
1914	145	139	141	138	131	148	164	188	184	179	162	149	1,870
1915	146	129	130	129	117	130	129	138	133	136	130	126	1,570
1916	130	127	130	133	124	122	130	182	173	170	144	127	1,690
1917	114	111	112	106	91	117	177	160	205	250	212	176	1,830
1918	155	138	127	120	114	149	161	173	152	135	116	99	1,640
1919	85	73	72	68	87	133	153	170	161	149	133	106	1,390
1920	100	96	92	102	94	95	156	193	290	235	199	166	1,820
1921	148	140	138	131	121	180	216	247	265	228	205	179	2,200
1922	157	135	130	123	147	140	161	325	304	308	256	221	2,410
1923	210	187	186	172	151	173	205	249	236	230	212	149	2,360
1924	160	149	143	135	127	135	142	158	142	137	122	111	1,660
1925	111	107	111	111	105	193	226	228	196	163	138	121	1,810
1926	116	105	100	98	83	113	113	126	118	112	111	104	1,300
1927	105	98	98	98	89	92	89	86	95	97	88	79	1,110
1928	80	77	86	86	79	79	77	87	93	98	87	87	1,020
1929	95	98	106	111	94	113	125	174	175	181	181	163	1,620
1930	159	136	84	123	106	120	119	118	106	97	83	74	1,320
1931	74	71	74	80	82	116	110	103	90	84	71	65	1,020
1932	61	60	61	66	61	114	148	173	169	164	139	112	1,330
1933	103	95	97	103	94	122	136	164	167	171	146	120	1,520
1934	109	101	97	86	83	98	95	86	83	86	74	65	1,060
1935	68	54	55	55	50	74	113	129	131	141	129	107	1,110
1936	98	83	86	86	92	148	214	234	184	178	166	137	1,710
1937	117	65	6	37	0	0	18	148	161	160	166	149	1,030
1938	117	24	0	25	6	0	42	98	149	117	111	113	802
1939	105	18	0	31	83	61	60	86	77	80	74	65	740
1940	61	60	55	55	46	12	12	37	95	117	98	83	731

Note.--Records for pipeline not previously published.

Monthly and yearly diversion, in acre-feet, by pipeline on Emigration Creek near Salt Lake City, Utah.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	92	71	25	0	0	0	0	74	101	55	111	113	642
1942	105	101	111	86	6	0	12	12	95	135	148	143	954
1943	160	89	0	0	0	0	6	61	113	123	117	101	770
1944	98	89	98	98	86	92	119	141	155	160	160	161	1,460
1945	148	131	31	68	116	118	114	124	108	117	111	95	1,280
1946	98	95	98	98	89	98	95	129	143	135	117	101	1,300
1947	98	77	92	37	0	0	0	92	101	160	141	125	923
1948	135	131	117	117	109	117	137	154	155	160	141	137	1,610
1949	148	143	148	135	117	148	173	197	173	184	172	161	1,900
1950	160	155	154	154	139	154	149	154	149	154	154	149	1,820

Note.--Records for pipeline not previously published.

181. City Creek near Salt Lake City, Utah

Location.--Lat 40°47'05", long 111°53'00", in SE¼SW¼ sec. 30, T. 1 N., R. 1 E., about 300 ft downstream from abandoned stone building, near mouth of canyon, and 0.6 mile northeast of Utah State Capitol building.

Drainage area.--19.2 sq mi.

Gage.--Water-stage recorder and concrete rating flume on creek. Altitude of gage is 4,540 ft (from topographic map). Flow bypassing gage in New High line, Pleasant Valley pipeline, and 20th Ward pipeline measured by flow meter, submerged orifice, or weir since 1924. Prior to 1924, two Cippoletti weirs on creek 3½ miles upstream, above all diversions; inflow between weirs and mouth of canyon estimated and added.

Average discharge.--52 years (1898-1950), 16.6 cfs.

Extremes.--1899-1909, 1911-50: Maximum daily discharge, 163 cfs May 30, 1921; minimum daily, 1.2 cfs Oct. 17, 1934.

Remarks.--No regulation. Entire flow diverted above gage for water supply of Salt Lake City except during high stage. Records herewith show natural flow computed as combined flow in main channel and in several pipeline diversions.

Cooperation.--Records, including those not previously published for 1934-50, furnished by office of city engineer of Salt Lake City.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	‡8.5	‡7.5	‡6.8	5.24	5.18	6.63	22.7	41.2	78.5	28.8	13.2	11.3	‡19.6
1900	10.1	9.19	8.33	8.01	7.44	9.29	11.0	23.9	16.1	9.84	7.52	6.49	10.6
1901	6.51	6.44	5.73	5.37	5.58	6.82	11.0	51.1	23.3	12.6	9.19	6.98	12.6
1902	7.32	6.94	6.37	5.83	5.49	5.75	13.4	38.7	29.4	13.6	9.22	7.11	12.4
1903	6.74	5.28	5.90	6.06	6.14	6.56	10.2	26.3	40.0	16.1	11.6	9.16	12.5
1904	9.44	7.86	6.81	6.24	6.62	8.42	21.6	55.6	39.2	19.7	13.4	10.4	17.1
1905	9.09	8.47	8.04	7.65	7.52	7.94	12.5	30.2	26.8	14.6	10.6	9.13	12.7
1906	8.40	7.84	7.82	7.77	7.84	10.6	22.5	50.6	49.4	24.1	15.3	12.1	18.7
1907	10.6	10.2	9.41	8.94	15.3	20.1	40.0	70.2	80.5	41.1	22.2	15.7	28.7
1908	12.3	10.3	10.2	9.51	9.25	10.4	15.3	37.2	64.4	31.3	19.0	14.7	20.3
1909	13.2	9.98	8.86	10.6	9.70	13.6	31.5	71.8	‡75	‡30	‡20	‡13	‡25.6
1910	‡13	‡11	‡9	‡8.5	‡9.5	‡20	‡40	‡53	‡35	‡15	‡10	‡9	‡19.4
1911	‡9	‡8	‡7	‡8	‡9	‡10	‡20	28.4	21.9	12.5	8.73	7.03	‡12.5
1912	6.43	5.94	5.42	5.26	5.26	5.91	13.7	45.2	61.9	21.8	13.6	9.96	16.7
1913	8.45	7.56	6.70	5.99	5.99	6.93	23.7	41.7	23.5	14.3	10.1	8.20	13.6
1914	7.37	6.83	6.19	6.24	6.22	12.2	27.1	62.7	37.7	19.3	12.5	9.53	17.9
1915	8.44	7.42	6.62	6.14	7.99	8.50	20.8	28.1	27.3	16.2	10.6	9.01	13.1
1916	8.41	7.79	7.70	7.10	8.19	18.4	29.7	50.0	34.7	18.3	13.0	9.65	17.8
1917	10.0	8.86	7.25	6.81	6.53	7.65	23.1	61.2	79.8	33.1	18.2	13.2	23.0
1918	11.0	9.15	8.62	8.08	7.61	12.4	18.6	37.4	25.7	14.7	10.3	8.81	14.4
1919	8.22	7.81	7.24	6.53	6.43	8.65	22.7	48.3	28.6	17.3	11.0	9.59	15.2
1920	9.68	9.42	6.10	6.57	7.66	7.70	20.2	51.2	43.2	20.3	13.8	10.7	17.2
1921	9.38	8.90	8.73	8.55	10.7	23.5	35.4	97.2	65.0	30.2	17.9	13.0	27.5
1922	11.3	10.4	9.55	8.75	8.05	11.2	29.8	82.5	70.4	25.8	16.2	10.9	24.6
1923	9.75	9.73	8.48	8.07	7.99	8.78	25.6	69.7	48.3	23.2	16.3	12.8	20.8
1924	11.6	10.7	9.92	9.36	9.40	9.62	18.8	32.9	17.8	11.8	8.58	7.34	13.2
1925	7.20	7.70	7.02	6.95	8.24	11.1	24.2	43.9	26.7	15.0	10.5	8.84	14.8
1926	7.86	7.27	7.06	6.75	6.84	10.5	31.0	42.7	22.3	14.3	10.5	9.32	14.7
1927	9.70	9.38	8.60	7.27	7.30	9.93	19.2	49.4	46.8	22.3	16.3	14.1	18.4
1928	12.6	9.61	8.54	8.35	8.40	13.3	21.0	70.4	29.3	15.6	11.4	9.17	18.2
1929	8.68	8.26	7.97	7.55	7.30	10.6	22.0	63.4	49.8	24.5	17.8	13.9	20.2
1930	13.1	12.1	8.57	8.01	8.12	8.70	14.0	22.4	16.2	10.9	9.10	8.99	11.7
1931	8.02	7.26	6.78	6.76	6.65	6.58	9.85	17.6	12.3	8.87	7.18	6.51	8.71
1932	6.38	6.09	5.92	5.72	6.22	8.05	20.4	53.9	38.6	17.6	11.1	8.51	15.7
1933	7.90	7.66	7.31	7.20	6.93	8.25	12.5	28.9	47.6	16.3	11.2	9.17	14.2
1934	8.39	8.12	8.00	7.49	6.93	7.34	7.70	7.36	6.09	4.93	4.50	4.71	6.80
1935	5.01	5.43	5.83	5.48	6.35	7.22	13.8	37.0	39.1	15.6	9.96	8.15	13.3

‡ Not previously published; estimated on basis of records for nearby streams and trend of flow in City Creek in other years.

Monthly and yearly mean discharge, in cubic feet per second, of City Creek near Salt Lake City, Utah --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	7.64	7.93	7.24	7.10	7.25	13.2	35.1	70.2	39.8	18.6	11.7	9.26	19.6
1937	8.56	8.23	7.72	6.88	7.54	11.0	18.8	60.3	36.1	19.2	11.8	9.37	17.2
1938	8.93	8.09	7.84	7.32	7.12	10.2	27.4	53.7	34.9	17.1	11.8	9.39	17.0
1939	8.87	8.85	8.44	7.97	7.61	11.4	19.2	32.3	16.9	11.4	9.02	7.98	12.5
1940	7.50	7.17	7.01	7.23	7.53	11.7	22.2	37.6	19.7	12.5	9.44	8.12	13.2
1941	8.21	8.28	7.62	7.16	8.53	11.4	19.1	49.2	34.6	19.8	13.1	10.9	16.6
1942	10.0	9.35	8.77	8.77	8.92	11.4	36.5	50.9	53.0	26.0	16.5	12.8	21.1
1943	11.8	10.6	10.7	10.5	10.6	12.4	27.0	30.2	28.1	16.7	12.5	9.90	15.9
1944	8.12	8.35	7.93	7.21	7.26	8.11	15.4	46.2	41.3	20.3	13.4	10.4	16.2
1945	10.1	6.97	8.32	7.62	7.58	7.83	10.4	29.1	33.0	17.8	13.0	10.3	13.5
1946	9.14	8.48	7.61	7.32	7.02	10.2	24.7	32.2	25.0	14.3	10.1	8.35	13.7
1947	8.08	8.00	8.03	7.52	9.09	11.5	17.9	45.8	26.3	16.9	12.2	9.30	15.1
1948	8.90	8.97	8.28	7.26	5.87	8.99	21.4	53.4	36.0	16.8	11.9	10.7	16.6
1949	9.15	9.02	8.05	7.12	7.07	10.9	28.1	56.7	45.7	21.4	13.6	10.3	19.0
1950	10.9	9.47	7.85	8.1	9.7	11.3	23.6	53.1	48.8	22.9	14.3	11.3	19.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	‡523	‡446	‡418	322	288	408	†1,350	2,540	4,670	1,770	809	671	‡14,200
1900	623	547	512	493	413	571	652	1,470	956	605	462	386	7,690
1901	400	383	352	330	310	419	655	3,140	1,380	777	565	415	9,130
1902	450	413	392	358	305	354	795	2,380	1,750	834	567	423	9,020
1903	414	314	363	373	341	403	605	1,620	2,380	992	714	545	9,060
1904	580	468	419	384	381	518	1,280	3,420	2,330	1,210	821	618	12,400
1905	559	504	494	470	418	488	746	1,850	1,590	900	654	543	9,220
1906	516	467	481	478	435	654	1,340	3,110	2,940	1,480	941	721	13,600
1907	654	605	579	550	849	1,240	2,390	4,320	4,790	2,530	1,370	932	20,800
1908	754	614	624	585	532	639	912	2,290	3,830	1,920	1,170	872	14,700
1909	814	594	545	652	539	836	1,870	4,410	‡4,460	‡1,840	‡1,230	‡724	‡18,600
1910	‡799	‡655	‡553	‡523	‡528	‡1,230	‡2,380	‡3,260	‡2,080	‡922	‡615	‡536	‡14,100
1911	‡553	‡476	‡430	‡492	‡500	‡615	‡1,190	1,750	1,300	769	537	418	‡9,030
1912	395	353	333	323	303	363	815	2,780	3,680	1,340	836	593	12,100
1913	520	450	412	368	333	426	1,410	2,560	1,400	879	621	488	9,870
1914	453	406	381	384	345	750	1,610	3,860	2,240	1,190	769	567	13,000
1915	519	442	407	378	444	523	1,240	1,730	1,620	996	652	536	9,490
1916	517	464	473	437	471	1,130	1,770	3,070	2,060	1,130	799	574	12,900
1917	615	527	446	419	363	470	1,370	3,760	4,750	2,040	1,120	785	16,700
1918	676	544	530	497	423	762	1,110	2,300	1,530	904	633	524	10,400
1919	505	465	445	402	357	532	1,350	2,970	1,700	1,060	676	571	11,000
1920	595	561	375	404	441	473	1,200	3,150	2,570	1,250	849	637	12,500
1921	577	530	537	526	594	1,440	2,110	5,980	3,870	1,860	1,100	774	19,900
1922	695	619	587	538	447	689	1,770	5,070	4,190	1,590	996	649	17,800
1923	600	579	521	496	444	540	1,520	4,290	2,870	1,430	1,000	762	15,100
1924	713	637	610	576	541	592	1,120	2,020	1,060	726	528	437	9,560
1925	443	458	432	427	458	683	1,440	2,700	1,590	922	646	526	10,700
1926	483	433	434	415	380	646	1,840	2,630	1,330	879	646	555	10,700
1927	596	558	529	447	405	611	1,140	3,040	2,780	1,370	1,000	839	13,300
1928	775	572	525	513	483	818	1,250	4,330	1,740	959	701	546	13,200
1929	534	492	490	464	405	652	1,310	3,900	2,960	1,510	1,090	827	14,600
1930	805	720	527	493	451	535	833	1,380	964	670	560	535	8,470
1931	493	432	417	416	369	405	586	1,080	732	545	441	387	6,300
1932	392	362	364	352	358	495	1,210	3,310	2,300	1,080	683	506	11,400
1933	486	456	449	443	385	507	744	1,780	2,830	1,000	689	546	10,300
1934	516	483	492	461	385	451	458	453	362	303	277	280	4,920
1935	308	323	358	337	353	444	821	2,280	2,330	959	612	485	9,610
1936	470	472	445	437	417	812	2,090	4,320	2,370	1,140	719	551	14,240
1937	526	490	475	423	419	676	1,120	3,710	2,150	1,180	726	558	12,450
1938	549	481	482	450	395	627	1,630	3,300	2,080	1,050	726	559	12,330
1939	545	527	519	490	423	701	1,140	1,990	1,010	701	555	475	9,080
1940	461	427	431	445	433	719	1,320	2,310	1,170	769	580	483	9,550
1941	505	493	469	440	474	701	1,140	3,030	2,060	1,220	805	649	11,990
1942	615	556	539	539	495	701	2,170	3,130	3,150	1,600	1,010	762	15,270
1943	726	631	658	646	589	762	1,610	1,860	1,670	1,030	769	589	11,540
1944	499	497	488	443	418	499	916	2,840	2,460	1,250	824	619	11,750
1945	621	415	512	469	421	481	619	1,790	1,960	1,090	799	613	9,790
1946	562	505	468	450	390	627	1,470	1,980	1,490	879	621	497	9,940
1947	497	476	494	462	505	707	1,070	2,820	1,560	1,040	750	553	10,930
1948	547	534	509	446	338	553	1,270	3,280	2,140	1,030	732	637	12,020
1949	563	537	495	438	393	670	1,670	3,490	2,720	1,320	836	613	13,740
1950	670	564	483	497	540	696	1,410	3,260	2,900	1,410	876	671	13,980

‡ Not previously published; estimated on basis of records for nearby streams and trend of flow in City Creek in other years.

Yearly discharge, in cubic feet per second, of City Creek near Salt Lake City, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1899	270	122	June 1899	-	‡19.6	‡14,200	20.0	†14,500
1900	270	31	May 13, 1900	6	10.6	7,690	9.8	7,140
1901	270	72	May 20, 1901	5	12.6	9,130	12.7	9,250
1902	270	58	May 30, 1902	4	12.4	9,020	12.2	8,860
1903	270	63	June 4,5,1903	4	12.5	9,060	13.0	9,440
1904	270	70	May 25, 1904	6	17.1	12,400	17.2	12,500
1905	270	45	May 23, 1905	7	12.7	9,220	12.6	9,120
1906	270	69	May 13, 1906	8	18.7	13,600	19.2	18,900
1907	270	132	May 22, 1907	9	28.7	20,800	28.9	21,000
1908	270	81	June 15, 1908	6	20.3	14,700	20.3	14,700
1909	270	-	-	-	‡25.6	‡18,600	‡25.7	‡18,600
1910	-	-	-	-	‡19.4	‡14,100	‡18.7	‡13,500
1911	310	33	May13,18,1911	-	‡12.5	‡9,030	‡11.9	‡8,650
1912	330	92	June 8, 1912	5	16.7	12,100	17.1	12,400
1913	360	56	May 12, 1913	4.6	13.6	9,870	13.4	9,730
1914	1029	76	May 24, 1914	5.8	17.9	13,000	18.1	13,100
1915	1029	37	May 18, 1915	5.8	13.1	9,490	13.2	9,570
1916	1029	70	May 9, 1916	5.9	17.8	12,900	17.9	13,000
1917	1029	105	June 11, 1917	4.1	23.0	16,700	23.2	16,800
1918	1029	49	May 8, 1918	3.6	14.4	10,400	13.9	10,100
1919	1029	58	May 4, 1919	6.0	15.2	11,000	15.4	11,100
1920	1029	95	May 22, 1920	4.2	17.2	12,500	17.4	12,600
1921	1029	163	May 30, 1921	8.2	27.5	19,900	27.8	20,200
1922	1029	118	May24,25,1922	4.5	24.6	17,800	24.4	17,600
1923	1029	97	May 27, 1923	7.1	20.8	15,100	21.2	15,300
1924	1029	39	May 7, 1924	6.9	13.2	9,560	12.3	8,930
1925	1029	53	May 8, 1925	3.5	14.8	10,700	14.8	10,700
1926	1029	†56	May 6, 1926	6.3	14.7	10,700	15.2	11,000
1927	1029	79	May 18, 1927	6.3	18.4	13,300	18.7	13,500
1928	1029	121	May 10, 1928	8.0	18.2	13,200	17.7	12,900
1929	1029	100	May 26, 1929	6.6	20.2	14,600	21.0	15,200
1930	1029	26	May 31, 1930	7.2	11.7	8,470	10.7	7,760
1931	1029	21	May15,16,17,1931	6.1	8.71	6,300	8.4	6,080
1932	1029	79	May 22, 1932	5.3	15.7	11,400	16.1	11,700
1933	1029	81	June 3, 1933	4.0	14.2	10,300	14.4	10,400
1934	(a)	8.9	(b)	4.0	6.80	4,920	6.1	4,420
1935	(a)	58	May 28, 1935	1.2	13.3	9,610	13.8	10,010
1936	(a)	88	May 17, 1936	5.7	19.6	14,240	19.8	14,350
1937	(a)	79	May 19, 1937	4.4	17.2	12,450	17.2	12,470
1938	(a)	78	May17,18,1938	7.0	17.0	12,330	17.1	12,410
1939	(a)	44	May 6, 1939	6.1	12.5	9,080	12.2	8,800
1940	(a)	53	May 13, 1940	5.2	13.2	9,550	13.4	9,700
1941	(a)	71	May 17, 1941	6.1	16.6	11,990	16.9	12,230
1942	(a)	92	May 26, 1942	7.9	21.1	15,270	21.5	15,570
1943	(a)	46	Apr. 29, 1943	9.1	15.9	11,540	15.2	11,010
1944	(a)	66	May 15, 1944	4.3	16.2	11,750	16.3	11,820
1945	(a)	42	June 15, 1945	5.9	13.5	9,790	13.5	9,780
1946	(a)	49	Apr. 28, 1946	5.5	13.7	9,940	13.6	9,870
1947	(a)	61	May 8,9, 1947	6.2	15.1	10,930	15.3	11,060
1948	(a)	82	May 21, 1948	1.3	16.6	12,020	16.6	12,020
1949	(a)	74	May 22, 1949	6.4	19.0	13,740	19.2	13,870
1950	(a)	80	May 26, 1950	5.3	19.3	13,980	-	-

† Corrected.
‡ Not previously published.
a Files of office of city engineer of Salt Lake City.
b Oct. 9, Nov. 10, 1933.

SEVIER LAKE BASIN

182. Mammoth Creek near Hatch, Utah

Location.--Lat 37°37', long 112°28', in sec. 1, T. 37 S., R. 6 W., a quarter of a mile above flow line of former Hatchtown Reservoir, three-quarters of a mile east of east boundary of Sevier National Forest, and 3½ miles southwest of Hatch.

Drainage area.--151 sq mi.

Gage.--Water-stage recorder at described site May 2 to Aug. 22, 1914, Sept. 23, 1915, to Oct. 3, 1918, and Apr. 5 to Sept. 30, 1919. July 15 to Sept. 20, 1912, May 25 to July 11, 1913, staff gage, and July 12, 1913, to Apr. 25, 1914, water-stage recorder at site 1½ miles upstream at different datum.

Extremes.--1914, 1916-19: Maximum discharge, 795 cfs June 10, 1917 (gage height, 4.32 ft); minimum, 10 cfs July 31, 1913, Aug. 12-14, 1919.

Remarks.--Station below all diversions, one of which is for irrigation below station.

Monthly and yearly mean discharge, in cubic feet per second, of Mammoth Creek near Hatch, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	27.4	-	-
1913	-	-	-	-	-	-	-	-	41.5	20.2	23.8	26.6	-
1914	20.5	20.3	18	16	16	16.4	39.7	335	259	78	-	-	-
1916	27.5	27.8	34.7	31.7	23.1	31.3	84.2	351	248	92.3	73.9	42.6	89.3
1917	84.0	56.5	44.2	33.8	28.0	29.3	57.2	*203	342	87.5	48.2	35.6	*87.5
1918	31.0	28.6	25.9	23.5	23.5	27.4	36.0	218	98.2	44.4	28.5	26.6	51.2
1919	-	-	-	-	-	-	-	169	42.7	23.6	19.1	19.3	-

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	1,680	-	-
1913	-	-	-	-	-	-	-	-	2,470	1,240	1,460	1,580	-
1914	1,260	1,210	1,110	984	889	1,010	2,360	20,600	15,400	4,800	-	-	-
1916	1,690	1,650	2,130	1,950	1,330	1,920	5,010	21,600	14,800	5,680	4,540	2,530	64,800
1917	5,160	3,360	2,720	2,080	1,560	1,800	3,410	*12,500	20,300	5,380	2,960	2,110	*63,300
1918	1,910	1,710	1,590	1,440	1,310	1,680	2,140	13,400	5,840	2,730	1,750	1,580	37,100
1919	-	-	-	-	-	-	-	10,400	2,540	1,450	1,170	1,150	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	-	-	-	-	-	-	-
1913	360	-	-	-	-	-	-	-
1914	390	535	June 1, 1914	-	-	-	-	-
1916	440	511	May 12, 1916	-	89.3	64,800	97.2	70,600
1917	460	795	June 10, 1917	22	*87.5	*63,300	*79.2	*57,300
1918	480	366	May 16, 1918	20	51.2	37,100	-	-
1919	510	389	May 6, 1919	-	-	-	-	-

* Revised.

Note.--Figure of daily discharge for May 14, 1917, published on page 58 of WSP 460, has been revised to 285 cfs.

183. Asay Creek near Hatch, Utah

Location.--Lat 37°35', long 112°28', in SW¼ sec. 18, T. 37 S., R. 5 W., 1 mile above high-water line of Hatchtown Reservoir and 4 miles south of Hatch.

Drainage area.--96 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,980 ft (from river-profile map). Prior to July 12, 1913, staff gage at same site and datum.

Extremes.--1912-14: Maximum discharge, 1,600 cfs July 22, 1913 (gage height, 7.5 ft), from rating curve extended above 250 cfs; minimum not determined.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	76	-	-
1913	-	-	-	-	-	-	-	-	72.5	73.2	66.2	60.3	-
1914	60.8	52.4	43.2	47.3	57.0	69.8	175	250	190	105	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	4,670	-	-
1913	-	-	-	-	-	-	-	-	4,310	4,500	4,070	3,590	-
1914	3,740	3,120	2,660	2,910	3,170	4,290	10,400	15,400	11,300	6,460	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	‡332	July 17, 1912	-	-	-	-	-
1913	360	1,600	July 22, 1913	-	-	-	-	-
1914	390	305	May 15, 1914	-	-	-	-	-

‡ Not previously published; maximum observed during period July to September.

184. Sevier River at Hatch, Utah 1/

Location.--Lat 37°39'00", long 112°25'30", in SW¼NW¼ sec. 28, T. 36 S., R. 5 W., 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.

Gage.--Water-stage recorder. Altitude of gage is 6,870 ft (from river-profile map). Prior to May 7, 1914, and Aug. 22, 1914, to Mar. 15, 1915, staff gages, and May 7-25, 1914, Mar. 16, 1915, to Sept. 30, 1928, June 20, 1939, to Oct. 3, 1949, water-stage recorder, at several sites within 2 miles of present site at various datums.

Average discharge.--28 years (1911-28, 1939-50), 150 cfs.

Extremes.--1911-28, 1939-50: 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 daily natural flow, 43 cfs Dec. 15, 1940.

Remarks.--Two small diversions from Mammoth Creek above station for irrigation. No regulation since Hatchtown Dam failed in 1914.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	‡464	272	218	208	-
1912	171	‡90.8	‡77.7	60.3	36.1	16.6	113	419	523	183	178	135	‡167
1913	79.8	20.5	177	167	87.3	17.0	108	335	154	119	188	87.5	129
1914	90.3	95	86.9	71.5	58.2	78	146	‡686	‡470	‡200	‡162	124	‡190
1915	122	126	98.2	96.0	87.3	92.4	244	528	538	202	134	139	201
1916	105	110	*92.4	*88.9	*87.2	159	465	759	473	242	207	132	*244
1917	246	149	‡120	‡110	‡106	97.2	236	500	586	237	146	117	‡221
1918	107	112	100	91.2	89.1	147	154	384	204	125	105	101	144
1919	‡90.0	‡110	‡120	‡90.0	‡100	‡131	‡223	283	118	100	78.8	73.5	‡127
1920	‡75.0	‡90.0	‡75.0	‡80.0	‡120	‡140	‡200	‡711	504	215	167	125	‡209
1921	120	102	84.4	80.7	87.5	123	136	407	481	191	‡140	‡130	‡174
1922	‡120	‡140	‡150	‡125	‡130	‡150	173	1,010	1,010	365	207	167	‡313
1923	138	129	131	128	123	123	197	626	410	185	166	127	207
1924	117	111	‡100	‡80	‡90.1	‡92.7	‡160	‡268	‡105	‡92.1	‡72.8	‡64.3	‡113
1925	64.2	64.3	59.6	50	60.5	71.8	125	232	133	93.1	80.0	93.7	94.1
1926	72.9	69.4	55.6	62.9	58.4	64.7	138	422	184	98.2	79.4	68.4	115
1927	66.3	60.9	60.0	61.6	61.3	65.9	135	350	155	75	76	112	107
1928	‡84.0	‡86.6	‡90.0	‡85.0	‡95.0	‡133	117	373	164	85.7	76.4	65.1	‡122
1939	-	-	-	-	-	-	-	-	‡81.5	61.5	55.4	120	-
1940	78.6	66.7	62.6	60.7	63.1	66.2	117	193	76.6	57.5	48.8	82.4	81.2
1941	60.2	54.5	48.4	48.1	52.8	61.1	98.2	719	582	214	137	115	183
1942	122	106	97.9	91.1	87.0	96.9	285	494	369	152	111	92.3	176
1943	92.8	87.3	76.1	70.8	72.1	83.9	181	290	121	78.3	82.8	65.5	109
1944	75.6	67.3	69.3	64.6	67.8	81.0	110	420	425	148	93.1	84.8	142
1945	82.7	82.9	65.3	62.7	65.0	68.8	104	354	228	111	114	88.7	119
1946	84.7	71.0	58.3	54.1	57.7	64.8	125	169	64.2	57.8	61.4	50.0	76.7
1947	73.0	67.7	58.9	51.7	60.9	78.3	136	444	217	102	92.8	75.4	122
1948	69.8	67.7	70.4	64	64.8	69.4	128	274	146	77.8	65.5	56.2	96.3
1949	59.3	61.3	54.8	50	50.2	56.5	151	414	401	151	97.6	87.6	136
1950	82.4	79.1	77.3	68.4	65.8	68.2	121	212	135	88.2	69.1	60.0	94.0

* Revised.
‡ Not previously published; estimated or partly estimated on basis of records for other Sevier River stations.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	‡27,600	16,700	13,400	12,400	-
1912	10,500	‡5,400	‡4,780	3,710	2,080	1,020	6,720	25,800	31,100	11,300	10,900	8,030	‡121,000
1913	4,910	1,220	10,900	10,300	4,850	1,050	6,430	20,600	9,160	7,320	11,600	5,210	93,500
1914	5,550	5,650	5,340	4,400	3,230	4,800	8,690	‡42,200	‡28,000	‡12,300	‡9,970	7,380	‡138,000
1915	7,500	7,500	6,040	5,900	4,850	5,680	14,500	32,500	32,000	12,400	8,240	8,270	145,000
1916	6,460	6,550	*5,680	*5,470	*5,020	9,780	27,700	46,700	28,100	14,900	12,700	7,860	*177,000
1917	15,000	8,870	‡7,380	‡6,760	‡5,900	5,980	14,000	30,700	34,900	14,600	8,980	6,960	‡160,000
1918	6,580	6,660	6,150	5,610	4,950	9,040	9,160	23,600	12,100	7,690	6,460	6,010	104,006
1919	‡5,530	‡6,550	‡7,380	‡5,530	‡5,550	‡8,030	‡13,300	17,400	7,020	6,150	4,850	4,370	‡91,700
1920	‡4,610	‡5,360	‡4,610	‡4,920	‡6,900	‡8,610	‡11,900	‡43,700	30,000	13,200	10,300	7,440	‡156,000
1921	7,380	6,070	5,190	4,980	4,860	7,560	8,090	25,000	28,600	11,700	‡8,610	‡7,740	‡126,000
1922	‡7,380	‡8,330	‡9,220	‡7,690	‡7,220	‡9,220	10,300	62,100	60,100	22,400	12,700	9,940	‡227,000
1923	8,480	7,680	8,060	7,870	6,830	7,560	11,700	38,500	24,400	11,400	10,200	7,560	150,000
1924	7,190	6,600	‡6,160	‡4,920	‡5,180	‡5,700	‡9,520	‡16,460	‡6,240	‡5,660	‡4,470	‡3,830	‡81,900
1925	3,950	3,830	3,660	3,070	3,360	4,410	7,440	14,300	7,910	5,720	4,920	5,580	68,200
1926	4,480	4,130	3,420	3,870	3,240	3,980	8,210	25,900	10,900	6,040	4,880	4,070	83,100
1927	4,080	3,620	3,690	3,790	3,400	4,050	8,030	21,500	9,220	4,610	4,670	6,660	77,300
1928	‡5,160	‡5,160	‡5,530	‡5,230	‡5,460	‡8,180	6,960	22,900	9,760	5,270	4,700	3,870	‡88,200

* Revised.
‡ Not previously published; see footnote to preceding table.

1/ Published as "near Hatchtown", 1911, and as "near Hatch", 1912.

Monthly and yearly runoff, in acre-feet, of Sevier River at Hatch, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	-	-	‡4,850	3,780	3,410	7,140	-
1940	4,830	3,970	3,850	3,730	3,630	4,070	6,990	11,890	4,560	3,540	3,000	4,900	58,960
1941	3,700	3,240	2,980	2,960	2,930	3,750	5,840	44,230	34,640	13,160	8,420	6,840	132,700
1942	7,480	6,340	6,020	5,600	4,830	5,960	16,940	30,350	21,980	9,370	6,830	5,490	127,200
1943	5,710	5,200	4,680	4,350	4,000	5,160	10,790	17,850	7,180	4,810	5,030	3,900	78,660
1944	4,640	4,010	4,260	3,970	3,900	4,980	6,540	25,850	25,290	9,080	5,730	5,040	103,300
1945	5,090	4,930	4,010	3,860	3,610	4,230	6,190	21,750	13,540	6,840	7,000	5,280	86,330
1946	5,210	4,230	3,580	3,330	3,200	3,990	7,470	10,420	3,820	3,550	3,780	2,970	55,550
1947	4,490	4,030	3,620	3,180	3,380	4,810	8,090	27,330	12,920	6,250	5,710	4,480	88,290
1948	4,290	4,030	4,330	3,940	3,730	4,270	7,650	16,820	8,700	4,790	4,030	3,340	69,920
1949	3,640	3,650	3,370	3,070	2,790	3,480	9,010	25,440	23,870	9,270	6,000	5,210	98,800
1950	5,060	4,700	4,750	4,210	3,650	4,200	7,210	13,040	8,030	5,420	4,250	3,570	68,090

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	a1,210	June 5, 1912	10	‡167	‡121,000	162	118,000
1913	360	a502	May18,19,1913	14	129	93,500	128	93,100
1914	390	(b)	May 25, 1914	-	‡190	‡138,000	‡196	‡142,000
1915	410	770	June 2, 1915	79	201	145,000	*198	*143,000
1916	440,1284	1,040	May 10, 1916	80	*244	*177,000	‡261	‡190,000
1917	460	982	June 10, 1917	-	‡221	‡160,000	‡205	‡148,000
1918	480	550	May 6, 1918	80	144	104,000	‡144	‡104,000
1919	510	504	May 6, 1919	-	‡127	‡91,700	‡120	‡86,800
1920	510	1,130	May 24, 1920	-	‡209	‡156,000	‡214	‡156,000
1921	530	803	June 10, 1921	-	‡174	‡126,000	‡182	‡132,000
1922	550	1,490	May 26, 1922	-	‡313	‡227,000	‡312	‡226,000
1923	570	826	May 20, 1923	-	207	150,000	‡202	‡146,000
1924	590	-	-	-	‡113	‡81,900	‡101	‡73,400
1925	610	689	Sept. 5, 1925	-	94.1	68,200	94.9	68,700
1926	630	643	May 23, 1926	-	115	83,100	114	82,500
1927	650	-	-	-	107	77,300	‡113	‡81,800
1928	670	-	-	-	‡122	‡88,200	-	-
1939	960	614	Sept. 6, 1939	-	-	-	-	-
1940	960	580	Sept. 17, 1940	44	81.2	58,960	77.8	56,500
1941	960	1,140	May 14, 1941	43	183	132,700	199	144,300
1942	960	780	May 28, 1942	80	176	127,200	170	122,900
1943	980	524	May 3, 1943	57	109	78,660	105	75,980
1944	1010	672	June 9, 1944	56	142	103,300	144	104,400
1945	1040	480	May 14, 1945	-	119	86,330	118	85,320
1946	1060	366	Aug. 15, 1946	48	76.7	55,550	75.5	54,670
1947	1090	607	May 9, 1947	-	122	88,290	123	88,800
1948	1120	488	May 18, 1948	54	96.3	69,920	93.6	67,930
1949	1150	1,060	June 11, 1949	-	136	98,800	142	102,600
1950	1180	317	May 21, 1950	-	94.0	68,090	-	-

* Revised.
‡ Not previously published.
a Maximum observed.
b Hatchtown Dam, 1½ miles upstream, broke releasing 11,600 acre-ft of stored water; maximum discharge not determined.

185. Sevier River near Panguitch, Utah

Location.--Lat 37°46', long 112°23', in SW¼NE¼ sec. 14, T. 35 S., R. 5 W., at Heywood ranch, 1 mile upstream from head of State Canal and 6 miles southeast of Panguitch.

Drainage area.--418 sq mi.

Gage.--Staff gage. Prior to July 4, 1914, at site 200 ft upstream at different datum.

Extremes.--May to September 1914: Maximum discharge observed, 972 cfs June 1, 4 (gage height, 3.7 ft); minimum daily, 136 cfs September 5-9.

Remarks.--Station above all diversions for Panguitch Valley.

Monthly mean discharge, in cubic feet per second

Year					May	June	July	Aug.	Sept.				
1914					-	510	234	185	-				

Monthly runoff, in acre-feet

Year					May	June	July	Aug.	Sept.				
1914					-	30,300	14,400	11,400	-				

186. Panguitch Creek above canals, near Panguitch, Utah

Location.--Lat 37°48', long 112°29', in SW¼ sec. 36, T. 34 S., R. 6 W., above all diversions and 3 miles southwest of Panguitch.

Gage.--Water-stage recorder.

Extremes.--1915-20: Maximum discharge, 300 cfs June 17, 1917 (gage height, 3.75 ft); minimum, 2 cfs July 20, 21, 1918.

Remarks.--Station is above all diversions from Panguitch Creek. Water is diverted from Mammoth Creek to headwaters of Panguitch Creek for storage in Panguitch Lake. Flow regulated by storage in Panguitch Lake.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	14.5	8.8	8.3	9.9	20.3	43.3	75.0	83.7	67.5	30.2	29.0	-
1917	22.6	16.5	13.0	10.0	10.0	18.7	44.8	90.7	134	122	72.6	42.3	49.9
1918	34.9	20.5	12.9	10.4	10.5	14.8	24.0	86.9	101	54.8	44.1	21.0	36.5
1919	-	-	-	-	-	-	-	35.9	61.0	61.2	19.7	11.2	-
1920	7.4	8.1	5.0	8.0	10.0	12.7	27.1	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	863	539	508	567	1,250	2,580	4,610	4,980	4,150	1,860	1,730	-
1917	1,390	982	799	615	555	1,150	2,670	5,580	7,970	7,500	4,460	2,520	36,200
1918	2,150	1,220	793	640	583	910	1,430	5,340	6,010	3,370	2,710	1,250	26,400
1919	-	-	-	-	-	-	-	2,210	3,630	3,760	1,210	666	-
1920	455	482	307	492	575	781	1,610	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	440	128	May 17, 1916	-	-	-	35.0	25,400
1917	460	300	June 17, 1917	-	49.9	36,200	51.3	37,200
1918	480	164	May 10, 1918	2	36.5	26,400	-	-
1919	510	180	May 29, 1919	-	-	-	-	-
1920	510	a250	May 8, 1920	-	-	-	-	-

a Maximum during period October 1919 to May 16, 1920.

187. Panguitch Creek below canals, at Panguitch, Utah

Location.--Lat 37°50', long 112°26', in SE¼ sec. 20, T. 34 S., R. 5 W., about 200 ft downstream from bridge on Highway 89 at north edge of Panguitch.

Gage.--Staff gage. Altitude of gage is 6,570 ft (from river-profile map). Datum of gage lowered 0.50 ft Aug. 22, 1917.

Extremes.--1915, 1917-18: Maximum discharge observed, 114 cfs May 17, 1917 (gage height, 1.46 ft); no flow at times.

Remarks.--Below all diversions. Flow affected by operation of gates at Panguitch Lake and by irrigation diversions. Records for irrigation season only.

Monthly mean discharge, in cubic feet per second

Year					May	June	July	Aug.	Sept.				
1915					36.9	5.6	0	0	0				
1917					52.2	18.3	1.6	1.8	3.1				
1918					.78	.62	1.12	0	0				

Monthly runoff, in acre-feet

Year					May	June	July	Aug.	Sept.				
1915					2,270	330	0	0	0				
1917					3,220	1,090	100	110	180				
1918					48	37	69	0	0				

Seasonal discharge, in cubic feet per second

Year	W.S.P. no.	The season					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	460	a74	May 26, 1915	0	-	-	-	-
1917	460	114	May 17, 1917	0	-	-	-	-
1918	480	6.2	May 10, 11, 1918	0	-	-	-	-

a Maximum daily.

Note.--Maximum and minimum figures for the season are also maximum and minimum figures for the water year.

188. Sevier River below Old Houston Canal, near Panguitch, Utah

Location.--Lat 37°53', long 112°26', in SW¼ sec. 4, T. 34 S., R. 5 W., downstream from diversion dam for Old Houston Canal, half a mile downstream from Threemile Creek, and 3½ miles north of Panguitch.

Gage.--Staff gage. Altitude of gage is 6,500 ft (from river-profile map).

Extremes.--August to September 1916: Maximum discharge observed, 494 cfs Aug. 7 (gage height, 4.9 ft); minimum, 30 cfs Sept. 4, 5, 8, 9.

Remarks.--Many diversions for irrigation above station. Slight regulation by Panguitch Lake.

Monthly mean discharge, in cubic feet per second

Year						Aug.	Sept.						
1916						258	60.8						

Monthly runoff, in acre-feet

Year						Aug.	Sept.						
1916						15,900	3,620						

189. Sevier River near Circleville, Utah

Location.--Lat 38°06', long 112°19' (revised), in SW¼ sec. 20, T. 31 S., R. 4 W., 2 miles upstream from Pine Creek and 6 miles southwest of Circleville.

Drainage area.--950 sq mi, approximately.

Supplemental records available.--October 1922 to September 1923, fragmentary daily discharge records only.

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.--10 years (1914-22, 1923-24, 1949-50), 218 cfs.

Extremes.--1912, 1914-27, 1949-50: Maximum discharge, 1,960 cfs about May 21, 1922 (gage height, 8.6 ft, from floodmark), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum, 38 cfs July 19, 1927.
Flood of March 1938 probably exceeded that of May 1922.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	390	158	128	-	-
1914	-	-	-	-	-	-	-	-	-	-	153	118	-
1915	144	142	156	146	157	188	332	586	410	134	96.5	183	223
1916	109	*158	162	164	193	276	519	657	342	247	332	146	*276
1917	303	200	179	140	160	205	319	576	589	160	162	154	263
1918	136	165	181	158	168	228	213	310	112	149	83.4	121	169
1919	116	146	148	105	132	233	372	233	94.0	75.4	92.6	98.8	154
1920	93.1	126	102	125	129	160	227	775	538	138	154	138	226
1921	142	187	159	140	221	277	244	416	372	185	235	174	229
1922	142	168	194	151	153	297	370	1,290	1,040	362	260	214	388
1924	150	173	159	130	175	160	219	197	63.4	64.2	65.9	97.6	138
1925	86.1	-	-	-	-	-	143	156	70.4	69.6	90.7	176	-
1926	156	-	-	-	-	-	189	306	93.9	60.6	87.1	64.9	-
1927	80.9	104	-	-	-	-	151	-	-	-	-	-	-
1950	‡130	‡136	121	107	149	126	100	167	100	79.3	57.9	76.7	‡112

* Revised.
‡ Not previously published; estimated on basis of records for stations at Hatch and Kingston.

Monthly and yearly runoff, in acre-feet, of Sevier River near Circleville, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	23,200	9,780	7,930	-	-
1914	-	-	-	-	-	-	-	-	-	-	9,410	7,020	
1915	8,850	8,450	9,590	8,980	8,720	11,600	19,800	36,000	24,400	8,240	5,930	10,900	161,000
1916	6,700	*9,420	9,960	10,100	11,100	17,000	30,900	40,400	20,400	15,200	20,400	8,690	*200,000
1917	18,600	11,900	11,000	8,600	8,900	12,600	19,000	35,400	35,000	9,820	10,000	9,160	190,000
1918	8,360	9,820	11,100	9,720	9,330	14,000	12,700	19,100	6,660	9,160	5,130	7,200	122,000
1919	7,130	8,690	9,100	6,460	7,330	14,300	22,100	14,300	5,590	4,640	5,690	5,760	111,000
1920	5,720	7,500	6,270	7,690	7,420	9,840	13,500	47,700	32,000	8,480	9,470	8,210	164,000
1921	8,730	11,100	9,780	8,610	12,300	17,000	14,500	25,600	22,100	11,400	14,400	10,400	166,000
1922	8,730	10,000	11,900	9,280	8,500	18,300	22,000	79,300	61,900	22,300	16,000	12,700	281,000
1924	9,220	10,300	9,780	7,990	10,100	9,840	13,000	12,100	3,770	3,950	4,050	5,810	99,900
1925	5,290	-	-	-	-	-	8,510	9,590	4,190	4,280	5,580	10,500	-
1926	9,590	-	-	-	-	-	11,200	18,800	5,590	3,730	5,360	3,860	-
1927	4,970	6,190	-	-	-	-	8,980	-	-	-	-	-	-
1950	‡7,990	‡8,070	7,430	6,600	8,250	7,770	5,980	10,260	5,970	4,880	3,560	4,560	‡81,320

* Revised.
‡ Not previously published; estimated on basis of records for stations at Hatch and Kingston.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a860	May 30, 1912	-	-	-	-	-
1914	390	-	-	-	-	-	-	-
1915	410	786	May 18, 1915	68	223	161,000	*222	161,000
1916	440,1284	1,600	Aug. 6, 1916	88	*276	*200,000	297	216,000
1917	460	1,020	May 18, 1917	-	263	190,000	246	178,000
1918	480	1,000	Mar. 13, 1918	61	169	122,000	163	118,000
1919	510	-	-	52	154	111,000	146	106,000
1920	510	1,110	May 23, 1920	75	226	164,000	240	174,000
1921	530	622	June 8, 1921	-	229	166,000	231	167,000
1922	550	1,960	About May 21, 1922	-	388	281,000	-	-
1923	570	-	-	-	-	-	-	-
1924	590	430	Sept. 6, 1924	45	138	99,900	-	-
1925	610	770	Sept. 19, 1925	50	-	-	-	-
1926	630	465	May 23, 1926	-	-	-	-	-
1927	650	-	-	-	-	-	-	-
1950	1180	258	July 17, 1950	-	‡112	‡81,320	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

190. Sevier River near Kingston, Utah

Location.--Lat 38°12', long 112°12', in NE¼NW¼ sec. 16, T. 30 S., R. 3 W., 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.

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 about 1 mile downstream at different datum.

Average discharge.--36 years (1914-50), 145 cfs.

Extremes.--1914-50: 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, 4 cfs Sept. 9, 1943.

Remarks.--Many diversions for irrigation above station and one above for irrigation below.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	193	115	67.4	-
1915	142	151	174	159	194	219	295	514	307	47.4	35.8	137	197
1916	81.2	177	169	199	234	293	507	535	226	166	315	112	251
1917	319	194	194	155	175	221	336	574	504	84.2	108	101	247
1918	86.1	175	213	191	212	272	225	198	43.9	119	24.0	78.7	153
1919	99.2	145	180	144	163	252	353	144	31.1	16.7	36.0	36.7	133
1920	67.3	125	85.0	88.9	192	190	246	806	498	52.2	181	97.1	219

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Kingston, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	124	204	166	162	245	330	213	326	263	123	229	232	218
1922	111	172	231	181	198	288	357	1,150	886	278	244	202	359
1923	107	195	201	190	238	226	332	700	356	160	167	130	250
1924	135	173	158	136	259	217	294	73.0	22.2	26.5	21.2	53.7	130
1925	56.5	116	132	126	175	177	137	39.5	28.5	27.8	31.6	136	97.9
1926	126	123	133	117	133	153	186	181	32.3	20.4	34.9	22.7	105
1927	40.4	71.0	117	122	152	163	144	141	37.6	26.3	27.3	189	102
1928	118	137	143	130	165	242	122	120	18.4	15.5	29.2	18.8	105
1929	38.8	120	110	90	100	212	173	173	26.3	65.0	126	179	118
1930	57.2	114	126	93.6	128	135	95.7	60.0	36.0	21.4	130	33.6	85.7
1931	69.2	88.3	105	101	127	122	44.4	17.1	9.8	8.8	10.5	8.8	59.0
1932	15.7	29.6	34.2	45	74.7	140	193	365	354	154	108	79.4	133
1933	80.3	126	110	70	100	155	119	49.6	88.9	42.9	35.4	36.7	84.2
1934	48.2	104	126	126	136	114	21.7	12.3	9.6	8.6	13.2	11.3	60.6
1935	15.1	38.6	105	105	110	110	72.0	170	152	11.5	18.7	30.8	78.1
1936	28.6	99.3	109	108	115	138	97.6	78.3	17.3	51.6	70.2	72.4	82.1
1937	56.5	119	109	95	116	171	291	648	272	99.5	39.0	95.6	176
1938	95.1	129	161	151	134	280	307	443	252	27.6	34.0	110	177
1939	137	156	155	130	120	200	189	63.8	15.1	10.9	11.9	204	116
1940	140	126	129	130	141	129	73.9	52.5	11.7	8.8	6.3	148	91.0
1941	127	123	125	123	148	127	161	775	481	116	97.5	79.6	207
1942	199	198	195	195	189	269	473	521	219	43.1	53.0	44.2	217
1943	119	167	168	159	170	189	227	143	39.8	10.3	68.6	22.7	123
1944	108	140	146	138	143	184	212	375	288	25.5	10.4	18.2	149
1945	108	152	139	149	155	154	169	196	97.4	28.8	64.4	64.9	123
1946	144	150	142	122	149	166	177	34.7	9.2	8.8	19.8	13.2	94.3
1947	113	152	139	96.6	153	159	140	285	123	17.0	65.3	38.2	123
1948	90.6	150	144	139	162	178	274	154	29.0	13.1	21.6	14.2	114
1949	46.7	119	103	85.2	94.3	178	364	290	347	74.4	25.2	49.7	148
1950	121	152	126	113	182	156	81.8	97.1	35.0	27.6	16.4	27.4	94.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	11,900	7,070	4,010	-
1915	8,730	8,980	10,700	9,780	10,800	13,500	17,600	31,600	18,300	2,910	2,200	8,150	143,000
1916	4,990	10,500	10,400	12,200	13,500	18,000	30,200	32,900	13,400	10,200	19,400	6,660	182,000
1917	19,600	11,500	11,900	9,530	10,100	13,600	20,000	35,300	30,000	5,180	6,640	6,010	179,000
1918	5,290	10,400	13,100	11,700	11,800	16,700	13,400	12,200	2,610	7,320	1,480	4,680	111,000
1919	6,100	8,630	11,100	8,850	9,050	15,500	21,000	8,850	1,850	1,030	2,210	2,180	96,400
1920	4,140	7,440	5,230	5,470	11,000	11,700	14,600	49,600	29,600	3,210	11,100	5,780	159,000
1921	7,620	12,100	10,200	9,960	13,600	20,300	12,700	20,000	15,600	7,560	14,100	13,800	158,000
1922	6,820	10,200	14,200	11,100	11,000	17,700	21,200	70,700	52,700	17,100	15,000	12,000	260,000
1923	6,580	11,600	12,400	11,700	13,200	13,900	19,800	43,000	21,200	9,840	10,300	7,740	181,000
1924	8,300	10,300	9,720	8,360	14,900	13,300	17,500	4,490	1,320	1,630	1,300	3,200	94,300
1925	3,470	6,900	8,120	7,750	9,720	10,900	8,150	2,430	1,700	1,710	1,940	8,090	70,900
1926	7,750	7,320	8,180	7,190	7,390	9,410	11,100	11,100	1,920	1,250	2,150	1,350	76,100
1927	2,480	4,230	7,190	7,500	8,440	10,000	8,570	8,670	2,240	1,620	1,680	11,200	73,800
1928	7,260	8,150	8,790	7,990	9,490	14,900	7,260	7,380	1,090	953	1,800	1,120	76,200
1929	2,390	7,140	6,760	5,530	5,550	13,000	10,300	10,600	1,560	4,000	7,750	10,600	85,200
1930	3,520	6,780	7,750	5,760	7,110	8,300	5,690	3,690	2,140	1,320	7,990	2,000	†62,000
1931	4,250	5,250	6,460	6,210	7,050	7,500	2,640	1,050	583	541	646	524	42,700
1932	965	1,760	2,100	2,770	4,300	8,610	11,500	22,400	21,100	9,470	6,640	4,720	96,300
1933	4,940	7,500	6,760	4,300	5,550	9,530	7,080	3,050	5,290	2,640	2,180	2,180	61,000
1934	2,960	6,200	7,730	7,760	7,540	7,040	1,290	756	571	532	813	672	43,860
1935	928	2,290	6,460	6,460	6,110	6,760	4,280	10,450	9,070	710	1,150	1,830	56,500
1936	1,760	5,910	6,720	6,620	6,640	8,490	5,810	4,820	1,030	3,180	4,310	4,310	59,590
1937	3,480	7,110	6,710	5,840	6,430	10,530	17,290	39,870	16,190	6,120	2,400	5,690	127,700
1938	5,850	7,680	9,900	9,310	7,470	17,190	18,260	27,240	15,000	1,700	2,090	6,580	128,300
1939	8,450	9,310	9,530	7,990	6,660	12,330	11,220	3,930	899	672	732	12,150	84,870
1940	8,610	7,470	7,940	7,990	8,110	7,860	4,400	3,230	696	540	385	8,830	66,060
1941	7,820	7,320	7,700	7,580	8,220	7,820	9,600	47,640	28,610	7,120	6,000	4,730	150,200
1942	12,250	11,780	11,960	12,000	10,480	16,540	28,150	32,010	13,030	2,650	3,260	2,630	156,700
1943	7,350	9,950	10,320	9,750	9,430	11,610	13,530	8,800	2,370	831	4,220	1,350	89,310
1944	6,650	8,350	9,010	8,460	8,200	11,290	12,620	23,060	17,150	1,570	640	1,080	108,100
1945	6,670	9,030	8,560	9,140	8,620	9,470	10,070	12,020	5,790	1,770	3,960	3,800	88,900
1946	8,870	8,920	8,740	7,480	8,280	10,220	10,550	2,140	547	543	1,220	783	68,290
1947	6,950	9,050	8,530	5,940	8,510	9,770	8,310	17,550	7,300	1,050	4,020	2,270	89,240
1948	5,570	8,900	8,880	8,560	9,320	10,970	16,290	9,480	1,720	807	1,330	843	82,670
1949	2,870	7,060	6,320	5,240	5,240	10,950	21,660	17,810	20,670	4,570	1,550	2,960	106,900
1950	7,460	9,040	7,760	6,970	10,090	9,620	4,870	5,970	2,090	1,700	1,010	1,630	68,200

† Corrected.

Yearly discharge, in cubic feet per second, of Sevier River near Kingston, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	-	-	-	-	-	-	-
1915	410	-	-	20	197	143,000	195	141,000
1916	440	900	Aug. 6, 1916	51	251	182,000	274	200,000
1917	460	908	May 19, 1917	-	247	179,000	228	165,000
1918	480	1,000	Mar.13, 1918	20	153	111,000	149	108,000
1919	510	520	Apr.26, 1919	13	133	96,400	121	87,300
1920	510	1,260	May 23, 1920	23	219	159,000	238	172,000
1921	530	890	Sept. 1, 1921	13	218	158,000	220	159,000
1922	550	a1,460	May 21, 1922	52	359	260,000	357	259,000
1923	570	908	May 18, 1923	47	250	181,000	247	179,000
1924	590	500	Sept.6, 1924	12	130	94,300	117	84,500
1925	610	650	Sept. 19, 1925	15	97.9	70,900	105	75,600
1926	630	377	Oct. 6, 1925	16	105	76,100	92.4	66,800
1927	650	-	-	15	102	73,800	117	84,100
1928	670	536	Mar.26, 1928	-	105	76,200	94.1	68,300
1929	690	-	-	-	118	85,200	120	86,900
1930	705	1,000	(b)	17	85.7	†62,000	83.1	60,000
1931	720	174	Aug.15, 1931	5	59.0	42,700	44.1	31,600
1932	735	-	-	12	133	96,300	152	111,000
1933	750	736	Aug.21 or 22,1933	10	84.2	61,000	81.3	58,700
1934	765	184	Feb. 4, 1934	6	60.6	43,860	50.6	36,650
1935	790	324	June 8, 1935	7	78.1	56,500	84.6	61,210
1936	810	1,080	Sept.1, 1936	7	82.1	59,590	86.1	†62,510
1937	830	a963	May 18, 1937	13	176	127,700	185	133,800
1938	860	c3,000	Mar. 4, 1938	14	177	128,300	183	132,100
1939	880	1,000	Sept. 7, 1939	8	116	84,870	111	80,600
1940	900	987	Sept. 18, 1940	5	91.0	66,060	89.4	64,880
1941	930	1,260	May 14, 1941	20	207	150,200	226	163,300
1942	960	790	May 28, 1942	20	217	156,700	205	148,400
1943	980	1,040	Aug. 8, 1943	5	123	89,310	118	85,700
1944	1010	604	June 4, 1944	7.0	149	108,100	149	108,300
1945	1040	748	Sept. 3,1945	18	123	88,900	126	91,170
1946	1060	330	Feb.25, 1946	6	94.3	68,290	91.6	66,290
1947	1090	576	May 11, 12,1947	9.1	123	89,240	122	88,070
1948	1120	458	Mar.24, 1948	9.1	114	82,670	104	75,570
1949	1150	928	June 7, 1949	20	148	106,900	159	114,900
1950	1180	262	Feb. 7, 1950	6.6	94.2	68,200	-	-

† Corrected.
a Maximum observed.
b Exact date not known; occurred sometime Aug. 4-10, 1930.
c Includes estimated flow of 360 cfs in overflow channel bypassing station.

191. Tropic and East Fork Canal near Tropic, Utah
(Transmountain diversion)

Location.--Lat 37°40', long 112°09', in SW¼ sec. 17, T. 36 S., R. 3 W., 4 miles northwest of Tropic.

Gage.--Water-stage recorder. Altitude of gage is 7,600 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 26 cfs May 6, 1950; no flow at times each year.

Remarks.--One diversion for irrigation above station. Canal, which began operating in 1892, diverts water from East Fork Sevier River for use in Paria River basin in vicinity of Tropic.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	0	0	0	0	0	0	138	1,130	1,110	612	650	263	3,910

192. Antimony Creek near Antimony, Utah

Location.--Lat 38°06', long 111°53', in NW¼ sec. 22, T. 31 S., R. 1 W., 5 miles upstream from mouth and 5 miles southeast of Antimony.

Drainage area.--26 sq mi, approximately.

Gage.--Water-stage recorder.

Extremes.--1946-48: Maximum discharge, 215 cfs May 7, 1948 (gage height, 3.80 ft); minimum, 11 cfs Aug. 22, 1947.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	20	20	20.4	20.0	19.2	20.3	24.2	64.3	23.1	17.8	14.5	15.8	23.3
1948	17.4	19	18.8	16.8	18.4	16.5	21.2	66.2	24.6	17.2	18.3	19.2	22.8

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	1,230	1,190	1,260	1,230	1,070	1,250	1,440	3,950	1,370	1,100	893	942	16,920
1948	1,070	1,130	1,160	1,040	1,060	1,020	1,260	4,070	1,460	1,060	1,120	1,140	16,590

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1090	164	May 3, 1947	12	23.3	16,920	22.9	16,600
1948	1120	215	May 7, 1948	15	22.8	16,590	-	-

193. East Fork Sevier River at Antimony, Utah 1/

Location (revised).--Lat 38°07', long 112°00', in SW¼NW¼ sec. 15, T. 31 S., R. 2 W., immediately below mouth of Dry Wash, half a mile below diversion to Otter Creek feeder canal, half a mile southwest of schoolhouse at Antimony (formerly Coyoto), and about 2 miles downstream from Antimony (formerly Coyoto) Creek.

Gage.--Vertical staff gage. Altitude of gage is 6,390 ft (from river-profile map). Prior to July 16, 1917, at site 150 ft upstream at different datum. July 16, 1917, to May 17, 1919, at described site at different datum.

Extremes.--Maximum and minimum discharge not determined. Probably no flow on several days during June 1916, on basis of record for East Fork Sevier River above Otter Creek, near Antimony.

Remarks.--Diversions above station for irrigation and for storage in Otter Creek reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	3.38	4.06	4.48	98.9	193	11.5	2.0	-	-	-
1916	-	-	-	-	-	-	-	-	-	-	48.2	7.7	-
1917	10.9	8.8	7.3	6.0	3.8	14.1	191	-	-	-	22.5	16.6	-
1918	-	-	-	-	-	-	-	-	16.4	16.8	8.0	11.0	-
1919	-	-	-	-	-	-	-	-	2.4	13.3	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	208	225	275	5,880	11,900	684	123	-	-	-
1916	-	-	-	-	-	-	-	-	-	-	2,960	458	-
1917	670	524	450	371	212	867	11,400	-	-	-	1,380	988	-
1918	-	-	-	-	-	-	-	-	976	1,030	492	655	-
1919	-	-	-	-	-	-	-	-	143	818	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	*406	May 16, 1915	-	-	-	-	-
1916	440	-	-	-	-	-	-	-
1917	460	-	-	-	-	-	-	-
1918	480	-	-	-	-	-	-	-
1919	510	a127	Aug. 16, 1919	-	-	-	-	-

* Revised; maximum observed.
a Maximum observed during period May to August.

1/ Published as "at Coyoto".

194. East Fork Sevier River above Otter Creek, near Antimony, Utah 1/

Location.--Lat 38°10', long 112°01', in SE¼ sec. 29 (revised), T. 30 S., R. 2 W., just above Otter Creek reservoir outlet, about 5 miles northwest of Antimony, and 12 miles east of Kingston.

Gage.--Staff gage. Altitude of gage is 6,340 ft (from river-profile map).

Extremes.--November 1915 to August 1916: Maximum discharge observed, 296 cfs May 6 (gage height, 9.5 ft); no flow June 19-24.

Remarks.--Coyoto canal and Otter Creek reservoir feeder canal divert above station for irrigation and storage.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	28.1	44.7	49.2	26.6	59.7	135	124	8.3	15.9	53.5	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	1,670	2,750	3,030	1,530	3,670	8,030	7,620	490	980	3,290	-	-

195. Otter Creek above reservoir, near Antimony, Utah 1/

Location.--Lat 38°15', long 111°58', in sec. 25, T. 29 S., R. 2 W., three-quarters of a mile above Otter Creek Reservoir and 10 miles north of Antimony.

Gage.--Staff gage. Altitude of gage is 6,400 ft (from river-profile map).

Extremes.--1915-20: Maximum discharge observed, 103 cfs Mar. 20, 1919 (gage height, 3.78 ft); no flow May 29, June 13, Aug. 10, 1915, May 18 to Oct. 18, 1919.

Remarks.--Diversions above station for irrigation. Practically entire low-water flow diverted during summer. Flow slightly regulated by Koosharem reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	18	52.6	40.8	24.8	3.04	0.5	-	-	-
1916	5.6	26.0	25.4	10.2	39.5	66.5	28.8	29.3	1.0	.6	2.1	4.3	19.9
1917	18.2	21.1	17	14.4	15	38.7	61.2	53.2	7.7	.5	.2	.2	20.6
1918	7.89	26.8	25.4	26.5	28.6	31.5	14.5	.65	1.18	10.8	.58	2.93	14.7
1919	11.6	20.7	15	9.7	15	44.7	51.4	4.0	0	0	0	0	14.3
1920	3.3	11.2	7	8	26.0	29.8	18.4	-	3.1	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	1,000	3,230	2,430	1,520	181	31	-	-	-
1916	343	1,550	1,560	627	2,270	4,090	1,710	1,800	58	40	131	254	14,400
1917	1,120	1,260	1,050	885	833	2,380	3,640	3,270	456	31	14	12	15,000
1918	485	1,590	1,560	1,630	1,590	1,940	863	40	70	664	36	174	10,600
1919	713	1,230	922	595	833	2,750	3,060	248	0	0	0	0	10,400
1920	202	666	430	492	1,500	1,830	1,090	-	184	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	78	Mar. 25, 1915	0	-	-	-	-
1916	440	87	Mar. 12, 1916	-	19.9	14,400	19.8	14,400
1917	460	84	Mar. 27, 1917	-	20.6	15,000	20.9	15,200
1918	480	38	Nov. 20, 1917	-	14.7	10,600	13.6	9,870
1919	510	103	Mar. 20, 1919	0	14.3	10,400	12.1	8,780
1920	510	-	-	0	-	-	-	-

1/ Published as "near Coyoto."

196. Otter Creek Reservoir near Antimony, Utah 1/

Location.--Lat 38°10'15", long 112°00'00", in NW¼ sec. 28, T. 30 S., R. 2 W., near spillway on Otter Creek dam, 5 miles northwest of Antimony, and 12 miles east of Kingston.

Gage.--Staff gage. Altitude of gage is 6,340 ft.

Extremes.--1914-15, 1934-50: Maximum contents observed, 55,000 acre-ft May 1, 1946, May 20, 1948, June 10, 20, 1949 (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 with concrete core. The dam was raised some each year to the ultimate height of 45 ft in 1915. Capacity, 52,590 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, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1914	-	-	-	17,870	23,130	34,120	40,620	49,270	40,880	17,500	15,530	11,510
1915	16,770	20,480	24,530	26,830	32,000	38,470	47,840	51,330	46,040	21,760	6,960	3,550
1934	-	-	-	a10,970	14,440	17,510	14,370	8,970	4,160	430	400	400
1935	2,140	3,860	6,280	8,920	11,900	14,520	18,500	24,450	23,830	7,940	4,730	1,930
1936	2,120	4,430	7,220	9,780	13,550	17,100	20,450	13,260	2,050	2,660	4,090	4,970
1937	6,520	8,970	12,150	14,160	17,850	23,610	29,740	39,770	39,590	37,490	31,330	24,150
1938	26,140	26,730	28,300	31,130	34,670	40,700	50,040	53,320	50,830	48,160	46,200	45,530
1939	44,720	44,940	40,960	36,120	39,080	44,660	50,590	47,100	32,790	14,150	5,590	8,610
1940	12,020	14,780	17,750	21,760	25,370	30,060	35,980	28,550	17,400	9,580	5,680	4,440
1941	6,820	8,940	11,640	14,520	19,690	24,460	30,000	37,770	42,280	38,720	33,520	32,600
1942	35,120	38,380	42,000	45,120	47,970	52,600	52,330	52,590	51,180	43,140	31,770	22,550
1943	23,310	24,550	28,410	31,870	36,380	42,580	51,550	49,380	46,250	32,600	25,580	20,280
1944	20,790	23,010	27,340	30,840	35,800	43,020	49,000	53,090	52,080	45,440	31,070	20,800
1945	22,720	23,850	26,600	30,890	35,070	39,760	45,440	50,220	49,350	40,800	29,340	29,180
1946	33,280	36,870	40,280	43,900	48,080	53,420	54,940	50,690	44,650	29,030	22,260	13,520
1947	17,000	20,020	24,280	28,110	33,220	39,420	45,990	51,210	50,000	47,440	44,860	42,560
1948	42,580	43,020	43,740	47,020	51,280	52,460	51,570	54,770	48,260	30,550	15,620	10,300
1949	10,050	13,240	17,380	20,920	25,000	31,210	47,010	54,520	54,320	49,950	44,920	37,440
1950	39,580	40,620	43,160	46,100	50,090	53,670	53,840	48,980	38,350	26,070	13,890	9,250

a Contents by capacity table used beginning Jan. 1, 1935; contents Jan. 31, 1935, by capacity table used prior to Jan. 1, 1935, was the same at this stage.

Notes.--Contents on last day of month not previously published; previously published figures, 1945-50, are contents on first day of month.
Month-end contents generally interpolated from about 3 readings during the month.

197. Otter Creek near Antimony, Utah 2/

Location.--Lat 38°10'15", long 112°00'00", in W½ sec. 28, T. 30 S., R. 2 W., just below outlet of Otter Creek Reservoir, 5 miles northwest of Antimony, and 12 miles east of Kingston.

Gage.--Water-stage recorder. Altitude of gage is 6,340 ft (from river-profile map).

Extremes.--1913-19: Maximum discharge, 400 cfs July 19, 1917 (gage height, 2.74 ft); minimum occurs while outlet gates are closed during nonirrigation season at which time seepage flow of 1 to 2 cfs occurs.

Remarks.--Records for irrigation seasons only. Diversions above reservoir for irrigation. Flow controlled by operation of outlet gates of Otter Creek reservoir.

Monthly mean discharge, in cubic feet per second

Year				Apr.	May	June	July	Aug.	Sept.	Oct.			
1913				-	-	-	254	197	-	-			
1914				-	-	162	320	172	‡142	-			
1915				67.5	19.5	134	373	317	185	-			
1916				-	3.7	93.3	322	115	85.9	53.9			
1917				-	61.9	58.4	352	321	228	18.3			
1918				-	123	202	203	231	103	-			
1919				-	-	181	246	176	23.0	-			

‡ Not previously published; partially estimated on basis of records of reservoir gate operation.

1/ Published as "near Coyoto", 1914.
2/ Published as "near Coyoto".

Monthly runoff, in acre-feet, of Otter Creek near Antimony, Utah

Year	Apr.	May	June	July	Aug.	Sept.	Oct.
1913	-	-	-	15,600	12,100	-	-
1914	-	-	9,640	19,700	10,600	‡8,430	-
1915	4,020	1,200	7,970	22,900	19,500	11,000	-
1916	-	226	5,550	19,800	7,070	5,110	†3,310
1917	-	3,810	3,480	21,600	19,700	13,600	1,130
1918	-	7,560	12,000	12,500	14,200	6,130	-
1919	-	-	10,800	15,100	10,800	1,370	-

† Corrected.
‡ Not previously published; partially estimated on basis of records of reservoir gate operation.

Seasonal discharge, in cubic feet per second

Year	W.S.P. no.	The season				Calendar year	
		Momentary maximum		Minimum day	Mean	Mean	Runoff in acre-feet
		Discharge	Date				
1913	360	‡286	July 15, 1913	-	-	-	-
1914	390	393	July 4, 1914	-	-	-	-
1915	410	‡385	July 21, 1915	-	-	-	-
1916	440	a328	(b)	-	-	-	-
1917	460	400	July 19, 1917	-	-	-	-
1918	480	‡243	Aug. 8, 1918	-	-	-	-
1919	510	‡255	July 4, 1919	-	-	-	-

‡ Not previously published.
a Maximum daily.
b July 12, 13, 20, 23, 24, 1916.

Note.--Momentary maximums for the season are also momentary maximums for the water year.

198. East Fork Sevier River near Kingston, Utah

Location.--Lat 38°12', long 112°09', in SW¼NW¼ sec. 13, T. 30 S., R. 3 W., 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.

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.--37 years (1913-50), 88.9 cfs.

Extremes.--1913-50: Maximum discharge, 2,030 cfs May 12, 1941 (gage height, 5.05 ft); minimum, 3.8 cfs Jan. 7, 1946.

Remarks.--Diversions above and below station for irrigation. Flow regulated by Otter Creek Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	269	85.4	235	285	220	75.3	-
1914	22	28.3	19.2	25.4	24.6	41.4	118	315	251	363	187	159	130
1915	29.3	26.0	21.6	20.0	21.8	26.8	172	205	151	365	324	193	130
1916	30.1	29.4	29.6	20.0	33.1	67.9	189	181	110	339	184	96.3	110
1917	91.1	43.1	35.7	21	21	37.8	212	436	257	†355	334	242	178
1918	39.9	27.9	31.8	22.2	25.2	38.1	79.3	158	227	211	222	132	102
1919	81.0	26.2	18	15.4	21.8	29.0	101	42.5	183	261	194	56.0	86.3
1920	44.2	43.1	10	12.5	20.2	21.2	51.8	48.5	106	291	218	176	87.2
1921	74.3	32.4	16.6	18.0	24.4	29.5	30.5	86.5	170	345	307	61.4	101
1922	61.1	36.4	29.3	18.3	19.8	53.8	295	1,110	216	99.5	227	232	201
1923	241	29.5	25.7	31.9	18.1	26.5	34.0	101	93.6	264	292	189	113
1924	24.8	23.2	19.7	15	27.5	37.6	36.0	88.8	262	355	255	71.5	102
1925	42.6	21.0	16.9	13.0	31.5	16.6	28.1	53.5	203	245	176	79.0	77.6
1926	21.5	20.3	18.8	17.3	18.2	22.0	57.4	71.3	131	284	203	130	83.5
1927	19.9	20.1	18	18	18	18.2	20.0	220	242	157	39.7	60.6	71.2
1928	22.4	20.4	15	15	14.0	28.1	49.4	211	218	223	159	40.6	85.2
1929	27.7	34.4	30.6	15	35	28.1	21.4	166	213	218	151	24.5	80.8
1930	17.1	24.4	17.5	15	25	34.5	63.7	190	188	183	92.1	103	79.7
1931	74.4	24.7	20	17	13.5	14	45.4	123	114	117	85.6	32.1	†57.2
1932	16.1	20.4	18	18	19	23.9	50.9	208	191	129	137	129	80.3
1933	17.0	14.1	14.8	18	15	15	94.8	129	108	187	93.5	25.3	61.4
1934	14.1	14.5	14.0	18	22.6	20.6	62.4	102	97.3	49.9	18.0	18.4	37.7
1935	18.9	19.4	18	18	18	19.2	15.0	31.5	39.7	268	83.0	88.7	53.6

† Corrected.

Monthly and yearly mean discharge, in cubic feet per second, of East Fork Sevier River near Kingston, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	31.5	20.2	17.4	17	15.3	16.7	20.0	105	210	31.3	18.7	22.0	43.6
1937	14.5	11.4	14	14	16	18.7	126	156	28.6	41.3	107	127	56.4
1938	44.1	44.6	40.3	14.9	17.4	21.7	83.9	129	51.8	35.9	38.5	42.4	47.2
1939	51.8	66.8	128	156	19.1	20.7	25.6	64.9	215	298	170	53.3	107
1940	15.1	19.1	17.9	13	15.0	15.5	21.9	148	177	146	93.8	73.2	63.1
1941	18.8	18.6	15	12	16.1	14.6	21.6	623	82.0	80.0	101	41.3	88.1
1942	55.9	34.8	18.7	16.5	17.0	42.4	398	362	60.0	123	215	192	128
1943	52.0	59.1	23.0	14.7	17.2	20.9	20.8	55.5	50.7	200	152	124	66.2
1944	55.6	45.6	13.9	13.0	16.4	25.7	70.5	398	168	106	252	204	115
1945	42.4	56.7	23.3	12.9	16.8	17.6	17.1	28.4	35.7	154	225	42.5	56.5
1946	17.5	16.2	17.5	16.8	18.6	40.1	168	91.7	101	263	149	160	88.6
1947	46.0	50.0	27.4	13.0	14.5	16.6	18.7	46.9	49.6	41.8	81.1	61.9	39.1
1948	49.4	68.5	60.7	24.1	22.5	90.9	220	109	114	303	250	123	120
1949	53.4	15.1	10	12	13.4	21.3	36.1	142	152	101	82.1	153	66.2
1950	22.7	60.1	34.1	23.0	31.7	52.8	75.4	99.6	171	230	224	119	95.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	16,100	5,250	14,000	17,500	13,500	4,480	-
1914	1,350	1,680	1,180	1,560	1,370	2,550	7,020	19,400	14,900	22,300	11,500	9,460	94,300
1915	1,800	1,550	1,330	1,230	1,210	1,650	10,200	12,600	8,980	22,400	19,900	11,500	94,400
1916	1,850	1,750	1,820	1,230	1,900	4,180	11,200	11,100	6,550	20,800	11,300	5,730	79,400
1917	5,600	2,560	2,200	1,290	1,170	2,320	12,600	26,800	15,300	21,800	20,500	14,400	127,000
1918	2,450	1,660	1,960	1,360	1,400	2,340	4,720	9,720	13,500	13,000	13,600	7,860	73,600
1919	4,980	1,560	1,110	947	1,210	1,780	6,010	2,610	10,900	16,000	11,900	3,330	62,300
1920	2,720	2,560	615	769	1,160	1,300	3,080	2,980	6,310	17,900	13,400	10,500	63,300
1921	4,570	1,930	1,020	1,110	1,360	1,810	1,810	5,320	10,100	21,200	18,900	3,650	72,800
1922	3,760	2,170	1,800	1,130	1,100	3,310	17,600	68,200	12,900	6,120	14,000	13,800	146,000
1923	14,800	1,760	1,580	1,960	1,010	1,630	2,020	6,210	5,570	16,200	18,000	11,200	81,900
1924	1,520	1,380	1,210	922	1,580	2,310	2,140	5,460	15,600	21,800	15,700	4,250	73,900
1925	2,620	1,250	1,040	799	1,750	1,020	1,670	3,290	12,100	15,100	10,800	4,700	56,100
1926	1,320	1,210	1,160	1,060	1,010	1,350	3,420	4,380	7,800	17,500	12,500	7,740	60,400
1927	1,220	1,200	1,110	1,110	1,000	1,120	1,190	13,500	14,400	9,650	2,440	3,610	51,600
1928	1,380	1,210	922	922	805	1,730	2,940	13,000	13,000	13,700	9,780	2,420	61,800
1929	1,700	2,050	1,880	922	1,940	1,730	1,270	10,200	12,700	13,400	9,280	1,460	58,500
1930	1,050	1,450	1,080	922	1,390	2,120	3,790	11,700	11,200	11,300	5,660	6,130	57,800
1931	4,570	1,470	1,230	1,050	750	861	2,700	7,560	6,780	7,190	5,260	1,910	41,300
1932	990	1,210	1,110	1,110	1,090	1,470	3,030	12,800	11,400	7,930	8,420	7,680	58,200
1933	1,050	839	910	1,110	833	922	5,640	7,930	6,430	11,500	5,750	1,510	44,400
1934	867	861	859	1,110	1,250	1,270	3,710	6,290	5,790	3,070	1,100	1,090	27,270
1935	1,160	1,150	1,110	1,110	1,000	1,180	891	1,940	2,360	16,500	5,100	5,280	38,780
1936	1,940	1,200	1,070	1,050	879	1,030	1,190	6,450	12,500	1,920	1,150	1,310	31,680
1937	893	676	860	860	889	1,150	7,520	9,590	1,700	2,540	6,600	7,530	40,810
1938	2,710	2,650	2,480	914	968	1,330	4,990	7,960	3,080	2,210	2,370	2,520	34,180
1939	3,190	3,980	7,890	9,600	1,060	1,270	1,520	3,990	12,800	18,330	10,480	3,170	77,280
1940	928	1,140	1,100	799	863	954	1,310	9,090	10,520	8,960	5,770	4,350	45,780
1941	1,160	1,110	922	738	897	900	1,290	38,310	4,880	4,920	6,240	2,460	63,830
1942	3,440	2,070	1,150	1,020	946	2,610	23,680	22,250	3,570	7,570	13,220	11,400	92,930
1943	3,200	3,520	1,410	902	956	1,280	1,240	3,410	3,020	12,300	9,340	7,390	47,970
1944	3,420	2,710	855	797	942	1,580	4,200	24,490	10,010	6,540	15,470	12,160	83,170
1945	2,600	3,380	1,430	791	930	1,080	1,020	1,750	2,120	9,450	13,810	2,530	40,890
1946	1,080	962	1,080	1,040	1,040	2,460	10,020	5,640	5,990	16,150	9,170	9,520	64,150
1947	2,830	2,970	1,690	799	807	1,020	1,110	2,880	2,950	2,570	4,990	3,690	28,310
1948	3,040	4,080	3,730	1,480	1,300	5,590	13,080	6,730	6,810	18,650	15,380	7,310	87,180
1949	3,280	900	615	738	746	1,310	2,150	8,760	9,070	6,180	5,050	9,090	47,890
1950	1,400	3,580	2,090	1,420	1,760	3,250	4,480	6,130	10,170	14,130	13,770	7,080	69,260

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	‡a518	Apr. 1, 1913	-	-	-	-	-
1914	390	‡570	May 9, 1914	14	130	94,300	131	94,700
1915	410	578	May 14, 1915	-	130	94,400	131	95,100
1916	440	660	Aug. 1, 1916	17	110	79,400	116	84,400
1917	460	946	May 18, 1917	-	178	127,000	169	122,000
1918	480	385	June 20, 1918	16	102	73,600	104	75,100
1919	510	900	Aug. 8, 1919	-	86.3	62,300	83.9	60,600
1920	510	420	June 28, 1920	-	87.2	63,300	89.1	64,900
1921	530	406	July 20,21,1921	-	101	72,800	101	73,000
1922	550	1,740	May 8, 1922	-	201	146,000	216	156,000
1923	570	339	Aug. 20, 1923	-	113	81,900	93.9	67,900
1924	590	‡402	July 23, 1924	13	102	73,900	103	74,700
1925	610	‡331	July 23, 1925	-	77.6	56,100	75.9	54,900

‡ Not previously published.
a Maximum observed.

Yearly discharge, in cubic feet per second, of East Fork Sevier River near Kingston, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	‡401	July 6, 1926	14	83.5	60,400	83.3	60,300
1927	650	b265	June 6, 1927	-	71.2	51,600	71.2	51,500
1928	670	‡270	May 6, 1928	-	85.2	61,800	88.1	63,900
1929	690	2,000	Aug. 27, 1929	-	80.8	58,500	77.9	56,500
1930	705	b216	Sept.23,24,1930	-	79.7	57,800	84.8	61,500
1931	720	196	Oct. 1, 1930	7	†57.2	41,300	51.7	37,400
1932	735	585	Aug. 22, 1932	12	80.3	58,200	79.5	57,700
1933	750	282	May 21, 1933	11	61.4	44,400	61.0	44,200
1934	765	242	July 20, 1934	9	37.7	27,270	38.8	28,100
1935	790	347	July 15, 1935	10	53.6	38,780	54.6	39,560
1936	810	646	July 22, 1936	9	43.6	31,680	41.2	†29,910
1937	830	475	Apr. 23, 1937	10	56.4	40,810	63.8	46,220
1938	860	331	Apr.24,25, 1938	14	47.2	34,180	57.2	41,400
1939	880	316	July 15, 1939	14	107	77,280	90.3	65,390
1940	900	b216	May16-21,1940	13	63.1	45,780	63.1	45,810
1941	930	2,030	May 12, 1941	-	88.1	63,830	92.9	67,300
1942	960	625	May 11, 1942	12	128	92,930	130	94,400
1943	980	b321	(c)	12	66.2	47,970	64.7	46,820
1944	1010	1,190	May 16, 1944	12	115	83,170	115	83,600
1945	1040	342	Aug. 12, 1945	-	56.5	40,890	50.6	36,600
1946	1060	397	Apr. 20, 1946	-	88.6	64,150	94.6	68,520
1947	1080	206	Oct. 1, 1946	11	39.1	28,310	43.7	31,670
1948	1120	401	Apr. 23, 1948	-	120	87,180	112	81,120
1949	1150	352	May 17, 1949	-	66.2	47,890	69.3	50,160
1950	1180	305	Sept.6,7,1950	12	95.6	69,260	-	-

† Corrected.
‡ Not previously published.
b Maximum daily
c July 22 to Aug. 2, 1943.

199. East Fork Sevier River near Junction, Utah 1/

Location.--Lat 38°14', long 112°11', in N½ sec. 3, T. 30 S., R. 3 W., about 1,000 ft upstream from mouth and 1½ miles southeast of Junction.

Gage.--Water-stage recorder. Altitude of gage is 5,970 ft (from river-profile map). Prior to June 22, 1913, staff gage at site three-quarters of a mile upstream at different datum.

Extremes.--Not determined.

Remarks.--Several small diversions above station for irrigation, none below. Flow regulated by Otter Creek Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	122	303	238	-	-
1913	-	-	-	-	-	-	-	-	-	239	204	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	7,260	18,600	14,600	-	-
1913	-	-	-	-	-	-	-	-	-	14,700	12,500	-	-

200. Sevier River near Junction, Utah

Location.--Lat 38°14', long 112°11', in SE¼ sec. 34, T. 29 S., R. 3 W., at Harris ranch, a quarter of a mile downstream from East Fork, and 1½ miles east of Junction.

Drainage area.--2,390 sq mi, approximately.

Gage.--Water-stage recorder. Prior to May 20, 1915, water-stage recorder at sites 300 ft and 500 ft downstream at various datums, except for June 1 to Sept. 2, 1911, and June 20 to Aug. 2, 1914, when staff gages were used.

Extremes.--1911-16: Maximum discharge not determined, occurred May 27, 1914, caused by failure of Hatchtown Dam (mean daily discharge estimated, 5,600 cfs); minimum, 33 cfs June 3-5, 1913.

Remarks.--Numerous diversions for irrigation above station. Some regulation by Otter Creek Reservoir on East Fork, and prior to May 27, 1914, by Hatchtown Reservoir.

1/ Published as "near Kingston", 1912.

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Junction, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	367	467	321	-	-
1912	-	-	-	-	-	-	-	756	393	335	292	314	-
1913	179	125	238	220	181	207	541	160	209	282	369	251	247
1914	117	199	177	193	214	340	400	908	680	557	291	218	359
1915	159	180	191	175	206	233	419	717	421	363	323	315	309
1916	110	203	214	220	278	374	688	681	318	463	468	186	351
1917	421	266	245	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	21,800	28,700	19,700	-	-
1912	-	-	-	-	-	-	-	46,500	23,400	20,600	18,000	18,700	-
1913	11,000	7,440	14,600	13,500	10,100	12,700	32,200	9,840	12,400	17,300	22,700	14,900	179,000
1914	7,190	11,800	10,900	11,900	11,900	20,900	23,800	55,800	40,500	34,200	17,900	13,000	260,000
1915	9,780	10,700	11,700	10,800	11,400	14,300	24,900	44,100	25,100	22,300	19,900	18,700	224,000
1916	6,760	12,100	13,200	13,500	16,000	23,000	40,900	41,900	18,900	28,500	28,800	11,100	255,000
1917	25,900	15,800	15,100	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	-	-	-	-	-	-	-
1913	360	‡1,170	Apr. 1, 1913	33	247	179,000	242	176,000
1914	390	a5,600	May 27, 1914	48	359	260,000	362	262,000
1915	410	1,230	May 16, 1915	93	309	224,000	309	224,000
1916	440	1,600	Aug. 6, 1916	42	351	255,000	385	279,000
1917	440	-	-	-	-	-	-	-

‡ Not previously published. a Maximum daily, estimated.

201. 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 and 9 miles south of Marysvale.

Drainage area.--2,440 sq mi, approximately.

Gage.--Staff gage. Datum of gage is 5,900.8 ft above mean sea level (levels by State engineer).

Extremes.--1914-50: Maximum contents, 82,300 acre-ft (by original capacity table) May 28, 1922 (gage height, 76.4 ft); 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. Figures of contents correspond to gage readings about 4 p.m. daily. New capacity table, based on resurvey of November 1938, put into use Oct. 1, 1938.

Cooperation.--Records prior to Oct. 1, 1920, furnished by State engineer of Utah.

Contents, in thousands of acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1913	-	-	-	-	-	-	-	-	-	-	-	a1.0
1914	-	-	-	-	-	42.85	42.7	59.0	49.0	44.8	30.0	9.9
1915	1.8	0	6.0	17.0	26.8	37.7	34.4	42.0	36.3	23.9	15.0	12.3
1916	5.6	12.5	24.3	35.5	46.2	49.0	47.2	38.4	29.4	27.9	20.1	1.8
1917	13.9	.2	0	5.4	18.6	34.4	52.2	54.2	47.5	30.7	19.0	7.4
1918	.8	8.3	22.8	34.6	45.1	56.6	53.0	38.0	22.5	13.0	.4	0
1919	1.85	7.55	18.0	27.0	36.4	48.3	53.0	33.6	20.0	6.7	1.5	0
1920	.1	8.2	16.6	23.8	35.6	47.1	47.4	64.9	59.1	42.8	25.5	12.1
1921	6.0	20.4	31.2	41.0	50.3	62.2	50.9	44.1	45.9	36.7	34.2	21.7
1922	13.1	19.3	32.6	40.1	51.6	57.6	64.2	80.9	67.9	46.7	38.5	30.8
1923	28.8	38.1	45.5	50.0	58.9	63.6	65.4	65.9	48.9	31.6	19.9	10.0
1924	5.06	13.0	23.0	31.0	44.3	56.2	52.0	24.8	11.2	4.32	2.7	2.3
1925	4.5	12.3	21.5	31.4	42.7	51.7	36.2	16.9	16.6	7.87	.05	6.72
1926	2.7	8.75	18.0	27.8	37.1	40.3	39.5	39.1	20.4	4.41	.1	1.86
1927	0	.95	10.2	20.6	30.4	39.6	29.1	19.4	20.1	6.88	0	9.5
1928	9.0	12.38	19.98	30.09	40.56	53.64	43.56	38.70	22.0	1.8	0	0
1929	2.12	5.8	13.5	18.8	25.6	41.0	45.2	41.5	35.3	18.8	18.0	17.4
1930	11.6	19.3	29.1	36.2	44.5	50.6	44.1	35.3	26.6	8.9	13.7	6.4

a Extrapolated from Oct. 1, 1913.

Contents, in thousands of acre-feet, on last day of month, of Piute Reservoir near Marysvale, Utah --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931	14.0	17.7	27.0	37.3	43.6	49.5	36.9	21.0	10.3	0.52	0.48	0
1932	1.34	5.28	12.7	18.8	27.8	38.8	41.2	51.7	56.4	33.0	15.4	10.4
1933	6.64	7.36	16.0	24.8	29.7	40.6	35.9	32.6	20.8	7.87	2.04	1.8
1934	2.88	6.72	13.04	17.44	21.52	27.75	18.53	5.20	0	0	0	0
1935	0	0	9.70	17.02	22.08	27.38	20.96	26.40	24.60	11.83	4.85	4.88
1936	3.36	6.32	14.92	22.95	31.92	39.29	33.52	19.18	27.60	24.90	17.20	12.93
1937	6.88	9.40	18.28	25.05	33.52	45.36	62.20	79.24	69.16	53.07	33.36	35.92
1938	30.64	35.44	48.89	58.00	63.40	78.14	80.64	81.20	72.92	42.35	15.40	1.40
1939	b.054	10.67	27.73	44.42	50.20	60.54	56.53	36.96	24.99	16.60	10.67	17.68
1940	18.66	18.91	27.00	36.46	44.24	52.33	51.94	42.60	26.28	14.45	2.10	11.78
1941	11.78	17.56	26.28	34.48	43.69	50.00	56.73	72.50	70.52	52.33	40.98	27.58
1942	42.24	54.51	54.71	53.32	55.51	67.13	72.50	73.26	60.32	34.15	23.03	17.92
1943	23.16	35.45	46.82	56.73	65.73	73.51	65.73	49.25	35.95	18.28	14.34	4.64
1944	13:58	22.89	32.57	41.34	50.39	61.20	66.19	73.26	70.03	40.27	27.00	16.14
1945	19.80	28.32	40.09	49.62	59.03	69.05	73.76	62.31	55.31	35.13	31.79	16.25
1946	23.86	32.88	42.42	51.35	60.10	71.50	70.03	59.67	36.29	21.12	10.47	2.02
1947	12.41	24.00	34.64	41.88	50.78	60.98	64.11	70.28	71.01	41.52	27.58	7.55
1948	12.09	25.14	38.51	47.38	57.34	70.28	71.01	56.32	48.12	27.73	17.68	1.64
1949	6.00	17.56	28.02	34.32	40.27	54.71	65.73	65.50	70.52	47.00	22.06	10.09
1950	13.69	25.42	36.29	44.24	55.71	67.13	54.31	47.38	34.96	24.14	12.51	3.20

b Contents by capacity table used beginning Oct. 1, 1938; contents Sept. 30, 1938, by capacity table used since Oct. 1, 1938, was 610 acre-ft.

202. Sevier River below Piute Dam, near Marysvale, Utah

Location.--Lat 38°20', long 112°11', in NE¼ sec. 34, T. 28 S., R. 3 W., three-quarters of a mile downstream from Piute Dam and 8 miles south of Marysvale.

Drainage area.--2,440 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,900 ft. Prior to May 4, 1912, staff gage at site half a mile upstream at different datum. May 4, 1912, to Apr. 7, 1936 (corrected), water-stage recorder at site a quarter of a mile upstream at different datum.

Average discharge.--38 years (1912-50), 247 cfs.

Extremes.--1911-50: Maximum discharge, 2,600 cfs May 23, 24, 1922; practically no flow at times when reservoir gates were closed.

Remarks.--Flow regulated by Piute Reservoir (see preceding station). One small diversion between Piute Reservoir and gage.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	402	460	406	-	-
1912	-	-	-	-	-	-	-	633	506	442	409	376	-
1913	142	27.3	198	221	213	98.5	418	448	299	332	413	376	266
1914	121	107	52.4	26.1	49.9	174	360	612	850	653	527	394	344
1915	334	249	157	30.4	35.6	41.1	495	579	506	615	515	390	330
1916	256	117	50.9	29	51.0	343	705	846	480	544	618	561	384
1917	280	541	312	149	2.0	16.9	204	891	816	683	652	587	429
1918	273	116	16.3	1.32	28.4	83.6	330	581	529	503	478	240	266
1919	185	113	49.4	34.1	38.6	97.1	368	504	445	500	339	150	236
1920	126	73.3	.5	.5	.5	.5	274	406	554	611	730	574	280
1921	362	49.3	57.9	60.2	66.4	77.6	445	473	370	595	654	518	312
1922	377	157	69.7	56.1	28.4	236	508	2,150	1,280	718	616	590	568
1923	411	135	142	165	71.2	158	296	618	573	648	643	509	366
1924	288	136	81.4	14.7	2.1	2.7	309	625	533	518	307	168	250
1925	110	80.2	14.5	2.0	5.5	21.8	430	407	228	416	328	165	185
1926	267	125	46.3	5.2	6.4	129	250	252	445	537	320	158	212
1927	118	128	36.9	9.4	4.0	36.6	334	484	247	407	191	111	177
1928	179	156	27.2	3	4.6	14.4	345	409	512	623	223	81.7	215
1929	79.5	118	54.3	23.0	6.1	17.1	98.4	345	296	561	300	256	181
1930	217	80.3	30.9	26.0	26.0	41.2	264	431	363	507	224	269	208
1931	84.7	83.0	6	7.8	12.0	39.9	298	389	302	250	120	59.3	138
1932	50.3	40.3	4	4	4	4.2	186	338	410	687	568	313	218
1933	199	174	71.6	37.7	74.8	28.6	261	215	377	459	232	92.0	186
1934	84.2	118	124	128	110	40.0	243	327	190	80.0	48.2	44.9	128
1935	43.8	63.3	31.4	38.4	55.2	61.0	190	112	187	462	214	140	134
1936	122	133	47.2	21.0	21.0	35.5	195	368	75.5	154	209	182	131
1937	188	131	31.3	14.9	15.0	15.0	79.6	438	429	416	474	255	209
1938	263	142	29.3	31.1	82.0	45.5	297	491	400	582	523	416	276
1939	243	71.2	19.6	25.2	32.5	71.0	264	450	421	457	302	159	211
1940	174	167	35.1	7.9	16.0	14.3	78.2	327	441	354	323	93.5	170

538662 O - 60 - 15

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River below Piute Dam, near Marysvale, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	158	61.6	7.4	7.3	4.4	5.0	54.5	988	548	505	395	379	262
1942	64	41	218	249	168	114	745	775	459	620	481	364	359
1943	139	49.6	14.9	6.0	17.8	67.9	381	460	328	512	343	333	222
1944	66.9	61.0	12.2	6	6	64.3	188	562	498	607	525	457	255
1945	140	73.6	8.86	6.02	6.01	6.55	69.5	376	243	545	340	399	186
1946	97.8	39.1	10.0	4.0	4.8	5.6	334	295	522	538	356	340	213
1947	53.3	35.8	3.69	4.5	5.0	5.0	94.9	211	141	543	420	489	168
1948	117	26.0	15.1	12.6	12	55.4	488	486	281	641	462	420	252
1949	103	11.7	5.88	5.96	5.60	6.37	171	396	422	540	529	493	225
1950	172	60.7	17.9	4.48	4.39	4.71	340	293	444	463	462	335	218

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	23,900	28,300	25,000	-	-
1912	-	-	-	-	-	-	-	38,900	30,100	27,200	25,100	22,400	-
1913	8,730	1,620	12,200	13,600	11,800	6,060	24,900	27,500	17,800	20,400	25,400	22,400	192,000
1914	7,440	6,370	3,220	1,600	2,770	10,700	21,400	37,600	50,600	40,200	32,400	35,300	249,000
1915	20,500	14,800	9,650	1,870	1,980	2,530	29,500	35,600	30,100	37,800	31,700	23,200	239,000
1916	15,700	6,960	3,130	1,780	2,930	21,100	42,000	52,000	28,600	33,400	38,000	33,400	279,000
1917	17,200	32,200	19,200	9,200	111	1,040	12,100	54,800	48,600	42,000	40,100	34,900	311,000
1918	16,800	6,900	1,000	81	1,580	5,140	19,600	35,700	31,500	30,900	29,400	14,300	193,000
1919	11,400	6,720	3,040	2,100	2,140	5,970	21,900	31,000	26,500	30,700	20,800	8,930	171,000
1920	7,750	4,360	31	31	29	31	16,300	25,000	33,000	37,600	44,900	34,200	203,000
1921	22,300	2,930	3,560	3,700	3,690	4,770	26,500	29,100	22,000	36,600	40,200	30,800	226,000
1922	23,200	9,340	4,290	3,450	1,580	14,500	30,200	132,000	76,200	44,100	37,900	35,100	412,000
1923	25,300	8,030	8,730	10,100	3,950	9,720	17,600	38,000	34,100	39,800	39,500	30,300	265,000
1924	17,700	8,090	5,010	904	121	166	18,400	38,400	31,700	31,900	18,900	10,000	181,000
1925	6,760	4,770	892	123	305	1,340	25,600	25,000	13,600	25,600	20,200	9,820	134,000
1926	16,400	7,440	2,850	320	355	7,930	14,900	15,500	26,500	33,000	19,700	9,400	154,000
1927	7,260	7,620	2,270	578	222	2,250	19,900	29,800	14,700	25,000	11,700	6,600	128,000
1928	11,000	9,280	1,670	184	265	885	20,500	25,100	30,500	38,300	13,700	4,860	156,000
1929	4,890	7,020	3,340	1,410	339	1,050	5,860	21,200	17,600	34,500	18,400	15,200	131,000
1930	13,300	4,780	1,900	1,600	1,440	2,530	15,700	26,500	21,600	31,200	13,800	16,000	150,000
1931	5,210	4,940	369	480	666	2,450	17,700	23,900	18,000	15,400	7,380	3,530	100,000
1932	3,090	2,400	246	246	230	258	11,100	20,800	24,400	42,200	34,900	18,600	158,000
1933	12,200	10,400	4,400	2,320	4,150	1,760	15,500	13,200	22,400	28,200	14,300	5,470	134,000
1934	5,180	7,050	7,620	7,870	6,130	2,460	14,450	20,080	11,330	4,920	2,970	2,670	92,730
1935	2,690	3,770	1,930	2,360	3,070	3,750	11,280	6,860	11,130	28,430	13,150	8,330	96,750
1936	7,490	7,910	2,900	1,290	1,210	2,180	11,600	22,650	4,490	9,500	12,880	10,840	94,940
1937	11,560	7,800	1,920	916	833	922	4,740	26,940	25,530	25,550	29,150	15,160	151,000
1938	16,160	8,440	1,800	1,910	4,550	2,790	17,690	30,180	23,770	35,760	32,180	24,740	200,000
1939	14,970	4,240	1,210	1,550	1,810	4,370	15,730	27,680	25,050	28,100	18,560	9,470	152,700
1940	10,720	9,940	2,160	488	918	877	4,650	20,090	26,250	21,750	19,880	5,570	123,300
1941	9,740	3,660	456	448	244	307	3,240	60,760	32,620	31,040	24,320	22,530	189,400
1942	3,920	2,420	13,400	15,290	9,320	6,990	44,330	47,670	27,330	38,130	29,570	21,640	260,000
1943	8,550	2,950	916	369	988	4,170	22,690	28,280	19,540	31,500	21,120	19,820	160,900
1944	4,120	3,630	753	369	345	3,950	11,170	34,580	29,610	37,310	32,280	27,190	185,300
1945	8,580	4,380	545	370	334	403	4,140	23,150	14,460	33,540	20,910	23,760	134,600
1946	6,010	2,330	615	247	268	347	19,870	18,140	31,080	33,090	21,920	20,210	154,100
1947	3,270	2,130	227	277	278	307	5,650	13,000	8,410	33,380	25,840	29,100	121,900
1948	7,170	1,550	926	778	690	3,410	29,020	29,880	16,690	39,410	28,380	25,020	182,900
1949	6,350	694	361	367	311	392	10,190	24,320	25,100	33,230	32,540	29,340	163,200
1950	10,580	3,610	1,100	276	244	289	20,260	18,030	26,410	28,480	28,380	19,940	157,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	1,110	May20-27,1912	-	-	-	-	-
1913	360	860	Apr.3,4, 1913	4	266	192,000	258	187,000
1914	390	1,380	May 27, 1914	2.6	344	249,000	382	278,000
1915	410	706	Apr.19-24, 1915	30	330	239,000	302	220,000
1916	440	962	May 4,5, 1916	-	384	279,000	442	322,000
1917	460	†1,170	May 28, 1917	-	429	311,000	367	268,000
1918	480	608	Apr 27-30, 1918	-	266	193,000	260	189,000
1919	510	1,050	Apr. 25, 1919	0	236	171,000	223	162,000
1920	510	930	Aug. 21, 1920	-	280	203,000	302	220,000
1921	530	668	Aug. 28, 1921	1	312	226,000	322	234,000
1922	550	2,600	May23,24,1922	7	568	412,000	573	417,000
1923	570	783	July 20, 1923	3	366	265,000	349	254,000
1924	590	‡735	May 6, 1924	-	250	181,000	224	163,000
1925	610	‡582	July 14, 1925	2	185	134,000	203	148,000
1926	630	665	(a)	-	212	154,000	199	145,000
1927	650	‡558	Apr. 25, 1927	-	177	128,000	182	133,000
1928	670	‡780	July 5, 1928	-	215	156,000	206	150,000
1929	690	‡806	July 24, 1929	-	181	131,000	186	136,000
1930	705	‡696	July 6, 1930	1	208	150,000	194	141,000

† Corrected.
‡ Not previously published.
a June 29, July 1, 1926.

Yearly discharge, in cubic feet per second, of Sevier River below Piute Dam, near Marysvale, Utah --Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	655	June 12, 1931	6	138	100,000	131	95,000
1932	735	851	July9-11,1932	4	218	158,000	247	180,000
1933	750	592	July18,19,1933	3	186	134,000	175	127,000
1934	765	360	May20-25,1934	2	128	92,730	112	81,270
1935	790	611	July 3,4,1935	10	134	96,750	147	106,700
1936	810	‡573	July 8, 1936	6	131	94,940	135	97,920
1937	830	‡730	May 12, 1937	14	209	151,000	216	156,100
1938	860	‡852	July 11, 1938	14	276	200,000	268	194,000
1939	880	684	June28,29,30,1939	1	211	152,700	214	155,100
1940	900	691	June 27, 1940	2	170	123,300	157	114,300
1941	930	2,380	May 14, 1941	4	262	189,400	270	195,200
1942	960	1,120	(b)	20	359	260,000	349	252,700
1943	980	702	July 4, 1943	6	222	160,900	217	157,000
1944	1010	1,260	May 18, 1944	-	255	185,300	262	190,300
1945	1040	729	May 20, 1945	6	186	134,600	180	130,000
1946	1060	773	June 30, 1946	4	213	154,100	208	150,800
1947	1090	769	Aug. 21, 1947	-	168	121,900	174	125,900
1948	1120	797	July 6, 1948	6.9	252	182,900	249	180,700
1949	1150	†1,100	June 13, 1949	-	225	163,200	236	171,100
1950	1180	663	July 29, 1950	4.1	218	157,600	-	-

† Corrected.
‡ Not previously published.
b Apr. 24, May 14, 1942.

203. Sevier River near Marysvale, Utah

Location (revised).--Lat 38°22'15", long 112°12'00", in $SE\frac{1}{4}SE\frac{1}{4}$ sec. 16, T. 28 S., R. 3 W., at Peter Pitts' ranch about three-quarters of a mile downstream from Tenmile Creek, $3\frac{1}{2}$ miles downstream from Piute Dam, and about 6 miles south of Marysvale.

Drainage area.--2,560 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,850 ft (from topographic map).

Extremes.--1906-11: Maximum daily discharge, 3,000 cfs Sept. 3, 1909; minimum not determined.

Remarks.--Many diversions for irrigation above station and one above for irrigation below. Flow regulated by Piute (after summer of 1910), Otter Creek, and Hatchtown Reservoirs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	187	362	1,470	895	-	287	-	-
1907	-	-	-	-	-	-	-	-	-	-	413	296	-
1908	307	271	293	284	289	291	534	406	258	315	412	363	335
1909	224	212	178	181	170	462	542	1,010	504	358	449	817	426
1910	356	338	295	150	185	688	595	629	352	350	325	351	386
1911	258	233	†204	162	278	466	452	647	405	426	384	377	358
1912	457	307	243	-	-	-	-	-	-	-	-	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	11,500	21,500	90,400	53,300	-	17,600	-	-
1907	-	-	-	-	-	-	-	-	-	-	25,400	17,600	-
1908	18,900	16,100	18,000	17,500	16,600	17,900	31,800	25,000	15,400	19,400	25,300	21,600	244,000
1909	13,800	12,600	10,900	11,100	9,440	28,400	32,300	62,100	30,000	22,000	27,600	48,600	309,000
1910	21,900	20,100	18,100	9,220	10,300	42,300	35,400	38,700	20,900	21,500	20,000	20,900	279,000
1911	15,900	13,900	12,500	9,960	15,400	28,700	26,900	39,800	24,100	26,200	23,600	22,400	259,000
1912	28,100	18,300	14,900	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	212,250	-	-	-	-	-	-	-
1907	250	-	-	-	-	-	-	-
1908	250	906	Apr. 23, 1908	140	335	244,000	314	228,000
1909	270	a3,000	Sept. 3, 1909	-	426	309,000	457	332,000
1910	290	980	Mar. 22, 1910	-	386	279,000	361	262,000
1911	310	900	May 12, 1911	50	358	259,000	385	278,000

a Maximum daily

204. Sevier River at Marysvale, Utah

Location.--Lat 38°26'55", long 112°13'10", in SW¼ sec. 20, T. 27 S., R. 3 W., 150 ft upstream from Pine Creek and 300 ft east of D. & R. G. W. Railroad depot at Marysvale.

Drainage area.--2,580 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,810 ft (from topographic map).

Extremes.--1912-14: Maximum discharge observed, 1,360 cfs May 27, 1914; minimum not determined.

Remarks.--Flow regulated by Piute Reservoir about 9½ miles upstream. A few small diversions between station and Piute Dam. Records for irrigation season only.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July	Aug.	Sept.
1912	-	-	566	470	407	-
1913	-	479	313	348	434	374
1914	-	-	947	706	-	-

Monthly runoff, in acre-feet

Year	Apr.	May	June	July	Aug.	Sept.
1912	-	-	33,700	28,900	25,000	-
1913	-	29,500	18,600	21,400	26,700	22,300
1914	-	-	56,400	43,400	-	-

205. Pine Creek near Marysvale, Utah 1/

Location.--Lat 38°25', long 112°17', in NW¼ sec. 35, T. 27 S., R. 4 W., 300 ft upstream from diversion to Taylor Canal, half a mile upstream from Cuff's ranch, and 3 miles southwest of Marysvale.

Gage.--Staff gage. Altitude of gage is about 6,670 ft (from topographic map).

Extremes.--1918-19: Maximum discharge observed, 170 cfs (revised) May 27, 1919 (gage height, 1 70 ft), from rating curve extended above 63 cfs by logarithmic plotting; minimum, 3 cfs Aug. 15, 16, 20, 21, 25, 1919.

Remarks.--No diversion above station. Records for irrigation season only.

Monthly mean discharge, in cubic feet per second

Year	May	June	July	Aug.	Sept.
1918	-	64.3	14.5	6.65	6.25
1919	-	25.3	6.61	3.61	4.13

Monthly runoff, in acre-feet

Year	May	June	July	Aug.	Sept.
1918	-	3,830	892	409	372
1919	-	1,510	406	222	246

Seasonal discharge, in cubic feet per second

Year	W.S.P. no.	The season					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	92	June 13, 1918	-	-	-	-	-
1919	510	*170	May 27, 1919	-	-	-	-	-

* Revised.

Note.--Maximum discharges observed for the season are also maximums observed for the water year.

206. Pine Creek at Marysvale, Utah 2/

Location.--Lat 38°27', long 112°14', in sec. 20, T. 27 S., R. 3 W., 300 ft upstream from bridge at Marysvale and about half a mile upstream from mouth.

Drainage area.--About 29 sq mi at site used prior to 1918.

Gage.--Staff gage. Altitude of gage is 5,870 ft (from topographic map). Prior to May 16, 1918, at site about a quarter of a mile downstream at different datum.

Extremes.--1914, 1918-19: Maximum discharge observed, 143 cfs May 28, 1919 (gage height, 2.1 ft); no flow part of each year.

Remarks.--Station below all diversions from Pine Creek; records show flow entering Sevier River during irrigation season.

1/ Published as Bullion Creek (upper station), 1918, and as Pine Creek (upper station), 1919.
2/ Published as Bullion Creek, 1918.

Monthly mean discharge, in cubic feet per second, of Pine Creek at Marysvale, Utah

Year	May	June	July	Aug.	Sept.
1914	-	28.1	14.7	-	-
1918	-	20.2	.64	0	0
1919	-	.9	0	0	0

Monthly runoff, in acre-feet

Year	May	June	July	Aug.	Sept.
1914	-	1,670	904	-	-
1918	-	1,200	39	0	0
1919	-	52	0	0	0

Seasonal discharge, in cubic feet per second

Year	W.S.P. no.	The season					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	-	-	-	-	-	-	-
1918	480	46	June 15, 1918	0	-	-	-	-
1919	510	143	May 28, 1919	0	-	-	-	-

207. Sevier River above Clear Creek, near Sevier, Utah 1/

Location.--Lat 38°34'20", long 112°15'25", in NW¼NE¼ sec. 5, T. 26 S., R. 4 W., 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.

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 Nov. 16, 1916, water-stage recorder at site 0.8 mile downstream at different datums (datum lowered 1 ft Mar. 31, 1913).

Average discharge.--15 years (1912-16, 1939-50), 293 cfs.

Extremes.--1911-16, 1939-50: Maximum discharge, 2,270 cfs May 16, 1941 (gage height, 4.83 ft); minimum, 6.2 cfs Feb. 13, 1950.

Remarks.--Many diversions for irrigation above station. Flow regulated by Piute and Otter Creek Reservoirs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	557	500	412	391	-
1912	494	315	223	-	-	-	-	640	643	469	414	386	-
1913	169	48.8	213	259	258	137	440	513	389	364	428	392	301
1914	151	128	77.2	65.3	84.9	225	428	738	1,080	739	562	597	408
1915	357	268	192	60	52.6	59.3	472	623	601	648	549	415	360
1916	277	146	77.5	59.9	73.7	326	713	943	615	587	635	568	419
1917	311	-	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	498	455	483	320	188	-
1940	195	192	56.9	36.0	37.9	34.1	96.8	428	500	387	347	116	203
1941	173	87.5	24.2	25.3	25.4	24.5	62.0	1,020	734	554	408	411	298
1942	104		242	265	179	145	747	844	606	655	502	391	397
1943	171	72.4	44.5	34.7	41.9	83.2	374	497	384	546	352	362	248
1944	111	75.7	41.0	29.9	30.9	86.4	218	648	686	657	538	474	301
1945	171	85.9	35.1	31.9	32.1	30.9	92.9	443	371	602	393	444	230
1946	130	68.8	34.5	28.7	30.3	30.0	335	361	553	570	377	359	241
1947	86.6	63.8	31.8	25.0	24.8	26.2	108	315	270	590	453	521	211
1948	163	55.1	54.5	41.5	36.4	68.4	488	564	387	676	481	452	289
1949	147	37.5	29.3	29	28.4	31.4	182	440	580	575	559	484	262
1950	194	79.1	36.4	33.4	30.8	27.4	319	289	429	454	444	342	223

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	33,100	30,700	25,300	23,300	-
1912	30,400	18,700	13,700	-	-	-	-	39,400	38,300	28,800	25,500	23,000	-
1913	10,400	2,900	13,100	15,900	14,300	8,420	26,200	31,500	23,100	22,400	26,300	23,300	218,000
1914	9,280	7,620	4,750	4,020	4,720	13,800	25,500	45,400	64,300	45,400	34,600	35,500	295,000
1915	22,000	15,900	11,800	3,690	2,920	3,650	28,100	38,300	35,800	39,800	33,800	24,700	260,000
1916	17,000	8,690	4,770	3,680	4,240	20,000	42,400	58,000	36,600	36,100	39,000	33,800	304,000
1917	19,100	-	-	-	-	-	-	-	-	-	-	-	-

1/ Records published as Sevier River at Sevier, 1911 to Nov. 15, 1916, do not include flow of Clear Creek and are included herewith; records herewith are not equivalent to those published as Sevier River at Sevier, Nov. 16, 1916 to 1929, which include flow of Clear Creek (see p.).

Monthly and yearly runoff, in acre-feet, of Sevier River above Clear Creek, near Sevier, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	3,500	-	-	-	-	30,640	27,080	29,680	19,650	11,160	-
1940	11,980	11,440	1,490	2,210	2,180	2,100	5,760	26,340	29,740	23,770	21,320	6,900	147,200
1941	10,620	5,200	14,890	1,560	1,410	1,510	3,690	62,740	43,670	34,080	25,080	24,460	215,500
1942	6,370	4,310	2,740	16,310	9,970	8,900	44,470	51,900	36,090	40,260	30,850	23,250	287,600
1943	10,490	4,510	2,520	2,140	2,330	5,120	22,270	30,550	22,880	33,550	21,630	21,520	179,700
1944	6,830	5,110	2,160	1,840	1,780	5,310	13,000	39,840	40,810	40,420	33,060	28,210	218,700
1945	10,520	6,060	2,120	1,960	1,780	1,900	5,530	27,220	22,070	37,010	24,190	26,450	166,800
1946	7,970	4,090	1,960	1,760	1,680	1,850	19,920	22,200	32,910	35,050	23,190	21,390	174,100
1947	5,330	3,800	3,350	1,540	1,380	1,610	6,420	19,400	16,040	36,290	27,830	31,010	152,600
1948	10,030	3,280	1,800	2,550	2,090	4,200	29,030	34,710	23,050	41,560	29,600	26,870	210,300
1949	9,060	2,230	2,240	1,780	1,570	1,930	10,850	27,060	34,500	35,380	34,400	28,830	189,400
1950	11,950	4,710		2,050	1,710	1,680	18,980	17,780	25,540	27,910	27,310	20,360	162,200

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	-	-	-	-	-	-	-
1913	360	-	-	27	301	218,000	295	213,000
1914	390	1,570	June 3, 1914	15	408	295,000	445	322,900
1915	410	696	May 19, 1915	48	360	260,000	333	241,000
1916	440	1,120	May 9,10, 1916	-	419	304,000	-	-
1917	460	-	-	-	-	-	-	-
1939	880	664	June 16, 1939	-	-	-	-	-
1940	900	a720	June 28,29, 1940	26	203	147,200	190	137,600
1941	930	2,270	May 16, 1941	18	298	215,500	309	223,800
1942	960	1,160	Apr. 25, 1942	46	397	287,600	386	279,700
1943	980	718	July 5, 1943	-	248	179,700	244	176,400
1944	1010	1,170	May 19, 1944	28	301	218,700	307	223,000
1945	1040	732	(b)	26	230	166,800	224	162,300
1946	1060	792	July 1, 1946	-	241	174,100	236	171,000
1947	1090	768	Aug. 22, 1947	-	211	152,600	218	158,200
1948	1120	829	July 9, 1948	32	289	210,300	285	206,800
1949	1150	1,210	June 14, 1949	-	262	189,400	270	195,200
1950	1180	632	July 18, 1950	-	223	162,200	-	-

a Mean daily.
b May 20, July 20, 1945.

208. Clear Creek at Sevier, Utah

Location.--Lat 38°34'55", long 112°15'30", in SW¼NE¼ sec. 32, T. 25 S., R. 4 W., 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.

Gage.--Water-stage recorder. Altitude of gage is 5,530 ft (from topographic map). Feb. 23, 1912, to Apr. 3, 1914, staff gage, and Apr. 4, 1914, to Sept. 30, 1919, Apr. 1, 1934, to Sept. 30, 1940, water-stage recorder, at site 700 ft downstream at different datum. Oct. 1, 1940, to Sept. 24, 1946, at site 400 ft downstream at different datum.

Average discharge.--19 years (1912-19, 1937-39, 1940-50), 31.9 cfs.

Extremes.--1912-19, 1934-50: Maximum discharge, 487 cfs Aug. 7, 1941 (gage height, 4.05 ft, datum then in use); no flow Aug. 26, 1913.

Remarks.--Practically entire flow is diverted above station each year during latter part of irrigation season.

Cooperation.--Records for April 1934 to September 1940, not previously published by Geological Survey, furnished by Sevier River water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	15.6	35.5	130	127	26.6	8.2	7.5	-
1913	13.3	14.6	13.3	17.6	19.8	25.9	62.1	91.2	53.2	15.1	7.39	16.6	29.2
1914	7.31	8.25	11.2	18.4	21.1	29.8	63.8	157	122	31.8	6.23	3.01	40.0
1915	6.45	3.67	10.3	14.8	16.1	16.8	23.2	64.4	78.5	20.5	3.45	5.90	22.0
1916	5.64	11.5	13.3	15.7	22.2	48.6	73.6	89.4	77.7	30.8	15.5	3.45	33.9
1917	18.8	15.0	15.1	15.2	17.1	19.4	41.8	73.7	126	24.1	6.8	3.3	31.3
1918	‡5	‡8	‡12	‡15	‡15	‡19	‡24.5	33.0	42.7	8.51	3.36	3.41	‡15.8
1919	‡7	‡11	‡14	‡15	‡13	‡18	‡60.0	74.2	23.2	8.0	3.4	2.3	‡20.8
1934	-	-	-	-	-	-	21.8	10.7	6	4	3	2	-
1935	-	-	-	-	-	-	33.9	79.0	127	20.2	9.7	4.2	-

‡ Not previously published; estimated on basis of records for nearby streams.

Monthly and yearly mean discharge, in cubic feet per second, of Clear Creek at Sevier, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	4.1	8.0	-	-	-	-	50.6	67.6	64.0	28.4	20.8	5.0	-
1937	2.0	3.7	-	-	-	-	55.6	163	86.3	31.2	8.8	4.4	-
1938	4.7	4.5	12.1	11.7	14.0	21.8	90.3	163	145	24.0	4.7	4.2	41.6
1939	5.4	11.0	10.9	11.3	11.0	28.2	43.0	55.5	26.1	6.0	4.3	13.8	18.8
1940	-	-	-	12.3	15.3	27.4	87.3	113	32.5	8.8	4.5	2.4	-
1941	2.7	6.6	11.3	11.0	12.3	16.0	27.6	188	135	38.2	15.4	5.3	39.4
1942	14.3	17.8	18.0	16.2	14.9	26.0	122	140	127	26.4	4.5	3.2	44.1
1943	4.6	7.9	11.4	10.8	14.2	23.5	39.6	48.0	43.9	8.9	7.6	1.9	18.5
1944	3.79	8.82	12.0	9.61	14.7	19.5	56.3	179	158	47.6	4.84	2.49	43.0
1945	3.15	6.25	12.8	12.9	16.2	19.8	91.9	204	125	48.2	25.1	10	48.1
1946	15.7	17.6	18.1	15.5	16.8	29.2	76.9	76.8	36.9	9.86	7.19	2.42	26.9
1947	11.5	21.5	17.3	14.6	17.2	37.6	59.1	166	114	38.3	12.3	4.18	43.0
1948	7.73	14.0	15.5	14.9	18.2	20.1	131	150	100	17.7	4.39	2.25	41.2
1949	4.69	9.71	14.3	16.8	17.2	22.9	60.5	87.2	108	42.2	3.78	2.89	32.5
1950	5.97	4.77	11.0	14.1	14.5	17.5	25.7	43.6	49.5	9.28	2.09	1.38	16.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	959	2,110	7,990	7,560	1,640	504	446	-
1913	818	869	818	1,080	1,100	1,590	3,700	5,610	3,170	928	454	988	21,100
1914	449	491	689	1,130	1,170	1,830	3,800	9,650	7,260	1,960	383	179	29,000
1915	397	218	633	910	894	1,030	1,380	3,960	4,670	1,260	212	351	15,900
1916	347	684	818	965	1,280	2,990	4,380	5,500	4,620	1,890	953	205	24,600
1917	1,160	890	†926	†936	950	1,190	2,490	4,530	7,500	1,480	420	†196	22,700
1918	‡307	‡476	‡738	‡922	‡833	‡1,170	‡1,460	2,030	2,540	523	207	203	‡11,410
1919	‡430	‡655	‡861	‡922	‡722	‡1,110	‡3,570	4,560	1,380	492	209	137	‡15,050
1934	-	-	-	-	-	-	1,300	659	357	246	184	119	-
1935	-	-	-	-	-	-	2,020	4,870	7,590	1,240	597	248	-
1936	252	476	-	-	-	-	3,010	4,160	3,780	1,750	1,280	298	-
1937	62	218	-	-	-	-	3,310	10,020	5,140	1,920	540	261	-
1938	287	272	746	715	770	1,320	5,380	10,060	8,600	1,480	281	248	30,160
1939	330	652	670	696	610	1,730	2,560	3,400	1,550	360	261	818	13,640
1940	-	-	-	745	878	1,680	5,190	6,950	1,930	273	190	143	-
1941	167	393	694	678	682	986	1,640	11,590	8,050	2,350	948	315	28,490
1942	877	1,060	1,110	994	825	1,600	7,240	8,590	7,570	1,620	275	192	31,960
1943	284	468	702	664	787	1,440	2,360	2,950	2,610	549	470	111	13,400
1944	233	525	740	591	843	1,200	3,350	10,980	9,410	2,930	298	148	31,250
1945	194	372	785	791	902	1,220	5,470	12,520	7,460	2,970	1,540	595	34,820
1946	968	1,050	1,110	956	932	1,800	4,580	4,720	2,190	606	442	144	19,500
1947	706	1,280	1,070	898	954	2,310	3,520	10,210	6,800	2,360	756	249	31,110
1948	475	831	950	914	1,050	1,230	7,800	9,240	5,960	1,090	270	134	29,940
1949	288	578	881	1,030	958	1,410	3,600	5,360	6,440	2,600	232	172	23,550
1950	367	284	674	868	804	1,080	1,530	2,680	2,950	570	128	81.9	12,020

† Corrected.
‡ Not previously published; estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a226	May 30, 1912	-	-	-	-	-
1913	360	a158	May 27,28, 1913	0	29.2	21,100	28.0	20,200
1914	390	240	May 24, 1914	1.0	40.0	29,000	39.5	28,600
1915	410	138	June 2, 1915	2	22.0	15,900	22.8	16,500
1916	440	153	May 9, 1916	2.5	33.9	24,600	35.5	25,800
1917	460	181	June 11, 1917	2	31.3	22,700	‡29.3	‡21,210
1918	480	110	June 15, 1918	-	‡15.8	‡11,410	‡16.3	‡11,830
1919	510	98	May 28, 1919	-	‡20.8	‡15,050	-	-
1934	(b)	-	-	-	-	-	-	-
1935	(b)	c208	June 10,11,1935	-	-	-	-	-
1936	(b)	c170	June 10, 1936	-	-	-	-	-
1937	(b)	c263	May 19, 1937	-	-	-	-	-
1938	(b)	c314	May 27, 1938	2	41.6	30,160	42.1	30,490
1939	(b)	c82	Mar. 25, 1939	3	18.8	13,640	-	-
1940	(b)	c179	Apr. 24, 1940	-	-	-	-	-
1941	930	487	Aug. 7, 1941	2	39.4	28,490	41.8	30,290
1942	960	275	May 27, 1942	3	44.1	31,960	41.9	30,360
1943	980	180	Aug. 10, 1943	1	18.5	13,400	18.6	13,440
1944	1010	281	May 10, 1944	2	43.0	31,250	42.8	31,100
1945	1040	329	May 4, 8,1945	2.7	48.1	34,820	50.6	36,600
1946	1060	135	Apr. 28, 1946	1.1	26.9	19,500	26.8	19,430
1947	1090	237	May 12, 1947	2.4	43.0	31,110	41.9	30,310
1948	1120	400	Apr. 18, 1948	1.6	41.2	29,940	40.5	29,440
1949	1150	167	June 12, 1949	2.0	32.5	23,550	31.9	23,130
1950	1180	100	June 2, 1950	1.1	16.6	12,020	-	-

‡ Not previously published.
a Maximum observed.
b From reports of Sevier River water commissioner.
c Maximum daily.

209. Sevier River at Sevier, Utah 1/

Location.--Lat 38°34'50", long 112°15'15", in E½ sec. 32, T. 25 S., R. 4 W., at Sevier, just downstream from Clear Creek, and 300 ft upstream from railroad bridge.

Drainage area.--2,850 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,520 ft (from topographic map).

Extremes.--1916-29: Maximum discharge, about 2,800 cfs last week in May 1922; minimum, 10 cfs Nov. 27, 1919.

Remarks.--Flow regulated by Piute and Otter Creek Reservoirs. Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	340	222	52.1	64.8	226	905	995	717	670	601	-
1918	314	130	47.1	48.2	62.1	123	352	616	662	546	482	260	305
1919	230	155	82.5	61.6	65	129	436	663	492	510	350	170	280
1920	141	91.6	30.5	30.3	31.3	31.6	300	676	824	688	776	595	352
1921	391	99.6	98.2	99.6	110	120	519	726	769	715	643	542	405
1922	416	197	122	103	77.2	281	612	2,380	1,610	865	750	665	677
1923	472	172	186	220	115	202	435	1,070	844	803	704	559	484
1924	360	181	125	57.7	38.2	40.6	341	744	611	530	332	184	296
1925	126	105	39.0	31.8	39.1	55.0	472	551	368	478	373	201	237
1926	303	148	82.2	38.9	41.6	162	325	438	572	605	340	184	272
1927	143	155	64.1	42.3	47.4	67.4	359	609	397	455	220	124	225
1928	193	188	73.1	44.8	38.9	71.6	361	582	582	575	259	105	257
1929	101	149	88.2	45	50	89.6	235	631	498	600	324	287	260

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	20,900	13,600	2,890	3,980	13,400	55,600	59,200	44,100	41,200	35,800	-
1918	19,300	7,740	2,900	2,960	3,450	7,560	20,900	37,900	39,400	33,600	29,600	15,500	221,000
1919	14,100	9,220	5,070	3,790	3,610	7,930	25,900	40,800	29,300	31,400	21,500	10,100	203,000
1920	8,670	5,450	1,880	1,860	1,800	1,940	17,900	41,600	49,000	42,300	47,700	35,400	256,000
1921	24,000	5,930	6,040	6,120	6,110	7,380	30,900	44,600	45,800	44,000	39,800	32,300	293,000
1922	25,600	11,700	7,500	6,330	4,290	17,300	36,400	146,000	95,800	53,200	46,100	39,600	490,000
1923	29,000	10,200	11,400	13,500	6,390	12,400	25,900	65,800	50,200	49,400	43,300	33,300	351,000
1924	22,100	10,800	7,690	3,550	2,200	2,500	20,300	45,700	36,400	32,600	20,400	10,900	215,000
1925	7,750	6,250	2,400	1,960	2,170	3,380	28,100	33,900	21,900	29,400	22,900	12,000	172,000
1926	18,600	8,810	5,050	2,390	2,310	9,960	19,300	26,900	34,000	37,200	20,900	10,900	196,000
1927	8,790	9,220	3,940	2,600	2,630	4,140	21,400	37,400	23,600	28,000	13,500	7,380	163,000
1928	11,900	11,200	4,490	2,750	2,240	4,400	21,500	35,800	34,600	35,400	15,900	6,250	186,000
1929	6,210	8,870	5,420	2,770	2,780	5,510	14,000	38,800	29,600	36,900	19,900	17,100	188,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1917	460	1,220	(a)	-	-	-	414	300,000
1918	480	870	June 15, 1918	25	305	221,000	303	219,000
1919	510	1,010	Apr. 27, 1919	-	280	203,000	263	190,000
1920	510	1,200	June 6, 1920	17	352	256,000	380	276,000
1921	530	991	June 9, 1921	-	405	293,000	417	302,000
1922	550	2,800	(b)	-	677	490,000	685	496,000
1923	570	1,300	May 5, 1923	70	484	351,000	470	341,000
1924	590	835	May 20, 1924	30	296	215,000	263	191,000
1925	610	1,340	July 20, 1925	-	237	172,000	260	188,000
1926	630	742	July 6, 1926	-	272	196,000	257	186,000
1927	650	c754	May 18, 1927	-	225	163,000	232	168,000
1928	670	c752	May 9, 1928	-	257	186,000	247	179,000
1929	690	c807	May 25, 1929	-	260	188,000	-	-

a May 31, June 1, 1917. b Last week in May 1922. c Mean daily.

210. Sevier River near Richfield, Utah

Location.--Lat 38°45'40", long 112°02'40", in NW¼ sec. 32, T. 23 S., R. 2 W., about 150 ft downstream from Vermilion Canal diversion dam and 2 miles east of Richfield.

Gage.--Water-stage recorder. Altitude of gage is 5,240 ft (from topographic map). Prior to May 12, 1917, at datum 3.00 ft lower.

Extremes.--1916-18: Maximum and minimum discharge not determined.

Remarks.--Many diversions for irrigation above station. Flow regulated by Piute and Otter Creek Reservoirs.

1/ Records published under this name, 1911 to Nov. 15, 1916, do not include flow of Clear Creek and are given in this compilation with records for Sevier River above Clear Creek, near Sevier (see p. 223).

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Richfield, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	-	-	-	-	-	-	-	-	-	42.6	25.1	-
1917	-	-	-	-	-	-	-	408	319	18.0	63.4	44.9	-
1918	95.5	47.6	-	-	-	-	-	8.21	23.5	18.5	4.32	5.04	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	-	-	-	-	-	-	-	-	-	2,620	1,490	-
1917	-	-	-	-	-	-	-	25,100	19,000	1,110	3,900	2,670	-
1918	5,870	2,830	-	-	-	-	-	505	1,400	1,140	266	300	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	440	-	-	-	-	-	-	-
1917	460	‡646	June 3, 1917	-	-	-	-	-
1918	480	‡a280	Apr. 5, 1918	-	-	-	-	-

‡ Not previously published.
a Maximum for period October, November 1917 and April to September 1918.

211. Sevier River near Sigurd, Utah 1/

Location.--Lat 38°52', long 111°57', in SW¼ sec. 19, T. 22 S., R. 1 W., 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.

Gage.--Water-stage recorder. Altitude of gage is 5,180 ft (by barometer). Prior 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 same site at different datums.

Average discharge.--36 years (1914-50), 111 cfs.

Extremes.--1914-50: Maximum discharge, 2,400 cfs May 30, 1922 (gage height, 8.1 ft, datum then in use), 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.--Flow regulated by reservoirs above station. Extreme low flow during irrigation season represents seepage and return flow from canals.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	60.8	-	-
1914	-	-	-	-	-	-	-	-	-	-	100	222	-
1915	256	287	332	199	233	155	58.8	125	33.6	3.2	5.3	32.5	143
1916	101	154	139	140	144	394	400	312	26.4	10.8	98.7	79.1	167
1917	304	700	488	353	191	162	142	473	293	25.8	104	97.6	278
1918	180	163	179	153	160	161	170	11.3	85.1	27.3	7.18	17.9	109
1919	114	148	200	153	180	199	193	36.6	4.8	7.7	20.2	14.3	105
1920	43.0	83.1	135	145	125	67.9	46.6	98.6	84.8	133	192	90.3	104
1921	226	197	168	171	154	173	132	103	56.5	24.0	94.9	109	134
1922	185	244	234	161	185	322	473	1,470	1,300	197	160	132	450
1923	174	284	308	366	196	279	206	186	142	66.8	113	112	203
1924	141	198	218	119	172	122	59.2	23.4	41.1	6.7	3.5	20.6	93.4
1925	79.0	141	136	113	148	110	34.4	2.9	35.0	66.6	19.1	26.4	75.7
1926	56.1	108	111	98.0	76.7	66.0	28.7	22.2	38.8	66.1	60.6	42.4	64.5
1927	50.0	51.8	92.2	*112	*111	*93.5	43.4	25.1	41.0	9.0	34.5	33.8	*57.9
1928	31.2	71.7	*83.4	*115	*96.4	84.1	67.2	*111	*93.6	*39.3	*48.0	42.4	*73.5
1929	17.3	49.8	88.2	103	108	104	106	50.4	42.7	68.0	70.9	38.9	70.3
1930	45.1	77.2	107	123	172	105	46.1	42.0	14.7	21.4	103	29.5	73.3
1931	43.5	82.0	94.5	106	125	61.6	61.5	62.1	29.0	9.4	14.4	60.3	62.0
1932	†25.5	43.1	42.8	64.9	96.9	44.5	86.8	102	134	149	121	126	86.2
1933	39.1	84.6	114	121	140	98.5	150	172	72.3	52.0	27.5	2.1	89.0
1934	25.4	67.6	97.5	137	106	53.5	60.6	70.1	16.5	18.6	1	1	54.3
1935	15.5	36.1	55.5	53.1	57.9	42.7	162	57.3	20.4	33.2	2.8	4.4	44.9

* Revised.
† Corrected.

1/ Published as "near Vermilion" prior to 1939.

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Sigurd, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	20.9	43.8	50.2	79.7	73.2	59.1	83.5	119	60.6	1.4	4.0	1	49.8
1937	25.0	66.3	103	84.7	144	67.5	102	147	155	14.9	34.4	9.2	78.9
1938	85.1	102	100	136	179	161	167	265	111	40.8	75.8	211	136
1939	178	169	148	148	147	192	69.8	4.9	8.4	2.8	6.8	28.6	91.8
1940	105	110	80.7	98.2	102	75.8	22.0	4.7	2.0	1.8	2.0	13.1	51.3
1941	62.6	75.1	83.9	91.5	87.4	55.2	22.7	416	364	25.2	59.8	46.4	116
1942	146	169	310	370	266	252	583	320	120	36.8	60.9	49.1	220
1943	143	132	130	133	128	125	49.0	21.4	50.2	4.2	24.1	10.1	78.9
1944	91.2	101	105	111	128	181	242	272	364	18.2	8.92	7.38	135
1945	119	125	126	121	123	133	151	34.6	36.5	4.75	13.5	39.2	85.1
1946	121	116	133	130	139	141	76.3	36.0	18.9	2.4	1.9	2.7	76.2
1947	82.7	113	122	112	129	116	32.6	14.8	*63.3	3.87	3.23	25.3	*67.9
1948	93.7	133	117	102	120	147	46.6	77.6	25.7	3.17	8.52	28.0	110
1949	91.4	113	119	118	145	123	69.8	11.1	154	12.7	20.8	66.9	86.5
1950	131	128	126	160	152	88.7	22.2	33.2	2.56	2.46	3.66	13.7	71.5

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	3,740	-	-
1914	-	-	-	-	-	-	-	-	-	-	6,150	13,200	-
1915	15,700	17,100	20,400	12,200	12,900	9,530	3,500	7,690	2,000	197	326	1,930	103,000
1916	6,210	9,160	8,550	8,610	8,280	24,200	23,800	19,200	1,570	664	6,070	4,710	121,000
1917	18,700	41,700	30,000	21,700	10,600	9,960	8,450	29,100	17,400	1,590	6,400	5,810	201,000
1918	11,100	9,700	11,000	9,410	8,890	9,900	10,100	695	5,060	1,680	442	1,070	79,000
1919	7,010	8,810	12,300	9,410	10,000	12,200	11,500	2,250	284	474	1,240	850	76,300
1920	2,640	4,940	8,300	8,920	7,190	4,180	2,770	6,060	5,050	8,180	11,800	5,370	75,400
1921	13,900	11,700	10,300	10,500	8,550	10,600	7,860	6,330	3,360	1,480	5,840	6,490	96,900
1922	11,400	14,500	14,400	9,900	10,300	19,800	28,100	90,400	77,400	12,100	9,840	7,860	306,000
1923	10,700	16,900	18,900	22,500	10,900	17,200	12,300	11,400	8,450	4,110	6,950	6,660	147,000
1924	8,670	11,800	13,400	7,320	9,890	7,500	3,520	1,440	2,450	512	215	1,230	67,800
1925	4,860	8,390	8,360	6,950	8,220	6,760	2,050	178	2,080	4,100	1,170	1,570	54,700
1926	3,450	6,430	6,820	6,030	4,260	4,060	1,710	1,360	2,310	4,060	3,730	2,520	46,700
1927	3,070	3,080	5,670	*6,890	*6,180	*5,750	2,580	1,540	2,440	553	2,120	2,010	*41,900
1928	1,920	4,270	*5,130	*7,070	*5,540	5,170	4,000	*6,830	*5,570	*2,420	*2,950	2,520	*53,400
1929	1,060	2,960	5,420	6,330	6,000	6,400	6,310	3,100	2,540	4,180	4,360	2,310	51,000
1930	2,770	4,590	6,580	7,560	9,550	6,460	2,740	2,580	875	1,320	6,330	1,760	53,100
1931	2,670	4,880	5,810	6,520	6,940	3,790	3,660	3,820	1,730	578	885	3,590	44,900
1932	1,560	2,560	2,630	3,990	5,570	2,740	5,160	6,270	7,970	†9,180	7,440	7,500	62,600
1933	2,400	5,030	7,010	7,440	7,780	6,060	8,930	10,600	4,300	3,200	1,690	125	64,600
1934	1,560	4,020	6,000	8,410	5,890	3,290	3,600	4,310	984	1,140	61	60	39,320
1935	956	2,150	3,410	3,260	3,210	2,630	9,660	3,520	1,210	2,040	171	262	32,480
1936	1,290	2,610	3,090	4,900	4,210	3,630	5,090	7,310	3,610	87	248	61	36,120
1937	1,540	3,940	6,320	5,210	7,990	4,150	6,090	9,070	9,230	916	2,110	547	57,110
1938	5,230	6,070	6,170	8,340	9,940	9,890	9,940	16,290	6,620	2,510	4,660	12,570	98,230
1939	10,970	10,040	9,080	9,110	8,160	11,830	4,160	301	502	173	417	1,700	66,440
1940	6,480	6,530	4,960	6,040	5,860	4,660	1,310	288	119	109	123	780	37,260
1941	3,850	4,470	5,160	5,630	4,850	3,390	1,350	25,590	21,680	1,550	3,680	2,760	83,960
1942	8,950	10,030	19,080	22,720	14,800	15,510	32,300	19,670	7,180	2,260	3,740	2,920	159,200
1943	8,780	7,850	7,980	8,180	7,110	7,670	2,920	1,320	2,990	260	1,480	603	57,120
1944	5,610	6,010	6,460	6,820	7,350	11,110	14,410	16,730	21,680	1,120	548	439	98,290
1945	7,320	7,410	7,740	7,450	6,810	8,180	8,970	2,130	2,170	292	833	2,330	61,640
1946	7,420	6,930	8,150	8,010	7,700	8,690	4,540	2,210	1,120	149	119	163	55,200
1947	5,080	6,750	7,540	6,880	7,190	7,160	1,940	914	*3,760	238	199	1,500	*49,150
1948	5,760	7,910	7,180	6,290	6,910	9,050	27,760	4,770	1,530	195	524	1,670	79,550
1949	5,620	6,740	7,290	7,230	8,080	7,580	4,160	682	9,190	784	1,280	3,980	62,620
1950	8,030	7,590	7,720	9,840	8,450	5,450	1,320	2,040	152	152	225	816	51,780

* Revised.
† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	-	-	-	-	-	-	-
1914	390	-	-	-	-	-	-	-
1915	410	a658	Nov. 24, 1914	2	143	103,000	103	74,000
1916	440	a560	Apr. 10, 1916	3	167	121,000	258	188,000
1917	460	a941	Nov. 25, 1916	7	278	201,000	197	143,000
1918	480	515	Mar. 31, 1918	3.8	109	79,000	105	75,400
1919	510	895	Apr. 2, 1919	2	105	76,300	89.1	64,100
1920	510	360	May 25, 1920	4	104	75,400	131	95,400
1921	530	358	Oct. 21, 1920	4	134	96,900	140	101,000
1922	550	2,400	May 30, 1922	24	450	306,000	430	312,000
1923	570	436	Apr. 2, 1923	1	203	147,000	185	134,000
1924	590	a366	June 2, 1924	3	93.4	67,800	77.0	55,600
1925	610	‡357	July 23, 1925	1	75.7	54,700	69.2	49,800

‡ Not previously published.
a Maximum observed.

Yearly discharge, in cubic feet per second, of Sevier River near Sigurd, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	‡227	Nov. 12, 1925	8	64.5	46,700	57.8	41,900
1927	650,1394	‡155	Feb. 19, 1927	5	*57.9	*41,900	*57.2	*41,400
1928	670,1394	‡a213	May 18, 1928	-	*73.5	*53,400	*71.0	*51,500
1929	690	‡620	Apr. 4, 1929	3	70.3	51,000	76.8	55,500
1930	705	‡540	Aug. 4, 1930	-	73.3	53,100	73.1	52,500
1931	720	‡179	May 3, 1931	3	62.0	44,900	53.4	38,300
1932	735	290	Sept. 4, 1932	2	86.2	62,600	96.9	70,300
1933	750	340	May 9, 10, 1933	0	89.0	64,600	85.5	61,700
1934	765	‡340	July 16, 1934	1	54.3	39,320	47.3	34,260
1935	790	‡238	Apr. 15, 1935	0	44.9	32,480	45.5	32,950
1936	810	‡307	Mar. 17, 1936	1	49.8	36,120	56.4	40,950
1937	830	‡390	June 5, 1937	1	78.9	57,110	86.7	62,780
1938	860	515	May 25, 1938	1	136	98,230	153	110,800
1939	880	372	Oct. 28, 1938	0	91.8	66,440	75.0	54,320
1940	900	281	Feb. 14, 1940	1	51.3	37,260	45.1	32,770
1941	930	1,020	May 30, 1941	1	116	83,960	150	108,500
1942	960	906	Apr. 8, 1942	3	220	159,200	201	145,700
1943	980	434	Oct. 22, 1942	3	78.9	57,120	69.9	50,610
1944	1010	1,100	June 5, 1944	2.8	135	98,290	141	102,700
1945	1040	413	Apr. 23, 1945	3.0	85.1	61,640	85.2	61,660
1946	1060	256	Apr. 10, 1946	1.0	76.2	55,200	71.9	52,070
1947	1090,1394	274	June 23, 1947	1.2	*67.9	*49,150	*69.9	*50,630
1948	1120	582	Apr. 9, 1948	1.6	110	79,550	108	78,350
1949	1150	620	June 14, 1949	2.4	86.5	62,620	91.6	66,310
1950	1180	228	Jan. 24, 1950	1.6	71.5	51,780	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

212. Salina Creek near Salina, Utah

Location.--Lat 38°56', long 111°47', in sec. 3, T. 22 S., R. 1 E., about 5 miles southeast of Salina and 6 miles upstream from mouth.

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

Extremes.--1900-1901: Maximum discharge observed, 40 cfs May 3, 1901 (gage height, 1.45 ft); minimum observed, 7 cfs Aug. 15-18, 1900.

Remarks.--No known diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	12	-	-	-
1901	15	14	16	19.6	19.4	14.6	22.9	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	738	-	-	-
1901	922	833	984	1,200	1,090	898	1,360	-	-	-	-	-	-

213. Salina Creek at Salina, Utah

Location.--Lat 38°57', long 111°52', in NW¼ sec. 25, T. 21 S., R. 1 W., 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.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,140 ft (estimated on basis of nearby benchmark). 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.--10 years (1915-16, 1917-19, 1943-50), 21.6 cfs.

Extremes.--1914-19, 1942-50: Maximum discharge, 926 cfs May 15, 1948 (gage height, 3.87 ft), from rating curve extended above 400 cfs; no flow at times in 1914, 1915, 1916, 1918, 1919, 1950.

Remarks.--Diversions above station for irrigation above and below station. Releases from desilting facilities above station affected maximum discharge.

Monthly and yearly mean discharge, in cubic feet per second, of Salina Creek at Salina, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	(a)	107	29.1	6.15	1.62	-
1915	-	-	-	-	-	-	24.5	54.1	26.6	.76	.23	.38	-
1916	0.4	6.5	10.4	18	14.0	25.9	†11.1	64.6	†7.9	6.0	9.4	6.6	‡15.2
1918	1.19	4.09	21.8	6.54	11.7	17.6	24.8	47.7	18.5	11.1	.65	.97	13.9
1919	.13	7.3	13.4	14.8	15.8	16.3	52.4	61.5	2.9	3.4	1.6	1.4	15.9
1943	-	-	15.8	15.7	18.8	24.5	10.6	9.80	3 30	.77	9.43	.41	-
1944	2.57	6.52	9	9	10	23.5	21.5	176	120	2.15	.87	.32	31.8
1945	2.88	9.97	10	12	15.1	9.61	16.3	196	33.2	2.17	8.25	1.85	26.7
1946	4.41	7.87	8.77	17.3	21.0	23.8	75.2	35.4	6.39	1.51	2.80	.59	17.0
1947	6.94	17.4	11.6	14	18	23.1	5.09	95	52.7	2.36	4.76	2.01	21.1
1948	7.96	23.3	22.4	22.4	29.8	25.2	91.3	259	28.1	1.55	1.27	.59	42.9
1949	4.58	13.0	20.8	22	22.3	23.7	59.7	85.5	25.8	4.09	1.23	.73	23.6
1950	3.09	8.81	12.5	15.9	19.1	16.1	1.66	13.6	1.60	.95	.39	.32	7.80

† Corrected.
‡ Not previously published; computed on basis of figures of monthly mean discharge.
a Records for Apr. 25 to May 26, 1914 (except for peak figure of May 22, 1914), published in WSP 390, have been found in error on basis of restudy of original data. Those records are not published herein and should not be used.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	(a)	6,370	1,790	378	96	-
1915	-	-	-	-	-	-	1,460	3,330	1,580	47	14	23	-
1916	†22	†389	640	1,110	†806	1,590	†661	3,970	†471	†366	580	†393	†11,000
1918	73	243	1,340	402	650	1,080	1,480	2,930	1,100	682	40	58	10,100
1919	8	434	824	910	878	1,000	3,120	3,780	173	209	98	83	11,500
1943	-	-	969	968	1,040	1,510	628	602	226	47	580	25	-
1944	158	388	553	553	575	1,450	1,280	10,810	7,130	132	54	19	23,100
1945	177	593	615	738	839	591	968	12,060	1,980	133	507	110	19,310
1946	271	468	540	1,060	1,170	1,470	4,470	2,180	380	93	172	35	12,310
1947	426	1,030	712	861	1,000	1,420	303	5,840	3,140	145	293	119	15,290
1948	490	1,390	1,380	1,380	1,710	1,550	5,430	15,920	1,670	95.4	78.1	34.9	31,130
1949	282	772	1,280	1,350	1,240	1,460	3,550	5,260	1,540	252	75.8	43.9	17,110
1950	190	524	771	978	1,060	991	99	833	95.4	58.5	24.2	19.2	5,640

† Corrected.
a Record for Apr. 25 to May 26, 1914, except for peak figure of May 22, 1914, discredited; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a270	May 22, 1914	0	-	-	-	-
1915	410	a176	May 17, 1915	0	-	-	-	-
1916	440	-	-	0	‡15.2	†11,000	-	-
1917	460	-	-	-	-	-	-	-
1918	480	(b)	July 22, 1918	0	13.9	10,100	13.4	9,690
1919	510	135	May 4, 1919	0	15.9	11,500	-	-
1943	1010	804	Aug. 7, 1943	-	-	-	9.29	6,720
1944	1010	697	May 15, 1944	-	31.8	23,100	32.2	23,390
1945	1040	742	May 14, 1945	-	26.7	19,310	26.5	19,200
1946	1060	558	Aug. 15, 1946	.2	17.0	12,310	18.2	13,200
1947	1090	756	Aug. 20, 1947	.7	21.1	15,290	22.6	16,380
1948	1120	926	May 15, 1948	.3	42.9	31,130	41.6	30,200
1949	1150	460	July 3, 1949	.4	23.6	17,110	22.4	16,260
1950	1180	190	May 22, 1950	0	7.80	5,640	-	-

† Corrected. ‡ Not previously published. a Maximum observed.
b Figure of momentary maximum discharge, published in WSP 480, has been found in error on basis of restudy of original data. That figure is not published herein and should not be used. Maximum gage height observed was 6.50 ft, site and datum then in use.

214. Sevier River near Gunnison, Utah

Location.--Lat 39°09', long 111°52', in SE¼ sec. 14, T. 19 S., R. 1 W., 200 ft downstream from bridge, half a mile upstream from San Pitch River, and about 3 miles west of Gunnison.

Drainage area.--3,990 sq mi (approximately).

Gage.--Water-stage recorder. Altitude of gage is 4,910 ft. Prior to May 19, 1914, staff gages at site 200 ft upstream at different datums.

Average discharge.--17 years (1900-1917), 292 cfs.

Extremes.--1901-17: Maximum discharge observed, 2,240 cfs May 28, 1906; no flow Apr. 30, 1911.

Remarks.--Flow regulated by reservoirs upstream. Many diversions above station for irrigation. Greater part of flow during most years diverted above station during irrigation season.

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Gunnison, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	a28.1	a18.5	a23.5	-
1901	36.8	42.7	51.2	154	190	71.9	58.0	201	55.4	11.9	30.8	16.1	76.1
1902	9.0	43.8	122	246	244	101	83.1	20.6	14.4	14.0	17.1	17.4	76.7
1903	7.7	15.3	143	199	270	222	77.0	78.1	123	33.5	25.3	26.4	101
1904	32.1	47.4	140	227	258	25.5	23.2	84.1	59.5	28.2	33.5	27.9	81.7
1905	22.0	44.3	84.0	184	320	196	67.5	220	166	20.4	34.4	48.1	116
1906	89.3	91.4	‡95.8	390	308	286	520	1,370	1,080	130	213	271	‡404
1907	265	298	413	445	392	410	593	1,100	1,650	377	468	333	562
1908	320	410	503	503	471	416	342	363	233	136	520	234	371
1909	384	430	365	407	463	789	565	909	682	155	479	859	541
1910	373	429	467	600	537	1,130	554	333	60.2	52	108	213	405
1911	282	353	326	*371	465	676	183	194	*113	64.7	75.7	125	*268
1912	515	433	430	354	392	383	376	475	524	25.3	132	216	†354
1913	325	302	310	458	456	361	421	212	71.1	59.6	154	210	277
1914	242	240	215	308	272	361	346	793	932	361	215	282	381
1915	401	370	417	291	338	296	184	269	147	71.6	83.8	141	251
1916	172	296	294	295	326	569	533	427	113	81.5	195	138	287
1917	498	665	559	400	330	301	356	702	638	112	205	200	414

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of weather records and records for San Pitch River near Gunnison.
a Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	*1,730	*1,140	*1,400	-
1901	2,260	2,540	3,150	9,470	10,600	4,420	3,450	12,400	3,300	732	1,890	958	55,200
1902	553	2,610	7,500	15,100	13,600	6,210	4,940	1,270	857	861	1,050	1,040	55,600
1903	474	910	8,790	12,200	15,000	13,600	4,580	4,800	7,320	2,060	1,560	1,570	72,900
1904	1,970	2,820	8,610	14,000	14,800	1,570	1,380	5,170	3,540	1,730	2,060	1,660	59,300
1905	1,350	2,640	5,160	11,300	17,800	12,100	4,020	13,500	9,880	1,250	2,120	2,860	84,000
1906	5,490	5,440	‡5,890	24,000	17,100	17,600	30,900	84,200	64,300	7,990	13,100	16,100	‡292,000
1907	16,300	17,700	25,400	27,400	21,800	25,200	35,300	67,600	98,200	23,200	28,800	19,800	407,000
1908	19,700	24,400	30,900	30,900	27,100	25,600	20,400	22,300	13,900	8,360	32,000	13,900	269,000
1909	23,600	25,600	22,400	25,000	25,700	48,500	33,600	55,900	40,600	9,530	29,500	51,100	391,000
1910	22,900	25,500	28,700	36,900	29,800	69,500	33,000	20,500	3,580	3,200	6,640	12,700	293,000
1911	17,300	21,000	20,000	*22,800	25,800	41,600	10,900	11,900	*6,720	3,980	4,650	7,440	*194,000
1912	31,700	25,800	26,400	21,800	22,500	23,600	22,400	29,200	31,200	1,560	8,120	12,900	257,000
1913	20,000	18,000	19,100	28,200	25,300	22,200	25,100	13,000	4,230	3,660	9,470	12,500	201,000
1914	14,900	14,300	13,200	18,900	15,100	22,200	20,600	48,800	55,500	22,200	13,200	16,800	276,000
1915	24,700	22,000	25,600	17,900	18,800	18,200	10,900	16,500	8,750	4,400	5,150	8,390	181,000
1916	10,600	17,600	18,100	18,100	18,800	35,000	31,700	26,300	6,720	5,010	12,000	8,210	208,000
1917	30,600	39,600	34,400	24,600	18,300	18,500	21,200	43,200	38,000	6,890	12,600	11,900	300,000

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1900	-	-	-	-	-	-	-	-
1901	390	a505	May 22, 1901	5	76.1	55,200	80.3	57,900
1902	390	a366	Feb. 12, 1902	4	76.7	55,600	77.0	55,100
1903	390	a366	Mar.16,17, 1903	4	101	72,900	106	76,100
1904	390	a372	(b)	10	81.7	59,300	76.4	55,100
1905	390	a640	May 28, 1905	16	116	84,000	‡127	‡91,600
1906	250	a2,240	May 28, 1906	‡42	‡404	‡292,000	462	335,000
1907	250	‡a2,080	June 13, 1907	192	562	407,000	583	422,000
1908	250	a701	Aug. 8, 1908	57	371	269,000	366	266,000
1909	270	a2,000	Sept. 9, 1909	87	541	391,000	548	397,000
1910	290	a1,410	Mar. 7, 1910	30	405	293,000	379	274,000
1911	310	a1,050	Mar. 17, 1911	0	*268	*194,000	*304	*220,000
1912	330	a1,320	May 30, 1912	2	†354	257,000	318	230,000
1913	360	‡a758	Apr. 5, 1913	44	277	201,000	258	186,000
1914	390	‡1,500	June 8, 1914	72	381	276,000	422	306,000
1915	410	559	Dec. 2, 1914	61	251	181,000	215	155,000
1916	440	915	Mar. 26, 1916	69	287	208,000	367	266,000
1917	460	980	May 31, 1917	86	414	300,000	-	-

* Revised.
† Corrected.
‡ Not previously published.
a Maximum observed.
b Jan. 28, Feb. 5, 1904.

Note.--Daily discharge published on page 64 of WSP 310 has been revised to 350 cfs for the period Jan. 1-10, 1911, and to 55 and 48 cfs, respectively, for June 1, 2, 1911.

215. Transmountain diversions from Colorado River basin to Sevier Lake basin, Utah

Water for irrigation is diverted by 13 tunnels or ditches from tributaries of San Rafael and Price Rivers in the Colorado River basin to San Pitch River in Sevier Lake basin. The diversions have been made for many years but records are available only since September or October 1949. There are other transmountain diversions from Colorado River basin to Sevier Lake basin. Tables herewith show diversion by each tunnel or ditch as measured at or near the divide between Colorado River basin and the Great Basin. Last table shows combined diversion by the 13 tunnels or ditches. Figures of runoff for September 1949 for Ephraim tunnel, Larsen tunnel, and Coal Fork ditch have not been previously published.

Fairview ditch near Fairview, Utah

Location.--Lat 39°39', long 111°19', in SE¼ sec. 26, T. 13 S., R. 5 E., 1.8 miles south of State Highway No. 31 and 6½ miles northeast of Fairview.

Gage.--Water-stage recorder. Altitude of gage is 9,000 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 15 cfs Sept. 17, 18, 1949; no flow part of period.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	511	-
1950	0	0	0	0	0	0	0	5.6	197	615	486	186	1,490

Candland ditch near Mount Pleasant, Utah

Location.--Lat 39°33', long 111°19', in NW¼ sec. 1, T. 15 S., R. 5 E., about 150 ft west of Skyline Drive, 8 miles east of Mount Pleasant, and 9.4 miles south of junction of Skyline Drive with Fairview-Huntington road.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 9,900 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 2.3 cfs June 29, 1950; no flow on many days each year.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	2.0	0	0	0	0	0	6.0	15	48	53	7.7	0.6	132

Coal Fork ditch near Mount Pleasant, Utah

Location.--Lat 39°30', long 111°19', in SW¼ sec. 24, T. 15 S., R. 5 E., 25 ft west of Skyline Drive and 6½ miles southeast of Mount Pleasant.

Gage.--Water-stage recorder and Cipolletti weir. Altitude of gage is 9,700 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 2.6 cfs June 6, 1950; no flow during much of period.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	8.9	-
1950	6.1	0	0	0	0	0	8.9	43	75	13	6.1	6.0	158

Twin Creek tunnel near Mount Pleasant, Utah

Location.--Lat 39°28', long 111°20', in SE¼ sec. 35, T. 15 S., R. 5 E., just downstream from tunnel outlet, about 400 ft west of Skyline Drive, and 9 miles southeast of Mount Pleasant.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,000 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 3.7 cfs June 6, 1950; no flow during much of period.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	0	0	0	0	0	0	0	13	140	10	0	0	163

Transmountain diversions from Colorado River basin to Sevier Lake basin, Utah--Continued

Spring City tunnel near Spring City, Utah

Location.--Lat 39°26', long 111°22', in SE¼ sec. 16, T. 16 S., R. 5 E., at West Portal and 11 miles east of Spring City.

Gage.--Water-stage recorder. Altitude of gage is 9,600 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 29 cfs June 1, 2, 1950; no flow Sept. 10-30, 1950.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	47	22	15	12	11	15	39	369	691	77	59	14	1,370

Black Canyon ditch near Spring City, Utah

Location.--Lat 39°27', long 111°20', in sec. 10, T. 16 S., R. 5 E., about 200 ft west of Skyline Drive and 9 miles east of Spring City.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,200 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 6.0 cfs June 6, 1950; no flow much of year.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	6.9	0	0	0	0	0	3.0	36	152	7.9	0	0	206

Cedar Creek tunnel near Spring City, Utah

Location.--Lat 39°27', long 111°20', in sec. 10, T. 16 S., R. 5 E., just downstream from Cedar Creek tunnel outlet, 200 ft west of Skyline Drive, and 9 miles east of Spring City.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,200 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 3.6 cfs May 30, 31, 1950; minimum not determined, probably occurred during period of no gage-height record.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	12	12	6.1	6.1	5.6	6.1	12	91	109	35	11	8.1	313

Reeder ditch near Spring City, Utah

Location.--Lat 39°23', long 111°23', in NW¼ sec. 32, T. 16 S., R. 5 E., about 500 ft west of Skyline Drive and 9 miles southeast of Spring City.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,300 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 3.9 cfs May 30, 31, 1950; no flow at times.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	15	6.0	0	0	0	0	6.0	75	97	39	18	9.7	266

John August ditch near Ephraim, Utah

Location.--Lat 39°18', long 111°27', in NW¼ sec. 35, T. 17 S., R. 4 E., half a mile southeast of Alpine substation and 9 miles southeast of Ephraim.

Gage.--Water-stage recorder and rectangular weir. Altitude of gage is 10,100 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 3.1 cfs June 22, 1950; no flow most of each year.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	1.0	-
1950	0	0	0	0	0	0	1.0	14	91	74	6.0	0	186

Transmountain diversions from Colorado River basin to Sevier Lake basin, Utah--Continued

Madsen ditch near Ephraim, Utah

Location.--Lat 39°19', long 111°27', in SW¼ sec. 23, T. 17 S., R. 4 E., a quarter of a mile southwest of junction of Skyline Drive and Orangeville road and 8 miles east of Ephraim.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,000 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 0.3 cfs June 27, 1950; no flow most of each year.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	0	0	0	0	0	0	0	2.2	4.8	0.2	0	0	7.2

Ephraim tunnel near Ephraim, Utah

Location.--Lat 39°19', long 111°26', in NW¼ sec. 24, T. 17 S., R. 4 E., at east tunnel portal, 9 miles east of Ephraim.

Gage.--Water-stage recorder and masonry control. Altitude of gage is 9,500 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 76 cfs May 30, 1950; no flow Aug. 1 to Sept. 30, 1950.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	29	-
1950	30	20	12	6.1	5.6	12	36	1,510	1,290	145	0	0	3,070

Larsen tunnel near Ephraim, Utah

Location.--Lat 39°21', long 111°27', in SE¼ sec. 10, T. 17 S., R. 4 E., just downstream from tunnel outlet, a quarter of a mile west of Skyline Drive, and 7½ miles east of Ephraim.

Gage.--Water-stage recorder and rock masonry control. Altitude of gage is 9,700 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 16 cfs June 5, 6, 1950; no flow during much of period.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	6.0	-
1950	6.2	0	0	0	0	0	0	142	540	60	2.4	0	751

Horseshoe tunnel near Ephraim, Utah

Location.--Lat 39°22', long 111°27', in SW¼ sec. 2, T. 17 S., R. 4 E., about 500 ft west of Skyline Drive and 8 miles east of Ephraim.

Gage.--Water-stage recorder. Altitude of gage is 10,200 ft (from topographic map).

Extremes.--1949-50: Maximum daily discharge, 18 cfs May 31, 1950; no flow most of year.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	0	0	0	0	0	0	0	218	438	42	0	0	698

Combined transmountain diversions from Colorado River basin to Sevier Lake basin, Utah

Combined monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	-	-	-	-	-	-	-	-	-	-	-	556	-
1950	125	60	33	24	22	33	112	2,140	3,870	1,170	596	224	8,410

216. Manti Creek near Manti, Utah

Location.--Lat 39°15', long 111°37', near corner common to secs. 7, 8, 17, 18, T. 18 S., R. 3 E., 1¼ miles southeast of Manti.

Supplemental records available.--October to December 1900, fragmentary record of gage heights and discharge measurements only.

Gage.--Staff gage. Prior to Dec. 26, 1900, at site a quarter of a mile downstream at different datum.

Extremes.--August, September 1900: Maximum discharge observed, 17 cfs Aug. 5 (gage height, 1.75 ft); minimum observed, 6 cfs Sept. 7 (gage height, 1.52 ft).

Remarks.--No known diversions.

Monthly mean discharge, in cubic feet per second

Year	Aug.	Sept.
1900	a9	9

a This figure, given in 22nd Ann. Rept. as for Aug. 2-25, 1900, is for entire month.

Monthly runoff, in acre-feet

Year	Aug.	Sept.
1900	a553	536

a This figure, given in 22nd Ann. Rept. as for Aug. 2-25, 1900, is for entire month.

217. San Pitch River near Gunnison, Utah

Location.--Lat 39°09'20", long 111°52'20", in NW¼SW¼ sec. 13, T. 19 S., R. 1 W., one-fifth of a mile below small diversion dam, half a mile upstream from mouth, and 3 miles west of Gunnison.

Drainage area.--886 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,910 ft (from topographic map). Feb. 21, 1912, to May 17, 1914, staff gage at same site and datum. Prior to Feb. 21, 1912, staff gage at site about 7 miles upstream at different datum.

Average discharge.--5 years (1900-1905), 47.7 cfs.

Extremes.--1900-1905, 1912-18: Maximum discharge observed, 720 cfs Aug. 29, 1905; no flow June 19 to Oct. 8, Nov. 13-20, 1916, Sept. 19-24, 1917.

Remarks.--During years of normal flow practically entire flow diverted for irrigation in Sanpete Valley and in vicinity of Gunnison. Winter and spring runoff is stored in Gunnison Reservoir about 7 miles upstream from Gunnison. At times waste water from Fayette Canal, which diverts from Sevier River, enters river about half a mile upstream from gage. Records at the two different sites probably not equivalent, hence records for lower site not included under Average discharge above.

Monthly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	67	17	18	-
1901	18	a20	15	12	16	13	a35	92	77	45	18	14	31
1902	14	13	12	13	13	13	40	101	54	33	14	14	27
1903	13	10	10	10	6	12	30	123	95	64	31	25	75
1904	22	15	15	14.8	15.2	10.7	31.6	147	83.5	111	50.4	17.8	44.6
1905	18.7	14.2	9.9	13.3	14.1	12.1	24.2	136	179	143	126	40.5	60.9
1906	32.0	28.1	23.9	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	10.5	12.4	3.59	12.0	.38	8.20	11.3	-
1913	1.74	4.47	5.0	7.23	13.1	106	110	2.23	1.67	1.14	12.3	17.1	23.5
1914	15.3	18.4	10.0	18.2	33.7	80.0	113	194	237	21.1	9.16	6.02	62.8
1915	10.7	6.23	11.0	18.0	20.4	212	29.7	8.61	3.73	1.80	2.07	2.34	27.4
1916	5.7	2.6	9.0	-	-	-	43	9.0	2.0	0	0	0	-
1917	3.2	6.5	6.0	2.0	2.0	40	134	79.2	225	3.0	4.7	2.0	42.1
1918	-	-	-	-	-	-	32.8	-	-	-	-	-	-

a Previously published as partial month.

Monthly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	-	4,120	1,040	1,070	-
1901	1,110	a1,190	922	738	889	774	a2,080	5,660	4,580	2,770	1,110	833	†22,700
1902	861	774	738	799	722	799	2,380	6,210	3,210	2,030	861	833	20,200
1903	799	595	615	615	333	738	1,780	7,560	5,650	3,940	1,910	1,490	26,000
1904	1,350	893	922	910	874	658	1,880	9,040	4,970	6,820	3,100	1,060	32,500
1905	1,150	845	609	618	783	744	1,440	8,360	10,650	8,790	7,750	2,410	44,300

† Corrected. a Previously published as partial month.

538662 O -60 - 16

Monthly and yearly runoff, in acre-feet, of San Pitch River near Gunnison, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	1,970	1,670	1,470	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	646	738	221	714	23.4	504	672	-
1913	107	266	307	445	728	6,520	6,550	137	99	70	756	1,020	17,000
1914	941	1,090	615	1,120	1,870	4,920	6,720	11,900	14,100	1,300	563	358	45,500
1915	658	371	676	1,110	1,130	13,000	1,770	529	222	111	127	139	19,800
1916	350	155	550	-	-	-	2,560	550	120	0	0	0	-
1917	200	390	370	120	110	2,460	7,970	4,870	13,400	190	290	120	30,500
1918	-	-	-	-	-	-	1,950	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1900	51	-	-	-	-	-	-	-
1901	66,75	a125	May20,28,29,1901	9	31	†22,700	30	21,800
1902	85	a155	May 14, 1902	10	27	20,200	27	19,860
1903	100	a158	May 31, 1903	3	75	26,000	37	27,180
1904	133	a264	May18,24,1904	7	44.6	32,500	43.7	31,920
1905	176	a720	Aug. 29, 1905	6	60.9	44,300	64.3	46,860
1912	330	a57	June 9, 1912	-	-	-	-	-
1913	360	a456	Mar. 25, 1913	.1	23.5	17,000	26.2	19,000
1914	390	591	June 2, 1914	1.9	62.8	45,500	61.7	44,600
1915	410	608	Mar. 22, 1915	1.5	27.4	19,800	26.5	19,200
1916	440	a466	Mar. 17, 1916	0	-	-	-	-
1917	460	494	June 18, 1917	0	42.1	30,500	-	-
1918	480	-	-	-	-	-	-	-

† Corrected.
a Maximum observed.

218. 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., 1,000 ft downstream from San Pitch River and 3 miles west of Gunnison.

Drainage area.--4,880 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map). Prior to Oct. 28, 1938, at same site at datum 0.36 ft higher.

Average discharge.--38 years (1912-50), 245 cfs.

Extremes.--1912-50: Maximum discharge, 2,620 cfs June 1, 1922 (gage height, 5.68 ft, present datum); minimum daily, 8 cfs July 13-17, Sept. 6, 1934

Remarks.--Flow regulated by reservoirs. Many diversions for irrigation above and below station. Most of flow diverted above station during irrigation season.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	394	389	478	536	25.7	141	228	-
1913	327	306	315	465	469	467	531	215	72.8	60.8	167	227	301
1914	258	259	225	326	306	441	459	987	1,170	382	224	288	444
1915	412	376	428	309	359	508	214	278	151	73.4	85.9	144	278
1916	178	299	303	‡315	‡350	‡700	575	436	115	81.5	195	138	‡307
1917	501	671	565	402	332	341	490	781	863	116	210	202	456
1918	339	325	330	311	350	525	344	157	179	149	102	140	271
1919	251	292	357	305	324	492	371	214	91.7	68.4	109	112	249
1920	171	220	251	253	256	214	217	534	312	84.4	224	209	245
1921	408	372	317	352	341	474	314	548	697	138	286	252	375
1922	370	416	411	337	430	753	754	1,610	1,520	294	347	304	629
1923	351	487	506	526	391	704	617	484	288	205	260	271	425
1924	362	416	426	345	365	362	293	251	139	78.3	82.4	133	271
1925	202	269	222	249	354	274	154	103	141	149	79.9	91.8	190
1926	185	224	248	232	232	205	135	141	77.9	96.5	107	107	166
1927	131	157	237	233	245	227	153	102	89.1	77.5	82.1	110	153
1928	138	203	198	217	229	217	131	333	157	72.9	113	112	177
1929	92.6	150	193	212	212	286	226	269	211	130	221	150	196
1930	162	211	217	198	305	211	207	156	99.5	86.1	220	155	185
1931	159	182	192	181	244	161	118	125	71.2	49.7	64.2	98.7	136
1932	71.4	81.8	96.7	108	217	153	169	187	159	183	160	182	147
1933	86.6	147	195	200	200	175	187	267	204	99.9	71.9	34.5	155
1934	64.2	99.6	158	220	200	100	113	86.3	44.9	27.7	16.2	17.2	95.2
1935	27.1	56.0	105	100	97.2	74.0	206	154	127	44.4	22.0	29.5	86.5

‡ Not previously published; estimated on basis of 5 discharge measurements for San Pitch River and records for other stations on Sevier River.

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River below San Pitch River, near Gunnison, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	38.0	71.5	116	160	182	122	158	191	172	75.9	109	43.3	120
1937	91.1	154	199	196	250	216	194	301	221	86.8	97.2	89.6	174
1938	180	192	229	258	296	295	262	428	241	100	132	312	243
1939	280	311	275	267	265	368	193	86.9	80.7	40.3	68.7	106	195
1940	203	192	183	219	223	186	145	207	41.0	51.2	52.7	91.6	150
1941	160	169	194	211	210	154	115	596	690	104	146	146	241
1942	321	306	463	569	501	535	800	618	313	127	158	155	405
1943	264	282	277	265	270	287	140	104	151	53.8	105	87.9	190
1944	188	214	214	226	253	341	444	596	711	114	101	123	293
1945	244	267	274	258	271	317	339	333	204	96.6	144	147	241
1946	267	286	300	290	297	377	291	195	112	69.9	89.6	99.7	222
1947	229	279	274	240	272	276	154	203	269	105	134	131	213
1948	240	303	294	273	292	317	645	518	188	75.5	88.0	102	278
1949	206	270	273	269	291	299	241	193	292	92.5	101	142	222
1950	263	292	261	293	313	215	114	130	67.2	64.5	76.0	96.7	182

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	24,200	23,100	29,400	31,900	1,580	8,640	13,500	-
1913	20,100	18,200	19,400	28,600	26,100	28,700	31,600	13,200	4,330	3,740	10,200	13,500	218,000
1914	15,800	15,400	13,800	20,100	17,000	27,100	27,300	60,700	69,500	23,500	13,800	17,200	321,000
1915	25,300	22,400	26,300	19,000	19,900	31,200	12,700	17,100	8,990	4,510	5,280	8,550	201,000
1916	10,900	17,800	18,600	‡19,400	‡20,100	‡43,000	34,200	26,800	6,830	5,010	12,000	8,220	‡223,000
1917	30,800	39,900	34,700	24,700	18,400	21,000	29,200	48,000	51,400	7,100	12,900	12,000	330,000
1918	20,800	19,300	20,300	19,100	19,400	32,300	20,500	9,650	10,700	9,160	6,270	8,330	196,000
1919	15,400	17,400	22,000	18,800	18,000	30,300	22,100	13,200	5,460	4,210	6,700	6,660	180,000
1920	10,500	13,100	15,400	15,600	14,700	13,200	12,900	32,800	18,600	5,190	13,800	12,400	178,000
1921	25,100	22,100	19,500	21,600	18,900	29,100	18,700	33,700	41,500	8,480	17,600	15,000	271,000
1922	22,800	24,800	25,300	20,700	23,900	46,300	44,900	99,000	90,400	18,100	21,300	18,100	456,000
1923	21,600	29,000	31,100	32,300	21,700	43,300	36,700	29,800	17,100	12,600	16,000	16,100	307,000
1924	22,300	24,800	26,200	21,200	21,000	22,300	17,400	15,400	8,270	4,810	5,070	7,910	197,000
1925	12,400	16,000	13,600	15,300	19,700	16,800	9,160	6,330	8,390	9,160	4,910	5,460	137,000
1926	11,400	13,300	15,200	14,300	12,900	12,600	8,030	8,670	4,640	5,930	6,580	6,370	120,000
1927	8,060	9,340	14,600	14,300	13,600	14,000	9,100	6,270	5,300	4,770	5,050	6,550	111,000
1928	8,480	12,100	12,200	13,300	13,200	13,300	7,800	20,500	9,340	4,480	6,950	6,660	128,000
1929	5,690	8,930	11,900	13,000	11,800	17,600	13,400	16,500	12,600	7,990	13,600	8,930	142,000
1930	9,960	12,600	13,300	12,200	16,900	13,000	12,300	9,590	5,920	5,290	13,500	9,220	134,000
1931	9,780	10,800	11,800	11,100	13,600	9,900	7,000	7,690	4,240	3,060	3,950	5,870	98,800
1932	4,390	4,870	5,950	6,640	12,500	9,410	10,100	11,500	9,460	11,300	9,840	10,800	107,000
1933	5,320	8,750	12,000	12,300	11,100	10,800	11,100	16,400	12,100	6,140	4,420	2,050	112,000
1934	3,950	5,930	9,730	13,550	11,130	6,160	6,750	5,300	2,670	1,700	996	1,030	68,900
1935	1,660	3,330	6,460	6,150	5,400	4,550	12,230	9,470	7,540	2,730	1,350	1,760	62,630
1936	2,340	4,250	7,150	9,820	10,440	7,480	9,410	11,710	10,230	4,670	6,680	2,580	86,770
1937	5,600	9,140	12,240	12,060	13,900	13,290	11,540	18,510	13,160	5,340	5,980	5,330	126,100
1938	11,050	11,430	14,110	15,850	16,430	18,150	15,600	26,330	14,340	6,170	8,120	18,570	176,200
1939	17,210	18,500	16,930	16,420	14,730	22,620	11,510	5,340	4,800	2,480	4,220	6,310	141,100
1940	12,480	11,450	11,280	13,490	12,820	11,440	8,620	12,730	2,440	3,150	3,240	5,450	108,600
1941	9,830	10,080	11,930	12,950	11,660	9,480	6,860	36,630	41,080	6,390	9,000	8,710	174,600
1942	19,730	18,190	28,470	34,980	27,830	32,870†	47,610	35,990	18,640	7,790	9,700	9,230	293,000
1943	16,230	16,800	17,010	16,320	15,010	17,640	8,330	6,370	3,000	3,310	6,460	5,230	137,700
1944	11,530	12,700	13,170	13,890	14,550	20,990	26,420	36,620	42,290	7,010	6,240	7,290	212,700
1945	14,990	15,880	16,860	15,840	15,040	19,520	20,160	20,460	12,120	5,940	8,840	8,770	174,400
1946	16,390	17,040	18,450	17,810	16,470	23,150	17,310	12,010	6,680	4,300	5,510	5,930	161,000
1947	14,050	16,590	16,830	14,760	15,080	16,940	9,140	12,470	15,980	6,470	8,250	7,780	154,300
1948	14,790	18,000	18,080	16,790	16,820	19,500	38,360	31,840	11,210	4,650	5,410	6,070	201,500
1949	12,680	16,070	16,780	16,550	16,150	18,410	14,340	11,860	17,400	5,690	6,200	8,450	160,600
1950	16,160	17,380	16,070	18,000	17,380	13,240	6,810	8,020	4,000	3,970	4,670	5,750	131,400

† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	(a)	-	-	-	-	-	-	-
1913	(a)	-	-	-	301	218,000	283	205,000
1914	(a)	-	-	-	444	321,000	484	350,000
1915	(a)	-	-	-	278	201,000	241	174,000
1916	(a)	-	-	-	‡307	‡223,000	‡387	‡281,000
1917	(a)	-	-	-	456	330,000	394	285,000
1918	480	876	Mar. 12, 1918	66	271	196,000	263	190,000
1919	510	979	Mar. 25, 1919	63	249	180,000	227	164,000
1920	510	1,430	May 22, 1920	66	245	178,000	283	206,000
1921	530	1,420	June 11, 1921	91	375	271,000	383	277,000
1922	550	2,620	June 1, 1922	137	629	456,000	641	464,000
1923	570	1,100	Apr. 2, 1923	111	425	307,000	413	299,000
1924	590	516	Mar. 26, 1924	55	271	197,000	228	165,000
1925	610	510	Feb. 5, 1925	56	190	137,000	188	135,000

‡ Not previously published.
a Combined flow record, not previously published, computed as the sum of flow at stations on Sevier River near Gunnison (above San Pitch River) and San Pitch River near Gunnison; records for the two stations are also published separately in this report.

Yearly discharge, in cubic feet per second, of Sevier River below San Pitch River, near Gunnison, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	562	Sept.11, 1926	48	166	120,000	155	112,000
1927	650	-	-	46	153	111,000	155	112,000
1928	670	‡491	May 26, 1928	31	177	128,000	168	122,000
1929	690	553	Apr. 6, 1929	55	196	142,000	209	151,000
1930	705	511	Aug. 5, 1930	46	185	134,000	181	130,000
1931	720	283	Feb. 8, 1931	31	136	98,800	114	82,000
1932	735	485	Feb. 9, 1932	46	147	107,000	162	118,000
1933	750	424	May 12, 1933	15	155	112,000	147	106,000
1934	765	279	Jan. 2, 1934	8	95.2	68,900	83.9	60,700
1935	790	286	June 7, 1935	9	86.5	62,630	89.7	64,920
1936	810	534	June 6, 1936	23	120	86,770	138	100,000
1937	830	508	May 20, 1937	36	174	126,100	187	135,700
1938	860	674	May 28, 1938	53	243	176,200	265	192,200
1939	880	454	Mar. 24, 1939	32	195	141,100	171	123,600
1940	900	432	May 15, 1940	36	150	108,600	145	105,200
1941	930	1,480	May 24, 1941	81	241	174,600	289	209,200
1942	960	1,050	Apr. 15, 1942	74	405	293,000	382	276,700
1943	980	434	Mar. 10, 1943	28	190	137,700	173	125,200
1944	1010	1,320	June 8, 1944	85	293	212,700	307	223,000
1945	1040	543	Apr. 24, 1945	73	241	174,400	247	178,600
1946	1060	495	Mar. 16, 1946	53	222	161,000	216	156,600
1947	1090	742	June 23, 1947	72	213	154,300	218	157,700
1948	1120	905	May 1, 1948	46	278	201,500	270	196,200
1949	1150	669	June 15, 1949	33	222	160,600	227	164,700
1950	1180	455	Nov. 15, 1949	24	182	131,400	-	-

‡ Not previously published.

219. Sevier River at Clark's bridge, near Fayette, Utah

Location.--Lat 39°15', long 111°52', in SW¼ sec. 13, T. 18 S., R. 1 W., at Clark's bridge, about 1½ miles northwest of Fayette. After June 1916, site inundated at high stages of Sevier Bridge Reservoir.

Drainage area.--4,960 sq mi, approximately.

Gage.--Water-stage recorder. Prior to May 8, 1915, staff gage at same site and datum.

Extremes.--1914-16: Maximum discharge observed, 2,090 cfs June 8, 1914 (gage height, 6.7 ft); minimum daily, 77 cfs July 12, 13, 1915.

Remarks.--Flow regulated by reservoirs, particularly by Piute Reservoir, and by many diversions for irrigation above station. Station below all diversions above Sevier Bridge Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	445	1,080	1,320	435	267	350	-
1915	-	-	-	-	-	-	248	299	182	88.5	100	161	-
1916	200	330	333	339	387	810	668	466	145	104	233	158	348
1917	‡523	‡714	‡631	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; computed by usual methods on basis of gage-height record and rating curve defined by prior discharge measurements.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	26,500	66,400	78,600	26,700	16,400	20,800	-
1915	-	-	-	-	-	-	14,800	18,400	10,800	5,440	6,170	9,580	-
1916	12,400	19,600	20,500	20,800	22,300	49,800	39,700	28,700	8,630	6,400	14,300	9,400	252,000
1917	‡32,200	‡42,500	‡38,800	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a2,090	June 8, 1914	-	-	-	-	-
1915	410	903	Mar. 21, 1915	77	-	-	-	-
1916	440	1,300	Apr. 4, 1916	80	348	252,000	‡432	‡314,000

‡ Not previously published.
a Maximum observed.

220. Sevier River at McArtie's ford, near Fayette, Utah

Location.--Lat 39°19', long 111°58', in SE¼ sec. 21, T. 17 S., R. 1 W., at head of canyon, a third of a mile downstream from lower end of Fayette Canal, which returns unused water to Sevier River, and 7 miles northwest of Fayette. After June 1916, site inundated at high stages of Sevier Bridge Reservoir.

Drainage area.--5,020 sq mi, approximately.

Gage.--Water-stage recorder. Prior to June 18, 1915, at datum 0.07 ft lower.

Extremes.--1914-15: Maximum discharge recorded, 664 cfs Dec. 3, 1914 (gage height, 4.06 ft); minimum, 85 cfs July 20, 1915; dates of maximum and minimum are both one year in error as published in WSP 440, page 93.

Remarks.--Flow regulated by reservoirs, particularly by Piute Reservoir, and by many diversions for irrigation above station. Station below all diversions and tributaries above Sevier Bridge Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	-	‡274	357	-
1915	479	431	-	-	-	-	-	-	‡188	93.7	102	166	-
1916	206	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on basis of records for nearby stations in Sevier River basin.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	-	‡16,800	21,200	-
1915	29,500	25,600	-	-	-	-	-	-	‡11,200	5,760	6,270	9,880	-
1916	12,700	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; see footnote to preceding table.

221. 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.

Gage.--Staff gage below and wire-weight gage above gage height 60 ft.

Extremes.--1914-50: Maximum contents, 251,000 acre-ft Apr. 19, 20, 1922 (gage height, 80.0 ft); no storage at times during 1928, 1931-35.

Remarks.--Reservoir was formed originally by a 30-ft earth-fill dam. Storage began about 1904. Dam ultimately raised to 90 ft by June 1916. Capacity by table used since Oct. 1, 1931, 236,000 acre-ft between gage height 6 ft (approximate bottom of outlet tunnel) and 80.0 ft (top of flashboard on spillway). No dead storage. Water is used for irrigation.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1914	-	-	-	57,200	72,100	94,600	82,000	73,200	70,000	60,400	27,100	10,400
1915	9,620	23,900	50,500	66,900	86,400	99,600	a83,800	a64,200	a46,500	22,000	7,980	6,470
1916	5,840	a14,900	a32,400	52,100	71,800	108,000	99,400	a77,400	a50,600	a29,800	21,200	4,280
1917	a33,000	a66,700	99,400	123,000	144,000	161,000	183,000	181,000	186,000	137,000	114,000	86,800
1918	97,900	115,000	135,000	156,000	175,000	207,000	214,000	158,000	122,000	83,600	53,300	30,300
1919	49,100	65,900	88,200	105,000	125,000	157,000	164,000	108,000	63,500	35,700	14,900	5,400
1920	21,100	35,900	48,600	64,300	77,900	90,700	104,000	102,000	66,600	38,300	22,000	16,000
1921	43,900	66,700	86,200	106,000	127,000	158,000	170,000	147,000	135,000	94,100	77,600	67,500
1922	77,600	103,000	132,000	150,000	176,000	218,000	238,000	248,000	237,000	201,000	175,000	156,000
1923	139,000	171,000	201,000	203,000	216,000	222,000	212,000	176,000	147,000	101,000	67,200	44,400
1924	68,800	94,100	120,000	144,000	166,000	188,000	186,000	119,000	91,400	56,400	22,600	2,650
1925	20,700	40,100	57,500	74,000	94,900	110,000	95,000	54,400	49,200	28,500	8,970	5,630
1926	18,100	34,500	51,500	66,000	79,700	91,800	83,000	50,000	27,500	12,900	7,320	4,070
1927	12,500	24,700	39,000	55,800	68,300	77,900	75,100	36,400	27,000	7,180	4,280	1,030
1928	1,030	18,800	31,400	44,600	57,200	69,800	66,800	38,100	31,800	4,280	0	5,630
1929	9,910	19,800	32,100	44,600	56,600	69,700	77,100	39,400	34,900	14,100	18,300	20,200
1930	14,300	25,800	40,700	54,500	71,700	84,600	76,400	53,300	37,700	17,000	21,200	21,400

a Contents interpolated.

Note.--Figures in above table differ from those previously published in monthly tables of annual water-supply papers because those previously published were for contents at about 8 a.m. on first day of each month, whereas figures herewith are for contents about 8 a.m. on last day of each month.

Contents, in acre-feet, on last day of month, of Sevier Bridge Reservoir near Juab, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931	25,100	29,200	42,600	55,200	70,800	80,900	74,500	45,700	35,100	8,540	0	0
1932	ab1,580	a7,500	17,600	25,800	39,500	48,900	53,700	26,000	18,700	3,070	0	5,910
1933	3,780	13,200	24,100	36,700	47,900	59,400	62,200	52,000	36,300	8,220	0	0
1934	0	6,810	18,580	32,610	43,890	48,310	25,250	9,780	2,130	0	0	0
1935	1,550	5,140	12,020	18,900	24,530	29,150	36,590	19,880	15,200	1,900	724	0
1936	1,840	6,620	13,750	23,200	34,370	41,380	37,340	14,290	16,580	11,840	8,960	7,200
1937	6,230	16,580	28,860	38,220	54,460	67,530	73,940	47,340	46,020	23,290	15,990	15,060
1938	20,290	25,250	40,670	57,030	73,940	89,590	90,260	87,780	77,710	57,950	44,120	52,520
1939	67,970	85,520	99,450	114,400	128,300	150,200	140,200	95,630	84,570	50,770	40,220	44,830
1940	58,220	67,970	81,100	93,690	106,800	a122,200	119,800	87,130	65,150	39,320	24,170	25,790
1941	33,530	42,260	55,980	67,970	80,480	90,260	97,350	84,090	100,900	76,650	63,900	59,410
1942	79,080	98,500	125,700	157,100	182,500	213,000	233,800	219,000	191,200	151,200	131,300	123,400
1943	138,200	155,200	171,800	188,500	204,400	220,000	203,900	153,400	143,500	107,500	88,000	85,700
1944	97,160	109,600	124,800	136,900	152,000	175,800	203,400	197,000	213,500	164,700	135,000	120,400
1945	132,800	148,000	163,100	179,900	197,400	213,500	231,800	205,800	194,700	161,600	157,100	153,400
1946	169,400	183,300	201,100	217,500	231,800	232,300	218,500	196,000	163,500	133,800	116,700	106,600
1947	120,900	139,500	157,400	171,400	187,200	202,600	207,700	172,200	165,400	132,200	126,500	119,300
1948	131,300	148,000	166,200	182,500	200,200	221,500	232,300	204,800	181,600	138,900	124,800	112,100
1949	122,200	135,600	153,400	168,600	185,000	204,400	210,600	172,600	147,700	117,200	99,450	87,780
1950	105,800	118,800	135,000	152,700	172,600	185,400	161,200	131,300	-	-	-	54,800

a Contents interpolated.
b Zero storage in reservoir Sept. 30 and Oct. 1, 1931, between which dates use of new capacity table began.

Note.--Figures in above table differ from those previously published in monthly tables of annual water-supply papers because those previously published were for contents at about 8 a.m. on first day of each month, whereas figures herewith are for contents about 8 a.m. on last day of each month.

222. Sevier River near Juab, Utah

Location.--Lat 39°22', long 112°02', in NE¼ sec. 2, T. 17 S., R. 2 W., 1,600 ft downstream from Sevier Bridge Dam and 11 miles southwest of Juab.

Drainage area.--5,120 sq mi, approximately.

Gage.--Water-stage recorder and, since Apr. 16, 1914, rubble masonry control. Altitude of gage is 4,940 ft (by barometer). Prior to Apr. 16, 1914, staff gage 500 ft upstream at different datum. Apr. 8, 1938, to Mar 31, 1942, at site 1,300 ft upstream at different datum.

Average discharge.--39 years (1911-50), 250 cfs.

Extremes.--1911-50: Maximum discharge, 2,140 cfs June 2, 1922 (gage height, 8.50 ft); practically no flow at times when reservoir gates are closed.

Remarks.--No diversions between station near Gunnison and this station. Flow affected by reservoirs upstream, particularly by Sevier Bridge Reservoir (see preceding station).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	114	5.56	169	481	110	512	449	537	613	499	488	384	364
1913	391	326	166	3.45	3.45	67.1	688	625	555	378	188	262	305
1914	304	40.1	8.4	8.24	3.12	19.5	549	1,190	1,360	611	742	579	453
1915	512	241	7.03	17.3	11.2	221	469	619	483	498	327	208	303
1916	232	205	33.6	9.39	9.66	125	722	787	623	458	381	447	336
1917	103	86.8	8.3	7.4	14.9	25.9	104	828	764	813	556	602	328
1918	235	51.4	28.1	10.4	2.93	3.65	202	990	720	781	639	570	355
1919	8.2	9.6	29.1	8.0	8.8	10.0	241	1,050	789	599	466	318	298
1920	2.1	2.0	1.0	1.0	1.8	2.0	3.1	700	780	653	473	338	248
1921	6.1	5.2	6.0	6.0	6.2	8.1	98.1	822	820	692	531	467	291
1922	188	7.0	4.9	3.5	5.5	8.6	436	1,220	1,550	849	728	666	474
1923	640	17.6	55.3	490	209	621	849	1,070	768	890	827	737	601
1924	21.1	5.6	3.4	4.9	5.0	5.1	299	1,250	616	671	680	456	337
1925	14.7	2.0	2.3	2.6	2.8	3.9	413	811	246	516	419	196	221
1926	65.0	2.0	2.0	2.0	2.0	2.0	286	735	494	338	211	179	194
1927	44.1	2.2	2.0	2.0	5.9	69.2	188	748	257	372	162	145	168
1928	154	3	3	3	3	3	179	804	287	485	146	75.9	180
1929	50.0	18.4	3	3	3	87.7	78.0	902	312	482	181	134	190
1930	257	64.1	2	2	2	2	335	536	357	444	183	161	197
1931	148	151	2	2	2	2	216	632	262	461	161	101	180
1932	89.5	2	2	2	3	4	58.7	629	283	422	240	98.6	154
1933	124	3	3	3	4	4	136	424	474	636	252	46	177
1934	86.6	10.1	2	2	3	13.9	535	371	193	65.4	25.0	26.1	111
1935	14.1	2	3	3	4	4	66.0	440	230	291	46.6	55.0	97.5

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Juab, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	29.6	2	3	4	4	4	229	553	163	177	141	95.5	118
1937	126	1	1	2	2	2	73.8	685	254	460	206	117	163
1938	118	116	2	2	2	2	247	468	395	398	327	176	189
1939	42.0	18.6	2	3	3	4	311	797	289	534	229	45.1	192
1940	13.4	61.4	1	1	1	1.5	91.3	746	355	418	276	79.6	172
1941	51.7	48.5	2	2	2	2	2	721	390	456	329	205	186
1942	13.0	6.0	5.2	6.0	6.0	7.3	377	763	688	700	450	255	275
1943	21.5	8.0	8	8	8	12.4	416	814	395	615	415	118	238
1944	3.24	6	6	7	9	8.02	6.59	651	415	830	545	330	236
1945	14.5	10.9	13.0	13.4	14.8	16.9	54.3	730	360	565	250	179	187
1946	38.2	64.6	30.0	30	40	389	499	548	617	510	357	235	281
1947	17.6	7.05	12	16	20	17.8	51.0	763	338	590	199	223	190
1948	30.0	42.4	11.1	15	15	16	484	946	522	722	283	305	284
1949	39.9	48.7	20.0	22	24	26	114	798	673	541	364	339	252
1950	9.15	67.1	13.1	16.5	12.0	11.2	504	550	565	410	415	135	226

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	7,010	331	10,400	29,600	6,330	31,500	26,700	33,000	36,500	30,700	30,000	22,800	265,000
1913	24,000	19,400	10,200	212	192	4,130	40,900	38,400	33,000	23,200	11,600	15,600	221,000
1914	18,700	2,390	516	507	173	1,200	32,700	73,200	80,900	37,600	45,600	34,500	328,000
1915	31,500	14,300	432	1,060	622	13,600	27,900	38,100	28,700	30,600	20,100	12,400	219,000
1916	14,300	12,200	2,070	577	556	7,690	43,000	48,400	37,100	28,200	23,400	26,600	244,000
1917	6,330	5,160	510	460	830	1,590	6,180	50,900	45,500	50,000	34,200	35,800	237,000
1918	14,400	3,060	1,730	640	163	224	12,000	60,900	42,800	48,000	39,300	33,900	257,000
1919	504	571	1,790	492	490	615	14,300	64,600	46,900	36,800	28,700	18,900	215,000
1920	129	119	61	61	104	123	184	43,000	46,400	40,200	29,100	20,100	180,000
1921	375	311	369	369	343	498	5,840	50,500	48,800	42,500	32,600	27,800	210,000
1922	11,600	417	301	214	305	528	25,900	75,000	92,200	52,200	44,800	39,600	343,000
1923	39,400	1,050	3,440	30,100	11,600	38,200	50,500	65,800	45,700	54,700	50,800	43,900	435,000
1924	1,300	333	209	301	288	314	17,800	76,900	36,700	41,300	41,800	27,100	244,000
1925	904	119	141	160	156	240	24,600	49,900	14,600	31,700	25,800	11,700	160,000
1926	4,000	119	123	123	111	123	17,000	45,200	29,400	20,800	13,000	10,700	141,000
1927	2,710	131	123	123	328	4,250	11,200	46,000	15,300	22,900	9,960	8,630	122,000
1928	9,470	179	184	184	173	184	10,700	49,400	17,100	29,800	8,980	4,520	131,000
1929	3,070	1,090	184	184	167	5,390	4,640	55,500	18,600	29,600	11,100	7,970	137,000
1930	15,800	3,810	123	123	111	123	19,900	33,000	21,200	27,300	11,300	9,580	142,000
1931	9,100	8,980	123	123	111	123	12,900	38,900	15,600	28,300	9,900	6,010	130,000
1932	5,500	119	123	123	173	246	3,490	38,700	16,800	25,900	14,800	5,870	112,000
1933	7,620	179	184	184	222	246	8,090	26,100	28,200	39,100	15,500	2,740	128,000
1934	5,330	603	123	123	167	853	31,850	22,790	11,490	4,020	1,540	1,550	80,440
1935	869	119	184	184	222	246	3,930	27,050	13,690	17,920	2,870	3,270	70,550
1936	1,820	119	184	246	230	246	13,640	34,000	9,710	10,870	8,660	5,680	85,420
1937	7,780	60	61	123	111	123	4,390	42,110	15,140	28,310	12,650	6,980	117,800
1938	7,230	6,920	123	123	111	123	14,720	28,770	23,500	24,460	20,090	10,460	136,600
1939	2,580	1,100	123	184	167	246	18,510	49,030	17,180	32,860	14,110	2,680	138,800
1940	825	3,650	61	61	58	91	5,430	45,850	21,120	25,690	16,960	4,730	124,500
1941	3,180	2,890	123	123	111	123	119	44,320	23,230	28,040	20,230	12,190	134,700
1942	797	357	317	369	333	446	22,430	46,930	40,910	43,020	27,670	15,160	198,700
1943	1,320	476	492	492	444	760	24,780	50,040	23,490	37,820	25,500	7,040	172,700
1944	199	357	369	430	518	493	392	40,030	24,670	51,060	33,520	19,610	171,600
1945	891	649	797	825	823	1,040	3,230	44,910	21,440	34,740	15,400	10,650	135,400
1946	2,350	3,850	1,840	1,840	2,220	23,940	29,710	33,680	36,690	31,330	21,980	13,980	203,400
1947	1,080	420	738	984	1,110	1,100	3,030	46,930	20,120	36,270	12,250	13,270	137,300
1948	1,840	2,520	681	922	863	984	28,780	58,190	31,060	44,410	17,380	18,160	205,800
1949	2,450	2,900	1,230	1,350	1,330	1,600	6,790	49,050	40,060	33,260	22,370	20,140	182,500
1950	563	3,990	805	1,010	666	686	29,970	33,800	33,600	25,200	25,520	8,010	163,800

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a921	May26-28,1912	0.5	364	265,000	414	301,000
1913	360	a1,310	Apr. 9, 1913	2.2	305	221,000	261	189,000
1914	390	b2,030	June5-10,1914	2.7	453	328,000	435	353,000
1915	410	1,080	June 22, 1915	3	303	219,000	277	202,000
1916	440	1,100	May 2, 1916	7	336	244,000	313	228,000
1917	460	1,230	May 21, 1917	4	328	237,000	336	245,000
1918	480	1,450	May 7, 1918	0	355	257,000	330	241,000
1919	510	1,300	May 15, 1919	8	298	215,000	291	212,000
1920	510	1,090	May19-22,1920	1	248	180,000	247	180,000
1921	530	1,290	May 15, 1921	5	291	210,000	304	222,000
1922	550	2,140	June 2, 1922	3	474	343,000	516	375,000
1923	570	1,480	May 12, 1923	4	601	435,000	541	393,000
1924	590	‡1,600	May 7, 1924	2	337	244,000	334	244,000
1925	610	‡988	May 9, 1925	1	221	160,000	223	163,000

‡ Not previously published.
a Maximum observed.
b Maximum daily.

Yearly discharge, in cubic feet per second, of Sevier River near Juab, Utah--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630	‡1,140	May 6,7, 1926	-	194	141,000	191	139,000
1927	650	‡1,140	May 7, 1927	1	168	122,000	176	129,000
1928	670	a1,260	May6,7,8,1928	3	180	131,000	171	125,000
1929	695	‡1,270	May 20, 1929	-	190	137,000	209	153,000
1930	705	‡969	Apr. 29, 1930	-	197	142,000	194	141,000
1931	720	‡988	May 7, 1931	-	180	130,000	161	118,000
1932	735	1,100	May 21, 1932	2	154	112,000	156	114,000
1933	750	1,110	May29-31,1933	-	177	128,000	173	126,000
1934	765	b1,030	Apr.26-30, 1934	-	111	80,440	104	75,560
1935	790	b580	May 19, 1935	-	97.5	70,550	98.8	†71,500
1936	810	1,050	July 31, 1936	-	118	85,420	126	91,200
1937	830	948	May 12, 1937	1	163	117,800	172	124,200
1938	860	980	July 15, 1938	2	189	136,600	174	126,200
1939	880	1,190	May 11, 1939	-	192	138,800	193	139,500
1940	900	1,140	May 7,8, 1940	-	172	124,500	174	126,200
1941	930	1,050	May12-15,1941	2	186	134,700	179	129,900
1942	960	1,190	July 15, 1942	5	275	198,700	276	199,600
1943	980	1,110	July 2, 1943	-	238	172,700	237	171,300
1944	1010	1,320	May 17, 1944	2.1	236	171,600	238	173,100
1945	1040	1,040	May 7, 1945	7	187	135,400	195	141,100
1946	1060	1,150	Apr. 26, 1946	26	281	203,400	273	197,600
1947	1090	b1,200	May 9,10,1947	5.3	190	137,300	194	140,100
1948	1120	1,230	May 27, 1948	5.4	284	205,800	286	207,300
1949	1150	1,290	May 4, 1949	11	252	182,500	250	181,300
1950	1180	1,100	May 25, 1950	6.2	226	163,800	-	-

† Corrected.
‡ Not previously published.
a Maximum observed.
b Maximum daily.

223. Sevier River near Mills, Utah

Location.--Lat 39°34', long 112°08', in SW¼ sec. 36, T. 14 S., R. 3 W., opposite milepost No. 682 and 500 ft above bridge of San Pedro, Los Angeles and Salt Lake Railroad (now Union Pacific Railroad), and 7 miles downstream from Mills Post Office.

Drainage area.--5,800 sq mi, approximately.

Gage.--Water-stage recorder.

Extremes.--1914-17: Maximum discharge, 1,910 cfs May 27, 1914 (gage height, 6.71 ft); minimum, 36 cfs Jan. 12, 1916.

Remarks.--Flow affected by reservoirs upstream, particularly by Sevier Bridge Reservoir (see p. 239). Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	1,210	1,330	672	793	618	-
1915	561	305	54.2	60	58.4	254	496	656	495	518	345	234	338
1916	271	246	74.3	59.1	66.7	157	736	767	593	457	407	466	358
1917	157	142	60.5	51.5	65	69.5	136	834	745	798	592	650	†360
1918	308	103	79.5	-	-	-	-	-	-	-	-	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	74,400	79,100	41,300	48,800	36,800	-
1915	34,500	18,100	3,330	3,690	3,240	15,600	29,500	40,300	29,500	31,900	21,200	13,900	245,000
1916	16,700	14,600	4,570	3,640	3,840	9,650	43,800	47,200	35,300	28,100	25,000	27,700	260,000
1917	9,650	8,450	3,720	3,160	3,610	4,270	8,100	51,300	44,300	49,100	36,400	38,700	261,000
1918	18,900	6,130	4,890	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	1,910	May 27, 1914	-	-	-	-	-
1915	410	1,060	June 23, 1915	-	338	245,000	310	225,000
1916	440	1,070	Apr. 30, 1916	49	358	260,000	339	246,000
1917	460	1,230	May 21, 1917	-	†360	261,000	371	269,000
1918	480	-		-	-	-	-	-

† Corrected.

224. Sevier River at Leamington, Utah

Location.--Lat 39°33', long 112°17', in NE¼ sec. 10, T. 15 S., R. 4 W., at highway bridge about 1 block north of hotel at Leamington and 400 ft north of San Pedro, Los Angeles and Salt Lake Railroad (now Union Pacific Railroad).

Drainage area.--5,860 sq mi, approximately.

Gage.--Staff gage. 1889-93, at site 1 mile upstream at different datum. Oct. 1, 1913, to Feb. 11, 1914, at site three-quarters of a mile upstream at different datum.

Average discharge.--6 years (1889-93, 1912-14), 451 cfs.

Extremes.--1889-93, 1912-14: Maximum discharge observed, 2,330 cfs May 30, 1890; minimum observed, 28 cfs Mar. 29, 1914.

Remarks.--Flow affected by reservoirs upstream, particularly by Sevier Bridge Reservoir (see p. 239) after about 1904. Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	-	53	-
1890	111	274	395	625	713	630	726	1,705	1,250	346	153	157	589
1891	310	373	509	735	772	618	503	1,114	952	297	195	175	545
1892	202	312	551	1,016	931	738	232	250	718	88	53	49	428
1893	53	117	570	798	630	274	642	775	479	157	280	273	419
1894	55	83	104	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	-	-	619	477	480	406	-
1913	423	384	248	46	46	103	676	517	474	337	182	261	309
1914	262	93.3	43.9	90.2	77.9	38.3	405	1,040	1,200	552	624	531	415

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1889	-	-	-	-	-	-	-	-	-	-	-	3,150	-
1890	6,830	16,300	24,290	38,440	39,570	38,740	43,200	104,860	74,380	21,280	9,410	9,340	426,600
1891	19,060	22,190	31,300	45,200	42,850	38,010	29,930	68,510	56,640	18,260	11,990	10,410	394,400
1892	12,420	18,560	33,890	63,480	53,530	45,390	13,800	15,380	42,720	5,410	3,260	2,920	310,800
1893	3,260	6,960	35,060	49,080	34,960	16,850	38,200	47,660	28,500	9,660	17,220	16,240	303,600
1894	3,380	4,940	6,400	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	-	-	36,800	29,300	29,500	24,200	-
1913	26,000	22,800	15,200	2,830	2,550	6,330	40,200	31,800	28,200	20,700	11,200	15,500	223,000
1914	16,100	5,550	2,700	5,550	4,330	2,360	24,100	64,000	71,400	33,900	38,400	31,600	300,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1889	(a)	-	-	-	-	-	-	-
1890	(b)	2,330	May 30, 1890	48	589	426,600	625	451,800
1891	(c)	1,390	May 9, 1891	140	545	394,400	535	386,700
1892	(c)	1,220	June2-6, 1892	48	428	310,800	401	291,200
1893	(d)	1,300	(e)	35	419	303,600	379	273,100
1912	330	f882	June 1, 1912	-	-	-	-	-
1913	360	1,520	Apr. 10, 1913	34	309	223,000	254	184,000
1914	390	1,820	June9,10,1914	28	415	300,000	-	-

a 11th Ann. Rept., Pt. 2; 12th Ann. Rept., Pt. 2.
b 12th Ann. Rept., Pt. 2; 13th Ann. Rept., Pt. 3.
c 14th Ann. Rept., Pt. 2.
d 14th Ann. Rept., Pt. 2; Bull. 131.
e Jan. 31, Feb. 1, July 27, 1893.
f Maximum observed during period May to September.

225. Sevier River near Lynndyl, Utah

Location.--Lat 39°29', long 112°24', in SE¼ sec. 27, T. 15 S., R. 5 W., 1½ miles downstream from highway bridge and 3½ miles southwest of Lynndyl.

Drainage area.--6,270 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,660 ft (by barometer).

Average discharge.--13 years (1914-19, 1942-50), 227 cfs.

Extremes.--1914-19, 1942-50: Maximum daily discharge, 1,820 cfs June 9, 1914, on basis of records at Leamington; minimum recorded, 9.6 cfs Jan. 22, 1945.

Remarks.--Flow affected by reservoirs upstream, particularly by Sevier Bridge Reservoir (see p. 239). Several diversions for irrigation between reservoir and station.

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Lynndyl, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	1,020	1,220	558	645	520	-
1915	474	284	64.2	65	60.7	211	412	587	385	399	267	178	284
1916	222	228	87.9	94.0	47.1	92.6	601	688	525	372	288	338	299
1917	140	148	70	64	100	82.5	117	718	620	627	439	447	299
1918	173	121	77.4	70.4	55	64.0	201	792	470	531	399	437	284
1919	64.0	31.0	42.6	39.1	26.1	50.0	174	826	516	426	400	327	245
1943	‡40	‡30.2	24.4	15.3	15.5	44.9	342	556	367	482	325	148	‡200
1944	42.3	58.5	18.3	16	18.5	18.8	43.2	503	346	560	426	243	192
1945	70.5	69.5	23.0	17.4	16.1	21.9	80.9	599	30.4	400	232	125	165
1946	81.3	110	40.0	25.6	24.2	253	395	391	356	361	245	168	205
1947	48.5	30.5	22.7	18.0	23.2	16.9	66.2	563	294	449	200	185	161
1948	82.4	91.9	21.3	18.9	23.7	45.5	415	668	392	478	203	218	222
1949	91.0	102	27.2	18.5	64.1	105	86.0	605	503	381	256	242	208
1950	40.6	107	49.4	28.0	23.7	19.1	414	395	416	285	275	185	187

‡ Not previously published; estimated on basis of records for Sevier River near Juab.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	62,700	72,600	34,300	39,700	30,900	-
1915	29,100	16,900	3,950	4,000	3,370	13,000	24,500	36,100	22,900	24,500	16,400	10,600	205,000
1916	13,600	13,600	5,400	5,780	2,710	5,690	35,800	42,300	31,200	22,900	17,700	20,100	217,000
1917	8,610	8,810	4,300	3,940	5,550	5,070	6,960	44,100	36,900	38,600	27,000	26,600	216,000
1918	10,600	7,200	4,760	4,330	3,050	3,940	12,000	48,700	28,000	32,600	24,500	26,000	206,000
1919	3,940	1,840	2,620	2,400	1,450	3,070	10,400	50,800	30,700	26,200	24,600	19,500	178,000
1943	‡2,460	‡1,800	1,500	938	863	2,760	20,350	34,210	21,850	29,610	19,980	8,780	‡145,100
1944	2,600	3,480	1,120	984	1,070	1,150	2,570	30,900	20,600	34,440	26,170	14,450	139,500
1945	4,330	4,130	1,420	1,070	897	1,340	4,820	36,800	18,080	24,620	14,280	7,440	119,200
1946	5,000	6,550	2,460	1,570	1,340	15,560	23,520	24,030	21,210	22,170	15,040	10,020	148,500
1947	2,980	1,810	1,390	1,110	1,290	1,040	3,940	34,600	17,520	27,590	12,290	10,990	116,600
1948	5,060	5,470	1,310	1,160	1,360	2,800	24,710	41,050	23,300	29,370	12,490	12,990	161,100
1949	5,590	6,080	1,670	1,140	3,560	6,440	5,120	37,190	29,930	23,440	15,770	14,380	†150,300
1950	2,500	6,340	3,040	1,720	1,320	1,170	24,630	24,270	24,750	17,510	16,890	10,990	135,100

† Corrected.
‡ Not previously published; estimated on basis of records for Sevier River near Juab.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a1,820	June 9, 1914	-	-	-	-	-
1915	410	923	June 24, 1915	41	284	205,000	260	188,000
1916	440	930	May 16, 1916	-	299	217,000	284	206,000
1917	460	1,080	May 23, 1917	-	299	216,000	300	217,000
1918	480	1,200	May 9, 1918	-	284	206,000	265	192,000
1919	510	956	May 11, 1919	20	245	178,000	-	-
1943	1010	873	June 3, 1943	-	‡200	‡145,100	202	146,500
1944	1010	1,030	May 19, 1944	-	192	139,500	196	142,200
1945	1040	837	May 8, 1945	14	165	119,200	170	123,400
1946	1060	748	Apr. 28, 1946	16	205	148,500	194	140,700
1947	1090	842	May 12, 1947	-	161	116,600	169	122,200
1948	1120	1,080	June 1, 1948	17	222	161,100	224	162,600
1949	1150	942	May 7, 1949	-	208	†150,300	206	146,800
1950	1180	771	May 27, 1950	-	187	135,100	-	-

† Corrected.
‡ Not previously published.
a Maximum daily.

226. Sevier River near Delta, Utah

Location.--Lat 39°24'10", long 112°30'15", in NW¼ sec. 27, T. 16 S., R. 6 W., 1½ miles downstream from Delta and Melville Reservoir and 6½ miles northeast of Delta.

Drainage area.--7,380 sq mi, approximately.

Gage.--Water-stage recorder. Prior to Mar. 1, 1913, staff gage at same site and datum.

Average discharge.--5 years (1913-18), 167 cfs.

Extremes.--1912-19: Maximum discharge, 1,470 cfs May 31, 1914 (gage height, 6.82 ft); minimum, 15 cfs July 26, 1914, Nov. 1, 1916.

Remarks.--Many diversions above station for irrigation above and below station. Flow regulated by Delta and Melville Reservoir and by Sevier Bridge Reservoir (see p. 239).

Monthly and yearly mean discharge, in cubic feet per second, of Sevier River near Delta, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	‡243	‡367	‡227	218	‡288	-
1913	-	-	-	-	-	126	572	188	168	134	82.2	99.7	-
1914	153	83.2	27.6	87.0	‡88.6	‡45.0	264	700	830	318	404	258	‡272
1915	213	163	71.9	58.7	89.8	193	249	310	132	195	85.8	86.7	155
1916	79.3	90.3	93.3	60.5	50.9	67.5	363	297	226	153	125	125	†144
1917	26.3	40.7	56.4	44.3	76.1	84.6	80.5	305	232	262	191	179	132
1918	71.0	73.9	82.0	74.8	62	63.2	92.3	310	186	242	170	148	†132
1919	35.0	-	‡35.8	-	-	‡33.0	89.3	321	208	218	156	117	-

† Corrected.
‡ Not previously published; records estimated on basis of records for nearby stations on Sevier River.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	‡14,920	‡21,830	‡13,950	13,400	‡17,170	-
1913	-	-	-	-	-	7,750	34,000	11,600	10,000	8,240	5,050	5,930	-
1914	9,410	4,950	1,700	5,350	‡4,920	‡2,770	15,700	43,000	49,400	19,600	24,800	15,400	‡197,000
1915	13,100	9,700	4,420	3,610	4,990	11,900	14,800	19,100	7,860	12,000	5,280	5,160	112,000
1916	4,880	5,370	5,740	3,720	2,930	4,150	21,600	18,300	13,400	9,410	7,690	7,440	105,000
1917	1,620	2,420	3,470	2,720	4,230	5,200	4,790	18,800	13,800	16,100	11,700	10,600	95,450
1918	4,370	4,400	5,040	4,600	3,440	3,890	5,490	19,100	11,100	14,900	10,500	8,810	95,600
1919	2,150	-	‡2,200	-	-	‡2,030	5,310	19,700	12,400	13,400	9,590	6,960	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	-	-	-	-	-	-	-
1913	360	‡1,220	Apr. 12, 1913	-	-	-	-	-
1914	390	1,470	May 31, 1914	15	‡272	‡197,000	‡288	‡208,000
1915	410	802	Mar. 31, 1915	37	155	112,000	139	101,000
1916	440	880	Apr. 5, 1916	23	†144	105,000	133	96,200
1917	460	504	May 27, 1917	-	132	95,450	141	102,000
1918	480	602	May 12, 1918	31	†132	95,600	-	-
1919	510	525	June 16, 1919	-	-	-	-	-

† Corrected.
‡ Not previously published.

227. Sevier River at Oasis, Utah 1/

Location.--Lat 39°18', long 112°38', in E½ sec. 33, T. 17 S., R. 7 W., about three-quarters of a mile northwest of Oasis and 1½ miles downstream from county bridge, locally known as Hinckley Bridge.

Drainage area.--8,080 sq mi, approximately.

Gage.--Water-stage recorder. Prior to Apr. 24, 1914, staff gage at site about 1½ miles upstream at different datum. Datum raised 0.15 ft Dec. 19, 1913.

Average discharge.--15 years (1912-27), 81.0 cfs.

Extremes.--1912-27: Maximum discharge, 1,580 cfs June 12, 1914 (gage height, 9.45); minimum, 0.5 cfs May 13-19, 1912.

Remarks.--Flow regulated by storage reservoirs and diversion dams upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	23.0	17.8	9.15	46.9	206	-
1913	383	407	253	42.7	33.1	52.6	490	17.1	9.40	8.32	7.06	21.5	144
1914	193	116	39.3	80.0	103	48.9	262	460	790	207	344	169	234
1915	182	148	88.6	71.6	99.4	214	172	92.5	41.1	19.1	17.6	16.6	96.9
1916	19.8	25.3	56.3	75.8	66.0	60.8	238	24.4	16.7	13.1	12.8	14.4	51.8
1917	26.0	25.1	30.7	‡45.0	75.8	104	34.7	31.5	25.4	21.9	26.8	33.2	‡39.8
1918	34.2	82.6	87.9	90.5	63.4	48.7	38.5	27.6	24.3	27.3	23.6	39.6	48.5
1919	34.5	31.0	32.2	33.6	35.2	39.9	36.7	24.1	33.4	28.6	23.5	29.0	31.8
1920	33.1	36.0	27.8	20.0	27.7	30.4	19.1	33.9	38.7	55.0	35.6	36.2	32.8
1921	39.5	29.3	37.9	26.9	26.0	29.8	17.5	62.4	27.3	34.0	41.8	32.3	33.9
1922	46.6	28.6	29.5	46.5	178	75.4	296	389	872	45.8	32.9	57.8	172
1923	44.1	119	163	572	360	748	634	49.0	48.3	40.7	42.7	92.7	242
1924	59.9	46.2	60.8	50	64.9	40.8	37.6	46.2	29.3	24.1	17.6	14.7	41.0
1925	21.7	20.9	23.2	27.0	27.0	27.0	27.1	30.8	19.1	16.9	16.9	15.7	22.8
1926	16.7	16.9	15.1	15.6	16.1	12.0	8.7	20.5	13.7	11.0	11.5	8.4	13.8
1927	6.0	4.2	8.8	13.2	12.6	8.1	8.5	12.7	14.5	12.1	11.3	8.0	10.0

‡ Not previously published; estimated on basis of records for station near Delta.

1/ Published as "near Oasis", 1913.

Monthly and yearly runoff, in acre-feet, of Sevier River at Oasis, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	1,410	1,060	563	2,880	12,300	-
1913	23,600	24,200	15,600	2,630	1,840	3,230	29,200	1,050	559	512	434	1,280	104,000
1914	11,900	6,900	2,420	4,920	5,720	3,010	15,600	28,300	47,000	12,700	21,200	10,100	170,000
1915	11,200	8,810	5,450	4,400	5,520	13,200	10,200	5,690	2,450	1,170	1,080	988	70,200
1916	1,220	1,510	3,460	4,660	3,800	3,740	14,200	1,500	994	805	786	858	37,500
1917	1,600	1,490	1,890	‡2,770	4,210	6,400	2,060	1,940	1,510	1,350	1,650	1,980	‡28,800
1918	2,100	4,920	5,400	5,560	3,520	2,990	2,290	1,700	1,450	1,680	1,450	2,360	35,400
1919	2,120	1,840	1,980	2,070	1,950	2,450	2,180	1,480	1,990	1,760	1,440	1,730	23,000
1920	2,040	2,140	1,710	1,230	1,590	1,850	1,140	2,080	2,300	3,380	2,190	2,150	23,800
1921	2,430	1,740	2,330	1,650	1,440	1,830	1,040	3,840	1,620	2,090	2,570	1,920	24,500
1922	2,870	1,700	1,810	2,860	9,890	4,640	17,000	23,900	51,900	2,820	2,020	3,440	125,000
1923	2,710	7,080	10,000	35,200	20,000	46,000	37,700	3,010	2,870	2,500	2,630	5,520	175,000
1924	3,680	2,750	3,740	3,070	3,730	2,510	2,240	2,840	1,740	1,480	1,080	875	29,700
1925	1,330	1,240	1,430	1,660	1,500	1,660	1,610	1,890	1,140	1,040	1,040	930	16,500
1926	1,030	1,010	928	959	894	738	518	1,260	815	676	707	500	10,000
1927	369	250	541	812	700	498	506	781	863	744	695	476	7,240

‡ Not previously published; estimated on basis of records for station near Delta.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	-	-	-	-	-	-	-
1913	360	a1,280	Apr. 12, 1913	6	144	104,000	85.8	62,000
1914	390	1,580	June 12, 1914	18	234	170,000	240	174,000
1915	410	1,040	Mar. 24, 1915	14	96.9	70,200	70.4	50,900
1916	440	720	Apr. 6, 1916	11	51.8	37,500	50.3	36,300
1917	460	314	Feb. 27, 1917	11	‡39.8	‡28,800	‡50.1	‡36,300
1918	480	327	Nov. 22, 1917	14	48.5	35,400	40.1	28,900
1919	510	196	Oct. 1, 1918	13	31.8	23,000	31.7	22,900
1920	510	77	Aug. 27, 1920	-	32.8	23,800	33.6	24,400
1921	530	396	May 27, 1921	14	33.9	24,500	33.6	24,400
1922	550	1,570	June 17, 1922	-	172	125,000	191	138,000
1923	570	1,130	Apr. 21, 1923	32	242	175,000	230	166,000
1924	590	a145	Oct. 1, 1923	-	41.0	29,700	32.6	23,600
1925	610	b43	May 15, 1925	13	22.8	16,500	21.3	15,400
1926	630	‡27	May 29, 1926	6	13.8	10,000	11.4	8,230
1927	650	‡20	May 23, 1927	3	10.0	7,240	-	-

‡ Not previously published.
a Maximum observed.
b Maximum daily.

PAVANT VALLEY

228. Pine Creek near Fillmore, Utah

Location.--Lat 38°55', Long 112°18', in sec. 9, T. 22 S., R. 4 W., 600 ft upstream from canal intake and about 4 miles southeast of Fillmore.

Supplemental records available.--April, May 1913, discharge measurements only.

Gage.--Staff gage.

Extremes.--May 8 to July 16, 1914: Maximum discharge observed, 37 cfs May 24 (gage height, 1.66 ft), from rating curve extended above 26 cfs; minimum observed, 1.1 cfs July 16 (gage height, 0.76 ft).

Remarks.--No diversion or regulation. Station is above sinks which absorb much of flow within a few miles downstream.

Monthly mean discharge, in cubic feet per second

Year						May	June	July					
1914						-	10.5	-					

Monthly runoff, in acre-feet

Year						May	June	July					
1914						-	625	-					

229. Chalk Creek near Fillmore, Utah

Location.--Lat 38°58', long 112°18', in NE¼ sec. 28, T. 21 S., R. 4 W., 1 mile east of Fillmore and 2¼ miles downstream from South Fork.

Drainage area.--60 sq mi, approximately; 38 sq mi, approximately, at site used in 1914.

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.
Supplementary water-stage recorder and Parshall flume since March 1944 on Fillmore Canal.

Average discharge.--6 years (1944-50), 36.5 cfs.

Extremes.--1914, 1944-50: Maximum discharge observed, 490 cfs May 9, 1914 (gage height, 3.40 ft, site and datum then in use); minimum daily, 5.9 cfs Dec. 25, 1948.

Remarks.--Records in 1914 above all diversions. Later records include flow of Fillmore Canal which diverts on left bank at flood control dam 400 ft upstream. During low-water periods water for Fillmore Canal is diverted 2 miles upstream and carried in a lined ditch to head of canal. One other small irrigation diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	62.6	-	-	-	-
1944	-	-	-	-	-	20.4	63.5	270	153	35.0	18.4	13.7	-
1945	13.2	11.9	11.2	11.2	11.4	18.2	59.2	222	103	35.0	24.0	15.7	44.9
1946	14.2	13.5	12.5	11.6	12.2	18.6	81.7	76.7	44.7	17.4	14.6	10.9	27.4
1947	12.3	22.6	22.3	15.5	24.0	45.4	103	203	74.7	36.0	21.5	14.3	49.7
1948	14.1	14.4	15.4	13.3	15.7	25.5	105	189	57.5	21.5	15.0	11.4	41.6
1949	11.2	11.0	10.8	11.6	11.8	16.7	70.1	99.6	46.1	19.2	13.3	11.4	27.8
1950	11.3	11.1	10.4	10.5	14.1	16.7	[illegible]3	108	48.2	19.4	11.5	10.3	27.8

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	3,720	-	-	-	-
1944	-	-	-	-	-	1,250	3,780	16,590	9,100	2,150	1,130	813	-
1945	811	707	690	689	634	1,120	3,520	13,650	6,120	2,150	1,480	936	32,510
1946	871	801	769	714	680	1,140	4,860	4,720	2,660	1,070	899	647	19,830
1947	757	1,350	1,370	956	1,330	2,790	6,120	12,500	4,440	2,210	1,320	851	36,000
1948	869	855	946	817	902	1,570	6,270	11,640	3,420	1,320	924	676	30,210
1949	688	657	666	712	655	1,030	4,170	6,120	2,740	1,180	815	678	20,110
1950	694	662	639	643	784	1,030	3,710	6,610	2,870	1,190	708	615	20,160

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a490	May 9, 1914	-	-	-	-	-
1944	1010	429	May 15, 1944	-	-	-	-	-
1945	1040	356	May 11, 1945	8.5	44.9	32,510	45.2	32,740
1946	1060	142	Apr. 27, 1946	8.4	27.4	19,830	28.8	20,870
1947	1090	312	May 6, 1947	9.7	49.7	36,000	48.6	35,190
1948	1120	288	May 17, 1948	7.4	41.6	30,210	40.7	29,550
1949	1150	135	Apr. 29, 1949	5.9	27.8	20,110	27.8	20,100
1950	1180	164	May 18, 1950	6.8	27.8	20,160	-	-

a Maximum observed.

230. Meadow Creek near Meadow, Utah

Location.--Lat 38°53', long 112°19', in SW¼ sec. 21, T. 22 S., R. 4 W., 100 ft upstream from canal intake, a quarter of a mile upstream from foothill road ford, and 5 miles upstream from Meadow.

Drainage area.--15 sq mi, approximately.

Supplemental records available.--April, May 1913, discharge measurements only.

Gage.--Staff gage.

Extremes.--May 7 to July 16, 1914: Maximum discharge observed, 113 cfs May 12 (gage height, 2.94 ft), from rating curve extended above 40 cfs; minimum observed, 8.5 cfs July 16 (gage height, 1.54 ft).

Remarks.--No diversion or regulation.

Monthly mean discharge, in cubic feet per second, of Meadow Creek near Meadow, Utah

Year						May	June	July					
1914						-	19.1	-					

Monthly runoff, in acre-feet

Year						May	June	July					
1914						-	1,140	-					

231. Corn Creek near Kanosh, Utah

Location.--Lat 38°46', long 112°24', in NE¼ sec. 34, T. 23 S., R. 5 W., 1 mile downstream from mouth of canyon and about 2 miles upstream from Kanosh.

Drainage area.--68 sq mi, approximately.

Supplemental records available.--April, May 1913, discharge measurements only.

Gage.--Staff gage.

Extremes.--May 7 to July 17, 1914: Maximum discharge observed, 134 cfs May 11 (gage height, 1.40 ft), from rating curve extended above 60 cfs; minimum observed, 19 cfs July 15-17 (gage height, 0.22 ft).
Flood in Fall of 1913 reached a stage of about 6 ft (from floodmarks).

Remarks.--No diversion or regulation.

Monthly mean discharge, in cubic feet per second

Year						May	June	July					
1914						-	32.3	-					

Monthly runoff, in acre-feet

Year						May	June	July					
1914						-	1,920	-					

BEAVER RIVER BASIN

232. Three Creeks near Beaver, Utah

Location.--Lat 38°17'40", long 112°25'40", in NW¼NW¼ sec. 16, T. 29 S., R. 5 W., 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.

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.

Extremes.--1947-50: Maximum discharge, 290 cfs Aug. 9, 1947 (gage height, 4.35 ft, site and datum then in use), from rating curve extended above 19 cfs on basis of slope-area determination of peak flow; minimum not determined, probably occurred during period of no gage-height record.

Remarks.--Flow regulated by Puffer Lake and by Three Creeks Reservoir (capacity, 2,020 acre-ft) completed in 1950.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	15.5	13.9	8.46	-
1948	7	6	5	4	3.5	3.5	7.66	42.2	19.9	10.8	8.20	6.72	10.4
1949	5.53	4.38	4.13	3.7	3.93	4.41	12.3	41.9	55.6	21.4	11.1	7.95	14.7
1950	7.26	5.83	4.5	4	3.5	4	8.5	16.2	12.9	8.45	5.29	3.90	7.05

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	956	854	503	-
1948	430	357	307	246	201	215	456	2,590	1,180	666	504	400	7,550
1949	340	261	254	228	218	271	730	2,570	3,310	1,310	683	473	10,650
1950	446	347	277	246	194	246	506	999	769	520	325	232	5,110

Yearly discharge, in cubic feet per second, of Three Creeks near Beaver, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	290	Aug. 9, 1947	-	-	-	-	-
1948	1120	153	May 17, 1948	-	10.4	7,550	10.1	7,310
1949	1150	109	June 12, 1949	-	14.7	10,650	15.0	10,860
1950	1180	30	May 23, 1950	3.3	7.05	5,110	-	-

233. Beaver River near Beaver, Utah

Location.--Lat 38°17', long 112°34', in SW¼SW¼ sec. 17, T. 29 S., R. 6 W., at Fishlake National Forest boundary, three-quarters of a mile downstream from Bakers Canyon, and 4¼ miles east of Beaver.

Drainage area.--82 sq mi, approximately.

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.--36 years (1914-50), 56.1 cfs.

Extremes.--1914-50: 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, 5 cfs Aug. 29, 1931, Nov. 30, 1939.

Remarks.--No diversion above station for irrigation. Water diverted for hydroelectric power, but returned to stream above station. Some regulation by powerplants and several small reservoirs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	117	74.8	-	-
1914	-	-	-	-	-	-	98.2	370	266	109	62.9	35.8	-
1915	41.5	29.1	26.5	†23.2	22.6	27.1	79.6	176	192	70.1	36.8	30.0	†63.0
1916	27.7	26.5	22.6	16.4	26.3	44.9	105	225	153	73.2	55.1	37.6	67.8
1917	40.4	32.5	19.4	19.3	26.4	26.2	52.7	110	198	64.5	29.8	26.2	53.8
1918	24.7	20.9	20.6	20.5	19.5	23.4	53.5	137	98.8	52.6	31.2	24.7	44.1
1919	28.2	25.2	22.8	19.3	17.5	22.4	93.1	202	64.1	35.0	24.9	24.3	48.5
1920	23.0	23.7	19.4	16.0	15.4	16.5	28.4	326	214	71.4	41.6	28.8	68.9
1921	28.9	25.4	17.7	20.4	22.3	34.9	49.4	209	312	79.5	46.8	36.7	73.6
1922	29.1	26.3	23.9	20.8	20.7	23.5	36.6	338	290	75.3	46.8	32.6	80.1
1923	26.5	25.5	24.7	23.9	22.9	24.6	53.5	313	177	84.6	43.2	30.5	71.2
1924	28.2	25.4	22.6	22.2	23.9	23.6	75.0	135	58.1	27.4	19.8	18.1	40.0
1925	17.4	17.6	18.1	15.7	17.5	23.5	64.1	206	98.1	63.3	37.4	29.3	50.9
1926	31.6	28.4	24.8	21.0	21.9	28.1	88.6	280	108	43.4	31.0	25.1	61.3
1927	23.5	21.5	21.4	21.5	24.2	24.4	56.6	178	100	53.8	38.7	32.1	49.8
1928	30.5	33.6	26.2	26.9	26.7	35.5	59.6	209	108	53.3	35.7	28.1	56.3
1929	28.1	26.0	20	20	23.3	28.4	49.7	289	137	61.9	38.1	35.8	63.5
1930	26.3	25.0	23.1	20	19.7	23.2	98.6	163	106	41.6	32.9	27.8	50.7
1931	26.0	20.3	19	18	20.8	21.4	38.9	62.1	34.9	20.5	15.5	12.3	25.8
1932	16.6	13.6	13	12	16.0	18.7	54.5	210	146	72.5	28.4	20.9	52.0
1933	22.1	18.6	20.0	25	18	15.2	21.8	89.6	218	54.8	30.8	23.3	46.4
1934	22.5	21.0	15.9	14	17.6	22.9	42.3	48.9	24.1	18.5	14.1	11.1	22.8
1935	13.4	14.4	15	16	18	19.4	46.4	118	225	59.6	30.4	23.1	49.9
1936	20.0	19.8	17.9	19.6	19.1	21.1	84.1	199	208	92.1	62.0	36.4	66.8
1937	29.1	24.5	22	20	20	23.7	82.7	384	174	77.7	38.4	28.2	77.5
1938	23.6	23.3	23.6	18.3	18.2	23.0	77.1	212	181	68.4	32.4	24.6	60.6
1939	26.8	22.1	22.1	21.4	20.6	28.1	62.4	92.4	46.9	28.2	21.7	22.6	34.7
1940	23.3	18.6	16.5	15.7	18.5	24.0	84.8	240	90.1	32.8	25.2	26.1	51.5
1941	23.9	20.2	19.1	19.6	20.2	21.0	26.1	337	356	98.2	50.3	33.7	85.8
1942	34.2	32.2	27.7	27.0	24.8	25.7	80.6	244	165	58.0	35.5	25.5	65.3
1943	24.3	22.6	20.5	19.6	23.4	27.4	117	145	81.0	37.1	35.7	24.0	48.2
1944	25.2	21.9	19.9	19.1	19.3	21.5	38.9	237	286	91.8	38.7	30.0	70.8
1945	25.7	24.8	22.5	21.4	21.6	23.4	41.5	210	161	82.1	42.4	29.8	59.2
1946	27.5	24.6	23.5	22.5	22.3	24.0	87.8	121	84.2	32.0	27.8	21.4	43.2
1947	25.2	23.4	21.5	18	20.0	29.4	72.0	306	155	74.7	52.7	33.3	69.6
1948	29.8	23.2	22.8	19.3	18.9	20.3	51.0	199	110	45.1	28.6	21.8	49.3
1949	20.4	19.9	19.5	18.0	18.6	21.7	75.3	201	226	81.2	36.5	25.5	63.8
1950	26.3	23.3	20.6	20.0	21.8	22.9	50.9	88.6	61.4	31.0	19.0	16.0	33.5

† Corrected.

Monthly and yearly runoff, in acre-feet, of Beaver River near Beaver, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	7,190	4,600	-	-
1914	-	-	-	-	-	-	5,840	22,800	15,800	6,700	3,870	2,130	-
1915	2,550	1,730	1,630	†1,430	1,260	1,670	4,740	10,800	11,400	4,310	2,260	1,780	†45,600
1916	1,700	1,580	1,390	1,010	1,510	2,760	6,250	13,800	9,100	4,500	3,390	2,240	49,200
1917	2,480	1,930	1,190	1,190	1,470	1,610	3,140	6,760	11,800	3,970	1,830	1,560	38,900
1918	1,520	1,240	1,270	1,260	1,080	1,440	3,180	8,420	5,880	3,230	1,920	1,470	31,900
1919	1,730	1,500	1,400	1,190	972	1,380	5,540	12,400	3,810	2,150	1,530	1,450	35,100
1920	1,410	1,410	1,190	984	886	1,010	1,690	20,000	12,700	4,390	2,560	1,710	50,000
1921	1,780	1,510	1,090	1,250	1,240	2,150	2,940	12,900	18,600	4,890	2,880	2,180	53,400
1922	1,790	1,560	1,470	1,280	1,150	1,440	2,180	20,800	17,300	4,630	2,880	1,940	58,400
1923	1,630	1,520	1,520	1,470	1,270	1,510	3,180	19,200	10,500	5,200	2,660	1,810	51,500
1924	1,730	1,510	1,390	1,360	1,370	1,450	4,460	8,300	3,460	1,680	1,220	1,080	29,000
1925	1,070	1,050	1,110	965	972	1,440	3,810	12,700	5,840	3,890	2,300	1,740	36,900
1926	1,940	1,690	1,520	1,290	1,220	1,730	5,270	17,200	6,430	2,670	1,910	1,490	44,400
1927	1,440	1,280	1,320	1,320	1,340	1,500	3,370	10,900	5,950	3,310	2,380	1,910	36,000
1928	1,880	2,000	1,610	1,650	1,540	2,180	3,550	12,900	6,430	3,280	2,200	1,670	40,900
1929	1,730	1,550	1,230	1,230	1,290	1,750	2,960	17,800	8,150	3,810	2,340	2,130	48,000
1930	1,620	1,490	1,420	1,230	1,090	1,430	5,870	10,000	6,310	2,560	2,020	1,650	36,700
1931	1,600	1,210	1,170	1,110	1,160	1,320	2,310	3,820	2,080	1,260	953	732	18,700
1932	1,020	809	799	738	920	1,150	3,240	12,900	8,690	4,460	1,750	1,240	37,700
1933	1,360	1,110	1,230	1,540	1,000	935	1,300	5,510	13,000	3,370	1,890	1,390	33,600
1934	1,380	1,250	980	861	980	1,410	2,520	3,000	1,430	1,140	867	662	16,480
1935	825	857	922	984	1,000	1,190	2,760	7,260	13,410	3,660	1,870	1,370	36,110
1936	1,230	1,180	1,100	1,210	1,100	1,300	5,000	12,230	12,360	5,660	3,810	2,170	48,350
1937	1,790	1,460	1,350	1,230	1,110	1,460	4,920	23,640	10,340	4,780	2,360	1,680	56,120
1938	1,450	1,380	1,450	1,120	1,010	1,420	4,590	13,010	10,740	4,200	1,990	1,460	43,820
1939	1,650	1,320	1,360	1,320	1,140	1,730	3,720	5,680	2,790	1,730	1,330	1,340	25,110
1940	1,430	1,100	1,010	964	1,060	1,480	5,050	14,780	5,360	2,020	1,550	1,550	37,350
1941	1,470	1,200	1,170	1,200	1,120	1,290	1,560	20,740	21,220	6,040	3,090	2,010	62,110
1942	2,110	1,920	1,710	1,660	1,380	1,580	4,800	15,030	9,820	3,570	2,190	1,520	47,290
1943	1,500	1,350	1,260	1,210	1,300	1,680	6,970	8,890	4,820	2,280	2,200	1,430	34,890
1944	1,550	1,310	1,220	1,170	1,110	1,320	2,310	14,600	17,010	5,640	2,380	1,790	51,410
1945	1,580	1,480	1,380	1,310	1,200	1,440	2,470	12,930	9,610	5,050	2,610	1,780	42,840
1946	1,690	1,470	1,450	1,380	1,240	1,480	5,220	7,420	5,010	1,970	1,710	1,270	31,310
1947	1,550	1,390	1,320	1,110	1,110	1,810	4,290	18,820	9,210	4,590	3,240	1,980	50,420
1948	1,830	1,380	1,400	1,180	1,090	1,250	3,030	12,230	6,540	2,770	1,760	1,300	35,760
1949	1,250	1,190	1,200	1,110	1,030	1,340	4,480	12,390	13,450	4,990	2,250	1,520	46,200
1950	1,620	1,390	1,270	1,200	1,210	1,410	3,030	5,450	3,650	1,910	1,170	954	24,260

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	212	-	-	-	-	-	-	-
1914	390	710	May 24, 1914	-	-	-	-	-
1915	410	448	June 1, 1915	10	†63.0	†45,600	61.3	44,300
1916	440	412	May 9, 1916	-	67.8	49,200	69.1	50,200
1917	460	610	June 9, 1917	-	53.8	38,900	51.6	37,400
1918	480	238	May 23, 1918	-	44.1	31,900	44.7	32,500
1919	510	368	May 4, 1919	16	48.5	35,100	47.6	34,400
1920	510	760	May 30, 1920	-	68.9	50,000	69.4	50,300
1921	530	665	June 10, 1921	-	73.6	53,400	74.2	53,800
1922	550	785	May 25, 1922	-	80.1	58,400	80.3	58,300
1923	570	644	May 26, 1923	-	71.2	51,500	71.2	51,400
1924	590	299	May 9, 1924	13	40.0	29,000	38.0	27,600
1925	610	382	May 20, 1925	-	50.9	36,900	53.6	38,800
1926	630	740	May 19, 1926	-	61.3	44,400	59.7	43,200
1927	650	467	May 17, 1927	18	49.8	36,000	51.8	37,500
1928	670	432	May 8, 1928	-	56.3	40,900	54.9	39,900
1929	690	630	May 25, 1929	-	63.5	46,000	63.5	46,000
1930	705	416	May 26, 1930	-	50.7	36,700	49.9	36,100
1931	720	156	May 6, 1931	10	25.8	18,700	24.0	17,400
1932	735	570	May 21, 1932	-	52.0	37,700	53.5	38,800
1933	750	542	June 1, 1933	-	46.4	33,600	46.3	33,500
1934	765	82	May 5, 1934	10	22.8	16,480	21.4	15,470
1935	790	484	June 6, 1935	10	49.9	36,110	51.1	37,010
1936	810	1,080	July 22, 1936	15	66.8	48,350	68.1	49,440
1937	830	749	May 18, 1937	-	77.5	56,120	77.1	55,800
1938	860	460	May 27, 1938	15	60.6	43,820	60.6	43,870
1939	880	159	Apr. 30, 1939	16	34.7	25,110	33.6	24,320
1940	900	445	May 15, 1940	12	51.5	37,350	51.9	37,650
1941	930	676	June 7, 1941	16	85.8	62,110	88.4	64,010
1942	960	681	May 25, 1942	22	65.3	47,290	63.0	45,660
1943	980	540	May 1, 1943	15	48.2	34,890	48.1	34,860
1944	1010	780	June 8, 1944	17	70.8	51,410	71.3	51,770
1945	1040	333	May 11, 1945	17	59.2	42,840	59.4	43,010
1946	1060	203	Apr. 26, 1946	19	43.2	31,310	42.8	30,960
1947	1090	676	Aug. 12, 1947	-	69.6	50,420	70.1	50,770
1948	1120	501	May 17, 1948	16	49.3	35,760	47.9	34,790
1949	1150	429	May 26, 1949	15	63.8	46,200	64.7	46,840
1950	1180	164	May 21, 1950	14	33.5	24,260	-	-

† Corrected.

234. North Fork North Creek above Pole Creek, near Beaver, Utah

Location.--Lat 38°23'30", long 112°30'35", in NE¼ sec. 10, T. 28 S., R. 6 W., 2½ miles upstream from Pole Creek, 4½ miles upstream from confluence with South Fork, and 11 miles northeast of Beaver.

Drainage area.--6.9 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 7,500 ft above mean sea level (from reconnaissance map).

Extremes.--1947-49: Maximum discharge, 36 cfs June 12, 1949 (gage height, 1.28 ft): minimum not determined, probably occurred during period of no gage-height record (figure published in WSP 1150 should not be used).

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	4.07	2.77	1.89	-
1948	1.73	1.67	1.3	1.1	1.2	1.88	5.10	15.7	11.2	3.38	1.66	1.07	3.92
1949	1.33	1.54	1.3	1.1	1.25	1.6	7.63	11.9	10.7	4.07	1.79	1.25	3.80

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	-	-	-	-	-	-	250	170	112	-
1948	106	100	80	67	68	116	303	964	668	208	102	64	2,850
1949	82	91	81	68	70	99	454	735	639	250	110	75	2,750

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	-	-	-	-	-	-	-
1948	1120	26	May 18, 1948	0.9	3.92	2,850	3.88	2,810
1949	1150	36	June 12, 1949	-	3.80	2,750	-	-

235. North Fork North Creek near Beaver, Utah

Location.--Lat 38°21', long 112°32', in sec. 21, T. 28 S., R. 6 W., 8 miles northeast of Beaver.

Gage.--Staff gage.

Extremes.--June to September 1906: Maximum and minimum discharge not determined.

Monthly mean discharge, in cubic feet per second

Year						June	July	Aug.	Sept.				
1906						-	6.8	2.7	-				

Monthly runoff, in acre-feet

Year						June	July	Aug.	Sept.				
1906						-	418	166	-				

236. South Fork North Creek near Beaver, Utah

Location.--Lat 38°21', long 112°32', in sec. 28, T. 28 S., R. 6 W., 100 ft east of "The Narrows" of South Fork Canyon and 8 miles northeast of Beaver.

Gage.--Staff gage.

Extremes.--June to September 1906: Maximum and minimum discharge not determined.

Monthly mean discharge, in cubic feet per second

Year						June	July	Aug.	Sept.				
1906						-	37.6	23.4	-				

Monthly runoff, in acre-feet

Year						June	July	Aug.	Sept.				
1906						-	2,310	1,390	-				

538662 O - 60 - 17

237. Beaver River at Adamsville, Utah

Location.--Lat 38°16', long 112°48', in S½ sec. 30, T. 29 S., R. 8 W., 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.

Gage.--Water-stage recorder. Altitude of gage is 6,000 ft (from topographic map). Prior to Sept. 15, 1936, water-stage recorder, and Sept. 15, 1936, to Oct. 15, 1937, staff gage at site 225 ft upstream at different datum. Oct. 16, 1937, to May 28, 1946, water-stage recorder at site 75 ft downstream at datum 0.50 ft higher.

Average discharge.--36 years (1914-50), 39.1 cfs.

Extremes.--1914-50: Maximum discharge, 1,090 cfs July 23, 1941 (gage height, 4.68 ft, site and datum then in use); no flow during summer periods of many years.

Remarks.--No diversion between station and Rockyford Reservoir. Irrigation diversions above station use practically the entire flow during the irrigation season to supply Adamsville and Beaver districts.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	56.9	44.1	52.1	66.7	260	229	82.2	43.0	24.1	-
1915	42.3	46.5	40.7	30.2	50.0	46.7	72.2	142	119	27.6	14.9	31.5	55.0
1916	20.5	42.2	45.4	46.6	59.7	85.8	105	102	28.5	20.3	38.2	16.1	50.8
1917	46.3	52.3	55.5	45	51.3	45.3	44.7	44.7	61.4	5.6	8.0	4.2	38.6
1918	8.97	32.9	38.8	37.5	42.5	34.7	42.6	6.83	9.53	10.2	3.93	4.99	22.6
1919	17.4	33.7	46.9	34.3	40.0	47.4	56.7	47.7	4.2	.87	2.6	1.50	27.7
1920	3.6	25.0	40	44.2	41.3	31.1	41.1	304	135	11.1	40.5	10.6	60.8
1921	26.7	44.0	49.2	47.9	44.4	43.4	65.7	123	227	26.2	58.1	31.1	65.4
1922	35.5	50.7	58.1	47.5	45.9	53.6	56.5	279	165	15.1	39.0	25.7	72.9
1923	26.5	57.1	62.2	53.7	53.7	48.7	56.4	152	50.4	25.0	31.3	24.3	53.5
1924	47.4	46.8	37.4	40.3	46.9	47.6	40.7	3.8	1.0	1.1	.3	0	26.0
1925	2.5	21.3	36.5	25.6	41.3	24.4	14.7	17.2	27.3	14.2	12.0	17.4	21.0
1926	42.6	47.2	46.3	45.6	35.8	34.2	58.0	136	13.7	12.6	16.9	1.8	41.1
1927	6.9	31.7	47.3	44.5	50.2	37.7	31.5	17.6	4.8	4.3	7.9	11.7	24.5
1928	22.0	53.5	51.0	53.0	40.0	34.8	14.1	28.6	6.3	1.4	1.2	1.3	25.6
1929	4.5	33.6	44.4	40	45	43.5	29.1	44.5	9.1	9.1	60.0	29.0	32.6
1930	15.6	44.7	48.4	45.7	65.5	34.1	33.2	32.8	13.8	5.3	26.8	9.5	31.1
1931	23.8	38.8	40	42.7	53.9	37.1	11.4	2.1	1	.2	0	0	20.8
1932	0	18.2	25.3	25	56.6	37.2	4.4	65.5	23.7	22.5	10.7	8.6	24.8
1933	15.0	41.3	39.8	38.6	35	42.1	13.2	14.4	48.2	10.2	6.9	4.6	25.7
1934	8.2	39.3	44.2	38.7	34.5	29.9	3.8	.3	0	0	9.8	0	17.3
1935	0	25.6	22.5	19.9	21.5	22.3	1.9	16.9	78.2	3.5	5.2	4.6	18.4
1936	6.2	32.7	31.0	30.2	46.0	33.9	9.0	31.9	162	118	136	49.6	57.2
1937	‡38	‡55	‡58	‡50	‡53	‡56	‡80	‡336	‡76	‡24	‡13	‡12	‡71
1938	‡27	47.8	53.1	47.6	43.9	46.1	43.0	127	87.4	9.1	12.6	19.1	‡47.0
1939	31.1	52.5	50.6	48	42	53.5	14.5	2.5	2.2	.6	1.2	8.8	25.6
1940	12.2	32.4	31.4	38.3	40.0	39.6	11.4	81.3	8.9	7.5	2.6	14.8	26.7
1941	14.7	38.6	41.0	38.7	39.4	37.5	31.5	275	271	64.6	39.7	26.2	76.6
1942	56.0	60.8	58.5	55.0	46.0	45.7	69.4	126	40.6	17.7	14.2	11.7	50.3
1943	24.5	49.5	43.5	41.2	41.2	54.5	45.4	37.5	19.3	4.5	16.8	6.7	32.0
1944	22.0	38.9	40.9	41.0	41.2	55.9	36.1	98.2	184	23.2	8.97	6.80	49.6
1945	20.0	51.6	49.6	49.1	45.1	42.1	38.0	40.5	50.3	36.5	62.7	14.0	41.6
1946	36.2	51.0	47.3	44.3	49.8	43.1	25.7	9.65	5.64	4.36	8.95	5.95	27.5
1947	21.3	45.3	42.7	39.4	42.2	45.1	13.9	157	63.0	18.8	33.4	12.9	44.7
1948	27.7	55.7	53.9	43.7	51.5	52.5	33.5	36.6	19.6	7.44	4.87	4.73	32.6
1949	12.1	39.4	40.2	30.0	41.4	78.0	38.9	56.1	162	20.3	10.3	11.2	44.8
1950	28.6	52.4	42.1	45.0	59.0	42.1	4.09	2.65	1.94	2.79	.92	.40	23.3

‡ Not previously published; estimated on basis of twice-weekly gage-height readings, discharge measurements, and comparison with records for Beaver River near Beaver.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	3,500	2,450	3,200	3,970	16,000	13,600	5,050	2,640	1,430	-
1915	2,600	2,770	2,500	1,860	2,780	2,870	4,300	8,730	7,080	1,700	916	1,870	40,000
1916	1,260	2,510	2,790	2,870	3,430	5,280	6,250	6,270	1,700	1,250	2,350	958	36,900
1917	2,850	3,110	3,410	2,770	2,850	2,790	2,660	2,750	3,650	343	492	250	27,900
1918	552	1,960	2,390	2,310	2,360	2,130	2,530	420	567	627	242	297	16,400
1919	1,070	2,010	2,880	2,110	2,220	2,910	3,370	2,930	248	53	160	89	20,000
1920	222	1,490	2,460	2,720	2,380	1,910	2,450	18,700	8,030	682	2,490	631	44,200
1921	1,640	2,620	3,030	2,950	2,470	2,670	3,910	7,560	13,500	1,610	3,570	1,850	47,400
1922	2,180	3,020	3,570	2,920	2,550	3,300	3,360	17,200	9,820	928	2,400	1,530	52,800
1923	1,630	3,400	3,820	3,300	2,980	2,990	3,360	9,350	3,000	1,540	1,920	1,450	†36,700
1924	2,910	2,780	2,300	2,480	2,700	2,930	2,420	234	60	68	18	0	18,900
1925	154	1,270	2,240	1,570	2,290	1,500	875	1,060	1,620	873	738	1,040	15,200
1926	2,620	2,810	2,850	2,800	1,990	2,100	3,450	8,360	815	775	1,040	107	29,700
1927	424	1,890	2,910	2,740	2,790	2,320	1,870	1,080	286	264	486	696	17,800
1928	1,350	3,180	3,140	3,260	2,300	2,140	839	1,760	375	86	74	77	18,600
1929	277	2,000	2,730	2,480	2,500	2,670	1,730	2,740	541	560	3,690	1,730	23,600
1930	959	2,660	2,980	2,810	3,640	2,100	1,980	2,020	821	326	1,650	565	22,500

† Corrected.

Monthly and yearly runoff, in acre-feet, of Beaver River at Adamsville, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	1,460	2,310	2,460	2,630	2,990	2,280	678	129	60	10	0	0	15,000
1932	0	1,080	1,560	1,540	3,260	2,290	262	4,030	1,410	1,380	658	512	18,000
1933	922	2,460	2,450	2,370	1,940	2,590	786	885	2,870	627	424	276	18,600
1934	504	2,340	2,720	2,380	1,910	1,840	226	20	0	0	605	0	12,540
1935	0	1,520	1,380	1,220	1,200	1,370	115	1,040	4,650	216	319	274	13,300
1936	383	1,950	1,910	1,860	2,650	2,090	534	1,960	9,650	7,250	8,360	2,950	41,530
1937	‡2,350	‡3,270	‡3,570	‡3,070	‡2,940	‡3,440	‡4,780	‡20,650	‡4,530	‡1,490	‡801	‡702	‡51,590
1938	‡1,670	2,840	3,260	2,930	2,440	2,830	2,560	7,800	5,200	557	776	1,130	‡33,990
1939	1,910	3,120	3,110	2,950	2,330	3,290	861	157	131	40	71	524	18,490
1940	748	1,930	1,930	2,350	2,300	2,430	680	5,000	532	458	159	881	19,400
1941	904	2,300	2,520	2,380	2,190	2,300	1,880	16,880	16,100	3,970	2,440	1,560	55,420
1942	3,440	3,620	3,600	3,380	2,550	2,810	4,130	7,770	2,410	1,090	871	698	36,370
1943	1,510	2,950	2,680	2,530	2,290	3,350	2,700	2,310	1,150	278	1,040	401	23,190
1944	1,350	2,320	2,520	2,520	2,370	3,440	2,150	6,040	10,930	1,430	551	405	36,030
1945	1,230	3,070	3,050	3,020	2,500	2,590	2,260	2,490	3,000	2,240	3,860	834	30,140
1946	2,220	3,030	2,910	2,720	2,770	2,650	1,530	593	336	268	550	354	19,930
1947	1,310	2,700	2,630	2,420	2,340	2,770	826	9,660	3,750	1,150	2,050	767	32,370
1948	1,700	3,320	3,310	2,690	2,960	3,230	1,990	2,250	1,160	457	300	281	23,650
1949	742	2,350	2,470	1,840	2,300	4,800	2,320	3,450	9,650	1,250	630	665	32,470
1950	1,760	3,120	2,590	2,770	3,280	2,590	244	163	115	172	56	24	16,880

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	544	June 3, 1914	-	-	-	82.5	59,700
1915	410	*430	July 26, 1915*	10	55.0	40,000	53.4	38,700
1916	440	*480	Aug. 5, 1916	3.4	50.8	36,900	54.7	39,700
1917	460	275	June 9, 1917	1	38.6	27,900	32.4	23,500
1918	480	*74	Apr. 25, 1918	.3	22.6	16,400	24.1	17,400
1919	510	147	May 5, 1919	.3	27.7	20,000	25.2	18,300
1920	510	796	May 23, 1920	1	60.8	44,200	65.1	47,300
1921	530	*a836	July 14, 1921	2	65.4	47,400	67.5	48,900
1922	550	583	May 31, 1922	2	72.9	52,800	73.0	52,900
1923	570	373	July 25, 1923	9	53.5	†38,700	52.4	37,900
1924	590	64	Mar. 26, 1924	0	26.0	18,900	20.1	14,600
1925	610	268	June 4, 1925	0	21.0	15,200	27.4	19,800
1926	630	395	May 20, 1926	1	41.1	29,700	36.8	26,700
1927	650	122	Feb. 17, 1927	1	24.5	17,800	27.9	20,200
1928	670	109	May 18, 1928	1	25.6	18,600	21.9	15,900
1929	690	494	Aug. 5, 1929	1	32.6	23,600	34.8	25,200
1930	705	171	Feb. 19, 1930	1	31.1	22,500	30.5	22,100
1931	720	22	Feb. 6, 1931	0	20.8	15,000	15.8	11,400
1932	735	455	Feb. 9, 1932	0	24.8	18,000	29.2	21,200
1933	750	234	June 1, 1933	1	25.7	18,600	25.3	18,300
1934	765	b673	Aug. 5, 1934	0	17.3	12,540	13.7	9,880
1935	790	274	June 9, 1935	0	18.4	13,300	20.2	14,640
1936	810	989	Sept. 1, 1936	3	57.2	41,530	‡64.0	‡46,490
1937	-	‡b778	May 17, 1937	-	‡71	‡51,590	‡69.3	‡50,170
1938	860	499	May 28, 1938	5	‡47.0	‡33,990	47.5	34,360
1939	880	168	Mar. 9, 1939	0	25.6	18,490	20.7	14,960
1940	900	304	May 16, 1940	1	26.7	19,400	28.3	20,510
1941	930	1,090	July 23, 1941	10	76.6	55,420	83.4	60,360
1942	960	454	May 27, 1942	4	50.3	36,370	45.4	32,850
1943	980	234	May 2, 1943	1	32.0	23,190	30.7	22,240
1944	1010	509	June 9, 1944	4.4	49.6	36,030	51.2	37,190
1945	1040	438	July 28, 1945	8.1	41.6	30,140	42.8	30,950
1946	1060	109	Oct. 10, 1945	2.1	27.5	19,930	25.4	18,410
1947	1090	465	May 11, 1947	6.1	44.7	32,370	47.1	34,060
1948	1120	198	May 18, 1948	3.0	32.6	23,650	28.7	20,890
1949	1150	296	June 18, 1949	5.5	44.8	32,470	47.5	34,380
1950	1180	266	Feb. 6, 1950	.2	23.3	16,880	-	-

* Revised.
† Corrected.
‡ Not previously published.
a May have been exceeded by flood of Aug. 23, 1921.
b Maximum observed.

238. Indian Creek near Beaver, Utah

Location.--Lat 38°25'50", long 112°35'20", in SE¼ sec. 25, T. 27, S., R. 7 W., 2½ miles downstream from Grassy Creek and 11 miles north of Beaver.

Drainage area.--19.4 sq mi.

Gage.--Water-stage recorder. June 26 to Aug. 31, 1906, staff gage at same site at different datum.

Extremes.--1947-49: Maximum discharge, 36 cfs June 11, 1949 (gage height, 1.52 ft); minimum recorded, 0.9 cfs Mar. 6, 1949, but may have been less during period of no gage-height record.

Remarks.--Flow regulated by Beaver Dam Reservoir (capacity, about 400 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second, of Indian Creek near Beaver, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	9.4	5.1	-	-
1947	-	-	-	-	-	-	-	-	-	11.5	3.80	2.76	-
1948	3.06	3.0	2.7	2.5	2.59	2.55	8.63	16.1	12.0	6.53	3.94	1.66	5.45
1949	1.93	2.1	1.9	1.6	2.1	2.84	10.9	17.2	15.2	9.75	2.98	2.04	5.90

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	578	314	-	-
1947	-	-	-	-	-	-	-	-	-	704	233	164	-
1948	188	178	164	154	149	157	514	992	717	401	242	99	3,960
1949	119	126	118	98	114	175	648	1,060	905	599	183	122	4,270

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	212	-	-	-	-	-	-	-
1947	1120	-	-	-	-	-	-	-
1948	1120	22	May 22, 1948	1.5	5.45	3,960	5.22	3,790
1949	1150	36	June 11, 1949	-	5.90	4,270	-	-

239. Indian Creek at Adamsville, Utah

Location.--Lat 38°15', long 112°47', in sec. 30, T. 29 S., R. 8 W., at highway bridge just east of Adamsville and three-quarters of a mile above mouth.

Drainage area.--180 sq mi, approximately.

Supplemental records available.--October 1916 to September 1920, gage heights and discharge measurements only.

Gage.--Staff gage.

Extremes.--1914-20: Maximum gage height observed, 8.00 ft Aug. 2, 1920 (discharge not determined); no flow Mar. 24-28, Apr. 1, 2, 1914.

Remarks.--Station below all diversions. At certain seasons a small amount of seepage flow enters between gage and mouth of creek. Flow regulated by small reservoir and irrigation diversions above. Water-supply papers for the years 1914-20 erroneously state that records are available June 26 to Aug. 31, 1906.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	4.39	12.3	3.90	14.5	7.87	12.3	-
1915	3.75	1.31	0.39	0.47	0.63	1.84	3.44	5.57	2.00	3.61	1.07	1.98	2.17
1916	.96	13.1	.4	.5	13.2	5.1	9.15	1.60	.69	.29	4.74	.40	3.14

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	261	756	232	892	484	732	-
1915	231	78	24	29	35	113	205	342	119	222	66	118	1,580
1916	59	78	25	31	759	314	544	98	41	18	291	24	2,280

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	-	-	0	-	-	-	-
1915	410	-	-	.2	2.17	1,580	1.95	1,410
1916	440	-	-	.1	3.14	2,280	-	-

240. 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.

Gage.--Staff gage.

Extremes.--1915-22, 1937-50: Maximum contents observed, 23,810 acre-ft Apr. 22, 25, 28, 30, May 1, 1945 (gage height, 51.5 ft); no contents for extended periods 1918-19, several days in August 1915, October and November 1939.

Remarks.--Reservoir is formed by earth-fill dam completed in 1914. Capacity, 23,260 acre-ft between gage height 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, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1915	-	-	-	-	-	-	8,750	12,620	9,250	3,130	a0	-
1916	-	2,490	4,710	6,990	9,390	12,780	14,970	14,400	8,800	5,170	2,000	290
1917	a3,030	a4,960	a6,940	8,580	10,470	11,960	13,270	10,540	6,610	2,810	184	6
1918	-	-	a3,830	5,420	6,990	8,280	9,860	4,620	3,060	999	0	0
1919	0	0	0	0	0	0	a1,380	1,060	70	0	0	0
1920	0	0	a1,690	3,540	a4,120	a4,540	a6,940	a17,760	a15,940	12,780	a12,780	a11,280
1921	a11,820	12,100	a13,030	14,320	a15,770	a16,020	-	-	-	-	-	-
1922	-	-	-	-	-	-	-	-	22,160	a17,570	a15,610	13,270
1938	a9,140	a10,380	a13,160	a15,710	a17,470	19,570	19,740	a19,480	16,910	10,940	7,920	6,050
1939	a7,270	a9,660	a12,500	a14,040	a16,120	18,610	16,260	11,010	6,660	3,690	a1,360	852
1940	0	a2,940	4,710	a6,810	8,530	10,130	9,520	10,400	a7,350	4,540	1,280	1,500
1941	2,740	5,000	7,270	9,110	11,010	12,380	13,800	22,710	23,150	a21,520	a19,500	17,000
1942	a20,190	21,060	19,180	19,360	a20,090	21,940	22,710	22,710	a19,410	a15,540	12,300	11,150
1943	12,030	14,640	16,810	18,420	20,120	22,490	22,170	a19,720	16,810	12,540	9,660	8,470
1944	9,660	11,890	13,920	15,690	18,140	21,280	22,380	22,820	23,150	18,320	14,240	11,890
1945	13,110	15,610	17,850	19,930	21,280	23,150	23,810	20,690	19,180	16,020	17,190	13,510
1946	15,530	18,230	20,400	22,270	23,260	23,480	23,260	a19,390	15,370	11,150	7,210	5,250
1947	6,900	9,620	11,960	13,750	15,610	17,190	16,430	21,500	21,390	17,380	15,690	14,160
1948	15,530	a18,430	20,120	19,650	a19,930	19,840	20,120	16,910	12,780	8,910	5,590	3,950
1949	4,620	6,940	9,320	11,080	13,350	17,190	18,040	b14,700	b18,400	b14,500	b9,350	b8,360
1950	b9,700	b12,600	b15,200	b17,200	b19,400	20,500	b19,200	b13,000	b8,700	b6,000	b2,700	2,810

a Contents interpolated.
b No gage-height record; contents estimated on basis of inflow-outflow studies.
Note.--Records prior to October 1937, not previously published, computed on basis of available gage heights and capacity rating.

241. 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., half a mile downstream from Rockyford Dam and 4¾ miles east of Minersville.

Drainage area.--512 sq mi.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,500 ft (by barometer). Prior to June 1, 1916, at site 1,500 ft upstream at different datum with concrete control. May 29, 1927, to Mar. 23, 1938, staff gage at described site and datum.

Average discharge.--35 years (1914-36, 1937-50), 40.1 cfs.

Extremes.--1913-1950: Maximum discharge, 727 cfs June 10, 1921 (gage height, 3.53 ft); minimum, 0.3 cfs Mar. 19, 20, 1914.

Remarks.--One small diversion between dam and station. Flow regulated by Rockyford Reservoir (see preceding record). Numerous diversions above reservoir for irrigation and municipal use.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	50.4	53.6	38.3	56.1	164	185	59.1	60.1	93.4	-
1915	40.1	12.0	6.3	9.8	9	33.9	44.4	56.7	146	132	66.1	40.9	49.9
1916	26.1	8.6	4.0	6.4	9.6	11.4	39.1	95.0	125	96.4	114	52.3	49.1
1917	10.2	13.4	11.8	12.7	14.4	15.4	17.2	88.3	127	79.7	62.0	20.3	39.6
1918	20.1	12.4	5.15	5.97	7.48	9.58	10.6	90.5	47.8	50.7	24.5	14.3	25.1
1919	24.2	41.5	56.5	41.4	43.9	59.2	36.9	52.8	21.0	7.8	7.3	7.3	33.3
1920	9.1	26.4	21.4	6.0	19.8	21.4	8.5	94.2	*139	53.5	40.4	32.0	*39.2

* Revised.

Monthly and yearly mean discharge, in cubic feet per second, of Beaver River at Rockyford Dam, near Minersville, Utah--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	23.2	46.2	33.9	31.1	23.5	40.0	31.9	134	241	139	112	41.7	75.0
1922	25.7	47.8	50.6	31.2	31.4	69.4	62.9	310	163	89.5	67.1	59.5	84.5
1923	25.4	31.1	34.7	19.8	14.5	30.9	44.0	133	102	92.8	77.7	50.6	54.9
1924	37.3	50.6	15.3	9.3	16.3	20.9	28.9	*90.9	66.8	62.9	61.1	26.1	*40.6
1925	7.0	9.1	17.9	9.0	9.0	16.5	41.4	78.9	33.9	65.8	58.5	18.3	30.7
1926	7.1	5.3	5.9	7.4	9.1	10.1	19.5	84.5	82.1	80.6	74.1	42.4	35.9
1927	8.5	8.0	8.0	8.0	8.0	8.0	34.8	98.3	63.6	70.1	51.6	20.4	32.5
1928	6.7	6.8	7.0	7.0	7.0	12.5	26.7	84.3	74.7	79.6	42.6	12.7	30.8
1929	11.8	7.0	7.0	7.0	7.1	12.1	23.0	93.5	77.6	70.9	56.6	39.6	34.6
1930	12.3	7.3	7.0	7.0	8.9	12.7	45.9	85.8	73.1	89.0	49.9	35.9	36.4
1931	8.0	7.9	7.9	6.0	7.9	11.0	25.9	76.9	58.8	57.8	28.6	8.5	25.6
1932	4.7	4.0	4.0	4.0	4.6	7.3	28.7	71.5	67.9	80.2	50.5	13.4	28.5
1933	5.7	5.0	5.0	6.0	7.0	7.0	15.0	55.4	58.1	75.1	54.4	20.6	26.4
1934	9.2	6.3	6.7	10.2	8.9	8.7	18.1	56.7	30.3	28.5	21.0	5.1	17.6
1935	3.3	3.8	4.0	4.0	4.3	5.2	10.7	30.5	61.5	48.2	31.1	18.5	18.8
1936	4.0	4.0	4.0	5.2	7.9	13.7	44.3	72.9	54.9	75.8	65.3	66.4	34.9
1937	-	-	-	-	-	-	-	291	137	107	97.6	65.6	-
1938	57.8	26.2	7.0	7.0	8.9	11.3	32.9	112	121	116	77.0	57.5	53.2
1939	28.5	8.4	7.0	7.6	8.9	11.6	51.6	96.6	82.5	59.2	46.1	27.7	35.9
1940	29.5	4.1	4.0	4.8	5.3	6.5	18.3	67.6	58.9	50.6	59.3	19.2	27.4
1941	4.4	5.6	6.0	5.3	6.3	8.5	10.3	115	251	86.3	75.0	58.3	52.7
1942	13.0	47.6	97.8	59.4	35.9	13.0	53.9	132	94.0	83.5	73.1	46.5	62.7
1943	14.4	8.8	9.2	10.5	10.9	11.4	33.2	84.1	77.8	72.2	76.6	34.8	37.2
1944	11.1	6.70	7.63	7.80	9.54	12.9	15.5	88.0	183	102	80.3	49.8	47.9
1945	8.02	7.22	9.07	11.6	12.8	13.2	20.6	97.3	82.8	98.3	50.6	77.2	40.9
1946	9.6	8.7	12.0	13.0	31.8	35.8	27.7	71.2	78.7	87.2	78.1	46.2	41.8
1947	5.88	5.76	6.77	7.66	8.56	9.92	20.5	75.2	60.6	81.2	64.4	39.2	32.3
1948	12.4	9.6	31.5	51.7	45.6	60.5	26.5	100	102	78.8	61.6	40.6	51.9
1949	11.3	5.20	6.48	6.55	8.56	10.4	16.1	102	89.1	106	93.2	38.8	41.5
1950	11.6	8.38	7.67	9.80	13.6	12.6	24.7	108	80.8	62.2	62.7	7.36	34.3

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	3,100	2,980	2,360	3,340	10,100	11,000	3,630	3,700	5,560	-
1915	2,470	714	389	605	500	2,080	2,640	3,490	8,690	8,120	4,060	2,430	36,200
1916	1,600	514	246	390	552	701	2,330	†5,840	7,440	5,930	7,010	3,110	†35,700
1917	627	797	726	781	800	947	1,020	5,430	7,560	4,900	3,810	1,210	28,600
1918	1,200	738	306	367	415	589	631	5,560	2,840	3,120	1,510	851	18,100
1919	1,490	2,470	3,470	2,550	2,440	3,640	2,200	3,250	1,250	482	448	433	24,100
1920	561	1,570	1,320	369	1,140	1,320	504	5,790	*8,250	3,290	2,480	1,900	*28,500
1921	1,430	2,750	2,080	1,910	1,310	2,460	1,900	8,240	14,300	8,550	6,890	2,480	54,300
1922	1,580	2,840	3,110	1,920	1,740	4,270	3,740	19,100	9,700	5,500	4,130	3,550	61,200
1923	1,560	1,850	2,130	1,220	805	1,900	2,620	8,180	6,070	5,710	4,780	3,010	39,800
1924	2,290	3,010	941	572	938	1,290	1,720	*5,590	3,970	3,870	3,760	1,550	*29,500
1925	430	541	1,100	553	500	1,010	2,460	4,850	2,020	4,050	3,600	1,090	22,200
1926	437	315	363	455	505	621	1,160	5,200	4,890	4,960	4,560	2,520	26,000
1927	523	476	492	492	444	492	2,070	6,040	3,780	4,310	3,170	1,210	23,500
1928	412	405	430	430	403	769	1,590	5,180	4,440	4,890	2,620	756	22,300
1929	726	417	430	430	397	744	1,370	5,750	4,620	4,360	3,480	2,360	25,100
1930	756	434	430	430	494	781	2,730	5,280	4,350	5,470	3,070	2,140	26,400
1931	492	470	486	369	439	676	1,540	4,730	3,500	3,550	1,760	506	18,500
1932	289	238	246	246	265	449	1,710	4,400	4,040	4,930	3,110	797	20,700
1933	350	298	307	369	389	430	893	3,410	3,460	4,620	3,340	1,230	19,100
1934	563	373	411	625	496	536	1,080	3,490	1,800	1,750	1,290	303	12,720
1935	204	226	246	246	240	317	639	1,880	3,660	2,970	1,910	1,100	13,640
1936	246	238	246	319	452	845	2,640	4,480	3,270	4,660	4,010	3,950	25,360
1937	-	-	-	-	-	-	-	17,920	8,130	6,570	6,000	3,900	-
1938	3,550	1,560	430	430	496	692	1,960	6,900	7,210	7,130	4,730	3,420	38,510
1939	1,340	500	428	468	492	710	3,070	5,940	4,910	3,640	2,830	1,650	25,980
1940	1,750	246	246	298	305	401	1,090	4,160	3,500	3,110	3,640	1,140	19,880
1941	268	335	369	327	351	526	617	7,040	14,950	5,300	4,610	3,470	38,170
1942	799	2,830	6,010	3,650	1,990	799	3,210	8,090	5,600	5,140	4,490	2,760	45,370
1943	887	524	565	645	607	702	1,970	5,170	4,630	4,440	4,710	2,070	26,920
1944	683	399	469	479	549	793	922	5,410	10,880	6,270	4,940	2,960	34,750
1945	493	429	558	716	712	811	1,220	5,980	4,930	6,050	3,110	4,600	29,610
1946	589	516	738	799	1,770	2,200	1,650	4,380	4,680	5,370	4,800	2,750	30,240
1947	361	343	416	471	476	610	1,220	4,620	3,610	4,990	3,960	2,330	23,410
1948	761	571	1,940	3,180	2,620	3,720	1,570	6,150	6,100	4,850	3,790	2,420	37,670
1949	693	309	398	403	476	638	960	6,300	5,300	6,540	5,730	2,310	30,060
1950	716	499	472	603	758	778	1,470	6,620	4,810	3,820	3,860	438	24,840

* Revised.
† Corrected.

Yearly discharge, in cubic feet per second, of Beaver River at Rockyford Dam, near Minersville, Utah

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a344	June 9, 1914	-	-	-	68.2	49,300
1915	410	202	July 12, 1915	1.3	49.9	36,200	48.3	35,000
1916	440	168	Aug.23,24,1916	2	49.1	†35,700	48.5	†35,500
1917	460	a162	June25-27,1917	6.4	39.6	28,600	39.7	28,700
1918	480	126	May10,11,1918	5.1	25.1	18,100	32.2	23,100
1919	510	108	May 13, 1919	4	33.3	24,100	27.8	20,100
1920	510,1564	*548	June 1, 1920	5	*39.2	*28,500	*43.2	*31,300
1921	530	727	June 10, 1921	13	75.0	54,300	76.8	55,600
1922	550	564	(b)	22	84.5	61,200	81.7	59,200
1923	570	236	(c)	12	54.9	39,800	55.9	40,500
1924	590,1564	‡a107	May24-27,1924	7	*40.6	*29,500	*34.9	*25,300
1925	610	103	May30,31,1925	7	30.7	22,200	29.4	21,200
1926	630	a105	June26-30,1926	5	35.9	26,000	36.4	26,400
1927	650	a107	May 6-8, 1927	7	32.5	23,500	32.2	23,300
1928	670	a121	May 4,5, 1928	6	30.8	22,300	31.2	22,700
1929	690	a121	May 7-13,1929	7	34.6	25,100	34.7	25,100
1930	705	a124	(d)	7	36.4	26,400	36.2	26,200
1931	720	a107	May 8-10,1931	5	25.6	18,500	24.6	17,800
1932	735	a109	July9-20,1932	4	28.5	20,700	28.8	20,900
1933	750	121	May24,25,1933	4	26.4	19,100	26.9	19,500
1934	765	111	May 7, 1934	4	17.6	12,720	16.6	12,050
1935	790	a107	June25-28,1935	3	18.8	13,640	18.9	13,690
1936	810	114	Aug.25-31,1936	4	34.9	25,360	-	-
1937	830	668	May17-19,1937	-	-	-	-	-
1938	860	205	Nov.1,2, 1937	7	53.2	38,510	48.7	35,240
1939	880	128	May 3, 1939	6	35.9	25,980	35.8	25,950
1940	900	91	May 21, 1940	4	27.4	19,880	25.7	18,620
1941	930	507	June 8-9,1941	3	52.7	38,170	64.7	46,830
1942	960	309	May28-30, 1942	9	62.7	45,370	52.1	37,700
1943	980	109	May 7, 1943	8	37.2	26,920	36.6	26,500
1944	1010	561	June 10, 1944	5.8	47.9	34,750	47.8	34,680
1945	1040	116	(e)	7.0	40.9	29,610	41.4	29,970
1946	1060	a105	(f)	7.0	41.8	30,240	40.8	29,520
1947	1090	a124	July 10, 1947	4.6	32.3	23,410	35.3	25,560
1948	1120	a128	May23-31,1948	7.6	51.9	37,670	49.3	35,800
1949	1150	a149	(g)	4.0	41.5	30,060	41.9	30,340
1950	1180	a120	May 19, 1950	4.9	34.3	24,840	-	-

* Revised.
† Corrected.
‡ Not previously published.
a Maximum daily.
b May 29-31, June 1, 2, 1922.
c May 21, 22, 23, 1923.
d June 2-4, July 10-12, 1930.
e July 13, 14, 16, 1945.
f July 12, 13, 16, 1946.
g June 23-25, 27, 1949.

242. Beaver River at Minersville, Utah

Location.--Lat 38°14', long 112°56', in SW¼ sec. 1, T. 30 S., R. 10 W., half a mile northwest of Minersville and about 2 miles downstream from Minersville Canal diversion.

Drainage area.--549 sq mi.

Gage.--Staff gage.

Extremes.--1909-13: Maximum discharge observed, 1,200 cfs (revised) July 31, 1912 (gage height, 6.0 ft); no flow during most of irrigation season each year.

Remarks.--Flow regulated by Rockyford Reservoir about 4 miles upstream. Entire flow diverted above station at times during irrigation season.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	236	133	0	27.1	41.4	-
1910	8.23	47.8	68.4	104	39.6	56.5	43.2	8.2	0	0	0	1.4	31.5
1911	6.7	28.8	38.0	59.7	54.9	48.7	18.4	17.8	0	0	0	0	22.6
1912	22.6	47.1	48.3	48.0	35.8	36.1	17.3	100	110	14.6	3.74	0	40.3
1913	18.6	34.3	46.1	50.4	45.4	51.9	40.2	7.0	0	0	.5	*11.8	25.4
1914	6.8	28.4	30.9	-	-	-	-	-	-	-	-	-	-

* Revised.

Monthly and yearly runoff, in acre-feet, of Beaver River at Minersville, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	14,500	7,910	0	1,670	2,460	-
1910	512	2,840	4,210	6,400	2,200	3,470	2,570	504	0	0	0	82	22,800
1911	412	1,710	2,340	3,670	3,050	2,990	1,090	1,090	0	0	0	0	16,400
1912	1,390	2,800	2,970	2,950	2,060	2,220	1,030	6,150	6,550	898	230	0	29,200
1913	1,140	2,040	2,830	3,100	2,520	3,190	2,390	430	0	0	31	*702	18,400
1914	418	1,690	1,900	-	-	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1909	270	‡a568	Sept. 6, 1909	-	-	-	-	-
1910	290	*1,000	Jan. 2, 1910	0	31.5	22,800	27.2	19,700
1911	310	‡164	Jan.10,11,1911	0	22.6	16,400	26.3	19,000
1912	330	*1,200	July 31, 1912	0	40.3	29,200	38.8	28,100
1913	360	‡406	Sept. 2, 1913	0	25.4	18,400	22.6	16,400
1914	390	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a Maximum observed during period April to September.
Note.--Daily discharge for Sept. 14, 1913, shown on page 128 of WSP 360 has been revised to 4 cfs.

243. Beaver River at Milford, Utah

Location.--Lat 38°23', long 113°02', in sec. 18, T. 28 S., R. 10 W., at bridge on state Highway 21, about three-quarters of a mile southeast of Milford.

Drainage area.--690 sq mi, approximately.

Gage.--Staff gage.

Extremes.--March to July 1914: Maximum discharge observed, 172 cfs June 6-8 (gage height, 7.8 ft); no flow July 19-31.

Remarks.--Flow partly regulated by Rockyford Reservoir. Station below all diversions; many diversions above.

Monthly mean discharge, in cubic feet per second

Year						Mar.	Apr.	May	June	July				
1914						-	30.4	76.3	89.6	‡16.0				

‡ Not previously published; period of no flow July 19-31 included in computation.

Monthly runoff, in acre-feet

Year						Mar.	Apr.	May	June	July				
1914						-	1,810	4,690	5,330	‡984				

‡ Not previously published; period of no flow July 19-31 included in computation.

PAROWAN VALLEY

244. Center Creek near Parowan, Utah

Location.--Lat 37°50', long 112°49', in SE¼ sec. 24, T. 34 S., R. 9 W., 600 ft downstream from Parowan municipal powerplant, 1½ miles south of Parowan, and 2¼ miles downstream from Left Fork.

Drainage area.--60 sq mi, approximately.

Gage.--Water-stage recorder.

Average discharge.--8 years (1942-50), 16.7 cfs.

Extremes.--1942-50: Maximum discharge, 386 cfs Aug. 5, 1945 (gage height, 4.59 ft), from rating curve extended above 52 cfs by logarithmic plotting; minimum, 3.9 cfs Mar. 5, 1944.

Remarks.--Flow slightly regulated by Yankee Meadows Reservoir (capacity, about 700 acre-ft) and by powerplant above station.

Monthly and yearly mean discharge, in cubic feet per second, of Center Creek near Parowan, Utah

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	14.8	12.1	11.4	9.57	9.71	11.3	17.3	16.6	16.2	13.8	13.6	10.2	13.1
1944	8.45	8.13	8.37	8.25	9.18	10.0	10.9	39.3	35.8	28.5	17.9	14.0	16.6
1945	12.6	10.3	9.31	9.68	10.4	9.88	13.8	35.8	26.7	26.1	23.0	13.4	16.8
1946	10.7	8.48	7.02	8.00	9.08	10.0	20.0	20.2	16.4	14.8	12.8	10.0	12.3
1947	9.61	9.89	9.28	9.18	9.00	10.1	16.6	41.1	35.1	27.6	19.0	15.6	17.7
1948	13.6	10.5	10.8	9.2	9.7	10.5	25.7	53.9	43.1	27.3	21.5	14.4	20.9
1949	11.2	8.97	10.7	9.98	9.55	10.2	24.7	52.3	51.6	41.5	26.4	18.3	23.0
1950	14.2	12.2	11.2	11.1	10.6	11.1	14.6	19.5	20.0	14.3	11.7	9.83	13.4

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1943	912	722	702	588	540	696	1,030	1,020	964	849	837	609	9,470
1944	519	484	515	507	528	615	649	2,420	2,130	1,750	1,100	835	12,050
1945	774	614	572	595	578	608	823	2,200	1,590	1,600	1,410	797	12,160
1946	660	505	431	492	504	615	1,190	1,240	978	910	787	595	8,910
1947	591	588	571	565	500	619	990	2,530	2,090	1,700	1,170	930	12,840
1948	839	624	664	568	556	647	1,530	3,310	2,570	1,680	1,320	859	15,170
1949	688	534	657	614	531	630	1,470	3,220	3,070	2,550	1,620	1,090	16,670
1950	871	724	687	683	590	680	869	1,200	1,190	881	722	585	9,680

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1943	1010	143	Aug. 17, 1943	8.0	13.1	9,470	11.9	8,650
1944	1010	115	May 30, 1944	7.4	16.6	12,050	17.2	12,490
1945	1040	386	Aug. 5, 1945	9.0	16.8	12,160	16.3	11,800
1946	1060	*115	Oct. 11, 1945*	6.4	12.3	8,910	12.5	9,060
1947	1090	136	May 4, 1947	7.0	17.7	12,840	18.2	13,220
1948	1120	194	May 15, 1948	8.2	20.9	15,170	20.5	14,920
1949	1150	114	July 2, 1949	7.8	23.0	16,670	23.6	17,080
1950	1180	32	May 17, 1950	9.0	13.4	9,680	-	-

* Revised.

CEDAR CITY VALLEY

245. Coal Creek near Cedar City, Utah

Location.--Lat 37°40'15", long 113°00'20", in SE¼ sec. 17, T. 36 S., R. 10 W., 2 miles downstream from South Creek and 3.3 miles southeast of Cedar City.

Drainage area.--77.4 sq mi.

Supplemental records available.--May to September 1915, gage heights and discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 6,220 ft (revised, 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 1.5 miles downstream at various datums.

Average discharge.--14 years (1935-37, 1938-50), 33.9 cfs.

Extremes.--1915-1919, 1935-50: 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 not determined.

Remarks.--Diversion above station for municipal supply of Cedar City. Records prior to 1935 do not include flow of 6 to 8 cfs in power canal which bypassed the station. No diversion for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	1.0	1.7	1.2	6.2	11.2	35.4	153	253	96.3	22.8	-	37.4	-
1917	29.5	1.20	7.96	5.57	6.24	15.3	56.8	170	146	32.6	21.0	11.2	42.9
1918	9.63	9.91	7.46	10.8	9.08	23.9	64.9	136	53.7	21.1	-	7.45	-
1919	10.9	9.8	10.1	7.1	8.4	13.6	84.6	94.2	12.0	11.1	7.8	31.8	25.1
1920	11.6	9.1	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	100	28.2	32.8	10.2	-
1936	9.1	11.7	10	8	12	18.4	73.9	80.7	22.6	59.1	21.1	7.5	27.9
1937	10	10	10	11	12	18	63.2	327	83.5	30.0	15	20	51.2
1938	-	-	-	-	-	-	141	237	84.9	26.3	25.6	15.4	-
1939	19.7	13.1	11.7	12	12	25.0	57.7	64.1	20.3	9.2	12.4	31.3	24.1
1940	14.8	8.7	8	7	7.6	19.8	76.7	74.2	16.8	8.2	11.9	29.8	23.6

Monthly and yearly mean discharge, in cubic feet per second, of Coal Creek near Cedar City, Utah--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	13.4	12.9	7.3	6.8	10.4	18.9	37.5	339	160	34.5	20.1	15.4	56.7
1942	21.4	19.7	13.2	10.3	10.8	18.5	108	193	92.4	26.5	15.7	12.1	45.3
1943	11.8	9.8	9	8.6	11.0	16.0	90.2	96.5	25.4	16.8	14.5	8.8	26.6
1944	10.5	9.68	9.5	9	12	17.8	26.0	225	95.3	21.3	17.0	11.4	38.9
1945	10.4	11.9	9.0	9.6	11.6	14.8	36.4	174	61.1	26.6	24.5	13.4	33.8
1946	16.3	9.1	7.8	8.2	11.9	13.5	43.4	39.9	20.2	12.9	13.9	8.83	17.2
1947	19.8	21.0	16.2	12	18.6	27.2	71.2	179	50.8	20.4	16.2	8.7	38.6
1948	11.3	11.0	12.3	11	12.0	14.1	65.2	155	42.8	11.8	12.0	7.22	30.6
1949	7.76	8.95	8.37	8	8.93	14.6	68.6	181	96.2	26.7	12.4	10.9	37.9
1950	12.6	12.1	11.2	10.8	14.1	16.6	61.8	74.4	25.4	13.3	8.32	8.08	22.4

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	60	100	75	380	645	2,180	9,100	15,600	5,730	1,400	-	2,230	-
1917	1,810	714	489	342	347	941	3,380	10,500	8,690	2,000	1,290	666	31,200
1918	592	590	459	664	504	1,470	3,860	8,360	3,200	1,300	-	443	-
1919	670	583	621	437	466	836	5,030	5,790	714	682	482	1,890	18,200
1920	713	541	-	-	-	-	-	-	-	-	-	-	-
1935	-	-	-	-	-	-	-	-	5,960	1,730	2,020	605	-
1936	557	694	615	492	690	1,130	4,400	4,960	1,340	3,640	1,300	448	20,260
1937	615	595	615	676	666	1,110	3,760	20,120	4,970	1,850	922	1,190	37,090
1938	-	-	-	-	-	-	8,380	14,570	5,050	1,620	1,570	914	-
1939	1,210	781	720	738	66	1,540	3,430	3,940	1,210	565	762	1,860	17,420
1940	912	520	492	430	434	1,220	4,560	4,560	1,000	502	734	1,770	17,130
1941	823	768	446	419	577	1,160	2,230	20,830	9,530	2,120	1,240	914	41,060
1942	1,320	1,170	813	635	601	1,130	6,440	11,870	5,500	1,630	968	722	32,800
1943	724	585	553	528	611	986	5,370	5,930	1,510	1,030	893	524	19,240
1944	647	576	583	553	690	1,090	1,550	13,810	5,670	1,310	1,050	680	28,210
1945	637	706	555	593	647	912	2,160	10,700	3,630	1,630	1,510	795	24,480
1946	1,000	543	478	506	659	831	2,580	2,450	1,200	795	858	525	12,420
1947	1,220	1,250	998	738	1,030	1,670	4,240	11,000	3,020	1,250	996	516	27,930
1948	693	655	754	676	690	868	3,880	9,540	2,540	727	738	430	22,190
1949	477	533	515	492	496	900	4,080	11,140	5,730	1,640	764	649	27,420
1950	774	718	688	664	782	1,020	3,680	4,570	1,510	817	511	481	16,220

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	-	-	-	-	-	-	-
1916	440	a480	May 6, 1916	-	-	-	-	-
1917	460	a390	May 15, 1917	2.7	42.9	31,200	41.0	29,800
1918	480	500	Aug. 11, 1918	3.0	-	-	-	-
1919	510	a500	May 28, 1919	2	25.1	18,200	-	-
1920	510	-	-	-	-	-	-	-
1935	810	a840	Aug. 25, 1935	-	-	-	-	-
1936	810	a2,910	July 9, 1936	-	27.9	20,260	27.8	20,220
1937	830	a830	May 17, 1937	-	51.2	37,090	-	-
1938	860	a491	May 15, 1938	-	-	-	-	-
1939	880	1,850	Sept. 6, 1939	6	24.1	17,420	23.0	16,640
1940	900	1,630	Sept.28, 1940	5	23.6	17,130	23.8	17,250
1941	930	800	May 11, 1941	4	56.7	41,060	58.5	42,320
1942	960	533	May 20, 1942	-	45.3	32,800	43.3	31,360
1943	980	1,250	July 29, 1943	-	26.6	19,240	26.5	19,190
1944	1010	765	May 24, 1944	-	38.9	28,210	39.0	28,300
1945	1040	816	July 29, 1945	-	33.8	24,480	34.0	24,600
1946	1060	208	July 22, 1946	-	17.2	12,420	19.2	13,870
1947	1090	410	May 6, 1947	-	38.6	27,930	36.7	26,560
1948	1120	408	May 6, 1948	6.9	30.6	22,190	29.8	21,610
1949	1150	346	May 3, 1949	-	37.9	27,420	38.7	28,050
1950	1180	211	Apr. 27, 1950	6.9	22.4	16,220	-	-

a Maximum observed.

MINOR BASINS IN NEVADA

246. Thousand Springs Creek near Tecoma, Nev.

Location.--Lat 41°34', long 114°26', in SE¼ sec. 31, T. 43 N., R. 67 E., three-quarters of a mile downstream from Rock Springs Creek, 1½ miles southeast of lower H. D. ranch, and 24 miles northwest of Tecoma.

Gage.--Water-stage recorder. Prior to Nov. 20, 1911, staff gage at datum 0.03 ft lower.

Extremes.--1910-13: Maximum gage height, 11.3 ft, from highwater mark, about Mar. 8, 1911 (discharge not determined); no flow during part of 1911.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second, of Thousand Springs Creek near Tecoma, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	54	47.2	111	28.7	18.4	*1.62	*2.25	0	0	-
1912	0	0	0	-	-	10.5	23.3	48.7	21.4	2.43	2.47	.97	-
1913	7.25	8.66	-	-	-	-	28.2	14.7	15.7	3.26	3.03	3.83	-
1914	8.63	11.8	8	-	-	-	-	-	-	-	-	-	-

* Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	3,320	2,620	6,820	1,710	1,130	*96	*138	0	0	-
1912	0	0	0	-	-	646	1,390	2,990	1,270	149	152	58	-
1913	446	515	-	-	-	-	1,680	904	934	200	186	228	-
1914	531	702	492	-	-	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	(a)	0	-	-	*21.9	*15,800
1912	330	‡96	May 21, 1912	0	-	-	-	-
1913	360	‡48	Aug. 29, 1913	-	-	-	-	-
1914	390	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a About Mar. 8, 1911.

247. Overland Creek near Ruby Valley, Nev.

Location.--Lat 40°27', long 115°23', in NE¼NE¼ sec. 26, T. 30 N., R. 58 E., at weir 500 ft upstream from Wines ranch canal, and 1 mile northeast of Ruby Valley Post Office.

Supplemental records available.--Fragmentary records of daily discharge for October, November 1917, March to September 1918, are published in WSP 480.

Gage.--Water-stage recorder and rectangular weir.

Extremes.--April to November 1917: Maximum discharge recorded, 143 cfs June 17, 1917 (gage height, 2.77 ft); minimum recorded, 0.9 cfs Sept. 18, 1917.

Remarks.--Some regulation by small lake 6 or 8 miles upstream. No diversions above station.

Monthly mean discharge, in cubic feet per second

Year				Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.		
1917					37.4	84.4	36.8	5.71	2.06	-	-		

Monthly runoff, in acre-feet

Year				Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.		
1917				-	2,300	5,020	2,260	351	123	-	-		

248. Snake Creek near Baker, Nev.

Location.--Lat 38°55'00", long 114°11'30", in N½ sec. 14 (revised), T. 12 N., R. 69 E., at Tilford tungsten mine, 2½ miles downstream from confluence of North and South forks, 9 miles west of Garrison, Utah, and 7½ miles (revised) southwest of Baker.

Drainage area.--30 sq mi, approximately.

Supplemental records available.--June 1916 to January 1917, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 7,120 ft (from topographic map).

Extremes.--1913-15: Maximum discharge observed, 85 cfs June 7, 1914 (gage height, 2.60 ft); minimum observed, 0.5 cfs Dec. 20, 1913.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second, of Snake Creek near Baker, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	-	-	2.90	-
1914	2.66	2.53	1.07	1.4	2.0	3.61	8.62	30.8	60.2	-	-	-	-
1915	-	-	-	-	-	-	-	-	28.2	13.6	4.60	2.63	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	-	-	173	-
1914	164	151	66	86	111	221	513	1,890	3,580	-	-	-	-
1915	-	-	-	-	-	-	-	-	1,680	836	283	156	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	85	June 7, 1914	-	-	-	-	-
1915	410	39	June17-20,1915	-	-	-	-	-

249. Baker Creek at narrows, near Baker, Nev.

Location.--Lat 38°59', long 114°13', in sec. 22, T. 13 N., R. 69 E., half a mile downstream from Pole Canyon, 1 mile downstream from narrows, and 4¾ miles southwest of Baker.

Gage.--Water-stage recorder. Altitude of gage is 6,800 ft (by barometer).

Extremes.--1947-50: Maximum discharge, 146 cfs June 16, 1949 (gage height, 2.43 ft) from rating curve extended above 60 cfs; minimum recorded, 0.6 cfs Mar. 11, 1948, but may have been less during periods of ice effect.

Remarks.--No diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	‡2.4	‡2.3	‡2.12	2.05	1.74	1.95	4.67	14.2	23.0	8.37	4.49	2.87	‡5.85
1949	2.86	2.36	1.73	1.5	1.5	2.02	6.46	24.8	62.8	15.8	5.02	2.45	10.8
1950	2.89	3.04	2.38	2.14	1.34	1.87	3.83	14.6	20.5	8.44	3.75	2.88	5.66

‡ Not previously published; estimated or partly estimated on basis of flow trend of subsequent period.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	‡148	‡137	‡130	126	100	120	278	875	1,370	515	276	171	‡4,250
1949	176	140	107	92	83	124	384	1,530	3,740	973	308	146	7,800
1950	178	181	146	132	74	115	228	900	1,220	519	231	171	4,100

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120	42	June 10, 1948	‡1.4	‡5.85	‡4,250	5.86	4,250
1949	1150	146	June 16, 1949	-	10.8	7,800	10.9	7,880
1950	1180	56	May 31, 1950	-	5.66	4,100	-	-

‡ Not previously published.

250. Baker Creek near Baker, Nev.

Location.--Lat 38°59'45", long 114°11'30", in sec. 14, T. 13 N., R. 69 E., about 200 ft downstream from mouth of Quinn Young Creek, 1¼ miles downstream from Pole Creek, 1½ miles downstream from the narrows, and about 4 miles west of Baker.

Drainage area.--10 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 6,380 ft (from topographic map).

Extremes.--1913-15: Maximum discharge observed, 170 cfs June 2, 5, 1914 (gage height, 3.0 ft); minimum daily, 2 cfs Jan. 6, 9, 1914.

Remarks.--No diversion or regulation.

Monthly and yearly mean discharge, in cubic feet per second, of Baker Creek near Baker, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	-	‡8.44	5.20	-
1914	4.19	4.25	3.31	2.44	3.34	8.27	18.1	77.9	80.2	38.5	14.9	6.74	21.9
1915	8.57	8.60	‡8.24	‡8	‡8	‡8.33	8.60	21.7	81.9	24.7	6.72	5.50	‡16.5
1916	4.46	3.40	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	-	‡519	309	-
1914	258	253	204	150	185	508	1,080	4,790	4,770	2,370	916	401	15,900
1915	527	512	‡507	‡492	‡444	‡512	512	1,330	4,870	1,520	413	327	‡11,970
1916	274	202	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	170	June 2,5,1914	2	21.9	15,900	‡23.1	‡16,720
1915	410	100	June 11,18,1915	-	‡16.5	‡11,970	-	-

‡ Not previously published.

251. Lehman Creek near Baker, Nev.

Location.--Lat 39°01', long 114°13', in sec. 10, T. 13 N., R. 69 E., $4\frac{3}{4}$ miles west of Baker.

Gage.--Water-stage recorder. Altitude of gage is 6,730 ft (revised, by barometer).

Extremes.--1947-50: Maximum discharge, 34 cfs June 19, 1949 (gage height, 1.38 ft); minimum not determined.

Remarks.--No diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	‡2.2	‡2	‡1.91	1.71	1.51	1.51	2.80	7.87	13.0	8.33	5.39	3.42	‡4.31
1949	2.59	2.05	1.62	1.40	1.53	2.72	4.49	10.3	21.9	13.7	5.91	3.32	5.98
1950	2.75	2.01	1.75	1.55	1.28	1.26	1.85	5.43	11.9	7.63	3.81	2.74	3.67

‡ Not previously published; estimated or partly estimated on basis of flow trends for subsequent years.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	‡135	‡125	‡117	105	87	93	167	484	772	512	331	204	‡3,130
1949	159	122	99	86	85	167	267	636	1,300	844	363	198	4,330
1950	169	120	107	96	71	78	110	334	708	469	234	163	2,660

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120	15	(a)	-	‡4.31	‡3,130	4.32	3,140
1949	1150	34	June 19, 1949	-	5.98	4,330	6.00	4,340
1950	1180	16	June 7, 1950	-	3.67	2,660	-	-

‡ Not previously published.
a June 2, 7, 10-14, 21, 1948.

252. Cleveland Creek near Osceola, Nev.

Location.--Lat 39°14', long 114°30', in sec. 19, T. 16 N., R. 67 E., 3 miles downstream from mouth of Canyon, 5 miles (revised) downstream from North Fork, and 12 miles northwest of Osceola.

Drainage area.--32 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,750 ft (from topographic map). Supplementary staff gage about 1 mile upstream used when water being diverted between gages.

Extremes.--1914-16: Maximum discharge observed, 44 cfs June 3, 1914 (gage height, 1.40 ft, upper gage); minimum observed, 4.1 cfs Dec. 18, 1916.

Remarks.--No diversions above upper gage. One small diversion between gages. Records herein show natural flow.

Monthly and yearly mean discharge, in cubic feet per second, of Cleveland Creek near Osceola, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	29.4	14.2	9.90	8.89	-
1915	8.76	8.97	7.25	8.09	8.05	8.30	13.3	19.5	20.7	10.1	7.19	6.10	10.5
1916	7.19	7.33	6.44	4.83	6.22	14.8	18.6	24.2	17.2	8.19	6.82	6.29	10.7
1917	8.24	8.31	5.84	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	1,750	873	609	529	-
1915	539	534	446	497	447	510	791	1,200	1,230	621	442	363	7,620
1916	442	436	396	297	358	910	1,110	1,490	1,020	504	419	374	7,760
1917	507	494	359	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	44	June 3, 1914	-	-	-	-	-
1915	410	30	June8,10,1915	-	10.5	7,620	10.2	7,380
1916	440	32	May 9, 1916	-	10.7	7,760	10.8	7,840

253. Currant Creek at ranger station, near Currant, Nev.

Location.--Lat 38°48', long 115°23', in sec. 19, T. 11 N., R. 59 E., 1 mile above ranger station and 6½ miles (revised) northeast of Currant.

Gage.--Staff gage and sharp-crested weir.

Extremes.--May to August 1913: Maximum observed discharge, 10 cfs May 29 (gage height, 2.0 ft): minimum observed, 0.2 cfs Aug. 12, 20-22.

Remarks.--Regulation by off-channel storage in Cazier Reservoir.

Monthly mean discharge, in cubic feet per second

Year					May	June	July	Aug.					
1913					‡5.16	5.18	1.31	0.51					

‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly runoff, in acre-feet

Year					May	June	July	Aug.					
1913					‡317	308	81	31					

‡ Not previously published; partly estimated on basis of records for nearby streams.

254. Currant Creek near Currant, Nev.1/

Location.--Lat 38°47', long 115°25', in sec. 25, T. 11 N., R. 58 E., 10 ft above highway bridge at Cazier's ranch, 2½ miles downstream from inflow from Cazier's Reservoir, and 4½ miles (revised) northeast of Currant.

Gage.--Staff gage. Prior to Mar. 20, 1916 at site about 30 ft downstream at different datum. June 24, 1916 to Sept. 30, 1917, at different datum.

Extremes.--1913-17, 1923: Maximum discharge observed, 24 cfs Apr. 30, May 1, 1915, May 25, 1917; minimum observed, 1 cfs Jan. 21 to Mar. 3, 1923.

Remarks.--Three small diversions above station for irrigation above and below station. Slight regulation by inflow from Cazier Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	‡5.80	8.93	5.03	3.64	3.64	-
1914	-	-	-	-	-	-	-	-	14.7	9.77	6.42	4.06	-
1915	5.40	5.60	5.60	5.60	5.60	5.60	10.2	15.2	11.8	9.31	6.00	3.95	7.49
1916	4.65	5.00	5.00	4.26	4.00	-	-	-	-	10.0	6.68	5.37	-
1917	6.00	6.00	6.00	6.00	5.21	4.00	4.00	9.58	10.3	7.81	6.00	6.00	6.41
1923	-	-	-	-	1.0	3.3	6.9	14.8	11.5	9.2	-	-	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

1/ Published as "at Cazier's Ranch", 1913-14.

Monthly and yearly runoff, in acre-feet, of Currant Creek near Currant, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	‡357	531	309	224	217	-
1914	-	-	-	-	-	-	-	-	875	601	395	242	-
1915	332	333	344	344	311	344	607	935	702	572	369	235	5,430
1916	286	298	307	362	230	-	-	-	-	615	411	320	-
1917	369	357	369	369	289	246	238	589	613	480	369	357	4,650
1923	-	-	-	-	56	203	411	910	684	566	-	-	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	-	-	-	-	-	-	-
1915	410	24	(a)	2.6	7.49	5,430	7.33	5,310
1916	440	-	-	4	-	-	-	-
1917	460	24	May 25, 1917	4	6.41	4,650	-	-
1923	570	21	May 8, 9,1923	-	-	-	-	-

a Apr. 30, May 1, 1915.

255. Big Warm Spring near Duckwater, Nev.

Location.--Lat 38°53', long 115°41', in sec. 28, T. 12 N., R. 56 E., 900 ft from head of spring, 1 mile south of Duckwater, and about 50 miles south of Eureka.

Gage.--Water-stage recorder.

Extremes.--1915-16: Maximum daily discharge, 14.6 cfs Aug. 1 to Sept. 30, 1916; minimum, 13.2 cfs Sept. 8, 1915.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	13.3	13.5	13.5	13.5	13.5	13.5	14.1	14.4	14.4	14.5	14.6	14.6	14.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	818	803	830	830	776	830	839	885	857	892	898	869	10,100

256. Duckwater Creek near Duckwater, Nev.

Location.--Lat 38°52', long 115°41', probably in sec. 28, T. 12 N., R. 56 E., 1½ miles south of Duckwater, 2 miles downstream from Big Warm Spring, and about 50 miles south of Eureka.

Gage.--Water-stage recorder and sharp-crested weir.

Extremes.--1915-17: Maximum discharge, 12.1 cfs Jan. 28, 1916 (gage height, 0.90 ft); minimum, 3.7 cfs Oct. 22, 23, 1915.

Remarks.--Several diversions above station for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	-	-	-	-	‡10.1	-
1916	5.46	5.42	7.45	9.11	9.24	9.40	9.66	8.66	7.49	7.35	7.82	7.24	7.86
1917	-	-	-	-	-	-	-	-	7.22	8.45	8.67	7.07	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	-	-	-	-	‡599	-
1916	336	323	458	560	531	578	575	532	446	452	481	431	5,700
1917	-	-	-	-	-	-	-	-	430	520	533	421	-

‡ Not previously published; partly estimated on basis of records for nearby streams.

257. Lees Creek near Pahrump, Nev.

Location.--Lat 36°14'30", long 115°44'00", in sec. 6, T. 20 S., R. 56 E., 12 miles (revised) northeast of Manse Ranch, and 15 miles (revised) east of Pahrump.

Gage.--Water-stage recorder and rectangular, suppressed weir. Altitude of gage is about 7,500 ft (from topographic map).

Extremes.--April to September 1916: Maximum discharge, 37 cfs July 15 (gage height, 1.45 ft); minimum, 0.5 cfs September 27-29.

Remarks.--No diversion above station.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July	Aug.	Sept.
1916	12.0	8.32	3.68	2.28	1.20	0.69

Monthly runoff, in acre-feet

Year	Apr.	May	June	July	Aug.	Sept.
1916	714	512	219	140	73.8	41.1

258. Intermittent Springs near Pahrump, Nev.

Location.--Lat 36°09'30", long 115°44'00", in sec. 6, T. 21 S., R. 56 E., 500 ft downstream from spring, 13 miles east of Manse Ranch, and 19 miles southeast of Pahrump.

Gage.--Water-stage recorder and rectangular, contracted weir. Altitude of gage is 4,500 ft (from topographic map).

Extremes.--April to September 1916: Maximum discharge, 39 cfs April 29 (gage height, 1.60 ft); minimum, 0.4 cfs September 29, 30.

Remarks.--No diversion above station.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July	Aug.	Sept.
1916	25.0	25.5	14.9	7.53	3.83	1.20

Monthly runoff, in acre-feet

Year	Apr.	May	June	July	Aug.	Sept.
1916	1,490	1,570	887	463	236	71.4

259. Birch Creek near Austin, Nev.

Location.--Lat 39°22', long 117°00', in SW¼ sec. 35, T. 18 N., R. 44 E., 1½ miles upstream from Spencer ranchhouse and 9 miles (revised) southeast of Austin.

Supplemental records available.--Fragmentary records of daily discharge for May 24 to June 17, 1914, are published in WSP 390.

Gage.--Staff gage.

Extremes.--June to November 1913: Maximum discharge observed, 12 cfs June 28; minimum observed, 0.7 cfs several days in November.

Remarks.--No diversion above station.

Monthly mean discharge, in cubic feet per second

Year	June	July	Aug.	Sept.	Oct.	Nov.
1913	-	3.07	2.89	*3.53	1.85	0.8

* Revised; daily discharge for September 4, 5, 1913, shown as 11 cfs on p. 221, WSP 360, has been revised to 4.5 cfs.

Monthly runoff, in acre-feet

Year	June	July	Aug.	Sept.	Oct.	Nov.
1913	-	189	178	*210	114	48

* Revised.

260. Salton Sea, Calif.

Location.--Lat 33°26'55", long 116°02'20", in NW¼ sec. 27, T. 8 S., R. 9 E., on west shore of sea, 1 mile northeast of Figtree John Spring and about 9 miles south of Mecca.

Drainage area.--8,360 sq mi, approximately.

Gage.--Water surface elevations since January 1925 determined by leveling from benchmark at described site. Elevation of benchmark is 242.44 ft below mean sea level, datum of 1901.

November 1904 to February 1906, staff gages at New Liverpool Salt Co. plant near original Salton railway station 10 miles southeast of Mecca.

March to May 1906, series of Government staff gages about half a mile west of the then-new Salton railway station, about 3 miles southeast of original Salton railway station, and 12 miles southeast of Mecca.

June 1906 to May 1921, gages at and in vicinity of railroad trestle over Salton Creek about 3 miles southeast of new Salton railway station and 16 miles southeast of Mecca.

June 1921 to December 1924, staff gages opposite Durmid railway station 17 miles southeast of Mecca, and at Mullet Island at mouth of Alamo River, 35 miles southeast of Mecca.

Gage readings, 1904-24, reduced to elevations below mean sea level, datum of 1901; those for 1906-21 corrected on basis of hydrographs, and inspections and leveling done in 1913, 1919-23.

Extremes.--1904-50: Maximum elevation, 195.0 ft below mean sea level in February and March 1907; minimum since initial filling in 1907, 250.7 ft below mean sea level in November 1924; bottom of sea (from 1904-5 determinations), 273.5 ft below mean sea level.

Remarks.--See page 271, WSP 918, for additional details regarding datum of gages and for history of formation of Salton Sea. Water leaves Salton Sea only by evaporation.

The area and capacity of the Salton Sea, at elevations covering the range in stage during the period of record, are given in the following table:

Elevation in feet below mean sea level	Area in acres	Capacity in acre-feet
273.5	0	0
270	58,000	113,000
265	106,000	532,500
260	135,000	1,142,000
250	168,000	2,655,000
240	206,000	4,525,000
230	235,400	6,739,000
220	262,200	9,229,000
210	288,600	11,983,000
200	315,700	15,001,000
195	330,000	16,615,000

Cooperation.--Records for 1904-6 furnished by New Liverpool Salt Co., for much of the period 1906-21 by Southern Pacific Co. and U. S. Weather Bureau, and since 1921 by Imperial Irrigation District.

Elevation on or near first day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1905	-	273.5	272.9	272.7	271.3	269.7	268.8	267.7	266.5	264.4	260.0	257.9
1906	256.7	255.2	253.7	250.7	249.6	247.8	245.2	239.5	228.3	212.2	204.4	201.5
1907	200.7	199.4	199.6	198.4	195.6	195.0	195.1	195.4	195.9	196.3	196.4	196.8
1908	197.5	197.9	198.4	198.6	198.6	198.8	199.0	199.4	199.9	200.4	200.9	201.6
1909	202.3	203.0	203.3	203.5	203.6	203.7	204.0	204.2	204.7	205.0	205.7	205.7
1910	206.2	206.8	207.3	207.6	207.6	207.8	208.0	208.3	208.8	209.4	209.9	210.6
1911	211.2	211.8	212.1	212.5	212.7	212.8	212.9	213.3	213.8	214.4	214.7	215.1
1912	215.8	216.4	216.7	216.8	216.9	216.9	217.0	217.4	217.8	218.3	218.9	219.4
1913	220.1	220.5	220.7	220.9	221.1	221.0	221.2	221.6	222.0	222.5	223.0	223.5
1914	224.2	224.5	224.9	225.2	225.3	225.3	225.4	235.5	226.0	226.5	226.7	227.4
1915	228.3	228.6	228.7	228.8	228.9	229.1	229.4	229.7	230.1	230.5	231.1	231.7
1916	232.1	232.9	233.4	233.6	233.7	233.7	233.8	233.9	234.3	234.6	235.1	236.0
1917	236.6	237.1	237.6	237.9	238.0	238.1	238.3	238.4	238.6	238.7	239.1	239.5
1918	239.7	240.1	240.4	240.8	241.1	241.4	241.7	242.0	242.4	242.8	243.1	243.4
1919	243.8	244.2	244.4	244.8	245.1	245.5	245.8	246.2	246.5	246.7	247.0	247.3
1920	247.6	247.8	247.7	247.4	247.0	246.6	246.3	246.4	246.6	247.0	247.5	248.0
1921	248.5	248.9	249.0	248.7	248.4	248.2	248.1	248.3	248.5	248.9	249.3	249.5
1922	249.7	249.7	249.5	249.3	249.1	248.9	248.8	248.7	248.7	248.8	248.9	249.1
1923	249.4	249.7	249.9	249.9	249.6	249.3	249.0	248.9	249.1	249.4	249.7	249.9
1924	249.8	249.7	249.5	249.2	248.9	248.4	248.2	248.2	248.4	248.7	249.3	249.9
1925	250.4	250.7	250.6	250.3	250.0	249.7	249.6	249.6	249.7	249.9	250.3	250.5
1926	250.6	250.3	250.0	249.5	249.2	248.8	248.6	248.5	248.6	248.8	248.9	249.1
1927	249.3	249.2	248.7	247.7	247.0	246.5	246.2	246.3	246.7	246.9	247.1	247.2
1928	247.3	247.2	247.0	246.6	246.1	245.7	245.6	245.6	245.7	246.0	246.3	246.6
1929	246.8	246.8	246.7	246.5	246.2	246.0	245.8	245.7	245.7	245.8	245.9	246.1
1930	246.1	245.9	245.6	245.2	244.7	244.4	244.2	244.1	244.2	244.4	244.5	244.7

Note.--Elevations are in feet below mean sea level, datum of 1901.

538662 O - 60 - 18

Elevation on or near first day of month, of Salton Sea, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931	244.9	244.9	244.6	244.3	243.7	243.1	243.0	242.9	243.0	243.2	243.6	243.9
1932	244.4	244.6	244.5	244.2	243.7	243.4	243.3	243.4	243.6	243.8	244.1	244.5
1933	244.8	244.5	244.3	244.0	243.6	243.5	243.3	243.3	243.5	243.7	244.0	244.8
1934	245.4	245.1	244.9	244.6	244.3	242.0	244.1	244.4	244.8	245.1	246.0	246.5
1935	247.4	247.7	248.0	247.8	247.6	247.3	247.3	247.4	247.8	248.1	248.4	248.4
1936	248.8	249.0	248.6	248.3	247.8	247.6	247.7	247.5	247.6	247.9	248.1	248.4
1937	248.7	248.6	248.2	247.7	247.2	246.8	246.5	246.5	246.5	246.7	247.0	247.2
1938	247.2	247.1	246.8	245.9	245.5	245.5	245.1	245.0	245.2	245.3	245.5	245.6
1939	245.5	245.7	245.5	244.7	244.3	244.0	243.7	243.5	243.7	243.9	244.1	244.3
1940	243.3	243.2	242.9	242.2	242.1	241.8	241.7	241.7	242.1	242.3	242.8	243.0
1941	243.2	243.3	243.1	242.5	242.0	241.6	241.0	241.2	241.3	241.6	241.6	241.7
1942	241.7	241.7	241.5	241.0	240.8	240.6	240.4	240.6	240.6	240.8	241.0	241.5
1943	241.7	241.7	241.6	241.3	241.0	240.7	240.4	240.4	240.7	241.0	241.2	241.5
1944	241.6	241.7	241.5	241.0	240.6	240.3	240.1	240.1	240.3	240.6	240.8	241.0
1945	241.2	241.35	241.1	240.8	240.6	240.4	240.25	240.25	240.6	240.65	240.9	240.65
1946	240.90	241.00	240.80	240.35	240.10	239.85	239.70	239.55	239.75	240.00	240.10	240.40
1947	240.65	240.70	240.55	240.45	240.05	239.80	239.60	239.60	239.80	240.05	240.25	240.60
1948	240.80	240.75	240.70	240.45	240.20	239.95	239.90	239.90	240.10	240.30	240.55	240.80
1949	241.15	241.05	240.95	240.75	240.15	239.80	239.60	239.40	239.75	239.85	240.15	240.45
1950	240.70	240.70	240.40	240.20	239.85	239.40	239.30	239.20	239.40	239.60	239.75	240.00

Note.--Elevations are in feet below mean sea level, datum of 1901.

261. Alamo River near Brawley, Calif.

Location.--Lat 32°58'40", long 115°28'00", in sec. 31, T. 13 S., R. 15 E., at highway bridge 3½ miles east of Brawley.

Supplemental records available.--January to July 1908, periodic discharge measurements only; January 1911 to January 1912, gage heights only.

Gage.--Staff gages at or near highway bridge. Altitude of gage is -130 ft (from topographic map).

Extremes.--1909-10: Maximum discharge observed, 2,250 cfs (revised) Aug. 26, 1909 (gage height, 8.5 ft); minimum observed, 36 cfs Feb. 27, Mar. 2-6, 1910.

Remarks.--No diversions. Some regulation at damaged headworks on Colorado River. River is a drainage channel carrying overflow from Colorado River and seepage from local irrigation into Salton Sea.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	-	-	339	*1,020	*602	-
1910	344	377	404	378	61.8	47.6	77.2	104	94.2	80.1	63.5	248	191
1911	405	534	259	-	-	-	-	-	-	-	-	-	-

* Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	-	-	20,800	*62,500	*35,800	-
1910	21,200	22,400	24,800	23,100	3,430	2,930	4,590	6,400	5,610	4,930	3,900	14,800	138,000
1911	24,900	31,800	15,900	-	-	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Diacharge	Date					
1909	300	*a2,250	Aug. 26, 1909	-	-	-	-	-
1910	290,300	1,150	Jan. 7, 1910	-	191	138,000	197	†142,000

* Revised.
† Corrected.
a Maximum observed during period June 24 to September 30.

262. Whitewater River at Whitewater, Calif.

Location.--Lat 33°56'50", long 116°38'20", in NE¼ sec. 2, T. 3 S., R. 3 E., 1.5 miles north of Whitewater and 3½ miles upstream from San Gorgonio River.

Drainage area.--57.4 sq mi.

Gage.--Water-stage recorder. Datum of gage is 1,610.98 ft (revised) above mean sea level, adjustment of 1934. Supplementary water-stage recorder and sharp-crested weir on diversion channel 400 ft west and 500 ft downstream from base gage. Supplementary gage used as base gage Feb. 24 to Sept. 30, 1951.

Extremes.--1948-50: Maximum discharge, 450 cfs Sept. 6, 1950 (gage height, 8.08 ft), from rating curve extended above 75 cfs; minimum daily, 2.3 cfs Jan. 1, 1950.
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, including extremes, show total discharge of Whitewater River past station. They include water pumped from open sumps in rising-water area surrounding station and are adjusted for underground diversion through infiltration line that bypasses station.
Water diverted out of basin about 15 miles upstream to powerplants in San Gorgonio River basin and thence to an area north of Banning for irrigation. One small diversion for domestic use and one for irrigation 2 to 3 miles upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	7.87	5.83	7.52	9.18	9.76	10.9	11.5	7.52	6.65	4.49	4.39	2.76	7.36
1950	7.27	5.78	6.58	3.43	9.35	8.15	7.39	6.47	5.86	6.56	6.09	6.84	6.63

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	484	347	462	564	542	670	687	462	396	276	270	164	5,320
1950	447	344	405	211	519	501	440	398	349	403	375	407	4,800

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1150	-	-	2.4	7.36	5,320	7.22	5,230
1950	1180	450	Sept. 6, 1950	2.3	6.63	4,800	-	-

263. Snow Creek near Whitewater, Calif.

Location.--Lat 33°52'15", long 116°40'50", in NW¼ sec. 33, T. 3 S., R. 3.E., 580 ft upstream from Southern Pacific Railway Co.'s ditch, 3.2 miles (revised) southwest of Palm Springs Station (formerly White Water), and 4.5 miles southwest of Whitewater.

Drainage area.--11.0 sq mi.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,000 ft (from topographic map). Prior to Feb. 15, 1927, at site 680 ft downstream at different datum.

Average discharge.--7 years (1922-26, 1928-31), 7.64 cfs.

Extremes.--1921-31: Maximum discharge not determined; minimum daily, 3.2 cfs Nov. 17-22, 1929.

Remarks.--Prior to Feb. 15, 1927, records show combined flow of Snow Creek and Southern Pacific Railway Co.'s ditch (see following station); thereafter, of Snow Creek before diversion by ditch. Record herein is free of effects of diversion and regulation.

Cooperation.--Records furnished by Southern Sierras Power Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	-	-	-	-	-	-	5.55	5.17	-
1922	6.11	4.68	-	-	-	-	-	-	26.6	17.2	11.2	8.21	-
1923	6.91	8.18	16.4	9.08	10.4	9.32	15.5	14.0	8.47	6.30	5.30	5.26	9.58
1924	5.27	5.56	6.45	5.97	5.22	6.39	10.7	10.7	5.85	4.36	4.14	4.19	6.23
1925	4.45	4.99	6.30	5.32	5.42	6.03	10.1	9.08	6.25	4.63	4.68	4.12	5.95
1926	7.66	5.43	7.17	5.11	8.39	6.75	15.2	12.9	9.21	6.27	5.24	4.31	7.79
1927	3.98	5.14	10.5	8.28	-	-	-	-	-	-	-	-	-
1928	-	-	-	7.26	7.64	9.82	8.65	8.29	5.83	4.54	4.17	3.93	-
1929	4.46	4.98	5.84	5.88	6.87	8.01	11.3	12.2	9.36	7.18	6.18	-	‡7.4
1930	-	-	-	-	-	-	-	-	-	-	-	-	‡10.4
1931	4.68	6.48	5.79	6.02	-	7.24	8.57	7.44	5.14	4.35	4.42	5.53	‡6.1

‡ Not previously published; yearly estimate only on basis of records for Falls Creek near Whitewater or Southern Pacific Co.'s ditch near Whitewater; some or all monthly figures not available.

Monthly and yearly runoff, in acre-feet, of Snow Creek near Whitewater, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	-	-	-	-	-	-	341	308	-
1922	376	278	-	-	-	-	-	-	1,580	1,060	689	489	-
1923	425	487	1,010	558	578	573	922	861	504	387	326	313	6,940
1924	324	331	397	367	300	393	637	658	348	268	255	249	4,530
1925	274	297	387	327	301	371	601	558	372	285	288	245	4,310
1926	471	323	441	314	466	415	904	793	548	386	322	256	5,640
1927	245	306	646	509	-	-	-	-	-	-	-	-	-
1928	-	-	-	446	439	604	515	510	347	279	256	234	-
1929	274	296	359	362	382	493	672	750	557	441	380	-	‡5,300
1930	-	-	-	-	-	-	-	-	-	-	-	-	‡7,500
1931	288	386	356	370	-	445	510	457	306	267	272	329	‡4,400

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1921	590	-	-	-	-	-	-	-
1922	590	-	-	-	-	-	-	-
1923	590	-	-	4.9	9.58	6,940	8.39	6,070
1924	590	-	-	3.9	6.23	4,530	6.10	4,430
1925	610	-	-	3.8	5.95	4,310	6.33	4,580
1926	630	-	-	3.9	7.79	5,640	7.74	5,600
1927	650	-	-	3.7	-	-	-	-
1928	670	-	-	3.8	-	-	6.28	4,560
1929	690	-	-	3.6	‡7.4	‡5,300	-	-
1930	-	-	-	‡3.2	‡10.4	‡7,500	-	-
1931	720	-	-	4.1	‡6.1	‡4,400	-	-

‡ Not previously published.

264. Southern Pacific Co.'s ditch near Whitewater, Calif.

Location.--Lat 33°52'20", long 116°40'50", in NW¼ sec. 33, T. 3 S., R. 3 E., 200 ft downstream from intake, 3.2 miles (revised) southwest of Palm Springs Station (formerly White Water), and 4.5 miles southwest of Whitewater.

Gage.--Water-stage recorder. Altitude of gage is 2,000 ft (revised, from topographic map).

Average discharge.--10 years (1921-27, 1929-30, 1931-34), 7.16 cfs.

Extremes.--1921-27, 1929-30, 1931-34: Maximum daily discharge, 64 cfs, Feb. 16, 1927; minimum daily, 0.4 cfs Feb. 12, 1932.

Remarks.--Ditch diverts all low-water flow of Snow Creek (see preceding station). Fully regulated at intake by headgate.

Cooperation.--Records furnished by Southern Sierras Power Co.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	-	-	-	-	-	-	-	-	-	-	299	268	-
1922	347	258	670	522	778	658	660	892	797	646	502	371	7,100
1923	326	399	603	465	462	464	579	550	382	299	306	295	5,130
1924	303	300	352	325	259	336	496	499	298	227	239	237	3,870
1925	259	264	353	303	262	319	521	486	324	259	255	220	3,820
1926	359	291	382	287	389	382	519	397	296	315	288	223	4,130
1927	208	246	327	243	666	910	1,080	1,130	839	664	501	430	7,240
1930	218	204	242	370	400	738	780	885	696	469	357	273	5,630
1931	288	386	356	-	-	-	-	-	-	-	-	329	-
1932	317	339	493	432	542	676	720	824	958	793	505	341	6,940
1933	348	280	338	348	305	390	474	633	511	307	247	199	4,380
1934	206	220	356	415	323	374	343	319	302	266	260	243	3,630
1935	331	287	497	-	-	-	-	-	-	-	-	-	-

Note.--For periods October to December 1930 and September 1931, during which ditch diverted entire flow of Snow Creek, record herewith is that published in WSP 720 as Snow Creek near Whitewater (see preceding station).

265. Falls Creek near Whitewater, Calif.

Location.--Lat 33°52'10", long 116°40'15", in NE¼ sec. 33, T. 3 S., R. 3 E., 3 miles (revised) southwest of Palm Springs Station (formerly White Water), and 4.2 miles southwest of Whitewater.

Drainage area.--4.13 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 1,900 ft (from topographic map).

Average discharge.--6 years (1922-26, 1928-30), 1.70 cfs.

Extremes.--1922-31: Maximum and minimum discharge not determined.

Remarks.--No regulation or diversion. Station destroyed by flood of Aug. 29, 1931.

Cooperation.--Records furnished by Southern Sierras Power Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	-	-	-	-	2.96	-
1923	2.52	2.81	3.21	2.64	2.57	2.25	2.74	2.66	1.81	1.34	1.12	1.34	2.25
1924	1.47	1.81	2.32	2.26	1.81	1.96	2.49	2.13	1.15	.65	.52	.59	1.60
1925	.89	1.23	1.83	1.60	1.57	1.48	1.56	1.24	1.05	.76	.78	.87	1.24
1926	1.99	1.77	2.02	1.63	1.97	1.75	7.90	4.25	2.78	2.37	2.67	2.23	2.77
1927	2.33	2.63	5.67	4.22	-	-	-	-	-	-	-	-	-
1928	-	-	-	1.48	1.56	1.46	1.22	1.18	.79	.61	.50	.53	-
1929	.62	.76	1.00	.99	.91	1.29	1.31	1.48	1.04	.59	.57	1.28	.99
1930	.84	.88	.92	ǂ1.16	1.35	1.76	1.89	2.28	1.87	1.20	1.12	1.05	ǂ1.36
1931	1.16	1.28	1.32	1.22	1.95	1.23	1.30	1.18	.95	.55	-	-	-

ǂ Not previously published; partly estimated on basis of records for Southern Pacific Co.'s ditch, which diverts most of Snow Creek flow.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	-	-	-	-	176	-
1923	155	167	197	162	143	138	163	164	108	82.4	68.9	79.7	1,630
1924	90.4	108	143	139	104	121	148	131	68.4	40.0	32.0	35.1	1,160
1925	54.7	73.2	113	98.4	87.2	91.0	92.8	76.2	62.5	46.7	48.0	51.8	896
1926	122	105	124	100	109	108	470	261	165	146	164	133	2,010
1927	143	156	349	259	-	-	-	-	-	-	-	-	-
1928	-	-	-	91.0	89.7	89.8	72.6	72.6	47.0	37.5	30.7	31.5	-
1929	38.1	45.2	61.5	60.9	50.5	79.3	78.0	91.0	61.9	36.3	35.0	76.2	714
1930	51.6	52.4	56.6	ǂ71.2	75.0	108	112	140	111	73.8	68.9	62.5	ǂ983
1931	71.3	76.2	81.2	75.0	108	75.6	77.4	72.6	56.5	33.8	-	-	-

ǂ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	590	-	-	-	-	-	-	-
1923	590	-	-	1.0	2.25	1,630	2.00	1,450
1924	590	-	-	.4	1.60	1,160	1.46	1,060
1925	610	-	-	.4	1.24	896	1.39	1,010
1926	630	-	-	.9	2.77	2,010	3.18	2,300
1927	650	-	-	-	-	-	-	-
1928	670	-	-	-	-	-	.97	707
1929	690	-	-	.5	.99	714	1.01	730
1930	705	-	-	-	ǂ1.36	ǂ983	ǂ1.45	ǂ1,050
1931	720	-	-	-	-	-	-	-

ǂ Not previously published.

266. Tahquitz Creek near Palm Springs, Calif.

Location (revised).--Lat 33°48'15", long 116°33'40", in SW¼ sec. 22, T. 4 S., R. 4 E., 1.5 miles southwest of Palm Springs and 7 miles upstream from mouth.

Drainage area.--16.7 sq mi.

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).

Extremes.--1947-50: Maximum discharge, 143 cfs (revised) July 22, 1948 (gage height, 3.92 ft), from rating curve extended above 55 cfs on the basis of logarithmic plotting, verified by slope-area determination of peak flow of 1,570 cfs for flood of Aug. 31, 1954; no flow during several months of each year.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second, of Tahquitz Creek near Palm Springs, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	0	0	0	0	0.69	0.83	3.08	1.58	0.156	*0.178	0	0	*0.538
1949	0	.17	.51	.71	.80	1.56	7.61	8.31	2.23	.169	0	0	1.84
1950	0	.007	.33	.46	2.64	2.67	3.63	1.69	.20	.006	0	0	.96

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	0	0	0	0	39	51	183	97	9.3	*11	0	0	*390
1949	0	10	32	44	45	96	453	511	132	10	0	0	1,330
1950	0	.4	20	29	147	164	216	104	12	.4	0	0	693

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120,1244	*143	July 22, 1948	0	*0.538	*390	*0.596	*432
1949	1150	19	Apr. 24, 1949	0	1.84	1,330	1.81	1,310
1950	1180	15	Feb. 7, 1950	0	.96	693	.931	675

* Revised.

267. Palm Canyon Creek near Palm Springs, Calif.

Location (revised).--Lat 33°44'45", long 116°32'05", in SE¼ sec. 11, T. 5 S., R. 4 E., three-quarters of a mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs.

Drainage area.--94.0 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map). Prior to Jan. 14, 1942, at datum 0.2 ft higher.

Average discharge.--14 years (1930-41, 1947-50), 6.21 cfs; median of yearly mean discharges, 1.6 cfs.

Extremes.--1930-41, 1947-50: 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 studies; no flow during several months of most years.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	-	-	-	-	3.53	8.60	3.45	7.34	0.46	0.05	0.37	0	-
1931	0	0.08	.11	.05	3.37	.29	.08	.003	0	0	.17	0	0.33
1932	.522	.27	15.9	1.53	142	23.7	8.62	3.56	1.12	.06	0	0	15.9
1933	3.40	0	1.46	3.50	3.69	2.24	1.01	.45	0	0	0	0	1.30
1934	0	0	.04	.71	.63	.13	0	0	0	.32	.81	.17	.23
1935	0	0	.03	1.18	4.28	2.55	2.45	.42	.01	.18	.34	.07	.93
1936	0	.04	.17	.23	11.8	2.03	7.18	.70	.06	.94	.09	0	1.88
1937	0	0	29.1	18.3	129	82.8	43.1	13.9	4.03	1.19	.65	.57	26.2
1938	.50	.60	1.21	1.25	5.89	86.8	12.1	5.69	2.62	1.86	.71	1.04	10.1
1939	.55	.72	4.64	10.2	17.3	7.87	5.94	1.22	.02	0	.01	5.82	4.43
1940	.57	.55	.63	9.65	15.4	4.95	4.79	.70	0	0	0	.08	3.07
1941	0	0	36.0	11.8	36.7	96.3	48.9	15.4	4.03	.67	1.26	.33	20.9
1942	.92	3.65	6.90	-	-	-	-	-	-	-	-	-	-
1948	0	0	.05	.05	1.12	1.00	.55	.002	0	.25	0	0	.248
1949	0	0	.060	2.10	3.88	3.98	3.46	.600	0	0	0	0	1.15
1950	0	0	0	.463	2.35	.162	.040	0	0	0	0	0	.236

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	-	-	-	-	196	529	205	451	27.4	3.0	22.8	0	-
1931	0	4.8	6.8	3.1	187	17.8	4.8	.2	0	0	10.5	0	236
1932	32.1	15.8	978	94.1	8,170	1,460	513	219	66.6	3.8	0	0	11,600
1933	209	0	89.8	215	205	138	60.1	27.5	0	0	0	0	944
1934	0	0	2.2	43.6	34.9	7.7	0	0	0	19.8	49.6	9.9	168
1935	0	0	1.6	72	238	157	146	26	.6	11	21	4.0	677

Monthly and yearly runoff, in acre-feet, of Palm Canyon Creek near Palm Springs, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	0	2.6	11	14	677	125	427	43	3.6	58	5.6	0	1,370
1937	0	0	1,790	1,120	7,180	5,090	2,560	855	240	73	40	34	18,980
1938	31	36	74	77	327	5,340	719	350	156	114	44	62	7,330
1939	34	43	285	624	960	484	353	75	1.2	0	.8	346	3,210
1940	35	33	38	593	889	304	285	43	0	0	0	4.6	2,220
1941	0	0	2,210	723	2,040	5,920	2,910	945	240	41	78	19	15,130
1942	56	217	424	-	-	-	-	-	-	-	-	-	-
1948	0	0	3.1	3.1	64	61	33	.1	0	15	0	0	179
1949	0	0	3.7	129	216	245	206	37	0	0	0	0	837
1950	0	0	0	28	130	9.9	2.4	0	0	0	0	0	170

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1930	705	180	Aug. 1, 1930	-	-	-	-	-
1931	720	31	Feb. 14, 1931	0	0.33	236	1.73	1,250
1932	735	1,870	Feb. 9, 1932	0	15.9	11,600	14.9	10,830
1933	750	514	Oct. 9, 1932	0	1.30	944	.89	648
1934	765	700	Aug. 4, 1934	0	.23	168	.23	167
1935	790	300	Aug. 23, 1935	0	.93	677	.95	689
1936	810	*350	Feb. 15, 1936	0	1.88	1,370	4.33	3,140
1937	830	3,850	Feb. 6, 1937	0	26.2	18,980	23.9	17,330
1938	860	2,380	Mar. 2, 1938	.2	10.1	7,330	10.4	7,550
1939	880	223	Sept.24, 1939	0	4.43	3,210	4.07	2,950
1940	900	358	Jan. 8, 1940	0	3.07	2,220	5.97	4,330
1941	930	2,900	Dec. 24, 1940	0	20.9	15,130	18.8	13,610
1942	960	137	Nov. 12, 1941	-	-	-	-	-
1948	1120	150	July 23, 1948	0	.248	179	.250	180
1949	1150	16	Jan. 21, 1949	0	1.15	837	1.15	833
1950	1180	16	Jan. 29, 1950	0	.236	170	-	-

* Revised.

268. 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., at Indian Service diversion dam, 0.9 mile upstream from mouth, and 5.4 miles south of Palm Springs.

Drainage area.--8.78 sq mi.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 800 ft (from topographic map).

Extremes.--1948-50: Maximum discharge, 21 cfs Feb. 6, 1950 (gage height, 2.22 ft); minimum, 0.2 cfs on several days in August 1949.

Remarks.--One small diversion for domestic use about 1 mile above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	0.7	1.1	1.5	2.5	2.0	2.97	3.48	2.13	1.07	0.56	0.36	0.45	1.57
1950	.94	1.21	2.07	2.22	3.07	1.94	1.88	1.27	.75	.66	.39	.81	1.42

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	43	65	92	154	111	182	207	131	64	34	22	27	1,130
1950	58	72	128	136	171	119	112	78	45	41	24	48	1,030

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1150	-	-	0.2	1.57	1,130	1.64	1,190
1950	1180	21	Feb. 6, 1950	.3	1.42	1,030	-	-

269. Deep Creek near Hesperia, Calif.1/

Location.--Lat 34°20'30", long 117°13'40", in SE¼ sec. 18, T. 3 N., R. 3 W., 0.5 mile upstream from confluence with West Fork Mojave River and 7 miles (revised) southeast of Hesperia.

Drainage area.--137 sq mi.

Gage.--Water-stage recorder and broad-crested weir. Altitude of gage is 3,050 ft (from topographic map). Prior to Apr. 21, 1938, staff gage or water-stage recorder at present site at different datums. Apr. 21 to Dec. 10, 1938, at site 0.25 mile downstream at different datum.

Average discharge.--39 years (1904-22, 1929-50), 77.6 cfs; median of yearly mean discharges, 56 cfs.

Extremes.--1904-22, 1929-50: 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.--Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft), used principally for recreation. Hesperia Water Co.'s canal diverts about 2½ miles above station for irrigation of about 1,500 acres below station.

Cooperation.--Records for 1904-22, not previously published by Geological Survey, furnished by California Department of Water Resources.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	‡1.5	‡2.0	2.5	31	250	359	105	143	32	7.8	1.4	0.8	‡77.0
1906	1.58	8.19	11.1	44	57.9	874	239	128	61.5	19.0	6.7	3.7	121
1907	4.5	19.1	146	230	380	809	444	153	62.5	23.4	11.4	8.6	191
1908	21.1	21.9	19.7	95	145	150	105	55	21.2	6.8	4.2	3.3	54
1909	7.9	10	21.2	183	283	143	203	76	23	8.0	4.4	4.4	81
1910	5.6	22.1	*345	*685	110	94	131	89	9.1	3.0	1.7	2.0	*126
1911	3.9	7.8	9.9	259	228	700	131	57	28	13.0	3.6	2.3	120
1912	8.2	12.0	19.3	5.0	13.1	123	144	83	18.2	6.5	1.4	1.0	37.0
1913	3.0	4.7	6.7	11.2	35	60	91	18.3	5.5	2.2	8.0	2.3	20.7
1914	1.3	15.9	11.4	337	716	263	145	137	49	19.7	1.9	1.2	†138
1915	4.0	5.0	19.8	86	555	277	248	248	66	11.4	2.2	1.7	127
1916	2.3	7.4	14.2	*1,220	438	490	136	81	28	9.8	4.5	2.6	*203
1917	25	13.7	16.2	33	101	136	145	58	13.4	1.5	1.4	.8	45.4
1918	1.1	2.7	4.4	6.4	51	523	52	24	9.4	1.2	.6	.6	56.4
1919	2.3	7.4	13.1	10.1	20.2	54	69	12.8	1.5	.6	.4	.7	16.0
1920	3.2	7.3	28	11.2	204	261	278	86	19.6	3.5	.5	.4	75.2
1921	4.2	11.4	9.9	55	52	156	61	111	30	3.9	.6	.5	41.3
1922	3.5	1.7	843	356	794	292	368	225	67	12.5	5.2	2.1	248
1930	‡1.0	‡2.5	‡5.0	16.1	26.4	109	69.5	113	13.9	1.28	.80	.52	‡30.0
1931	3.55	15.0	9.32	10.0	64.8	16.6	63.7	20.5	3.93	.96	.72	.60	†17.1
1932	2.25	7.02	55.5	23.2	495	239	189	94.4	22.0	3.22	.42	.23	92.6
1933	3.04	5.18	10.6	17.9	29.0	83.3	57.5	25.8	7.49	.32	.13	.10	20.0
1934	.23	2.20	37.9	95.6	22.6	21.4	7.49	2.37	1.67	.23	.34	.43	16.1
1935	24.1	6.67	59.3	87.4	149	77.8	194	59.3	10.6	2.43	.55	.61	55.2
1936	1.68	4.93	6.11	5.71	134	56.4	84.7	16.5	5.09	.60	.23	2.38	25.9
1937	2.0	5.84	40.5	29.9	649	513	414	187	36.3	9.56	2.12	1.20	154
1938	2.11	5.02	14.9	21.8	340	1,512	245	126	46.2	20.1	12.3	9.27	196
1939	12.8	15.0	39.9	42.5	55.7	123	137	29.4	6.12	2.46	2.07	33.2	41.4
1940	12.5	8.68	9.82	90.3	123	52.4	73.2	21.4	6.80	1.91	1.15	1.78	33.2
1941	4.53	9.33	123	42.7	361	489	445	177	46.6	14.8	9.16	5.71	142
1942	12.3	15.3	32.9	43.8	32.4	45.8	80.0	24.6	7.39	1.50	2.29	.85	24.8
1943	2.19	4.85	9.39	436	300	467	201	70.0	29.2	11.3	5.10	6.15	128
1944	8.98	14.3	49.7	30.2	64.0	244	229	102	31.8	13.5	5.02	4.15	66.4
1945	5.30	84.2	21.6	21.2	215	169	181	49.0	16.2	3.65	10.9	7.01	64.0
1946	7.00	10.6	180	22.7	29.5	171	198	27.5	5.08	3.27	.66	.97	55.0
1947	13.7	143	114	54.7	52.7	35.9	24.9	9.80	2.28	.82	1.02	.99	37.6
1948	1.45	2.37	9.39	6.32	17.0	21.7	92.1	19.4	3.21	.98	.59	.71	14.5
1949	1.32	1.81	5.11	10.7	31.0	68.3	117	17.7	3.00	1.47	.89	.43	21.4
1950	.82	5.63	19.1	16.7	64.2	13.6	20.0	4.66	2.11	1.33	.86	.70	12.1

* Revised; supersedes figures previously published by California Department of Water Resources.
† Corrected.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

1/ Published by California Department of Water Resources as East Fork of Mohave River above junction with West Fork, 1904-22.

Monthly and yearly runoff, in acre-feet, of Deep Creek near Hesperia, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	‡92	‡119	155	1,910	13,900	22,100	6,220	8,780	1,910	465	82	47	‡55,800
1906	97	465	680	2,700	3,230	53,800	14,220	7,880	3,660	1,170	410	221	88,500
1907	275	1,140	9,000	14,100	21,100	49,700	26,400	9,420	3,720	1,440	703	510	138,000
1908	1,300	1,300	1,210	5,830	8,330	9,240	6,230	3,360	1,260	417	258	197	38,900
1909	484	596	1,310	11,300	15,700	8,790	12,100	4,650	1,360	490	269	263	57,300
1910	340	1,320	*21,200	*42,100	6,090	5,800	7,800	5,440	544	183	107	118	*91,000
1911	240	464	606	16,000	12,600	43,000	7,800	3,520	1,640	802	219	136	87,000
1912	502	713	1,190	923	726	7,540	8,590	5,100	1,080	399	89	60	26,900
1913	185	280	415	689	1,930	3,680	5,430	1,120	326	137	493	136	14,800
1914	79	945	701	20,700	39,700	16,200	8,630	8,430	2,890	1,210	116	72	99,700
1915	247	295	1,220	5,290	30,800	17,000	14,800	15,200	3,950	701	133	102	89,800
1916	144	439	870	*74,800	25,200	30,000	8,110	5,010	1,690	599	275	155	*147,000
1917	1,562	817	996	2,050	5,580	8,380	8,650	3,580	798	95	89	45	32,600
1918	68	162	268	393	2,820	32,200	3,120	1,480	561	76	37	38	41,200
1919	142	440	803	619	1,120	3,340	4,130	789	92	36	23	42	11,600
1920	196	435	1,693	689	11,700	16,100	16,600	5,260	1,160	214	31	22	54,100
1921	258	676	606	3,390	2,910	9,600	3,620	6,800	1,790	243	38	30	30,000
1922	214	101	51,800	21,900	44,100	17,900	21,900	13,800	3,980	768	319	124	177,000
1930	‡61	‡149	‡307	990	1,470	6,700	4,140	6,950	827	78.7	49.2	30.9	‡21,800
1931	218	893	573	615	3,600	1,020	3,790	1,260	234	59	44.3	35.7	12,300
1932	138	418	3,410	1,430	28,500	14,700	11,200	5,800	1,310	198	25.9	13.7	67,100
1933	187	308	652	1,100	1,610	5,120	3,420	1,590	446	19.9	8.1	6.0	14,500
1934	14.3	131	2,330	5,880	1,260	1,320	446	146	99.4	14.3	20.8	25.8	11,690
1935	1,480	397	3,640	5,370	8,250	4,780	11,500	3,650	630	150	34	36	40,000
1936	104	293	376	351	7,700	3,470	5,040	1,010	303	37	14	142	18,840
1937	123	348	2,490	1,840	36,030	31,560	24,660	11,490	2,160	588	130	71	111,500
1938	130	299	916	1,340	18,880	93,000	14,560	7,750	2,750	1,240	754	551	142,200
1939	785	891	2,450	2,620	3,090	7,560	8,150	1,810	364	151	127	1,980	29,980
1940	768	516	604	5,550	7,070	3,220	4,360	1,320	404	117	70	106	24,100
1941	278	555	7,580	2,620	20,070	30,060	26,480	10,860	2,770	911	563	340	103,100
1942	754	908	2,020	2,700	1,800	2,810	4,760	1,520	440	92	141	51	18,000
1943	135	289	577	26,820	16,660	28,690	11,940	4,300	1,740	693	314	366	92,520
1944	552	851	3,060	1,860	3,680	15,020	13,630	6,260	1,890	827	309	247	48,190
1945	326	5,010	1,330	1,300	11,940	10,390	10,750	3,010	966	225	670	417	46,330
1946	430	634	11,070	1,400	1,640	10,530	11,800	1,690	302	201	40	58	39,800
1947	843	8,510	6,990	3,360	2,930	2,210	1,480	602	136	50	62	59	27,230
1948	89	141	577	389	979	1,330	5,480	1,190	191	60	36	42	10,500
1949	81	108	314	658	1,720	4,200	6,960	1,090	179	90	55	26	15,480
1950	50	335	1,180	1,030	3,560	835	1,190	286	125	82	53	41	8,770

* Revised; supersedes figures previously published by California Department of Water Resources.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	(a)	-	-	-	‡77.0	‡55,800	78.3	56,700
1906	(a)	‡10,800	Mar. 12, 1906	0.9	121	88,500	135	97,700
1907	(a)	‡6,920	Mar. 5, 1907	3.5	191	138,000	181	131,000
1908	(a)	-	-	.7	54	38,900	51.7	37,500
1909	(a)	‡6,290	Jan. 22, 1909	2.1	81	57,300	*107	*77,800
1910	(a)	‡37,900	Jan. 1, 1910	1.3	*126	*91,000	*96.0	*69,500
1911	(a)	‡6,250	Mar. 9, 1911	.5	120	87,000	122	88,100
1912	(a)	-	-	.7	37.0	26,900	35.0	25,400
1913	(a)	-	-	.7	20.7	14,800	21.7	15,700
1914	(a)	‡9,350	Feb. 20, 1914	.7	†138	99,700	138	99,700
1915	(a)	‡7,160	Feb. 10, 1915	1.0	127	89,800	124	89,400
1916	(a)	‡23,000	Jan. 17, 1916	1.5	*203	*147,000	*206	*149,000
1917	(a)	-	-	.6	45.4	32,600	41.1	29,800
1918	(a)	‡11,000	Mar. 7, 1918	.4	56.4	41,200	58.1	42,100
1919	(a)	-	-	.2	16.0	11,600	17.3	12,500
1920	(a)	‡4,760	Feb. 22, 1920	.3	75.2	54,100	73.4	53,300
1921	(a)	‡2,200	Mar. 14, 1921	.4	41.3	30,000	111	80,500
1922	(a)	-	-	1.1	248	177,000	-	-
1930	705	340	Mar. 5, 1930	‡.2	‡30.0	‡21,800	31.6	22,920
1931	720	*1,600	Apr. 26, 1931	.2	†17.1	12,300	20.2	14,620
1932	735	7,900	Feb. 9, 1932	.1	92.6	67,100	88.7	64,320
1933	750	168	Apr. 4, 1933	.1	20.0	14,500	21.8	15,800
1934	765	2,340	Dec. 31, 1933	.1	16.1	11,690	20.3	14,730
1935	790	2,760	Apr. 8, 1935	.3	55.2	40,000	48.7	35,170
1936	810	2,170	Feb. 12, 1936	.1	25.9	18,840	29.0	21,030
1937	830	6,800	Feb. 14, 1937	.4	154	111,500	152	109,900
1938	860	46,600	Mar. 2, 1938	1.1	196	142,200	200	145,000
1939	800	1,850	Sept.25, 1939	1.3	41.4	29,980	38.3	27,740
1940	900	2,610	Jan. 8, 1940	.5	33.2	24,100	42.2	30,630

* Revised.
† Corrected.
‡ Not previously published.
a Reports of California Department of Water Resources.

Yearly discharge, in cubic feet per second, of Deep Creek near Hesperia, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	5,500	Dec. 24, 1940	1.8	142	103,100	136	98,360
1942	960	395	Apr. 4, 1942	.7	24.8	18,000	21.1	15,320
1943	980	19,000	Jan. 23, 1943	1.0	128	92,520	133	95,990
1944	1010	490	Mar. 11, 1944	3.2	66.4	48,190	69.4	50,390
1945	1040	6,350	Feb. 2, 1945	2.5	64.0	46,330	71.6	51,800
1946	1060	5,800	Dec. 23, 1945	.5	55.0	39,800	60.8	44,000
1947	1090	2,740	Nov. 23, 1946	.7	37.6	27,230	16.2	11,700
1948	1120	840	Apr. 4, 1948	.4	14.5	10,500	14.1	10,210
1949	1150	248	Apr. 14, 1949	.4	21.4	15,480	22.9	16,540
1950	1180	708	Feb. 7, 1950	.4	12.1	8,770	-	-

270. West Fork Mojave River near Hesperia, Calif.[1]

Location.--Lat 34°20'20", long 117°14'35", in SE¼ sec. 13, T. 3 N., R. 4 W., at highway bridge, 0.5 mile upstream from confluence with Deep Creek and 7 miles southeast of Hesperia.

Drainage area.--74.8 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 3,050 ft (from topographic map). Prior to June 30, 1922, staff gage or water-stage recorder at site several hundred feet downstream.

Average discharge.--39 years (1904-22, 1929-50), 47.5 cfs; median of yearly mean discharges, 30 cfs.

Extremes.--1904-22, 1929-50: Maximum discharge, 26,100 cfs Mar. 2, 1938, by slope-area determination of peak flow; no flow for many days in most years.

Remarks.--Water diverted from Lake Gregory above station for domestic use and fire protection. One small diversion for irrigation above station.

Cooperation.--Records for 1904-22, not previously published by Geological Survey, furnished by California Department of Water Resources.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	‡0	‡0	0	3.9	120	556	58.8	72.7	9.3	0.1	0	0	‡68.5
1906	0	.04	.04	15.2	22	475	127	79.5	46.2	3.6	.05	.03	64
1907	.03	.07	132	375	285	851	215	68	24	.7	.10	.04	163
1908	.08	.11	1.6	80	138	60	28	21.1	.8	.8	.03	0	27.5
1909	.03	.04	.08	117	321	110	89	25	3.9	.08	.04	.04	55.5
1910	.05	2.1	*189	*456	65	34	32	5.7	.1	.10	.06	.04	*66
1911	.06	.06	.05	117	234	526	84	35	8.2	.3	.10	.08	84
1912	.10	.09	2.2	4.0	1.3	146	116	26	1.3	.10	.06	.05	24.8
1913	.05	.06	.04	3.4	92	61	27	5.8	.5	.09	.08	.05	15.8
1914	.04	.05	.05	220	653	123	64	49	12.6	.21	.09	.06	94
1915	.05	.05	7.5	103	400	105	54	99	14.5	.2	.10	.08	65
1916	.12	.32	.65	*656	245	217	74	27	4.4	.18	.06	.04	*102
1917	.05	1.8	11.9	30	146	90	60	29	7.8	.09	.03	.02	31.4
1918	.04	.04	.05	.05	17.0	238	23	7.5	1.5	.07	.02	0	†24.2
1919	.03	.03	1.0	1.9	16.4	26	13.8	2.0	.12	.03	0	0	5.1
1920	.01	.03	13.3	3.8	101	279	140	38	9.3	‡.1	‡.04	‡.01	‡48.6
1921	‡.02	‡.04	‡2.1	58	31	107	24	106	19	.2	.04	0	‡29.1
1922	0	0	1,002	436	915	220	153	75	25	‡.8	‡.1	‡.1	‡232
1930	‡0	‡0	‡0	‡2.13	2.22	68.0	18.2	61.4	1.91	0	0	0	‡13.0
1931	0	0	.58	1.58	20.9	.70	26.0	3.82	0	0	0	0	4.27
1932	0	.007	32.5	23.4	a397	97.3	27.8	9.93	.97	0	0	0	a47.6
1933	0	0	0	22.7	24.1	56.1	20.9	8.55	.10	0	0	0	11.0
1934	0	0	5.35	56.7	6.50	3.90	.27	0	0	0	0	0	6.12
1935	1.3	0	12.8	70.6	69.9	46.1	77.8	16.6	.88	0	0	0	24.3
1936	0	0	0	0	57.6	6.31	25.8	.49	0	0	0	0	7.25
1937	0	0	41.0	59.4	352	372	111	32.9	6.17	.05	0	0	79.6
1938	0	0	.68	3.95	192	a879	118	65.7	9.50	.21	.10	.13	a106
1939	.32	.20	43.2	31.3	33.2	38.4	26.0	1.03	.02	0	0	1.51	14.5
1940	0	.01	.03	28.1	47.1	19.0	23.3	.81	.02	0	0	0	9.71

* Revised; differs from figure published in reports of California Department of Water Resources.
† Corrected.
‡ Not previously published; estimated or partly estimated by Geological Survey on basis of weather records.
a Revised.

1/ Published as "above junction with East Fork" prior to 1929 in reports of California Department of Water Resources.

Monthly and yearly mean discharge, in cubic feet per second, of West Fork Mojave River near Hesperia, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	0	0	23.0	14.3	220	379	266	58.6	12.8	0.16	0	0	80.1
1942	.01	.50	38.5	32.2	15.4	20.5	21.2	4.23	.06	.006	.02	0	11.1
1943	0	0	.02	337	228	279	96.0	16.8	1.07	.01	0	0	79.2
1944	0	0	27.0	13.0	247	268	64.2	20.9	4.73	.06	0	0	53.1
1945	0	55.3	12.8	9.71	109	152	60.8	10.4	1.03	.01	.01	0	33.7
1946	0	0	43.4	5.48	12.1	113	65.2	3.07	.02	0	0	0	20.3
1947	0	158	106	53.6	35.9	20.3	9.88	.27	0	0	0	0	31.8
1948	0	0	0	0	1.56	12.0	33.7	4.64	.002	0	0	0	4.30
1949	0	0	.002	13.0	32.0	57.3	18.8	4.69	.003	0	0	0	10.4
1950	0	0	16.5	10.9	26.4	3.88	4.43	0	0	0	0	0	5.04

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	‡0	‡0	1.2	240	6,670	34,200	3,497	4,470	555	8.7	0	0	‡49,600
1906	0	2.3	2.6	932	1,220	29,200	7,540	4,880	2,750	219	3.4	1.7	46,700
1907	2.1	4.4	8,120	23,100	15,800	52,300	12,800	4,150	1,430	43	6.0	2.3	118,000
1908	4.9	6.7	99	4,930	7,930	3,690	1,650	1,300	48	4.9	1.5	0	19,670
1909	2.0	2.5	4.8	7,220	17,800	6,750	5,290	1,560	235	4.8	2.7	2.2	38,900
1910	3.0	125	*11,600	*28,000	3,600	2,120	1,890	351	8.3	6.1	3.7	2.2	*47,700
1911	3.5	3.4	3.2	7,170	13,000	32,300	5,010	2,160	487	21	6.4	4.7	60,200
1912	6.0	5.1	134	246	77	8,990	6,890	1,620	78	6.0	3.8	2.8	18,100
1913	3.0	3.5	2.7	210	5,140	3,780	1,580	358	29	5.3	5.0	3.1	11,100
1914	2.2	3.1	3.0	13,530	36,300	7,560	3,790	3,030	752	12.8	5.8	3.4	65,000
1915	2.8	2.7	461	6,300	22,200	6,480	3,210	6,060	860	10.3	5.9	4.6	45,600
1916	7.6	19	40	*40,300	14,100	13,400	4,370	1,690	260	11.0	3.9	2.6	*74,200
1917	3.3	105	731	1,820	8,120	5,510	3,600	1,770	461	5.4	2.1	1.4	22,100
1918	2.2	2.5	2.8	3.2	942	14,600	1,390	460	89	4.6	1.1	0	17,500
1919	1.7	1.6	61	118	910	1,620	821	122	7.1	2.0	0	0	3,660
1920	.4	2.0	817	235	5,810	17,200	8,340	2,310	554	‡6.0	‡2.6	‡.8	‡35,300
1921	‡1.3	‡2.5	‡129	3,570	1,730	6,590	1,410	6,500	1,130	14.3	2.7	0	‡21,100
1922	0	0	61‡00	26,800	50,800	13,500	9,080	4,610	1,520	‡50	‡6	‡5	‡168,000
1930	‡0	‡0	‡0	‡131	123	4,180	1,080	3,780	114	0	0	0	‡9,410
1931	‡0	0	3.6	97.2	1,160	43	1,550	235	0	0	0	0	3,090
1932	0	.4	2,000	1,440	a22,830	5,980	1,650	611	57.7	0	0	0	a34,570
1933	0	0	0	1,400	1,340	3,450	1,240	526	5.8	0	0	0	7,960
1934	0	0	329	3,480	361	240	15.9	0	0	0	0	0	4,430
1935	79	0	785	4,340	3,880	2,840	4,630	1,020	53	0	0	0	17,600
1936	0	0	0	0	3,310	388	1,530	30	0	0	0	0	5,260
1937	0	0	2,520	3,650	19,570	22,890	6,610	2,020	367	2.8	0	0	57,630
1938	0	0	40	243	10,640	a54,050	7,000	4,040	565	13	6.4	7.9	a76,610
1939	20	12	2,650	1,920	1,850	2,360	1,550	63	1.2	0	0	90	10,520
1940	0	.6	2.0	1,730	2,710	1,170	1,390	50	1.0	0	0	0	7,050
1941	0	0	1,410	877	12,190	23,330	15,830	3,610	764	9.6	0	0	58,020
1942	.6	30	2,370	1,980	857	1,260	1,260	260	3.6	.4	.9	0	8,020
1943	0	0	1.0	20,740	12,680	17,140	5,710	1,030	64	.6	0	0	57,370
1944	0	0	1,660	800	14,230	16,500	3,820	1,280	282	3.6	0	0	38,580
1945	0	3,290	785	597	6,060	9,360	3,620	639	61.3	.6	.4	0	24,410
1946	0	0	2,670	337	672	6,920	3,880	189	1.2	0	0	0	14,670
1947	0	9,380	6,520	3,290	2,000	1,250	588	17	0	0	0	0	23,040
1948	0	0	0	0	89	737	2,010	286	.1	0	0	0	3,120
1949	0	0	.1	799	1,780	3,520	1,120	288	.2	0	0	0	7,510
1950	0	0	1,010	669	1,470	238	264	0	0	0	0	0	3,650

* Revised; differs from figure published in reports of California Department of Water Resources.
‡ Not previously published; estimated or partly estimated on basis of weather records.
a Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	(a)	-	-	0	‡68.5	‡49,600	‡68.5	‡49,600
1906	(a)	-	-	0	64	46,700	75.8	54,900
1907	(a)	‡12,300	Mar. 5, 1907	0	163	118,000	152	110,000
1908	(a)	-	-	0	27.5	19,670	27.0	19,600
1909	(a)	‡4,710	Feb. 7, 1909	0	55.5	38,900	70.0	50,600
1910	(a)	‡23,700	Jan. 1, 1910	.02	*66	*47,700	*49.7	*36,000
1911	(a)	‡5,050	Mar. 9, 1911	0	84	60,200	83.3	60,300
1912	(a)	-	-	.03	24.8	18,100	24.7	17,900
1913	(a)	-	-	.03	15.8	11,100	15.3	11,100
1914	(a)	‡16,600	Feb. 20, 1914	.03	94	65,000	90.4	65,400
1915	(a)	-	-	.03	65	45,600	62.5	45,200
1916	(a)	‡12,600	Jan. 18, 1916	.02	*102	*74,200	*103	*75,000
1917	(a)	-	-	0	31.4	22,100	29.4	21,300
1918	(a)	-	-	0	†24.2	17,500	24.3	17,600
1919	(a)	-	-	0	5.1	3,660	6.10	4,420
1920	(a)	-	-	0	‡48.6	‡35,300	‡47.6	‡34,600

* Revised; differs from figure published in reports of California Department of Water Resources.
† Corrected.
‡ Not previously published.
a Reports of California Department of Water Resources.

Yearly discharge, in cubic feet per second, of West Fork Mojave River near Hesperia, Calif.--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1921	(a)	-	-	0	‡29.1	‡21,100	‡114	‡82,500
1922	(a)	-	-	0	‡232	‡168,000	-	-
1930	705	b800	Mar. 14, 1930	0	‡13.0	‡9,410	‡13.0	‡9,410
1931	720	712	Apr. 26, 1931	0	4.27	3,090	7.02	5,090
1932	735,1564	b8,500	Feb. 8, 1932	0	b47.6	b34,570	b44.9	b32,570
1933	750	464	Jan. 19, 1933	0	11.0	7,960	11.4	8,290
1934	765	1,380	Jan. 1, 1934	0	6.12	4,430	6.86	4,960
1935	790	1,280	Apr. 8, 1935	0	24.3	17,600	23.2	16,760
1936	810	418	Feb. 11, 1936	0	7.25	5,260	10.7	7,780
1937	830	4,100	Mar. 13, 1937	0	79.6	57,630	76.2	55,150
1938	860,1564	26,100	Mar. 2, 1938	0	b106	b76,610	109	b79,250
1939	880	681	Dec. 19, 1938	0	14.5	10,520	10.8	7,840
1940	900	1,390	Jan. 8, 1940	0	9.71	7,050	11.7	8,460
1941	930	2,280	Mar. 4, 1941	0	80.1	58,020	81.5	59,010
1942	960	450	Dec. 10, 1941	0	11.1	8,020	7.77	5,620
1943	980	23,000	Jan. 23, 1943	0	79.2	57,370	81.5	59,020
1944	1010	6,600	Feb. 22, 1944	0	53.1	38,580	56.5	46,990
1945	1040	2,350	Feb. 2, 1945	0	33.7	24,410	31.8	23,010
1946	1060	6,600	Mar. 30, 1946	0	20.3	14,670	38.5	27,890
1947	1090	3,000	Nov.13,20,1946	0	31.8	23,040	9.87	7,140
1948	1120	700	Apr. 3, 1948	0	4.30	3,120	4.30	3,120
1949	1150	335	Jan. 20, 1949	0	10.4	7,510	11.8	8,520
1950	1180	706	Dec. 19, 1949	0	5.04	3,650	-	-

‡ Not previously published.
a Reports of California Department of Water Resources.
b Revised.
Note.--Records of hourly discharge for Feb. 28 to Mar. 2, 1938, published in WSP 844, have been found in error on basis of restudy of the original data. Those records should not be used.

271. Mojave River at lower narrows, near Victorville, Calif.[1/]

Location.--Lat 34°34'25", long 117°19'10", in SW¼SE¼ sec. 29, T. 6 N., R. 4 W., 1,000 ft upstream from bridge on U. S. Highway 66 and 3 miles northwest of Victorville.

Drainage area.--530 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 2,650 ft (from topographic map). Prior to Aug. 1, 1906, staff gage, and Nov. 12, 1930, to Dec. 8, 1936 (revised), water-stage recorder, at upper narrows 3 miles upstream at different datum. Dec. 9, 1936 (revised), to Mar. 1, 1938, water-stage recorder at present site at datum 2.00 ft higher (revised).

Average discharge.--27 years (1899-1906, 1930-50), 88.0 cfs; median of yearly mean discharges, 51 cfs.

Extremes.--1930-50: Maximum discharge, 70,600 cfs Mar. 2, 1938 (gage height, 18.7 ft present datum), by slope-area determination of peak flow; minimum daily, 8 cfs July 16, 1949, July 28, 1950.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	-	-	-	-	-	37	37	33	29	27	24	22	-
1900	23	27	32	44	49	57	35	33	30	26	29	29	34.5
1901	32	139	33	183	925	178	44	49	42	40	50	55	†142
1902	69	77	73	50	60	66	59	43	50	40	40	44	55.9
1903	47	46	64	57	63	503	765	80	39	37	39	41	148
1904	52	55	58	60	57	58	45	47	38	33	35	34	47.7
1905	48	50	59	60	309	695	110	146	43.4	32.3	31.6	40.0	135
1906	46.5	64.0	67.0	‡67	‡66	‡1,014	‡414	‡157	‡67.9	‡28	‡28.4	‡35	‡172
1931	a35	a35.9	34.4	38.2	40.2	34.0	34.3	28.4	23.1	20.6	21.2	27.8	a31.0
1932	31.4	33.0	40.0	39.6	705	276	154	48.9	28.0	21.4	20.3	24.3	116
1933	30.0	36.0	41.0	47.5	42.6	39.0	35.9	32.9	25.3	22.4	19.6	24.8	33.0
1934	29.6	36.5	39.3	71.3	39.6	35.4	30.4	27.4	25.8	19.7	18.1	21.7	32.9
1935	33.1	32.7	35.7	41.0	97.9	35.4	164	40.5	21.7	20.2	24.4	20.7	46.7
1936	27.4	33.7	33.5	35.0	39.6	29.0	29.6	23.2	22.0	22.0	20.1	23.3	28.1
1937	28.6	35.2	44.7	41.2	833	860	466	159	25.1	17.1	14.2	17.9	208
1938	27.9	37.3	43.1	40.8	169	2,229	302	130	28.6	25.9	24.5	29.2	260
1939	35.1	45.6	48.0	47.7	48.4	56.2	89.9	33.3	21.1	17.8	21.0	29.2	41.0
1940	39.0	45.3	48.3	57.0	65.5	43.7	39.4	31.7	21.3	19.1	19.8	25.1	37.8

† Corrected.
‡ Not previously published; estimated on basis of 54 discharge measurements and unpublished State records for lower narrows.
a Not previously published; estimated on basis of records for Deep Creek and West Fork Mojave River.

1/ Published as "at Victorville" prior to 1936 and as "near Victorville" in 1937.

Monthly and yearly mean discharge, in cubic feet per second, of Mojave River at lower narrows, near Victorville, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	32.5	41.6	67.2	52.4	428	838	659	175	28.4	21.2	24.2	29.7	198
1942	37.9	47.2	51.1	49.2	44.6	42.7	44.5	30.2	24.1	17.0	17.9	21.7	35.6
1943	29.4	42.8	44.6	590	406	650	243	37.5	22.7	14.6	16.5	22.6	176
1944	34.6	44.5	59.8	45.7	229	469	251	66.2	26.5	22.4	18.6	20.4	107
1945	27.4	52.8	45.0	45.2	181	252	199	31.3	20.8	16.9	21.0	23.3	75.5
1946	28.7	38.3	92.9	46.1	39.7	173	195	24.6	19.9	18.4	18.3	20.7	59.7
1947	29.0	128	142	72.6	53.3	41.4	36.0	32.4	23.4	18.8	19.0	21.4	51.4
1948	33.6	44.1	50.0	51.7	51.7	43.3	41.2	31.8	30.0	18.8	17.0	23.0	36.3
1949	34.2	36.4	39.3	51.8	44.4	36.7	34.3	31.8	20.6	15.6	17.1	17.4	31.6
1950	28.0	34.3	38.3	44.0	43.9	37.8	27.9	25.6	21.8	16.5	19.3	22.0	29.9

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	-	-	-	-	-	2,275	2,202	2,029	1,726	1,660	1,476	1,309	-
1900	1,414	1,607	1,970	2,705	†2,819	3,505	2,083	2,029	1,785	1,599	1,783	1,726	†25,000
1901	1,968	8,271	2,029	11,252	51,372	20,945	2,618	3,013	2,499	2,460	3,074	3,273	103,000
1902	4,243	4,582	4,489	3,074	3,332	4,058	3,512	2,644	2,975	2,460	2,460	2,618	40,400
1903	2,890	2,737	†3,935	3,505	3,499	30,928	45,521	4,919	2,321	2,275	2,398	2,440	107,000
1904	3,197	3,273	3,566	3,689	3,279	3,566	2,678	2,890	2,261	2,029	2,152	2,023	34,600
1905	2,951	2,975	3,628	†3,689	17,160	42,734	6,545	8,977	2,583	1,986	1,943	2,380	97,600
1906	2,859	3,808	4,120	‡4,120	‡3,670	‡62,330	‡24,610	‡9,670	‡4,040	‡1,720	‡1,750	‡2,080	‡124,800
1931	a2,150	a2,130	2,120	2,350	2,230	2,090	2,040	1,750	1,370	1,270	1,300	1,650	a22,450
1932	1,930	1,960	2,460	2,430	40,600	17,000	9,160	3,010	1,670	1,320	1,250	1,450	84,200
1933	1,840	2,140	2,520	2,920	2,370	2,400	2,140	2,020	1,510	1,380	1,210	1,480	23,900
1934	1,820	2,170	2,420	4,390	2,200	2,180	1,810	1,690	1,540	1,210	1,110	1,290	23,830
1935	2,040	1,950	2,200	2,520	5,430	2,180	9,740	2,490	1,290	1,240	1,500	1,230	33,800
1936	1,680	2,010	2,060	2,150	2,280	1,780	1,760	1,420	1,310	1,350	1,240	1,380	20,420
1937	1,760	2,090	2,750	2,530	46,240	52,850	27,750	9,780	1,500	1,050	873	1,070	150,200
1938	1,720	2,220	2,650	2,510	9,390	137,100	17,980	7,970	1,700	1,590	1,510	1,740	188,100
1939	2,160	2,710	2,950	2,940	2,690	3,460	5,350	2,040	1,260	1,090	1,290	1,740	29,680
1940	2,400	2,690	2,970	3,510	3,770	2,690	2,350	1,950	1,270	1,170	1,220	1,490	27,480
1941	2,000	2,480	4,130	3,220	23,760	51,530	39,190	10,780	1,690	1,300	1,490	1,770	143,300
1942	2,330	2,810	3,140	3,020	2,480	2,630	2,650	1,860	1,430	1,050	1,100	1,290	25,790
1943	1,800	2,540	2,740	36,280	22,570	39,960	14,480	2,310	1,350	897	1,020	1,340	127,300
1944	2,130	2,650	3,680	2,810	13,190	28,860	14,940	4,070	1,580	1,380	1,150	1,210	77,650
1945	1,680	3,140	2,760	2,780	10,030	15,510	11,870	1,920	1,240	1,040	1,290	1,380	54,640
1946	1,770	2,280	5,710	2,830	2,200	10,620	11,620	1,510	1,190	1,130	1,120	1,230	43,210
1947	1,780	7,590	8,730	4,460	2,960	2,550	2,140	1,390	1,390	1,160	1,170	1,280	37,200
1948	2,060	2,620	3,070	3,180	2,980	2,660	2,450	1,950	1,780	1,150	1,040	1,370	26,310
1949	2,100	2,170	2,410	3,180	2,460	2,260	2,040	1,950	1,230	962	1,050	1,030	22,840
1950	1,720	2,040	2,350	2,710	2,440	2,330	1,660	1,570	1,300	1,020	1,180	1,310	21,630

† Corrected.
‡ Not previously published; see footnote to preceding table.
a Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1899	300	-	-	-	-	-	-	-
1900	300	-	-	-	34.5	†25,000	†44.5	†32,300
1901	300	-	-	-	†142	103,000	†143	104,000
1902	300	-	-	-	55.9	40,400	†50.7	†36,700
1903	300	-	-	-	148	107,000	149	108,000
1904	300	-	-	-	47.7	34,600	47	34,200
1905	300	-	-	-	135	97,600	136	98,800
1906	300	-	-	-	‡172	‡124,800	-	-
1931	720	‡100	Apr. 27, 1931	-	‡31.0	‡22,450	31.0	22,400
1932	735	12,500	Feb. 9, 1932	16	116	84,200	116	84,400
1933	750	200	Oct. 1, 1932	16	33.0	23,900	32.9	23,850
1934	765	810	Jan. 1, 1934	16	32.9	23,830	32.6	23,610
1935	790	2,200	Apr. 8, 1935	15	46.7	33,800	46.1	33,370
1936	810	195	Feb. 23, 1936	18	28.1	20,420	29.3	21,270
1937	830	8,880	Feb. 14, 1937	11	208	150,200	208	150,200
1938	860	70,600	Mar. 2, 1938	19	260	188,100	261	189,300
1939	880	440	Apr. 3, 1939	15	41.0	29,680	41.3	29,920
1940	900	704	Feb. 26, 1940	17	37.8	27,480	38.6	28,030
1941	930	4,480	Feb. 21, 1941	15	198	143,300	198	143,000
1942	960	71	Dec. 10, 1941	12	35.6	25,790	34.0	24,590
1943	980	32,000	Jan. 23, 1943	10	176	127,300	178	128,700
1944	1010	6,900	Feb. 22, 1944	16	107	77,650	106	76,770
1945	1040	5,500	Feb. 2, 1945	14	75.5	54,640	78.5	56,820
1946	1060	8,000	Mar. 30, 1946	13	59.7	43,210	71.2	51,550
1947	1090	1,500	Nov. 24, 1946	13	51.4	37,200	37.1	26,850
1948	1120	130	Apr. 4, 1948	13	36.3	26,310	34.8	25,250
1949	1150	114	Oct. 18, 1948	8.0	31.6	22,840	30.8	22,270
1950	1180	53	Mar. 4,5,1950	8.0	29.9	21,630	-	-

† Corrected.
‡ Not previously published.

272. Mojave River near Hodge, Calif.

Location.--Lat 34°50'10", long 117°11'25", in SE¼SE¼ sec. 28, T. 9 N., R. 3 W., at county road crossing 1 mile (revised) north of Hodge and 10 miles southwest of Barstow.

Gage.--Water-stage recorder. Altitude of gage is 2,250 ft (from topographic map).

Extremes.--1930-32: Maximum discharge, 8,900 cfs Feb. 9, 1932 (gage height, 5.20 ft); no flow for several months each year.

Remarks.--Periodic regulation by Lake Arrowhead (capacity, 48,000 acre-ft), used principally for recreation. Several diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	0	0	0	5.65	21.8	9.89	2.54	0.01	0	0	0	0	3.20
1932	0	0	5.39	19.4	564	255	139	26.1	0	0	0	0	82.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	0	0	0	347	1,210	608	151	0.6	0	0	0	0	2,320
1932	0	0	331	1,190	32,400	15,700	8,270	1,600	0	0	0	0	59,500

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	83	Apr. 28, 1931	0	3.20	2,320	3.66	2,650
1932	735	8,900	Feb. 9, 1932	0	82.0	59,500	-	-

273. Mojave River at Barstow, Calif.

Location.--Lat 34°54'25", long 117°01'20", in SW¼SE¼ sec. 31, T. 10 N., R. 1 W., 75 ft upstream from bridge on U. S. Highway 91 at Barstow.

Gage.--Water-stage recorder. Altitude of gage is 2,090 ft (from topographic map).

Average discharge.--20 years (1930-50), 37.4 cfs; median of yearly mean discharges, 1.0 cfs.

Extremes.--1930-50: 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.--Diversions above station for irrigation of about 2,000 acres; slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	0	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	*407	162	66.2	*2.34	0	0	0	0	*51.6
1933	0	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	19.9	0	0	0	0	0	1.64
1936	0	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	534	770	383	66.0	0	0	0	0	143
1938	0	0	0	0	0	1962	230	61.7	0	0	0	0	191
1939	0	0	0	0	0	.17	9.07	0	0	0	0	0	.76
1940	0	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	222	738	547	93.5	0	0	0	0	133
1942	0	0	0	0	.5	1.0	.2	0	0	0	0	0	.14
1943	0	0	0	492	281	601	131	6.19	0	0	0	0	126
1944	0	0	0	0	86.5	318	177	19.0	0	0	0	0	49.9
1945	0	0	0	0	55.2	187	125	1.27	0	0	0	0	30.5
1946	0	0	2.98	0	0	61.0	145	0	0	0	0	0	17.4
1947	0	4.30	31.2	10.8	.42	.19	0	0	0	0	0	0	3.97
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0

* Revised.

Monthly and yearly runoff, in acre-feet, of Mojave River at Barstow, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	0	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	*23,420	9,960	3,940	*144	0	0	0	0	*37,460
1933	0	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	1,180	0	0	0	0	0	1,180
1936	0	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	29,660	47,350	22,810	4,060	0	0	0	0	103,900
1938	0	0	0	0	0	120,600	13,690	3,790	0	0	0	0	138,100
1939	0	0	0	0	0	10	540	0	0	0	0	0	550
1940	0	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	12,330	45,380	32,540	5,750	0	0	0	0	96,000
1942	0	0	0	0	28	61	12	0	0	0	0	0	101
1943	0	0	0	30,270	15,600	36,930	7,800	381	0	0	0	0	90,980
1944	0	0	0	0	4,970	19,580	10,540	1,170	0	0	0	0	36,260
1945	0	0	0	0	3,070	11,520	7,420	78	0	0	0	0	22,090
1946	0	0	183	0	0	3,750	8,640	0	0	0	0	0	12,570
1947	0	256	1,920	666	23	12	0	0	0	0	0	0	2,880
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	0	-	0	0	0	0	0
1932	735,1564	8,300	Feb. 9, 1932	0	*51.6	*37,460	*51.6	*37,460
1933	750	0	-	0	0	0	0	0
1934	765	0	-	0	0	0	0	0
1935	790	500	Apr. 9, 1935	0	1.64	1,180	1.64	1,180
1936	810	0	-	0	0	0	0	0
1937	830	6,000	Feb. 15, 1937	0	143	103,900	143	103,900
1938	860	64,300	Mar. 3, 1938	0	191	138,100	191	138,100
1939	880	-	-	0	.76	550	.76	550
1940	900	0	-	0	0	0	0	0
1941	930	3,520	Mar. 5, 1941	0	133	96,000	133	96,000
1942	960	-	-	0	.14	101	.14	101
1943	980	26,000	Jan. 23, 1943	0	126	90,980	126	90,980
1944	1010	2,300	Feb. 23, 1944	0	49.9	36,260	49.9	36,260
1945	1040	1,750	Feb. 3, 1945	0	30.5	22,090	30.8	22,270
1946	1060	3,000	Mar. 31, 1946	0	17.4	12,570	20.1	14,570
1947	1090	500	Dec. 28, 1946	0	3.97	2,880	.97	701
1948	1120	0	-	0	0	0	0	0
1949	1150	0	-	0	0	0	0	0
1950	1180	0	-	0	0	0	-	-

* Revised.

274. Mojave River at Afton, Calif.

Location.--Lat 35°01'50", long 116°21'55", in NE¼ sec. 20 (revised), T. 11 N., R. 6 E., at Union Pacific Railroad bridge and west portal of tunnel No. 1 and three-quarters of a mile southeast of Afton.

Gage.--Water-stage recorder. Altitude of gage is 1,360 ft (from topographic map).

Extremes.--1929-32: Maximum discharge, 3,550 cfs Feb. 10, 1932 (gage height, 4.70 ft); minimum, 0.1 cfs July 23-26, 1932.

Remarks.--Slight regulation by Lake Arrowhead (capacity 48,000 acre-ft, used principally for recreation); several diversions for irrigation and considerable pumping from ground water in upper and middle Mojave River basin.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	-	-	‡1.8	1.89	1.67	1.66	1.32	1.33	0.95	0.63	0.60	0.87	a1.3
1931	1.40	1.72	1.84	1.92	1.94	1.90	2.05	1.80	1.44	1.05	*3.17	.76	*1.75
1932	1.19	1.91	1.97	2.09	113	11.4	1.94	1.09	.53	.22	.26	.47	10.8

* Revised.
‡ Not previously published; partly estimated on basis of 2 discharge measurements.
a Not previously published; yearly estimate on basis of 2 discharge measurements and weather records; some monthly figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	-	-	‡111	116	92.8	102	78.6	81.8	56.5	38.7	36.9	51.8	a947
1931	86.1	102	113	118	108	117	122	111	85.7	64.6	*195	45.2	*1,270
1932	73.2	114	121	129	6,500	701	115	67.0	31.7	13.5	15.9	28	7,910

* Revised.
‡ Not previously published; see footnote to preceding table.
a Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Mojave River at Afton, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1930	705	5.2	Mar. 16, 1930	-	‡1.3	‡947	1.32	956
1931	720	*250	Aug. 12, 1931	0.6	*1.75	*1,270	*1.76	*1,270
1932	735	3,550	Feb. 10, 1932	.1	10.8	7,910	-	-

* Revised.
‡ Not previously published.
Note.--Figures of daily discharge for Aug. 5, 12, 13, 1931, have been revised to 5.4 cfs, 54 cfs, and 19 cfs, respectively.

ANTELOPE VALLEY BASIN

275. Big Rock Creek near Valyermo, Calif.1/

Location (revised).--Lat 34°25'17", long 117°50'19", in NE¼ sec. 20, T. 4 N., R. 9 W., 0.1 mile upstream from Punchbowl Canyon and 0.9 mile south of Valyermo.

Drainage area.--23.0 sq mi.

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.--27 years (1923-50), 17.4 cfs; median of yearly mean discharges, 12 cfs.

Extremes.--1923-50: Maximum discharge, 8,300 cfs Mar. 2, 1938, by slope-area determination of peak flow; minimum daily, 1.5 cfs Oct. 10, 1934.

Remarks.--No diversion above station. There is evidence of appreciable infiltration into the stream bed in immediate vicinity of station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	-	-	-	-	15.2	17.2	20.3	16.4	13.9	10.8	7.36	6.25	-
1924	6.65	6.93	7.00	5.27	4.49	3.97	11.8	9.95	5.13	2.97	2.43	2.61	5.77
1925	2.76	2.43	3.35	3.53	3.14	3.89	8.54	7.90	4.94	2.40	2.18	2.39	3.95
1926	2.33	2.68	3.02	3.06	4.41	6.73	78.7	45.7	25.5	15.0	8.69	6.32	16.8
1927	5.89	8.18	12.3	12.2	62.1	35.8	34.9	35.4	23.4	16.5	11.9	9.57	22.0
1928	5.36	6.50	7.85	7.63	13.3	14.2	11.2	9.23	5.40	3.70	3.25	3.03	7.53
1929	2.66	3.05	3.37	3.82	4.20	10.1	13.8	9.73	4.67	3.05	2.97	2.72	5.35
1930	2.40	2.27	2.71	3.12	4.68	15.6	18.7	20.7	12.3	7.87	6.61	4.99	8.51
1931	4.73	4.66	4.15	3.96	12.7	6.35	10.3	10.1	4.76	3.18	3.32	3.26	5.90
1932	3.02	3.04	6.23	8.35	*55.7	41.7	42.0	42.0	34.8	17.3	12.6	8.82	*22.8
1933	6.84	6.03	5.88	6.56	7.14	14.6	15.7	12.0	9.97	6.43	4.21	3.21	8.21
1934	2.83	2.71	6.96	21.9	8.55	11.1	7.52	5.11	4.18	3.49	2.55	2.04	6.59
1935	6.75	5.80	28.0	28.2	51.6	25.8	53.3	34.3	25.7	15.5	12.4	9.78	24.6
1936	6.68	5.87	5.05	4.62	19.9	11.3	11.0	6.94	4.17	2.77	2.58	2.66	6.90
1937	2.51	3.59	7.64	7.37	*59.0	*61.5	62.3	74.0	37.6	22.0	13.7	11.5	*30.0
1938	‡7.41	‡6.39	‡7.69	‡9.44	‡29.8	‡424	‡93.7	‡51.6	a37.8	a19.8	a14.7	a10.5	‡59.9
1939	a9.0	a7.0	a21.3	a13.0	12.1	18.3	28.0	17.3	14.4	10.5	8.29	14.5	a14.5
1940	10.7	8.72	7.03	13.0	21.8	17.7	19.5	13.9	10.8	7.58	6.95	6.82	11.9
1941	4.79	4.69	16.1	15.1	87.0	106	94.1	120	81.5	37.2	24.1	15.7	50.3
1942	12.3	10.6	12.3	11.3	9.77	9.00	15.4	11.0	7.35	6.11	6.55	4.38	9.67
1943	3.92	4.13	3.95	117	56.3	110	68.6	62.5	36.9	21.5	14.5	10.4	42.5
1944	7.58	7.12	22.3	12.6	17.3	53.3	61.4	83.6	65.7	33.0	21.6	12.6	33.2
1945	9.07	20.8	11.6	9.12	23.2	19.5	21.9	18.7	14.0	10.5	7.96	7.77	14.4
1946	5.98	6.72	37.8	14.0	11.5	22.8	55.1	30.7	22.3	16.5	10.4	7.06	20.1
1947	6.25	31.9	67.0	36.4	24.4	20.2	20.0	17.5	14.2	12.2	9.06	6.45	22.2
1948	5.24	4.71	5.77	4.92	5.93	7.21	13.6	10.8	7.19	4.41	3.52	3.51	6.39
1949	2.88	3.35	3.11	4.64	5.25	6.92	17.1	10.2	6.41	3.40	3.15	3.00	5.77
1950	3.09	2.80	4.24	5.08	9.11	7.06	7.55	6.62	3.96	2.68	2.21	2.07	4.68

* Revised.
‡ Not previously published; estimated on basis of discharge measurements, slope-area determination of peak flow, and records for nearby streams.
a Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	-	-	-	-	844	1,060	1,210	1,010	827	664	453	372	-
1924	409	412	430	324	258	244	702	612	305	183	149	155	4,180
1925	170	145	206	217	174	239	508	486	294	148	134	142	2,860
1926	143	159	186	188	245	414	4,680	2,810	1,520	922	534	376	12,200
1927	362	487	756	750	3,450	2,200	2,080	2,180	1,390	1,010	732	569	16,000
1928	330	387	483	469	765	873	666	568	321	228	200	180	5,470
1929	164	181	207	235	233	621	821	598	278	188	183	162	3,870
1930	148	135	167	192	260	959	1,110	1,270	732	486	406	297	6,160

1/ Published as Rock Creek prior to 1954.

Monthly and yearly runoff, in acre-feet, of Big Rock Creek near Valyermo, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	291	277	255	243	705	390	613	621	283	196	204	194	4,270
1932	186	181	383	513	*3,210	2,560	2,500	2,580	2,070	1,060	775	525	*16,500
1933	421	359	362	403	397	898	934	738	593	395	259	191	5,950
1934	174	161	428	1,340	475	683	447	314	249	215	157	121	4,760
1935	415	345	1,720	1,730	2,870	1,580	3,170	2,110	1,530	956	760	582	17,800
1936	411	349	311	284	1,140	697	652	426	248	171	158	158	5,000
1937	155	213	470	453	*3,270	*3,780	3,710	4,550	2,240	1,350	841	682	*21,710
1938	‡455	‡380	‡473	‡580	‡1,660	‡ 26,090	‡5,580	‡3,170	*2,250	*1,220	*904	*625	‡43,390
1939	*553	*417	*1,310	*799	672	1,120	1,660	1,060	855	645	510	863	*10,470
1940	657	519	432	802	1,260	1,090	1,160	857	644	466	427	346	8,660
1941	295	279	991	930	4,830	6,540	5,600	7,400	4,850	2,290	1,480	934	36,420
1942	758	631	754	695	542	553	917	673	437	376	402	261	7,000
1943	241	246	243	7,170	3,130	6,760	4,080	3,840	2,200	1,320	891	617	30,740
1944	466	423	1,370	778	994	3,270	3,660	5,140	3,910	2,030	1,330	750	24,120
1945	558	1,240	714	561	1,290	1,200	1,310	1,150	833	646	490	462	10,450
1946	368	400	2,330	859	639	1,400	3,280	1,890	1,320	1,020	637	420	14,560
1947	384	1,900	4,120	2,240	1,350	1,240	1,190	1,080	845	750	557	384	16,040
1948	322	280	355	302	341	444	808	665	428	271	216	209	4,640
1949	177	199	191	285	291	425	1,020	626	382	209	194	178	4,180
1950	190	167	261	312	506	434	449	407	236	165	136	123	3,390

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1923	570	27	Apr. 10, 1923	-	-	-	-	-
1924	590	19	Apr. 14, 1924	2.0	5.77	4,180	4.76	3,450
1925	610	16	Apr. 4, 1925	1.7	3.95	2,860	3.91	2,830
1926	630	416	Apr. 7, 1926	1.6	16.8	12,200	18.4	13,300
1927	650	510	Feb. 16, 1927	5.5	22.0	16,000	21.5	15,600
1928	670	86	Feb. 4, 1928	2.2	7.53	5,470	6.64	4,820
1929	690	136	Mar. 10, 1929	1.8	5.35	3,870	5.20	3,770
1930	705	56	Mar. 25, 1930	2.0	8.51	6,160	9.03	6,540
1931	720	98	Apr. 26, 1931	2.6	5.90	4,270	5.80	4,200
1932	735,1564	*800	Feb. 8, 1932	2.6	*22.8	*16,500	*23.3	*16,900
1933	750	24	Apr. 4, 1933	3.0	8.21	5,950	7.69	5,570
1934	765	246	Jan. 1, 1934	2.0	6.59	4,760	8.96	6,480
1935	790	338	Dec. 14, 1934	1.5	24.6	17,800	22.6	16,360
1936	810	70	Feb. 23, 1936	2.2	6.90	5,000	6.58	4,770
1937	830,1564	*360	Feb. 6, 1937	2.2	*30.0	*21,710	‡30.6	‡22,180
1938	860	8,300	Mar. 2, 1938	-	‡59.9	‡43,390	‡61.3	‡44,360
1939	880	*450	Dec. 18, 1938	6	*14.5	*10,470	*13.5	9,800
1940	900	150	Feb. 25, 1940	5	11.9	8,660	11.9	8,620
1941	930	512	Feb. 21, 1941	4.5	50.3	36,420	51.1	37,000
1942	960	175	Aug. 10, 1942	4.1	9.67	7,000	7.72	5,590
1943	980	†3,040	Jan. 23, 1943	3.6	42.5	30,740	44.6	32,270
1944	1010	180	Dec. 19, 1943	6.5	33.2	24,120	33.6	24,370
1945	1040	513	Nov. 11, 1944	5.8	14.4	10,450	15.2	11,040
1946	1060	650	Dec. 21, 1945	4.8	20.1	14,560	24.7	17,870
1947	1090	900	Dec. 26, 1946	5.5	22.2	16,040	14.6	10,590
1948	1120	84	Apr. 29, 1948	2.9	6.39	4,640	5.86	4,250
1949	1150	26	Apr. 23, 1949	-	5.77	4,180	5.84	4,230
1950	1180	48	Feb. 6, 1950	1.6	4.68	3,390	-	-

* Revised.
† Corrected.
‡ Not previously published.

276. 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., 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.

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.

Average discharge.--18 years (1930-37, 1939-50), 19.3 cfs; median of yearly mean discharges, 11 cfs.

Extremes.--1930-50: Maximum discharge, 17,000 cfs (estimated) Mar. 2, 1938; no flow during periods in most years.

Remarks.--No regulation or diversion above station.

Cooperation.--Records furnished by Los Angeles County Flood Control District.

538662 O - 60 - 19

Monthly and yearly mean discharge, in cubic feet per second, of Little Rock Creek near Little Rock, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	0	0.15	0.89	1.92	26.9	4.75	18.0	8.24	1.23	0.11	0	0	5.01
1932	0	0	9.88	6.90	111	71.0	51.0	21.4	6.90	2.11	.79	0	23.0
1933	0	0	.24	3.11	11.5	19.7	19.1	13.2	2.55	.13	0	0	5.74
1934	0	0	12.2	30.3	7.09	9.20	2.43	.76	.08	0	0	0	5.20
1935	*4.91	*3.65	*49.0	*36.6	*88.6	*29.1	*63.7	*17.0	*4.50	*.74	.006	0	*24.4
1936	0	.64	1.40	1.70	26.8	12.0	9.87	2.37	1.11	.15	0	0	4.57
1937	0	1.10	7.86	8.53	125	102	77.8	39.8	8.13	1.14	.08	0	30.3
1938	0	.16	2.53	7.58	-	-	-	25.2	8.78	2.64	.90	.64	-
1939	-	-	-	-	-	-	21.6	6.82	1.64	.78	.27	23.5	-
1940	3.42	2.93	2.86	19.8	36.6	25	17.7	6.47	1.87	.35	.02	0	9.64
1941	0	1.04	26.1	16.5	267	253	170	105	21.9	5.95	2.64	1.97	71.3
1942	4.58	4.64	11.3	14.4	8.71	11.0	21.2	7.06	1.95	.27	.23	0	7.10
1943	0	.47	1.28	179	138	186	60.7	21.8	7.64	2.48	1.02	.87	49.5
1944	1.25	2.09	59.3	14.4	*60.6	182	143	91.9	22.4	6.51	2.49	1.44	*49.0
1945	2.00	24.3	8.61	6.98	40.4	28.7	28.4	9.90	5.17	.76	.22	.85	12.8
1946	2.35	3.79	47.3	8.48	9.25	27.3	80.6	16.0	3.70	1.76	.194	.004	16.7
1947	.74	53.1	132	29.5	13.0	14.1	12.2	4.92	1.45	.16	.05	0	21.9
1948	0	.31	2.65	2.58	5.72	6.60	15.4	6.74	.63	.06	0	0	3.37
1949	0	0	.77	3.11	7.11	14.4	21.2	5.29	.90	.14	0	0	4.38
1950	0	.24	3.54	4.60	16.8	5.89	8.12	2.31	.47	.02	0	0	3.41

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	0	8.9	54.7	118	1,490	292	1,070	507	73.2	6.8	0	0	3,620
1932	0	0	608	424	6,380	4,370	3,030	1,320	411	130	48.4	0	16,700
1933	0	0	15.1	191	639	1,210	1,140	812	152	7.9	0	0	4,170
1934	0	0	750	1,860	394	565	144	47.0	4.6	0	0	0	3,760
1935	*302	*217	*3,010	*2,250	*4,920	*1,790	*3,790	*1,050	*268	45	.4	0	*17,640
1936	0	37.9	86.3	105	1,540	741	587	146	66	9.5	0	0	3,320
1937	0	65	483	525	6,940	6,300	4,630	2,450	484	70	5.2	0	21,950
1938	0	9.5	156	466	-	-	-	1,550	522	162	55	38	-
1939	-	-	-	-	-	-	1,290	420	97	48	16	1,400	-
1940	210	175	176	1,220	2,100	1,540	1,050	398	111	22	1.2	0	7,000
1941	0	62	1,600	1,010	14,840	15,560	10,140	6,460	1,300	366	162	117	51,620
1942	281	276	692	885	484	678	1,260	434	116	17	14	0	5,140
1943	0	28	79	11,000	7,680	11,410	3,610	1,340	455	153	63	52	35,870
1944	77	124	3,650	885	*3,480	11,190	8,510	5,650	1,330	400	153	86	*35,540
1945	123	1,450	530	429	2,240	1,760	1,690	609	308	47	13	50	9,250
1946	145	226	2,910	521	514	1,680	4,790	987	220	108	12	.2	12,110
1947	45	3,160	8,120	1,810	722	865	723	302	86	10	2.8	0	15,850
1948	0	18	163	159	329	406	919	415	38	3.6	0	0	2,450
1949	0	0	47	191	395	886	1,260	325	54	8.5	0	0	3,170
1950	0	14	218	283	934	362	483	142	28	1.2	0	0	2,470

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	430	Apr. 26, 1931	0	5.01	3,620	5.76	4,160
1932	735	2,200	Feb. 8, 1932	0	23.0	16,700	22.2	16,130
1933	750	66	Mar. 9, 1933	0	5.74	4,170	6.76	4,900
1934	765	-	-	0	5.20	3,760	10.5	7,630
1935	790, 1564	*925	Feb. 5, 1935	0	*24.4	*17,640	19.7	*14,240
1936	830	261	Feb. 23, 1936	0	4.57	3,320	5.17	3,740
1937	880	1,550	Feb. 6, 1937	0	30.3	21,950	29.8	21,570
1938	880	17,000	Mar. 2, 1938	-	-	-	-	-
1939	880	-	-	-	-	-	-	-
1940	900	555	Jan. 8, 1940	0	9.64	7,000	11.0	8,100
1941	930	2,240	Feb. 20, 1941	0	71.3	51,620	70.7	51,200
1942	960	92	Apr. 4, 1942	0	7.10	5,140	5.52	4,000
1943	980	5,700	Jan. 23, 1943	0	49.5	35,870	54.7	39,610
1944	1010, 1564	*902	Feb. 22, 1944	.8	*49.0	*35,540	*46.5	*33,790
1945	1040	1,080	Nov. 11, 1944	.1	12.8	9,250	14.4	10,430
1946	1060	1,100	Dec. 21, 1945	0	16.7	12,110	27.8	20,160
1947	1090	3,180	Dec. 26, 1946	0	21.9	15,850	6.50	4,700
1948	1120	122	Apr. 29, 1948	0	3.37	2,450	3.19	2,320
1949	1150	37	Apr. 14, 1949	0	4.38	3,170	4.63	3,350
1950	1180	212	Feb. 6, 1950	0	3.41	2,470	-	-

* Revised.

277. Little Rock Creek near Palmdale, Calif.

Location.--Lat 34°29'10", long 118°01'20", in SW¼ sec. 27, T. 5 N., R. 11 W., at site of Little Rock, Palmdale Dam 8 miles southeast of Palmdale.

Drainage area.--78 sq mi (approximately).

Gage.--Staff gages above and below intake at headworks of South Antelope Valley Canal. Supplementary staff gage at flume crossing one-half mile downstream. Altitude of gage is about 3,200 ft (revised, from topographic map).

Extremes.--1896-99: Maximum discharge not determined; no flow during periods in most years.

Remarks.--No diversion above station.

Cooperation.--Records furnished by South Antelope Valley Irrigation Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	18.6	18.6	54.2	7.9	1.8	0.5	0.2	0.2	0.5	-
1897	1.0	1.5	3.8	14	52	68	106	36	6.7	.4	.2	.2	24.2
1898	5.5	6.9	5.7	6.06	7.0	6.04	6.10	5.20	0	0	.4	0	4.04
1899	0	0	0	4.90	4.41	7.66	4.50	1.50	2.00	.20	.20	.20	2.13
1900	0	0	1	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	1,444	1,070	3,332	470	110	30	12	12	30	-
1897	61	89	234	879	2,894	4,187	6,284	2,189	399	22.1	12.3	11.9	17,300
1898	338	411	350	373	389	371	364	319	0	0	10	0	2,930
1899	0	0	0	318	245	472	268	166	119	12	12	12	1,620
1900	0	0	61	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1896	300	-	-	-	-	-	9.6	6,880
1897	300	-	-	0.2	24.2	17,300	25.0	17,980
1898	300	-	-	0	4.04	2,930	2.54	1,830
1899	300	-	-	0	2.13	1,620	2.21	1,680

OWENS LAKE BASIN

278. Convict Creek near Mammoth Lakes, Calif.

Location.--Lat 37°36'40", long 118°50'50", in SE¼ sec. 11, T. 4 S., R. 28 E., 1.3 miles downstream from Convict Lake and 7½ miles east of town of Mammoth Lakes.

Drainage area.--18.7 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 7,300 ft (from topographic map). Prior to Nov. 15, 1926, staff gage at same site and datum.

Average discharge.--25 years (1925-50), 23.7 cfs.

Extremes.--1925-50: Maximum discharge, 290 cfs June 29, 1932 (gage height, 4.43 ft); minimum daily, 1.8 cfs Oct. 9, 1930.

Remarks.--No diversion; some regulation by Convict Lake above station.

Cooperation.--Records, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	-	-	62.4	29.6	12.8	-
1926	10.1	7.1	6.5	6.4	8.40	6.30	19.9	60.9	69.9	33.2	17.1	9.9	21.3
1927	7.4	8.4	11.1	8.9	11.7	9.5	11.2	39.0	106.9	88.8	33.0	16.2	29.4
1928	12.3	14.8	9.9	9.2	7.7	7.5	9.7	45.3	59.7	28.0	12.7	10.1	19.0
1929	7.7	7.3	7.9	8.8	7.3	7.0	6.8	25.0	45.7	42.6	16.6	8.7	16.0
1930	6.2	5.9	4.5	6.9	6.0	6.6	8.7	16.2	58.1	35.3	16.1	9.2	15.0
1931	9.1	9.8	5.6	5.5	5.2	4.2	6.0	19.9	18.1	10.7	8.9	5.8	9.1
1932	5.3	5.4	6.8	8.6	11.4	5.9	6.4	27.8	91.9	104.8	43.1	22.5	28.4
1933	13.3	8.9	8.0	10.0	10.3	6.8	7.2	8.3	64.7	56.7	22.7	10.4	19.0
1934	7.1	6.4	7.9	7.1	6.3	6.7	12.6	32.0	29.6	22.2	14.3	10.2	13.6
1935	6.6	6.5	6.6	8.9	7.0	7.2	12.1	22.9	92.8	60.3	30.7	18.4	23.4

Monthly and yearly mean discharge, in cubic feet per second, of Convict Creek near Mammoth Lakes, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	12.3	9.9	9.7	9.0	13.3	10.4	15.1	44.0	86.8	66.1	33.2	15.7	27.1
1937	12.6	9.4	10.8	11.1	16.1	9.6	11.9	45.9	104.1	78.9	32.6	16.0	30.0
1938	12.2	10.3	19.1	11.5	19.5	17.5	15.4	43.5	155.0	165.0	83.9	40.0	49.6
1939	22.8	17.0	14.4	13.1	12.0	10.3	15.9	30.4	40.7	29.0	20.9	12.2	19.9
1940	12.4	8.4	7.0	9.6	9.4	9.2	14.5	50.5	89.9	48.7	21.9	10.7	24.4
1941	8.5	6.7	9.8	11.6	10.6	9.4	11.4	42.9	102.7	96.7	50.6	21.7	32.0
1942	15.7	14.6	20.5	17.0	15.4	12.7	13.7	25.5	79.1	95.6	44.4	21.1	31.4
1943	14.4	12.2	10.6	13.1	10.6	10.6	15.0	41.8	70.6	76.1	40.0	20.0	28.0
1944	12.4	8.6	8.0	8.6	8.2	11.2	9.6	24.9	49.9	58.7	26.3	14.5	20.1
1945	10.3	9.9	9.4	8.1	11.7	9.1	11.8	40.0	84.6	99.8	50.4	27.9	31.2
1946	22.0	20.4	17.1	13.0	8.5	9.5	18.6	50.3	73.6	63.2	34.4	17.9	29.2
1947	16.2	15.6	14.9	10.9	9.6	9.6	12.6	46.3	50.3	33.7	19.8	12.6	21.1
1948	10.5	8.6	8.4	7.3	6.8	6.9	6.7	20.9	52.5	44.9	18.4	10.3	16.9
1949	7.6	5.4	5.7	6.7	5.2	6.1	8.6	31.9	71.3	37.8	18.2	11.2	18.0
1950	6.9	8.2	8.00	8.2	7.5	5.40	13.0	33.3	61.8	42.6	15.7	12.2	18.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	-	-	3,840	1,820	762	-
1926	621	422	400	394	467	387	1,180	3,740	4,160	2,040	1,050	589	15,450
1927	455	500	683	546	651	582	667	2,396	6,357	5,456	2,031	963	21,287
1928	754	883	608	566	445	460	574	2,786	3,554	1,723	782	601	13,736
1929	475	432	486	543	403	430	404	1,537	2,722	2,618	1,021	519	11,590
1930	382	352	279	423	332	406	520	995	3,457	2,172	991	545	10,854
1931	562	584	344	339	292	261	360	1,225	1,079	660	544	348	6,598
1932	323	322	419	529	655	361	379	1,710	5,466	6,444	2,647	1,341	20,596
1933	819	528	490	617	571	421	426	512	3,849	3,484	1,393	620	13,730
1934	438	380	483	436	349	410	749	1,968	1,759	1,365	882	607	9,826
1935	403	390	405	548	387	445	717	1,407	5,522	3,708	1,885	1,092	16,909
1936	755	589	596	550	766	641	897	2,706	5,164	4,062	2,040	932	19,698
1937	772	557	663	680	894	593	706	2,819	6,193	4,853	2,001	952	21,683
1938	751	616	1,172	707	1,082	1,074	916	2,672	9,221	10,140	5,160	2,379	35,890
1939	1,402	1,012	885	804	665	633	944	1,866	2,424	1,786	1,288	725	14,434
1940	762	498	432	590	542	567	861	3,107	5,348	2,995	1,347	639	17,688
1941	522	399	605	711	591	577	677	2,638	6,109	5,945	3,109	1,289	23,172
1942	964	868	1,262	1,042	857	780	818	1,565	4,708	5,876	2,730	1,256	22,726
1943	883	723	649	807	591	651	894	2,571	4,198	4,679	2,456	1,187	20,289
1944	760	510	490	530	473	686	571	1,528	2,969	3,606	1,619	864	14,606
1945	633	588	580	501	652	558	702	2,459	5,036	6,138	3,096	1,659	22,602
1946	1,354	1,215	1,049	798	474	583	1,104	3,091	4,378	3,882	2,113	1,064	21,105
1947	997	926	916	668	536	593	753	2,845	2,994	2,073	1,217	748	15,266
1948	647	512	517	450	391	423	400	1,283	3,122	2,762	1,132	615	12,253
1949	468	319	351	414	288	373	514	1,959	4,241	2,323	1,116	665	13,030
1950	427	490	492	503	419	332	772	2,047	3,677	2,618	967	724	13,467

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1925	(a)	-	-	-	-	-	-	-
1926	(a)	b95	May 21, 1926	5.0	21.3	15,450	21.6	15,645
1927	(a)	172	June 17, 1927	4.5	29.4	21,287	30.2	21,894
1928	(a)	114	May 29, 1928	6.4	19.0	13,736	17.8	12,864
1929	(a)	77	(c)	4.3	16.0	11,590	15.5	11,210
1930	(a)	101	June 15, 1930	2.8	15.0	10,854	15.6	11,331
1931	(a)	50	Oct. 21, 1930	1.8	9.1	6,598	8.5	6,173
1932	(a)	290	June 29, 1932	4.3	28.4	20,596	29.4	21,368
1933	(a)	96	June 17, 1933	5.7	19.0	13,730	18.2	13,194
1934	(a)	44	May 16, 1934	4.5	13.6	9,826	13.4	9,723
1935	(a)	108	June 13,22,1935	5.4	23.4	16,909	24.4	17,652
1936	(a)	131	June 25, 1936	7.6	27.1	19,698	27.2	19,751
1937	(a)	156	June 23,24,1937	7.8	30.0	21,683	30.7	22,229
1938	(a)	231	June 28, 1938	9.5	49.6	35,890	50.6	36,650
1939	(a)	55	June 2, 1939	8.6	19.9	14,434	17.7	12,826
1940	(a)	110	June 18, 1940	4.0	24.4	17,688	24.1	17,522
1941	(a)	145	June 17,18,1941	6.0	32.0	23,172	34.2	24,740
1942	(a)	134	July 7, 1942	9.6	31.4	22,726	30.2	21,888
1943	(a)	100	May 30, 1943	7.1	28.0	20,289	27.3	19,794
1944	(a)	82	July 3, 1944	7.0	20.1	14,606	20.2	14,647
1945	(a)	148	June 22, 1945	5.0	31.2	22,602	33.7	24,418
1946	(a)	87	June 6,7,1946	7.6	29.2	21,105	28.1	20,324
1947	(a)	75	May25-27,1947	9.5	21.1	15,266	19.5	14,103
1948	(a)	75	June 29, 1948	2.9	16.9	12,253	16.1	11,715
1949	(a)	110	June 12, 1949	3.2	18.0	13,030	18.4	13,301
1950	(a)	81	June 4, 1950	3.1	18.6	13,467	-	-

a Files of city of Los Angeles, Department of Water and Power.
b Maximum day.
c June 30, July 1, 1929.

279. Owens River near Round Valley, Calif.

Location.--Lat 37°26'25", long 118°33'20", in SE¼ sec. 10, T. 6 S., R. 31 E., just downstream from Sheep Bridge, 700 ft upstream from Rock Creek, and 2 miles north of town of Round Valley.

Drainage area.--450 sq mi, approximately.

Supplemental records available.--Records of chemical analysis for the periods May 13, 1906, to Apr. 27, 1907, and Dec. 31, 1907, to Dec. 31, 1908, are published in WSP 237 and 274, respectively.

Gage.--Water-stage recorder. Altitude of gage is 4,400 ft (revised, from topographic map). Prior to Mar. 29, 1907, staff gage at same site and datum. Mar. 29, 1907, to Nov. 21, 1920, staff gage at site 100 ft downstream at different datum.

Average discharge.--33 years (1903-23, 1927-40), 227 cfs.

Extremes.--1903-23, 1927-40: Maximum discharge, 1,560 cfs Dec. 11, 1937 (gage height, 4.87 ft); minimum, 5.4 cfs Feb. 13, 1923.

Remarks.--Diversions for irrigation above station. Slight regulation by powerplant above station since 1936.

Cooperation.--Records for 1927-40 furnished by city of Los Angeles, Department of Water and Power; furnished figures rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	‡170	167	-
1904	172	163	161	156.6	220.9	259.7	201.5	299.5	532	428	†339	281	268
1905	266	246	218	193	196	213	177	246	392	275	169	180	231
1906	180	197	179	199	205	270	345	328	624	†698	535	330	341
1907	273	239	256	247	281	341	270	438	616	856	†497	305	†386
1908	285	252	245	227	223	279	242	274	313	289	264	222	260
1909	192	184	182	235	186	179	374	317	637	531	296	211	294
1910	188	217	249	222	201	227	237	374	519	314	216	184	263
1911	192	163	163	203	238	257	313	331	674	881	512	†266	†350
1912	247	229	205	172	187	215	205	218	327	206	188	175	214
1913	186	165	146	156	176	200	185	230	281	266	197	184	198
1914	161	157	147	258	196	197	589	523	650	476	428	300	340
1915	283	207	178	170	175	175	268	273	363	431	268	184	248
1916	184	165	160	177	235	223	362	308	502	376	204	208	258
1917	237	183	168	170	188	217	247	294	739	550	233	198	286
1918	200	220	185	176	174	171	225	202	466	245	166	190	218
1919	256	206	191	178	184	203	269	382	312	195	156	144	223
1920	157	152	146	152	175	205	149	202	313	184	171	162	181
1921	162	160	158	157	178	178	138	214	338	246	166	155	187
1922	140	141	140	168	197	195	329	257	572	435	220	177	247
1923	173	203	202	197	205	211	163	205	243	271	175	175	202
1927	-	-	-	-	-	-	-	245	449	318	182	160	-
1928	178	203	161	161	164	163	141	209	232	128	98.4	111	162
1929	133	134	133	126	129	176	119	123	128	121	92.3	105	127
1930	120	122	120	111	137	152	103	97.8	167	110	96.5	99.8	120
1931	138	129	105	119	140	126	106	89.8	82.4	67.5	67.8	89.8	105
1932	97.4	102	98.4	131	152	179	226	144	345	381	178	138	181
1933	132	133	122	151	157	218	150	112	293	213	114	95.9	157
1934	118	129	146	143	146	198	125	141	149	96.3	80.6	90.9	130
1935	106	118	117	126	134	165	235	166	376	241	121	104	167
1936	125	128	125	136	157	181	288	254	345	281	163	125	192
1937	146	151	147	159	203	180	334	293	434	320	150	148	222
1938	148	155	233	161	186	219	404	415	762	616	367	270	328
1939	252	220	205	197	201	230	187	162	168	141	138	140	187
1940	154	157	163	182	199	281	192	269	368	232	150	156	209

† Corrected.
‡ Not previously published; partly estimated on basis of one discharge measurement and adjacent record.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	‡10,450	9,937	-
1904	10,580	†9,640	9,900	9,629	12,710	15,970	11,990	18,420	31,660	26,320	†20,840	16,720	†194,000
1905	16,360	14,640	13,400	11,870	10,880	13,100	10,530	15,130	23,330	16,910	10,390	10,710	167,000
1906	11,070	11,720	11,010	12,200	11,400	16,600	20,500	20,200	37,100	†42,900	32,900	19,600	247,000
1907	16,800	14,200	15,700	15,200	15,600	21,000	16,100	26,900	36,700	52,600	†30,600	18,100	†280,000
1908	17,500	15,000	15,100	14,000	12,800	17,200	14,400	16,800	18,600	17,800	16,200	13,200	189,000
1909	11,800	10,900	11,200	14,400	10,300	11,000	22,300	19,400	37,900	32,600	18,200	12,600	213,000
1910	11,600	12,900	15,300	13,600	11,200	14,000	14,100	23,000	30,900	19,300	13,300	10,900	190,000
1911	11,800	9,700	10,000	12,500	13,200	15,800	18,600	20,400	40,100	54,200	31,500	†15,800	†254,000
1912	15,200	13,600	12,600	10,600	10,800	13,200	12,200	13,400	19,500	12,700	11,600	10,400	156,000
1913	11,400	9,820	8,980	9,590	9,780	12,300	11,000	14,100	16,700	16,400	12,100	10,900	143,000
1914	9,900	9,340	9,040	15,900	10,900	12,100	35,000	32,200	38,700	29,300	26,300	17,900	247,000
1915	17,400	12,300	10,900	10,500	9,720	10,800	15,900	16,800	21,600	26,500	16,500	10,900	180,000

† Corrected.
‡ Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Owens River near Round Valley, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	11,300	9,820	9,840	10,900	13,500	13,700	21,500	18,900	29,900	23,100	12,500	12,400	187,000
1917	14,600	10,900	10,300	10,500	10,400	13,300	14,700	18,100	44,000	33,800	14,300	11,800	207,000
1918	12,300	13,100	11,400	10,800	9,660	10,500	13,400	12,400	27,700	15,100	10,200	11,300	158,000
1919	15,700	12,300	11,700	10,900	10,200	12,500	16,000	23,500	18,600	12,000	9,590	8,570	162,000
1920	9,650	9,040	8,980	9,350	10,100	12,600	8,870	12,400	18,600	11,300	10,500	9,640	131,000
1921	9,960	9,520	9,720	9,650	9,890	10,900	8,210	13,200	20,100	15,100	10,200	9,220	136,000
1922	8,610	8,390	8,610	10,300	10,900	12,000	19,600	15,800	34,000	26,700	13,500	10,500	179,000
1923	10,600	12,100	12,400	12,100	11,400	13,000	9,700	12,600	14,500	16,700	10,800	10,400	146,000
1927	-	-	-	-	-	-	-	15,100	26,700	19,600	11,200	9,520	-
1928	10,900	12,100	9,900	9,900	9,430	10,000	8,390	12,900	13,800	7,870	6,050	6,600	118,000
1929	8,180	7,970	8,180	7,750	7,160	10,800	7,080	7,560	7,620	7,440	5,680	6,250	91,700
1930	7,380	7,260	7,380	6,820	7,610	9,350	6,130	6,010	9,940	6,760	5,930	5,940	86,500
1931	8,480	7,680	6,460	7,320	7,780	7,750	6,310	5,520	4,900	4,150	4,170	5,340	75,900
1932	5,990	6,070	6,050	8,060	8,740	11,000	13,400	8,850	20,500	23,400	10,900	8,210	131,000
1933	8,120	7,910	7,500	9,280	8,720	13,400	8,930	6,890	17,400	13,100	7,010	5,710	114,000
1934	7,260	7,680	8,980	8,790	8,110	12,200	7,440	8,670	8,870	5,920	4,960	5,410	94,300
1935	6,500	7,020	7,190	7,720	7,430	10,120	13,960	10,230	22,350	14,840	7,430	6,210	121,000
1936	7,700	7,630	7,660	8,350	9,060	11,160	17,160	15,610	20,520	17,300	10,000	7,420	139,600
1937	8,960	8,990	9,030	9,750	11,250	11,070	19,870	18,040	25,830	19,700	9,220	8,820	160,500
1938	9,120	9,240	14,300	9,880	10,350	13,440	24,060	25,520	45,320	37,850	22,570	16,090	237,700
1939	15,510	13,090	12,610	12,120	11,150	14,170	11,150	9,990	10,000	8,650	8,480	8,340	135,300
1940	9,450	9,360	10,040	11,200	11,450	17,280	11,400	16,530	21,910	14,290	9,240	9,310	151,500

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300	-	-	-	-	-	-	-
1904	300	a635	(b)	152	268	†194,000	287	208,000
1905	300	a533	(c)	146	231	167,000	216	157,000
1906	300	a839	June 10, 1906	153	341	247,000	358	260,000
1907	300	a1,192	June 30, 1907	183	†386	†280,000	†387	†280,000
1908	300	a441	Mar.15,16, 1908	191	260	189,000	241	175,000
1909	300	a836	July 3, 1909	149	294	213,000	302	218,000
1910	300	a676	June 4, 1910	139	263	190,000	250	182,000
1911	300	d1,080	June 22, 1911	127	†350	254,000	364	263,000
1912	330	a485	June 1, 1912	121	214	156,000	199	145,000
1913	360	a435	June 12, 1913	120	198	143,000	195	141,000
1914	390	a1,010	(e)	130	340	247,000	358	259,000
1915	410	a508	June 30, 1915	156	248	180,000	235	170,000
1916	440	a625	June 17, 1916	132	258	187,000	265	192,000
1917	460	a875	June 12, 1917	150	286	207,000	287	208,000
1918	480	a683	June 21, 1918	150	218	158,000	222	161,000
1919	510	a595	May 30, 1919	100	223	162,000	207	150,000
1920	510	a366	June 23, 1920	110	181	131,000	183	133,000
1921	530	453	June 12, 1921	104	187	136,000	183	132,000
1922	550	709	June 28, 1922	29	247	179,000	261	188,000
1923	570	465	July 4, 1923	20	202	146,000	-	-
1927	650	-	-	-	-	-	-	-
1928	670	d337	May 30, 1928	90	162	118,000	151	109,000
1929	690	d232	Mar. 4, 1929	80	127	91,700	123	89,400
1930	705	d243	Mar. 23, 1930	77	120	86,500	120	87,100
1931	720	d170	Apr. 25, 1931	56	105	75,900	98.5	71,400
1932	735	d618	July 2, 1932	58	181	131,000	188	137,000
1933	750	450	June 17, 1933	86	157	114,000	158	114,000
1934	765	375	Dec. 12, 1933	70	130	94,300	126	91,080
1935	790	476	June 14, 1935	71	167	121,000	170	123,300
1936	810	640	June 25, 1936	111	192	139,600	198	143,600
1937	830	685	June 23, 1937	85	222	160,500	230	166,200
1938	860	1,560	Dec. 11, 1937	140	328	237,700	340	246,300
1939	880	412	Oct. 7, 1938	121	187	135,300	170	122,900
1940	900	570	June 18, 1940	136	209	151,500	-	-

† Corrected.
a Maximum observed.
b June 16, 17, 20, 1904.
c June 17-23, 1905.
d Maximum daily.
e May 31 to June 3, 1914.

280. Rock Creek at Little Round Valley, near Bishop, Calif.

Location.--Lat 37°32'50", long 118°41'15", in NE¼NW¼ sec. 4, T. 5 S., R. 30 E., just above diversion to Little Round Valley, 1.1 miles south of Toms Place, and 20.5 miles northwest of Bishop.

Drainage area.--35.8 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 7,450 ft (from topographic map). Prior to May 24, 1926, staff gage at different datums. May 24 to Sept. 23, 1926, recorder at two different datums. Sept. 24, 1926, to Sept. 10, 1936, recorder at datum 1.30 ft lower than that of gage at described site.

Average discharge.--30 years (1920-50), 30.8 cfs.

Extremes.--1918-50: Maximum discharge, 257 cfs June 27, 1938 (gage height, 2.85 ft); minimum daily, 3.2 cfs Mar. 11, 1926.

Remarks.--No regulation or diversion above station.

Cooperation.--Records, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	22.0	24.0	24.0	25.0	36.0	92.0	61.0	40.0	34.0	-
1919	28.0	22.0	20.0	-	-	-	-	-	-	-	-	-	-
1920	-	-	-	18.0	14.0	15.0	16.0	54.0	83.0	44.0	27.0	17.0	-
1921	14.0	14.0	26.0	21.0	21.0	20.0	21.0	43.0	103	68.0	32.0	18.0	33.5
1922	16.0	12.0	13.0	45.0	21.0	20	17.0	66.0	132	106	48.0	26.0	43.6
1923	16.0	16.0	18.0	14.0	14.0	14.0	17.0	51.0	51.0	65.0	34.0	25.0	28.0
1924	14.0	10.0	10.0	14.0	11.0	14.0	15.0	32.0	22.0	21.0	13.0	10.0	15.5
1925	8.0	14.0	13.0	11.0	13.0	12.0	11.0	19.0	61.8	69.0	32.5	15.3	23.3
1926	12.7	11.8	8.3	11.3	14.6	10.3	25.0	59.2	56.7	30.7	23.0	12.0	23.0
1927	12.0	14.3	17.7	13.2	15.8	14.5	21.6	80.4	134.2	112.6	46.7	25.4	42.5
1928	21.5	24.8	20.3	16.3	16.5	17.8	21.1	71.5	70.5	38.7	23.4	15.4	29.8
1929	13.0	15.1	17.3	13.8	14.0	16.0	16.9	39.0	45.6	45.4	24.1	15.0	23.0
1930	11.5	11.6	13.5	12.7	10.9	13.1	17.6	24.4	55.3	36.4	20.8	14.0	20.1
1931	13.0	14.2	11.7	8.5	10.2	9.7	13.8	23.2	22.4	17.6	19.4	12.3	14.7
1932	10.0	11.3	10.8	11.9	12.8	9.9	15.9	53.5	102.5	95.4	43.7	20.8	33.3
1933	13.0	12.3	11.5	13.7	12.5	14.1	15.9	22.5	71.4	51.6	24.1	12.9	23.0
1934	11.2	11.0	17.8	11.8	12.3	14.2	21.7	32.6	24.9	22.8	18.5	15.5	17.9
1935	10.8	11.6	11.6	12.6	11.6	12.7	17.0	37.3	88.6	52.6	26.6	16.9	25.9
1936	12.4	12.6	13.4	14.0	15.2	13.4	26.4	70.3	88.8	75.2	38.9	18.3	33.3
1937	16.4	14.5	16.0	14.4	17.0	12.4	19.0	80.0	104.1	81.3	36.3	20.8	36.1
1938	16.9	16.3	27.8	21.3	20.9	21.2	24.7	81.5	208.5	181.9	99.8	51.8	64.6
1939	41.9	28.6	25.6	19.6	18.3	21.0	41.1	48.3	48.8	37.7	29.6	19.2	31.7
1940	20.4	16.3	15.4	15.7	17.2	19.8	28.3	78.0	100.9	58.4	30.4	19.6	35.1
1941	16.8	18.5	19.2	19.9	19.2	18.0	22.4	85.4	118.7	115.7	67.8	29.1	46.1
1942	26.6	26.2	24.6	20.8	20.5	20.3	26.6	49.3	80.5	87.7	43.1	22.4	37.5
1943	16.9	16.5	15.8	23.8	17.7	20.0	28.5	70.9	79.1	82.3	44.9	26.4	37.0
1944	20.5	18.5	18.5	16.8	19.9	19.2	20.2	50.5	53.0	60.6	29.4	19.3	28.9
1945	14.7	17.2	15.0	12.7	16.8	15.5	22.5	70.2	102.9	104.5	56.5	34.2	40.4
1946	34.9	30.4	24.5	23.4	21.9	20.4	35.2	79.4	86.3	82.3	44.0	23.1	42.3
1947	24.5	23.4	21.0	18.1	19.3	18.4	27.9	76.1	51.5	37.0	23.9	15.2	29.8
1948	13.1	12.1	11.6	11.3	10.0	11.8	14.0	25.5	45.8	40.9	19.5	12.8	19.1
1949	9.9	8.8	9.8	9.2	9.8	10.5	17.7	37.3	70.4	40.7	21.3	11.8	21.5
1950	9.5	10.5	10.3	11.3	9.2	9.4	22.4	54.2	68.3	50.2	20.1	15.5	24.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	1,353	1,333	1,476	1,487	2,214	5,474	3,750	2,460	2,023	-
1919	1,722	1,309	1,230	-	-	-	-	-	-	-	-	-	-
1920	-	-	-	1,106	778	922	952	3,320	4,939	2,705	1,660	1,012	-
1921	861	833	1,598	1,291	1,166	1,230	1,250	2,644	6,129	4,181	1,967	1,071	24,221
1922	984	714	799	2,767	1,166	1,230	1,012	4,059	7,855	6,517	2,951	1,547	31,601
1923	984	952	1,107	861	778	861	1,012	3,136	3,035	3,997	2,091	1,488	20,302
1924	861	595	615	861	611	861	893	1,968	1,309	1,291	799	595	11,259
1925	492	833	799	676	722	738	655	1,168	3,675	4,216	1,999	909	16,882
1926	783	710	512	696	810	632	1,485	3,638	3,375	1,887	1,430	714	16,672
1927	740	853	1,090	812	880	892	1,283	4,944	7,984	6,921	2,871	1,509	30,779
1928	1,323	1,473	1,249	1,001	948	1,093	1,254	4,396	4,196	2,381	1,437	915	21,666
1929	800	896	1,066	849	779	982	1,006	2,398	2,714	2,791	1,482	892	16,665
1930	704	692	827	782	606	808	1,044	1,501	3,270	2,236	1,280	832	14,582
1931	800	840	719	522	569	597	822	1,426	1,330	1,083	1,190	731	10,629
1932	615	674	662	733	737	611	945	3,290	6,095	5,868	2,684	1,239	24,153
1933	801	730	709	839	696	867	944	1,382	4,249	3,171	1,480	765	16,633
1934	690	653	1,096	728	682	872	1,291	2,003	1,481	1,404	1,136	925	12,961
1935	664	690	713	773	644	780	1,009	2,296	5,268	3,236	1,637	1,008	18,718

Monthly and yearly runoff, in acre-feet, of Rock Creek at Little Round Valley, near Bishop, Calif. --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	764	750	823	863	874	826	1,568	4,324	5,283	4,624	2,391	1,092	24,182
1937	1,008	865	982	883	945	760	1,133	4,919	6,192	5,001	2,230	1,238	26,156
1938	1,042	968	1,694	1,309	1,162	1,305	1,470	5,008	12,405	11,181	6,133	3,080	46,757
1939	2,578	1,704	1,574	1,202	1,017	1,288	2,446	2,968	2,904	2,320	1,818	1,145	22,964
1940	1,255	968	945	964	990	1,219	1,681	4,796	6,000	3,588	1,872	1,169	25,447
1941	1,034	1,098	1,180	1,226	1,064	1,105	1,331	5,253	7,062	7,110	4,169	1,729	33,361
1942	1,633	1,558	1,511	1,280	1,141	1,250	1,583	3,031	4,788	5,389	2,647	1,335	27,146
1943	1,036	983	974	1,464	981	1,229	1,695	4,360	4,706	5,061	2,757	1,568	26,814
1944	1,263	1,103	1,136	1,032	1,145	1,178	1,201	3,107	3,151	3,727	1,808	1,148	20,999
1945	904	1,024	922	779	930	956	1,340	4,313	6,124	6,427	3,476	2,032	29,227
1946	2,143	1,807	1,508	1,441	1,218	1,253	2,092	4,881	5,134	5,062	2,704	1,374	30,617
1947	1,505	1,389	1,291	1,112	1,070	1,129	1,661	4,678	3,062	2,273	1,469	902	21,541
1948	805	720	716	694	577	725	833	1,567	2,727	2,517	1,198	761	13,838
1949	610	521	605	567	545	647	1,052	2,293	4,188	2,504	1,310	703	15,545
1950	581	626	632	696	513	579	1,332	3,335	4,065	3,090	1,238	925	17,612

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	(a)	-	-	-	-	-	35.7	25,831
1919	(a)	-	-	-	-	-	-	-
1920	(a)	-	-	-	-	-	28.5	20,686
1921	(a)	-	-	-	33.5	24,221	32.4	23,426
1922	(a)	-	-	-	43.6	31,601	44.4	32,147
1923	(a)	-	-	-	28.0	20,302	26.7	19,330
1924	(a)	-	-	-	15.5	11,259	15.6	11,312
1925	(a)	-	-	-	23.3	16,882	23.2	16,763
1926	(a)	-	-	3.2	23.0	16,672	24.0	17,350
1927	(a)	205	June 14, 1927	10.0	42.5	30,779	44.4	32,141
1928	(a)	130	May 29, 1928	13.3	29.8	21,666	28.1	20,383
1929	(a)	75	June 30, 1929	11.8	23.0	16,665	22.3	16,115
1930	(a)	90	June 16,17,1930	9.6	20.1	14,582	20.3	14,726
1931	(a)	30	June 6,7,1931	7.3	14.7	10,629	14.1	10,221
1932	(a)	168	June 27, 1932	6.8	33.3	24,153	33.7	24,440
1933	(a)	112	June 16, 1933	7.8	23.0	16,633	23.3	16,831
1934	(a)	70	Dec. 17, 1933	9.3	17.9	12,961	17.4	12,589
1935	(a)	107	June 13, 1935	10.0	25.9	18,718	26.2	18,988
1936	(a)	142	June 24, 1936	7.8	33.3	24,182	34.0	24,699
1937	(a)	151	June 22, 1937	10.9	36.1	26,156	37.3	27,005
1938	(a)	257	June 27, 1938	13.7	64.6	46,757	67.6	48,908
1939	(a)	78	(b)	12.7	31.7	22,964	28.0	20,279
1940	(a)	118	June 15, 1940	11.1	35.1	25,447	35.3	25,591
1941	(a)	145	(c)	15.4	46.1	33,361	48.0	34,750
1942	(a)	120	July 6,7,1942	19.1	37.5	27,146	35.1	25,439
1943	(a)	116	May28,29,1943	12.7	37.0	26,814	37.7	27,323
1944	(a)	79	July 3, 1944	12.9	28.9	20,999	28.0	20,347
1945	(a)	143	July 3, 1945	9.3	40.4	29,227	44.0	31,834
1946	(a)	119	July 26, 1946	9.3	42.3	30,617	40.5	29,344
1947	(a)	89	May25,26,1947	13.3	29.8	21,541	27.1	19,596
1948	(a)	77	June 30, 1948	9.3	19.1	13,838	18.4	13,334
1949	(a)	141	June 12, 1949	7.5	21.5	15,545	21.6	15,648
1950	(a)	121	June 3, 1950	4.4	24.3	17,612	-	-

a Files of city of Los Angeles, Department of Water and Power.
b May 31, June 1, 1939.
c June 16, July 7, 1941.

281. Rock Creek at Sherwin Hill, near Bishop, Calif.

Location.--Lat 37°28'45", long 118°36'05", in SW¼ sec. 29, T. 5 S., R. 31 E., at Sherwin Hill, 3 miles upstream from Pine Creek, and 14 miles northwest of Bishop.

Drainage area.--51.7 sq mi.

Gage.--Water-stage recorder and, since 1933, Parshall flume. Altitude of gage is 4,900 ft (from topographic map). Prior to Apr. 5, 1924, staff gage at same site and datum.

Average discharge.--18 years (1922-40), 23.0 cfs.

Extremes.--1922-40: Maximum discharge, 229 cfs June 27, 1938 (gage height, 4.12 ft); minimum, 1.6 cfs Dec. 1, 1936.

Remarks.--Diversions above station for irrigation in Little Round Valley or for discharge into Owens River at lower end of Long Valley.

Cooperation.--Records furnished by city of Los Angeles, Department of Water and Power; furnished figures rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second, of Rock Creek at Sherwin Hill, near Bishop, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	-	‡100	‡85	44.3	22.6	-
1923	14.6	16.0	16.1	17.3	22.3	15.3	18.0	45.7	35.8	60.3	27.8	19.5	25.8
1924	14.9	14.2	13.8	14.7	12.9	16.0	16.8	26.0	20.4	18.0	13.1	10.2	15.9
1925	9.35	9.18	18.7	20.2	13.8	12.5	14.9	33.1	39.7	53.5	26.0	13.7	22.1
1926	13.0	13.2	9.81	4.88	12.3	11.4	28.5	45.9	51.9	22.4	17.2	10.2	20.1
1927	10.1	12.8	13.1	14.5	17.4	15.2	22.2	53.8	106	95.5	36.1	17.6	34.6
1928	16.1	17.9	21.7	20.5	17.5	15.9	18.7	59.6	58.5	26.8	17.9	13.1	25.4
1929	11.8	9.33	13.6	14.1	14.8	14.1	14.8	31.5	28.6	27.2	12.6	9.23	16.8
1930	6.37	9.32	9.90	8.31	12.1	12.6	14.8	18.5	39.8	23.2	12.9	8.00	14.6
1931	9.24	9.30	9.34	9.92	9.59	9.16	10.8	15.8	14.4	10.1	10.5	9.88	10.7
1932	7.63	8.72	10.1	16.4	11.7	10.4	16.0	35.4	82.4	82.5	35.1	17.6	27.9
1933	13.7	11.7	12.1	14.4	12.9	12.4	15.8	14.8	51.7	34.9	14.5	9.42	18.2
1934	8.47	8.78	11.3	11.2	10.7	13.4	16.8	14.4	12.5	9.48	9.61	9.98	11.4
1935	7.52	8.07	8.27	11.5	10.5	11.2	16.6	25.3	64.6	36.4	17.3	10.7	19.0
1936	9.21	10.1	9.56	11.0	12.8	12.0	22.0	51.6	67.3	46.7	24.3	12.8	24.1
1937	12.5	11.0	11.1	13.4	15.9	13.3	20.0	64.7	74.1	61.4	20.2	10.5	27.4
1938	9.45	11.9	19.0	14.4	18.2	18.4	30.2	72.9	165	139	70.9	34.8	50.5
1939	27.9	24.7	23.7	21.7	21.8	21.3	34.9	29.5	28.1	22.7	19.8	12.6	24.0
1940	12.7	14.0	13.1	13.8	15.1	15.9	23.3	51.2	71.0	39.2	18.5	11.5	25.0

‡ Not previously published; estimated on basis of four discharge measurements and records for station near Round Valley.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	-	‡5,950	‡5,230	2,720	1,340	-
1923	898	952	990	1,060	1,240	941	1,070	2,810	2,130	3,710	1,710	1,160	18,700
1924	916	845	848	904	742	984	1,000	1,600	1,210	1,110	806	607	11,600
1925	575	546	1,150	1,240	766	769	887	2,040	2,360	3,290	1,600	815	16,000
1926	799	786	603	300	683	701	1,700	2,820	3,090	1,380	1,060	607	14,500
1927	621	762	806	892	966	935	1,320	3,310	6,310	5,870	2,220	1,050	25,100
1928	990	1,070	1,330	1,260	1,010	978	1,110	3,660	3,480	1,650	1,100	780	18,400
1929	726	555	836	867	822	867	881	1,940	1,700	1,670	775	549	12,200
1930	392	555	609	511	672	775	881	1,140	2,370	1,430	793	476	10,600
1931	568	553	574	610	533	563	643	972	857	621	646	588	7,730
1932	469	519	621	1,010	673	640	952	2,180	4,900	5,070	2,160	1,050	20,200
1933	842	696	744	885	716	762	940	910	3,080	2,150	892	561	13,200
1934	521	522	695	689	594	824	1,000	885	744	583	591	594	8,240
1935	462	480	509	707	583	688	990	1,560	3,840	2,240	1,060	637	13,760
1936	566	602	588	675	739	740	1,310	3,170	4,010	2,870	1,490	764	17,520
1937	766	654	685	826	881	819	1,190	3,980	4,410	3,780	1,240	626	19,860
1938	581	706	1,170	885	1,010	1,130	1,800	4,480	9,810	8,530	4,360	2,070	36,530
1939	1,720	1,470	1,460	1,330	1,210	1,310	2,070	1,810	1,670	1,400	1,220	750	17,420
1940	781	833	805	849	869	980	1,380	3,150	4,230	2,410	1,140	686	18,110

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	630	-	-	-	-	-	-	-
1923	630	a104	July 5, 1923	8.5	25.8	18,700	25.5	18,400
1924	630	a34	(b)	2.4	15.9	11,600	15.5	11,200
1925	630	a73	(c)	5.5	22.1	16,000	22.0	16,000
1926	630	a134	June 9, 1926	3.2	20.1	14,500	20.1	14,500
1927	650	a162	June 17, 1927	4.5	34.6	25,100	36.2	26,300
1928	670	a108	May28,29,1928	11	25.4	18,400	23.6	17,100
1929	690	a58	June 30, 1929	7	16.8	12,200	16.1	11,600
1930	705	a71	June 16,19,1930	1.8	14.6	10,600	14.8	10,700
1931	720	a27	June 6, 1931	4.6	10.7	7,730	10.6	7,640
1932	735	a142	June 27, 1932	5.5	27.9	20,200	28.8	20,900
1933	750	79	June 15, 1933	8	18.2	13,200	17.4	12,600
1934	765	22	Apr. 22,23,1934	7	11.4	8,240	11.0	7,960
1935	790	77	June12,13,1935	4.9	19.0	13,760	19.4	14,060
1936	810	117	June 24, 1936	4.5	24.1	17,520	24.6	17,870
1937	830	113	June 22, 1937	3.5	27.4	19,860	27.9	20,210
1938	860	229	June 27, 1938	8.5	50.5	36,530	53.5	38,720
1939	880	47	May 1, 1939	11	24.0	17,420	21.0	15,190
1940	900	98	June 18, 1940	6	25.0	18,110	-	-

a Maximum daily.
b Mar. 22, May 22, 1924.
c June 26, July 3, 1925.

282. Rock Creek near Round Valley, Calif.

Location.--Lat 37°26'25", long 118°34'15", in SE¼ sec. 9, T. 6 S., R. 31 E., 0.1 mile upstream from Pine Creek and 2 miles northwest of town of Round Valley.

Drainage area.--96 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,450 ft (from topographic map). Prior to July 1906, staff gage at site 600 ft upstream at different datum. July 1906 to November 1923, staff gage at described site and datum.

Average discharge.--30 years (1903-23, 1930-40), 37.9 cfs.

Extremes.--1903-23, 1930-40: Maximum discharge observed, 360 cfs Jan. 25, 1914 (gage height, 5.0 ft); minimum, 7.5 cfs Sept. 16, 1933.

Remarks.--Diversions above station for irrigation; at times flow diverted from Rock Creek to Owens River at elevation of about 7,300 ft.

Cooperation.--Records furnished by city of Los Angeles, Department of Water and Power; furnished figures rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	‡20	18	-
1904	15	18	20	17.4	20.5	23.6	21	50	91.7	60.5	59	29	35.5
1905	47	36	27.7	24.8	24.9	21.5	18.7	28.8	51.1	38.5	20.1	19.0	29.8
1906	19.3	21.1	26.9	38.8	29.7	45.7	24.6	54.2	145	150	107	47.4	59.1
1907	35.9	42.6	43.5	41.1	36.0	40.7	33.5	72.6	101	157	77.6	40.9	60.2
1908	44.6	41.9	33.6	29	30	27	22	25	30	52	53	36	35.3
1909	25	22	26	41.8	38.3	24.4	22.0	41.0	110	97.2	37.5	36.3	43.5
1910	29.1	32.7	49.7	44.8	41.2	29.2	27.1	42.8	65.5	56.0	36.4	25.3	40.0
1911	31.6	28.8	31.1	44.7	39.6	40.4	37.7	47.5	144	159	86.8	38.7	60.8
1912	36.1	37.9	34.6	37.4	36.4	30.7	24.9	30.2	51.0	36.2	26.8	22.8	33.8
1913	27.5	27.6	19.4	23.9	32.9	25.3	19.1	29.9	45.4	49.0	40.0	37.1	31.4
1914	27.0	25.0	26.3	72.6	45.8	31.2	28.2	63.1	113	107	68.1	38.2	53.9
1915	46.3	31.5	28.0	30.7	37.1	29.5	23.2	29.9	87.1	63.6	28.8	29.5	38.7
1916	32.3	31.0	33.3	48.6	49.5	42.4	40.4	64.4	115	74.6	46.6	41.7	51.6
1917	52.4	42.8	39.3	40.8	48.7	52.3	43.1	51.5	110	119	46.0	27.6	56.2
1918	29.6	30.2	27.5	28.8	31.4	29.1	25.3	26.3	97.7	40.5	23.4	29.9	34.9
1919	47.9	30.7	30.6	28.8	30.4	29.7	25.6	72.3	61.8	35.2	29.2	26.7	37.5
1920	29.8	33.4	33.0	30.4	27.1	24.3	22.6	42.9	61.6	34.5	26.5	24.0	32.5
1921	24.7	30.0	30.7	27.8	27.0	26.0	23.8	35.5	89.8	66.2	27.7	22.3	36.0
1922	24.5	24.1	31.9	34.5	36.8	29.7	23.9	59.5	108	86.6	47.5	29.7	44.8
1923	25.8	31.6	36.7	33.7	32.0	26.6	23.1	44.2	39.0	59.2	34.6	29.1	34.7
1924	28.7	a30	a25	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	a12.6	18.7	34.5	20.2	11.5	11.5	-
1931	14.5	17.7	17.7	19.7	19.0	14.6	12.6	12.4	12.8	9.97	9.71	10.6	14.2
1932	†13.5	15.7	24.1	25.5	27.1	18.5	15.8	34.2	82.4	83.7	34.5	22.0	33.1
1933	24.1	24.2	23.1	23.9	26.1	21.2	17.5	14.5	50.1	32.4	14.9	11.4	23.6
1934	14.5	19.2	24.3	24.1	20.0	20.4	17.7	15.3	16.7	12.2	10.3	12.8	17.3
1935	13.0	15.2	17.5	20.9	20.9	20.2	18.6	27.5	61.8	41.2	21.7	14.6	24.4
1936	16.5	17.9	18.9	20.2	19.9	18.0	21.9	50.8	67.4	48.6	27.0	16.0	28.6
1937	16.5	20.0	22.8	24.0	28.4	21.4	21.4	59.8	77.8	58.3	21.1	13.4	32.1
1938	16.0	19.8	33.5	23.0	27.2	23.0	35.6	83.7	181	127	70.8	42.7	57.0
1939	35.7	36.6	34.0	32.5	32.5	27.7	29.5	27.3	23.9	20.1	18.0	16.0	27.8
1940	19.9	24.0	23.6	25.4	25.9	23.3	22.9	49.3	68.5	42.8	17.0	14.4	29.7

† Corrected.
‡ Not previously published; partly estimated on basis of one discharge measurement and adjacent record.
a Not previously published; estimated or partly estimated on basis of records for station at Sherwin Hill near Bishop.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	‡1,230	1,071	-
1904	922	1,071	1,230	1,070	1,179	1,451	1,250	3,074	5,456	3,720	3,628	1,726	25,800
1905	2,890	2,142	1,703	1,525	1,383	1,322	1,113	1,771	3,041	2,367	1,236	1,131	21,600
1906	1,187	1,256	1,654	2,390	1,650	2,810	1,460	3,330	8,630	9,220	6,580	2,820	43,000
1907	2,210	2,530	2,680	2,530	2,000	2,500	1,990	4,460	6,010	9,650	4,770	2,430	43,800
1908	2,740	2,490	2,070	1,780	1,730	1,660	1,310	1,540	1,790	3,200	3,260	2,140	25,700
1909	1,540	1,310	1,600	2,570	2,130	1,500	1,310	2,520	6,540	5,980	2,310	2,160	31,500
1910	1,790	1,950	3,060	2,750	2,290	1,800	1,610	2,630	3,900	3,440	2,240	1,510	29,000
1911	1,940	1,710	1,910	2,750	2,200	2,480	2,240	2,920	8,570	9,780	5,340	2,300	44,100
1912	2,220	2,260	2,130	2,300	2,090	1,890	1,480	1,860	3,030	2,230	1,650	1,360	24,500
1913	1,690	1,640	1,190	1,470	1,830	1,560	1,140	1,840	2,700	3,010	2,460	2,210	22,700
1914	1,660	1,490	1,620	4,460	2,540	1,920	1,680	3,880	6,720	6,580	4,190	2,270	39,000
1915	2,850	1,870	1,720	1,890	2,060	1,810	1,380	1,840	5,180	3,910	1,770	1,760	28,000
1916	1,990	1,840	2,050	2,990	2,850	2,610	2,400	3,960	6,840	4,590	2,870	2,480	37,500
1917	3,220	2,550	2,420	2,510	2,700	3,220	2,560	3,170	6,550	7,320	2,830	1,640	40,700
1918	1,820	1,800	1,690	1,770	1,740	1,790	1,510	1,620	5,810	2,490	1,440	1,780	25,300
1919	2,950	1,830	1,880	1,770	1,690	1,830	1,520	4,450	3,680	2,160	1,800	1,590	27,200
1920	1,830	1,990	2,030	1,870	1,560	1,490	1,340	2,640	3,670	2,120	1,630	1,430	23,600

‡, a Not previously published; see footnotes to preceding table.

Monthly and yearly runoff, in acre-feet, of Rock Creek near Round Valley, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	1,520	1,790	1,890	1,710	1,500	1,600	1,420	2,180	5,340	4,070	1,700	1,330	26,000
1922	1,510	1,430	1,960	2,120	2,040	1,830	1,420	3,660	6,430	5,320	2,920	1,770	32,400
1923	1,590	1,880	2,260	2,070	1,780	1,640	1,370	2,720	2,320	3,640	2,130	1,730	25,100
1924	1,760	a1,790	a1,540	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	a750	1,150	2,050	1,240	707	684	-
1931	892	1,050	1,090	1,210	1,060	898	750	762	762	613	597	631	10,300
1932	830	934	1,480	1,570	1,560	1,140	940	2,100	4,900	5,150	2,120	1,310	24,000
1933	1,480	1,440	1,420	1,470	1,450	1,300	1,040	892	2,980	1,990	916	678	17,100
1934	892	1,140	1,490	1,480	1,110	1,250	1,050	941	994	750	633	762	12,500
1935	797	904	1,080	1,290	1,160	1,240	1,100	1,690	3,680	2,530	1,330	871	17,670
1936	1,010	1,070	1,160	1,240	1,150	1,110	1,300	3,120	4,010	2,990	1,660	950	20,770
1937	1,010	1,190	1,400	1,480	1,580	1,310	1,280	3,680	4,630	3,590	1,300	798	23,250
1938	986	1,180	2,060	1,420	1,510	1,420	2,120	5,150	10,900	7,780	4,350	2,540	41,320
1939	2,190	2,180	2,090	2,000	1,800	1,700	1,750	1,680	1,420	1,240	1,110	950	20,110
1940	1,230	1,430	1,450	1,560	1,490	1,430	1,360	3,030	4,080	2,630	1,050	857	21,600

a Not previously published; estimated or partly estimated on basis of records for station at Sherwin Hill near Bishop.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300	-	-	-	-	-	-	-
1904	300	109	June 16,17,1904	15	35.5	25,800	40.3	29,300
1905	300	81	June 19, 1905	14	29.8	21,600	26.2	19,000
1906	300	215	June 25,26,1906	17	59.1	43,000	63.7	46,300
1907	300	195	June 30, 1907	22	60.2	43,800	60.0	43,600
1908	300	80	Aug. 13, 1908	17	35.3	25,700	31	22,900
1909	300	172	July 3, 1909	16	43.5	31,500	46.7	33,800
1910	300	94	June 4, 1910	19	40.0	29,000	38.3	27,700
1911	300	225	June 22, 1911	25	60.8	44,100	62.4	45,200
1912	330	64	June 11, 1912	17	33.8	24,500	30.9	22,400
1913	360	61	(a)	15	31.4	22,700	31.7	23,000
1914	390	360	Jan. 25, 1914	22	53.9	39,000	56.3	40,700
1915	410	111	June 23, 1915	19	38.7	28,000	38.0	27,500
1916	440	157	June 19, 1916	27	51.6	37,500	54.8	39,800
1917	460	170	July 4, 1917	24	56.2	40,700	52.2	37,800
1918	480	185	June 21, 1918	19	34.9	25,300	36.8	26,600
1919	510	159	May 30, 1919	-	37.5	27,200	36.4	26,300
1920	510	84	May 30, 1920	19	32.5	23,600	31.6	23,000
1921	530	184	June 11, 1921	21	36.0	26,000	35.6	25,800
1922	550	137	June 6, 1922	18	44.8	32,400	45.9	33,200
1923	570	95	July 5, 1923	21	34.7	25,100	‡33.8	‡24,500
1930	705	60	June 19, 1930	-	-	-	-	-
1931	720	30	Jan. 31, 1931	8.5	14.2	10,300	14.5	10,500
1932	735	143	June 28, 1932	11	33.1	24,000	34.6	25,100
1933	750	b92	June 15, 1933	7.5	23.6	17,100	22.4	16,200
1934	765	b110	Jan. 1, 1934	9	17.3	12,500	16.2	11,750
1935	790	b84	June 11, 1935	10	24.4	17,670	25.1	18,130
1936	810	b107	June 24, 1936	13	28.6	20,770	29.1	21,130
1937	830	b108	June 22, 1937	8.5	32.1	23,250	32.9	23,870
1938	860	b274	June 28, 1938	9.5	57.0	41,320	60.1	43,550
1939	880	b52	Oct. 6, 1938	14	27.8	20,110	24.5	17,760
1940	900	b94	June 18, 1940	12	29.7	21,600	-	-

‡ Not previously published.
a July 30 to Aug. 1, 1913.
b Momentary maximum.

283. *Pine Creek at division box, near Bishop, Calif.*

Location.--Lat 37°24'55", long 118°37'10", in NW¼ sec. 19, T. 6 S., R. 31 E., a quarter of a mile upstream from division box and from forks of creek, 4 miles west of town of Round Valley, and 13 miles northwest of Bishop.

Drainage area.--37.9 sq mi.

Gage.--Water-stage recorder and, since 1939, Parshall flume. Altitude of gage is 5,250 ft (*from topographic map*).

Average discharge.--29 years (1921-50), 42.8 cfs.

Extremes.--1921-50: Maximum discharge, 350 cfs July 21, 1936 (gage height, 3.58 ft); minimum, 10 cfs Jan. 8, 1930, Jan. 21, 1935.

Remarks.--No diversion or regulation above station.

Cooperation.--Records furnished by city of Los Angeles, Department of Water and Power; those for 1941-50 not previously published by Geological Survey. Furnished figures for 1921-40 rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second, of Pine Creek at division box, near Bishop, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	‡18	17.1	17.2	16.8	17.1	17.8	20.7	69.9	225	182	70.3	39.2	‡59.5
1923	*25.5	*20	*20	18.7	17.8	17.8	19.6	73.9	92.0	115	56.9	36.7	*43.1
1924	25.3	21.5	18.2	16.5	15.4	15.1	19.4	51.6	29.1	21.7	16.1	13.9	22.0
1925	14.5	15.8	15.3	14.0	14.9	14.8	19.0	67.7	99.5	94.6	42.5	22.4	36.4
1926	18.5	16.1	15.4	14.3	14.6	15.3	40.7	90.8	92.7	39.3	26.1	18.8	33.6
1927	18.0	18.3	20.7	19.0	19.5	19.2	26.4	74.5	175	156	64.3	34.5	53.9
1928	24.9	24.2	20.6	18.1	19.2	18.5	23.7	101	105	53.5	30.5	21.3	38.4
1929	15.4	15.3	14.4	14.6	14.6	15.1	16.0	59.9	77.7	64.8	29.2	19.6	29.8
1930	14.5	14.1	13.9	12.9	13.3	16.0	21.3	33.4	82.6	44.8	25.4	18.0	25.9
1931	15.8	14.8	13.4	12.6	12.4	13.5	19.1	42.9	31.6	20.2	21.7	16.9	19.6
1932	16.8	15.6	16.1	16.1	16.3	17.2	19.2	54.6	149	152	74.0	36.2	48.7
1933	26.8	18.6	17.2	16.7	17.4	16.6	18.8	27.4	98.9	81.7	32.9	18.6	32.7
1934	16.0	16.0	17.1	15.9	16.2	18.1	34.4	50.0	33.6	25.0	19.7	18.1	23.4
1935	16.2	16.2	15.9	15.0	16.1	15.8	21.6	51.0	145	86.1	39.1	24.8	38.6
1936	20.9	19.1	17.9	17.7	18.6	19.8	35.8	84.5	144	128	54.6	24.9	49.0
1937	20.3	18.8	17.5	17.0	19.0	18.6	23.6	108	184	137	47.3	23.7	53.0
1938	18.2	16.0	23.5	18.9	20.4	20.7	29.9	89.4	261	243	120	58.5	76.9
1939	38.9	30.5	26.4	24.2	22.9	23.4	41.7	66.3	73.6	49.3	36.1	24.9	38.2
1940	25.6	21.4	19.6	20.2	20.9	23.1	31.6	103	180	82.8	36.0	22.8	48.9
1941	19.6	19.2	18.7	19.8	20.7	23.2	27.0	101.5	204.4	211.5	85.1	35.6	65.8
1942	26.3	25.4	28.1	26.1	24.4	24.4	30.7	59.0	160.8	156.8	54.0	29.7	54.0
1943	23.5	20.1	17.7	18.5	20.3	22.5	36.0	106.6	119.4	113	42.6	27.6	47.5
1944	22.5	19.4	17.7	17.6	17.7	19.0	19.4	60.0	100.4	99.1	33.5	20.0	37.3
1945	18.2	18.8	18.0	17.0	18.7	17.7	26.9	86.5	181	162.8	60.7	30.1	54.9
1946	43.1	45.3	36.5	33.5	31.0	30.6	44.0	107.8	150.6	115.1	54.6	36.8	60.9
1947	36.1	32.3	31.3	28.9	27.8	28.0	36.9	106.6	85.1	51.1	33.9	26.0	43.8
1948	26.5	25.9	22.6	21.0	19.3	19.7	21.4	55.2	111.5	67.6	28.4	22.1	36.8
1949	21.2	21.4	19.3	19.5	20.3	19.8	26.5	67.4	96.4	55.3	32.1	22.3	35.2
1950	19.5	19.9	18.3	18.1	19.2	19.8	33.2	79.1	81.0	54.0	29.3	24.6	34.7

* Revised; only monthly figure revised; revised daily figures not available.
‡ Not previously published; partly estimated on basis of records for Rock Creek near Round Valley.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	‡1,110	1,020	1,060	1,030	950	1,090	1,230	4,300	13,400	11,200	4,320	2,330	‡43,000
1923	*1,570	*1,190	*1,230	1,150	989	1,090	1,170	4,540	5,470	7,070	3,500	2,180	*31,100
1924	1,560	1,280	1,120	1,010	886	928	1,150	3,170	1,730	1,330	990	827	16,000
1925	892	940	941	861	828	910	1,130	4,160	5,920	5,820	2,610	1,330	26,300
1926	1,140	958	947	879	811	941	2,420	5,580	5,520	2,420	1,600	1,120	24,300
1927	1,110	1,090	1,270	1,170	1,080	1,180	1,570	4,580	10,400	9,590	3,950	2,050	39,000
1928	1,530	1,440	1,270	1,110	1,100	1,140	1,410	6,210	6,250	3,290	1,880	1,270	27,900
1929	947	910	885	898	811	928	952	3,680	4,620	3,980	1,800	1,170	21,600
1930	892	839	855	793	739	984	1,270	2,050	4,920	2,750	1,560	1,070	18,700
1931	972	881	824	775	689	830	1,140	2,640	1,880	1,240	1,330	1,010	14,200
1932	1,030	928	990	990	938	1,060	1,140	3,360	8,870	9,350	4,550	2,150	35,400
1933	1,650	1,110	1,060	1,030	966	1,020	1,120	1,680	5,880	5,020	2,020	1,110	23,700
1934	984	952	1,050	978	900	1,110	2,050	3,070	2,000	1,540	1,210	1,080	16,900
1935	994	962	980	922	897	972	1,290	3,130	8,650	5,290	2,400	1,480	27,970
1936	1,280	1,140	1,100	1,090	1,070	1,220	2,130	5,200	8,600	7,890	3,360	1,480	35,560
1937	1,250	1,120	1,080	1,050	1,050	1,140	1,400	6,620	10,940	8,420	2,910	1,410	38,390
1938	1,120	954	1,440	1,160	1,130	1,270	1,780	5,500	15,540	14,930	7,380	3,480	55,680
1939	2,390	1,810	1,620	1,490	1,270	1,440	2,480	4,080	4,380	3,030	2,220	1,480	27,690
1940	1,570	1,270	1,210	1,240	1,200	1,420	1,880	6,320	10,710	5,090	2,210	1,350	35,470
1941	1,204	1,141	1,151	1,216	1,150	1,424	1,610	6,241	12,163	13,000	5,231	2,118	47,646
1942	1,616	1,508	1,725	1,603	1,355	1,502	1,828	3,628	9,568	9,636	3,317	1,766	39,052
1943	1,442	1,197	1,086	1,136	1,126	1,385	2,140	6,554	7,101	6,949	2,621	1,644	34,381
1944	1,385	1,155	1,090	1,079	1,015	1,166	1,155	3,688	5,970	6,090	2,059	1,191	27,043
1945	1,117	1,118	1,108	1,045	1,040	1,089	1,598	5,319	10,768	10,008	3,729	1,793	39,732
1946	2,647	2,693	2,242	2,058	1,723	1,884	2,617	6,625	8,957	7,077	3,357	2,190	44,070
1947	2,219	1,923	1,923	1,774	1,541	1,720	2,197	6,555	5,062	3,141	2,084	1,546	31,685
1948	1,632	1,539	1,387	1,288	1,107	1,212	1,272	3,393	6,630	4,156	1,744	1,317	26,676
1949	1,303	1,276	1,189	1,199	1,127	1,214	1,574	4,143	5,733	3,400	1,971	1,324	25,453
1950	1,200	1,186	1,123	1,113	1,065	1,220	1,978	4,862	4,821	3,323	1,800	1,463	25,154

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	630	‡310	June 26, 1922	14	‡59.5	‡43,000	*60.6	*43,800
1923	630	‡201	July 2, 1923	16	*43.1	*31,100	42.8	31,100
1924	630	‡90	May 9, 1924	13	22.0	16,000	20.4	14,800
1925	630	‡153	(a)	13	36.4	26,300	36.6	26,600
1926	630	‡167	May 19, 1926	13	33.6	24,300	34.1	24,800
1927	650	‡295	June 16, 1927	17	53.9	39,000	55.0	39,800
1928	670	‡186	May 28, 1928	16	38.4	27,900	36.3	26,400
1929	690	‡127	June 29, 1929	12	29.8	21,600	29.5	21,400
1930	705	‡125	June 12, 1930	11	25.9	18,700	26.1	18,800

* Revised.
‡ Not previously published.
a June 28, July 18, 1925.

Yearly discharge, in cubic feet per second, of Pine Creek at division box, near Bishop, Calif.--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	‡61	May 18, 1931	12	19.6	14,200	20.0	14,500
1932	735	‡325	June 25, 1932	13	48.7	35,400	49.8	36,200
1933	750	195	June 14, 1933	15	32.7	23,700	31.6	22,800
1934	765	71	May 13, 1934	14	23.4	16,900	23.3	16,870
1935	790	228	June 5, 1935	10	38.6	27,970	39.4	28,550
1936	810	350	July 21, 1936	16	49.0	35,560	48.9	35,490
1937	830	274	June 21, 1937	17	53.0	38,390	53.1	38,450
1938	860	329	June 25, 1938	15	76.9	55,680	80.1	57,990
1939	880	169	May 29, 1939	21	38.2	27,690	35.8	25,920
1940	900	268	June 17, 1940	19	48.9	35,470	48.2	34,900
1941	(b)	345	July 8, 1941	14.9	65.8	47,646	67.7	48,944
1942	(b)	297	July 4, 1942	22.1	54.0	39,052	52.4	37,928
1943	(b)	281	May 27, 1943	14.9	47.5	34,381	47.4	34,286
1944	(b)	204	July 1, 1944	15.8	37.3	27,043	36.9	26,757
1945	(b)	330	June 20, 1945	15.8	54.9	39,732	60.8	43,971
1946	(b)	265	July 24, 1946	23.6	60.9	44,070	58.8	42,554
1947	(b)	238	May 22, 1947	24.8	43.8	31,685	41.7	30,179
1948	(b)	187	June 22, 1948	17.8	36.8	26,676	35.7	25,887
1949	(b)	283	June 10, 1949	13.0	35.2	25,453	34.8	25,194
1950	(b)	217	May 31, 1950	14.9	34.7	25,154	-	-

‡ Not previously published.
b Files of city of Los Angeles, Department of Water and Power.

284. Pine Creek near Round Valley, Calif.

Location.--Lat 37°26'10", long 118°34'10", in SE¼ sec. 9, T. 6 S., R. 31 E., 600 ft upstream from mouth and 2 miles northwest of town of Round Valley.

Drainage area.--37.0 sq mi (revised).

Gage.--Water-stage recorder and, since 1930, 6-foot Cipolletti weir. Altitude of gage is 4,450 ft (from topographic map). Prior to Aug. 23, 1906, staff gage at site 450 ft downstream at different datum. Aug. 23, 1906, to May 13, 1908, staff gage at site 300 ft downstream at different datum. May 13, 1908, to July 9, 1922, staff gage at site 20 ft upstream at same datum. July 9, 1922, to November 10, 1923, staff gage at described site and datum.

Average discharge.--30 years (1903-23; 1930-40), 22.5 cfs.

Extremes.--1903-23; 1930-40: Maximum discharge, 442 cfs June 27, 1938 (gage height, 4.00 ft); no flow (revised) Feb. 27, March 1, 2, May 1-3, 21, 1912.

Remarks.--Diversions for irrigation above station.

Cooperation.--Records for 1930-40 furnished by city of Los Angeles, Department of Water and Power; furnished figures rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	-	4.7	-
1904	10.8	11.8	12.6	13	12.4	12.9	9.0	21.7	142	70	44	12	31.0
1905	28	25	17.5	12.7	10.6	7.9	6.5	9.0	68.1	47.9	4.8	4.6	20.2
1906	8.7	8.5	9.5	13.7	8.6	14.5	8.7	16.0	130	160	105	46.2	44.1
1907	15.5	7.6	7.5	10.4	11.6	13.4	11.7	28.3	111	193	101	30.8	45.2
1908	19.3	15.3	14.4	10.1	8.2	6.2	3.6	2.8	17.5	62.0	42.0	7.5	17.4
1909	7.7	4.7	4.0	4.96	6.08	3.52	3.43	16.8	208	172	45.7	20.5	41.4
1910	10.2	5.13	8.77	8.38	6.17	3.78	7.00	65.1	192	36.2	8.22	3.65	29.6
1911	3.49	3.36	4.72	10.0	5.54	6.72	3.17	17.8	178	256	59.4	10.6	46.6
1912	12.2	8.69	6.73	4.81	3.14	2.23	1.43	19.2	68.2	20.5	2.63	1.45	12.6
1913	2.46	2.97	2.15	1.63	3.66	4.32	1.43	7.78	15.3	41.1	18.7	8.93	9.28
1914	4.40	4.71	3.82	20.1	5.48	3.94	3.54	35.0	138	145	65.4	4.69	36.4
1915	5.71	3.77	2.13	2.99	5.17	2.83	2.70	6.93	102	86.8	3.44	1.66	18.8
1916	4.03	2.19	3.98	5.98	12.1	5.94	8.31	18.5	100	87.9	6.43	6.09	21.8
1917	4.75	2.16	1.98	2.17	5.02	4.52	3.35	2.66	155	105	4.02	2.43	24.4
1918	1.05	1.47	4.00	4.87	5.38	4.74	1.82	1.58	118	26.1	2.31	2.09	14.3
1919	18.7	5.10	4.15	3.90	4.34	3.95	1.08	48.0	35.3	2.35	1.15	.31	10.8
1920	1.24	1.80	1.93	2.11	3.38	2.89	1.91	8.48	57.2	14.1	1.23	1.53	8.09
1921	2.52	3.63	2.76	2.65	2.48	1.65	1.02	1.55	85.0	33.5	2.39	1.47	11.7
1922	2.33	3.12	5.35	4.03	6.94	3.73	2.24	14.5	169	115	14.6	2.65	28.6
1923	1.77	3.16	3.90	3.78	3.56	1.70	1.34	4.74	28.6	34.3	6.39	.94	7.88
1924	2.36	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	‡.34	.75	23.0	1.87	.40	.37	-
1931	1.69	1.98	2.40	2.46	2.42	.58	.38	.98	1.14	.27	.11	.38	1.23
1932	.79	2.17	4.97	5.49	5.91	2.69	1.50	5.71	114	104	16.2	4.02	22.3
1933	5.11	5.43	6.39	7.37	8.50	6.40	1.86	2.02	44.7	32.8	2.70	1.07	10.3
1934	1.22	2.85	4.40	5.55	3.56	2.58	3.34	17.7	4.85	1.83	.36	1.31	4.15
1935	3.08	3.60	3.83	4.64	4.65	2.97	1.80	9.85	84.1	42.0	7.26	2.95	14.2

‡ Not previously published; partly estimated on basis of records for station near Bishop.

Monthly and yearly mean discharge, in cubic feet per second, of Pine Creek near Round Valley, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	3.49	4.95	4.75	3.91	6.41	2.69	3.23	31.7	91.4	73.4	17.4	3.21	20.6
1937	3.44	3.86	4.23	3.59	8.16	3.03	1.63	52.1	144	90.4	11.4	2.03	27.4
1938	3.80	4.64	15.6	10.4	13.4	12.5	4.90	61.2	242	213	82.6	34.0	58.5
1939	17.6	17.9	15.9	16.8	14.6	7.65	6.90	25.6	24.6	8.15	4.81	3.71	13.7
1940	3.35	4.19	3.95	6.13	6.89	5.11	3.32	51.6	129	36.5	4.89	4.60	21.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	-	280	-
1904	664	702	775	799	713	793	536	1,334	8,450	4,304	2,705	714	22,500
1905	1,722	1,488	1,076	781	589	486	387	553	4,052	2,945	295	274	14,600
1906	535	506	584	842	478	892	518	984	7,740	9,840	6,460	2,750	32,100
1907	953	452	461	640	644	824	696	1,740	6,600	11,900	6,210	1,830	33,000
1908	1,190	910	885	621	472	381	214	172	1,040	3,810	2,580	446	12,700
1909	474	280	246	305	338	216	204	1,030	12,400	10,600	2,810	1,220	30,100
1910	627	305	539	515	343	232	417	4,000	11,400	2,230	505	217	21,300
1911	215	200	290	615	308	413	189	1,090	10,600	15,700	3,650	631	33,900
1912	750	517	414	296	181	137	85	1,180	4,060	1,260	162	86.3	9,130
1913	151	177	132	100	203	266	85	478	910	2,530	1,150	531	6,710
1914	271	280	235	1,240	304	242	211	2,150	8,210	8,920	4,020	279	26,400
1915	351	224	131	184	287	174	161	426	6,070	5,340	212	99	13,700
1916	248	130	245	368	696	365	494	1,140	5,950	5,400	395	362	15,800
1917	292	129	122	133	279	278	199	164	9,220	6,460	247	145	17,700
1918	64.6	87.5	246	299	299	291	108	97.2	7,020	1,600	142	124	10,400
1919	1,150	303	255	240	241	243	64.3	2,950	2,100	144	70.7	18.6	7,780
1920	76.2	107	119	130	194	178	114	521	3,400	867	75.8	91.0	5,870
1921	155	216	170	163	138	101	60.7	95.3	5,060	2,060	†147	87.5	†8,450
1922	143	186	329	248	385	229	133	892	10,100	7,070	898	158	20,800
1923	109	188	240	232	198	105	79.7	291	1,700	2,110	393	55.9	5,700
1924	145	-	-	-	-	-	-	-	-	-	-	-	-
1930	-	-	-	-	-	-	‡20.4	46.1	1,370	115	24.6	22.0	-
1931	104	118	148	151	134	35.7	22.6	60.3	67.8	16.6	6.8	22.6	887
1932	48.8	129	306	338	340	165	89.3	351	6,780	6,400	996	239	16,200
1933	314	323	393	453	472	394	111	124	2,660	2,020	166	63.7	7,490
1934	75.0	170	271	341	198	159	199	1,090	289	113	22.2	78.0	3,010
1935	189	214	235	285	258	182	107	605	5,010	2,580	446	176	10,290
1936	215	294	292	240	369	166	192	1,950	5,440	4,510	1,070	191	14,930
1937	211	230	260	221	453	186	97	3,210	8,560	5,560	702	121	19,810
1938	234	276	956	637	746	769	292	3,760	14,430	13,120	5,080	2,020	42,320
1939	1,080	1,070	978	1,030	809	470	411	1,570	1,460	501	296	221	9,900
1940	206	249	243	377	396	314	197	3,170	7,680	2,240	301	274	15,650

† Corrected.
‡ Not previously published; partly estimated on basis of records for station near Bishop.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300	-	-	-	-	-	-	-
1904	300	213	June 3, 1904	5	31.0	22,500	34	24,600
1905	300	119	June13-16, 1905	1	20.2	14,600	16.6	12,000
1906	300	-	-	4	44.1	32,100	44.4	32,400
1907	300	262	June 30, 1907	5	45.2	33,000	46.7	34,100
1908	300	104	(a)	1	17.4	12,700	14.7	10,700
1909	300	318	July 3, 1909	1.8	41.4	30,100	42.2	30,600
1910	300	277	June 4, 1910	1.5	29.6	21,300	28.4	20,600
1911	300	370	June 22, 1911	1.2	46.6	33,900	48.3	34,900
1912	330	118	June 1, 1912	0	12.6	9,130	10.9	7,900
1913	360	193	July 22, 1913	.2	9.28	6,710	9.72	7,040
1914	390	251	Jan. 25, 1914	1.3	36.4	26,400	36.3	26,300
1915	410	140	(b)	.6	18.8	13,700	18.7	13,600
1916	440	244	June 19, 1916	.7	21.8	15,800	21.7	15,700
1917	460	283	June 16, 1917	.7	24.4	17,700	24.2	17,500
1918	480	220	June21,22,1918	.2	14.3	10,400	16.2	11,700
1919	510	c211	May 28, 1919	.2	10.8	7,780	8.81	6,370
1920	510	110	June 9, 1920	.1	8.09	5,870	8.41	6,110
1921	530	c287	June 12, 1921	.4	11.7	†8,450	11.8	†8,570
1922	550	(d)	June 28, 1922	.2	28.6	20,800	28.4	20,600
1923	570	85	(e)	.2	7.88	5,700	-	-
1930	705	-	-	-	-	-	-	-

† Corrected.
a July 13, 14, 16, 1908.
b June 27, 30, July 1, 1915.
c Momentary maximum.
d Momentary maximum about 300 cfs.
e June 11, July 2, 1923.

Yearly discharge, in cubic feet per second, of Pine Creek near Round Valley, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	6.5	Jan. 31, 1931	0.1	1.23	887	1.38	1,000
1932	735	264	June 26, 1932	.1	22.3	16,200	23.1	16,730
1933	750	96	June 16, 1933	.5	10.3	7,490	9.63	6,990
1934	765	40	May 17, 1934	.1	4.15	3,010	4.32	3,130
1935	790	c146	June 12, 1935	.5	14.2	10,290	14.4	10,450
1936	810	*300	July 22, 1936	.8	20.6	14,930	20.4	14,830
1937	830	c293	June 21, 1937	.8	27.4	19,810	28.4	20,580
1938	860	c442	June 27, 1938	.8	58.5	42,320	60.8	43,980
1939	880	c114	May 30, 1939	1.4	13.7	9,900	10.3	7,460
1940	900	c223	June 13, 1940	1.4	21.6	15,650	-	-

* Revised momentary maximum.
c Momentary maximum.

285. Owens River at Pleasant Valley, near Bishop, Calif.

Location.--Lat 37°25'00", long 118°31'40", in NW¼ sec. 24, T. 6 S., R. 31 E., 1,000 ft upstream from Owens River canal intake, 2.2 miles downstream from Rock Creek, and 8 miles northwest of Bishop.

Drainage area.--596 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,350 ft (from topographic map).

Average discharge.--22 years (1918-40), 245 cfs.

Extremes.--1918-40: Maximum discharge (revised), 1,780 cfs Dec. 11, 1937 (gage height, 8.12 ft); minimum, 53 cfs (regulated) Aug. 25, 1931.

Remarks.--Diversions for irrigation above station; slight regulation by powerplant since 1936.

Cooperation.--Records furnished by city of Los Angeles, Department of Water and Power; furnished figures rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	-	-	-	346	279	813	343	228	239	-
1919	349	264	249	225	237	244	294	536	373	239	201	180	283
1920	204	235	250	244	256	293	230	296	519	272	223	201	268
1921	206	218	201	214	227	227	170	258	*561	363	209	161	*251
1922	185	201	201	215	251	252	340	355	888	676	320	256	345
1923	221	235	243	247	273	266	211	291	338	375	244	228	264
1924	209	226	208	206	235	204	174	161	120	129	125	130	177
1925	153	207	194	182	199	157	165	178	270	326	193	161	199
1926	188	188	181	166	186	239	217	321	324	169	158	144	207
1927	181	224	200	190	225	294	234	332	681	530	259	224	298
1928	232	264	215	213	220	204	180	341	345	187	131	149	223
1929	166	177	176	180	186	212	157	174	199	*197	*135	141	*175
1930	148	160	162	155	183	212	143	146	244	158	129	136	164
1931	157	160	148	157	175	154	135	122	114	92.3	94.6	114	135
1932	129	133	149	179	195	225	268	201	556	597	266	189	257
1933	188	192	183	203	209	279	203	158	412	300	152	138	218
1934	146	160	193	190	187	241	170	193	188	*128	107	123	*169
1935	140	162	160	166	178	203	267	225	553	354	186	154	229
1936	168	183	179	186	204	221	361	370	502	423	230	171	266
1937	187	194	194	184	262	221	388	433	625	494	203	174	296
1938	190	206	285	208	231	274	475	524	1,113	954	555	357	449
1939	316	286	283	274	270	281	244	240	241	196	174	184	249
1940	200	205	209	222	242	320	229	379	588	328	186	189	275

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	-	-	-	20,600	17,200	48,400	21,100	14,000	14,200	-
1919	21,500	15,700	15,300	13,800	13,200	15,000	17,500	33,000	22,200	14,700	12,400	10,700	205,000
1920	12,500	14,000	15,400	15,000	14,700	18,000	13,700	18,200	30,900	16,700	13,700	12,000	195,000
1921	12,700	13,000	12,400	13,200	12,600	14,000	10,100	15,900	*33,400	22,300	12,900	9,580	*182,000
1922	11,400	12,000	12,400	13,200	13,900	15,500	20,200	21,800	52,800	41,600	19,700	15,200	250,000
1923	13,600	14,000	14,900	15,200	15,200	16,400	12,600	17,900	20,100	23,100	15,000	13,600	192,000
1924	12,900	13,400	12,800	12,700	13,500	12,500	10,400	9,900	7,140	7,930	7,690	7,740	129,000
1925	9,410	12,300	11,900	11,200	11,100	9,650	9,820	10,900	16,100	20,000	11,900	9,580	144,000
1926	11,600	11,200	11,100	10,200	10,300	14,700	12,900	19,700	19,300	10,400	9,720	8,570	150,000
1927	11,100	13,300	12,300	11,700	12,500	18,100	13,900	20,400	40,500	32,600	15,900	13,300	216,000
1928	14,300	15,700	13,200	13,100	12,700	12,500	10,700	21,000	20,500	11,500	8,060	8,870	162,000
1929	10,200	10,500	10,800	11,100	10,300	13,000	9,340	10,700	11,800	*12,100	*8,310	8,390	*127,000
1930	9,100	9,520	9,960	9,530	10,200	13,000	8,510	8,980	14,500	9,720	7,930	8,090	119,000

* Revised.

Monthly and yearly runoff, in acre-feet, of Owens River at Pleasant Valley, near Bishop, Calif. --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	9,650	9,520	9,100	9,650	9,720	9,470	8,030	7,500	6,780	5,680	5,820	6,780	97,700
1932	7,930	7,910	9,160	11,000	11,200	13,800	15,900	12,400	33,100	36,700	16,400	11,200	187,000
1933	11,600	11,400	11,300	12,500	11,600	17,200	12,100	9,720	24,500	18,400	9,350	8,210	158,000
1934	8,980	9,520	11,900	11,700	10,400	14,800	10,100	11,900	11,200	*7,870	6,580	7,320	*122,000
1935	8,630	9,660	9,860	10,230	9,870	12,470	15,890	13,810	32,910	21,750	11,430	9,150	165,700
1936	10,360	10,890	11,030	11,410	11,740	13,590	21,500	22,780	29,850	25,990	14,170	10,170	193,500
1937	11,510	11,540	11,910	11,290	14,350	13,610	23,100	26,610	37,200	30,380	12,480	10,370	214,600
1938	11,690	12,260	17,520	12,810	12,850	16,880	28,260	32,210	66,220	58,680	34,130	21,230	324,700
1939	19,460	17,010	17,420	16,840	14,990	17,250	14,550	14,730	14,350	12,070	10,680	10,950	180,300
1940	12,320	12,190	12,860	13,650	13,930	19,660	13,610	23,290	34,970	20,200	11,440	11,240	199,400

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	630	-	-	-	-	-	-	-
1919	630	980	May 30, 1919	-	283	205,000	268	194,000
1920	630	605	June 9, 1920	179	268	195,000	264	191,000
1921	630, 1564	*a1,100	June 13, 1921	124	*251	*182,000	*248	*180,000
1922	630	1,120	June 28, 1922	98	345	250,000	354	256,000
1923	630	514	July 4, 1923	154	264	192,000	260	188,000
1924	630	297	Nov. 10, 1923	101	177	129,000	169	123,000
1925	630	588	July 2, 1925	130	199	144,000	199	144,000
1926	630	630	June 9, 1926	124	207	150,000	211	152,000
1927	650	916	June 17,18,1927	152	298	216,000	307	222,000
1928	670	613	May 29, 1928	105	223	162,000	207	150,000
1929	690, 1564	307	July 2, 1929	*113	*175	*127,000	*171	*124,000
1930	705	364	June 19, 1930	103	164	119,000	164	119,000
1931	720	202	Jan. 31, 1931	77	135	97,700	130	94,400
1932	735	972	July 3, 1932	111	257	187,000	270	196,000
1933	750	618	June 16, 1933	102	218	158,000	213	154,000
1934	765, 1564	a420	Dec. 12, 1933	*92	*169	*122,000	*166	*120,000
1935	790	a755	June 12, 1935	123	229	165,700	235	169,800
1936	810	a780	June 26, 1936	155	266	193,500	270	196,200
1937	830	a1,010	June 22, 1937	128	296	214,600	305	221,100
1938	860	*a1,780	Dec. 11, 1937	182	449	324,700	466	337,200
1939	880	a366	Oct. 15, 1938	155	249	180,300	226	163,800
1940	900	a780	June 17, 1940	181	275	199,400	-	-

* Revised.
a Momentary maximum.

286. Silver Canyon Creek near Laws, Calif.

Location.--Lat 37°24'20", long 118°18'20", in SE¼SW¼ sec. 24, T. 6 S., R. 33 E., 2.3 miles east of Laws.

Drainage area.--21.5 sq mi; at site in use prior to Feb. 24, 1943, 22.4 sq mi.

Gage.--Water-stage recorder and 1-foot Venturi flume. Altitude of gage is 4,600 ft (from topographic map). Prior to Feb. 24, 1943, staff gage and 2-foot Cipolletti weir at site 1½ miles downstream at different datum.

Average discharge.--20 years (1930-50), 1.32 cfs.

Extremes.--1930-50: Maximum discharge, 3.88 cfs Oct. 6, 1945 (gage height, 0.98 ft); no flow at times.

Remarks.--Occasional diversion above gage.

Cooperation.--Records, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	-	-	-	-	-	0.37	0.68	0.70	0.65	0.63	0.56	0.48	-
1931	0.50	0.32	0.36	0.63	0.73	.69	.50	.30	.29	.21	.14	.19	0.40
1932	.59	.59	.60	.51	.49	.59	.63	.69	.87	.61	.75	.88	.65
1933	.91	.66	.91	.86	.88	.83	1.28	.90	.78	.71	.73	.81	.85
1934	.98	1.09	1.09	1.07	1.03	.93	.74	.74	.76	.64	.64	.67	.86
1935	.73	.79	.88	.91	.90	.89	.65	.50	.40	.41	.40	.62	.67
1936	.80	.95	.98	1.00	.98	.86	.93	.79	.68	.75	.56	.45	.81
1937	.61	.60	1.04	1.12	1.19	.40	.84	1.08	.96	1.04	1.05	1.02	.91
1938	1.20	1.28	.72	1.27	1.19	1.31	1.10	1.75	2.33	2.28	2.24	2.18	1.57
1939	2.18	2.14	2.07	1.55	.96	.59	.77	1.50	1.69	1.30	1.22	1.37	1.45
1940	1.53	.90	.84	.55	.24	.36	1.27	1.74	1.55	1.49	1.56	1.60	1.13

Monthly and yearly mean discharge, in cubic feet per second, of Silver Canyon Creek near Laws, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1941	1.57	0.50	0.36	0.69	0.78	0.77	0.86	1.45	2.14	2.23	2.06	1.88	1.28
1942	1.41	.57	1.02	1.11	.88	.56	.73	.90	1.22	1.68	1.45	1.59	1.10
1943	1.51	1.17	.84	.96	1.02	1.45	1.19	1.40	1.57	1.78	1.89	1.89	1.39
1944	2.06	2.22	2.23	2.24	2.32	2.06	1.09	1.48	1.15	1.05	1.51	1.57	1.75
1945	1.70	1.74	1.73	1.62	1.48	1.20	.86	1.19	1.54	1.50	.92	1.45	1.41
1946	1.68	1.97	1.99	2.18	2.07	1.76	1.95	2.66	2.69	2.39	2.34	2.27	2.16
1947	2.39	2.59	2.65	2.48	2.32	2.54	2.58	2.55	2.55	2.39	2.29	2.30	2.47
1948	2.38	2.44	2.60	2.58	2.38	2.45	2.31	2.33	1.99	1.86	1.92	1.94	2.26
1949	2.00	2.09	1.85	1.55	1.61	2.00	1.92	1.79	1.61	1.52	1.59	1.68	1.77
1950	1.69	1.77	1.83	1.83	1.69	1.61	1.57	1.62	1.16	1.29	1.47	1.49	1.58

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	-	-	-	-	-	23	41	43	38	39	34	28	-
1931	31	19	22	39	41	43	30	18	18	13	9	11	293
1932	36	35	37	31	28	36	38	43	52	38	46	52	472
1933	56	39	56	53	49	51	76	56	46	43	45	48	618
1934	61	65	67	66	57	57	44	45	45	39	39	40	625
1935	45	47	54	56	50	55	39	31	24	25	25	37	488
1936	49	57	60	61	57	53	55	47	40	46	35	27	587
1937	38	36	64	69	66	24	50	66	57	64	65	61	660
1938	74	76	44	78	66	81	65	107	139	140	138	130	1,138
1939	134	128	127	95	53	36	46	93	101	80	75	81	1,049
1940	94	53	51	34	14	22	75	107	92	91	96	95	824
1941	96	30	22	43	43	47	51	89	127	137	127	112	924
1942	87	34	63	68	49	35	43	55	73	103	89	95	794
1943	93	69	52	59	57	89	71	86	93	110	116	113	1,008
1944	127	132	137	138	133	126	65	91	68	64	93	94	1,268
1945	104	104	106	99	82	74	51	73	92	92	56	87	1,020
1946	103	117	123	134	115	108	116	163	160	147	144	135	1,565
1947	147	154	163	152	129	156	154	157	152	147	141	137	1,789
1948	146	145	160	159	137	150	137	143	118	115	118	116	1,644
1949	123	124	114	95	90	123	114	110	96	94	98	100	1,281
1950	104	105	112	113	94	99	93	100	69	79	90	89	1,147

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1930	(a)	0.84	(b)	0.28	-	-	-	-
1931	(a)	.79	(c)	.10	0.40	293	0.45	329
1932	(a)	1.05	Aug. 30, 1932	0	.65	472	.71	516
1933	(a)	1.58	Apr. 10, 1933	0	.85	618	.91	660
1934	(a)	1.22	Dec. 13, 1933	.35	.86	625	.80	578
1935	(a)	.94	(d)	.21	.67	488	.70	508
1936	(a)	1.05	Feb. 24, 1936	.35	.81	587	.77	559
1937	(a)	1.39	Feb. 8, 1937	0	.91	660	.99	716
1938	(a)	2.60	June 20, 1938	.12	1.57	1,138	1.84	1,333
1939	(a)	2.45	Oct. 6, 1938	.28	1.45	1,049	1.18	858
1940	(a)	1.97	(e)	0	1.13	824	1.07	774
1941	(a)	2.52	June 27, 1941	.15	1.28	924	1.33	960
1942	(a)	1.83	(f)	.15	1.10	794	1.14	824
1943	(a)	2.08	(g)	.40	1.39	1,008	1.64	1,190
1944	(a)	h2.33	(i)	.27	1.75	1,268	1.64	1,188
1945	(a)	h1.84	(j)	0	1.41	1,020	1.45	1,050
1946	(a)	h3.88	Oct. 6, 1945	.64	2.16	1,565	2.33	1,686
1947	(a)	h3.24	Feb. 10, 1947	1.75	2.47	1,789	2.45	1,775
1948	(a)	h2.63	(k)	1.70	2.26	1,644	2.14	1,554
1949	(a)	h2.13	Nov.16-22, 1948	.43	1.77	1,281	1.71	1,241
1950	(a)	h2.53	Nov. 10, 1949	.84	1.58	1,147	-	-

a Files of city of Los Angeles, Department of Water and Power.
b Apr. 14, May 5, 1930.
c Feb. 16 to Mar. 2, 1931.
d Dec. 31, 1934, to Jan. 3, 1935, Jan. 17-24, Feb. 6, 14, Mar. 5, 11, 1935.
e Nov. 2, 1939, Apr. 1, 1940.
f Oct. 3, 8, 1941, July 20, 1942.
g Feb. 24, Feb. 26 to Mar. 4, 1943.
h Momentary maximum.
i Jan. 23 to Feb. 2, Feb. 10 to Mar. 12, Mar. 17-19, 1944.
j Nov. 6-9, Dec. 5-6, 1944.
k Nov. 30 to Dec. 1, Dec. 19, 1947, to Jan. 3, 1948, Jan. 18-21, 1948.

538662 O - 60 - 20

287. Bishop Creek near Bishop, Calif.

Location.--Lat 37°21'00", long 118°27'40", in SE¼ sec. 9, T. 7 S., R. 32 E., at highway bridge and 4 miles west (revised) of Bishop.

Drainage area.--105 sq mi.

Gage.--Staff gage. Altitude of gage is 4,450 ft (from topographic map).

Average discharge.--7 years (1903-10), 109 cfs.

Extremes.--1903-11: Maximum discharge observed, 822 cfs July 6, 1906 (gage height, 5.6 ft); minimum, 6 cfs Nov. 3, 1906.

Remarks.--North Hillside, South Hillside, and Powers canals divert for irrigation above station. Records herein do not include diversions.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	-	50.5	-
1904	38.6	28.6	27.3	27.0	31.8	42.0	56.6	149.3	372.8	233	212	64	107
1905	78	41	29	22.5	25.2	38.2	56.6	113	299	215	92.1	53.6	88.6
1906	36.1	25.6	24.3	33.4	16.4	42.0	52.8	172	382	706	350	124	164
1907	45.3	17.5	50.0	56.4	*53.0	*54.3	*68.0	-	-	-	-	*67.7	*108
1908	*46.1	*41.4	*42.5	58.8	58.6	64.3	59.7	76.6	94.5	150	143	73.7	*76.2
1909	60.4	55.7	49.4	47.5	47.2	46.6	59.3	124	379	363	134	78.0	120
1910	61.4	69.2	85.5	83.9	77.5	124	85.7	186	125	134	97.6	46.9	98.1
1911	50.2	52.7	55.3	63.2	89.5	-	-	-	-	-	-	-	-

* Revised; monthly figure revised to show flow past station only; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	-	-	3,005	-
1904	2,373	1,702	1,679	1,660	1,829	2,582	3,366	9,180	22,183	14,327	13,035	3,808	77,700
1905	4,796	2,440	1,783	1,384	1,400	2,349	3,368	6,948	17,790	13,220	5,663	3,189	64,300
1906	2,220	1,523	530	2,050	911	2,580	3,140	10,600	22,700	43,400	21,500	7,380	119,000
1907	2,780	1,040	3,070	3,470	*2,950	*3,340	*4,040	-	-	-	-	*4,030	*78,000
1908	*2,830	*2,460	*2,610	3,620	3,370	3,950	3,550	4,710	5,620	9,220	8,790	4,390	*55,120
1909	3,710	3,310	3,040	2,920	2,620	2,870	3,530	7,620	22,600	22,300	8,240	4,640	87,400
1910	3,780	4,120	5,260	5,160	4,300	7,620	5,100	11,400	7,440	8,240	6,000	2,790	71,200
1911	3,090	3,140	3,400	3,890	4,970	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300	-	-	-	-	-	-	-
1904	300	479	June 16-19,1904	22	107	77,700	112	81,000
1905	300	391	June 16-22,1905	21	88.6	64,300	82.3	59,600
1906	300	822	July 6, 1906	10	164	119,000	167	121,200
1907	300	(a)	-	6	*108	*78,000	*109	*79,000
1908	300	370	Aug.4,5, 1908	38	*76.2	*55,120	79.0	57,300
1909	300	713	June 26, 1909	36	120	87,400	125	90,500
1910	300	477	July 22, 1910	17	98.1	71,200	93.4	67,700
1911	300	-	-	-	-	-	-	-

* Revised.

a About 450 cfs sometime in June 1907.

Note.--Figures for May to August 1907 were for non-equivalent site 5 miles upstream; those figures are not published herein and should not be used in conjunction with this record.

288. Baker Creek near Big Pine, Calif.

Location.--Lat 37°09'20", long 118°20'10", in NE¼ sec. 23, T. 9 S., R. 33 E., 150 ft downstream from bridge on Mill road and 3 miles west of Big Pine.

Drainage area.--29.8 sq mi.

Supplemental records available.--April 9, 1907, to Nov. 24, 1908, and Oct. 15, 1909, to Aug. 3, 1910, periodic discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,820 ft (from topographic map).

Extremes.--January to September 1909: Maximum discharge observed, about 100 cfs May 8, 1909 (gage height, 1.6 ft); minimum observed, 9 cfs Jan. 1-6, 11-13, Sept. 12, 1909.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second, of Baker Creek near Big Pine, Calif. --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	9.94	10.0	10.2	14.5	35.1	21.6	16.6	11.7	10.4	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	611	555	627	863	2,160	1,290	1,020	719	619	-

Note.--Monthly estimates for October to December 1909 published in WSP 271 have been found in error on the basis of restudy of the original data and comparison with stations on nearby streams. Those records are not published herein and should not be used.

289. Big Pine Creek above Little Pine Creek, near Big Pine, Calif.1/

Location.--Lat 37°08'15", long 118°19'45", in E½ sec. 26, T. 9 S., R. 33 E., about 0.8 mile upstream from Little Pine Creek and 3 miles southwest of Big Pine.

Drainage area.--31.7 sq mi.

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

Extremes.--1904-7: Maximum discharge observed, about 700 cfs Aug. 8, 1904 (gage height, 5.0 ft); minimum observed, 11 cfs on several days January to March 1904.

Remarks.--Some diversions above station for irrigation. Records collected at site about 1 mile downstream, below Little Pine Creek, are not equivalent to those for this station (see following station).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	‡15	‡12	‡10	11	12	16.8	20.5	†75.6	*157	*134	*1,060	49	‡51.7
1905	*30.1	*27.4	*20.9	21.7	23.9	*20.7	*22.2	46.7	118	187	122	51.1	*57.9
1906	13.7	9.6	12.5	-	-	-	-	-	-	-	-	-	-
1907	‡30	‡25	‡20	18	20	20	38	56	110	202	118	46	‡58.9
1908	30	-	-	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of discharge measurements and records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	‡922	‡714	‡615	676	690	1,033	1,220	†4,650	*9,340	*8,240	*6,520	2,916	‡37,500
1905	*1,851	*1,630	*1,285	1,334	1,327	*1,273	*1,321	2,872	7,021	11,500	7,501	3,041	*41,960
1906	842	571	†769	-	-	-	-	-	-	-	-	-	-
1907	‡1,840	‡1,490	‡1,230	1,110	1,110	1,230	2,260	3,440	6,540	12,400	7,260	2,740	‡42,600
1908	1,840	-	-	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	300,1564	(a)	Aug. 8, 1904	-	‡51.7	‡37,500	*55.1	*40,050
1905	300,1564	268	July 10-12,1905	15	*57.9	*41,960	*54.3	*39,370
1906	300	-	-	-	-	-	-	-
1907	300	b208	July6,27,1907	-	‡58.6	‡42,600	-	-
1908	300	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a About 700 cfs.
b Discharge measurements.

1/ Previously published as Big Pine Creek near Big Pine.

290. Big Pine Creek near Big Pine, Calif.1/

Location.--Lat 37°08'40", long 118°18'50", in SW¼ sec. 24, T. 9 S., R. 33 E., about 0.2 mile downstream from Little Pine Creek, 0.5 mile downstream from powerhouse, and 2.2 miles southwest of Big Pine.

Drainage area.--39.0 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (from topographic map). Prior to January 1923, staff gage at same site and datum.

Average discharge.--20 years (1930-50), 41.3 cfs including diversion to upper and lower Giroux ditches.

Extremes.--1907-11, 1920-50: Maximum discharge, 458 cfs July 3, 1932 (gage height, 6.55 ft); no flow (channel only) Dec. 3-12, 1935, caused by diversion of total flow into Giroux ditches.

Remarks.--Diversions for power and for irrigation above station. Records herein prior to July 1930 show flow past station only and do not include diversion by Giroux ditches; those after June 1930 show combined flow of creek and diversions to upper and lower Giroux ditches. Average diversion, 1930-50, to upper Giroux ditch, 2.95 cfs; to lower Giroux ditch, 5.22 cfs.

Cooperation.--Records for 1920-50, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1908	-	24	20	20	20	23	25	28	39	131	100	50	‡42
1909	18	13	15	17.1	19.2	13.7	22.4	54.2	189	157	103	48.2	55.9
1910	31.9	18.3	17.0	26.0	18.1	19.5	29.7	74.0	92.6	116	82.1	37.3	46.9
1911	26.2	15.9	12.7	15.5	18.5	-	-	-	-	-	-	-	-
1920	-	-	-	13	12	14.1	14.8	48.9	97.6	78.8	63.9	29.0	-
1921	15.9	10.8	11.3	13.1	12.7	12.3	14.9	35.5	91.6	109	58.0	23.0	34.1
1922	26.2	11.8	11.1	13.4	11.9	12.2	18.5	65.6	134.0	167.6	98.8	59.8	52.9
1923	31.7	15.6	15.5	14.3	15.0	14.9	18.3	52.0	50.8	86.6	63.6	39.9	35.1
1924	25.4	12.8	9.6	8.7	7.9	10.5	15.2	35.8	48.8	72.4	47.0	26.6	26.8
1925	9.5	9.6	10.2	9.4	8.2	8.6	11.2	33.7	73.2	90	54.9	18.0	28.2
1926	12.2	10.4	8.0	7.9	9.7	9.2	21.6	56.3	83.3	61.9	56.4	25.3	30.3
1927	11.2	9.7	12.2	11.4	11.4	9.9	18.4	51.0	116.0	150.7	56.9	23.9	40.4
1928	15.9	17.4	15.5	11.8	11.3	10.5	15.8	58.2	92.7	68.8	63.5	38.6	35.1
1929	18.9	9.7	12.0	10.9	10.2	5.8	11.7	33.9	51.0	67.8	46.0	19.9	25.0
1930	9.5	9.9	9.1	11.9	12.3	10.2	11.7	19.2	54.7	68.0	53.8	26.0	24.8
1931	10.5	9.8	9.1	7.6	7.4	8.3	14.0	32.0	49.2	88.1	68.9	26.5	27.8
1932	19.8	7.4	7.8	9.8	14.9	9.7	26.4	43.6	140.1	185.2	103.3	52.5	51.9
1933	22.5	19.1	15.8	15.1	17.4	16.1	15.8	21.6	77.0	118.2	64.6	26.8	36.0
1934	13.6	13.4	13.9	16.1	14.5	13.7	22.1	41.1	47.1	68.9	69.4	37.2	31.1
1935	12.7	12.6	12.2	12.6	11.3	12.6	15.8	29.1	125.7	98.6	66.9	38.9	37.5
1936	16.9	11.5	9.9	14.0	16.1	17.7	30.5	56.6	106.9	119	71.7	30.7	41.9
1937	18.0	15.2	19.0	18.2	18.4	17.2	21.7	61.3	136.4	143.1	78.8	36.0	48.8
1938	23.2	13.6	17.9	15.8	16.2	16.9	24.5	59.1	190	205.3	134.8	59.2	65.0
1939	28.1	22.5	19.2	18.1	18.2	15.8	24.0	46.8	87.8	103.4	76.3	40.0	41.8
1940	20.5	19.2	16.9	16.4	15.5	15.3	19.9	54.4	117.5	89.0	60.2	32.8	39.8
1941	21.2	15.0	13.6	13.2	13.3	14.0	17.0	55.2	134.6	184.7	104.8	33.7	52.0
1942	20.2	19.0	20.5	20.4	19.3	19.7	23.8	36.3	105.6	156.7	96.4	33.6	47.9
1943	24.6	23.9	13.5	14.6	15.9	15.5	24.0	54.1	89.4	109.4	68.2	37.2	41.0
1944	27.5	21.5	16.0	13.9	13.6	14.0	15.9	38.7	60.9	86.8	59.9	37.0	33.9
1945	23.3	19.8	15.2	18.8	15.1	13.6	19.9	47.4	101.8	159.1	92.0	44.5	47.2
1946	33.5	26.3	22.4	21.9	19.3	18.1	25.7	52.2	101.9	131.7	80.7	35.0	47.6
1947	24.4	19.9	19.7	18.4	17.0	17.0	20.2	59.5	77.7	72.5	60.5	38.8	37.3
1948	20.4	17.5	16.0	14.6	13.4	12.1	13.1	24.2	59.8	76.8	49.6	33.3	29.3
1949	14.4	15.2	14.2	12.06	11.11	10.79	15.87	35.57	104.91	79.6	58.3	32.1	33.8
1950	15.25	14.05	12.5	12.65	13.37	13.16	19.99	43.86	100.28	91.29	49.7	30.42	34.8

‡ Not previously published; yearly figure only estimated on basis of station above Little Pine Creek; one monthly figure not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1908	-	1,430	1,230	1,230	1,150	1,410	1,490	1,720	2,320	8,060	6,150	2,980	‡30,700
1909	1,110	774	922	1,050	1,070	842	1,330	3,330	11,200	9,650	6,330	2,870	40,500
1910	1,960	1,090	1,050	1,600	1,010	1,200	1,770	4,550	5,510	7,130	5,050	2,220	34,100
1911	1,610	946	781	953	1,030	-	-	-	-	-	-	-	-
1920	-	-	-	800	690	867	880	3,005	5,806	4,847	3,926	1,727	-
1921	976	644	696	806	707	754	886	2,183	5,452	6,707	3,547	1,360	24,716
1922	1,612	702	680	823	658	751	1,103	4,031	7,971	10,302	6,072	3,560	38,275
1923	1,948	930	951	878	832	917	1,089	3,198	3,024	5,322	3,910	2,376	25,375
1924	1,559	759	591	537	457	644	904	2,202	2,902	4,450	2,890	1,581	19,477
1925	587	576	627	579	453	526	668	2,071	4,355	5,533	3,376	1,074	20,425

‡ Not previously published; see footnote to preceding table.

1/ Records published under this name for 1903-7 are not equivalent to records hereunder and are published in this report as for Big Pine Creek above Little Pine Creek, near Big Pine.

Monthly and yearly runoff, in acre-feet, of Big Pine Creek near Big Pine, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1926	748	622	489	486	538	567	1,287	3,482	4,957	3,803	3,484	1,507	21,930
1927	687	578	752	699	636	606	1,092	3,133	6,903	9,261	3,495	1,424	29,266
1928	975	1,034	952	724	652	647	940	3,579	5,517	4,228	3,903	2,294	25,445
1929	1,162	580	736	672	565	358	699	2,082	3,034	4,170	2,825	1,184	18,067
1930	586	589	559	733	684	624	695	1,178	3,257	4,179	3,305	1,547	17,936
1931	647	585	555	466	412	507	835	1,968	2,930	5,416	4,238	1,578	20,137
1932	1,217	440	484	604	857	596	1,576	2,681	8,337	11,382	6,350	3,120	37,644
1933	1,378	1,137	973	928	969	994	934	1,330	4,582	7,268	3,973	1,594	26,060
1934	835	798	856	995	805	844	1,316	2,529	2,799	4,238	4,266	2,215	22,496
1935	783	751	751	769	628	783	935	1,787	7,477	6,054	4,117	2,316	27,151
1936	1,038	684	611	858	926	1,089	1,816	3,482	6,358	7,319	4,406	1,824	30,411
1937	1,105	903	1,168	1,116	1,024	1,054	1,289	3,766	8,112	8,793	4,847	2,143	35,320
1938	1,428	806	1,106	973	902	1,036	1,463	3,629	11,315	12,626	8,285	3,518	47,083
1939	1,731	1,337	1,180	1,111	1,015	969	1,423	2,877	5,224	6,359	4,693	2,377	30,296
1940	1,262	1,143	1,036	1,003	893	941	1,185	3,344	6,986	5,473	3,676	1,956	28,898
1941	1,304	893	837	814	739	864	1,007	3,390	8,002	11,352	6,444	2,006	37,652
1942	1,237	1,125	1,260	1,258	1,073	1,211	1,418	2,233	6,287	9,630	5,929	1,999	34,660
1943	1,515	1,422	828	897	885	954	1,429	3,326	5,319	6,728	4,195	2,212	29,710
1944	1,691	1,277	972	853	782	864	947	2,379	3,824	5,335	3,682	2,198	24,604
1945	1,427	1,183	934	730	839	833	1,185	2,914	6,053	9,782	5,658	2,644	34,182
1946	2,062	1,567	1,378	1,339	1,070	1,115	1,525	3,205	6,062	8,097	4,961	2,085	34,466
1947	1,503	1,180	1,210	1,135	944	1,047	1,200	3,652	4,622	4,456	3,720	2,309	26,978
1948	1,260	1,042	984	895	775	740	778	1,489	3,557	4,725	3,051	1,984	21,280
1949	886	901	874	743	615	662	945	2,190	6,240	4,896	3,581	1,910	24,443
1950	938	836	769	778	742	809	1,190	2,699	5,971	5,612	3,056	1,810	25,210

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1908	300	a166	(b)	-	‡42	‡30,700	40.0	29,300
1909	300	a258	June 17-19,1909	10	55.9	40,500	57.8	41,800
1910	300	a252	July 19, 1910	16	46.9	34,100	46.1	33,400
1911	300	-	-	-	-	-	-	-
1920	(c)	a127	June 22, 1920	-	-	-	-	-
1921	(c)	a152	July 21, 1921	7	34.1	24,716	35.6	25,795
1922	(c)	246	July 6, 1922	7.0	52.9	38,275	54.0	39,100
1923	(c)	125	Aug. 12, 1923	11.7	35.1	25,375	33.8	24,455
1924	(c)	98	July 4, 1924	6.7	26.8	19,477	25.3	18,357
1925	(c)	190	July 19, 1925	7.1	28.2	20,425	28.3	20,494
1926	(c)	113	May 20, 1926	6.0	30.3	21,930	30.5	22,088
1927	(c)	257	June 26, 1927	6.7	40.4	29,266	41.7	30,210
1928	(c)	153	June 3, 1928	8.6	35.1	25,445	34.4	24,962
1929	(c)	184	July 1, 1929	3.4	25.0	18,067	23.9	17,323
1930	(c)	125	July 17, 1930	-	24.8	17,936	24.8	17,989
1931	(c)	120	July 9, 1931	-	27.8	20,137	28.3	20,491
1932	(c)	458	July 3, 1932	-	51.9	37,644	53.7	38,991
1933	(c)	191	July 14, 1933	-	36.0	26,060	34.6	25,061
1934	(c)	113	Aug. 1, 1934	-	31.1	22,496	30.8	22,289
1935	(c)	266	July 17, 1935	-	37.5	27,151	37.6	27,200
1936	(c)	188	July 22, 1936	-	41.9	30,411	43.1	31,254
1937	(c)	291	July 6, 1937	-	48.8	35,320	49.0	35,484
1938	(c)	298	July 25, 1938	-	65.0	47,083	66.3	47,993
1939	(c)	209	July 30, 1939	-	41.8	30,296	40.7	29,490
1940	(c)	184	June 15, 1940	-	39.8	28,898	39.2	28,493
1941	(c)	284	July 24, 1941	-	52.0	37,652	52.9	38,239
1942	(c)	264	July 5, 1942	-	47.9	34,660	48.1	34,802
1943	(c)	129	July 6, 1943	-	41.0	29,710	41.3	29,884
1944	(c)	109	June 30, 1944	-	33.9	24,604	33.4	24,207
1945	(c)	247	Aug. 2, 1945	-	47.2	34,182	49.3	35,644
1946	(c)	185	July 4, 1946	-	47.6	34,466	46.1	33,355
1947	(c)	122	June 20, 1947	-	37.3	26,978	36.4	26,369
1948	(c)	111	June 26, 1948	-	29.3	21,280	28.5	20,654
1949	(c)	212	June 12, 1949	-	33.8	24,443	33.6	24,322
1950	(c)	151	June 3, 1950	-	34.8	25,210	-	-

‡ Not previously published.
a Maximum observed.
b July 15, Aug. 10, 1908.
c Files of city of Los Angeles, Department of Water and Power.

291. Tinemaha Creek near Big Pine, Calif.1/

Location.--Lat 37°03'50", long 118°16'00", in SW¼ sec. 21, T. 10 S., R. 34 E., 0.3 mile upstream from Birch Creek, 2.5 miles upstream from mouth, 1 mile southwest of Fish Springs, and 7 miles south of Big Pine.

Drainage area.--27.3 sq mi.

Gage.--Staff gage. Altitude of gage is 4,150 ft (from topographic map). Prior to June 28, 1909, at two different datums.

Extremes.--1906-11: Maximum discharge observed, 66 cfs July 4, 1907 (gage height, 1.9 ft, datum then in use) and June 25, 1909 (gage height, 2.3 ft, datum then in use); minimum observed, 1.8 cfs Apr. 7-16, 1909.

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1907	-	-	-	4.9	4.4	4.0	5.3	11.0	18.0	39.0	20.0	*6.8	-
1908	5.4	5.5	5.7	6.0	5.8	4.4	4.3	4.4	8.5	32.0	21.0	9.8	9.40
1909	5.5	5.0	5.3	4.68	9.55	5.98	2.99	9.90	45.9	45.8	24.3	12.8	14.8
1910	8.49	6.87	10.2	10.7	9.14	7.53	6.74	15.6	27.4	25.9	16.2	9.04	12.8
1911	5.82	5.20	5.10	7.3	7.3	-	-	-	-	-	-	-	-

* Revised; only monthly figure revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1907	-	-	-	301	244	246	315	676	1,070	2,400	1,230	*405	-
1908	332	327	350	369	334	270	256	270	506	1,970	1,290	583	6,860
1909	338	298	326	288	530	368	178	609	2,730	2,820	1,490	762	10,700
1910	522	409	627	658	508	463	401	959	1,630	1,590	996	538	9,300
1911	358	309	314	449	405	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1907	300	66	July 4, 1907	-	-	-	*10.9	*7,900
1908	300	52	July 10, 1908	2.8	9.40	6,860	9.3	6,810
1909	300	66	June 25, 1909	1.8	14.8	10,700	15.7	11,300
1910	300	48.6	July 18, 1910	4.0	12.8	9,300	12.1	8,720
1911	300	-	-	-	-	-	-	-

* Revised.

292. Birch Creek near Big Pine, Calif.1/

Location.--Lat 37°04'00", long 118°16'00", in sec. 21 (revised), T. 10 S., R. 34 E., 1 mile southwest of Fish Springs schoolhouse and 7 miles south of Big Pine.

Drainage area.--11.7 sq mi.

Supplemantal records available.--June 14 to Dec. 9, 1905, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map). June 14 to Dec. 9, 1905, at different datum.

Extremes.--1907-11: Maximum discharge observed, 77 cfs July 3, 1909 (gage height, 1.4 ft), from rating curve extended above 40 cfs by logarithmic plotting; minimum observed, 0.5 cfs Sept. 22, 26, 1910.

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1907	-	-	-	*6.8	*5.4	*7.2	8.0	12.5	20.0	32.0	19.3	*6.0	-
1908	4.6	*5.0	*5.0	5.2	5.2	5.5	5.6	5.7	9.6	14.3	11.9	6.5	*7.0
1909	4.1	3.0	3.0	4.68	6.35	4.42	7.67	12.1	37.0	41.5	13.0	6.81	12.0
1910	4.32	4.87	16.3	12.3	8.20	7.24	8.55	13.5	21.5	23.2	15.3	4.72	11.7
1911	3.81	3.62	4.06	7.26	5.71	-	-	-	-	-	-	-	-

* Revised; only monthly figures revised; revised daily figures not available.

1/ Published as "near Tinemaha", 1906-10.

Monthly and yearly runoff, in acre-feet, of Birch Creek near Big Pine, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1907	-	-	-	*418	*300	*443	476	769	1,190	1,970	1,190	*357	-
1908	283	*298	*307	320	299	338	333	350	571	879	732	387	*5,100
1909	252	179	184	288	353	272	456	744	2,200	2,550	799	405	8,680
1910	266	290	1,000	756	455	445	509	830	1,280	1,430	941	281	8,480
1911	234	215	250	446	317	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1907	300	50	July 4, 1907	-	-	-	*11.1	*8,000
1908	300	21	Aug. 4-6,1908	*3.7	*7.0	*5,100	6.6	4,820
1909	300	77	July 3, 1909	3.0	12.0	8,680	13.3	9,620
1910	300	54	July 18,19,1910	.5	11.7	8,480	10.5	7,630
1911	300	-	-	-	-	-	-	-

* Revised.

293. Owens River near Big Pine, Calif.1/

Location.--Lat 37°01'45", long 118°13'30", in NE¼ sec. 2, T. 11 S., R. 34 E., at Charlies Butte and 11 miles southeast of Big Pine.

Drainage area.--1,930 sq mi, approximately.

Supplemental records available.--Records of chemical analysis for the period Nov. 6, 1906, to Apr. 14, 1907, and Dec. 31, 1907, to Dec. 31, 1908, are published in WSP 237, 274.

Gage.--Water-stage recorder. Altitude of gage is 3,850 ft (from topographic map). Prior to Oct. 8, 1922, staff gage at same site and datum.

Average discharge.--44 years (1906-50), 352 cfs.

Extremes.--1906-50: Maximum discharge, about 3,220 cfs Jan. 26, 1914 (gage height, 11.2 ft), from rating curve extended above 1,100 cfs; no flow Jan. 9-13, 21-26, 1937.

Remarks.--Diversions above station from both main stream and tributaries. Flow regulated by Sabrina Reservoir and South Lake since 1911 (combined capacity, 20,900 acre-ft), Tinemaha Reservoir since 1929 (capacity, 16,600 acre-ft), and Lake Crowley since 1941 (capacity, 183,500 acre-ft). Water imported from Mono Lake basin since 1941 for diversion to Los Angeles aqueduct which diverts 4 miles downstream.

Cooperation.--Records for 1928-50 furnished by city of Los Angeles, Department of Water and Power; those for 1941-50 not previously published by Geological Survey. Furnished figures for 1928-40 rounded by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	436	358	438	388	200	729	2,230	1,210	448	-
1907	339	423	510	500	493	646	315	264	660	1,280	698	310	536
1908	460	538	527	539	584	485	145	58.1	56.9	188	274	173	336
1909	298	397	409	608	541	396	311	144	910	968	286	214	457
1910	311	437	522	650	494	503	160	250	424	269	139	106	355
1911	286	415	464	498	661	636	509	194	920	1,630	544	253	584
1912	429	486	464	474	406	316	255	160	333	144	82.3	81.9	303
1913	273	380	381	401	440	421	158	62.9	112	93.7	90.8	132	244
1914	212	376	393	804	587	467	391	285	905	938	584	203	512
1915	421	451	477	520	558	449	241	273	448	590	134	138	391
1916	310	425	482	676	877	656	500	343	644	722	285	181	507
1917	530	559	527	522	698	549	353	138	498	595	241	107	442
1918	251	452	475	444	487	525	268	68.8	592	258	76.0	80.3	330
1919	466	446	444	451	462	405	253	258	315	85.1	68.6	62.9	309
1920	191	323	392	379	352	362	153	78.7	216	107	66.1	63.9	222
1921	187	358	380	400	389	240	67.3	60.9	286	151	63.5	57.0	219
1922	165	348	517	432	525	398	310	117	698	775	227	91.9	383
1923	295	429	511	481	457	312	95.9	67.7	94.6	123	71.5	87.7	251
1924	269	366	386	390	334	230	145	65.9	51.9	58.4	53.5	48.2	200
1925	99.1	255	245	268	199	133	123	91.4	198	286	130	67.0	175
1926	213	262	270	270	320	325	175	126	311	128	80.5	63.1	211
1927	210	392	356	369	437	422	227	153	470	490	179	161	321
1928	325	412	385	393	388	247	187	239	289	90.7	59.2	82.0	258
1929	220	290	308	323	311	273	151	137	139	119	77.2	97.3	203
1930	192	256	272	312	408	428	309	271	297	290	233	250	292
1931	289	308	352	347	420	346	296	288	285	255	266	238	307
1932	283	283	362	293	329	292	298	222	406	391	459	221	320
1933	248	295	264	399	390	443	291	62.8	474	425	277	104	306
1934	164	377	414	369	270	298	285	364	298	239	202	197	290
1935	212	212	279	289	319	294	329	317	426	398	370	331	315

1/ Published as "near Tinemaha" prior to 1912.

Monthly and yearly mean discharge, in cubic feet per second, of Owens River near Big Pine, Calif. --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	298	333	348	269	360	223	222	462	509	376	295	249	328
1937	87.7	217	278	157	711	511	430	458	445	387	377	61.7	341
1938	353	511	488	476	284	744	634	503	1,034	1,217	814	538	635
1939	576	568	545	527	521	522	258	473	331	247	243	155	414
1940	250	247	601	436	195	218	260	434	262	311	17.4	186	286
1941	444	394	431	349	323	178	243	335	312	430	503	169	343
1942	339	212	391	361	459	308	558	433	491	498	451	170	389
1943	422	592	369	253	377	337	285	289	341	453	422	481	385
1944	542	404	419	381	221	288	289	264	401	416	536	524	391
1945	151	496	341	245	413	358	329	337	374	507	456	200	350
1946	263	355	430	440	451	362	314	384	369	543	399	332	387
1947	423	628	503	487	477	332	427	474	501	520	312	416	458
1948	332	520	418	399	385	484	248	420	492	436	389	429	413
1949	206	550	446	228	391	280	282	439	498	514	611	292	395
1950	400	527	418	228	443	452	251	353	525	484	406	413	408

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	26,800	19,900	26,900	23,100	12,300	43,400	137,000	74,400	26,700	-
1907	20,800	25,200	31,400	30,700	27,400	39,700	18,700	16,200	39,300	78,600	42,900	18,400	389,000
1908	28,300	32,000	32,400	33,100	33,600	29,800	8,630	3,570	3,390	11,600	16,800	10,300	243,000
1909	18,300	23,600	25,100	37,400	30,000	24,300	18,500	8,850	54,100	59,500	17,600	12,700	330,000
1910	19,100	26,000	32,100	40,000	27,400	30,900	9,520	15,400	25,200	16,500	8,550	6,310	257,000
1911	17,600	24,700	28,500	30,600	36,700	39,100	30,300	11,900	54,700	100,000	33,400	15,100	423,000
1912	26,400	28,900	28,500	29,100	23,400	19,400	15,200	9,840	19,800	8,850	5,080	4,870	219,000
1913	16,800	22,600	23,400	24,700	24,400	25,900	9,400	3,870	6,660	5,760	5,580	7,860	177,000
1914	13,000	22,400	24,200	49,400	32,600	28,700	23,300	17,500	53,900	57,700	35,900	12,100	371,000
1915	25,900	26,800	29,300	32,000	31,000	27,600	14,300	16,800	26,700	36,300	8,240	8,210	283,000
1916	19,100	25,300	29,600	41,600	50,400	40,300	29,800	21,100	38,300	44,400	17,500	10,800	368,000
1917	32,600	33,300	32,400	32,100	38,800	33,800	21,000	8,490	29,600	36,600	14,800	6,370	320,000
1918	15,400	26,900	29,200	27,300	27,000	32,300	15,900	4,230	35,200	15,900	4,670	4,780	239,000
1919	28,700	26,500	27,300	27,700	25,700	24,900	15,100	15,900	18,700	5,230	4,220	3,740	224,000
1920	11,100	19,200	24,100	23,300	20,200	22,300	9,100	4,840	12,900	6,580	4,080	3,800	161,000
1921	11,500	21,300	23,400	24,600	21,600	14,800	4,000	3,740	17,000	9,280	3,900	3,390	159,000
1922	10,100	20,700	31,800	26,600	29,200	24,500	18,400	7,190	41,500	47,700	14,000	5,470	277,000
1923	18,100	25,500	31,400	29,600	25,400	19,200	5,710	4,160	5,630	7,560	4,400	5,220	182,000
1924	16,500	21,800	23,700	24,000	19,200	14,100	8,630	4,050	3,090	3,590	3,290	2,870	145,000
1925	6,090	15,200	15,100	16,500	11,100	8,180	7,320	5,620	11,800	17,600	7,990	3,990	126,000
1926	13,100	15,600	16,600	16,600	17,800	20,000	10,400	7,750	18,500	7,870	4,950	3,750	153,000
1927	12,900	23,300	21,900	22,700	24,300	25,900	13,500	9,410	28,000	30,100	11,000	9,580	233,000
1928	20,000	24,500	23,700	24,200	22,300	15,200	11,100	14,700	17,200	5,580	3,640	4,880	187,000
1929	13,500	17,300	18,900	19,900	17,300	16,800	8,980	8,420	8,270	7,320	4,750	5,790	147,000
1930	11,800	15,200	16,700	19,200	22,700	26,300	18,400	16,700	17,700	17,800	14,300	14,900	212,000
1931	17,800	18,300	21,600	21,300	23,300	21,300	17,600	17,700	17,000	15,700	16,400	14,200	222,000
1932	17,400	16,800	22,300	18,000	18,900	18,000	17,700	13,600	24,200	24,000	28,200	13,200	232,000
1933	15,200	17,600	16,200	24,500	21,700	27,200	17,300	3,860	28,200	26,100	17,000	6,190	221,000
1934	10,100	22,400	25,500	22,700	15,000	18,300	17,000	22,400	17,700	14,700	12,400	11,700	210,000
1935	13,030	12,610	17,180	17,800	17,700	18,090	19,550	19,480	25,380	24,490	22,770	19,700	227,800
1936	18,310	19,800	21,420	16,570	20,710	13,700	13,220	28,420	30,260	23,120	18,130	14,790	238,400
1937	5,400	12,930	17,110	9,640	39,470	31,410	25,600	28,190	26,490	23,810	23,160	3,670	246,900
1938	21,730	30,430	30,030	29,280	15,750	45,770	37,700	30,940	61,510	74,840	50,040	32,010	460,000
1939	35,440	33,770	33,510	32,400	28,930	32,120	15,340	29,080	19,720	15,220	14,940	9,230	299,700
1940	15,390	14,710	36,950	26,790	11,220	13,400	15,480	26,670	15,590	19,140	1,070	11,050	207,500
1941	27,286	23,435	26,501	21,436	17,930	10,928	14,466	20,572	18,581	26,453	30,909	10,072	248,569
1942	20,825	12,602	24,018	22,216	25,509	18,906	33,189	26,634	29,188	30,606	27,722	10,090	281,505
1943	25,936	35,212	22,656	15,563	20,931	20,728	16,969	17,768	20,300	27,833	25,940	28,621	278,457
1944	33,342	24,050	25,731	23,425	12,711	17,682	17,183	16,251	23,863	25,551	32,971	31,193	283,953
1945	9,300	29,493	20,978	15,061	22,935	22,003	19,568	20,740	22,263	31,149	28,016	11,900	253,406
1946	16,179	21,145	26,449	27,074	25,059	22,265	18,678	23,614	21,968	33,350	24,532	19,759	280,072
1947	25,975	37,366	30,915	29,918	26,491	20,411	25,404	29,146	29,818	31,940	19,191	24,768	331,343
1948	20,419	30,939	25,690	24,552	22,136	29,737	14,732	25,813	29,277	26,788	23,901	25,525	299,509
1949	12,638	32,737	27,407	14,012	21,698	17,205	16,750	26,979	29,598	31,613	37,582	17,383	285,602
1950	24,617	31,325	25,670	14,003	24,601	27,776	14,906	21,675	31,250	29,752	24,948	24,559	295,082

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	2,610	July 29, 1906	-	-	-	642	468,000
1907	300	1,710	July 8, 1907	164	536	389,000	558	405,000
1908	300	744	Feb. 5, 1908	36	336	243,000	300	218,000
1909	300	1,680	July 6, 1909	83	457	330,000	470	340,000
1910	300	1,320	Jan. 3, 1910	82	355	257,000	346	251,000
1911	300	2,000	July 20, 1911	125	584	423,000	602	436,000
1912	330	517	(a)	73	303	219,000	273	198,000
1913	360	540	(b)	53	244	177,000	240	174,000
1914	390	(c)	Jan. 26, 1914	70	512	371,000	543	393,000
1915	410	805	July 7, 1915	86	391	283,000	380	275,000

a Jan. 15-17, June 5, 1912.
b Feb. 28, Mar. 3, 1913.
c Momentary maximum, about 3,220.

Yearly discharge, in cubic feet per second, of Owens River near Big Pine, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	440	1,700	Jan. 10, 1916	154	507	368,000	541	392,000
1917	460	980	Feb. 26, 1917	86	442	320,000	405	293,000
1918	480	1,250	June 23, 1918	58	330	239,000	345	250,000
1919	510	980	May 31, 1919	61	309	224,000	270	196,000
1920	510	524	Dec. 12, 1919	57	222	161,000	225	163,000
1921	530	524	June13,14,1921	50	219	159,000	228	165,000
1922	550	1,220	Dec. 22, 1921	61	383	277,000	400	290,000
1923	570	628	Dec. 14, 1922	59	251	182,000	233	169,000
1924	590	426	Feb. 10, 1924	45	200	145,000	164	119,000
1925	610	456	July 4, 1925	51	175	126,000	187	135,000
1926	630	521	June 11, 1926	51	211	153,000	229	166,000
1927	650	1,150	Nov. 28, 1926	88	321	233,000	335	243,000
1928	670	516	Nov. 12, 1927	50	258	187,000	232	168,000
1929	690	388	Mar. 7, 1929	9	203	147,000	194	140,000
1930	705	478	Feb. 24, 1930	6	292	212,000	312	226,000
1931	720	506	Mar. 27, 1931	7	307	222,000	305	221,000
1932	735	721	July 12, 1932	136	320	232,000	310	225,000
1933	750	c555	June 24, 1933	8	306	221,000	318	230,000
1934	765	c650	Dec. 7, 1933	16	290	210,000	269	195,000
1935	790	c592	Nov. 27, 1934	5	315	227,800	338	244,500
1936	810	c579	June 3, 1936	45	328	238,400	295	214,400
1937	830	970	Feb.17-19,1937	0	341	246,900	406	293,600
1938	860	c1,320	July 4, 1938	62	635	460,000	664	480,600
1939	880	c768	Oct. 19, 1938	15	414	299,700	365	264,000
1940	900	c713	Nov. 9, 1939	7	286	207,500	300	217,585
1941	(d)	640	Oct. 2, 1940	28	343	248,569	316	228,792
1942	(d)	716	Apr. 2, 1942	1	389	281,505	425	307,864
1943	(d)	696	Nov.5,7, 1942	11	385	278,457	384	277,776
1944	(d)	621	Jan. 4, 1944	10	391	283,953	359	260,601
1945	(d)	671	Aug. 19,20,1945	15	350	253,406	356	257,408
1946	(d)	732	July 30, 1946	10	387	280,072	429	310,555
1947	(d)	789	Aug. 17, 1947	10	458	331,343	434	314,135
1948	(d)	642	Apr. 27, 1948	10	413	299,509	407	295,243
1949	(d)	646	Sept. 1, 1949	13	395	285,602	407	294,432
1950	(d)	651	Oct. 13, 1949	13	408	295,082	-	-

c Momentary maximum.
d Files of city of Los Angeles, Department of Water and Power.

294. Taboose Creek near Aberdeen, Calif.

Location.--Lat 36°59'55", long 118°15'20", in NE¼NE¼ sec. 16, T. 11 S., R. 34 E., 1.4 miles north of Aberdeen and 2.5 miles (revised) northwest of Aberdeen railway station (formerly called Tibbetts).

Drainage area --13.9 sq mi.

Gage.--Staff gage. Altitude of gage is 3,950 ft (from topographic map). Prior to Feb. 25, 1907, at site about 2 miles downstream at different datum. Feb. 25, 1907, to Dec. 31, 1909, at described site at datum 1.0 ft higher.

Average discharge.--5 years (1905-10), 7.65 cfs.

Extremes.--1906-11: Maximum discharge observed, 56 cfs July 14, 1906 (discharge measurement); minimum, 1.4 cfs Feb. 14-22, 1907.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	3.7	2.9	3.3	5.8	10.4	21.8	46.3	25.7	15.0	‡12.0
1907	3.7	3.6	3.5	2.3	a1.7	a3.5	a6.8	a9	a16.0	a22.1	a13.6	a5.9	a7.68
1908	4.2	3.6	3.2	3.0	2.3	2.3	3.1	4.9	6.0	10.9	8.2	6.4	4.84
1909	4.5	4.0	5.5	4.33	4.05	2.73	4.92	8.65	25.7	22.6	9.87	5.64	8.54
1910	4.01	†3.64	*3.30	*2.61	2.11	3.52	3.97	7.06	11.8	10.7	6.97	3.23	*5.26
1911	3.35	3.00	3.00	3.50	3.40	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; yearly figure partly estimated on basis of records for Oak Creek near Independence; some monthly figures not available.
a Revised; only monthly figure revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet, of Taboose Creek near Aberdeen, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	228	161	203	345	640	1,300	2,850	1,580	893	‡8,710
1907	228	214	215	141	*94	*215	*405	*553	*952	*1,360	*836	*351	*5,560
1908	258	214	197	184	132	141	184	301	357	670	504	381	3,520
1909	277	238	338	266	225	168	293	532	1,530	1,390	607	336	6,200
1910	247	†217	*203	*160	117	216	236	434	702	658	429	192	*3,810
1911	206	179	184	215	189	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	a56	July 14, 1906	-	‡12.0	‡8,710	12.23	8,860
1907	300	*28	July 5, 1907	1.4	*7.68	*5,560	*7.70	*5,580
1908	300	14	July 12-15,1908	2.2	4.84	3,520	5.10	3,710
1909	300	39	July 2, 1909	2.5	8.54	6,200	*8.30	*6,010
1910	300	15	(b)	2.0	*5.26	*3,810	*5.13	*3,710
1911	300	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a Discharge measurement.
b May 30, June 1, 6, 1910.
Note.--Figures of daily discharge for Dec. 21-31, 1909, and Jan. 4-9, 1910, published on page 341 of WSP 300, have all been revised to 3 cfs.

295. Goodale Creek near Aberdeen, Calif.

Location.--Lat 36°59'10", long 118°15'50", in NE¼NW¼ sec. 21 (revised), T. 11 S., R. 34 E., 0.8 mile northwest of Aberdeen and 3 miles (revised) west of Aberdeen railway station (formerly called Tibbetts).

Drainage area.--11.2 sq mi.

Gage.--Staff gage. Altitude of gage is 3,950 ft (from topographic map).

Extremes.--1906-10: Maximum discharge, 27 cfs July 7, 14, 1906 (discharge measurements), and July 2, 1909; minimum observed, 2.0 cfs Jan. 20, 22, 1909.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	2.0	*2.0	*2.5	3.5	6.3	11.2	19.0	*10	5.9	-
1907	5.6	5.3	4.3	3.9	3.6	3.3	5.1	7.0	10.2	15.1	10.3	3.9	6.47
1908	2.8	2.8	2.8	3.0	2.6	2.6	2.7	*3.7	*4.8	7.3	5.0	4.1	*3.68
1909	3.3	3.0	3.0	2.34	2.40	2.40	3.83	†8.60	18.7	16.5	8.83	5.59	6.54
1910	4.06	4.02	a3.65	a3.34	3.10	3.77	4.54	†8.23	10.9	7.87	4.49	3.63	*5.14
1911	3.50	3.10	3.10	3.55	3.24	-	-	-	-	-	-	-	-

* Revised; only monthly figure revised; revised daily figures not available.
† Corrected.
a Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	123	*111	*154	208	387	666	1,170	*615	351	-
1907	344	315	264	240	200	203	304	430	607	928	633	232	4,700
1908	172	167	172	184	150	160	161	*228	*286	449	307	244	*2,680
1909	203	179	184	144	133	148	228	†529	1,110	1,010	543	333	4,740
1910	250	239	*224	*205	172	232	271	†506	649	484	276	216	*3,720
1911	215	184	191	218	180	-	-	-	-	-	-	-	-

* Revised.
† Corrected.

Yearly discharge, in cubic feet per second, of Goodale Creek near Aberdeen, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	a27	July 7,14, 1906	-	-	-	*6.50	*4,710
1907	300	18.0	(b)	†2.4	6.47	4,700	5.92	4,290
1908	300	8.3	(c)	†2.6	*3.68	*2,680	*3.76	*2,740
1909	300	27.0	July 2, 1909	2.0	6.54	4,740	*6.76	*4,890
1910	300	13.5	(d)	3.1	*5.14	*3,720	*4.98	*3,600
1911	300	-	-	-	-	-	-	-

* Revised.
† Corrected.
a Discharge measurements.
b July 11, 15-19, 1907.
c July 5-15, Aug. 7, 1908.
d May 31 to June 6, June 13, 1910.

Note.--Figures of daily discharge for the period Dec. 21, 1909, to Jan. 9, 1910, published on page 348 of WSP 300, have all been revised to 3.6 cfs.

296. Division Creek near Independence, Calif.

Location.--Lat 36°56'15", long 118°15'45", in SE¼NW¼ sec. 4, T. 12 S., R. 34 E., 200 ft upstream from lower power canal of Los Angeles aqueduct and 10 miles north of Independence.

Drainage area.--5.99 sq mi.

Supplemental records available.--Feb. 24, 1910, to Feb. 1, 1911, periodic discharge measurements.

Gage.--Staff gage. Altitude of gage is 3,950 ft (from topographic map). Prior to May 9, 1908, at different site and datum.

Extremes.--1906-9: Maximum discharge observed, 22 cfs July 27, 1906; minimum, 4.7 cfs Mar. 27, 1906 (discharge measurement).

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	6.7	5.1	6.1	6.0	7.3	8.4	17.2	14.3	10.9	-
1907	12.6	11.5	10.1	10.6	10.8	11.2	10.1	9.7	11.1	12.4	10.1	9.9	10.8
1908	10.0	9.0	7.7	7.0	6.7	5.9	5.8	7.0	7.2	7.2	7.7	7.7	7.41
1909	7.5	7.7	7.6	7.2	6.9	7.3	7.9	10.0	16.7	16.4	15.6	14.8	10.5
1910	13.4	11.9	11.2	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	412	283	375	357	449	500	1,060	879	649	-
1907	775	684	621	652	600	689	601	596	660	762	621	589	7,850
1908	615	536	474	430	385	363	345	430	428	443	473	458	5,380
1909	461	458	467	443	383	449	470	615	994	1,010	959	881	7,590
1910	824	708	689	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	22	July 27, 1906	-	-	-	9.73	7,040
1907	300	-	-	-	10.8	7,850	10.2	7,400
1908	300	-	-	-	7.41	5,380	7.08	5,140
1909	300	-	-	-	10.5	7,590	11.64	8,420
1910	300	-	-	-	-	-	-	-

297. Sawmill Creek near Independence, Calif.1/

Location.--Lat 36°55'00", long 118°15'20", in SE¼SE¼ sec. 9, T. 12 S., R. 34 E., at highway bridge and 8.5 miles northwest of Independence.

Drainage area.--7.67 sq mi.

Gage.--Staff gage. Altitude of gage is 3,900 ft (from topographic map).

Extremes.--1906, 1909: Maximum discharge observed, 19.2 cfs July 13, 1909 (discharge measurement); minimum observed, 2.5 cfs Mar. 3, 1906 (discharge measurement).

Remarks.--No regulation or diversion.

1/ Published as Eightmile Creek in 1906.

Monthly and yearly mean discharge, in cubic feet per second, of Sawmill Creek near Independence, Calif.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	The year
1906	3.0	2.7	3.7	3.4	4.3	7.6	16.3	12.6	9.8	6.7	5.0	5.0	6.7
1909	4.1	5.0	4.9	6.6	7.3	14.1	17.8	13.1	10.6	9.0	8.7	8.0	9.1

Monthly and yearly runoff, in acre-feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	The year
1906	184	150	228	202	264	452	1,000	775	583	412	298	307	4,860
1909	252	278	301	393	449	839	1,090	806	631	553	518	492	6,600

298. Oak Creek near Independence, Calif.

Location.--Lat 36°50'00", long 118°14'35", in SE¼ sec. 2, T. 13 S., R. 34 E., three quarters of a mile west of Bell's flour mill and 3.2 miles northwest of Independence.

Drainage area.--26.9 sq mi.

Supplemental records available.--June to September 1905, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,250 ft (from topographic map). Prior to Apr. 19, 1907, at two sites within a mile downstream at different datums.

Average discharge.--5 years (1905-10), 24.8 cfs.

Extremes.--1906-11: Maximum discharge observed, 234 cfs July 3, 4, 1909 (gage height, 1.7 ft); minimum observed, 5.8 cfs Dec. 4, 1905 (discharge measurement).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	‡9.9	‡9.4	‡6.3	6.0	7.3	7.8	11.9	28.0	69.9	140	73.5	32.2	‡33.8
1907	20.5	11.8	11.3	10.8	10.4	12.2	18.8	26.9	42.2	57.0	32.8	20.4	22.9
1908	14.5	13.0	13.0	†8.8	9.2	9.3	12.3	15.8	21.0	29.0	22.5	15.5	15.4
1909	13.0	11.6	10.5	11.4	10.6	10.8	15.1	36.8	102	131	38.9	18.9	34.2
1910	14.5	15	13.6	12.2	11.1	11.8	†15.9	28.8	34.9	31.6	13.9	8.56	17.7
1911	8.03	8.17	7.37	8.40	†9.01	-	-	-	-	-	-	-	-

† Corrected.
‡ Not previously published; computed by usual methods from gage heights and discharge measurements.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	‡609	‡559	‡387	369	405	480	708	1,720	4,160	8,610	4,520	1,920	‡24,400
1907	1,260	702	695	664	578	750	1,120	1,650	2,510	3,500	2,020	1,210	16,700
1908	892	774	799	†541	529	572	732	972	1,250	1,780	1,380	922	11,200
1909	799	690	646	701	589	664	899	2,260	6,070	8,060	2,390	1,120	24,900
1910	892	893	836	750	616	726	†946	1,770	2,080	1,940	855	509	12,800
1911	494	486	453	516	†500	-	-	-	-	-	-	-	-

† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	a162	July 7, 1906	-	‡33.8	‡24,400	35.0	25,500
1907	300	88	July 4,5,1907	10	22.9	16,700	22.7	16,500
1908	300	†32	July4-12,1908	8.6	15.4	11,200	14.9	10,800
1909	300	234	July 3,4,1909	8.8	34.2	24,900	35.1	25,400
1910	300	74	July 18, 1910	7.9	17.7	12,800	16.1	11,600
1911	300	-	-	-	-	-	-	-

† Corrected.
‡ Not previously published.
a Discharge measurement.

299. Independence Creek near Independence, Calif.1/

Location.--Lat 36°47'35", long 118°12'45", in SE¼NW¼ sec. 19 (revised), T. 13 S., R. 35 E., 1.0 mile southwest of Independence.

Gage.--Staff gage. Altitude of gage is 4,150 ft (from topographic map). Prior to Aug. 20, 1906, at site 300 ft downstream at different datum.

Drainage area.--21.4 sq mi.

Average discharge.--5 years (1905-10), 21.2 cfs.

Extremes.--1905-11: Maximum discharge observed (revised), 144 cfs July 9, 1906 (discharge measurement), but may have been exceeded during flood of June 1906, when gage was destroyed; minimum, 1.6 cfs in October and December 1905.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	-	-	-	-	-	23.5	10.9	4.6	-
1906	3.2	3.6	3.6	4.0	2.8	4.8	8.0	29.6	96.4	127	54.4	22.9	30.0
1907	12.4	6.1	5.2	5.5	3.5	4.9	14.9	26.0	62.0	70.6	35.8	16.7	22.0
1908	6.6	7.6	6.9	4.3	2.4	3.4	7.4	15.7	21.5	29.0	19.9	8.3	11.1
1909	9.0	6.6	6.3	6.40	5.54	5.44	9.92	40.5	95.2	81.6	34.7	16.1	26.4
1910	7.88	9.82	10.8	8.60	7.22	6.57	13.6	32.8	46.4	35.5	14.1	6.88	16.7
1911	5.25	4.74	3.80	4.24	4.62	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	-	-	-	-	-	-	1,445	670	274	-
1906	198	214	223	246	156	295	476	1,820	5,740	7,810	3,340	1,360	21,900
1907	762	363	320	338	194	301	887	1,600	3,690	4,340	2,200	994	16,000
1908	406	452	424	264	138	209	440	995	1,280	1,780	1,220	494	8,070
1909	553	393	387	394	308	334	590	2,490	5,660	5,020	2,130	958	19,200
1910	484	584	664	529	401	404	809	2,020	2,760	2,180	867	409	12,100
1911	323	282	234	261	257	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	300	-	-	-	-	-	-	-
1906	300	*144	July 9, 1906*	1.6	30.0	21,900	31.1	22,700
1907	300	137	July 5, 1907	3.0	22.0	16,000	21.8	15,800
1908	300	35	July 2-6,1908	2.0	11.1	8,070	11.2	8,120
1909	300	140	June 25-27,1909	4.0	26.4	19,200	27.0	19,600
1910	300	71	July 18, 1910	4.3	16.7	12,100	15.5	11,200
1911	300	-	-	-	-	-	-	-

* Revised; discharge measurement.

Note.--Figure of maximum daily discharge of 226 cfs for June 1906, published on page 366 of WSP 300, has been found in error on the basis of comparison with records for nearby stations. That figure should not be used.

300. Owens River near Citrus, Calif.

Location.--Lat 36°48'00", long 118°07'50", in SE¼ sec. 14, T. 13 S., R. 35 E., 0.9 miles southwest of Kearsarge (formerly known as Citrus) and 4 miles east of Independence.

Gage.--Staff gage. Altitude of gage is 3,730 ft (from topographic map).

Extremes.--1904-5: Maximum daily discharge, 790 cfs June 20-24, 1904 (gage height, 7.3 ft); no flow July 29-31, 1905.

Remarks.--Diversion for irrigation above station. Record shows water wasted into Owens Lake.

Monthly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	290	268	290	160	76.8	572	350	318	125	-
1905	451	388	378	369	540	-	-	-	-	175	-	-	-
1906	107	219	301	-	-	-	-	-	-	-	-	-	-

1/ Previously published as Little Pine Creek.

Monthly runoff, in acre-feet, of Owens River near Citrus, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	17,850	15,390	17,820	9,550	4,720	34,060	21,520	19,550	7,440	-
1905	27,730	23,090	23,240	22,690	29,990	-	-	-	-	10,760	-	-	-
1906	6,580	13,030	18,510	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	300	790	June20-24,1904	-	-	-	307	222,000
1905	300	-	-	0	-	-	-	-
1906	300	-	-	-	-	-	-	-

301. Shepard Creek near Thebe, Calif.

Location.--Lat 36°43'55", long 118°10'30", in SW¼NE¼ sec. 9, T. 14 S., R. 35 E., 5.0 miles south of Independence and 1.2 mile west of Manzanar (formerly known as Thebe).

Gage.--None. Altitude at measuring site, 4,100 ft (from topographic map).

Drainage area.--18.7 sq mi.

Extremes.--1906-9: Maximum discharge observed, 111 cfs July 23, 1906 (discharge measurement), but may have been exceeded in June 1906; no flow observed Feb. 22, 1909 (result of freezeup).

Remarks.--No regulation or diversion. Figures of daily discharge not available.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	2.0	2.0	2.0	9.0	26.5	62.2	104	163	12.0	-
1907	2.6	0.5	3.0	2.0	2.4	3.4	8.1	14.0	26.0	37.0	21.0	4.7	10.4
1908	5.1	4.7	2.9	1.3	1.3	1.3	2.6	6.2	13.4	22.0	21.0	9.6	7.62
1909	5.7	2.6	2.0	4.7	3.0	2.5	8.8	14.8	37.9	42.4	20.6	11	13.0
1910	4.7	3.0	3.0	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	123	111	123	536	1,630	3,700	6,400	3,870	714	-
1907	160	30	184	123	133	209	482	861	1,550	2,280	1,290	280	7,580
1908	314	280	178	80	75	80	155	381	797	1,350	1,290	571	5,550
1909	350	155	123	289	167	154	524	910	2,260	2,610	1,250	655	9,450
1910	289	179	184	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	alll	July 23, 1906	-	-	-	24.1	17,600
1907	300	-	-	-	10.4	7,580	11.0	7,980
1908	300	-	-	-	7.62	5,550	7.4	5,410
1909	300	-	-	-	13.0	9,450	13.0	9,470
1910	300	-	-	-	-	-	-	-

a Discharge measurement.

302. Bairs Creek near Thebe, Calif.

Location.--Lat 36°42'55", long 118°10'35", in SW¼ sec. 16, T. 14 S., R. 35 E., 6.1 miles south of Independence and 1.6 miles southwest of Manzanar (formerly known as Thebe).

Gage.--None. Altitude at measuring site, 4,150 ft (from topographic map).

Drainage area.--10.8 sq mi.

Extremes.--1906-9: Maximum discharge observed, 44 cfs June 21, 1906 (discharge measurement), but may have been exceeded June 13-20, 1906; no flow at times.

Remarks.--No regulation or diversion. Figures of daily discharge not available.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	1.0	1.0	1.0	3.2	12.5	31.3	30.3	13.4	4.3	-
1907	2.0	1.0	0.5	1.0	1.0	3.0	7.0	9.6	12.2	11.7	4.4	1.1	4.54
1908	1.7	2.1	1.5	1.0	0	0	1.2	3.0	4.0	4.5	4.0	1.6	2.05
1909	1.4	1.2	1.0	1.0	.5	1.5	7.7	13.0	24	15.2	5.0	3.9	6.28
1910	1.2	1.0	1.0	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet, of Bairs Creek near Thebe, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	61	56	61	190	769	1,860	1,860	824	256	-
1907	123	60	31	61	56	184	417	590	726	719	270	65	3,300
1908	104	125	92	61	0	0	71	184	238	277	246	95	1,490
1909	86	71	61	61	28	92	458	799	1,430	935	307	232	4,560
1910	72	60	61	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	a44	June 21, 1906	-	-	-	8.5	6,150
1907	300	-	-	-	4.54	3,300	4.7	3,410
1908	300	-	-	-	2.05	1,490	1.9	1,390
1909	300	-	-	-	6.28	4,560	6.3	4,540

a Discharge measurement.

303. George Creek near Thebe, Calif.

Location.--Lat 36°41'30", long 118°09'25", in NW¼ sec. 27, T. 14 S., R. 35 E., 7.8 miles south of Independence and 2.8 mi south of Manzanar (formerly known as Thebe).

Gage.--Staff gage. Altitude of gage is 4,150 ft (from topographic map).

Drainage area.--12.0 sq mi.

Extremes.--1906-9: Maximum discharge observed, 102 cfs July 23, 1906 (discharge measurement), but may have been exceeded in June 1906; minimum observed, 1.0 cfs Feb. 7, 1906 (discharge measurement).

Remarks.--No regulation or diversion. Figures of daily discharge not available.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	1.0	1.0	2.0	10.3	21.1	52.9	86.9	42.3	21.0	-
1907	7.7	2.6	1.7	2	2.5	5.0	11.0	17.0	19.0	28.0	13.0	4.0	9.46
1908	5.2	3.8	2.3	2.7	1.9	2.2	5.3	8.0	11.0	18.0	14.0	8.1	6.88
1909	6	3.2	3	2.8	2.3	3.2	11.4	19.4	43.7	38.4	14.7	8.7	13.1
1910	3.5	2.0	1.9	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	61	56	123	613	1,300	3,150	5,340	2,600	1,250	-
1907	473	155	105	123	139	307	655	1,040	1,130	1,720	799	238	6,880
1908	320	226	141	166	109	135	315	492	655	1,110	861	482	5,010
1909	369	190	184	172	128	197	678	1,190	2,600	2,360	904	518	9,490
1910	215	119	117	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	a102	July 23, 1906	-	-	-	20.9	15,200
1907	300	-	-	-	9.46	6,880	9.4	6,840
1908	300	-	-	-	6.88	5,010	7.0	5,070
1909	300	-	-	-	13.1	9,490	12.7	9,200
1910	300	-	-	-	-	-	-	-

a Discharge measurement.

304. Owens River near Lone Pine, Calif.

Location.--Lat 36°37'10", long 118°02'05", in NW¼ sec. 23, T. 15 S., R. 36 E., at Mount Whitney highway bridge and 2 miles (revised) northeast of Lone Pine.

Gage.--Staff gage. Altitude of gage is 3,650 ft (from topographic map). Prior to February 1914, at datum 1.83 ft lower.

Average discharge.--9 years (1909-18), 334 cfs.

Extremes.--1909-18: Maximum discharge observed, 2,050 cfs July 7, 1909 (gage height, 10.6 ft, datum then in use); minimum observed, 4 cfs Sept. 28 to Oct. 6, 1916.

Remarks.--Records do not show total runoff from drainage area because of many diversions above station. The Los Angeles aqueduct started diverting out of basin on Feb. 13, 1913. Discharge past this point is wasted into Owens Lake.

Monthly and yearly mean discharge, in cubic feet per second, of Owens River near Lone Pine, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	625	653	437	323	123	948	1,220	288	216	-
1910	329	482	313	800	522	514	186	199	373	221	110	94.2	345
1911	253	409	473	459	688	624	485	139	802	1,460	537	235	547
1912	426	525	514	509	411	345	283	143	291	128	59.1	63.9	308
1913	222	379	398	384	411	344	49.5	10.6	7.67	7.55	50.1	124	198
1914	152	161	365	713	693	465	334	203	837	937	543	120	459
1915	283	439	427	543	510	333	160	231	325	413	95.6	76.3	319
1916	228	412	405	648	880	687	366	263	572	514	168	26.1	429
1917	206	382	402	374	641	490	366	111	205	371	160	74.3	313
1918	11.9	74.1	99.2	68.4	82.8	260	140	12.8	248	95.5	6.37	5.67	91.9
1919	104	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	38,400	36,300	26,900	19,200	7,560	56,400	75,000	17,700	12,900	-
1910	20,200	28,700	19,200	49,200	29,000	31,600	11,100	12,200	22,200	13,600	6,760	5,610	249,000
1911	15,600	24,300	29,100	28,200	38,200	38,400	28,900	8,550	47,700	89,800	33,000	14,000	396,000
1912	26,200	31,200	31,600	31,300	23,600	21,200	16,800	8,790	17,300	7,870	3,630	3,800	223,000
1913	13,600	22,600	24,500	23,600	22,800	21,200	2,950	652	456	452	3,080	7,380	143,000
1914	9,350	9,580	22,400	43,800	38,500	28,600	19,900	12,500	49,800	57,600	33,400	7,140	333,000
1915	17,400	26,100	26,300	33,400	28,300	20,500	9,520	14,200	19,300	25,400	5,880	4,540	231,000
1916	14,000	24,500	24,900	39,800	50,600	42,200	21,800	16,200	34,000	31,600	10,300	1,550	311,000
1917	12,700	22,700	24,700	23,000	35,600	30,100	21,800	6,830	12,200	22,800	9,840	4,430	227,000
1918	732	4,410	6,100	4,210	4,600	16,000	8,330	787	14,800	5,870	392	337	66,600
1919	6,390	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1909	300	2,050	July 7, 1909	-	-	-	495	358,000
1910	300	1,770	Jan. 5, 1910	74	345	249,000	346	250,000
1911	300	1,660	July 22, 1911	100	547	396,000	574	416,000
1912	330	564	Jan.17-20,1912	50	308	223,000	269	195,000
1913	360	560	Jan. 28, 1913	6	198	143,000	171	124,000
1914	390	1,920	Jan. 28, 1914	7	459	333,000	499	361,000
1915	410	729	Feb. 3, 1915	38	319	231,000	310	224,000
1916	440	1,400	Feb. 25, 1916	4.0	429	311,000	424	308,000
1917	460	906	Feb. 27, 1917	4	313	227,000	246	178,000
1918	480	810	June 25, 1918	5.0	91.9	66,600	-	-

305. Lone Pine Creek near Lone Pine, Calif.

Location.--Lat 36°36'10", long 118°04'40", in SE¼ sec. 29, T. 15 S., R. 36 E., about 1,000 ft upstream from division box and 1 mile west of Lone Pine.

Drainage area.--33.4 sq mi.

Gage.--Staff gage. Altitude of gage is 5,850 ft (from topographic map).

Extremes.--1906-11: Maximum discharge observed, 139 cfs July 25, 1906 (discharge measurement); minimum daily, 2.2 cfs Feb. 24, 1906.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	3.0	2.9	3.8	7.2	28.5	73.5	129	68.4	27.2	-
1907	14	8.0	8.0	8.2	6.5	8.8	19.5	30	45.6	61.5	39.5	11.5	21.8
1908	19.6	16.2	8.5	8.0	7.7	8.2	11.3	17.4	32.0	44.0	58.0	24.0	21.2
1909	11.3	7.6	6.3	6.97	8.76	6.10	12.2	31.3	95.0	75.1	43.3	21.6	27.1
1910	9.05	7.81	8.01	6.39	8.04	6.29	10.4	24.5	32.2	31.3	21.2	14.0	14.9
1911	9.23	5.80	5.87	5.56	7.00	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	184	161	234	428	1,750	4,370	7,930	4,210	1,620	-
1907	861	476	492	504	361	541	1,160	1,840	2,710	3,780	2,430	684	15,800
1908	1,210	964	523	492	443	504	672	1,070	1,900	2,700	3,570	1,430	15,500
1909	695	452	387	429	487	375	726	1,920	5,650	4,620	2,660	1,290	19,700
1910	556	464	493	393	447	387	619	1,510	1,920	1,920	1,300	833	10,800
1911	568	345	361	342	389	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second, of Lone Pine Creek near Lone Pine, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	139	July 25, 1906	2.2	-	-	31.1	22,700
1907	300	80	July 4-7,1907	4.0	21.8	15,800	23.0	16,700
1908	300	110	Aug. 3-6,1908	7.0	21.2	15,500	19.6	14,300
1909	300	118	June 29, 1909	5.2	27.1	19,700	27.1	19,700
1910	300	47	May 30, 1910	5.8	14.9	10,800	14.6	10,600
1911	300	-	-	-	-	-	-	-

306. Tuttle Creek near Lone Pine, Calif.

Location.--Lat 36°35'00", long 118°04'40", in NE¼SE¼ sec. 32, T. 15 S., R. 36 E., 50 ft upstream from division box and about 1.8 miles south of Lone Pine.

Drainage area.--14.0 sq mi.

Gage.--Staff gage. Altitude of gage is 3,900 ft (from topographic map).

Extremes.--1906-11: Maximum discharge observed, 85 cfs May 21, 1907 (discharge measurement); minimum daily, 4 cfs for several days in 1909 and 1910.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	5.0	4.8	4.3	5.4	11.1	26.0	54.1	33.1	14.2	-
1907	9.6	9.0	8.0	7.4	8.5	7.4	7.3	9.0	17.1	18.8	15.0	7.1	10.4
1908	7.8	7.6	5.9	5.0	4.5	5.0	5.5	6.0	10	14	15	12	8.20
1909	8	7	7	5.10	6.10	6.0	7.43	11.8	26.6	29.9	12.8	10.2	11.5
1910	7.36	7.3	14.9	10.7	12.7	6.13	8.97	7.94	11.9	11.9	9.39	8.90	9.84
1911	7.29	6.87	6.61	6.4	7.5	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	307	267	264	321	682	1,550	3,330	2,040	845	-
1907	590	536	492	455	472	455	434	553	1,020	1,160	922	422	7,510
1908	480	452	363	307	259	307	327	369	595	861	922	714	5,960
1909	492	417	430	314	339	369	442	726	1,580	1,840	787	607	8,340
1910	453	434	916	658	705	377	534	488	708	732	577	530	7,110
1911	448	409	406	394	417	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	67	July 25, 1906	-	-	-	15.4	11,200
1907	300	85	May 21, 1907	-	10.4	7,510	9.9	7,190
1908	300	21	Aug. 7, 1908	-	8.20	5,960	8.2	6,000
1909	300	36	(a)	4	11.5	8,340	12.2	8,810
1910	300	22	Dec.7-11,1909	4	9.84	7,110	9.08	6,570
1911	300	-	-	-	-	-	-	-

a June 30, July 1, 2, 14, 1909.

307. Owens River at Keeler Bridge, near Lone Pine, Calif.

Location.--Lat 36°34'30", long 118°00'40", in NE¼NW¼ sec. 1, T. 16 S., R. 36 E., downstream from highway bridge and 3.4 miles southeast of Lone Pine.

Gage.--Water-stage recorder and Cipolletti weir. Altitude of gage is 3,640 ft (from topographic map).

Average discharge.--23 years (1927-50), 28.7 cfs.

Extremes.--1927-50: Maximum daily discharge, 1,199 cfs July 9, 1938 (gage height, 7.06 ft); no flow at times.

Remarks.--Almost complete regulation and diversion above station. Major portion of runoff from drainage is diverted out of basin through Los Angeles aqueduct. Discharge at this point is wasted into Owens Lake.

Cooperation.--Records, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

538662 O - 60 - 21

Monthly and yearly mean discharge, in cubic feet per second, of Owens River at Keeler Bridge, near Lone Pine, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	13.5	44.4	9.8	11.1	7.3	108.4	48.7	3.8	49.4	-
1928	5.3	32.9	12.9	12.3	10.6	63.8	31.1	4.7	1.7	.7	.3	1.4	14.8
1929	3.3	5.1	7.3	6.7	6.4	7.0	6.0	4.2	2.7	.7	.7	1.7	4.3
1930	4.0	4.4	5.3	6.4	6.2	6.3	5.6	4.0	11.5	.4	.4	1.1	4.6
1931	3.1	4.11	4.96	5.24	4.75	.63	3.21	2.67	1.43	.39	.26	1.27	2.6
1932	2.60	4.80	4.86	6.50	7.16	5.31	4.16	2.62	2.45	1.31	.26	.89	3.6
1933	2.54	3.75	5.29	6.14	5.95	5.47	4.78	3.56	2.05	.58	.11	.51	3.4
1934	1.90	3.48	4.36	5.75	7.25	7.49	4.81	2.53	2.26	1.10	.81	1.56	3.6
1935	3.17	4.54	5.32	6.70	7.73	7.70	59.6	4.69	1.56	1.25	.39	.94	8.6
1936	2.38	3.92	5.29	6.23	47.84	67.7	63.8	6.80	2.46	17.37	1.93	1.62	18.8
1937	8.66	5.93	7.46	8.27	356.5	93.0	150.8	96.2	67.2	17.3	2.7	13.0	66.7
1938	7.80	5.05	111.92	16.18	12.21	493.38	503	215	765	1,003	428	86.2	305.8
1939	156	160	272	295	182	216	154	25	6.56	4.00	6.26	3.45	123.3
1940	5.60	6.65	8.83	10.22	14.35	13.52	9.56	6.28	3.04	.54	.32	1.21	6.6
1941	3.54	5.14	8.12	9.29	11.58	11.26	12.96	6.78	6.58	11.33	24.49	9.55	10.1
1942	10.84	16.21	26.79	24.87	21.86	18.8	18.08	9.93	4.09	3.46	1.11	.85	13.0
1943	2.03	4.46	9.06	68.34	19.89	19.18	14.54	7.43	4.57	2.35	1.61	2.26	13.0
1944	3.99	6.21	14.22	16.97	18.43	20.02	13.31	8.35	5.40	2.39	1.68	3.04	9.5
1945	4.45	6.86	9.59	11.11	14.14	13.13	11.91	9.03	6.96	4.85	12.87	4.23	9.1
1946	30.6	14.86	19.48	20.7	19.23	16.8	14.98	8.24	4.63	5.25	3.68	2.59	13.4
1947	5.12	12.9	17.83	17.88	18.34	16.93	12.89	9.23	3.95	2.70	1.02	1.12	9.9
1948	2.83	5.86	9.05	9.58	9.59	7.63	7.28	4.44	2.29	.66	.14	.71	4.99
1949	2.56	4.12	5.03	15.3	10.5	9.96	9.02	5.57	2.62	1.42	.63	1.03	5.62
1950	2.49	4.36	6.53	8.82	9.59	9.41	9.04	3.55	1.96	.84	.67	1.83	4.89

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	-	-	-	832	2,467	605	659	448	6,452	2,991	233	2,940	-
1928	326	1,960	793	757	609	3,921	1,849	292	103	42	20	82	10,754
1929	201	301	449	411	354	430	358	257	159	44	43	104	3,111
1930	246	260	324	393	344	386	334	244	684	23	23	66	3,327
1931	188	244	305	322	264	38	191	164	85	24	16	75	1,916
1932	157	285	299	400	412	327	247	161	146	81	16	53	2,584
1933	156	223	325	378	330	336	284	219	122	36	7.0	30	2,446
1934	117	207	268	353	402	460	286	155	134	67	50	93	2,592
1935	195	270	327	412	429	474	3,547	289	93	77	24	56	6,193
1936	147	233	325	383	2,751	4,163	3,798	418	146	1,068	119	96	13,647
1937	532	353	459	508	19,793	5,719	8,971	5,914	4,000	1,064	165	776	48,254
1938	479	300	6,880	995	678	30,329	29,904	13,227	45,500	61,636	26,314	5,130	221,372
1939	9,562	9,512	16,707	18,144	10,123	13,306	9,154	1,543	390	246	385	205	89,277
1940	344	396	543	628	825	831	569	386	181	33	19	72	4,827
1941	217	306	499	571	643	692	771	417	392	696	1,506	568	7,278
1942	666	964	1,647	1,529	1,214	1,155	1,076	610	243	213	68	51	9,436
1943	125	265	557	4,201	1,105	1,179	865	457	272	145	99	134	9,404
1944	245	370	874	1,043	1,060	1,231	792	514	321	147	103	181	6,881
1945	274	408	590	683	785	807	708	555	414	298	791	252	6,565
1946	1,881	884	1,198	1,273	1,068	1,033	892	507	276	323	226	154	9,715
1947	315	768	1,096	1,099	1,018	1,041	767	567	235	165	62	67	7,200
1948	174	348	557	589	552	469	433	273	136	41	9.0	42	3,623
1949	157	245	309	941	581	613	537	343	156	87	39	61	4,069
1950	153	259	401	542	533	578	538	218	116	51	41	109	3,540

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1927	(a)	218	July 20, 1927	-	-	-	28.6	20,707
1928	(a)	250	Mar. 17, 1928	0.1	14.8	10,754	11.9	8,626
1929	(a)	9.5	Dec. 14, 1928	.5	4.3	3,111	4.1	2,990
1930	(a)	174	June 11, 1930	.1	4.6	3,327	4.5	3,232
1931	(a)	5.7	Feb. 6, 1931	.03	2.6	1,916	2.66	1,922
1932	(a)	7.5	Feb. 20, 1932	.11	3.6	2,584	3.51	2,546
1933	(a)	8.8	Dec. 23, 1932	0	3.4	2,446	3.22	2,334
1934	(a)	8.3	Mar. 30, 1934	.65	3.6	2,592	3.86	2,793
1935	(a)	231	Apr. 7, 1935	.15	8.6	6,193	8.43	6,105
1936	(a)	154	Feb.25-27, 1936	1.11	18.8	13,647	19.68	14,286
1937	(a)	610	Feb. 21, 1937	1.1	66.7	48,254	75.4	54,571
1938	(a)	1,199	July 9, 1938	3.96	305.8	221,372	344.7	249,494
1939	(a)	587	Oct.22-23, 1938	.62	123.3	89,277	75.68	54,779
1940	(a)	33	Oct. 14, 1939	0	6.6	4,827	6.29	4,568
1941	(a)	43	Aug. 17, 1941	2.16	10.1	7,278	13.17	9,534
1942	(a)	36	Dec. 16, 1941	0	13.0	9,436	9.82	7,106
1943	(a)	224	Jan. 24, 1943	.76	13.0	9,404	13.74	9,945
1944	(a)	45	Mar. 2, 1944	.91	9.5	6,881	9.18	6,663
1945	(a)	35	Aug. 7, 1945	2.16	9.1	6,565	12.79	9,257
1946	(a)	82	Oct. 13, 1945	1.23	13.4	9,715	10.95	7,928
1947	(a)	30	Dec. 27, 1946	.76	9.9	7,200	8.43	6,102
1948	(a)	10	(b)	.03	4.99	3,623	4.49	3,256
1949	(a)	75	Jan. 7, 1949	.38	5.62	4,069	5.76	4,171
1950	(a)	14	Apr. 15, 1950	.62	4.89	3,540	-	-

a Files of city of Los Angeles, Department of Water and Power.
b Jan. 22-25, Feb. 5-11, 1948.

308. Cottonwood Creek near Olancha, Calif.

Location.--Lat 36°26'20", long 118°04'30", in NW¼SE¼ sec. 21, T. 17 N., R. 36 E., just downstream from intake to Cottonwood powerhouse and 11.2 miles north of Olancha.

Drainage area.--39.9 sq mi; at site used 1906-8, 44.4 sq mi.

Gage.--Water-stage recorder and artificial control. Altitude of gage is 5,100 ft (from topographic map). Prior to Sept. 9, 1908, staff gage at site about 2 miles downstream at different datum. Sept. 9, 1908, to Mar. 31, 1911, Jan. 1, 1914, to Mar. 6, 1921, staff gage, and Mar. 7, 1921, to Oct. 31, 1938, water-stage recorder, at site just upstream from intake to Cottonwood powerhouse at different datum.

Average discharge.--40 years (1906-10, 1914-50), 23.2 cfs.

Extremes.--1906-11, 1914-50: Maximum discharge observed, 434 cfs June 13, 1906 (discharge measurement); minimum daily, 1.2 cfs Aug. 8, 1924.

Remarks.--Cottonwood powerhouse (maximum capacity, 22 cfs) has diverted since Nov. 13, 1908. Records after Oct. 31, 1938, computed as sum of powerhouse diversion and flow past station.

Cooperation.--Records for 1914-50, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	6.2	8.2	10.9	24.2	114	333	225	104	42.4	-
1907	15.9	13.3	12.8	10.0	10.5	12.0	56.3	115	110	67.1	28.8	12.5	38.7
1908	28.0	18.6	15.8	12.0	12.5	22.2	58.1	62.2	48.5	31.2	18.7	18.0	28.8
1909	*21.5	*14.9	*10.2	14.6	15.0	15.4	41.2	158	221	99.2	34.5	19.9	*55.6
1910	12.6	11.0	13.1	14.2	11.9	17.2	47.2	66.7	42.0	20.4	14.3	16.2	23.9
1911	12.8	10.6	11.3	12.8	14.4	14.5	-	-	-	-	-	-	-
1914	-	-	-	12	13	20	48	148	196	79	34	18	-
1915	15	10	10	9	10	11	27	80	114	39	16	10	29.3
1916	9	9	10	15	14	26	86	204	165	56	24	16	52.9
1917	17	13	11	12	11	12	27	76	108	48	23	13	30.9
1918	8.0	7.4	5.9	5.2	5.1	8.0	19.5	43	78	33.0	13.6	10.6	19.8
1919	15.5	9.5	8.4	6.3	6.4	6.9	26.7	86.4	42.9	14.8	6.2	4.8	19.7
1920	5.8	5.6	5.7	5.0	5.3	7.4	13.9	89.6	78.9	25.8	13.9	8.9	22.2
1921	9.2	9.2	7.8	7.4	7.4	10.4	18.0	32.9	44.2	20.7	14.7	10.6	16.0
1922	11.1	9.5	10.5	15.1	7.13	8.23	18.3	170	139	58	25.3	17.3	41.0
1923	13.7	14.9	15.2	14.6	14.4	14.5	21.1	76.2	37.6	19.5	16.0	15.9	22.9
1924	11.6	8.6	7.1	4.3	2.5	2.6	23.6	14.9	4.8	2.2	1.6	1.6	7.1
1925	2.4	3.3	3.2	3.6	3.9	4.4	11.8	28.2	19.7	12.4	7.3	4.0	8.70
1926	4.5	3.9	3.6	2.6	3.9	5.5	21.0	38.4	15.3	8.0	4.7	2.8	9.5
1927	4.4	5.2	7.1	5.3	6.2	10.4	36.0	119	80.4	32.5	12.3	8.2	27.4
1928	7.4	9.9	6.7	5.9	5.8	8.5	15.0	22.3	13.8	5.0	2.5	2.3	8.8
1929	3.5	4.0	3.1	3.1	4.2	5.2	10.1	19.3	10.6	6.2	4.1	3.0	6.4
1930	3.2	3.5	3.5	3.1	3.9	5.2	17.6	36.3	40.8	14.3	7.8	4.4	12.0
1931	5.4	4.7	4.0	3.8	4.9	5.7	9.7	9.0	6.2	2.4	2.8	3.6	5.2
1932	4.2	4.1	5.0	6.4	6.9	9.9	40.7	100.3	94.4	41.7	12.7	8.0	27.9
1933	8.3	6.7	5.2	5.3	6.8	7.9	17.2	25.2	33.5	20.6	10.2	5.1	12.7
1934	6.11	5.2	7.2	7.2	6.60	11.2	29.7	19.2	12.1	6.4	3.7	3.50	9.8
1935	4.6	5.0	5.4	5.5	6.9	6.5	17.0	48.0	52.9	22.7	11.1	7.4	16.1
1936	7.5	6.6	7.1	6.4	8.00	11.0	42.1	90.0	48.8	24.9	14.7	9.3	23.1
1937	10.6	9.8	7.8	9.0	9.8	14.1	31.6	155.9	99.5	41.8	14.5	9.9	34.7
1938	8.8	8.1	13.5	9.0	10.9	15.4	55.0	157.7	149.9	61.7	27.8	15.4	44.5
1939	13.4	10.3	9.6	9.7	10.2	10.9	45.0	53.4	26.8	12.0	8.0	7.4	18.1
1940	9.4	7.3	6.5	8.0	8.9	11.0	35.6	79.2	47.6	18.3	7.6	5.9	20.5
1941	6.2	5.5	6.4	8.8	9.3	11.3	16.8	171	227.8	91.4	35.0	16.5	50.7
1942	12.8	12.7	11.3	11.4	10.3	10.8	28.2	78.4	67.6	27.5	12.8	8.9	24.5
1943	8.3	8.0	6.9	8.0	10.8	12.8	39.6	122.1	75.8	37.2	15.1	8.8	29.6
1944	8.1	7.7	8.0	8.80	8.10	12.7	20.7	93.5	77.6	34.9	13.8	8.70	25.3
1945	8.3	9.1	8.3	7.8	10.3	9.8	29.1	105.9	68.5	37.2	24.7	11.0	27.6
1946	38.1	24.6	15.3	13.0	11.6	15.6	46.0	80.3	37.6	19.4	14.5	9.5	27.3
1947	10.1	11.2	11.0	10.3	10.6	14.2	34.6	65.9	31.6	12.3	7.5	5.3	18.8
1948	7.9	6.6	6.6	5.7	5.2	5.5	11.9	20.1	15.7	7.8	3.3	2.6	8.2
1949	3.5	3.8	3.3	3.2	4.0	4.3	23.4	41.4	23.5	9.8	5.1	3.3	10.7
1950	4.0	5.1	5.0	4.8	5.3	7.3	30.0	30.0	22.8	11.4	5.4	4.6	11.3

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	381	455	670	1,440	2,010	19,800	13,800	6,400	2,520	-
1907	978	791	787	615	583	738	3,350	7,070	6,550	4,130	1,770	748	28,100
1908	1,720	1,110	972	738	719	1,360	3,460	3,820	2,890	1,920	1,150	1,070	20,900
1909	*1,320	*887	*627	898	833	947	2,450	9,720	13,200	6,100	2,120	1,180	*40,300
1910	775	654	806	873	661	1,060	2,810	4,100	2,500	1,250	879	964	17,300

* Revised.

Monthly and yearly runoff, in acre-feet, of Cottonwood Creek near Olancha, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	787	631	695	787	800	892	-	-	-	-	-	-	-
1914	-	-	-	752	696	1,224	2,830	9,100	11,656	4,841	2,060	1,053	-
1915	912	625	593	581	539	656	1,630	4,930	6,768	2,387	1,007	595	21,223
1916	553	535	627	900	823	1,582	5,118	12,519	9,844	3,442	1,511	940	38,394
1917	1,057	758	652	724	611	714	1,628	4,644	6,449	2,971	1,394	783	22,385
1918	490	440	360	319	284	493	1,162	2,643	4,666	1,984	837	632	14,310
1919	954	562	515	388	353	425	1,590	5,309	2,554	913	382	283	14,228
1920	354	334	350	309	302	456	824	5,506	4,693	1,587	854	529	16,098
1921	563	544	477	456	411	641	1,070	2,020	2,630	1,270	902	630	11,614
1922	685	568	646	929	396	506	1,091	10,470	8,255	3,587	1,555	1,030	29,718
1923	840	891	936	897	800	892	1,256	4,686	2,234	1,202	985	950	16,569
1924	713	511	437	266	147	158	1,405	914	286	156	100	100	5,173
1925	145	198	195	220	219	270	701	1,735	1,174	763	454	238	6,312
1926	278	230	224	160	214	339	1,250	2,359	909	490	286	166	6,905
1927	271	310	436	324	345	640	2,141	7,317	4,783	1,998	754	487	19,806
1928	453	590	415	365	335	520	895	1,368	822	308	152	138	6,361
1929	214	235	193	189	232	318	600	1,186	628	380	252	178	4,605
1930	193	209	217	189	216	317	1,045	2,234	2,427	879	477	260	8,663
1931	335	282	249	231	275	351	576	551	368	145	171	212	3,746
1932	259	243	308	390	398	611	2,418	6,166	5,618	2,566	781	477	20,235
1933	513	397	318	328	378	487	1,021	1,549	1,993	1,269	624	305	9,182
1934	376	309	445	441	366	689	1,764	1,182	721	391	230	208	7,122
1935	282	300	334	339	384	398	1,013	2,952	3,148	1,398	680	443	11,671
1936	462	395	435	396	460	677	2,507	5,533	2,906	1,532	902	554	16,759
1937	649	582	481	551	546	866	1,880	9,586	5,920	2,569	890	589	25,109
1938	541	483	832	555	606	944	3,272	9,697	8,917	3,796	1,710	918	32,271
1939	822	612	594	593	567	670	2,682	3,281	1,594	742	487	441	13,085
1940	578	435	398	490	511	676	2,121	4,866	2,831	1,129	467	352	14,854
1941	376	327	399	543	513	692	1,001	10,509	13,553	5,617	2,149	982	36,661
1942	785	757	692	700	574	661	1,680	4,817	4,023	1,687	792	530	17,698
1943	514	478	425	495	604	790	2,354	7,507	4,513	2,287	927	522	21,416
1944	503	458	494	541	466	779	1,228	5,748	4,617	2,144	845	518	18,341
1945	507	542	509	483	568	606	1,731	6,505	4,076	2,285	1,517	652	19,980
1946	2,341	1,458	939	795	647	959	2,735	4,971	2,237	1,193	890	563	19,728
1947	618	665	676	631	591	869	2,063	4,056	1,877	756	464	314	13,580
1948	484	391	402	349	302	335	706	1,235	935	478	205	152	5,973
1949	217	225	204	198	224	262	1,389	2,543	1,398	605	313	198	7,775
1950	246	302	307	292	297	448	1,784	1,842	1,357	698	330	273	8,175

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	a434	June 13, 1906	-	-	-	75.8	55,000
1907	300	a157	June 4, 1907	-	38.7	28,100	40.4	29,400
1908	300	b108	June 2, 1908	-	28.8	20,900	*27.5	*20,000
1909	300,1564	b366	June 3, 1909	*6.5	*55.6	*40,300	54.8	39,700
1910	300	b121	Sept.15, 1910	7	23.9	17,300	23.8	†17,200
1911	-	-	-	-	-	-	-	-
1914	(c)	b275	June 1, 1914	-	-	-	50.2	36,340
1915	(c)	b235	June 1, 1915	6	29.3	21,223	28.8	20,809
1916	(c)	b221	(d)	8	52.9	38,394	54.0	39,146
1917	(c)	b136	June 21, 1917	9	30.9	22,385	29.3	21,207
1918	(c)	b237	June 21, 1918	4.4	19.8	14,310	20.8	15,052
1919	(c)	b135	May 28, 1919	3.2	19.7	14,228	18.3	13,235
1920	(c)	b156	May 20, 1920	2.8	22.2	16,098	22.9	16,646
1921	(c)	110	May 26, 1921	5.0	16.0	11,614	16.5	11,929
1922	(c)	303	May 6, 1922	3.0	41.0	29,718	42.1	30,486
1923	(c)	141	May 12, 1923	11.2	22.9	16,569	21.5	15,564
1924	(c)	100	Apr. 18, 1924	1.2	7.1	5,173	5.6	4,051
1925	(c)	52	May 6, 1925	1.6	8.70	6,312	9.0	6,507
1926	(c)	98	May 4 1926	1.6	9.5	6,905	9.9	7,188
1927	(c)	186	May 16, 1927	3.0	27.4	19,806	28.0	20,246
1928	(c)	51	May 10, 1928	1.7	8.8	6,361	7.6	5,546
1929	(c)	47	May 3, 1929	2.4	6.4	4,605	6.3	4,583
1930	(c)	84	May 24, 1930	2.4	12.0	8,663	12.3	8,909
1931	(c)	21	Apr. 9, 1931	1.68	5.2	3,746	5.10	3,688
1932	(c)	259	May 20, 1932	2.55	27.9	20,235	28.46	20,653
1933	(c)	70	June 6, 1933	3.28	12.7	9,182	12.55	9,086
1934	(c)	44	Apr. 20, 1934	3.03	9.8	7,122	9.55	6,910
1935	(c)	83	May 21, 1935	3.41	16.1	11,671	16.64	12,047
1936	(c)	138	May 4, 1936	4.9	23.1	16,759	23.67	17,180
1937	(c)	280	May 15, 1937	4.48	34.7	25,109	34.89	25,253
1938	(c)	210	May 26, 1938	6.73	44.5	32,271	44.8	32,443
1939	(c)	102	Apr. 21, 1939	-	18.1	13,085	17.2	12,468
1940	(c)	122	May 9, 1940	-	20.5	14,854	20.0	14,547

* Revised.
† Corrected.
a Maximum observed.
b Maximum day.
c Files of city of Los Angeles, Department of Water and Power.
d May 6, 12, 17, 18, 1916.

Yearly discharge, in cubic feet per second, of Cottonwood Creek near Olancha, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	(c)	321	June 5, 1941	-	50.7	36,661	52.2	37,793
1942	(c)	169	May 24, 1942	-	24.5	17,698	23.3	16,881
1943	(c)	180	May 6, 1943	-	29.6	21,416	29.6	21,454
1944	(c)	143	May 23, 1944	-	25.3	18,341	25.4	18,444
1945	(c)	180	May 16, 1945	-	27.6	19,980	32.0	23,162
1946	(c)	162	May 4, 1946	-	27.3	19,728	23.4	16,949
1947	(c)	129	May 5, 1947	-	18.8	13,580	17.8	12,898
1948	(c)	84	Apr. 27, 1948	-	8.2	5,973	7.4	5,343
1949	(c)	114	Apr. 24, 1949	-	10.7	7,775	11.0	7,985
1950	(c)	81	Apr. 26, 1950	-	11.3	8,175	-	-

c Files of city of Los Angeles, Department of Water and Power.

309. Ash Creek near Lone Pine, Calif.

Location.--Lat 36°23'30", long 118°02'20", in NE¼ sec. 11, T. 18 S., R. 36 E., just upstream from forks of creek near mouth of canyon and 15.2 miles south of Lone Pine.

Drainage area.--15.4 sq mi.

Gage.--Staff gage. Altitude of gage is 4,050 ft (from topographic map).

Extremes.--1906-10: Maximum and minimum discharge not determined.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	1.7	3.2	4.5	8.3	14.8	30.6	25.3	5.8	4.0	-
1907	3.0	2.5	2.2	2.5	2.5	2.5	20	39.4	29.4	5.5	3.5	2.5	9.62
1908	4.0	4.5	4.0	4.0	3.7	6.6	10.9	11.5	7.3	3.2	2.2	3.0	5.41
1909	3.0	2.6	3.0	3.2	4.5	6.3	14.0	33.6	49.7	13.2	5.4	3.8	11.9
1910	3.6	3.5	3.5	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	105	178	277	494	910	1,820	1,560	357	238	-
1907	184	149	135	154	139	154	1,190	2,420	1,750	338	215	149	6,980
1908	246	268	246	246	213	406	649	707	434	197	135	179	3,930
1909	184	155	184	197	250	387	833	2,070	2,960	812	332	226	8,590
1910	221	208	215	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	300	-	-	-	-	-	8.8	6,410
1907	300	-	-	-	9.62	6,980	10.0	7,270
1908	300	-	-	-	5.41	3,930	5.1	3,690
1909	300	-	-	-	11.9	8,590	12.0	8,710
1910	300	-	-	-	-	-	-	-

MONO LAKE BASIN

310. 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 of lake, 1 mile south of Mono Lake Post Office.

Gage.--Staff gage. Datum of gage is 6,410.73 ft above mean sea level, datum of 1929. Prior to Oct. 2, 1945, at datum 20.07 ft lower. Gage readings have been reduced to elevations above mean sea level.

Extremes.--1883, 1912-50: Maximum elevation observed, 6,428.1 ft July 18, 1919; minimum observed, 6,410.1 ft Sept. 27, 30, 1950.

Remarks.--Diversion from Mono Lake basin to Owens Lake basin since 1941.

Cooperation.--Gage-height record for 1912-25 furnished by U. S. Forest Service, that for 1926-41 by U. S. Forest Service and city of Los Angeles, Department of Water and Power, and that for 1942-50 by city of Los Angeles, Department of Water and Power.

Elevation on or near last day of month, of Mono Lake near Mono Lake, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1884	10.4	-	-	-	-	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	-	-	23.8	23.8	23.5	23.2
1913	22.9	22.9	-	-	-	-	23.0	23.0	23.3	-	23.1	23.1
1914	22.7	22.5	22.7	23.2	23.5	23.6	23.9	24.2	24.7	25.5	25.0	25.0
1915	24.7	-	24.6	24.7	25.1	25.3	25.3	-	-	-	-	-
1916	-	-	-	-	-	-	-	-	-	26.6	26.4	26.1
1917	-	26.0	-	-	-	26.4	26.4	26.7	26.9	27.0	27.0	26.4
1918	26.3	26.1	-	-	-	-	26.9	26.9	27.1	27.0	26.8	26.7
1919	26.8	-	-	-	-	-	27.6	27.8	27.9	28.1	27.5	26.9
1920	26.6	26.6	-	-	-	-	27.1	27.1	26.9	26.8	26.3	26.0
1921	25.9	25.7	-	-	-	-	26.2	26.2	26.4	26.5	26.0	25.9
1922	25.7	25.6	25.5	-	-	-	-	26.4	26.9	26.8	26.7	26.4
1923	26.3	-	-	-	-	26.9	27.0	26.9	27.1	27.1	26.9	26.5
1924	26.3	26.2	-	-	-	26.5	26.5	-	26.2	25.8	25.5	25.3
1925	24.9	24.7	24.8	-	-	24.9	25.0	24.9	24.9	24.9	24.6	24.3
1926	24.1	24.0	24.2	24.2	24.5	24.6	24.7	24.6	24.5	24.3	24.0	23.4
1927	23.3	23.1	23.5	-	-	23.9	23.9	23.9	23.9	24.0	23.7	23.2
1928	23.3	23.3	23.3	23.3	23.4	23.6	23.6	23.7	23.4	22.9	22.9	22.5
1929	22.2	22.1	22.2	22.2	-	22.3	22.3	22.2	22.2	21.9	21.6	21.1
1930	21.0	20.9	20.8	-	-	20.9	20.9	20.9	20.7	20.5	20.2	19.7
1931	19.7	19.6	19.5	19.5	19.6	19.6	19.6	19.5	19.3	19.1	18.8	18.3
1932	18.0	17.9	17.9	-	-	18.5	18.5	18.4	18.6	18.5	18.0	17.9
1933	17.6	17.7	17.6	-	-	17.8	17.7	17.7	17.5	17.5	17.1	16.6
1934	16.4	16.3	16.4	16.5	16.7	16.7	16.7	16.5	16.4	16.1	15.9	15.4
1935	15.2	15.1	15.1	15.2	15.4	15.5	15.6	15.6	15.6	15.5	15.2	14.9
1936	14.7	14.6	14.8	14.9	15.4	15.5	15.5	15.4	15.5	15.5	15.3	15.1
1937	15.0	14.9	15.0	15.0	15.5	15.6	15.6	15.7	15.8	15.7	15.4	15.1
1938	14.9	14.7	14.9	15.1	15.6	16.2	16.5	17.0	17.5	18.1	18.3	18.2
1939	18.1	18.1	18.3	18.5	18.6	18.7	18.9	18.7	18.6	18.4	18.1	17.7
1940	17.4	17.4	17.3	17.5	17.7	17.8	17.8	17.9	17.9	17.7	17.4	16.9
1941	16.7	16.6	17.0	17.1	17.2	17.3	17.3	17.4	17.5	17.7	17.3	17.1
1942	17.0	16.9	17.2	17.3	17.4	17.6	17.8	17.8	17.8	18.0	17.8	17.5
1943	17.3	17.2	17.2	17.7	17.9	18.1	18.1	18.2	18.3	18.5	18.3	18.1
1944	17.6	17.5	17.6	17.7	17.9	17.9	18.0	17.9	17.7	17.5	17.1	16.7
1945	16.4	16.3	16.3	16.3	16.6	16.7	16.7	16.9	17.2	17.4	17.4	17.2
1946	17.2	17.1	17.4	17.4	17.6	17.9	18.1	18.0	17.8	17.6	17.4	17.0
1947	16.8	17.1	17.3	17.6	17.8	18.0	18.0	-	-	16.9	16.7	16.3
1948	16.0	15.8	15.7	15.7	15.7	15.7	15.6	15.5	15.3	15.0	14.4	14.1
1949	13.9	13.5	13.6	13.6	13.6	13.6	13.6	13.4	13.1	12.8	12.4	12.0
1950	11.6	11.6	11.5	11.4	11.5	11.5	11.5	11.3	11.0	10.7	10.3	10.1

Notes.--Add 6,400 ft to obtain elevation above mean sea level, datum of 1929.
Records prior to September 1934 are published in WSP 765.

311. Rush Creek above Grant Lake, near June Lake, Calif.

Location.--Lat 37°48'20", long 119°06'30", in NW¼NE¼ sec. 4, T. 2 S., R. 26 E., half a mile upstream from Grant Lake and 2½ miles northwest of town of June Lake.

Drainage area.--51.2 sq mi.

Gage.--Water-stage recorder and 15-foot venturi flume. Altitude of gage is 7,150 ft (from topographic map).

Average discharge.--13 years (1937-50), 84.9 cfs.

Extremes.--1937-50: Maximum daily discharge, 711 cfs June 28, 1938; minimum daily, 7.1 cfs Sept. 10, 1939.

Remarks.--Flow regulated for power development by Gem Lake, Lake Agnew, and Waugh Lake (combined capacity, 23,400 acre-ft), and by many natural lakes. No diversion.

Cooperation.--Records, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1937	-	-	53.2	68.5	64.9	48.7	48.4	139.4	170	117.6	89.1	69.3	-
1938	63.1	41.6	51.3	44.5	57.2	81.7	94.8	189.8	336.9	433.4	151	98.2	137.6
1939	89.5	95.0	71.3	52.6	45.5	67.9	106.3	74.9	51.5	32.5	27.0	20.6	62.9
1940	47.6	49.7	46.5	40.7	44.8	75.7	66.7	143.9	149.7	80.2	67.4	65.5	73.2
1941	48.6	46.3	41.1	65.9	58.6	52.3	71.8	185	220.1	323.2	111.7	88.6	109.9
1942	36.1	91.6	89.0	57.6	67.2	60.9	98.3	132.6	216	210.6	112	98.3	105.9
1943	80.5	52.9	50.3	44.9	46.6	63.5	98.1	163.1	176.6	138.1	100.7	51.8	89.2
1944	74.4	64.7	45.9	41.1	58.0	31.1	28.3	119.7	159.2	80.2	26.0	61.7	65.7
1945	90.4	60.8	49.6	40.2	53.2	65.7	79.2	187.3	230.6	235.6	77.8	45.7	101.7
1946	63.7	66.7	66.3	51.3	46.4	58.6	108.1	176.7	165.7	97.0	74.8	64.8	86.9
1947	99.6	89.3	58.3	63.2	72.5	39.5	43.2	68.2	61.0	50.4	67.4	48.6	63.4
1948	71.5	60.7	30.5	31.1	30.8	18.3	23.8	47.8	179	138.5	67.7	69.2	64.1
1949	84.4	49.3	33.5	38.5	54.2	42.7	63.4	94.3	154.3	89.5	94.6	96.4	74.6
1950	65.2	38.5	31.3	27.4	27.4	55.1	57.0	130	140.7	107.4	93.9	36.6	67.9

Monthly and yearly runoff, in acre-feet, of Rush Creek above Grant Lake, near June Lake, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1937	-	-	3,272	4,212	3,601	2,994	2,881	8,571	10,113	7,226	5,477	4,123	-
1938	3,877	2,473	3,156	2,736	3,175	5,024	5,622	11,670	20,043	26,642	9,284	5,840	99,562
1939	5,500	5,650	4,380	3,234	2,526	5,404	6,323	4,604	3,067	1,997	1,659	1,224	45,568
1940	2,927	2,956	2,857	2,505	2,576	4,655	3,971	8,848	8,904	4,933	4,142	3,894	53,168
1941	2,991	2,753	2,525	4,049	3,251	3,212	4,270	11,375	13,096	19,876	6,869	5,271	79,538
1942	2,217	5,450	5,468	3,540	3,731	3,742	5,845	8,154	12,850	12,946	6,887	5,849	76,679
1943	4,951	3,148	3,089	2,761	2,587	3,904	5,837	10,025	10,506	8,488	6,190	3,083	64,569
1944	4,571	3,849	2,822	2,526	3,334	1,910	1,682	7,356	9,469	4,931	1,597	3,669	47,716
1945	5,555	3,615	3,047	2,469	2,952	4,040	4,711	11,513	13,718	14,484	4,785	2,721	73,610
1946	3,915	3,971	4,078	3,156	2,574	3,604	6,431	10,864	9,858	5,960	4,599	3,858	62,868
1947	6,124	5,311	3,582	3,888	4,028	2,427	2,572	4,192	3,628	3,100	4,145	2,893	45,890
1948	4,395	3,612	1,878	1,914	1,772	1,127	1,418	2,940	10,648	8,513	4,162	4,115	46,494
1949	5,188	2,933	2,062	2,365	3,009	2,627	3,773	5,797	9,179	5,501	5,814	5,733	53,981
1950	4,009	2,293	1,925	1,687	1,521	3,391	3,390	7,992	8,372	6,606	5,775	2,180	49,141

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1937	(a)	200	May 29, 1937	-	-	-	81.1	58,706
1938	(a)	711	June 28, 1938	22.2	137.6	99,562	145.9	105,588
1939	(a)	134	Apr. 23, 1939	7.1	62.9	45,568	53.6	38,777
1940	(a)	185	May 24, 1940	12.3	73.2	53,168	72.6	52,696
1941	(a)	485	July 8, 1941	23.5	109.9	79,538	116.6	84,404
1942	(a)	265	July 17, 1942	20.9	105.9	76,679	103.3	74,734
1943	(a)	233	May 27, 1943	20.3	89.2	64,569	89.3	64,624
1944	(a)	194	June 8, 1944	16.7	65.7	47,716	67.1	48,689
1945	(a)	344	July 1,2,1945	16.7	101.7	73,610	101.3	73,355
1946	(a)	207	June 6, 1946	25.5	86.9	62,868	91.1	65,923
1947	(a)	136	Nov. 23, 1946	20.3	63.4	45,890	56.3	40,758
1948	(a)	366	June 26, 1948	11.8	64.1	46,494	64.5	46,791
1949	(a)	206	June 11, 1949	13.9	74.6	53,981	71.9	52,023
1950	(a)	185	June 1,2,1950	7.5	67.9	49,141	-	-

a Filea of city of Los Angeles, Department of Water and Power.

312. Rush Creek near Mono Lake, Calif.

Location.--Lat 38°56'55", long 119°03'30", in NE¼ sec. 13, T. 1 N., R. 26 E., at highway bridge, 0.25 miles upstream from mouth, 3 miles downstream from Walker Creek, and 8 miles southeast of Mono Lake Post Office.

Drainage area.--132 sq mi.

Gage.--Staff gage. Altitude of gage is 6,420 ft (from topographic map). Prior to July 6, 1911, at different datum.

Extremes.--1910-13: Maximum discharge observed, 1,280 cfs June 18, 1911 (gage height, 8.45 ft, datum then in use); minimum observed, 11 cfs Sept. 27-30, Oct. 27 to Nov. 7, 1912.

Remarks.--No regulation. Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	46.7	50.4	82.1	78.6	422	730	968	554	146	47.6	‡270
1912	34.1	29.7	21.5	20.0	16.0	-	-	-	‡331	*145	*76.6	*45.1	-
1913	*39.8	*39.4	-	-	-	-	-	-	191	144	81.8	52.0	-

* Revised.
‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	2,870	3,100	4,560	4,830	25,100	44,900	57,600	34,100	8,980	2,830	‡195,000
1912	2,100	1,770	1,320	1,230	920	-	-	-	‡19,700	*8,900	*4,710	*2,680	-
1913	*2,450	*2,340	-	-	-	-	-	-	11,400	8,850	5,030	3,090	-

* Revised.
‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	360	1,280	June 18, 1911	-	‡270	‡195,000	264	191,000
1912	360,1564	*585	June 5, 1912	-	-	-	-	-
1913	360,1564	444	May 26,27, 1913	-	-	-	-	-
1914	390	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.

313. Lee Vining Creek near Lee Vining, Calif.

Location.--Lat 37°55'50", long 119°09'40", in SE¼ sec. 24, T. 1 N., R. 25 E., 0.3 mile upstream from Gibbs Canyon Creek, 2½ miles upstream from ranger station, and 3 miles southwest of Lee Vining.

Drainage area.--35.2 sq mi.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,330 ft (from topographic map).

Average discharge.--16 years (1934-50), 73.0 cfs.

Extremes.--1934-50: Maximum daily discharge, 503 cfs June 9, 1938 (gage height, 3.07 ft); no flow Nov. 29, 1935.

Remarks.--Some regulation at Ellery Lake for power development. No diversion above station.

Cooperation.--Records, not previously published by Geological Survey, furnished by city of Los Angeles, Department of Water and Power.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1934	-	-	-	-	-	-	53.2	60.4	53.3	26.4	11.1	10.4	-
1935	22.5	25.2	31.4	22.2	15.4	32.9	54.9	108.6	232	128.3	95	67.4	69.8
1936	42.3	20.9	22.2	14.8	16.8	34	89.5	167.3	203.6	163	101.4	65.5	78.6
1937	25.3	24.1	20.8	34.4	29.5	33.6	44.6	146.7	235.1	123.1	85.8	55.6	71.7
1938	30.3	16.6	44.3	25	46.9	63.9	66.6	185.7	382.3	259.5	124.7	111.8	113.3
1939	93.5	111.7	47.1	18.2	20.4	27.3	60.3	109.8	75.4	54.4	63.3	40.1	60.3
1940	22.8	28	35.9	37.5	36.5	19.0	61.3	177.1	240.1	133.8	137.5	97.8	85.6
1941	57.5	55.7	23.3	26.9	18.2	27.5	80.5	183.4	277	190.2	107	40.7	91.0
1942	26.3	32.2	33.6	44.7	28.9	27.9	136.3	120.4	262.6	226	101.1	48.2	90.9
1943	32.7	34.4	100.4	118.9	71.1	30.5	92.3	208.5	248	192.6	86.5	46.2	105.5
1944	36.1	76.7	103.8	87.8	43.2	15.2	24.9	91.9	129.8	95	38.9	31.3	64.7
1945	15.3	22.2	18	35.5	38.6	27.4	41	125.8	214.4	188.1	81.4	42.2	71.0
1946	31.2	30.5	43.9	41.3	49.5	62.7	81.6	150.9	156.7	118.8	63.5	38.3	72.5
1947	12.8	27.9	58.7	35.9	37.5	30.5	45.2	136.1	96.2	43.3	25.1	15.5	47.1
1948	19.5	27.7	26.7	23.4	37.3	12.9	17.2	81.9	166.4	128.1	53.6	30.3	52.2
1949	17.6	10.7	51.1	36.9	37.6	19.3	46	104	118	39.7	14.5	13.9	42.5
1950	8.5	9.3	9.60	21.6	45.5	42.6	61.6	99.9	170	77.4	33.4	40.9	51.5

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1934	-	-	-	-	-	-	3,164	3,711	3,172	1,622	683	617	-
1935	1,386	1,500	1,928	1,362	854	2,022	3,264	6,677	13,803	7,889	5,838	4,012	50,535
1936	2,598	1,246	1,366	912	965	2,087	5,327	10,284	12,112	10,021	6,233	3,897	57,048
1937	1,552	1,436	1,277	2,117	1,639	2,067	2,654	9,017	13,986	7,566	5,274	3,310	51,895
1938	1,864	989	2,725	1,536	2,604	3,930	3,964	11,414	22,745	15,950	7,665	6,648	82,034
1939	5,749	6,642	2,898	1,121	1,134	1,678	3,588	6,748	4,487	3,341	3,893	2,386	43,665
1940	1,404	1,668	2,208	2,306	2,098	1,167	3,647	10,886	14,285	8,223	8,450	5,818	62,160
1941	3,533	3,314	1,432	1,654	1,010	1,692	4,789	11,277	16,478	11,693	6,580	2,421	65,873
1942	1,619	1,917	2,066	2,746	1,607	1,716	8,107	7,401	15,622	13,895	6,212	2,866	65,774
1943	2,010	2,044	6,171	7,310	3,947	1,874	5,491	12,817	14,754	11,842	5,319	2,749	76,328
1944	2,219	4,565	6,379	5,396	2,484	934	1,484	5,651	7,724	5,842	2,391	1,864	46,933
1945	939	1,320	1,108	2,180	2,141	1,686	2,441	7,732	12,754	11,564	5,006	2,512	51,383
1946	1,917	1,815	2,696	2,538	2,748	3,853	4,854	9,279	9,322	7,305	3,902	2,276	52,505
1947	788	1,662	3,608	2,208	2,085	1,872	2,688	8,366	5,721	2,662	1,542	921	34,123
1948	1,199	1,649	1,640	1,439	2,146	794	1,023	5,033	9,902	7,874	3,293	1,802	37,794
1949	1,079	638	3,144	2,267	2,086	1,184	2,752	6,409	7,020	2,439	892	828	30,739
1950	522	552	590	1,328	2,525	2,617	3,667	6,143	10,122	4,762	2,054	2,436	37,316

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1935	(a)	391	June 7, 1935	6.1	69.8	50,535	70.4	50,931
1936	(a)	310	June 22, 1936	0	78.6	57,048	77.3	56,103
1937	(a)	304	June 7, 1937	13.6	71.7	51,895	73.5	53,208
1938	(a)	503	June 9, 1938	12.4	113.3	82,034	126.8	91,745
1939	(a)	157	May 31, 1939	7.7	60.3	43,665	46.5	33,657
1940	(a)	294	June 13-17,1940	11.1	85.6	62,160	89.8	65,160
1941	(a)	389	June 16, 1941	14.0	91.0	65,873	87.3	63,196
1942	(a)	345	June 19, 1942	-	90.9	65,774	97.3	70,397
1943	(a)	501	June 1, 1943	13.4	105.5	76,328	109.5	79,267
1944	(a)	152	June 30, 1944	10.3	64.7	46,933	51.2	37,137
1945	(a)	293	June 30, 1945	9.1	71.0	51,383	75.2	54,444
1946	(a)	221	May 20, 1946	5.0	72.5	52,505	72.0	52,136
1947	(a)	223	May 24, 1947	8.7	47.1	34,123	45.0	32,554
1948	(a)	237	June 26, 1948	8.8	52.2	37,794	52.6	38,166
1949	(a)	167	June 13, 1949	7.0	42.5	30,739	38.0	27,541
1950	(a)	237	June 2,6,1950	2.9	51.5	37,316	-	-

a Files of city of Los Angeles, Department of Water and Power.

314. Lee Vining Creek near Mono Lake, Calif.

Location.--Lat 37°56'30", long 119°07'40", in SE¼SE¼ sec. 17, T. 1 N., R. 26 E., 3.2 miles upstream from mouth, 4 miles south of Mono Lake Post Office, and 5.5 miles downstream from Warren Creek.

Drainage area.--37.5 sq mi.

Supplemental record available.--December 1914 to September 1916, fragmentary daily-discharge record only.

Gage.--Staff gage. Altitude of gage is 7,100 ft (from topographic map).

Extremes.--1910-14: Maximum discharge observed, 750 cfs June 19, 1911 (gage height, 4.9 ft); minimum observed, 17 cfs (corrected) Mar. 2, 1912.

Remarks.--No regulation. Irrigation diversions for less than 100 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	22.6	26.0	33.2	26.0	44.1	95.0	419	423	110	45.8	a108
1912	28.0	25.5	21.0	19.6	18.7	-	-	-	‡189	90.8	51.1	25.6	a52.3
1913	21.9	20.9	17.4	-	-	-	-	114	129	114	81.7	57.6	a51.8
1914	22.6	21.1	20.4	-	-	-	-	‡148	280	306	154	48.3	a95.7
1915	27.6	19.9	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.
a Not previously published; yearly estimate only; some monthly figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	1,390	1,600	1,840	1,600	2,620	5,840	24,900	26,000	6,760	2,730	a78,100
1912	1,720	1,520	1,290	1,210	1,080	-	-	-	‡11,200	5,580	3,140	1,520	a38,800
1913	1,350	1,240	1,070	-	-	-	-	7,010	7,680	7,010	5,020	3,430	a37,500
1914	1,390	1,260	1,250	-	-	-	-	‡9,100	16,700	18,800	9,470	2,870	a69,400
1915	1,700	1,180	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.
a Not previously published; yearly estimate only; some monthly figures not available.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	330	750	June 19, 1911	-	‡108	‡78,100	108	78,400
1912	330	390	June 6,7,1912	-	‡52.3	‡38,800	‡52.3	‡38,000
1913	360	255	May 26,27, 1913	-	‡51.8	‡37,500	‡52.2	‡37,700
1914	390	574	June 20, 1914	-	‡95.7	‡69,400	-	-
1915	410	-	-	-	-	-	-	-
1916	440	-	-	-	-	-	-	-

‡ Not previously published.

WALKER LAKE BASIN

315. Walker Lake near Hawthorne, Nev.

Location.--Lat 38°35', long 118°42', in NE¼NE¼ sec. 2, T. 8 N., R. 29 E., 6 miles (revised) northwest of Hawthorne.

Gage.--Benchmark, at United States Naval Depot, 4,053.41 ft above mean sea level, adjustment of 1912. Prior to Oct. 1, 1931, staff gage at site 12 miles northwest of Hawthorne and Oct. 1, 1931, to Sept. 30, 1932, at present site; gage readings reduced to elevations above mean sea level.

Extremes.--1928-50: Maximum elevation observed, 4,051.8 ft Mar. 13, 1928; minimum observed, 3,999.0 ft Sept. 30, 1950.
An elevation of 4,078.0 ft, adjustment of 1912, was observed Sept. 27, 1908, by Geological Survey.

Remarks.--Elevations after September 1932 determined from benchmark by spirit leveling.

Cooperation.--Records furnished by U. S. Navy Department except those for Mar. 11, 1927, and Mar. 13, 1928, which were furnished by Bureau of Indian Affairs.

Elevation, in feet, of Walker Lake near Hawthorne, Nev.

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
1908		1930-Con.		1935-Con.		1940		1945-Con.	
Sept. 27	4,078.0	June 12	4,044.2	Feb. 5	4,027.8	Jan. 17	4,021.9	May 8	4,013.1
		21	4,044.2	Mar. 4	4,027.6	Feb. 15	4,021.8	June 9	4,013.6
1927		July 1	4,043.7	Apr. 2	4,027.3	Mar. 8	4,021.8	July 3	4,014.2
Mar. 11	4,054.7	9	4,043.6	May 9	4,027.4	May 8	4,021.1	Aug. 12	4,014.3
		16	4,043.45	June 6	4,027.0	June 4	4,020.9	Sept. 7	4,014.0
1928		24	4,043.35	July 9	4,027.15	Aug. 5	4,020.2	Oct. 3	4,013.6
Mar. 13	4,051.8	29	4,043.25	Aug. 10	4,026.7	Sept. 6	4,019.9	Nov. 9	4,013.4
Aug. 8	4,050.2	Aug. 5	4,043.15	Sept.10	4,026.2	Oct. 10	4,019.9	Dec. 3	4,013.1
Sept. 29	4,049.2	12	4,042.95	Oct. 10	4,025.7	Nov. 8	4,019.5		
Oct. 20	4,048.8	21	4,042.85	Nov. 12	4,025.7	Dec. 6	4,019.3	1946	
Nov. 28	4,048.5	27	4,042.75	Dec. 12	4,025.4			Jan. 6	4,013.2
Dec. 11	4,048.2	Sept. 4	4,042.65			1941		Feb. 12	4,013.3
		11	4,042.55	1936		Jan. 3	4,019.1	Apr. 16	4,013.7
1929		18	4,042.3	Jan. 7	4,025.3	Feb. 21	4,019.0	May 13	4,013.6
Feb. 21	4,048.2	25	4,042.2	Feb. 7	4,025.2	Mar. 4	4,019.8	July 8	4,013.4
Mar. 17	4,048.1	Oct. 2	4,042.15	Mar. 13	4,025.2	Apr. 3	4,019.8	Aug. 9	4,013.0
Apr. 10	4,048.0	9	4,042.05	Apr. 14	4,025.3	May 6	4,019.5	Sept. 6	4,012.7
29	4,047.9	15	4,042	May 7	4,025.2	July 10	4,018.8	Oct. 11	4,012.2
May 17	4,047.8	23	4,041.85	June 9	4,024	Sept. 5	4,018.6	Nov. 6	4,011.9
28	4,047.7	29	4,041.75	July 9	4,024.0	Oct. 10	4,018.2		
June 16	4,047.6	Nov. 6	4,041.65	Aug. 3	4,023.7	Nov. 4	4,018.1	1947	
28	4,047.5	Dec. 1	4,041.3	Sept. 4	4,023.0	Dec. 9	4,017.9	Jan. 14	4,011.9
July 19	4,047.2	31	4,041.45	Nov. 6	4,022.3			Feb. 11	4,011.7
31	4,047.0			Dec. 7	4,022.0	1942		Mar. 4	4,011.8
Aug. 15	4,046.75	1931				Jan. 10	4,018.1	May 5	4,011.6
29	4,046.5	Jan. 30	4,041.3	1937		Feb. 9	4,018.5	June 5	4,011.3
Sept. 16	4,046.1	Feb. 28	4,041.2	Jan. 21	4,022.0	Apr. 10	4,018.7	July 8	4,010.9
30	4,045.7	Mar. 31	4,041.1	Feb. 16	4,021.8	May 7	4,018.8	Aug. 13	4,010.4
Oct. 19	4,045.65	Apr. 30	4,040.9	Apr. 7	4,022.2	June 6	4,018.8	Sept. 2	4,010.0
23	4,045.6	May 29	4,040.7	May 4	4,022.1	July 8	4,019.3	Oct. 9	4,009.4
30	4,045.4	June 30	4,040.4	June 2	4,021.9	Aug. 3	4,019.2	21	4,009.1
Nov. 5	4,045.35	July 20	4,040.05	July 6	4,021.9	Sept. 7	4,019.0	Nov. 1	4,009.0
13	4,045.2	Aug. 1	4,039.85	Aug. 11	4,021.3	Oct. 6	4,018.3	Dec. 1	4,008.7
20	4,045.2	Sept. 1	4,039.4	Sept.14	4,020.9	Nov. 9	4,017.9		
27	4,045.1	Oct. 1	4,038.9	Oct. 7	4,020.4	Dec. 7	4,017.6	1948	
Dec. 5	4,045.1	31	4,038.35	Nov. 11	4,020.0			Jan. 7	4,008.3
12	4,045.1	Dec. 1	4,038.0	Dec. 7	4,019.7	1943		Feb. 2	4,008.2
18	4,045.0	31	4,037.8			Jan. 11	4,017.5	Mar. 2	4,008.1
24	4,044.95			1938		Feb. 10	4,017.8	31	4,008.0
31	4,044.95	1932		Jan. 7	4,019.2	Mar. 11	4,017.9	May 3	4,007.7
		Feb. 1	4,037.65	Feb. 8	4,019.6	Apr. 3	4,018.1	June 1	4,007.4
1930		Mar. 1	4,037.4	Mar. 15	4,020.0	May 1	4,018.3	30	4,007.2
Jan. 9	4,044.9	31	4,037.05	21	4,020.0	June 7	4,018.5	Aug. 2	4,007.0
16	4,044.8	May 25	4,037.25	May 10	4,021.0	July 10	4,018.7	Sept. 1	4,006.4
23	4,044.75	June 7	4,037.2	June 3	4,022.6	Aug. 4	4,018.4	30	4,005.8
30	4,044.65	Sept. 24	4,036.0	30	4,024.7	Sept. 6	4,017.8	Oct. 1	4,005.8
Feb. 5	4,044.7			July 1	4,024.7	Oct. 5	4,017.4		
13	4,044.7	1933		Aug. 8	4,025.2	Nov. 8	4,016.9	1949	
20	4,044.7	Jan. 3	4,034.6	Sept. 7	4,024.8			Mar. 31	4,004.3
26	4,044.7	Aug. 11	4,033.4	Oct. 7	4,024.7	1944		Apr. 4	4,004.3
Mar. 5	4,044.7			Nov. 10	4,024.3	Jan. 3	4,016.7	May 9	4,004.3
13	4,044.7	1934		Dec. 14	4,024.5	Feb. 2	4,016.4	July 1	4,004.1
20	4,044.5	Jan. 24	4,031.3			Mar. 2	4,016.4	Aug. 1	4,003.6
27	4,044.55	Mar. 7	4,030.8	1939		Apr. 6	4,015.9	Sept.30	4,002.8
Apr. 3	4,044.45	Apr. 10	4,031.0	Jan. 9	4,024.6	May 11	4,015.8	Oct. 27	4,002.4
10	4,044.45	May 8	4,030.7	Feb. 10	4,024.8	June 6	4,015.6	Dec. 7	4,002.1
17	4,044.4	June 8	4,030.6	Mar. 8	4,024.6	Aug. 7	4,014.9		
24	4,044.4	27	4,030.4	Apr. 5	4,024.8	Sept. 4	4,014.3	1950	
May 1	4,044.3	Aug. 13	4,030.0	May 5	4,024.9	Oct. 26	4,013.7	Jan. 5	4,001.8
9	4,044.3	Sept. 10	4,028.9	June 12	4,024.6	Dec. 5	4,013.2	Feb. 28	4,001.6
15	4,044.25	Oct. 7	4,028.6	July 7	4,024.2			Mar. 30	4,001.4
22	4,044.2	Nov. 5	4,028.2	Aug. 20	4,023.6	1945		May 8	4,001.1
31	4,044.2			Oct. 6	4,022.5	Jan. 12	4,013.0	May 26	4,000.9
June 4	4,044.2	1935		Nov. 7	4,022.4	Feb. 6	4,013.1	June 30	4,000.6
5	4,044.2	Jan. 18	4,027.5	Dec. 15	4,021.9	Mar. 7	4,013.1	Sept.30	3,999.0

† Corrected.

Note.--Record for 1909 published in WSP 720, 735 has been found unreliable on basis of restudy of original data. That record is not published herein and should not be used.

316. Robinson Creek near Bridgeport, Calif.

Location.--Lat 38°12'30", long 119°19'20", in SW¼NW¼ sec. 15, T. 4 N., R. 24 E., at mouth of canyon, 3.5 miles downstream from outlet of Twin Lakes, and 6.2 miles (revised) southwest of Bridgeport.

Drainage area.--40.2 sq mi.

Supplemental records available.--April 1913 to August 1914, fragmentary discharge records and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 6,850 ft (from topographic map).

Extremes.--1910-12: Maximum and minimum discharge not determined.

Remarks.--No diversion above station. Flow partially regulated by gates at outlet of Twin Lakes.

Monthly and yearly mean discharge, in cubic feet per second, of Robinson Creek near Bridgeport, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	6.24	-	-	-	56	106	371	409	177	87.2	-
1912	57.7	21.1	7.79	15.3	30.3	30.4	23.1	35.8	161	135	110	45	56.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	384	-	-	-	3,330	6,520	22,300	25,100	10,900	5,190	-
1912	3,550	1,260	479	941	1,740	1,870	1,370	2,200	9,580	8,300	6,760	2,680	40,700

317. Buckeye Creek near Bridgeport, Calif.

Location.--Lat 38°14'10", long 119°19'10", in SE¼NW¼ sec. 3, T. 4 N., R. 24 E., half a mile downstream from Hot Springs and 5.2 miles (revised) southwest of Bridgeport.

Drainage area.--45.2 sq mi.

Supplementary records available.--April 1913 to September 1914, fragmentary discharge record and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 6,800 ft (from topographic map).

Extremes.--1910-12: Maximum and minimum discharge not determined.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	30.0	-	-	-	49.5	95.9	432	399	115	65.6	-
1912	40.2	35.9	31.8	25.5	27.0	24.7	22.8	50.1	163	90	44	29	48.7

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	1,840	-	-	-	2,950	5,900	25,700	24,500	7,070	3,900	-
1912	2,470	2,140	1,960	1,570	1,550	1,520	1,360	3,080	9,700	5,530	2,710	1,730	35,300

318. Swager Creek near Bridgeport, Calif.

Location.--Lat 38°17'00", long 119°17'50", in NW¼ sec. 23, T. 5 N., R. 24 E., three-quarters of a mile downstream from Yaney Canyon and 4.5 miles (revised) northwest of Bridgeport.

Drainage area.--52.6 sq mi.

Supplementary records available.--April 1913 to September 1915, fragmentary discharge record and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 6,620 ft (from topographic map). Prior to Aug. 24, 1914, at datum 1 ft lower.

Extremes.--1911-12: Maximum and minimum discharge not determined.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	117	44.7	19.2	14.3	-
1912	12.3	11.5	11.2	6.23	12.7	15.3	9.28	19.1	10.8	11	5.5	3.5	10.7

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	6,960	2,750	1,180	851	-
1912	756	684	689	383	730	941	552	1,170	643	676	338	208	7,770

319. 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.

Gage.--Float gage. Datum of gage is at mean sea level.

Extremes.--1926-50: Maximum contents, 44,580 acre-ft June 12, 1938 (elevation, 6,460.7 ft); no contents during fall of 1929, 1930.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam. Storage began Dec. 8, 1923. Dam completed in November 1924. Capacity, 42,460 acre-ft between elevations 6,415 ft (approximate elevation at bottom of reservoir) and 6,460 ft (crest of spillway). Elevation of sill of outlet gate, 6,412 ft. No dead storage. Water is used for irrigation by Walker River Irrigation District. Contents computed from gage readings at 8 a.m. Records prior to October 1931 not previously published.

Cooperation.--Elevations and capacity table furnished by Walker River Irrigation District.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1926	-	-	-	-	-	a27,700	26,860	24,060	a18,260	6,480	1,570	319
1927	1,010	4,500	7,730	11,380	19,790	26,420	28,490	26,220	41,320	41,410	a32,830	26,710
1928	27,200	32,540	35,730	38,950	42,640	42,170	40,270	38,350	36,010	22,030	8,200	-
1929	-	7,900	10,870	13,270	15,970	20,140	18,260	11,380	11,050	5,800	396	-
1930	-	a527	a2,730	4,740	7,550	a10,450	8,970	9,540	8,080	5,020	885	-
1931	1,850	3,780	5,340	7,310	9,970	11,030	10,600	7,120	4,640	1,020	377	321
1932	331	727	2,450	4,960	7,500	17,100	19,300	18,000	34,100	39,700	29,800	21,100
1933	23,300	26,300	27,800	28,200	31,700	40,000	37,900	31,000	30,100	20,300	8,640	4,640
1934	3,630	5,680	9,000	12,130	15,470	21,600	18,700	13,310	12,900	5,680	796	432
1935	989	3,540	6,200	9,160	12,500	17,320	24,560	19,330	30,850	30,000	19,420	16,740
1936	17,490	20,820	24,040	28,820	33,600	35,960	37,040	31,450	42,610	37,870	28,930	23,200
1937	24,040	27,090	30,120	32,590	32,200	34,110	37,590	34,240	38,980	32,960	19,330	13,450
1938	15,320	18,180	29,880	35,570	36,230	30,360	41,580	30,120	42,760	42,170	36,500	30,850
1939	34,110	32,330	31,090	32,200	36,760	40,710	39,260	33,090	26,530	16,900	9,600	5,920
1940	7,940	10,790	13,580	17,920	23,300	30,480	28,700	32,080	39,260	33,350	22,790	18,520
1941	20,070	22,580	25,870	31,700	36,760	35,830	35,830	35,040	41,140	41,140	35,300	29,160
1942	33,480	38,010	40,860	34,640	35,960	43,370	41,580	38,430	41,580	42,760	33,600	28,820
1943	28,470	33,220	38,430	42,020	42,460	43,070	42,920	43,070	41,140	41,880	31,570	24,880
1944	25,210	29,640	33,980	37,040	39,390	40,420	40,710	35,170	32,970	26,640	15,250	10,850
1945	11,630	16,340	21,110	24,450	37,870	42,520	43,520	42,310	42,760	40,420	31,090	24,350
1946	27,900	35,170	41,140	38,710	39,260	42,170	43,520	39,400	35,700	28,360	17,060	11,880
1947	14,290	21,210	28,820	32,970	40,850	43,980	37,460	35,440	33,220	19,700	11,760	8,490
1948	9,540	11,760	15,030	18,440	20,820	22,680	20,620	15,790	18,350	14,730	6,330	3,660
1949	5,330	7,500	9,380	‡11,800	‡16,000	19,880	19,800	18,260	20,070	11,260	4,610	2,000
1950	2,540	5,220	7,980	12,570	17,230	19,800	16,580	12,380	17,320	12,900	5,260	4,640

‡ Not previously published; interpolated.
a Interpolated.
Note.--Contents prior to October 1931 not previously published.

320. 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., 1,500 ft downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles upstream from Sweetwater Creek.

Drainage area.--362 sq mi.

Supplemental records available.--July 1911 to September 1914, fragmentary gage heights and discharge measurements only.

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 Dec. 30, 1938, staff gage, both at present site at datum 2.34 ft lower. January 1 to May 25, 1939, staff gage at present site and datum.

Average discharge.--27 years (1922-24, 1925-50), 125 cfs.

Extremes.--1921-50: 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.--Diversions for irrigation of meadow and pasture lands above station. Since Dec. 8, 1923, regulated by Bridgeport Reservoir (see preceding station).

Monthly and yearly mean discharge, in cubic feet per second, of East Walker River near Bridgeport, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	61.5	62.7	-	-	-	-	-	-	823	519	189	70.4	-
1923	72.8	104	121	90.2	116	171	98.4	244	294	307	138	128	157
1924	99.2	89.3	79.7	88.5	65.8	65.5	57.2	75.8	36.0	20.4	13.3	19.1	59.2
1925	-	-	-	-	-	65.1	136	166	199	160	-	-	-
1926	30.4	24.1	19.2	4.9	5.0	21.2	121	227	285	255	130	82.0	101
1927	31.3	11.4	10.6	2.0	2.0	5.4	83.8	238	293	341	321	203	129
1928	82.3	3.9	4	4	5	79.4	90.1	220	206	289	285	111	116
1929	31.7	2	3	3	4	18.7	51.9	170	142	201	175	53.7	72.0
1930	33.1	26.1	6.6	15.5	21.6	27.5	69.8	82.4	222	167	152	61.4	74.0
1931	7.4	6.6	6.0	6.0	6.4	19.8	30.8	117	104	94.0	32.4	18.2	37.5
1932	21.6	19.5	6.0	6.0	6.1	6.9	148	185	176	242	266	211	108
1933	17.2	8.4	4.13	8.0	8.0	57.5	130	149	279	256	244	107	106
1934	48.0	7.1	6.0	6.0	6.0	22.1	79.9	145	147	157	104	45.3	65.0
1935	34.5	9.7	8.6	8.0	8.0	8.0	104	235	238	232	241	113	104
1936	35.0	6.7	6.0	6.0	7.0	134	193	281	240	341	252	155	139
1937	45.9	14.2	7.0	7.0	171	118	142	313	366	367	303	169	169
1938	27.4	9.0	9.0	9.0	106	268	390	880	1,001	610	374	296	332
1939	105	153	127	72.7	9.0	91.2	166	201	188	204	147	92.6	131
1940	17.7	5.0	5.0	5.1	5.0	19.0	115	217	263	233	221	120	102
1941	26.3	9.0	9.0	9.0	9.3	187	126	330	402	378	252	204	163
1942	36.3	8.2	116	260	108	55.4	269	245	456	416	317	186	207
1943	61.4	20.3	4.9	139	138	131	186	304	457	306	293	181	185
1944	54.2	7.04	6.77	6.59	14.6	154	188	234	235	238	242	129	126
1945	35.6	3.31	6.26	5.00	6.44	25.3	157	356	456	498	319	214	174
1946	44.2	12.0	42.9	162	95.9	93.6	178	307	303	281	266	148	162
1947	26.0	5.00	5.00	4.48	5.43	73.2	170	247	202	260	159	94.5	105
1948	26.2	6.19	6.01	6.79	6.37	13.8	77.0	134	189	208	182	80.6	78.2
1949	16.5	8.05	7.48	8.31	8.60	10.9	115	177	244	208	146	74.0	85.6
1950	25.5	9.51	8.99	.50	.62	30.0	118	179	213	198	160	63.2	84.4

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	3,780	3,730	-	-	-	-	-	-	49,000	31,900	11,600	4,190	-
1923	4,480	6,190	7,440	5,550	6,440	10,500	5,860	15,000	17,500	18,900	8,480	7,620	114,000
1924	6,100	5,310	4,900	5,440	3,780	4,030	3,400	4,660	2,140	1,250	818	1,140	43,000
1925	-	-	-	-	-	4,000	8,090	10,200	11,800	9,840	-	-	-
1926	1,870	1,430	1,180	301	278	1,300	7,200	14,000	17,000	15,700	7,990	4,880	73,100
1927	1,920	678	652	123	111	332	4,990	14,600	17,400	21,000	19,700	12,100	93,600
1928	5,060	232	246	246	288	4,880	5,360	13,500	12,300	17,800	17,500	6,600	84,000
1929	1,950	119	184	184	222	1,150	3,090	10,500	8,450	12,400	10,800	3,200	52,200
1930	2,040	1,550	406	953	1,200	1,690	4,150	5,070	13,200	10,300	9,350	3,650	53,600
1931	451	394	369	369	356	1,220	1,830	7,190	6,190	5,780	1,990	1,080	27,200
1932	1,330	1,160	369	369	351	424	8,810	11,400	10,500	14,900	16,400	12,600	78,600
1933	1,060	500	254	492	444	3,540	7,740	9,160	16,600	15,700	15,000	6,370	76,900
1934	2,950	424	369	369	333	1,360	4,750	8,930	8,770	9,640	6,420	2,700	47,020
1935	2,120	575	530	492	444	492	6,170	14,460	14,180	14,280	14,790	6,750	75,280
1936	2,150	397	369	369	403	8,230	11,510	17,290	14,270	20,960	15,520	9,240	100,700
1937	2,820	847	430	430	9,470	7,270	8,430	19,260	21,800	22,550	18,610	10,070	122,000
1938	1,680	536	553	553	5,910	16,470	23,230	54,110	59,540	37,520	22,970	17,610	240,700
1939	6,480	9,090	7,840	4,470	500	5,610	9,900	12,340	11,200	12,550	9,050	5,510	94,540
1940	1,090	298	307	313	288	1,170	6,860	13,340	15,670	14,300	13,590	7,130	74,360
1941	1,610	536	553	553	518	11,510	7,520	20,270	23,910	23,250	15,520	12,120	117,900
1942	2,230	490	7,130	15,960	6,000	3,410	16,000	15,080	27,130	25,610	19,470	11,090	149,600
1943	3,770	1,210	303	8,560	7,640	8,070	11,080	18,680	27,200	18,810	18,030	10,770	134,100
1944	3,330	419	417	405	842	9,460	11,180	14,400	13,980	14,650	14,900	7,700	91,680
1945	2,190	197	385	307	357	1,550	9,350	21,890	27,110	30,610	19,600	12,740	126,300
1946	2,720	712	2,640	9,990	5,330	5,760	10,610	18,900	18,020	17,280	16,380	8,810	117,200
1947	1,600	298	307	275	302	4,500	10,090	15,200	12,050	15,980	9,760	5,630	75,990
1948	1,610	369	370	417	367	851	4,580	8,230	11,220	12,820	11,170	4,790	56,790
1949	1,020	479	460	511	478	668	6,820	10,870	14,500	12,820	8,960	4,400	61,990
1950	1,560	566	553	31	34	1,840	7,020	10,990	12,700	12,200	9,860	3,760	61,110

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	550	-	-	-	-	-	-	-
1923	570	714	May 22, 1923	54	157	114,000	155	112,000
1924	590	‡a550	July 22, 1924	4	59.2	43,000	-	-
1925	610	‡a513	July 25, 1925	-	-	-	-	-
1926	630	334	June27,28, 1926	2	101	73,100	99.2	71,900
1927	650	491	July 1, 1927	2	129	93,600	133	95,900
1928	670	326	July11-14,1928	-	116	84,000	111	80,700
1929	690	255	July12,13,1929	-	72.0	52,200	74.4	54,000
1930	705	304	June16-18,1930	2	74.0	53,600	70.2	50,800

‡ Not previously published.
a Momentary maximum.

Yearly discharge, in cubic feet per second, of East Walker River near Bridgeport, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1931	720	169	May21,22,1931	6	37.5	27,200	39.8	28,900
1932	735	363	May 21, 1932	6	108	78,600	107	77,600
1933	750	408	Aug.2, 3, 1933	-	106	76,900	109	78,800
1934	765	221	(b)	6	65.0	47,020	64.2	46,500
1935	790	287	Aug.2, 3, 1935	8	104	75,280	104	74,970
1936	810	a510	July 1, 1936	6	139	100,700	140	101,900
1937	830	452	June12-15,1937	7	169	122,000	167	120,700
1938	860	1,220	June 12, 1938	9	332	240,700	361	261,300
1939	880	297	Mar.24-28,1939	9	131	94,540	101	72,820
1940	900	289	June27-30,1940	5	102	74,360	104	75,360
1941	930	‡a652	July 7, 1941	9	163	117,900	173	125,000
1942	960	a674	June 18, 1942	8	207	149,600	200	145,000
1943	980	a1,240	Jan. 22, 1943	4	185	134,100	184	133,000
1944	1010	‡a368	Apr. 8, 1944	5.8	126	91,680	124	90,290
1945	1040	‡a856	July 11, 1945	1.8	174	126,300	179	129,600
1946	1060	325	May 5, 1946	9.7	162	117,200	156	113,300
1947	1090	279	May 7, 1947	3.6	105	75,990	105	76,140
1948	1120	249	June19-20,1948	4.0	78.2	56,790	77.7	56,400
1949	1150	297	June 9, 1949	7.2	85.6	61,990	86.6	62,710
1950	1180	a282	July 25, 1950	.5	84.4	61,110	-	-

‡ Not previously published.
a Momentary maximum.
b July 29 to Aug. 2, 1934.

321. 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., 0.9 mile upstream from head of Strosnider ditch, 12 miles southeast of Mason, and 13½ miles southeast of Yerington.

Gage.--Water-stage recorder. Datum of gage is 4,574.66 ft above mean sea level, datum of 1929.

Extremes.--1947-50: Maximum discharge, 246 cfs May 28, 1947 (gage height, 2.30 ft); minimum, 3.1 cfs Mar. 31, 1948.

Remarks.--Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (see p. 326).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	‡27.2	29.4	72.1	†137	207	176	197	131	94.7	-
1948	37.1	29.7	28.1	25.4	24.4	8.8	64.2	105	142	151	133	72.0	68.6
1949	29.1	24.6	17.2	14	25	21.5	74.3	141.2	193	155	109	61.5	72.2
1950	38.5	24.3	25.2	21.9	15.9	21.9	87.8	155	189	158	124	70.3	77.9

† Corrected.
‡ Not previously published; partly estimated on basis of records for station near Bridgeport.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	‡1,670	1,630	4,430	8,130	12,720	10,490	12,130	8,030	5,640	-
1948	2,280	1,760	1,730	1,560	1,410	540	3,820	6,430	8,480	9,300	8,180	4,290	49,780
1949	1,790	1,460	1,060	861	1,390	1,320	4,420	8,680	11,460	9,500	6,690	3,660	52,290
1950	2,370	1,440	1,550	1,350	881	1,300	5,220	9,560	11,230	9,690	7,630	4,180	56,400

‡ Not previously published; partly estimated on basis of records for station near Bridgeport.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	246	May 28, 1947	-	-	-	‡97.6	‡70,640
1948	1120	197	June 21, 1948	3.4	68.6	49,780	66.5	48,320
1949	1150	239	June 10, 1949	-	72.2	52,290	73.7	53,340
1950	1180	226	May 31, 1950	8.0	77.9	56,400	-	-

‡ Not previously published.

322. East Walker River above Mason Valley, near Mason, Nev.

Location.--Lat 38°51', long 119°05', in SW¼ sec. 4, T. 11 N., R. 26 E., 30 ft downstream from highway bridge and 11 miles southeast of Mason.

Gage.--Water-stage recorder. Altitude of gage is 4,550 ft (from topographic map). Prior to Jan. 6, 1918 staff gage at site half a mile upstream at different datum.

Extremes.--1916-17, 1921-24: Maximum discharge, 1,160 cfs June 29, 1922 (gage height, 4.40 ft); minimum, 28 cfs Feb. 13, 1922.

Remarks.--Diversions for irrigation above station. Slight regulation by Twin Lakes Reservoir and, after Dec. 8, 1923, by Bridgeport Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	-	-	-	-	-	-	-	-	-	-	125	-
1917	232	173	118	81.8	135	180	427	350	654	-	-	-	-
1918	89.5	107	91.4	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	-	-	323	194	79.1	42.7	-
1922	53.7	63.1	78.3	67.4	64.4	102	303	473	815	487	155	73.0	228
1923	†86.8	110	117	94.9	119	193	141	224	233	218	109	105	146
1924	115	105	84.9	102	93	75.4	54.4	51.5	22.0	14.1	6.6	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	-	-	-	-	-	-	-	-	-	-	-	7,440	-
1917	14,300	10,300	7,260	5,030	7,500	11,100	25,400	21,500	38,900	-	-	-	-
1918	5,500	6,370	5,620	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	-	-	19,200	11,900	4,860	2,540	-
1922	3,300	3,760	4,810	4,140	3,580	6,270	18,000	29,100	48,500	29,900	9,530	4,340	165,000
1923	5,340	6,550	7,190	5,840	6,610	11,900	8,390	13,800	13,900	13,400	6,700	6,250	106,000
1924	7,070	6,250	5,220	6,270	5,350	4,640	3,240	3,170	1,310	867	406	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1917	460	a1,030	Apr. 8, 1917	-	-	-	-	-
1918	480	-	-	-	-	-	-	-
1921	530	620	June 15, 1921	-	-	-	-	-
1922	550	1,160	June 29, 1922	-	228	165,000	238	172,000
1923	570	688	May 22, 1923	83	146	106,000	145	105,000
1924	590	-	-	-	-	-	-	-

a Maximum observed.

323. East Walker River near Yerington, Nev.1/

Location.--Lat 38°51', long 119°06', in sec. 5, T. 11 N., R. 26 E., at Ross Ranch, 6 miles upstream from confluence with West Walker River, and 10 miles southeast Yerington.

Gage.--Staff gage. Altitude of gage is 4,530 ft (from topographic map).

Extremes.--1902-8: Maximum discharge observed, 1,700 cfs, Mar. 19, 1907 (gage height, 6.0 ft); minimum not determined.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	113	126	114	101	207	121	-	259	162	20	39	-
1904	69	104	102	68.8	164	214	140	213	582	458	349	187	213
1905	301	226	147	-	-	-	-	57.7	167	107	-	-	-
1906	-	-	-	127	124	210	228	457	690	987	520	169	-
1907	95.0	75.7	184	168	243	364	312	569	779	1,020	564	240	384
1908	164	157	105	152	135	258	171	61.4	62.0	112	-	-	-

1/ Published as "Walker River (East Fork) at Ross Ranch," 1902, as "East Fork of Walker River," 1903, and as "Walker River (East Fork)," 1904.

Monthly and yearly runoff, in acre-feet, of East Walker River near Yerington, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	6,724	7,747	7,010	5,609	12,728	7,200	-	15,412	9,961	1,230	2,321	-
1904	4,243	6,188	6,272	4,230	9,433	13,160	8,331	13,100	34,630	28,160	21,460	11,130	160,300
1905	18,510	13,450	9,039	-	-	-	-	3,548	9,937	6,579	-	-	-
1906	-	-	-	7,810	6,890	12,900	13,600	28,100	41,100	60,700	32,000	10,100	-
1907	5,840	4,500	11,300	10,300	13,500	22,400	18,600	35,000	46,400	62,700	34,700	14,300	279,500
1908	10,100	9,340	6,460	9,350	7,760	15,900	10,200	3,780	3,690	6,890	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1902	85	-	-	-	-	-	-	-
1903	100	‡510	June 12, 1903	-	-	-	-	-
1904	133	696	(a)	60	213	160,300	254	184,600
1905	176	‡321	(b)	-	-	-	-	-
1906	212	1,230	July 8, 1906	-	-	-	322	235,000
1907	250	1,700	Mar. 19, 1907	75.7	384	279,500	390	284,000
1908	250	375	Mar.18-21,1908	-	-	-	-	-

‡ Not previously published.

a June 22, 23, July 22, 1904.
b June 20, 21, 23, 24, 1905.

324. East Walker River near Mason, Nev.

Location.--Lat 38°52'30", long 119°08'30" in sec. 26, T. 12 N., R. 25 E., 50 ft downstream from highway bridge, 2½ miles above confluence with West Walker River, and 8 miles (revised) south of Mason.

Drainage area.--1,230 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,480 ft (from topographic map). Prior to July 1, 1914, at site 50 ft downstream at unknown datum.

Extremes.--1910-16: Maximum discharge observed (revised), 1,590 cfs June 20, 1911 (gage height, 9.50 ft); no flow Aug. 6, 1913.

Remarks.--Diversions for irrigation of about 10,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	90.5	87.4	168	216	574	405	1,050	991	218	83.0	-
1912	121	118	64.1	80.3	*97.4	82.1	21.5	17.7	75.4	57.0	33.7	‡34.3	‡66.8
1913	-	-	-	-	-	-	-	-	-	‡20.7	67.5	63.1	-
1914	46.7	106	64.8	296	246	305	491	758	736	613	263	83.6	335
1915	115	108	80.3	85.4	102	129	176	87.8	161	183	8.44	34.3	106
1916	33.5	56.9	89.3	79.2	172	294	334	251	282	257	52.7	46.4	162

* Revised.
‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	5,560	5,370	9,330	13,300	34,200	24,900	62,500	60,900	13,400	4,940	-
1912	7,440	7,020	3,940	4,940	*5,610	5,050	1,280	1,090	4,490	3,500	2,070	‡2,040	‡48,500
1913	-	-	-	-	-	-	-	-	-	‡1,270	4,150	3,750	-
1914	2,870	6,310	3,980	18,200	13,700	18,800	29,200	46,600	43,800	37,700	16,200	4,970	242,000
1915	7,070	6,430	4,940	5,250	5,660	7,930	10,500	5,400	9,580	11,300	519	2,040	76,600
1916	2,060	3,390	5,490	4,870	9,890	18,100	19,900	15,400	16,800	15,800	3,240	2,760	118,000

* Revised.
‡ Not previously published; partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	‡1,590	June 20, 1911	-	-	-	341	247,000
1912	330	244	July 20, 1912	6	‡66.8	‡48,500	-	-
1913	360	a326	Aug. 23, 1913	-	-	-	-	-
1914	390	1,470	Jan. 26, 1914	.5	335	242,000	341	248,000
1915	410	374	July 5, 1915	1.5	106	76,600	95.6	69,100
1916	440	528	Mar. 29, 1916	29	162	118,000	-	-

‡ Not previously published.
a Maximum observed during period July to September.
Note.--Daily discharge for Feb. 18-22, 1912, shown on page 148, WSP 330, has been revised to 110, 140, 120, 110, and 100 cfs, respectively.

325. East Fork West Walker River near Bridgeport, Calif.

Location.--Lat 38°21'30", long 119°26'30", NW¼NW¼ sec. 22, T. 6 N., R. 23 E., 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.

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.--6 years (1944-50), 43.8 cfs.

Extremes.--1910, 1944-50: 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.--Small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	195	200	82.7	34.9	-	-
1945	17	21	18.9	20	38.9	23.7	67.8	145	218	160	47.8	25.1	67.0
1946	23.4	25.5	22.8	21.4	19.1	28.5	75.5	147	140	69.2	28.6	21.3	51.9
1947	21.0	25.3	21.5	18.2	21.3	29.6	43.2	128	90.9	36.9	19.1	14.5	39.2
1948	12.7	12.5	12	12	12.2	16.2	28.1	49.5	124	62.8	19.5	12.7	31.2
1949	9.06	9.84	9.1	9.3	11.6	13.6	51.8	103	122	37.4	17.4	12.2	33.9
1950	13.1	13.3	11.8	15.0	17.2	17.1	42.3	98.2	149	59.9	22.4	16.9	39.7

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	12,000	11,900	5,080	2,150	-	-
1945	1,050	1,250	1,160	1,230	2,160	1,460	4,030	8,940	12,980	9,830	2,940	1,490	48,520
1946	1,440	1,520	1,400	1,320	1,060	1,750	4,490	9,040	8,310	4,250	1,760	1,270	37,610
1947	1,290	1,510	1,320	1,120	1,180	1,820	2,570	7,840	5,410	2,270	1,180	863	28,370
1948	778	746	736	738	700	994	1,670	3,040	7,400	3,860	1,200	754	22,620
1949	557	586	559	569	643	839	3,080	6,340	7,270	2,300	1,070	724	24,540
1950	803	794	726	924	956	1,050	2,520	6,040	8,880	3,680	1,380	1,000	28,750

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	330	-	-	-	-	-	-	-
1945	1060	660	Feb. 2, 1945	-	67.0	48,520	68.3	49,420
1946	1060	231	May 20, 1946	-	51.9	37,610	51.6	37,370
1947	1090	218	May 22, 1947	12	39.2	28,370	36.6	26,510
1948	1120	218	June 25, 1948	-	31.2	22,620	30.4	22,060
1949	1150	271	June 10, 1949	6.6	33.9	24,540	34.7	25,160
1950	1180	283	May 31, 1950	9.6	39.7	28,750	-	-

326. 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., 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.

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.--12 years (1938-50), 245 cfs.

Extremes.--1938-50: Maximum discharge, 2,490 cfs June 9, 1938 (gage height, 5.90 ft, present datum), from rating curve extended above 1,600 cfs; minimum, 4.0 cfs Nov. 18, 1948, result of freezeup.
Maximum discharge known, 5,800 cfs Dec. 11, 1937, by slope-area determination of peak flow.

Remarks.--Station is above diversions except for a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown), 7 miles upstream. Records not equivalent to those for West Walker River near Coleville (see following station).

538662 O - 60 - 22

Monthly and yearly mean discharge, in cubic feet per second, of West Walker River below East Fork, near Coleville, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	600	1,166	1,757	999	319	115	-
1939	109	75.5	62.0	60	60	111	445	502	349	107	47.7	46.4	165
1940	77.1	42.5	32.4	45.0	51.7	133	346	1,025	1,025	290	82.4	48.2	267
1941	38.2	35.7	38.4	49.8	53.3	90.5	209	1,003	1,191	713	175	74.0	307
1942	53.0	82.8	165	100	88.4	109	341	648	1,283	915	187	65.2	337
1943	46.5	64.8	63.1	95.4	83.0	153	471	940	925	565	141	73.4	303
1944	48.0	43.1	39.5	40.1	39.0	56.0	159	665	657	370	87.9	42.3	189
1945	34.4	51.8	52.4	55.5	126	80.4	308	949	1,183	710	151	75.3	315
1946	85.5	119	104	96.4	80.7	120	441	865	790	341	93.5	59.5	269
1947	66.1	65.7	66.0	59.7	72.4	128	284	812	461	151	63.2	29.5	189
1948	50.7	45.1	34.5	25	32.2	36.3	128	481	838	357	80.2	33.1	178
1949	24.3	25.9	23.1	23.4	27.9	37.2	341	755	734	175	60.0	33.7	189
1950	32.5	35.9	30.6	32.5	45.8	64.5	310	772	957	346	77.5	52.9	230

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	-	35,700	71,720	104,500	61,410	19,590	6,830	-
1939	6,670	4,490	3,810	3,690	3,330	6,850	26,480	30,840	20,770	6,550	2,930	2,760	119,200
1940	4,740	2,530	1,990	2,770	2,980	8,210	20,570	63,010	60,980	17,860	5,070	2,870	193,600
1941	2,350	2,130	2,360	3,060	2,960	5,560	12,460	61,660	70,860	43,870	10,760	4,410	222,400
1942	3,260	4,930	10,150	6,150	4,910	6,690	20,310	39,870	76,370	56,280	11,480	3,880	244,300
1943	2,860	3,860	3,880	5,860	4,610	9,420	28,050	57,810	55,030	34,760	8,700	4,370	219,200
1944	2,950	2,570	2,430	2,460	2,250	3,450	9,460	42,100	39,090	22,770	5,410	2,520	137,500
1945	2,120	3,080	3,220	3,420	7,020	4,940	18,320	58,320	70,400	43,650	9,300	4,480	228,300
1946	5,260	7,080	6,410	5,930	4,480	7,360	26,260	54,400	47,010	20,970	5,750	3,540	194,400
1947	4,060	3,910	4,060	3,670	4,020	7,860	16,900	49,940	27,460	9,280	5,880	1,750	136,800
1948	3,120	2,680	2,120	1,540	1,850	2,230	7,650	29,610	49,840	21,950	4,930	1,970	129,500
1949	1,490	1,540	1,420	1,440	1,550	2,290	20,300	46,440	43,680	10,770	3,690	2,000	136,600
1950	2,000	2,140	1,880	2,000	2,540	3,960	18,470	47,460	56,960	21,280	4,760	3,150	166,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30				Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	860	a2,490	June 9, 1938	-	-	-	-	-
1939	880	944	May 29, 1939	35	165	119,200	157	113,500
1940	900	1,690	May 25, 1940	22	267	193,600	263	191,200
1941	930	2,040	June 20, 1941	20	307	222,400	323	233,900
1942	960	1,900	July 5, 1942	46	337	244,300	327	236,500
1943	980	2,110	June 1, 1943	39	303	219,200	299	216,600
1944	1010	1,360	June 8, 1944	30	189	137,500	190	137,900
1945	1040	1,880	June 22, 1945	31	315	228,300	330	238,600
1946	1060	1,470	May 20, 1946	42	269	194,400	259	187,700
1947	1090	1,360	May 3, 1947	25	189	136,800	183	132,700
1948	1120	1,250	May 26, 1948	-	178	129,500	174	126,000
1949	1150	1,500	May 27, 1949	18	189	136,600	191	138,200
1950	1180	1,960	June 1, 1950	26	230	166,600	-	-

a Maximum during period April to September.

327. West Walker River near Coleville, Calif.1/

Location.--Lat 38°30'50", long 119°27'15", in NE¼ sec. 28, T. 8 N., R. 23 E., just downstream from Rock Creek (Ross Canyon), at head of Antelope Valley, 5 miles southeast of Coleville, and 10 miles downstream from East Fork.

Drainage area.--245 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (from topographic map). Prior to July 31, 1908, staff gage at site about 1,600 ft upstream at different datum. Mar. 1, 1909, to Aug. 31, 1910, staff gage, and June 18, 1915, to Aug. 15, 1919, water-stage recorder at site 1,000 ft downstream at different datums.

Average discharge.--28 years (1902-7, 1909-10, 1915-37), 279 cfs.

Extremes.--1902-10, 1915-38: Maximum discharge, 6,500 cfs Dec. 11, 1937 (gage destroyed by flood), by slope-area determination of peak flow; minimum, 5 cfs Dec. 3, 1924, Aug. 27, 1931.

Remarks.--Station is above all diversions except a few small ranch ditches. Very slight regulation from storage in Poor Lake Reservoir (capacity unknown) 17 miles upstream. Records not equivalent to those for West Walker River below East Fork, near Coleville (see preceding station).

Cooperation.--Records for 1909-10 furnished by Stone & Webster Engineering Corp.

1/ Published as West Fork of Walker River 1903, 1905-8, and as Walker River (West Fork), 1904.

Monthly and yearly mean discharge, in cubic feet per second, of West Walker River near Coleville, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	‡67	83	75	69	79	105	246	888	1,512	402	143	75	‡312
1904	67	77	67	62.7	131	187	384	919	1,188	785	332	172	364
1905	299	125	85.7	75.3	86.1	133	266	558	791	334	107	64.1	244
1906	59.4	58.1	61.9	77.6	81.6	105	360	1,140	2,050	2,180	506	192	573
1907	98.5	95.6	94.5	95.7	132	380	523	1,150	1,960	2,480	685	269	664
1908	165	140	119	116	102	165	336	548	693	460	-	-	-
1909	-	-	-	-	-	75.8	323	873	1,630	830	232	87.8	-
1910	74.2	121	110	87.1	85.0	243	636	1,030	991	381	122	‡75	‡330
1915	-	-	-	-	-	-	-	-	-	744	161	67.1	-
1916	58.0	48.0	45.0	80.0	88.1	201	476	827	1,200	743	253	107	344
1917	159	103	69	35	74	93	342	667	1,520	850	220	98.1	353
1918	72.5	69.1	44	53.7	49.9	80.5	338	598	1,290	362	*121	114	*266
1919	182	113	105	89.4	94	108	357	1,040	609	189	77.2	58	253
1920	56.7	68.2	71	73.6	76.8	95.4	202	810	918	275	104	73	235
1921	85.6	88.3	66.9	63.3	102	179	296	747	1,340	533	155	80.3	311
1922	58.7	53.3	47.3	47.7	50.8	58.9	133	1,060	1,810	811	188	80.3	368
1923	68.9	67.4	72.6	62.9	61.3	119	*253	*907	914	758	175	98.1	*298
1924	90.8	55.0	44.5	41.9	46.9	47.1	157	469	106	26.9	17.4	16.1	93.6
1925	25.5	36.8	31.5	38.1	58.1	111	309	951	978	549	145	60.7	275
1926	59.9	54.3	47.9	42.7	46.9	95.7	477	717	410	101	40	29.9	177
1927	28.2	45.3	64.0	60.3	82.5	131	318	918	1,370	661	167	57.7	326
1928	39.7	92.3	60.4	52.2	53.8	123	237	876	524	144	42.6	30.1	190
1929	30.6	32.2	28.8	32	32	58.7	125	624	529	217	57.9	31.6	151
1930	27.8	25.4	31.1	26.9	43.9	74.9	278	461	877	249	73.6	39.7	184
1931	42.6	36.7	32.1	32.1	36.7	53.6	196	466	188	46.7	27.1	21.1	98.6
1932	25.6	29.7	35	44.3	70	93.8	276	773	1,180	611	140	64.0	279
1933	41.1	35.8	30.1	35	35	42.1	157	316	947	269	54.8	32	166
1934	28.1	34.6	37.6	35.9	51	179	324	394	319	103	36.6	29.7	131
1935	38.8	53.5	40.9	43.7	47.8	64.8	310	739	1,226	465	116	66.3	268
1936	49.1	54	43.0	52.2	60.8	128	424	896	962	515	119	57.5	280
1937	51.7	39.5	37.7	30	40	90.5	242	1,094	1,122	399	110	46.6	276
1938	41.7	42	330	75	75	100	-	-	-	-	-	-	-

* Revised.
‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	‡4,120	4,939	4,612	4,243	4,387	6,456	14,640	54,600	89,970	24,720	8,763	4,463	‡225,900
1904	4,120	4,582	4,120	3,855	7,535	11,500	22,850	56,510	70,690	48,270	20,410	10,240	264,700
1905	18,380	7,438	5,269	4,630	4,782	8,178	15,830	34,310	47,070	20,540	6,579	3,814	176,800
1906	3,652	3,457	3,806	4,770	4,530	6,460	21,400	70,100	122,000	134,000	31,100	11,400	416,700
1907	6,060	5,690	5,810	5,880	7,330	23,400	31,100	70,700	117,000	152,000	42,100	16,000	483,100
1908	10,100	8,330	7,320	7,130	5,870	10,100	20,000	33,700	41,200	28,300	-	-	-
1909	-	-	-	-	-	4,660	19,200	53,700	97,000	51,000	14,300	5,220	-
1910	4,560	7,200	6,760	5,360	4,720	14,900	37,800	63,300	59,000	23,400	7,500	‡4,460	‡239,000
1915	-	-	-	-	-	-	-	-	-	45,700	9,900	3,990	-
1916	3,570	2,860	2,770	4,920	5,070	12,400	28,300	50,800	71,400	45,700	15,600	6,370	250,000
1917	†9,780	†6,130	†4,240	†2,150	†4,110	†5,720	20,400	41,000	90,400	†52,200	13,500	5,840	†255,000
1918	4,460	4,110	2,710	3,300	2,770	4,950	20,100	36,800	76,800	22,300	*7,460	6,780	*193,000
1919	11,200	6,720	6,460	5,500	5,220	6,640	21,200	64,000	36,200	11,600	4,750	3,450	183,000
1920	3,490	4,060	4,370	4,530	4,420	5,870	12,000	49,800	54,600	16,900	6,390	4,340	171,000
1921	5,260	5,250	4,110	3,890	5,660	11,000	17,600	45,900	79,700	32,800	9,530	4,780	225,000
1922	3,610	3,170	2,910	2,930	2,820	3,620	7,910	65,200	108,000	49,900	11,600	4,780	266,000
1923	4,240	4,010	4,460	3,870	3,400	7,320	*15,100	*55,800	54,400	46,600	10,800	5,840	*216,000
1924	5,580	3,270	2,740	2,580	2,700	2,900	9,340	28,800	6,310	1,650	1,070	958	67,900
1925	1,570	2,190	1,940	2,340	3,230	6,820	18,400	58,500	58,200	33,800	8,920	3,610	200,000
1926	3,680	3,230	2,950	2,630	2,600	5,880	28,400	44,100	24,400	6,210	2,460	1,780	128,000
1927	1,730	2,700	3,940	3,710	4,580	8,060	18,900	56,400	81,500	40,600	10,300	3,430	236,000
1928	2,440	5,490	3,710	3,210	3,090	7,560	14,100	53,900	31,200	8,850	2,620	1,790	138,000
1929	1,880	1,920	1,770	1,970	1,780	3,610	7,440	38,400	31,500	13,300	3,560	1,880	109,000
1930	1,710	1,510	1,910	1,650	2,440	4,610	16,500	28,300	52,200	15,300	4,530	2,360	133,000
1931	2,620	2,180	1,970	1,970	2,040	3,300	11,700	28,700	11,200	2,870	1,670	1,260	71,500
1932	1,570	1,770	2,150	2,720	4,030	5,770	16,400	47,500	70,200	37,600	8,610	3,810	202,000
1933	2,530	2,130	1,850	2,150	1,940	2,590	9,340	19,400	56,400	16,500	3,370	1,900	120,000
1934	1,730	2,060	2,310	2,210	2,830	11,010	19,260	24,210	18,990	6,340	2,250	1,770	94,970
1935	2,380	3,190	2,520	2,690	2,660	3,980	18,430	45,420	72,970	28,600	7,130	3,940	193,900
1936	3,020	3,210	2,650	3,210	3,490	7,840	25,220	55,110	57,220	31,650	7,300	3,420	203,300
1937	3,180	2,350	2,320	1,840	2,220	5,570	14,390	67,270	66,750	24,530	6,760	2,770	200,000
1938	2,570	2,500	20,290	4,610	4,170	6,150	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second, of West Walker River near Coleville, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100	a2,030	June 1, 9, 1903	-	‡312	‡225,900	311	225,100
1904	133	a2,100	May 25, 1904	60	364	264,700	389	282,900
1905	176	a1,160	(b)	59	244	176,800	216	156,600
1906	212	a3,300	July 3, 4, 1906	44	573	416,700	582	423,000
1907	250	a4,170	July 3, 1907	85	664	483,100	675	491,000
1908	250	a1,050	June 13, 1908	-	-	-	-	-
1909	300	a2,220	June 4, 5, 1909	-	-	-	-	-
1910	300	a1,680	(c)	-	‡330	‡239,000	-	-
1915	410	-	-	-	-	-	-	-
1916	440	1,830	June 17, 1916	19	344	250,000	359	261,000
1917	460	2,400	June 17, 1917	-	353	†255,000	341	247,000
1918	480,1514	2,280	June 14, 1918	30	*266	*193,000	*285	*205,000
1919	510	2,180	May 29, 1919	50	253	183,000	236	170,000
1920	510	1,500	May 18, 1920	51	235	171,000	240	174,000
1921	530	2,710	June 12, 1921	-	311	225,000	305	221,000
1922	550	2,640	June 5, 1922	-	368	266,000	372	270,000
1923	570,1514	1,770	June 11, 1923	34	*298	*216,000	304	220,000
1924	590	856	May 9, 1924	14	93.6	67,900	85.5	62,000
1925	610	1,660	May 27, 1925	18	275	200,000	281	204,000
1926	630	1,430	May 20, 1926	25	177	128,000	175	127,000
1927	650	2,350	June 16, 1927	24	326	236,000	331	239,000
1928	670	1,480	May 26, 1928	27	190	138,000	182	132,000
1929	690	1,370	June 16, 1929	23	151	109,000	150	119,000
1930	705	1,450	June 12, 1930	-	184	133,000	186	135,000
1931	720	870	May 7, 1931	14	98.6	71,500	96.7	70,200
1932	735	2,020	June 26, 1932	21	279	202,000	280	203,200
1933	750	2,120	June 14, 1933	-	166	120,000	165	119,700
1934	765	750	June 18, 1934	24	131	94,970	134	96,960
1935	790	1,950	June 13, 1935	27	268	193,900	269	194,700
1936	810	1,540	June 23, 1936	27	280	203,300	279	202,300
1937	830	2,200	May 29, 1937	-	276	200,000	300	217,500
1938	860	6,500	Dec. 11, 1937	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published.

a Maximum observed.
b June 13, 14, 20, 1905.
c May 25, June 1, 1910.

328. 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.

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.--1931-50: 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. Revised capacity table was put into use Oct. 1, 1938. Records herein show usable contents above lowest practical elevation (4,972.3 ft) for diversion through outlet tunnel. Contents computed from gage readings at 6 p.m.

Cooperation.--Elevations furnished by Walker River Irrigation District.

Contents, in acre-feet, on last day of month, of Topaz Reservoir near Topaz, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932	476	1,350	4,220	7,560	12,600	18,500	19,400	31,900	44,600	40,500	24,300	15,700
1933	15,400	18,100	21,400	25,900	30,000	34,400	33,600	28,400	37,700	25,200	10,300	4,890
1934	‡4,410	‡6,170	‡10,940	‡15,380	‡19,310	22,270	22,220	19,480	21,050	9,370	3,670	1,180
1935	‡1,190	5,160	‡9,480	‡14,550	‡20,080	‡25,400	29,510	31,520	43,440	37,080	20,220	‡14,110
1936	13,810	‡17,620	21,240	25,660	‡32,340	35,460	38,160	38,520	44,180	36,360	23,100	18,680
1937	‡17,500	‡19,320	‡22,030	‡25,600	‡33,570	‡37,740	41,130	50,930	51,670	36,810	20,810	10,660
1938	‡10,710	11,860	28,460	‡33,370	‡40,140	‡40,110	‡45,300	52,220	54,300	52,780	46,020	36,270
1939	a36,750	42,180	46,510	50,220	53,700	54,350	57,050	53,800	45,910	28,800	15,070	8,750
1940	10,520	13,000	16,140	21,440	26,760	32,190	33,510	51,700	59,440	42,590	22,930	14,250
1941	13,350	16,490	21,240	26,450	31,080	36,180	34,780	54,020	60,240	56,530	42,180	28,290
1942	31,440	38,290	46,540	45,910	47,150	54,460	59,900	54,460	59,970	59,320	41,630	30,760
1943	26,430	32,960	39,870	49,050	57,750	59,530	59,320	59,670	60,080	58,020	38,660	26,610
1944	27,210	30,290	34,320	38,780	43,620	49,420	50,440	56,820	58,410	45,910	21,490	15,250
1945	‡14,530	‡19,040	25,040	30,460	41,470	49,200	59,670	57,930	60,080	57,840	41,270	30,540
1946	34,600	43,830	53,400	54,820	55,810	59,320	59,440	57,950	58,750	46,920	25,210	15,320
1947	19,720	28,220	35,560	40,570	46,160	52,250	47,730	59,440	54,240	30,160	15,560	9,780
1948	9,920	13,270	16,800	20,340	23,790	24,810	22,440	25,090	43,350	34,780	18,470	8,830
1949	7,930	9,790	12,460	14,610	18,580	‡22,020	23,480	39,170	48,150	28,050	13,760	5,080
1950	4,300	6,260	9,200	14,710	19,150	23,730	21,580	33,200	53,180	41,110	23,770	16,270

‡ Not previously published; contents interpolated.
a Contents by capacity table used beginning Oct. 1, 1938; contents Sept. 30, 1938, by capacity table used since Oct. 1, 1938, was 36,460 acre-ft.

329. West Walker River at Hoye Bridge, near Wellington, Nev.1/

Location.--Lat 38°44', long 119°26', in SE¼ sec. 17, T. 10 N., R. 23 E., at Hoye Bridge, 2 miles upstream from head of Saroni Canal, and 4 miles southwest of Wellington.

Drainage area.--504 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,920 ft (from topographic map). Prior to Sept. 1, 1910, staff gage at different datum. July 1, 1920, to Sept. 30, 1923, water-stage recorder at site 3 miles downstream, 1 mile downstream from Saroni Canal, at different datum.
Supplemental staff gage, July 1, 1920, to Sept. 30, 1923, on Saroni Canal 1 mile downstream from head.

Average discharge.--10 years (1920-23, 1925-32), 207 cfs.

Extremes.--1910, 1920-32: Maximum discharge, 2,180 cfs June 6, 1922; minimum, 6 cfs Dec. 19, 1925.

Remarks.--Records herein represent total flow from Antelope Valley; those for 1920-23 are sum of West Walker River near Wellington (see following station), below canal intake, and Saroni Canal. Flow partly regulated by storage in Poor Lake and by Topaz Reservoir after Jan. 30, 1922. Diversions for irrigation above station.

Cooperation.--Records for 1910 furnished by Stone & Webster Engineering Corp.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	769	620	261	43.3	-	-
1920	-	-	-	-	-	-	-	-	-	219	40.9	40.7	-
1921	70.5	114	116	112	127	168	189	560	713	307	59.8	37.9	215
1922	45.5	27.7	30.3	23.3	27.5	33.0	94.7	874	1,770	778	441	226	365
1923	70.9	92.6	76.9	21.1	29.6	39.9	198	622	577	651	378	301	256
1924	-	-	-	-	-	‡20.6	107	489	150	116	34.7	19.6	-
1925	24.8	31.7	27.6	29.6	26.7	82.3	310	643	568	492	473	-	-
1926	29.0	27.2	28	30	34.0	35.1	336	650	442	307	190	68.2	182
1927	42.9	28.2	23.2	25	35.1	27.8	226	715	948	587	293	160	260
1928	78.9	32.4	22.1	22	24	62.9	210	623	439	391	231	92.4	187
1929	52.7	22.5	20	20	22	28.1	59.7	434	288	280	124	31.5	116
1930	35.6	20	18	15	20	35.9	263	389	556	320	149	51.5	157
1931	24.7	22.1	16	15	20	26.1	96.3	409	168	123	34.6	19.5	81.8
1932	26.9	25.5	20	20	30	39.1	229	545	929	674	340	160	253

‡ Not previously published.
Note.--Records for 1920-23 not previously published.

1/ Published as West Walker River near Wellington, Nev., 1910.

Monthly and yearly runoff, in acre-feet, of West Walker River at Hoye Bridge, near Wellington, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	47,300	36,900	16,000	2,660	-	-
1920	-	-	-	-	-	-	-	-	-	13,500	2,520	2,420	-
1921	4,330	6,760	7,130	6,890	7,050	10,300	11,200	34,400	42,500	18,800	3,680	2,260	156,000
1922	2,800	1,640	1,870	1,430	1,530	2,020	5,640	53,800	105,000	47,800	27,100	13,500	264,000
1923	4,360	5,510	4,730	1,300	1,640	2,450	11,800	38,300	34,400	40,000	23,200	17,900	185,000
1924	-	-	-	-	-	‡1,270	6,370	30,100	8,930	7,130	2,130	1,170	-
1925	1,520	1,890	1,700	1,820	1,480	5,060	18,400	39,500	33,800	30,300	29,100	-	-
1926	1,780	1,620	1,720	1,840	1,890	2,160	20,000	40,000	26,300	18,900	11,700	4,060	132,000
1927	2,640	1,680	1,430	1,540	1,950	1,710	13,400	44,000	56,400	36,100	18,000	9,520	188,000
1928	4,850	1,930	1,360	1,350	1,380	3,870	12,500	38,300	26,100	24,000	14,200	5,500	135,000
1929	3,240	1,340	1,230	1,230	1,220	1,730	3,550	26,700	17,100	17,200	7,620	1,870	84,000
1930	2,190	1,190	1,110	922	1,110	2,210	15,600	23,900	33,100	19,700	9,160	3,060	113,000
1931	1,520	1,320	984	922	1,110	1,600	5,730	25,100	10,000	7,560	2,130	1,160	59,100
1932	1,650	1,520	1,230	1,230	1,730	2,400	13,600	33,500	55,300	41,400	20,900	9,520	184,000

‡ Not previously published.
Note.--Records for 1920-23 not previously published.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Diacharge	Date					
1910	330	-	-	-	-	-	-	-
1920	510	-	-	-	-	-	-	-
1921	530	1,380	June 8, 1921	-	215	156,000	198	143,000
1922	550	2,180	June 6, 1922	-	365	264,000	376	272,000
1923	570	-	-	-	256	185,000	-	-
1924	590	666	May 11, 1924	-	-	-	-	-
1925	610	1,190	Sept. 4, 1925	-	-	-	-	-
1926	630	‡822	May 5, 1926	17	182	132,000	183	133,000
1927	650	‡1,530	June 18, 1927	15	260	188,000	264	191,000
1928	670	1,100	May 27, 1928	-	187	135,000	183	133,000
1929	690	636	May 24, 1929	-	116	84,000	114	82,700
1930	705	867	June 8, 1930	-	157	113,000	168	113,000
1931	721	685	May 7, 1931	10	81.8	59,100	82.6	59,700
1932	735	a1,460	June 29, 1932	16	253	184,000	-	-

‡ Not previously published.
a Maximum observed.
Note.--Records for 1920-23, not previously published, show combined flow of West Walker River near Wellington (see following station) and Saroni Canal near Wellington (not published separately in this report), both published as individual stations in indicated Water-Supply Papers for 1920-23.

330. West Walker River near Wellington, Nev.

Location.--Lat 38°45', long 119°24', in sec. 10, T. 10 N., R. 23 E., in canyon between Antelope and Smith Valleys, a quarter of a mile upstream from Plymouth and Colony canals, 1 mile downstream from Saroni Canal, three-quarters of a mile upstream from county line, and 1 mile southwest of Wellington.

Drainage area.--521 sq mi.

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

Average discharge.--5 years (1918-23), 226 cfs.

Extremes.--1918-24: Maximum discharge, 2,110 cfs June 6, 1922 (gage height, 5.32 ft); minimum not determined, but was probably less than 10 cfs late in January 1922.

Remarks.--Flow partly regulated by storage in Poor Lake and Topaz Reservoirs. Diversions above station for irrigation above and below station. Records published under this name for 1910 are not equivalent to records herein because of Saroni Canal diversion, but are equivalent to those for station at Hoye Bridge (see preceding station).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	86.2	97.5	150	242	486	1,120	192	41.6	49.6	-
1919	153	105	105	93.4	93.5	108	256	944	444	69.9	31.0	27.7	203
1920	44.2	64.7	75.4	72.4	72.3	68.7	76.6	537	704	203	38.0	36.8	163
1921	56.0	96.1	99.5	96.7	111	145	162	521	643	274	57.4	37.3	192
1922	38.2	22.4	23.2	19.7	25	30	86.3	832	1,700	711	382	186	339
1923	65.9	92.6	76.9	21.1	29.6	39.9	198	582	517	589	322	270	235
1924	108	20.6	15.4	18.9	25.4	20.6	97.6	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet, of West Walker River near Wellington, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	5,300	5,410	9,220	14,400	29,900	66,600	11,800	2,560	2,950	-
1919	9,410	6,250	6,460	5,740	5,190	6,640	15,200	58,000	26,400	4,300	1,910	1,650	147,000
1920	2,720	3,850	4,640	4,450	4,160	4,220	4,560	33,000	41,900	12,500	2,340	2,190	121,000
1921	3,440	5,720	6,120	5,950	6,160	8,920	9,640	32,000	38,300	16,800	3,530	2,220	139,000
1922	2,350	1,330	1,430	1,210	1,390	1,840	5,140	51,200	101,000	43,700	23,500	11,100	245,000
1923	4,050	5,510	4,730	1,300	1,640	2,450	11,800	35,800	30,800	36,200	19,800	16,100	170,000
1924	6,640	1,230	947	1,160	1,460	1,270	5,810	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	1,900	June 15, 1918	-	-	-	235	170,000
1919	510	1,940	May 30, 1919	26	203	147,000	188	136,000
1920	510	1,030	May 30, 1920	23	163	121,000	172	125,000
1921	530	1,300	June 8, 1921	-	192	139,000	178	129,000
1922	550	2,110	June 6, 1922	-	339	245,000	351	254,000
1923	570	1,370	July 3, 1923*	-	235	170,000	227	165,000
1924	590	-	-	-	-	-	-	-

* Revised.

331. West Walker River at Smith, Nev.

Location.--Lat 38°49', long 119°20' in sec. 18, T. 11 N., R. 24 E., at Smith and about 16 miles upstream from confluence with East Walker River.

Gage.--Staff gage. Altitude of gage is 4,740 ft (from topographic map).

Extremes.--May to August 1910: Maximum discharge observed, 1,100 cfs June 2; minimum observed, 4 cfs August 16-20.

Remarks.--Diversions above station for irrigation above and below station.

Cooperation.--Records furnished by Stone & Webster Engineering Corp.

Monthly mean discharge, in cubic feet per second

Year						May	June	July	Aug.				
1910						666	586	207	30.8				

Monthly runoff, in acre-feet

Year						May	June	July	Aug.				
1910						41,000	34,900	12,700	1,890				

Note.--Records are published in WSP 330.

332. West Walker River near Hudson, Nev.1/

Location.--Lat 38°49', long 119°14', in SW¼ sec. 18, T. 11 N., R. 25 E., half a mile upstream from Wilson Canyon and 3 miles southeast of Hudson.

Drainage area.--964 sq mi; at site used 1914-21, 953 sq mi.

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 present site at different datum.

Average discharge.--13 years (1914-24, 1947-50), 194 cfs.

Extremes.--1914-25, 1947-50: 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.--Flow regulated by off-channel storage in Topaz Reservoir (see p. 334) since 1922. Slight regulation by storage in Poor Lake Reservoir (capacity unknown). Many diversions for irrigation above station.

1/ Published as "at Hudson", 1914-21.

Monthly and yearly mean discharge, in cubic feet per second, of West Walker River near Hudson, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	-	‡199	51	-
1915	119	127	100	107	148	142	245	·387	951	452	47.5	36.6	238
1916	83.0	104	129	132	265	261	470	674	1,000	536	83.3	55.0	316
1917	203	150	113	84.6	164	142	281	528	1,360	663	66.3	35.9	315
1918	55.4	120	113	97.4	108	158	200	314	1,070	144	29.9	27.0	203
1919	203	167	126	120	151	181	317	999	465	76.1	20.1	20.0	238
1920	50.0	81.6	75.0	72.6	85.0	97.1	74.1	500	473	132	14.6	14.7	139
1921	33.9	89.8	103	98.8	107	87.2	104	400	384	171	35.3	20.2	136
1922	29.0	23.4	22.6	27.1	64.3	39.5	56.9	663	1,610	576	194	92.0	284
1923	60.0	120	116	41.8	48.8	58.5	242	566	460	501	234	270	228
1924	151	37.6	29.7	29.4	39.2	31.2	81.3	307	86.4	55.8	30.7	18.6	75.2
1925	17.1	28.6	27.1	24.1	30.4	-	-	-	-	-	-	-	-
1947	-	-	-	‡42.8	43.2	44.8	166	336	274	233	136	64.2	-
1948	46.0	35.7	34.1	34.1	31.4	38.0	78.5	221	288	233	147	102	108
1949	46.6	35.2	31.3	30	38.5	35.8	122	263	276	217	141	95.8	111
1950	53.0	41.3	35.4	36.5	34.8	42.3	182	286	311	251	165	120	130

‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	-	‡12,200	3,030	-
1915	7,320	7,560	6,150	6,580	8,220	8,730	14,600	23,800	56,600	27,800	2,920	2,180	172,000
1916	5,100	6,190	7,930	8,120	15,200	16,000	28,000	41,400	59,500	33,000	5,120	3,270	229,000
1917	12,500	8,930	6,950	5,200	9,110	8,730	16,700	32,500	80,900	40,800	4,080	2,140	229,000
1918	3,410	7,140	6,950	5,990	6,000	9,720	11,900	19,300	63,700	8,850	1,840	1,610	146,000
1919	12,500	9,940	7,750	7,380	8,390	11,100	18,900	61,400	27,700	4,680	1,240	1,190	172,000
1920	3,070	4,860	4,610	4,460	4,890	5,970	4,410	30,700	28,100	8,120	898	875	101,000
1921	2,080	5,340	6,330	6,080	5,940	5,360	6,190	24,600	22,800	10,500	2,170	1,200	98,500
1922	1,780	1,390	1,390	1,670	3,570	2,430	3,390	40,800	95,800	35,400	11,900	5,470	205,000
1923	3,690	7,140	7,130	2,570	2,710	3,600	14,400	34,800	27,400	30,800	14,400	16,100	165,000
1924	9,280	2,240	1,830	1,610	2,250	1,920	4,840	18,900	5,140	3,430	1,890	1,110	54,600
1925	1,050	1,700	1,670	1,480	1,690	-	-	-	-	-	-	-	-
1947	-	-	-	‡2,630	2,400	2,750	9,900	20,670	16,310	14,350	8,370	3,820	-
1948	2,830	2,120	2,090	2,090	1,800	2,340	4,670	13,600	17,150	14,300	9,020	6,080	78,090
1949	2,870	2,100	1,930	1,840	2,140	2,200	7,240	16,180	16,420	13,370	8,680	5,700	80,670
1950	3,260	2,460	2,170	2,240	1,930	2,600	10,850	17,560	18,500	15,420	10,120	7,150	94,260

‡ Not previously published; partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	-	-	-	-	-	-	-
1915	410	a1,470	June9,10,1915	31	238	172,000	236	171,000
1916	440	a1,710	June 18, 1916	38	316	229,000	328	238,000
1917	460	a2,200	June18,19,1917	32	315	229,000	300	218,000
1918	480	a1,950	June 15, 1918	16	203	146,000	220	159,000
1919	510	-	-	-	238	172,000	213	155,000
1920	510	a960	May20-22,1920	13	139	101,000	141	102,000
1921	530	a775	June 13, 1921	19	136	98,500	‡124	‡89,400
1922	550	2,530	June 7, 1922	-	284	205,000	302	218,400
1923	570	1,510	July 4, 1923	26	228	165,000	221	160,100
1924	590	528	May 11, 1924	14	75.2	54,600	62.9	45,710
1925	610	-	-	-	-	-	-	-
1947	1090	b527	May 3, 1947	-	-	-	‡122	‡88,240
1948	1120	419	(c)	28	108	78,090	107	78,000
1949	1150	434	June 12, 1949	-	111	80,670	113	81,660
1950	1180	502	June 2, 1950	33	130	94,260	-	-

‡ Not previously published.
a Maximum observed.
b Maximum during period January to September.
c May 18, June 27, 1948.

333. Walker River near Nordyke, Nev.

Location.--Lat 38°54', long 119°11', in sec. 16, T. 12 N., R. 25 E., half a mile downstream from confluence of East and West Walker Rivers, 1 mile north of Nordyke, and 4 miles south of Mason.

Gage.--Staff gage. Altitude of gage is 4,400 ft (from topographic map).

Extremes.--June to December 1895: Maximum discharge observed, 2,590 cfs June 29 (gage height, 4.30 ft); minimum observed, 101 cfs September 10-12.

Remarks.--Diversions above station for irrigation above and below station.

Monthly mean discharge, in cubic feet per second

Year				July	Aug.	Sept.	Oct.	Nov.	Dec.				
1895				1,179	235	170	180	227	228				

Monthly runoff, in acre-feet

Year				July	Aug.	Sept.	Oct.	Nov.	Dec.				
1895				72,490	14,450	10,120	11,070	13,510	14,020				

Note.--Records are published in Bull. 140.

334. Walker River at Mason, Nev.

Location.--Lat 38°56'55", long 119°11'10", in NE¼ sec. 33, T. 13 N., R. 25 E., 600 ft upstream from highway bridge at Mason.

Supplemental records available.--October 1922 to September 1923, gage heights and discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 4,400 ft (from topographic map). Prior to May 15, 1921, staff gage on bridge pier 600 ft downstream at different datum.

Average discharge.--5 years (1911-12, 1913-16, 1921-22), 444 cfs.

Extremes.--1910-16, 1921-22: Maximum discharge observed, 4,710 cfs June 20, 1911 (gage height, 9.70 ft, site and datum then in use); minimum, 17 cfs Sept. 17, 19, 20, 1921.

Remarks.--Flow regulated by off-channel storage in Topaz Reservoir since January 1922. Slight regulation by storage in Poor Lake and Twin Lakes Reservoirs. Diversions above station for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	220	225	480	514	948	1,090	2,910	2,520	388	126	-
1912	188	270	210	233	251	188	69.5	192	744	213	122	‡110	‡232
1913	-	-	-	-	-	-	-	-	-	-	125	†132	-
1914	93.4	186	248	703	402	619	1,130	1,750	2,270	1,360	*463	*102	*778
1915	196	267	188	171	197	231	348	435	978	634	54.6	44.8	312
1916	106	164	234	223	434	578	816	817	1,220	733	95.4	49.3	455
1921	-	-	-	-	-	-	-	-	643	246	46.9	23.6	-
1922	39.2	53.6	‡110	‡125	‡275	221	471	1,050	1,860	911	144	66.5	‡444

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	13,500	13,800	28,700	31,600	56,400	67,000	173,000	155,000	23,900	7,500	-
1912	11,600	16,100	12,900	14,300	14,400	11,600	4,140	11,800	44,300	13,100	7,500	‡6,540	‡168,000
1913	-	-	-	-	-	-	-	-	-	-	7,690	7,860	-
1914	5,740	11,100	15,200	43,200	22,300	38,100	67,200	108,000	135,000	83,600	*28,500	*6,050	*564,000
1915	12,100	15,900	11,600	10,500	10,900	14,200	20,700	26,700	58,200	39,000	3,360	2,670	226,000
1916	6,520	9,760	14,400	13,700	25,000	35,500	48,600	50,200	72,600	45,100	5,870	2,930	330,000
1921	-	-	-	-	-	-	-	-	38,300	15,100	2,880	1,400	-
1922	2,410	3,190	‡6,760	‡7,690	‡15,300	13,600	28,000	64,600	111,000	56,000	8,850	3,960	‡321,000

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Walker River at Mason, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	a4,710	June 20, 1911	-	-	-	823	596,000
1912	330	a1,350	June 8, 1912	25	‡232	‡168,000	-	-
1913	360	-	-	-	-	-	-	-
1914	390,1564	a3,410	June21,22,1914	27	*778	*564,000	*788	*571,000
1915	410	a1,530	June 10, 1915	27	312	226,000	300	217,000
1916	440	a1,850	June18,19,1916	36	455	330,000	-	-
1921	530	*1,300	June 14, 1921	-	-	-	-	-
1922	550	2,400	June 8, 1922	34	‡444	‡321,000	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

335. Walker River near Wabuska, Nev.

Location.--Lat 39°09', long 119°05', in SE¼ sec. 16, T. 15 N., R. 26 E., on Walker River Indian Reservation, 6½ miles east of Wabuska.

Supplemental records available.--January to April and August to December 1905, January to April and October to December 1906, January to May 1907, September 1907 to July 1908, gage heights only.

Gage.--Water-stage recorder at described site after Oct. 1, 1929. Altitude of gage is 4,300 ft (from topographic map). July 22, 1902, to July 31, 1908, staff gage at site 4½ miles upstream at different datum. Jan. 15 to July 27, 1920, staff gage; July 28, 1920, to Aug. 29, 1922, water-stage recorder; Aug. 30 to Oct. 13, 1922, staff gage; Oct. 14, 1922, to Sept. 30, 1924, water-stage recorder; Oct. 1, 1924, to Sept. 30, 1929, staff gage; all at site 1½ miles upstream at different datums. Datum raised 2.0 ft Oct. 1, 1926.

Average discharge.--15 years (1902-4, 1920-24, 1925-34), 112 cfs.

Extremes.--1902-8, 1920-34: Maximum discharge observed, 3,280 cfs July 10, 11, 1906 (gage height, 5.90 ft, site and datum then in use); no flow at times in 1924, 1925, 1931.

Remarks.--Many diversions for irrigation above station. Flow regulated by storage in reservoirs above station after January 1922. Only slight regulation prior to this time.

Cooperation.--Records for 1930-31, 1933-34, furnished by Bureau of Indian Affairs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1902	-	-	-	-	-	-	-	-	-	-	3	1	-
1903	2	53	148	137	159	190	184	315	727	195	2	1	176
1904	1	19	*86	a150	255	280	237	629	1,240	797	346	114	*346
1905	471	338	242	-	-	-	-	149	295	58.3	-	-	-
1906	-	-	-	-	-	-	-	966	1,760	2,730	814	134	-
1907	-	-	-	-	-	-	-	-	1,310	2,030	500	-	-
1908	-	-	-	-	-	-	-	-	-	-	-	-	-
1920	-	-	-	-	91.2	79.8	19.3	96.6	214	55.7	11.6	7.4	-
1921	9.7	83.7	148	176	202	150	14.8	93.2	300	93.9	7.1	3.9	106
1922	7.0	22.2	70.6	86.5	181	116	295	812	1,710	745	45.2	13.5	342
1923	64.3	151	198	119	134	202	220	255	334	224	80.5	186	181
1924	228	160	135	125	150	50	10	6	5	2	0	0	73.0
1925	-	-	-	-	-	20.9	16.2	44.3	34.0	58.5	110	37.3	-
1926	52.4	44.7	32.3	35.8	59.4	24.8	50.9	69.9	53.6	36.4	15.8	9.8	40.3
1927	15.9	29.0	80.7	62.5	72.2	44.6	51.6	113	694	333	63.6	106	138
1928	67.3	100	77.5	77.4	69.8	74.3	63.5	102	65.7	30.0	37.0	10.0	64.5
1929	12.7	17.8	24.6	30	38.8	24.7	26.9	39.2	35.3	35.5	13.4	5.6	25.3
1930	6.5	17.8	25.5	16.5	14.0	14.0	17.3	41.0	39.4	24.4	17.7	5.6	20.0
1931	9.6	16.1	29.2	22.3	20.7	10.6	11.3	20.1	15.2	.2	0	0	12.9
1932	0	1.5	9.4	29.0	74.1	46.1	43.6	51.4	347	313	37.4	39.8	82.4
1933	26.9	25.9	37.6	48.2	73.2	92.3	45.0	54.7	91.6	45.4	35.8	20.8	49.6
1934	17.1	25.5	45.5	48.5	40.6	25.5	24.8	31.5	51.1	23.1	13.9	1.5	29.0

* Revised.
a Revised; only monthly figure revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet, of Walker River near Wabuska, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1902	-	-	-	-	-	-	-	-	-	-	184	59	-
1903	123	3,154	9,100	8,424	8,830	11,683	10,949	19,369	43,259	11,990	123	59	127,000
1904	61	1,131	*5,290	*9,220	14,670	17,220	14,100	38,680	73,790	49,010	21,280	6,783	*251,000
1905	28,960	20,110	14,880	-	-	-	-	9,162	17,550	3,585	-	-	-
1906	-	-	-	-	-	-	-	59,400	105,000	168,000	50,100	7,970	-
1907	-	-	-	-	-	-	-	-	78,000	125,000	30,700	-	-
1908	-	-	-	-	-	-	-	-	-	-	-	-	-
1920	-	-	-	-	5,250	4,910	1,150	5,940	12,700	3,420	713	440	-
1921	596	4,980	9,100	10,800	11,200	9,220	881	5,730	17,900	5,770	437	232	76,800
1922	428	1,320	4,340	5,320	10,400	7,130	17,600	49,900	102,000	45,800	2,780	803	248,000
1923	3,950	8,980	12,200	7,320	7,440	12,400	13,100	15,700	19,900	13,800	4,950	11,100	131,000
1924	14,000	9,520	8,300	7,690	8,630	3,070	595	369	298	123	0	0	52,600
1925	-	-	-	-	-	1,290	964	2,720	2,020	3,600	6,760	2,220	-
1926	3,220	2,660	1,990	2,200	3,300	1,520	3,030	4,300	3,190	2,240	972	583	29,200
1927	978	1,730	4,960	3,840	4,010	2,740	3,070	6,950	41,300	20,500	3,910	6,310	100,000
1928	4,140	5,950	4,770	4,760	4,010	4,570	3,780	6,270	3,910	1,840	2,280	595	46,900
1929	781	1,060	1,510	1,840	2,150	1,520	1,600	2,410	2,100	2,180	824	333	18,300
1930	400	1,060	1,570	1,010	778	861	1,030	2,520	2,340	1,500	1,090	333	14,500
1931	590	958	1,800	1,370	1,150	652	666	1,240	904	14	0	0	9,340
1932	0	91	578	1,780	4,260	2,830	2,590	3,160	20,600	19,200	2,300	2,370	59,800
1933	1,650	1,540	2,310	2,960	4,070	5,680	2,680	3,360	5,450	2,790	2,200	1,240	35,900
1934	1,050	1,520	2,800	2,990	2,250	1,570	1,480	1,940	3,040	1,420	853	91	21,000

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1902	100	-	-	-	-	-	-	-
1903	100	964	June11-13,1903	1	176	127,000	*167	*121,000
1904	133,1634	‡1,560	May 27, 1904	1	*346	*251,000	*425	*309,000
1905	176	‡613	June 15, 1905	-	-	-	-	-
1906	250	‡3,280	July10,11,1906	-	-	-	-	-
1907	250	2,810	July 6, 7, 1907	-	-	-	-	-
1908	250	-	-	-	-	-	-	-
1920	510	259	June 4, 1920	-	-	-	-	-
1921	530	a790	June 17, 1921	1	106	76,800	94.2	68,300
1922	550	a2,220	June 8, 1922	4	342	248,000	368	267,000
1923	570	*a870	May 22, 1923	12	181	131,000	190	138,000
1924	590	b290	Oct. 1, 1923	0	73.0	52,600	-	-
1925	610	‡315	July 21, 1925	0	-	-	-	-
1926	630	119	June 12, 1926	6	40.3	29,200	40.1	29,000
1927	650	1,550	June 20, 1927	8	138	100,000	148	108,000
1928	670	408	May 28, 1928	8	64.5	46,900	48.7	35,400
1929	690	76	May 24, 1929	2	25.3	18,300	24.9	18,000
1930	705	b82	(c)	4	20.0	14,500	20.5	14,800
1931	720	b40	June 3, 1931	0	12.9	9,340	9.21	6,670
1932	735	b1,250	June 29, 1932	0	82.4	59,800	89.1	64,600
1933	750	-	-	16	49.6	35,900	49.4	35,800
1934	765	b129	June 21, 1934	1	29.0	21,000	-	-

* Revised.
‡ Not previously published.

a Momentary maximum.
b Maximum daily.
c May 28, 29, June 20, 1930.

336. Walker River at Schurz, Nev.

Location.--Lat 38°57', long 118°48', in sec. 36, T. 13 N., R. 28 E., at railroad bridge at Schurz, 3 miles upstream from Walker Lake and 6 miles downstream from Walker River Indian Reservation diversion dam.

Drainage area.--2,850 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,120 ft (from topographic map). Prior to Aug. 4, 1914, at site about 2,300 ft upstream at different datum. Aug. 4, 1914, to Nov. 14, 1916, at site 1,000 ft upstream at different datum.

Average discharge.--20 years (1913-33), 152 cfs.

Extremes.--1913-33: Maximum discharge observed, 2,530 cfs June 8, 9, 1914 (gage height, 11.0 ft); no flow at times nearly every year.

Remarks.--Many diversions for irrigation above station. Flow regulated by Topaz Reservoir (see p. 334) since 1922 and by Bridgeport Reservoir (see p. 326) since 1923. Flow slightly regulated by Twin Lakes and Poor Lake Reservoirs (capacities unknown).

Monthly and yearly mean discharge, in cubic feet per second, of Walker River at Schurz, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	16.6	6.2	71.5	-
1914	24.0	154	224	597	480	542	967	1,500	1,930	1,120	362	53.5	663
1915	142	253	183	200	245	247	243	299	718	540	10.9	4.83	257
1916	37.4	90.1	200	246	501	542	731	706	943	649	30.0	1.83	389
1917	216	282	270	272	345	281	465	601	1,240	845	47.5	1.05	405
1918	5.7	121	151	149	160	241	247	115	992	104	1.0	.5	189
1919	179	217	229	‡174	‡200	‡230	‡416	807	427	.5	.5	.5	‡240
1920	.5	59.0	145	138	87.3	26.8	0	49.5	113	39.1	0	0	54.8
1921	0	23.9	138	164	178	43.7	1.1	20.6	176	28.0	.7	.7	63.7
1922	0	8.6	23.0	45.2	129	123	296	658	1,580	769	11.0	3.1	303
1923	34.7	128	187	133	147	195	171	184	292	157	4.1	116	145
1924	216	148	125	126	143	48.5	5.6	2.4	.7	0	0	0	67.8
1925	0	0	0	2.9	0	0	0	5.7	0	14.0	62.4	3.2	7.5
1926	24.3	5.7	32.1	37.1	109	18.3	.4	7.3	8.5	.2	.7	1.0	19.8
1927	1.6	12.5	67.3	58.1	65.0	21.3	7.5	47.1	602	279	25.3	59.4	103
1928	31.4	75.7	54.9	66.9	71.8	65.7	32.1	41.5	40.6	2.7	1	1	40.3
1929	1.0	1.2	7.0	25.2	30.6	5.6	2.5	3.9	3.7	2.4	2.0	2.1	7.1
1930	2.0	2.0	19.2	14.2	7.4	1.8	2.4	17.4	5.9	3.4	2.0	2.0	6.7
1931	2.2	5.9	7.4	29.7	23.0	2.4	2.0	2.5	2.0	1.2	1	1	6.6
1932	1.0	1.2	1.9	3.8	76.4	51.2	4.7	8.2	202	263	1.9	3.1	51.4
1933	3.4	9.0	12.2	42.7	68.1	92.3	20.2	12.3	31.1	5.81	2.1	1.67	24.8

‡ Not previously published; estimated or partly estimated on basis of records for West Walker River near Coleville, near Wellington, and at Hudson.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	1,020	381	4,250	-
1914	1,480	9,160	13,800	36,700	26,700	33,300	57,500	92,200	115,000	68,900	22,300	3,290	480,000
1915	8,730	15,100	11,300	12,300	13,600	15,200	14,500	18,400	42,700	33,200	670	287	186,000
1916	2,300	5,360	12,300	15,100	28,800	33,300	43,500	43,400	56,100	39,900	1,840	109	282,000
1917	13,300	16,800	16,600	16,700	19,200	17,300	27,700	37,000	73,800	52,000	2,920	62.5	293,000
1918	350	7,200	9,280	9,160	8,890	14,800	14,700	7,070	59,000	6,400	61	30	137,000
1919	11,000	12,900	14,100	‡10,700	‡11,100	‡14,100	‡24,700	49,600	25,400	31	31	30	‡174,000
1920	31	3,510	8,920	8,480	5,020	1,650	0	3,040	6,720	2,400	0	0	39,800
1921	0	1,420	8,480	10,100	9,890	2,690	64	1,270	10,500	1,720	42	42	46,200
1922	0	512	1,410	2,780	7,160	7,560	17,600	40,500	94,000	47,300	676	184	220,000
1923	2,130	7,620	11,500	8,180	8,160	12,000	10,200	11,300	17,400	9,650	252	6,900	105,000
1924	13,300	8,810	7,690	7,750	8,220	2,980	333	148	42	0	0	0	49,300
1925	0	0	0	178	0	0	0	350	0	861	3,840	190	5,420
1926	1,490	339	1,970	2,280	6,050	1,130	24	449	506	12	43	60	14,400
1927	98	744	4,140	3,570	3,610	1,310	446	2,900	35,800	17,200	1,560	3,530	74,900
1928	1,930	4,500	3,380	4,110	4,130	4,040	1,910	2,550	2,420	166	61	60	29,300
1929	61	71	430	1,550	1,700	344	149	240	220	148	123	125	5,160
1930	123	119	1,180	873	411	111	143	1,070	351	209	123	119	4,830
1931	133	353	456	1,830	1,280	147	119	153	119	71	61	60	4,780
1932	61	71	117	234	4,390	3,150	280	504	12,000	16,200	117	184	37,300
1933	212	536	750	2,630	3,780	5,680	1,200	756	1,850	357	129	99	18,000

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Cslendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	0	-	-	-	-
1914	390	2,530	June 8,9,1914	.2	663	480,000	677	491,000
1915	410	1,180	June 12, 1915	4	257	186,000	236	171,000
1916	440	1,500	June 20, 1916	1	389	282,000	425	309,000
1917	460	1,860	June 21, 1917	.8	405	293,000	364	264,000
1918	480	2,100	June 18, 1918	-	189	137,000	218	158,000
1919	510	1,970	(a)	-	‡240	‡174,000	‡205	‡148,000
1920	510	187	May 25, 1920	0	54.8	39,800	51.3	37,200
1921	530	640	June 15, 1921	0	63.7	46,200	52.7	38,200
1922	550	2,050	July 1, 1922	0	303	220,000	330	239,000
1923	570	825	May 24, 1923	1	145	105,000	157	114,000
1924	590	301	Oct. 1, 1923	0	67.8	49,300	26.8	19,500
1925	610	318	July 22, 1925	0	7.5	5,420	12.7	9,220
1926	630	125	Feb.5, 17, 1926	0	19.8	14,400	21.4	15,500
1927	650	1,530	June 21, 1927	1	103	74,900	110	79,700
1928	670	350	June 1, 1928	1	40.3	29,300	27.6	20,010
1929	690	61	Feb. 1, 1929	1	7.1	5,160	8.3	6,020
1930	705	61	May 8, 1930	1	6.7	4,830	6.0	4,350
1931	720	91	(b)	-	6.6	4,780	5.6	4,090
1932	735	1,250	June 30, 1932	1	51.4	37,300	53.2	38,600
1933	750	139	Mar. 1, 1933	1	24.8	18,000	-	-

‡ Not previously published.
a May 31, June 1, 1919.
b Jan. 31, Feb. 1, 1931.

337. East Fork Carson River above Soda Springs ranger station, near Markleeville, Calif.

Location.--Lat 38°30', long 119°41', in sec. 28, T. 8 N., R. 21 E., half a mile downstream from Murray Canyon Creek, 2 miles southwest of Soda Springs ranger station, and 14 miles southeast of Markleeville.

Drainage area.--30 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,820 ft (from topographic map).

Extremes.--1946-50: Maximum discharge, 652 cfs May 31, 1950 (gage height, 4.27 ft); minimum, 4.5 cfs Sept. 25, 1949.

Remarks.--No regulation or diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	14.3	14.8	16.1	10	16.2	31.4	81.8	224	114	25.7	9.21	6.18	47.2
1948	13.0	11.4	9.12	14.3	10	12.4	43.5	177	261	86.6	15.0	8.80	55.1
1949	8.11	9.38	7.93	7.97	7.73	8.61	117	214	185	31.0	9.26	5.55	51.0
1950	6.69	8.44	7.20	6.28	8.86	15.4	101	229	276	74.6	14.5	9.54	63.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	882	878	988	615	899	1,930	4,870	13,800	6,770	1,580	566	368	34,150
1948	802	676	561	878	575	764	2,590	10,890	15,530	5,320	919	524	40,030
1949	498	558	487	490	429	530	6,980	13,160	11,000	1,900	570	330	36,930
1950	411	502	443	386	492	944	6,010	14,100	16,400	4,590	893	567	45,740

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	447	May 2, 1947	-	47.2	34,150	46.2	33,440
1948	1120	528	May 26, 1948	-	55.1	40,030	54.5	39,530
1949	1150	480	May 26, 1949	-	51.0	36,930	50.8	36,740
1950	1180	652	May 31, 1950	4.8	63.2	45,740	-	-

338. Silver King Creek near Coleville, Calif.

Location.--Lat 38°31', long 119°36', in sec. 30, T. 8 N., R. 22 E., a quarter of a mile downstream from Poison Valley, 2½ miles east of Soda Springs ranger station, and 6½ miles southwest of Coleville.

Drainage area.--30 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 7,650 ft (from topographic map).

Extremes.--1946-50: Maximum discharge, 220 cfs May 31, 1950 (gage height, 2.62 ft); minimum recorded, 2.5 cfs Oct. 28, Nov. 8, 1948.

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	16.8	17	16	10	15	25.4	59.4	110	60.8	22.2	12.6	9.50	31.3
1948	12.8	10.7	9	13	9	12	31.3	85.8	99.2	44.1	14.9	9.92	29.3
1949	10.5	9.8	9	8	7.5	8	69.3	120	91.1	25.1	13.7	9.40	31.8
1950	11.2	10.4	8.78	8.16	9.00	12.9	69.7	127	125	43.2	15.5	13.0	37.9

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	1,040	1,010	984	615	833	1,560	3,530	6,780	3,620	1,360	774	565	22,670
1948	787	637	553	799	518	738	1,860	5,280	5,900	2,710	918	590	21,290
1949	645	585	492	492	417	492	4,130	7,400	5,420	1,550	841	559	23,020
1950	688	620	540	502	500	795	4,150	7,800	7,440	2,660	956	772	27,420

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	172	May 2, 1947	-	31.3	22,670	29.9	21,610
1948	1120	160	May 5, 1948	-	29.3	21,290	29.0	21,040
1949	1150	214	Apr. 24, 1949	-	31.8	23,020	32.0	23,150
1950	1180	220	May 31, 1950	7.5	37.9	27,420	-	-

339. Wolf Creek near Markleeville, Calif.

Location.--Lat 38°32', long 119°43', in sec. 24, T. 8 N., R. 20 E., three-quarters of a mile downstream from Bull Canyon Creek and 12 miles southwest of Markleeville.

Drainage area.--9.8 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 7,350 ft (from topographic map).

Extremes.--1946-50: Maximum discharge, 224 cfs May 26, 1948, May 31, 1950; maximum gage height, 3.95 ft May 31, 1950; minimum discharge, 0.6 cfs Sept. 29, 1950.

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	9.30	9.33	8.51	5.5	9.62	15.1	37.1	104	49.1	13.5	5.84	4.53	22.7
1948	9.20	8.42	6.78	8.33	5.5	6.09	17.9	85.6	118	39.6	9.45	5.96	26.7
1949	6.22	7.26	6.25	6.11	5.94	7.1	39.5	98.0	79.2	17.4	6.90	4.83	23.8
1950	5.69	6.05	4.74	4.40	6.48	10.1	40.3	100	116	37.9	9.25	6.77	29.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	572	555	523	338	535	926	2,210	6,380	2,920	830	359	270	16,420
1948	566	501	417	512	316	375	1,070	5,270	6,990	2,430	581	354	19,380
1949	383	432	384	376	330	434	2,350	6,030	4,710	1,070	424	287	17,210
1950	350	360	292	271	360	622	2,400	6,150	6,930	2,330	569	403	21,040

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	218	May 3, 1947	-	22.7	16,420	22.4	16,250
1948	1120	224	May 26, 1948	-	26.7	19,380	26.3	19,100
1949	1150	192	May 26, 1949	-	23.8	17,210	23.5	17,010
1950	1180	224	May 31, 1950	4.0	29.0	21,040	-	-

340. Silver Creek below Pennsylvania Creek, near Markleeville, Calif.

Location.--Lat 38°36', long 119°47', in sec. 28, T. 9 N., R. 20 E., a quarter of a mile downstream from Pennsylvania Creek and 6½ miles south of Markleeville.

Drainage area.--20 sq mi, approximately.

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

Extremes.--1946-50: Maximum discharge, 411 cfs May 26, 1948 (gage height, 3.84 ft); minimum, 1.1 cfs Nov. 10, 1949.

Remarks.--No diversions above station. Flow partly regulated by three small reservoirs (total capacity, about 1,700 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	‡6	‡7	8.77	5.39	10.7	21.5	61.6	160	58.0	28.3	3.41	2.61	‡31.3
1948	8.18	5.91	4.80	9.12	5.57	6.35	38.0	137	169	35.3	17.3	11.0	37.2
1949	3.31	4.54	3.53	3.64	3.74	5.24	87.6	171	111	29.8	10.0	2.46	36.4
1950	2.79	4.11	3.84	6.68	10.0	16.8	83.2	158	169	43.5	25.0	6.70	44.2

‡ Not previously published, estimated on basis of records for Wolf Creek near Markleeville, Calif.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	‡369	‡417	540	362	597	1,320	3,670	9,810	3,450	1,740	209	155	‡22,640
1948	503	351	295	561	320	390	2,260	8,410	10,040	2,170	1,060	655	27,020
1949	204	270	217	224	208	322	5,210	10,520	6,610	1,830	617	146	26,380
1950	171	245	236	411	556	1,030	4,950	9,740	10,040	2,680	1,540	399	32,000

‡ Not previously published; estimated on basis of records for Wolf Creek near Markleeville, Calif.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	365	May 2, 1947	-	‡31.3	‡22,640	31.0	22,460
1948	1120	411	May 26, 1948	2.5	37.2	27,020	36.6	26,560
1949	1150	358	May 26, 1949	2.1	36.4	26,380	36.4	26,340
1950	1180	390	June 5, 1950	1.4	44.2	32,000	-	-

‡ Not previously published.

341. Silver Creek near Markleeville, Calif.

Location.--Lat 38°37', long 119°45', in SE¼ sec. 14, T. 9 N., R. 20 E., 5.5 miles (revised) south of Markleeville.

Drainage area.--28.8 sq mi.

Gage.--Staff gage. Altitude of gage is 6,100 ft (from topographic map).

Extremes.--1911-12: Maximum discharge observed, 653 cfs Jan. 31, 1911, July 18, 1912 (gage height, 6.00 ft), from rating curve extended above 340 cfs; minimum observed, 1 cfs Dec. 27-30, 1910, Nov. 2, 5, 6, 1911.

Remarks.--Storage and diversion for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	11.7	62.7	78.8	43.2	101	166	343	104	43.1	11.3	-
1912	11.4	10.0	8.0	13.6	14.0	13.5	21.1	123	157	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	719	3,860	4,380	2,660	6,010	10,200	20,400	6,400	2,650	672	-
1912	701	595	492	836	805	830	1,260	7,560	9,340	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	653	(a)	1	-	-	81.9	59,000
1912	330	392	(b)	1	-	-	-	-

a Jan. 31, 1911, July 18, 1912.
b May 15, June 4, 1912.

342. East Fork of Carson River near Markleeville, Calif.

Location.--Lat 38°41', long 119°46', in NE¼ sec. 27, T. 10 N., R. 20 E., at Hangman's bridge, 100 feet downstream from Indian Creek, 1 mile (revised) east of Markleeville, and 1¼ miles upstream from Markleeville Creek.

Drainage area.--196 sq mi.

Supplemental records available.--Nov. 13-30, 1910, April 1912 to September 1931, fragmentary records of daily discharge.

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

Extremes.--1910-12: Maximum discharge observed, 2,380 cfs June 17, 1911 (gage height, 7.7 ft); minimum not determined.

Remarks.--Storage for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	61.1	128	144	211	618	1,010	1,700	1,080	248	133	-
1912	116	79.5	50.0	63.6	84.6	84.9	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	3,760	7,870	8,000	13,000	36,800	62,100	101,000	66,400	15,200	7,910	-
1912	7,130	4,730	3,070	3,910	4,870	5,220	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	330	2,380	June 17, 1911	-	-	-	460	333,000
1912	330	-	-	-	-	-	-	-

343. Hot Springs Creek near Markleeville, Calif.1/

Location.--Lat 38°42', long 119°51', in SE¼NE¼ sec. 23, T. 10 N., R. 19 E., half a mile upstream from Buck Creek, 4 miles upstream from mouth, and 4 miles west of Markleeville.

Drainage area.--14 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,880 ft (from river-profile map, extended).

Extremes.--1946-50: Maximum discharge, 399 cfs May 26, 1948 (gage height, 5.17 ft); minimum, 0.2 cfs Aug. 20, 23, Sept. 1-5, Oct. 13-16, 1949.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	1.69	4.60	4.85	3.10	6.26	11.8	43.4	102	20.8	1.65	0.43	0.38	16.8
1948	2.55	2.25	1.98	6.26	3.36	4.26	25.5	109	101	11.0	.86	.57	22.4
1949	.75	1.64	1.26	1.43	1.86	4.25	63.4	129	49.7	5.12	.81	.53	21.7
1950	.63	1.53	1.57	4.64	7.76	10.2	60.4	141	100	17.4	1.00	.66	29.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	104	274	298	191	348	724	2,580	6,290	1,240	102	26	23	12,200
1948	157	134	122	385	193	262	1,520	6,710	6,030	673	53	34	16,270
1949	46	98	78	88	103	262	3,770	7,926	2,960	315	50	31	15,720
1950	39	91	96	285	431	627	3,590	8,690	5,980	1,070	62	39	21,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	31o	May 2, 1947	0.3	16.8	12,200	16.5	11,940
1948	1120	399	May 26, 1948	.4	22.4	16,270	22.2	16,080
1949	1150	318	May 13, 1949	.3	21.7	15,720	21.7	15,720
1950	1180	338	May 27, 1950	.2	29.0	21,000	-	-

344. Hot Springs Creek at Markleeville, Calif.2/

Location.--Lat 38°41', long 119°48', in sec. 29., T. 10 N., R. 20 E., at highway bridge above Pleasant Valley Creek and three-quarters of a mile west of Markleeville.

Drainage area.--26.7 sq mi.

Supplemental records available.--November 1911 to September 1930, fragmentary records of daily discharge.

Gage.--Staff gage. Altitude of gage is 5,550 ft (from topographic map). Prior to Aug. 18, 1914, at datum 5.71 ft lower.

Extremes.--1911-30: Maximum discharge observed, 690 cfs June 12, 1927 (gage height, 3.80 ft), from rating curve extended above 180 cfs; minimum observed, 0.05 cfs Aug. 22, 25, Sept. 5, 1921.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	6.67	9.10	8.21	-	-	-	5.12	1.5	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	410	523	505	-	-	-	315	92.2	-	-

1/ Published as Markleeville Creek above Grover Hot Springs prior to 1957.
2/ Published as Markleeville Creek near Markleeville in 1911 and as Markleeville Creek above Markleeville, 1912-30.

345. Pleasant Valley Creek above Raymond Canyon Creek, near Markleeville, Calif.

Location.--Lat 38°39', long 119°50', in SE¼ sec. 12, T. 9 N., R. 19 E., 1½ miles upstream from Raymond Canyon Creek, 4½ miles above mouth, and 5 miles southwest of Markleeville.

Drainage area.--16 sq mi, approximately.

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

Extremes.--1946-50: Maximum discharge, 2,500 cfs Nov. 20, 1950 (by slope-area measurement 1½ miles downstream); minimum, 0.3 cfs Sept. 13, 14, 1947.

Remarks.--Flow partly regulated by four small reservoirs (total capacity, about 850 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	1.55	3.12	4.44	3.33	7.22	20.7	69.0	134	25.9	4.05	10.8	0.57	23.9
1948	2.98	3.29	2.43	7.51	4.28	5.32	40.7	142	126	17.2	11.6	†1.04	30.3
1949	1.00	1.57	1.34	1.29	1.70	3.06	89.4	177	67.4	6.65	6.39	4.43	30.2
1950	.79	1.29	1.15	3.99	6.60	11.5	91.2	198	145	22.6	8.73	4.59	41.3

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	96	186	273	205	401	1,270	4,110	8,240	1,540	249	665	34	17,270
1948	183	196	149	462	246	327	2,420	8,730	7,490	1,060	714	62	22,040
1949	61	94	83	79	94	188	5,320	10,870	4,010	409	393	263	21,860
1950	49	77	71	245	366	710	5,430	12,150	8,600	1,390	537	273	29,900

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	402	May 2, 1947	0.4	23.9	17,270	23.8	17,240
1948	1120	495	May 26, 1948	.6	30.3	22,040	29.9	21,750
1949	1150	389	May 11, 1949	.5	30.2	21,860	30.1	21,820
1950	1180	475	May 27, 1950	.6	41.3	29,900	‡52.4	‡37,950

‡ Not previously published.

Note.--Station discontinued Nov. 19, 1950; monthly mean discharge for October, November and December 1950, 2.41 cfs, 74.2 cfs, and 60.0 cfs, respectively; November and December partly estimated on basis of records for Hot Springs Creek near Markleeville.

346. Pleasant Valley Creek near Markleeville, Calif.

Location.--Lat 38°41', long 119°47', in NW¼ sec. 28, T. 10 N., R. 20 E., 600 ft upstream from mouth and three-quarters of a mile southwest of Markleeville.

Drainage area.--25.4 sq mi.

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

Extremes.--1910-11: Maximum discharge observed, 550 cfs June 16, 1911; minimum observed, 0.5 cfs Jan. 12, 1911.

Remarks.--Three irrigation ditches divert water above station; several small reservoirs on headwaters of stream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	‡5.2	*11.2	*33.2	*55.1	*44.5	134	255	373	102	*14.4	*10.2	a86.7
1912	*2.44	-	-	-	-	-	-	-	-	-			

* Revised.

‡ Not previously published; partly estimated on basis of records for West Fork Carson River at Woodfords.

a Not previously published; one monthly figure not available; yearly figure partly estimated on basis of records for West Fork Carson River at Woodfords.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	‡309	*689	*2,040	*3,060	*2,740	7,970	15,700	22,200	6,270	*885	*607	a62,700
1912	*150	-	-	-	-	-	-	-	-	-	-	-	

* Revised.

‡ Not previously published; see footnote to preceding table.

a Not previously published; see footnote to preceding table.

Note.--Revised records of daily discharge are published in WSP 1564.

538662 O - 60 - 23

347. Markleeville Creek at Markleeville, Calif.

Location.--Lat 38°41'30", long 119°46'50", in SE¼ sec. 21, T. 10 N., R. 20 E., at highway bridge at Markleeville and three-quarters of a mile downstream from Pleasant Valley Creek.

Drainage area.--53.4 sq mi.

Supplemental records available.--August 1912 to September 1931, fragmentary records of daily discharge.

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

Extremes.--1910-31: Maximum discharge observed, 915 cfs June 15, 1911 (gage height, 5.3 ft); minimum observed, 2.0 cfs Sept. 6, 1920.
Flood of 1907 reached a stage of about 9.0 ft.

Remarks.--Diversions for domestic water supply and irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	22.5	83.7	73.8	85.3	257	418	699	217	33.3	20.4	-
1912	12.1	12.8	18.5	16.5	17.6	17.3	34.2	167	82.6	20.7	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	1,380	5,150	4,100	5,240	15,300	25,700	41,600	13,300	2,050	1,210	-
1912	744	762	1,140	1,010	1,010	1,060	1,150	5,300	2,620	1,270	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	915	June 15, 1911	-	-	-	161	116,000
1912	330	338	May 18, 1912	-	-	-	-	-

348. East Fork Carson River at California-Nevada State line

Location.--Lat 38°47', long 119°42', in E½ sec. 26 (revised), T. 11 N., R. 20 E., about a quarter of a mile upstream from California-Nevada State line, and 16 miles south of Gardnerville.

Drainage area.--297 sq mi.

Gage.--Staff gage. Altitude of gage is 5,140 ft (from river-profile map).

Extremes.--1911-14: Maximum discharge observed, 3,460 cfs June 16, 1911; minimum observed, 40 cfs Nov. 22-24, 28, Dec. 1, 1914.

Remarks.--No known diversions above station.

Cooperation.--Records for 1911-13 furnished by Stone & Webster Engineering Corp. and those for 1914 by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	224	271	376	832	1,390	2,450	1,260	370	151	-
1912	141	118	73.2	103	95.6	98.5	165	*702	*827	208	75.0	59.5	*222
1913	64.2	74.5	68.9	80.1	79.8	106	352	816	495	155	95.5	64.2	205
1914	51.3	61.3	87.4	325	215	555	957	2,020	1,800	744	211	108	596

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	13,800	15,100	23,100	49,500	85,500	146,000	77,500	22,800	8,980	-
1912	8,670	7,000	4,500	6,330	5,500	6,060	9,820	*43,100	*49,200	12,800	4,610	3,540	*161,000
1913	3,950	4,430	4,240	4,930	4,430	6,520	20,900	50,200	29,500	9,530	5,870	3,820	148,000
1914	3,150	3,650	5,370	20,000	11,900	34,100	56,900	124,000	107,000	45,700	13,000	6,430	431,000

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	360	3,460	June 16, 1911	-	-	-	638	462,000
1912	360	1,680	May 24, 1912	-	*222	*161,000	*212	*154,000
1913	360	1,230	May26,27,1913	50	205	148,000	204	148,000
1914	390	3,040	June 1, 1914	40	596	431,000	-	-

* Revised.
Note.--Figures of daily discharge for May 21 and June 20, 1912, have both been revised to 925 cfs.

349. East Fork Carson River near Gardnerville, Nev.1/

Location.--Lat 38°51'30", long 119°41'50", in NE¼ sec. 2, T. 11 N., R. 20 E., 2 miles east of Mud Lake Reservoir, 3 miles downstream from Leviathan Creek, and 7 miles southeast of Gardnerville.

Drainage area.--344 sq mi.

Supplemental records available.--August to December 1904, July 1905 to December 1906, gage heights and discharge measurements only.

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 except June 1 to Sept. 30, 1928, when water-stage recorder was used, at several sites within 2 miles of present site at various datums. Dec. 17, 1924, to Dec. 10, 1937, Cippoletti weir.

Average discharge.--24 years (1890-93, 1900-1903, 1908-10, 1925-28, 1935-37, 1939-50), 404 cfs.

Extremes.--1890-93, 1900-1905, 1908-10, 1917, 1924-29, 1935-37, 1939-50: Maximum discharge, 10,300 cfs (revised) Dec. 11, 1937 (gage destroyed by flood), computed on basis of slope-area determination of flow of tributaries, 14 miles upstream; minimum observed, 8 cfs Dec. 4-10, 19-23, 1904.

Remarks.--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).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	390	400	780	‡946	†2,540	2,430	1,789	597	415	-
1891	386	384	379	388	402	783	452	1,445	1,328	618	408	388	613
1892	385	385	438	390	388	422	478	1,226	1,158	506	413	414	550
1893	416	414	1,097	554	425	728	1,139	1,629	2,021	1,462	507	416	901
1894	408	425	404	-	-	-	-	-	-	-	-	-	-
1901	‡35	41	34	34	664	464	582	1,822	1,492	741	259	139	‡526
1902	137	196	280	81	78	101	601	1,205	955	178	131	54	333
1903	51	86	54	32	31	135	890	1,794	1,714	356	143	73	447
1904	93	229	57	31.9	585	602	816	1,984	1,041	663	-	-	-
1905	-	-	-	110	496	533	322	949	742	-	-	-	-
1908	-	-	-	a250	148	183	470	555	539	221	131	128	-
1909	116	106	111	508	200	199	754	1,380	2,020	665	*169	*125	*529
1910	*127	*282	313	202	206	534	1,070	1,240	703	252	82.4	94.3	*425
1911	90.0	92.1	128	-	-	-	-	-	-	-	-	-	-
1917	-	-	-	-	-	-	-	-	-	600	127	83.4	-
1918	69.8	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	73.5	202	277	738	1,430	949	393	126	86.6	-
1926	80.9	75.2	76.1	79.7	86.4	192	647	708	260	82.9	43.0	37.0	198
1927	47.1	68.7	65	75	305	321	684	1,380	1,570	549	146	84.0	442
1928	87.7	128	93.9	98.3	89.9	348	514	1,080	410	117	68.4	44.0	257
1929	-	-	-	-	-	-	-	-	-	132	61.8	31.9	-
1936	62.7	64.8	58.8	87.1	181	296	821	1,137	953	321	107	77.7	347
1937	71.5	61.9	64.1	47.8	237	226	497	1,265	920	228	98.2	57.3	314
1938	62.6	68.1	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	272	106	56.3	61.8	-
1940	92.2	61.9	62.1	165	197	389	749	1,520	890	209	103	76.4	377
1941	64.5	70.0	115	97.3	139	217	330	1,435	1,069	380	124	80.4	345
1942	86.8	128	325	314	235	338	787	1,178	1,623	606	160	101	491
1943	85.0	156	169	333	230	410	1,011	1,416	1,015	422	142	93.2	457
1944	72.0	73.3	81.9	79.7	85.3	162	326	1,018	643	237	92.9	55.5	244
1945	55.2	127	112	114	362	216	678	1,468	1,229	492	138	103	424
1946	120	170	221	196	143	237	791	1,215	719	225	103	71.4	352
1947	90.9	182	133	88.4	155	235	470	992	408	133	60.0	44.2	250
1948	77.7	77.0	64.3	101	79.4	86.0	344	882	988	289	88.8	58.9	261
1949	53.6	61.9	54.1	53.1	75.1	112	730	1,137	703	152	74.2	47.6	271
1950	57.5	68.2	58.1	141	189	207	662	1,174	1,146	318	108	80.8	350

* Revised.
† Corrected.
‡ Not previously published; estimated on basis of records for nearby streams.
a Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	23,980	22,200	47,970	‡56,300	†156,000	145,000	110,000	36,700	24,700	-
1891	23,700	22,900	23,300	23,900	22,300	48,100	26,900	88,800	79,100	38,000	25,100	23,100	445,000
1892	23,700	22,900	26,900	24,000	22,300	25,900	28,400	75,600	69,000	31,100	25,400	24,600	400,000
1893	25,600	24,600	67,600	34,070	23,590	44,770	67,770	100,200	120,200	89,910	31,180	24,750	654,000
1894	24,680	25,290	24,850	-	-	-	-	-	-	-	-	-	-

† Corrected.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

1/ Published as "at Rodenbahs", 1890-93, and as "at Rodenbah's ranch near Gardnerville", 1902.

Monthly and yearly runoff, in acre-feet, of East Fork Carson River near Gardnerville, Nev.--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1901	‡2,152	2,440	2,091	2,091	36,880	28,530	34,630	112,000	88,780	45,560	16,030	8,271	‡379,000
1902	8,424	11,660	17,220	4,980	4,332	6,210	35,760	74,090	56,830	10,940	8,055	3,213	242,000
1903	3,136	5,117	3,320	1,968	1,722	8,301	52,960	110,300	102,000	21,890	8,793	4,344	324,000
1904	5,718	13,630	3,505	1,962	33,650	37,020	48,560	122,100	61,940	40,770	-	-	-
1905	-	-	-	6,763	27,550	32,770	19,160	58,350	44,150	-	-	-	-
1908	-	-	-	*15,400	8,510	11,300	28,000	34,100	32,100	13,600	8,060	7,620	-
1909	7,130	6,310	6,820	31,200	11,100	12,200	44,900	84,800	120,000	40,900	*10,400	*7,440	*383,000
1910	*7,820	*16,800	19,200	12,400	11,400	32,800	63,700	76,200	41,800	15,500	5,070	5,610	*308,000
1911	5,530	5,480	7,870	-	-	-	-	-	-	-	-	-	-
1917	-	-	-	-	-	-	-	-	-	36,900	7,810	4,960	-
1918	4,290	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	4,520	11,200	17,000	43,900	87,900	56,500	24,200	7,750	5,150	-
1926	4,970	4,470	4,680	4,900	4,800	11,800	38,500	43,500	15,500	5,100	2,640	2,200	143,000
1927	2,900	5,280	4,000	4,610	16,900	19,700	40,700	84,800	93,400	33,800	8,980	5,000	320,000
1928	5,390	7,620	5,770	6,040	5,170	21,400	30,600	66,400	24,400	7,190	4,210	2,620	187,000
1929	-	-	-	-	-	-	-	-	-	8,120	3,680	1,900	-
1936	3,850	3,860	3,620	5,360	10,400	18,220	48,840	69,910	56,720	19,720	6,570	4,630	251,700
1937	4,400	3,680	3,940	2,940	13,140	13,900	29,600	77,810	54,760	14,030	6,040	3,410	227,600
1938	3,850	4,050	-	-	-	-	-	-	-	-	-	-	-
1939	-	-	-	-	-	-	-	-	16,160	6,520	3,460	3,680	-
1940	5,670	3,680	3,820	10,140	11,340	23,940	44,580	93,480	52,970	12,860	6,320	4,550	273,400
1941	3,970	4,170	7,070	5,980	7,720	13,320	19,620	88,250	63,590	23,390	7,600	4,780	249,500
1942	5,340	7,590	19,970	19,320	13,060	20,790	46,850	72,420	96,600	37,280	9,870	6,030	355,100
1943	5,230	9,300	10,380	20,450	12,760	25,210	60,130	87,070	60,400	25,930	8,720	5,550	331,100
1944	4,430	4,360	5,040	4,900	4,910	9,990	19,390	62,570	38,280	14,570	5,710	3,300	177,400
1945	3,390	7,560	6,870	7,040	20,120	13,260	40,360	90,280	73,150	30,280	8,520	6,150	307,000
1946	7,360	10,130	13,570	12,030	7,950	14,590	47,070	74,680	42,760	13,820	6,360	4,250	254,600
1947	5,590	10,850	8,180	5,430	8,610	14,470	27,980	61,020	24,260	8,160	3,690	2,630	180,900
1948	4,780	4,580	3,950	6,190	4,570	5,290	20,460	54,220	58,780	17,780	5,460	3,510	189,600
1949	3,300	3,680	3,320	3,260	4,170	6,910	43,420	69,910	41,820	9,320	4,560	2,830	196,500
1950	3,530	4,060	3,570	8,640	10,480	12,730	39,380	72,160	68,190	19,530	6,660	4,810	253,700

* Revised.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1890	(a)	b4,260	May 28, 1890	-	-	-	‡957	‡693,000
1891	(a)	b1,884	(c)	377	613	445,000	619	448,800
1892	(a)	b2,590	AboutMay24,1892	290	550	400,000	610	443,700
1893	(a)	b5,540	Dec. 25, 1892	390	901	654,000	843	611,300
1901	300	b3,162	May 17, 1901	14	‡526	‡379,000	568	410,100
1902	300	b1,800	(d)	40	333	242,000	298	216,000
1903	300	b2,900	May 14, 1903	21	447	324,000	462	335,100
1904	300	b4,100	Feb. 24, 1904	-	-	-	-	-
1905	300	b1,930	May 16, 1905	-	-	-	-	-
1908	300	*b940	June 13, 1908*	-	-	-	*246	*179,000
1909	300,1514	b4,200	June 5, 1909	82	*529	*383,000	*562	*407,000
1910	300,1514	b2,070	Nov. 21, 1909	75	*425	*308,000	392	283,000
1917	460	e2,090	June 23, 1917	-	-	-	-	-
1925	610	b3,350	May 6, 1925	-	-	-	376	272,000
1926	630	b1,230	Apr. 26, 1926	31	198	143,000	195	141,000
1927	650	b3,150	May 17, 1927	37	442	320,000	451	327,000
1928	670	b2,570	Mar. 26, 1928	37	257	187,000	-	-
1929	690	-	-	-	-	-	-	-
1936	810	b2,290	Apr. 11, 1936	23	347	251,700	348	252,400
1937	830	b1,680	May14,15,1937	30	314	227,600	319	226,000
1938	860	*10,300	Dec. 11, 1937	-	-	-	-	-
1939	880	-	-	-	-	-	-	-
1940	900	2,580	Mar. 27, 1940	45	377	273,400	379	275,400
1941	930	2,480	May 12, 1941	45	345	249,500	369	267,200
1942	960	*4,060	Dec. 3, 1941	66	491	355,100	479	347,100
1943	980	*5,420	Jan. 21, 1943	66	457	331,100	442	320,000
1944	1010	1,720	May 9, 1944	40	244	177,400	250	181,400
1945	1040	*3,490	Feb. 2, 1945	44	424	307,000	442	320,200
1946	1060	1,960	May 6, 1946	54	352	254,600	343	248,100
1947	1090	2,450	Nov. 23, 1946	34	250	180,900	234	169,600
1948	1120	2,120	May 27, 1948	39	261	189,600	257	186,600
1949	1150	1,870	Apr. 24, 1949	40	271	196,500	273	197,400
1950	1180	2,410	June 1, 1950	38	350	253,700	-	-

* Revised.
† Corrected.
‡ Not previously published.
a 14th Ann. Rpt., Pt. 2.
b Maximum observed.
c May 15, 16, June 8, 1891.
d May 28, June 8, 1902.
e Corrected; maximum observed during period June to September.

350. West Fork Carson River above Woodfords, Calif.

Location.--Lat 38°47', long 119°54', in sec. 31, T. 11 N., R. 19 E., 1 mile above Horsethief Canyon Creek and 4 miles west of Woodfords.

Drainage area.--53 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,860 ft (from river-profile map).

Extremes.--1946-50: Maximum discharge, 793 cfs Apr. 24, 1949 (gage height, 5.39 ft); minimum, 2.5 cfs Dec. 3, 1948.

Remarks.--Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	‡19.1	‡21.3	21.2	17.0	24.2	55.6	184	238	73.4	34.4	12.2	7.41	‡59.1
1948	16.5	15.2	12.2	20.6	13.1	13.9	106	291	228	56.4	25.1	12.2	67.6
1949	9.97	12.4	9.99	9.04	11.7	14.7	206	313	118	33.2	17.4	11.9	64.1
1950	10.6	13.5	11.6	20.2	24.9	40.1	235	393	251	65.6	36.1	20.0	93.7

‡ Not previously published; estimated on basis of records for station at Woodfords.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	‡1,170	‡1,270	1,300	1,040	1,350	3,420	10,960	14,610	4,370	2,110	747	441	‡42,790
1948	1,010	904	750	1,270	752	855	6,310	17,920	13,580	3,470	1,540	728	49,090
1949	613	740	614	556	649	908	12,240	19,240	7,020	2,040	1,070	710	46,400
1950	652	802	712	1,240	1,380	2,470	14,000	24,170	14,950	4,040	2,220	1,190	67,830

‡ Not previously published; estimated on basis of records for station at Woodfords.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	602	May 2, 1947	‡6.4	‡59.1	‡42,790	57.6	41,710
1948	1120	674	May 16, 1948	7.0	67.6	49,090	66.7	48,390
1949	1150	793	Apr. 24, 1949	6.6	64.1	46,400	64.4	46,600
1950	1180	701	May 15, 1950	8.0	93.7	67,830	-	-

‡ Not previously published.

351. 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., 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.

Gage.--Water-stage recorder. Altitude of gage is 5,760 ft (from river-profile map). Prior to October 1900, and June 1907 to September 1920, staff gage at site 0.7 mile downstream at different datum. October 1900 to May 1907, at present site, different datum.

Average discharge.--13 years (1890-91, 1907-15, 1916-20), 125 cfs; 19 years (1900-1907, 1938-50), 123 cfs.

Extremes.--1890-92, 1900-20, 1938-50: Maximum discharge observed, 1,570 cfs May 9, 10, 1906 (gage height, 6.8 ft, datum then in use); minimum (1900-1907, 1938-50), 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.--One small diversion for irrigation above station. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-ft). Records at two sites not equivalent at times each year due to diversions for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	50	50	60	284	657	614	380	135	75	-
1891	67	49	53	52	48	61	127	534	338	130	65	41	130
1892	48	43	47	45	46	65	-	-	-	-	-	-	-
1901	‡37	48	53	51	111	170	234	476	289	136	77	43	‡144
1902	49	56	82	107	238	138	175	287	319	121	40	32	137
1903	34	46	58	49	63	64	174	389	353	106	42	30	117
1904	31	63	66	‡54	‡118	169	305	651	368	158	74.4	67.1	‡177
1905	78.4	64.6	64.5	‡89.6	102	125	202	271	187	75.8	28.7	23.7	‡109

‡ Not previously published; partly estimated on the basis of records for stations on nearby streams.

Monthly and yearly mean discharge, in cubic feet per second, of West Fork Carson River at Woodfords, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	31.3	34.4	56.5	72.3	65.3	66.5	236	925	690	324	154	50.4	225
1907	52.8	76.9	58.4	78.8	139	211	502	841	664	525	223	107	290
1908	75.8	65.8	76.8	68.2	66.6	90.3	191	228	165	58.1	75.5	35.0	99.7
1909	46.4	35.3	37.7	169	102	92.8	343	628	632	164	68.4	25.5	195
1910	52.1	139	123	44.3	73.2	156	451	376	166	69.6	27.1	27.2	142
1911	24.5	28.5	43.5	31	54	57	217	*565	*904	*337	*69	46	*198
1912	42	57	53	51.7	52.1	56.8	90.5	395	279	73.1	20.6	33.8	100
1913	32.9	31.8	35.6	53.3	33.8	46.3	259	341	228	84.5	48.0	36.0	103
1914	23.0	25.1	35.2	65.0	54.1	96.7	277	648	281	172	65.2	33.1	149
1915	27.1	35.9	29.9	33.8	32.6	49.5	221	473	424	89.4	14.0	13.1	120
1916	-	-	-	-	-	-	‡435	555	306	145	47.4	25.3	-
1917	28.4	47.9	41.5	27.8	24.6	26.5	166	484	542	129	41.2	10.8	131
1918	9.06	20.1	20.4	21.7	23.7	27.2	274	307	175	28.7	6.03	17.8	77.5
1919	13.2	17.8	26.6	25.1	31.8	33.9	396	528	108	11.5	11.4	5.9	101
1920	14.6	30.9	23.1	22.2	23.2	28.3	71.3	367	238	46.5	5.0	5.0	73.0
1939	‡38	30.2	22	20	22	49.6	211	130	62.2	28.2	16.8	18.0	‡54.0
1940	24.6	20.1	21.2	38.4	37.6	94.5	279	445	179	63.0	35.1	19.3	105
1941	22.4	23.8	23.3	25	29.0	50.5	124	556	247	93.5	59.4	24.9	107
1942	29.7	34.4	75.5	66.4	63.9	69.9	222	480	458	158	58.9	34.6	146
1943	25.1	44.9	55.5	60.5	61.1	91.3	381	383	222	89.1	47.2	32.7	125
1944	23.6	23.9	21.9	22.3	22.3	29.5	76.4	317	137	53.2	25.5	18.7	64.6
1945	16.8	32.9	28.1	27.5	71.4	48.0	220	432	241	83.5	40.6	26.3	106
1946	32.6	44.5	48.0	61.2	43.2	71.8	305	376	161	60.8	33.1	23.2	105
1947	23.8	26.9	26.6	21.9	30.6	62.4	198	260	82.4	40.4	16.3	11.5	66.8
1948	22.1	21.7	18.1	27.9	21.7	24.4	123	314	238	63.9	32.0	15.7	77.0
1949	15.2	17.7	16.2	15.0	16.9	19.9	217	324	128	40.6	22.1	16.0	70.8
1950	16.1	19.0	16.6	26.4	31.4	45.5	250	439	282	79.8	44.0	27.1	107

* Revised; only monthly figures revised; revised daily figures not available.
‡ Not previously published; partly estimated on the basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	3,075	2,775	3,690	16,900	40,400	36,530	23,370	8,300	4,460	-
1891	4,120	2,915	3,259	3,198	2,664	3,758	7,556	32,820	20,110	7,995	3,997	2,439	94,830
1892	2,952	2,558	2,890	2,770	2,650	4,000	-	-	-	-	-	-	-
1901	‡2,300	2,856	3,259	3,136	6,165	10,450	13,920	29,270	17,200	8,363	4,735	2,559	‡104,200
1902	3,013	3,332	5,042	6,579	13,220	8,485	10,410	17,650	18,980	7,440	2,460	1,904	98,520
1903	2,091	2,737	3,566	3,013	3,499	3,935	10,350	23,920	21,000	6,518	2,582	1,785	85,000
1904	1,906	3,749	4,058	‡3,300	‡6,790	10,390	18,150	40,030	21,900	9,715	4,575	3,993	‡128,600
1905	4,821	3,844	3,966	‡5,510	5,665	7,686	12,020	16,660	11,130	4,661	1,765	1,410	‡79,140
1906	1,925	2,047	3,474	4,450	3,630	4,090	14,000	56,900	41,100	19,900	9,470	3,000	164,000
1907	3,250	4,580	3,590	4,850	7,720	13,000	29,900	51,700	39,500	32,300	13,700	6,370	210,000
1908	4,660	3,920	4,720	4,190	3,830	5,550	11,400	14,000	9,820	3,570	4,640	2,080	72,400
1909	2,850	2,100	2,320	10,400	5,660	5,710	20,400	38,600	37,600	10,100	4,210	1,520	141,000
1910	3,200	8,270	7,560	2,720	4,070	9,590	26,800	23,100	9,880	4,280	1,670	1,620	103,000
1911	1,510	1,700	2,670	1,910	3,000	3,500	12,900	‡34,800	*53,800	*20,800	*4,240	2,740	*143,600
1912	2,580	3,390	5,260	3,180	3,000	3,490	5,390	24,300	16,600	4,490	1,270	2,010	73,000
1913	2,020	1,890	2,190	3,280	1,880	2,850	15,400	21,000	13,600	5,200	2,950	2,140	74,400
1914	1,410	1,490	2,160	4,000	3,000	5,950	16,500	39,800	16,700	10,600	4,010	1,970	108,000
1915	1,670	2,140	1,840	2,080	1,810	3,040	13,200	29,100	25,200	5,500	861	780	87,200
1916	-	-	-	-	-	-	‡25,900	34,100	18,200	8,920	2,910	1,510	-
1917	1,750	2,850	2,550	1,710	1,370	1,670	9,880	29,800	32,300	7,930	2,530	643	94,900
1918	557	1,200	1,250	1,330	1,320	1,670	16,300	18,900	10,400	1,760	371	1,060	56,100
1919	812	1,060	1,640	1,540	1,770	2,080	23,600	32,500	6,430	707	701	353	73,200
1920	898	1,840	1,420	1,360	1,330	1,740	4,240	22,600	14,200	2,860	307	298	53,100
1939	‡2,340	1,800	1,350	1,230	1,220	3,050	12,560	8,010	3,700	1,740	1,040	1,070	‡39,110
1940	1,510	1,200	1,300	2,360	2,160	5,810	16,620	27,360	10,680	3,870	2,160	1,150	76,180
1941	1,370	1,410	1,430	1,540	1,610	3,110	7,400	34,180	14,680	5,750	3,650	1,480	77,610
1942	1,830	2,050	4,640	4,080	3,550	4,300	13,220	29,500	27,240	9,720	3,620	2,060	105,800
1943	1,540	2,670	3,410	3,720	3,390	5,620	22,680	23,560	13,230	5,480	2,900	1,950	90,150
1944	1,450	1,420	1,350	1,370	1,290	1,810	4,540	19,520	8,150	3,270	1,570	1,110	46,850
1945	1,040	1,960	1,730	1,690	3,960	2,950	13,100	26,540	14,320	5,130	2,500	1,570	76,490
1946	2,000	2,650	2,950	3,760	2,400	4,420	18,140	23,130	9,580	3,740	2,030	1,380	76,180
1947	1,460	1,600	1,630	1,340	1,700	3,830	11,780	15,960	4,900	2,480	1,000	684	48,360
1948	1,360	1,290	1,110	1,720	1,250	1,500	7,320	19,310	14,180	3,930	1,970	932	55,870
1949	936	1,050	996	920	938	1,220	12,900	19,900	7,620	2,500	1,360	954	51,290
1950	988	1,130	1,020	1,620	1,740	2,800	14,850	27,010	16,800	4,910	2,700	1,610	77,180

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of West Fork Carson River at Woodfords, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1890	(a)	b1,284	June 9, 1890	-	-	-	206	149,800
1891	(a)	740	May 5, 1891	34	130	94,830	128	92,940
1892	(c)	-	-	-	-	-	-	-
1901	300	896	May 12, 1901	30	‡144	‡104,200	148	107,200
1902	300	448	May26-28,1902	30	137	98,520	133	95,520
1903	300	502	May10-13,1903	25	117	85,000	119	86,320
1904	300	1,085	May 12, 1904	27	‡177	‡128,600	‡181	‡131,500
1905	300	370	May 18, 1905	20	‡109	‡79,140	‡102	‡73,950
1906	300	1,570	May9,10, 1906	26	225	164,000	231	168,000
1907	300	1,450	May 17, 1907	22	290	210,000	292	212,300
1908	300	643	Aug. 1, 1908	26	99.7	72,400	91.4	66,350
1909	300	1,230	May 5, 1909	17	195	141,000	212	153,200
1910	300	818	Dec. 1, 1909	20	142	103,000	124	89,610
1911	300	1,300	May 23, 1911	20	*198	*143,600	*203	*147,000
1912	330	710	May 15, 1912	17	100	73,000	96.1	69,830
1913	360	647	Apr. 26, 1913	23	103	74,400	101	73,360
1914	390	1,050	May 21, 1914	9	149	108,000	149	108,200
1915	410	672	(d)	8	120	87,200	‡120	‡86,750
1916	440	1,180	May 7, 1916	-	-	-	-	-
1917	460	944	June 13, 1917	3	131	94,900	125	90,840
1918	480	618	May 5, 1918	-	77.5	56,100	78.2	56,620
1919	510	958	Apr29,30,1919	0	101	73,200	102	73,840
1920	510	742	May 12, 1920	-	73.0	53,100	-	-
1939	880	b354	Apr. 7, 1939	-	‡54.0	‡39,110	52.0	37,630
1940	900	b895	May 2, 1940	14	105	76,180	105	76,380
1941	930	b1,330	May 5, 1941	-	107	77,610	113	81,920
1942	960	b1,210	May 22, 1942	21	146	105,800	145	104,900
1943	980	b1,290	Apr. 28, 1943	21	125	90,150	120	86,750
1944	1010	b497	May 7, 1944	13	64.6	46,850	65.2	47,360
1945	1040	b975	May 10, 1945	14	106	76,490	110	79,360
1946	1060	b860	Apr. 25, 1946	16	105	76,180	101	73,270
1947	1090	b635	May 2, 1947	10	66.8	48,360	65.5	47,430
1948	1120	b708	May 16, 1948	12	77.0	55,870	75.9	55,090
1949	1150	b824	Apr. 24, 1949	12	70.8	51,290	71.1	51,450
1950	1180	b747	May 16, 1950	14	107	77,180	-	-

* Revised.
‡ Not previously published.
a 12th Ann. Rept., Pt. 2 and 14th Ann. Rept., Pt. 2.
b Momentary maximum.
c 13th Ann. Rept., Pt. 3.
d May 11, June 6, 7, 1915.

352. Clear Creek near Carson City, Nev.

Location.--Lat 39°07', long 119°49', in sec. 1, T. 14 N., R. 19 E., 3 miles upstream from mouth and 4 miles southwest of Carson City.

Drainage area.--15 sq mi, approximately.

Gage.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,700 ft (from river-profile map).

Extremes.--1948-50: Maximum discharge, 61 cfs (revised) Jan. 22, 1950 (gage height, 1.58 ft); minimum, 1.0 cfs Aug. 4-6, 20, 1949.

Remarks.--Four small diversions for irrigation of about 150 acres of hay meadows and pasture above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	4.16	6.48	7.70	4.22	1.82	1.46	1.43	-
1949	1.99	2.79	3.96	4.15	5.18	6.38	9.42	6.97	3.05	1.45	1.22	1.56	4.00
1950	2.00	3.46	3.45	6.93	6.55	7.99	11.5	9.44	5.78	3.39	2.42	2.30	5.42

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	256	385	473	251	112	90	85	-
1949	122	166	244	255	287	392	561	429	181	89	75	93	2,890
1950	123	206	212	426	364	491	686	580	344	209	149	137	3,930

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120	23	May 6, 1948	-	-	-	-	-
1949	1150	20	May 19, 1949	1.1	4.00	2,890	4.01	2,900
1950	1180	*61	Jan. 22, 1950	1.8	5.42	3,930	-	-

* Revised.

353. 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., 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.

Gage.--Water-stage recorder. Altitude of gage is 4,620 ft (from river-profile map).

Average discharge.--11 years (1939-50), 376 cfs.

Extremes.--1939-50: Maximum discharge, 8,500 cfs Jan. 22, 1943 (gage height, 8.40 ft), from rating curve extended above 2,300 cfs on basis of slope-area determination of peak flow; minimum daily, 4 cfs Aug. 17, 1939.

Remarks.--Many diversions for irrigation above station. Flow slightly regulated by several small reservoirs on tributaries.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	-	-	86.0	10.7	6.8	14.3	-
1940	65.0	65.2	92.9	372	349	523	883	1,559	690	74.8	13.9	19.9	392
1941	49.9	86.3	197	219	242	311	323	1,653	993	209	35.7	31.5	364
1942	100	181	472	780	484	460	936	1,405	1,719	465	45.5	47.2	591
1943	77.2	314	327	865	449	769	1,316	1,528	1,046	265	42.5	37.7	587
1944	78.3	131	168	197	207	293	283	950	486	92.9	19.6	14.8	244
1945	39.8	201	206	200	602	352	688	1,661	1,176	329	36.5	30.2	458
1946	136	299	425	375	266	357	928	1,288	536	95.7	20.9	31.4	397
1947	84.5	330	256	187	256	303	372	886	257	25.2	12.2	12.9	248
1948	51.2	106	99.4	159	113	78.6	217	886	913	157	15.9	14.9	234
1949	35.2	71.4	86.7	80.6	165	203	662	1,273	461	33.9	15.1	12.6	259
1950	32.5	83.7	86.4	262	279	253	733	1,238	1,186	167	22.9	22.8	363

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1939	-	-	-	-	-	-	-	-	5,120	657	417	853	-
1940	4,000	3,880	5,710	22,890	20,100	32,170	52,570	95,860	41,080	4,600	857	1,180	284,900
1941	3,070	5,130	12,100	13,470	13,470	19,100	19,200	101,700	59,080	12,880	2,200	1,870	263,300
1942	6,160	10,760	29,020	47,990	26,870	28,310	55,700	86,390	102,300	28,610	2,790	2,810	427,700
1943	4,750	18,700	20,090	53,210	24,910	47,290	78,300	93,960	62,260	16,310	2,610	2,240	424,600
1944	4,820	7,790	10,310	12,090	11,900	18,030	16,860	58,430	28,920	5,710	1,200	881	176,900
1945	2,450	11,980	12,680	12,320	33,450	21,630	40,930	102,100	69,950	20,210	2,250	1,800	331,800
1946	8,360	17,810	26,120	23,040	14,800	21,960	55,210	79,190	31,890	5,890	1,290	1,870	287,400
1947	5,190	19,610	15,720	11,490	14,190	18,630	22,120	54,490	15,260	1,550	747	768	179,800
1948	3,150	6,290	6,110	9,780	6,520	4,830	12,930	54,500	54,330	9,670	978	887	170,000
1949	2,160	4,250	5,330	4,950	9,180	12,460	39,400	78,270	27,420	2,080	928	718	187,100
1950	2,000	4,980	5,310	16,100	15,490	15,540	43,610	76,100	70,590	10,250	1,410	1,360	262,700

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1939	880	541	May 12, 1939	-	-	-	-	-
1940	900	2,300	May 14, 1940	6	392	284,900	402	291,600
1941	930	2,430	May 13, 1941	24	364	263,300	399	288,900
1942	960	5,300	Jan. 28, 1942	27	591	427,700	587	425,300
1943	980	8,500	Jan. 22, 1943	27	587	424,600	558	404,000
1944	1010	1,530	May 9, 1944	8.9	244	176,900	250	181,100
1945	1040	3,860	Feb. 3, 1945	22	458	331,800	493	356,900
1946	1060	1,930	May 7, 1946	15	397	287,400	381	275,700
1947	1090	1,950	Nov. 24, 1946	8.6	248	179,800	214	154,800
1948	1120	1,870	May 27, 1948	9.4	234	170,000	229	166,200
1949	1150	2,420	May 17, 1949	8.3	259	187,100	259	187,700
1950	1180	2,160	May 29, 1950	11	363	262,700	-	-

354. Carson River near Empire, Nev.

Location.--Lat 39°10', long 119°41', in sec. 12, T. 15 N., R. 20 E., just downstream from tailrace of Brunswick Mill power canal, a quarter of a mile downstream from highway bridge, and 2 miles east of Empire.

Drainage area.--988 sq mi.

Gage.--Staff gage. Altitude of gage is 4,560 ft (from river-profile map). Prior to Feb. 24, 1911, at several sites within three-quarters of a mile of described site at different datums.

Average discharge.--22 years (1900-1922), 516 cfs.

Extremes.--1900-1923: Maximum discharge observed, 5,160 cfs Jan. 23, 1914 (gage height, 8.0 ft); no flow Aug. 31, Sept. 4, 5, 14, 1905.

Remarks.--Several diversions for irrigation above station. Brunswick Mill power canal began diverting above station Apr. 12, 1907; records herein adjusted for this diversion until Feb. 23, 1911, when station was moved below canal tailrace.

Cooperation.--Records for 1915-23 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	802	149	192	-
1896	154	204	211	-	-	-	-	-	-	-	-	-	-
1901	70	109	93	115	645	634	700	1,994	1,422	468	126	39	535
1902	113	197	311	225	279	411	618	1,041	1,002	170	19	15	367
1903	54	160	213	264	378	308	681	1,321	1,411	279	20	15	425
1904	49	221	†201	187	†789	1,035	1,094	2,006	1,852	638	139	82.4	†691
1905	420	267	229	267	†299	366	561	929	728	95.4	6.9	5.5	348
1906	45.8	78.1	135	477	298	452	914	1,940	†2,230	1,860	418	†103	†746
1907	172	262	436	444	717	‡1,420	‡2,900	‡3,200	‡2,585	a1,910	a569	a228	‡1,237
1908	a215	a254	a328	a295	a260	a325	a475	b579	b433	b112	b46.5	b62	‡282
1909	b104	b133	b132	957	533	385	970	1,510	1,870	600	93.0	67.2	‡613
1910	165	436	550	448	594	770	1,090	1,160	566	114	16.3	13.8	506
1911	93.3	149	239	480	605	877	1,290	1,800	3,280	1,400	103	65	865
1912	166	229	213	219	205	188	66.4	742	867	66.8	22.2	15.4	250
1913	39.1	89.3	111	143	218	225	442	1,290	506	75.5	32.5	23.9	267
1914	39.9	74.7	97.8	1,290	654	814	1,270	2,490	2,070	739	87.8	33.0	806
1915	113	162	324	255	407	362	738	1,160	1,510	373	17.9	9.70	451
1916	51.5	117	237	573	851	782	1,260	1,700	1,650	516	34.9	33.8	647
1917	276	236	229	*266	500	342	789	1,420	2,290	715	47.5	18.0	*592
1918	44.0	126	208	172	214	543	650	796	777	42.0	7.16	21.5	300
1919	129	117	163	171	307	265	670	1,610	383	19.1	7.8	8.0	321
1920	19.1	69.3	172	154	125	133	210	693	546	165	9.6	6.7	192
1921	35.2	109	‡200	255	265	371	430	1,300	1,290	191	14.7	12.9	‡373
1922	31.7	68.2	108	180	499	444	589	1,940	2,080	422	45.5	21.0	534
1923	56.4	148	270	232	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of records for stations on nearby streams.
a Not previously published; estimated by adding estimated monthly diversion of 30-40 cfs by Brunswick Mill power canal to discharge records of river below diversion.
b Not previously published; computed by adding records of monthly diversion by Brunswick Mill power canal to discharge records of river below diversion.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	49,310	9,160	11,420	-
1896	9,470	12,140	12,970	-	-	-	-	-	-	-	-	-	-
1901	4,304	6,486	5,718	7,071	35,820	38,980	41,650	122,600	84,620	28,780	7,748	2,321	386,100
1902	6,948	11,720	19,120	13,840	15,500	25,270	36,770	64,010	59,620	10,450	1,168	893	265,300
1903	3,320	9,521	13,100	16,230	20,990	18,940	40,520	81,220	83,960	17,160	1,230	893	307,100
1904	3,013	13,150	†12,360	11,500	†45,380	63,640	65,100	123,300	110,200	39,230	8,547	4,903	†500,300
1905	25,820	15,890	14,080	16,420	†16,610	22,500	33,380	57,120	43,320	5,866	424	327	251,800
1906	2,816	4,647	8,301	29,300	16,600	27,800	54,400	119,000	133,000	114,000	25,700	†6,130	542,000
1907	10,600	15,600	26,800	27,300	39,800	‡87,500	‡173,000	‡196,000	‡154,000	a118,000	a34,900	a13,600	‡897,000
1908	a13,300	a15,100	a20,200	a18,200	a15,000	a20,000	a28,200	b35,600	b25,800	b6,920	b2,860	b3,690	‡205,000
1909	b6,400	b7,910	b8,140	58,800	29,600	23,700	57,700	92,800	111,000	36,900	5,720	4,000	‡443,000
1910	10,100	25,900	33,800	27,500	33,000	47,300	64,900	71,300	33,700	7,010	1,000	821	356,000
1911	5,740	8,870	14,700	29,500	33,600	53,900	76,800	111,000	195,000	86,100	6,330	3,870	625,000
1912	10,200	13,600	13,100	13,500	11,800	11,600	3,950	45,600	51,600	4,110	1,360	916	181,000
1913	2,400	5,310	6,820	8,790	12,100	13,800	26,300	79,300	30,100	4,640	2,000	1,420	193,000
1914	2,450	4,440	6,010	79,300	36,300	50,000	75,600	153,000	123,000	45,400	5,400	1,960	583,000
1915	6,950	9,640	19,900	15,700	22,600	22,300	43,900	71,300	89,800	22,900	1,100	577	327,000

† Corrected.
‡ Not previously published; see footnote to preceding table.
a Not previously published; see footnote to preceding table.
b Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Carson River near Empire, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	3,170	6,960	14,600	35,200	49,000	48,100	75,000	105,000	98,200	31,700	2,150	2,010	471,000
1917	17,000	14,000	14,100	*16,300	27,800	21,000	46,900	87,300	136,000	44,000	2,920	1,070	*428,000
1918	2,710	7,500	12,800	10,600	11,900	33,400	38,700	48,900	46,200	2,580	440	1,280	217,000
1919	7,930	6,960	10,000	10,500	17,000	16,300	39,900	99,000	22,800	1,170	480	478	233,000
1920	1,170	4,120	10,600	9,470	7,190	8,180	12,500	42,600	32,500	10,100	587	397	139,000
1921	2,160	6,490	‡12,300	15,700	14,700	22,800	25,600	80,000	76,800	11,700	904	768	‡270,000
1922	1,950	4,060	6,640	11,100	27,700	27,300	35,000	119,000	124,000	25,900	2,800	1,250	387,000
1923	3,470	8,810	16,600	14,300	-	-	-	-	-	-	-	-	-

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1895	(a)	-	-	-	-	-	-	-
1901	75	*3,300	May 18, 1901	25	535	386,100	563	407,400
1902	85	1,710	May 30, 1902	10	367	265,300	351	253,500
1903	100	2,060	May 15, 1903	12	425	307,100	†428	†309,700
1904	133	3,250	Feb. 25, 1904	13	†691	†500,300	†727	†527,600
1905	176	1,430	May 19, 1905	0	348	251,800	293	†211,700
1906	212	3,020	June 14, 1906	12	†746	542,000	†801	579,000
1907	250	b4,000	Mar. 18, 1907	-	‡1,237	‡897,000	‡1,232	‡893,000
1908	250	-	-	-	‡282	‡205,000	‡246	‡179,000
1909	270	2,930	Jan. 15, 1909	-	‡613	‡443,000	678	490,000
1910	290	1,700	Apr. 29, 1910	7.5	506	356,000	436	316,000
1911	310	4,440	June19,20,1911	36	865	625,000	875	634,000
1912	330	2,030	June 5, 1912	11	250	181,000	219	159,000
1913	360	2,090	May 19, 1913	14	267	193,000	264	191,000
1914	390	5,160	Jan. 23, 1914	22	806	583,000	838	606,000
1915	410	3,100	June 12, 1915	4	451	327,000	435	315,000
1916	440	3,100	Feb. 11, 1916	16	647	471,000	675	491,000
1917	460,1514	3,250	June11,12,1917	13	*592	*428,000	*561	*406,000
1918	480	1,440	Mar. 19, 1918	5	300	217,000	302	219,000
1919	510	2,630	May 30, 1919	6	321	233,000	309	224,000
1920	510	1,350	May 20, 1920	5	192	139,000	‡199	‡144,000
1921	530	2,000	May 17, 1921	7	‡373	‡270,000	361	262,000
1922	550	3,290	June 5, 1922	16	534	387,000	556	403,000
1923	570	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published.
a Bull. 140.
b Maximum daily.

355. 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; 1,200 sq mi, approximately, at sites used April 1911 to December 1933.

Gage.--Water-stage recorder. Altitude of gage is 4,200 ft (from topographic map). Prior to Apr. 25, 1924, staff gage at site 7½ 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.--39 years (1911-50), 356 cfs.

Extremes.--1911-50: Maximum discharge, 6,300 cfs Jan. 24, 1943; no flow during some periods in nearly every year since 1923.

Remarks.--Several diversions for irrigation above station, including those for irrigation of 720 acres between described site and site used prior to Jan. 1, 1934. Practically entire flow is diverted during late irrigation season. Records equivalent at all sites.

Cooperation.--Records for 1911-31 furnished by Bureau of Reclamation and those for 1932-50 furnished by Truckee-Carson Irrigation District.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	1,790	3,270	1,430	169	59.2	-
1912	151	207	193	198	228	185	79.3	577	879	135	29.4	19.5	240
1913	72.4	148	162	188	232	223	231	760	487	‡87.4	‡43.2	‡33	‡222
1914	40	91.6	146	1,490	776	993	1,450	2,510	1,900	716	102	18.2	853
1915	102	154	204	249	417	367	591	1,020	1,360	432	34.3	14.1	411

‡ Not previously published; partly estimated on basis of observer's notes and records for nearby streams.

Monthly and yearly mean discharge, in cubic feet per second, of Carson River near Fort Churchill, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	50.4	188	318	709	1,290	1,030	1,480	1,720	1,660	605	35.2	41.1	756
1917	324	310	324	*313	536	455	849	1,480	2,300	796	44.0	29.8	*645
1918	36.9	126	200	140	182	521	734	822	887	40.2	4.48	8.80	308
1919	143	151	183	183	253	250	762	1,810	465	22.8	7.9	2.0	354
1920	31.9	93.5	215	159	162	176	190	709	499	149	10.7	6.8	200
1921	31.9	152	‡226	329	343	475	475	1,270	1,330	280	21.1	9.0	‡411
1922	35.7	128	197	288	505	623	722	1,950	2,490	603	59.0	37.0	635
1923	80.8	253	562	351	367	457	631	1,400	904	400	37.1	0	†454
1924	25.9	271	360	195	155	135	130	224	†10.3	0	0	0	126
1925	0	131	‡165	183	458	336	674	1,330	822	303	30.0	10.0	‡369
1926	80.8	118	134	132	221	210	455	468	70.1	9.7	0	0	158
1927	0	144	263	252	497	413	745	1,430	1,540	348	23.7	11.0	470
1928	61.9	196	143	122	133	425	608	873	201	36.4	0	0	234
1929	0	60	240	113	121	87.2	106	476	266	28.7	7.6	8.4	126
1930	11.3	27.4	127	162	206	232	478	609	564	37.5	11.7	11.0	206
1931	33.4	93.9	105	135	141	105	142	262	41.5	13.1	4.1	4.1	89.8
1932	6.2	21.1	99.5	214	356	479	649	1,340	1,500	386	18.0	18.0	423
1933	41	67	81	121	137	206	154	264	819	97.6	24.5	13.5	168
1934	26.0	137	178	189	161	238	219	568	63.1	1.3	0	0	105
1935	0	50.2	84.4	96.2	151	153	668	1,096	1,030	155	3.5	0	290
1936	8.8	111	116	188	521	412	806	1,288	973	139	0	0	378
1937	25.2	111	130	167	802	387	496	1,375	782	101	6.6	0	362
1938	14.2	82.8	769	318	416	991	1,416	2,410	2,384	698	75.3	22.0	801
1939	166	217	229	226	221	298	564	321	74.3	2.2	0	0	193
1940	59.0	86.8	115	406	347	531	884	1,444	679	60.8	0	0	384
1941	30.7	110	214	232	252	306	257	1,487	939	206	0	0	337
1942	84.9	191	436	770	538	466	870	1,259	1,612	458	7.6	0	557
1943	42.0	308	343	776	530	791	1,235	1,403	993	271	0	0	557
1944	63.1	160	213	217	230	314	280	795	457	68.0	0	0	233
1945	4.87	208	237	236	610	386	616	1,466	1,071	325	0	0	428
1946	61.0	299	405	394	286	350	824	1,198	471	49.5	0	0	362
1947	20.8	307	285	229	277	308	305	772	234	0	0	0	228
1948	0	85.9	135	188	141	82.7	168	733	838	137	0	0	209
1949	0	62.1	127	79.8	171	214	542	1,166	409	0	0	0	231
1950	0	50.8	115	322	336	263	665	1,155	1,252	165	0	0	359

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of observer's notes and records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	110,000	195,000	87,900	10,400	3,520	-
1912	9,280	12,300	11,900	12,200	13,100	11,400	4,720	35,500	52,300	8,300	1,810	1,160	174,000
1913	4,450	8,810	9,960	11,600	12,900	13,700	13,700	46,700	29,000	‡5,370	‡2,660	‡1,960	‡161,000
1914	2,460	5,450	8,980	91,600	43,100	61,000	86,300	154,000	13,000	44,000	6,270	1,080	617,000
1915	6,270	9,160	12,500	15,300	23,200	22,600	35,200	62,700	80,900	26,600	2,110	839	297,000
1916	3,100	11,200	19,600	43,600	74,200	63,300	88,100	106,000	98,800	37,200	2,160	2,450	550,000
1917	19,900	18,400	19,900	*19,200	29,800	28,000	50,500	91,000	137,000	48,900	2,710	1,770	*467,000
1918	2,270	7,500	12,300	8,610	10,100	32,000	43,700	50,500	52,800	2,470	275	524	223,000
1919	8,790	8,980	11,300	11,300	14,100	15,400	45,300	111,000	27,700	1,400	484	119	256,000
1920	1,960	5,560	13,200	9,780	9,320	10,800	11,300	43,600	29,700	9,160	658	406	145,000
1921	1,960	9,040	‡13,900	20,200	19,000	29,200	28,300	78,100	79,100	17,200	1,300	536	‡298,000
1922	2,200	7,620	12,100	17,700	28,000	38,300	43,000	120,000	148,000	37,100	3,630	2,200	460,000
1923	4,970	15,100	34,600	21,600	20,400	28,100	37,500	86,100	53,800	24,600	2,280	0	329,000
1924	1,590	16,100	22,100	12,000	8,920	8,300	7,740	13,800	613	0	0	0	91,200
1925	0	7,800	*10,100	11,300	25,400	20,700	40,100	81,800	48,900	18,600	1,840	595	‡267,000
1926	4,970	7,020	8,240	8,120	12,300	12,900	27,100	28,800	4,170	596	0	0	114,000
1927	0	8,570	16,200	15,500	27,600	25,400	44,300	87,900	91,600	21,400	1,460	655	341,000
1928	3,810	11,700	8,790	7,500	7,650	26,100	36,200	53,700	12,000	2,240	0	0	170,000
1929	0	3,570	14,800	6,950	6,720	5,360	6,310	29,300	15,800	1,760	467	500	91,500
1930	695	1,630	7,810	9,960	11,400	14,300	28,400	37,400	33,600	2,310	719	655	149,000
1931	2,050	5,590	6,460	8,300	7,830	6,460	8,450	16,100	2,470	806	253	244	65,000
1932	381	1,260	6,120	13,200	20,500	29,500	38,600	82,400	89,300	23,700	1,110	1,070	307,000
1933	2,520	3,990	4,980	7,440	7,610	12,700	9,160	16,200	48,700	6,000	1,510	803	122,000
1934	1,600	8,140	10,920	11,640	8,970	14,660	13,050	3,490	3,750	81	0	0	76,300
1935	0	2,990	5,190	5,910	8,410	9,390	39,760	67,410	61,310	9,530	216	0	210,100
1936	543	6,580	7,150	11,550	29,990	25,310	47,950	79,210	57,890	8,570	0	0	274,700
1937	1,550	6,590	7,970	10,270	44,560	23,800	29,520	84,570	46,540	6,200	405	0	262,000
1938	873	4,920	47,270	19,530	23,120	60,920	84,270	148,200	141,900	42,940	4,630	1,310	579,900
1939	10,200	12,920	14,070	13,920	12,290	18,290	33,550	19,740	4,420	133	0	0	139,500
1940	3,630	5,170	7,100	24,990	19,940	32,680	52,570	88,810	40,390	3,740	0	0	279,000
1941	1,890	6,520	13,160	14,270	13,970	18,830	15,280	91,430	55,890	12,640	0	0	243,900
1942	5,220	11,360	26,790	47,330	29,880	28,640	51,790	77,440	95,900	28,190	466	0	403,000
1943	2,580	18,300	21,090	47,710	29,460	48,620	73,490	86,280	59,070	16,690	0	0	403,300
1944	3,880	9,530	13,080	13,370	13,220	19,310	16,670	48,880	27,200	4,180	0	0	169,300
1945	300	12,400	14,570	14,500	33,870	23,760	36,660	90,160	63,720	19,960	0	0	309,900
1946	3,750	17,760	24,930	24,230	15,910	21,550	49,040	73,660	28,010	3,040	0	0	261,900
1947	1,280	18,290	17,530	14,110	15,400	18,950	18,130	47,460	†13,910	0	0	0	165,100
1948	0	5,110	8,300	11,550	8,140	5,090	9,970	45,060	49,890	8,420	0	0	151,500
1949	0	3,700	7,810	4,910	9,480	13,170	32,280	71,710	24,320	0	0	0	167,400
1950	0	3,020	7,070	19,800	18,650	16,160	39,550	70,990	74,480	10,140	0	0	259,900

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Carson River near Fort Churchill, Nev.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	4,470	June 20,21,1911	-	-	-	-	-
1912	330	1,640	June 5, 1912	9	240	174,000	226	164,000
1913	360	1,360	May 29, 1913	-	‡222	‡161,000	‡214	‡154,000
1914	390	6,150	Jan. 26, 1914	-	853	617,000	869	628,000
1915	440	a2,340	May 31, 1915	8	411	297,000	419	303,000
1916	440	3,950	Feb. 11, 1916	12	756	550,000	790	574,000
1917	460,1514	3,050	June 11, 1917	27	*645	*467,000	*595	*431,000
1918	480	1,500	June 13,15,1918	4	308	223,000	318	230,000
1919	510	3,140	May 31, 1919	2	354	256,000	343	248,000
1920	510	1,680	May 21, 1920	2	200	145,000	‡206	‡150,000
1921	530	1,850	(b)	9	‡411	‡298,000	407	295,000
1922	550	3,900	June 6,7,1922	9	635	460,000	680	493,000
1923	570	2,170	May 26, 1923	0	†454	329,000	434	314,000
1924	590	390	May11,12,1924	0	126	91,200	95.3	‡69,300
1925	610	1,960	Apr18,May 8,1925	0	‡369	‡267,000	372	270,000
1926	630	982	May 6, 1926	0	158	114,000	164	118,000
1927	650	2,430	May 18, 1927	0	470	341,000	469	340,000
1928	670	2,710	Mar. 28, 1928	0	234	170,000	226	164,000
1929	690	746	May 19, 1929	0	126	91,500	115	83,300
1930	705	1,290	May 22, 1930	6	206	149,000	211	153,000
1931	720	625	Apr. 29, 1931	3	89.8	65,000	81.1	58,670
1932	735	2,200	May 20, 1932	-	423	307,000	428	311,000
1933	750	1,370	June 1,2,1933	13	168	122,000	181	131,000
1934	765	694	Apr. 1, 1934	0	105	76,300	88.1	63,800
1935	790	1,900	May 28, 1935	0	290	210,100	299	216,200
1936	810	2,040	Feb. 24, 1936	0	378	274,700	381	276,600
1937	830	2,110	May 17, 1937	0	362	262,000	413	298,900
1938	860	5,500	Dec. 14, 1937	0	801	579,900	779	564,000
1939	880	790	Apr. 14, 1939	0	193	139,500	163	118,200
1940	900	2,000	May 15, 1940	0	384	279,000	392	284,700
1941	930	2,150	May 14, 1941	0	337	243,900	367	265,700
1942	960	3,730	Jan. 29, 1942	0	557	403,000	555	401,600
1943	980	c6,300	Jan. 24, 1943	0	557	403,300	536	387,800
1944	1010	1,190	May 11, 1944	0	233	169,300	234	170,100
1945	1040	2,440	May 12, 1945	0	428	309,900	455	329,100
1946	1060	1,760	May 8, 1946	0	362	261,900	349	252,500
1947	1090	1,450	May 6, 1947	0	228	165,100	195	141,400
1948	1120	1,520	May 28, 1948	0	209	151,500	206	149,600
1949	1150	2,040	May 18, 1949	0	231	167,400	229	166,000
1950	1180	1,980	June 2,3,1950	0	359	259,900	-	-

* Revised.
† Corrected.
‡ Not previously published.

a Maximum observed.
b May 16, June 9, 10, 1921.
c Momentary maximum.

HUMBOLDT RIVER BASIN

356. Bishop Creek near Wells, Nev.

Location.--Lat 41°15', long 114°57', in sec. 27, T. 29 N., R. 62 E., 2 miles upstream from Trout Creek, 4½ miles upstream from Burnt Creek, and 10 miles north of Wells.

Drainage area.--125 sq mi.

Gage.--Foot rule and 20-ft Cippoletti weir.

Extremes.--1910: Maximum discharge observed, 176 cfs March 20 (gage height, 1.90 ft); minimum observed, 5.1 cfs August 5, 13.

Remarks.--No diversions or regulation above station.

Cooperation.--Records furnished by Pacific Reclamation Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	7.80	8.04	59.4	27.7	18.4	8.24	6.02	5.10	5.66	-
1911	6.09	7.32	7.94	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	480	447	3,650	1,650	1,130	490	370	314	337	-
1911	374	436	488	-	-	-	-	-	-	-	-	-	-

Note.--Calendar year 1910: mean, 14.0 cfs; runoff, 10,200 acre-ft.

357. Starr Creek near Deeth, Nev.

Location.--Lat 41°01', long 115°16', in NE¼ sec. 12, T. 36 N., R. 59 E., 2 miles upstream from mouth and 3 miles southeast of Deeth.

Gage.--Staff gage. Altitude of gage is 5,450 ft (from topographic map). Prior to Oct. 1, 1916, at datum 2.14 ft lower and Oct. 1, 1916, to Nov. 6, 1917, at datum 1.14 ft lower.

Average discharge.--11 years (1913-24), 26.1 cfs.

Extremes.--1913-24: Maximum discharge observed, 391 cfs June 9, 1921 (gage height, 4.65 ft); minimum, 0.5 cfs July 8 to Aug. 7, 1919.

Remarks.--Station is below practically all diversions and below all large tributaries except Boulder Creek.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	‡149	37.1	4.48	6.13	-
1914	8.08	11.3	10.0	14.3	12.7	52.6	58.1	123	196	37.5	5.50	9.35	44.9
1915	11.4	9.93	8.05	8.90	11.5	14.6	11.9	13.0	31.8	3.70	2.67	1.92	10.7
1916	5.63	7.23	7.98	5.97	11.3	35.0	27.9	18.7	67.9	27.2	3.09	4.09	18.5
1917	8.19	6.99	5.92	4.07	6.48	12.8	34.9	80.3	210	105	9.29	4.47	40.8
1918	7.34	8.85	9.41	9.13	9.05	16.9	8.35	20.4	24.9	2.72	2.11	3.37	10.2
1919	6.0	6.5	5.5	4.4	6.1	28.9	24.7	66.0	13.0	1.3	1.4	2.2	13.9
1920	4.0	4.2	5.4	7.2	7.6	8.2	24.6	60.6	110	10.9	2.6	4.3	20.7
1921	7.5	11.4	8.4	13.0	17.9	39.6	53.6	148	260	68.8	6.8	6.0	53.4
1922	6.3	9.7	11.1	6.0	11.0	16.5	46.9	106	162	17.5	7.8	4.5	33.8
1923	4.5	6.5	6.9	6.9	6.1	7.2	20.1	49.7	137	52.5	7.1	8.1	26.0
1924	10.6	9.0	8.1	6.3	11.8	9.5	18.2	67.6	10.8	5.1	3.6	3.0	13.7

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	‡8,890	2,280	275	365	-
1914	497	672	615	879	705	3,230	3,460	7,560	11,700	2,310	338	556	32,500
1915	701	591	495	530	639	898	708	799	1,890	228	164	114	7,760
1916	346	430	491	367	650	2,150	1,660	1,150	4,040	1,670	190	243	13,400
1917	504	416	364	250	360	787	2,080	4,940	12,500	6,460	571	266	29,500
1918	451	527	579	561	503	1,040	497	1,250	1,480	167	130	201	7,390
1919	367	385	337	274	341	1,780	1,470	4,060	774	79	85	131	10,100
1920	246	250	331	445	434	502	1,460	3,730	6,550	670	160	254	15,000
1921	461	678	516	799	994	2,430	3,190	9,100	15,500	4,230	418	357	38,700
1922	387	577	682	369	611	1,010	2,790	6,520	9,640	1,080	480	268	24,400
1923	277	387	424	424	339	443	1,200	3,060	8,150	3,230	437	482	18,900
1924	652	536	498	387	679	584	1,080	4,160	643	314	221	179	9,930

‡ Not previously published; partly estimated on basis of records of stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	a273	June 11, 1913	-	-	-	-	-
1914	390	372	June4,6, 1914	3.5	44.9	32,500	44.9	32,500
1915	410	62	June 1, 1915	1.6	10.7	7,760	10.0	7,240
1916	440	126	June17,18, 1916	1.3	18.5	13,400	18.5	13,400
1917	460	383	June 27, 1917	-	40.8	29,500	41.1	29,800
1918	480	83	Mar. 11, 1918	1.4	10.2	7,390	9.6	6,920
1919	510	184	Mar. 23, 1919	.5	13.9	10,100	13.6	9,820
1920	510	167	June 9, 1920	1	20.7	15,000	21.9	15,900
1921	530	391	June 9, 1921	5	53.4	38,700	53.3	38,700
1922	550	253	June 14, 1922	-	33.8	24,400	33.0	23,900
1923	570	218	June 12, 1923	-	26.0	18,900	26.8	19,400
1924	590	99	May 19, 1924	2	13.7	9,930	-	-

a Maximum observed during period June to September.

358. Marys River at Marys River cabin, near Deeth, Nev.

Location.--Lat 41°32', long 115°16', in NE¼ (revised) sec. 24, T. 42 N., R. 59 E., at Marys River cabin, half a mile upstream from Deep Creek, and 36 miles north of Deeth.

Gage.--Water-stage recorder. Altitude of gage is 5,825 ft (from river-profile map).

Extremes.--1913-14: Maximum discharge, 491 cfs May 10, 1914 (gage height, 3.72 ft); minimum not determined, probably occurred during period of no gage-height record.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second, of Marys River at Marys River cabin, near Deeth, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	100	144	95.9	43.0	13.6	10.4	-
1914	10.8	15.1	‡16	‡13	‡14	69.9	230	307	130	23.0	3.39	3.32	‡69.8

‡ Not previously published; estimated on basis of records for North Fork Humboldt River near Halleck and other nearby stations.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	5,950	8,850	5,710	2,640	836	619	-
1914	664	898	‡984	‡799	‡778	4,300	13,700	18,900	7,740	1,410	208	198	‡50,580

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	‡491	May 10, 1914	-	‡69.8	‡50,580	-	-

‡ Not previously published.

359. Hanks Creek near Deeth, Nev.

Location.--Lat 41°28', long 115°16', in NW¼ sec. 6 (revised), T. 41 N., R. 60 E., (revised), 600 ft upstream from mouth, 4 miles upstream from Buena Vista Ranch, and 32 miles north of Deeth.

Gage.--Water-stage recorder. Altitude of gage is 5,760 ft (from river-profile map). Prior to July 16, 1913, at site 300 ft upstream at different datum.

Extremes.--1913-14: Maximum discharge, 101 cfs Apr. 16, 1914 (gage height, 4.74 ft); minimum not determined.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	16.0	8.26	3.04	*3.66	*2.92	1.67	-
1914	2.07	‡3.46	‡4	‡3	‡4	‡25.3	79.0	48.9	14.4	3.46	1.84	2.10	‡16.0

* Revised.
‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	952	508	181	*225	*179	99	-
1914	124	‡206	‡246	‡184	‡222	‡1,560	4,700	3,010	857	213	113	125	‡11,560

* Revised.
‡ Not previously published; estimated or partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	‡44	Aug. 29, 1913	-	-	-	-	-
1914	390	‡101	Apr. 16, 1914	-	‡16.0	‡11,560	-	-

‡ Not previously published.

360. Marys River at Buena Vista Ranch, near Deeth, Nev.

Location.--Lat 41°26', long 115°15', in NW¼ (revised) sec. 19, T. 41 N., R. 60 E., 1½ miles north of Buena Vista Ranch and 30 miles north of Deeth.

Gage.--Water-stage recorder. Altitude of gage is 5,705 ft (from river-profile map).

Extremes.--1913-14: Maximum discharge, 464 cfs May 10, 1914 (gage height, 6.83 ft); minimum not determined, probably occurred during period of no gage-height record.

Remarks.--Diversions above station for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	120	170	89.8	39.3	19.7	12.0	-
1914	11.5	17.0	‡15	‡12	‡13	112	375	375	161	35.1	6.45	4.87	‡95.0

‡ Not previously published; estimated on basis of records for North Fork Humboldt River near Halleck.

Monthly and yearly runoff, in acre-feet, of Marys River at Buena Vista Ranch, near Deeth, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	7,140	10,500	5,340	2,420	1,210	714	-
1914	707	1,010	‡922	‡738	‡722	6,890	22,300	23,100	9,580	2,160	397	290	‡68,820

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	‡464	May 10, 1914	-	‡95.0	‡68,820	-	-

‡ Not previously published.

361. Marys River near Deeth, Nev.

Location.--Lat 41°19', long 115°16', in NW¼ sec. 31, T. 40 N., R. 60 E., 300 ft east of Malo Vista ranch house and 19 miles north of Deeth.

Drainage area.--355 sq mi.

Gage.--Staff gage. Altitude of gage is 5,757 (from river-profile map). Nov. 24, 1902, to July 14, 1903, staff gage, and Jan. 17, 1912, to Apr. 12, 1923, chain gage (with supplementary staff gage after May 14, 1921) all at same site and at different datums.

Average discharge.--15 years (1912-27), 50.9 cfs.

Extremes.--1902-3, 1912-28: Maximum discharge observed, 616 cfs May 8, 1922 (gage height 7.78 ft); practically no flow part of January and February 1922, August and September 1924.

Remarks.--Diversions above station for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	16	27	57	85	218	211	177	-	-	-	-
1912	-	-	-	3.0	3.95	16.1	121	285	297	46.0	15.1	3.7	-
1913	19.6	25.6	6.0	3.0	15.4	54.3	150	130	76.4	26.9	16.8	9.9	44.5
1914	14.5	24.2	24.4	22.1	23.1	133	348	310	124	40.0	8.45	8.57	90.2
1915	14.0	12.8	6.0	6.0	14.7	39.4	61.2	32.5	21.0	12.4	2.16	1.50	18.6
1916	5.50	11.4	14.0	12.0	21.6	122	279	190	128	30.2	4.17	1.91	68.2
1917	11.6	12.0	11.1	4.06	2.44	25.2	183	328	287	64.8	8.23	4.11	78.6
1918	7.1	13.0	15.9	13.8	16.0	49.9	92.9	86.9	62.1	15.2	2.8	1.9	31.5
1919	3.3	8.1	6.9	3.0	8.3	58.1	218	136	20.0	6.0	1.5	1.2	39.2
1920	2.0	3.2	6.1	12.7	21.5	33.2	72.3	164	57.9	11.1	1.2	1.0	32.3
1921	4.2	16.6	10.9	16.1	27.8	154	219	414	276	30.8	6.9	5.9	98.7
1922	10.8	12.6	12.7	3.2	5.5	21.4	143	444	181	13.3	6.6	2.0	71.8
1923	5.2	5.5	9.2	9.4	14.6	36.4	101	172	111	36.1	6.3	4.9	42.8
1924	10.9	10.4	8.0	10.0	25.3	21.8	57.1	55.9	7.9	2.1	.5	.3	17.5
1925	1.3	3.4	5.1	5.0	10.5	36.4	225	289	63.3	12.6	4.0	3.6	55.2
1926	6.3	6.5	6.1	6.0	7.3	28.6	104	60.8	5.9	2.4	1.0	1.0	19.6
1927	1.2	3.1	7.0	8.0	12.3	31.3	127	295	151	13.5	1.9	1.0	54.6
1928	5.1	9.8	10.9	12.0	13.6	45.5	66.1	218	31.1	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	984	1,660	3,166	5,226	12,972	12,974	10,532	-	-	-	-
1912	-	-	-	184	227	999	7,200	17,500	17,700	2,830	928	220	-
1913	1,210	1,520	369	184	855	3,340	8,930	7,990	4,550	1,650	1,030	589	32,200
1914	892	1,440	1,500	1,360	1,280	8,180	20,700	19,100	7,380	2,460	520	510	65,300
1915	861	762	369	369	816	2,420	3,640	2,000	1,250	762	133	89	13,500
1916	338	678	861	738	1,240	7,500	16,600	11,700	7,620	1,860	256	114	49,500
1917	713	714	682	250	136	1,550	10,900	20,200	17,100	3,980	506	245	57,000
1918	437	774	978	848	889	3,070	5,530	5,340	3,700	935	172	113	22,800
1919	200	484	427	184	460	3,570	13,000	8,360	1,190	367	91	71	28,400
1920	123	192	373	781	1,240	2,040	4,300	10,100	3,450	682	73	60	23,400
1921	258	988	670	990	1,540	9,470	13,000	25,500	16,400	1,890	424	351	71,500
1922	664	750	781	197	306	1,320	8,510	27,300	10,800	818	406	119	52,000
1923	320	327	566	578	811	2,240	6,010	10,600	6,600	2,220	387	292	31,000
1924	670	619	492	615	1,460	1,340	3,400	3,440	470	129	31	18	12,700
1925	80	202	314	307	583	2,240	13,400	17,800	3,770	775	246	214	39,900
1926	387	387	375	369	405	1,760	6,190	3,740	351	148	61	60	14,200
1927	74	184	430	492	683	1,920	7,560	18,100	8,980	830	117	60	39,400
1928	314	583	670	738	782	2,800	3,930	13,400	1,850	-	-	-	-

Yearly discharge, in cubic feet per second, of Marys River near Deeth Nev.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100	-	-	-	-	-	-	-
1912	330	439	(a)	-	-	-	70.0	50,900
1913	360	205	Apr. 30, 1913	-	44.5	32,200	45.5	33,000
1914	390	402	(b)	5	90.2	65,300	87.7	63,500
1915	410	94	Mar. 30, 1915	1.5	18.6	13,500	19.4	14,000
1916	440	381	Apr.13-15,1916	1.4	68.2	49,500	68.5	49,700
1917	460	420	May16,17,1917	-	78.6	57,000	78.7	57,100
1918	480	130	May 6-9, 1918	1	31.5	22,800	30.0	21,700
1919	510	286	Apr. 30, 1919	1	39.2	28,400	38.6	28,000
1920	510	239	May 22, 1920	1	32.3	23,400	34.0	24,600
1921	530	530	May 29,30, 1921	1	98.7	71,500	99.1	71,800
1922	550	616	May 8, 1922	0	71.8	52,000	70.4	51,000
1923	570	223	May18,19,1923	3	42.8	31,000	43.5	31,500
1924	590	102	Apr. 24, 1924	0	17.5	12,700	15.8	11,500
1925	610	410	May 10, 1925	1	55.2	39,900	55.9	40,500
1926	630	136	(c)	1	19.6	14,200	19.0	13,800
1927	650	428	May 21, 1927	-	54.6	39,400	55.8	40,300
1928	670	350	May 13, 1928	-	-	-	-	-

a May 19, June 3-7, 1912.
b Apr. 10-23, May 11-13, 1914.
c Apr. 15, 21-23, May 5, 1926.

362. Marys River above Hot Springs Creek, near Deeth, Nev.1/

Location.--Lat 41°14', long 115°17', in NW¼ sec. 25, T. 39 N., R. 59 E., 300 ft downstream from Hot Springs Creek, 6 miles north of Cross Ranch, and 12 miles north of Deeth.

Drainage area.--415 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 5,490 ft (from river-profile map).

Extremes.--1943-50: Maximum discharge, 676 cfs May 9, 1945 (gage height, 5.99 ft); minimum, 0.1 cfs Sept. 5, 1950.
Flood in January 1943 reached a stage of 7.2 ft, from floodmarks (discharge, 1,030 cfs by slope-area determination of peak flow).

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	1.93	8.51	12.3	11	20	44.3	96.2	167	174	39.7	1.51	0.70	48.0
1945	1.97	4.22	9.57	12	26.6	60.0	154	429	278	57.4	4.33	1.67	86.8
1946	4.73	16.9	17.0	24.5	36.2	93.2	296	239	90.1	11.3	1.87	1.54	69.3
1947	7.03	20.5	25.8	13.3	43.0	64.8	85.8	116	36.5	4.00	.55	.85	34.7
1948	2.34	4.50	14.0	13.9	17.1	29.2	78.8	151	128	10.8	.49	.56	37.5
1949	2.08	4.13	9.23	8.0	9.0	38.6	230	282	78.7	6.89	.56	.63	55.8
1950	2.46	5.57	9.29	22.7	31.4	60.5	183	255	191	29.2	2.94	1.74	66.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	118	506	754	676	1,150	2,730	5,720	10,260	10,340	2,440	93	42	34,830
1945	121	251	588	738	1,480	3,690	9,130	26,370	16,570	3,530	266	100	62,830
1946	291	1,010	1,040	1,510	2,010	5,730	17,620	14,690	5,360	692	115	91	50,160
1947	432	1,220	1,580	815	2,390	3,980	5,100	7,120	2,170	246	34	51	25,140
1948	144	268	859	857	984	1,800	4,690	9,260	7,630	665	30	33	27,220
1949	128	246	567	492	500	2,380	13,680	17,340	4,680	423	34	37	40,510
1950	151	332	571	1,400	1,740	3,720	10,880	15,700	11,380	1,790	181	104	47,950

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1944	1010	306	June 15, 1944	0.2	48.0	34,830	47.4	34,410
1945	1040	676	May 9, 1945	.9	86.8	62,830	88.7	64,220
1946	1060	508	Apr. 21, 1946	.8	69.3	50,160	70.5	51,050
1947	1090	202	May 10, 1947	.4	34.7	25,140	32.0	23,180
1948	1120	259	May 30, 1948†	.2	37.5	27,220	37.1	26,890
1949	1150	456	Apr. 27, 1949	.2	55.8	40,510	56.1	40,620
1950	1180	454	May 26, 1950	.2	66.2	47,950	-	-

† Corrected.

1/ Previously published as "below Hot Springs Creek".

363. Lamoille Creek near Lamoille, Nev.

Location.--Lat 40°41'30", long 115°28'30", in NE¼ sec. 6, T. 32 N., R. 58 E., 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.

Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map). Prior to Oct. 1, 1943, staff gages at sites about 250 ft upstream at different datums.

Average discharge.--14 years (1915-22, 1943-50), 45.3 cfs.

Extremes.--1915-23, 1943-50: Maximum discharge recorded, 588 cfs July 6, 1950, but may have been exceeded in June 1917 when gage washed out; minimum, 1 cfs Jan. 24, 1918.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	‡73.3	150	47.2	9.37	4.50	-
1916	4.33	3.56	3.17	2.73	3.68	13.2	35.7	96.3	188	116	21.9	7.88	41.4
1917	17.9	9.27	5.72	2.00	3.32	‡4.5	15.3	68.6	‡323	‡180	22.8	8.55	‡55.1
1918	6.8	6.1	4.1	3.1	2.7	4.2	11.0	72.8	167	38.1	8.2	4.9	27.4
1919	9.8	8.3	5.5	4.6	5.9	6.9	42.3	220	90.5	24.9	6.9	4.3	36.1
1920	6.3	5.7	3.0	3.0	4.0	5.0	10.0	152	251	75.6	18.4	8.0	45.2
1921	8.5	8.8	7.9	7.8	7.6	18.8	36.8	180	298	153	26.3	9.6	63.8
1922	6.7	5.1	3.8	2.9	3.4	5.0	12.9	125	255	81.4	18.2	6.8	43.9
1923	4.3	4.1	4	4	3	4.1	10.3	114	-	-	-	-	-
1944	7.14	6.89	5.48	4.56	4.0	4.90	10.9	140	208	118	17.0	6.97	44.6
1945	5.57	5.67	4.71	4.43	4.83	6.16	17.7	165	265	165	28.7	9.41	57.1
1946	7.28	7.20	6.47	5.45	5.26	7.76	54.4	159	202	83.4	16.8	7.49	47.0
1947	8.96	9.73	8.83	6.85	7.18	9.52	33.8	183	143	59.1	13.4	6.65	41.1
1948	7.52	8.14	7.97	7.18	6.42	5.83	13.8	114	217	65.8	11.4	5.33	39.2
1949	5.18	4.58	4.12	3.56	3.84	5.05	35.7	159	169	54.1	11.0	5.25	38.5
1950	5.41	5.38	4.91	4.66	3.88	7.00	21.0	156	267	135	21.2	8.61	53.5

‡ Not previously published; partly estimated on basis of stage observations and records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	‡4,500	8,930	2,900	576	268	-
1916	260	212	195	168	212	812	2,120	5,920	11,200	7,130	1,350	469	30,100
1917	1,100	552	352	123	184	‡277	910	4,220	‡19,200	‡11,000	1,400	509	‡39,800
1918	418	363	252	191	150	258	655	4,480	9,940	2,340	504	292	19,800
1919	603	496	339	282	325	422	2,520	13,500	5,390	1,530	427	258	26,100
1920	389	339	184	184	230	307	595	9,350	14,900	4,650	1,130	474	32,700
1921	523	524	486	480	422	1,160	2,190	11,100	17,700	9,410	1,620	571	46,200
1922	412	303	234	178	189	307	768	7,690	15,200	5,010	1,120	405	31,800
1923	264	244	246	246	167	252	613	7,010	-	-	-	-	-
1944	439	410	337	280	230	301	651	8,630	12,390	7,230	1,040	415	32,350
1945	343	338	290	273	268	379	1,050	10,130	15,770	10,170	1,770	560	41,340
1946	447	428	398	335	292	477	3,240	9,800	12,010	5,130	1,040	446	34,040
1947	551	579	543	421	399	585	2,010	11,270	8,520	3,630	822	396	29,730
1948	462	484	490	442	369	358	819	7,020	12,940	4,050	702	317	28,450
1949	319	273	253	219	213	310	2,120	9,790	10,050	3,330	676	313	27,870
1950	333	320	302	286	215	431	1,250	9,610	15,880	8,320	1,300	512	38,760

‡ Not previously published; see footnote to preceeding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	315	June 9, 1915	-	-	-	-	-
1916	440	330	June 17, 1916	2	41.4	30,100	43.3	31,400
1917	460	-	(a)	-	‡55.1	‡39,800	‡53.8	‡38,900
1918	480	300	June 12, 1918	2	27.4	19,800	28.0	20,200
1919	510	360	May 28, 1919*	-	36.1	26,100	35.3	25,600
1920	510	377	(b)	-	45.2	32,700	46.0	33,400
1921	530	-	-	5	63.8	46,200	63.0	45,600
1922	550	416	June 7, 1922	-	43.9	31,800	43.7	31,600
1923	570	-	(c)	-	-	-	-	-
1944	1010	341	June 26, 1944	4.0	44.6	32,350	44.3	32,140
1945	1040	486	June 23, 1945	-	57.1	41,340	57.5	41,640

* Revised.
‡ Not previously published.
a Maximum probably occurred between June 18-25, 1917, after gage washed out.
b May 29, 29, June 7, 8, 9, 1920.
c Gage washed out June 12.

Yearly discharge, in cubic feet per second, of Lamoille Creek near Lamoille, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1946	1060	299	June 5, 1946	-	47.0	34,040	47.6	34,440
1947	1090	326	May 6, 1947	5.3	41.1	29,730	40.7	29,490
1948	1120	383	May 27, 1948	4.2	39.2	28,450	38.6	27,860
1949	1150	330	June 11, 1949	3.2	38.5	27,870	38.6	27,980
1950	1180	588	July 6, 1950	2.9	53.5	38,760	-	-

364. Secret Creek near Halleck, Nev.

Location.--Lat 40°52'00", long 115°16'20", NE¼NW¼ sec. 1, T. 34 N., R. 59 E., half a mile downstream from Dorsey Creek and 11 miles (revised) southeast of Halleck.

Gage.--Staff gage. Altitude of gage is 5,700 ft (from topographic map). Prior to June 16, 1921, at datum 0.33 ft lower.

Average discharge.--5 years (1918-19, 1920-24), 18.5 cfs.

Extremes.--1917-24: Maximum discharge observed, 375 cfs Apr. 23, 1921 (gage height, 3.65 ft); probably no flow during part of August and September 1919.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	-	-	-	-	-	-	68.7	9.07	2.39	1.93	-
1918	-	-	-	-	-	-	22.6	14.3	7.14	2.12	1.16	3.00	-
1919	3.2	3.6	2.4	1.5	3.2	14.6	43.0	22.6	5.4	1.3	‡1.0	‡1.0	‡8.55
1920	-	-	-	-	-	‡12.5	53.1	65.8	25.7	5.7	1.5	2.5	-
1921	4.5	5.7	6.9	8.2	12.5	67.2	97.0	149	84.8	10.1	3.5	3.0	37.8
1922	3.3	4.3	4.7	2.5	3.6	6.0	63.3	130	44.5	6.0	2.8	2.0	22.8
1923	2.5	4.6	4.1	4.5	3.9	8.6	37.0	39.9	47.1	6.4	4.4	3.5	13.8
1924	4.9	4.5	4.1	4.0	9.3	8.0	41.0	28.0	5.6	3.0	2	1	9.6

‡ Not previously published; estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	-	-	-	-	-	-	4,090	558	147	115	-
1918	-	-	-	-	-	-	1,340	879	425	130	71	179	-
1919	196	212	149	93	178	898	2,560	1,390	320	79	‡61	‡60	‡6,200
1920	-	-	-	-	-	‡766	3,160	4,050	1,530	349	91	151	-
1921	277	339	424	504	694	4,130	5,770	9,160	5,050	621	215	179	27,400
1922	203	256	289	154	200	369	3,770	7,990	2,650	369	172	119	16,500
1923	154	274	252	277	217	529	2,200	2,450	2,800	394	271	208	10,000
1924	301	268	252	246	535	492	2,440	1,720	333	184	123	60	6,950

‡ Not previously published; estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1917	460	170	June 4, 1917	-	-	-	-	-
1918	480	32	Apr. 1, 1918	0.3	-	-	-	-
1919	510	76	Apr. 3, 1919	(a)	‡8.55	‡6,200	-	-
1920	510	112	May 10, 1920	1	-	-	-	-
1921	530	375	Apr. 23, 1921	2	37.8	27,400	37.4	27,100
1922	550	b300	Apr. 29, 1922	(c)	22.8	16,500	22.7	16,500
1923	570	105	June 21, 1923	-	13.8	10,000	14.0	10,200
1924	590	122	Apr. 7, 1924	(d)	9.6	6,950	-	-

‡ Not previously published.
a Probably no flow during part of August and September.
b Maximum daily.
c Less than 1 cfs during part of January.
d Probably less than 1 cfs during part of September.

365. Lamoille Creek near Halleck, Nev.

Location (revised).--Lat 40°55'40", long 115°26'20", in SW¼ sec. 9, T. 35 N., R. 58 E., 1½ miles southeast of Halleck and 2 miles upstream from mouth.

Drainage area.--245 sq mi.

Gage.--Staff gage. Altitude of gage is 5,240 ft (from topographic map). Prior to Aug. 19, 1915, at datum 1.0 ft lower, and Aug. 19, 1915, to Sept. 26, 1917, at datum 2.5 ft lower.

Average discharge.--6 years (1913-19), 46.4 cfs.

Extremes.--1913-19: Maximum discharge observed, 556 cfs June 5, 1914 (gage height, 6.7 ft, datum then in use); no flow at times 1915-19.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	‡83.8	266	89.7	21.7	17.0	-
1914	22.3	31.7	23.2	74.7	43.2	151	194	316	373	141	19.1	11.7	117
1915	27.0	25.5	15.0	18.0	25.0	45.5	32.4	24.3	71.8	7.29	.06	0	24.2
1916	.41	6.51	10.3	11.0	83.8	116	43.7	27.1	91.4	35.8	.18	0	32.5
1917	2.58	17.1	‡11.6	‡5	‡10	‡41.9	104	*137	*261	*160	16.8	1.70	‡64.2
1918	4.81	19.8	26.5	23.2	23.9	52.4	33.4	2.13	36.5	1.06	0	0	18.6
1919	‡.84	‡5	‡7	‡7.6	17.9	40.0	38.8	*85.3	61.8	0	0	0	‡22.0

* Revised.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	‡5,150	15,800	5,520	1,330	1,010	-
1914	1,370	1,890	1,430	4,590	2,400	9,280	11,500	19,400	22,200	8,670	1,170	696	84,600
1915	1,660	1,520	922	1,110	1,390	2,800	1,930	1,490	4,270	448	4	0	17,500
1916	25	387	633	676	4,820	7,130	2,600	1,670	5,440	2,200	11	0	25,600
1917	159	1,020	‡714	‡307	‡555	‡2,580	6,190	*8,440	*15,500	*9,810	1,030	101	‡46,500
1918	296	1,180	1,630	1,430	1,330	3,220	1,990	131	2,170	65	0	0	13,400
1919	‡52	‡298	‡430	‡466	994	2,460	2,310	*5,240	3,680	0	0	0	‡15,900

* Revised.
‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	452	June 13, 1913	-	-	-	-	-
1914	390	556	June 5, 1914	8	117	84,600	116	84,000
1915	410	113	(a)	0	24.2	17,500	20.0	14,500
1916	440	201	Mar. 8, 1916	0	32.5	25,600	‡33.7	‡26,400
1917	460,1444	*420	June 21-23,1917	0	‡64.2	‡46,500	‡65.9	‡47,700
1918	480	115	June 24, 1918	0	18.6	13,400	‡15.3	‡11,100
1919	510,1444	*204	May 31, 1919	-	‡22.0	‡15,900	-	-

* Revised.
‡ Not previously published.
a June 3, 11, 12, 13, 1915.

366. 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., 16 miles north of Halleck and 26 miles upstream from mouth.

Drainage area.--830 sq mi, approximately.

Supplemental records available.--January to April 1922, discharge measurements only.

Gage.--Water-stage recorder. Datum of gage is 5,368 ft above mean sea level (U.S.G.S. plane table bench mark). Prior to October 1943, at site a quarter of a mile upstream at different datum.

Extremes.--1913-21, 1943-50: Maximum discharge, 1,600 cfs Mar. 2 or 3, 1921 (gage height, 10.35 ft, site and datum then in use); minimum (revised), 1.7 cfs Aug. 19, 1948.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second, of North Fork Humboldt River at Devils Gate, near Halleck, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	‡16	‡25.7	25.6	31.3	27.5	311	451	275	151	30.1	15.6	11.5	‡114
1915	20.6	24.0	19.0	21.0	24.4	65.3	80.3	67.3	32.9	7.12	3.64	5.04	30.9
1916	8.52	17.9	18.0	15.0	23.4	276	409	197	96.3	38.5	9.59	10.4	93.2
1917	19.0	20.0	22.6	10.6	19.6	81.5	545	613	369	80.3	25	10.1	152
1918	14.1	21.0	26.5	24.9	20.0	59.9	72.1	37.5	59.6	12.6	9.23	6.01	30.3
1919	8.9	11.8	12.0	12.6	24.7	196	284	214	‡50	‡10	3.7	3.5	‡69.5
1920	11.0	16.6	14.0	15.0	‡30	‡50.5	‡110	‡198	‡106	17.7	9.9	‡10.0	‡49.1
1921	11.8	17.7	26.4	33.7	‡42.7	‡250	328	431	280	60.8	17.0	10.8	‡126
1922	a17.1	‡22	‡22	-	-	-	-	-	-	-	-	-	-
1944	10.8	19.6	17.6	13	25.1	115	126	88.4	141	24.1	5.91	5.04	49.2
1945	7.74	15.0	15	15	69.1	130	229	339	262	71.3	14.4	8.02	97.9
1946	14.7	19.7	24.1	23.0	45.7	*191	342	189	63.6	17.4	6.59	7.68	*78.6
1947	20.1	27.2	31.1	13.9	55.5	56.2	50.7	31.2	30.1	6.05	3.10	5.43	27.3
1948	8.51	10.8	9.84	15.2	24.4	36.0	60.3	56.1	96.5	9.15	2.75	4.00	27.6
1949	6.90	8.41	13.5	12	12.9	32.4	32	263	88.9	8.49	4.24	4.31	65.3
1950	8.79	13.0	16.7	29.1	61.2	82.8	214	148	113	23.0	9.21	5.82	60.2

* Revised.
‡ Not previously published; wholly or partly estimated on basis of records for nearby streams.
a Not previously published; computed on basis of daily gage-height record.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	‡984	‡1,530	1,570	1,920	1,530	19,100	26,800	16,900	8,980	1,850	959	684	‡82,800
1915	1,270	1,430	1,170	1,290	1,360	4,020	4,780	4,140	1,960	438	224	300	22,400
1916	524	1,070	1,110	922	1,350	17,000	24,300	12,100	5,730	2,370	590	619	67,700
1917	1,170	1,190	1,390	652	1,090	5,010	32,400	37,700	22,000	4,940	1,540	601	110,000
1918	867	1,250	1,630	1,530	1,110	3,680	4,290	2,310	3,550	775	568	358	21,900
1919	545	702	738	775	1,370	12,100	16,900	13,200	‡2,980	‡615	228	208	‡50,400
1920	676	988	861	922	‡1,730	‡3,110	‡6,550	‡12,170	‡6,330	1,090	611	‡595	‡35,600
1921	726	1,050	1,620	2,070	‡2,370	‡15,400	19,500	26,500	16,700	3,740	1,050	643	‡91,400
1922	a1,050	‡1,310	‡1,350	-	-	-	-	-	-	-	-	-	-
1944	664	1,170	1,080	799	1,440	7,060	7,520	5,430	8,410	1,480	364	300	35,720
1945	476	894	922	922	3,840	8,000	13,630	20,870	15,580	4,390	887	477	70,890
1946	904	1,170	1,480	1,410	2,540	*11,720	20,340	11,610	3,780	1,070	405	457	*56,890
1947	1,240	1,620	1,910	853	3,080	3,460	3,020	1,920	1,790	372	190	323	19,780
1948	523	643	605	934	1,400	2,210	3,590	3,450	5,740	563	169	238	20,060
1949	424	501	831	738	714	1,990	19,510	16,200	5,290	522	261	256	47,240
1950	540	776	1,030	1,790	3,400	5,090	12,760	9,080	6,750	1,420	566	346	43,550

* Revised.
‡ Not previously published; wholly or partly estimated on basis of records for nearby streams.
a Not previously published; computed on basis of daily gage-height record.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	726	Apr. 7, 1914	-	‡114	‡82,800	114	82,600
1915	410	194	Mar. 26, 1915	2.8	30.9	22,400	29.3	21,200
1916	440	632	Apr. 3, 1916	5.8	93.2	67,700	94.7	68,700
1917	460	1,260	Apr. 9, 1917	9	152	110,000	152	110,000
1918	480	287	June 22, 1918	-	30.3	21,900	27.8	20,200
1919	510	763	Mar. 24, 1919	-	‡69.5	‡50,400	‡70.2	‡50,900
1920	510	-	-	-	‡49.1	‡35,600	‡50.3	‡36,500
1921	S30	1,600	Mar.2or3,1921	-	‡126	‡91,400	‡127	‡91,700
1944	1010	729	Mar. 18, 1944	4.2	49.2	35,720	48.4	35,100
1945	1040	615	Mar. 13, 1945	6.1	97.9	70,890	99.7	72,150
1946	1060	476	Apr.19,20, 1946	5.5	*78.6	*56,890	*80.2	*58,100
1947	1090	a136	Feb. 16, 1947	2.6	27.3	19,780	23.2	16,780
1948	1120	215	June 5, 1948	2.0	27.6	20,060	27.6	20,050
1949	1150	544	Apr. 14, 1949	3.2	65.3	47,240	66.1	47,830
1950	1180	263	Apr. 2, 1950	3.2	60.2	43,550	-	-

* Revised.
‡ Not previously published.
a May have been greater during period of ice effect.
Note.--Daily discharge for Mar. 7, 1946, shown as 103 cfs on page 175, WSP 1060, has been revised to 266 cfs.

367. North Fork Humboldt River near Halleck, Nev. 1/

Location.--Lat 40°56', long 115°33', in SE¼ sec. 9, T. 35 N., R. 57 E., 150 ft downstream from Southern Pacific Railroad bridge, a quarter of a mile upstream from mouth, and 6 miles west of Halleck.

Drainage area.--1,020 sq mi, approximately.

Supplemental records available.--January to March 1900, gage heights only. October 1902 to January 1904, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 5,170 ft (from river-profile map). Prior to Oct. 10, 1902, at site 150 ft upstream at different datum.

Average discharge.--8 years (1898-99, 1904-9, 1911-13), 93.1 cfs.

Extremes.--1898-99, 1904-9, 1911-13: Maximum discharge observed, 1,580 cfs Apr. 16, 17, 1899 (gage height, 6.80 ft, site and datum then in use); no flow on many days in late summer.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1898	-	-	-	-	-	-	101	147	65	13	4	0.6	-
1899	6	17	24	45	75	172	845	384	695	435	142	46	240
1900	14	26	28	-	-	-	-	-	-	-	-	-	-
1904	-	-	-	-	-	184	226	*215	*123	22.2	6.7	5.4	-
1905	14.0	13.8	a20	a25	29.0	38.8	28.9	43.8	28.0	.96	.12	.50	a20.2
1906	2.9	†7.2	19.1	a40	a70	95	221	134	156	52.6	†6.55	0	a66.8
1907	0	2.76	23.2	27.2	244	283	663	263	479	170	23.1	12.0	183
1908	20.7	18.5	20.0	20.0	30.0	55.5	36.6	16.1	168	10.6	1.35	.67	33.7
1909	2.26	6.0	7.0	68.1	40.4	67.2	127	108	244	38.5	2.46	1.95	59.4
1910	2.66	17.6	25.0	-	-	-	-	-	-	-	-	8	-
1911	10	8	5	32.1	72.5	224	-	-	112	20.4	2.23	1.77	-
1912	4.42	8.0	7.0	6.06	16.6	61.3	135	238	452	67.3	28.6	4.73	85.8
1913	13.2	11.4	8.87	10	20	99.5	180	76.2	172	57.9	18.4	14.8	56.7
1914	18.8	25.6	21.3	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
a Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1898	-	-	-	-	-	-	6,010	9,040	3,870	799	266	33	-
1899	379	1,010	1,480	2,770	4,160	10,580	50,280	23,610	41,360	26,750	8,730	2,740	174,000
1900	861	1,550	1,720	-	-	-	-	-	-	-	-	-	-
1904	-	-	-	-	-	11,310	13,450	*13,220	*7,320	1,360	412	321	-
1905	861	821	*1,230	*1,540	1,610	†2,380	1,720	2,690	1,670	59	7	30	*14,620
1906	178	†431	1,170	*2,460	*3,890	5,840	13,200	†8,270	†9,290	3,230	403	0	*48,400
1907	0	164	†1,420	1,670	13,600	17,400	39,500	16,200	28,500	10,500	1,420	714	131,000
1908	1,270	1,100	1,230	1,230	1,730	3,410	2,180	990	10,000	652	83	40	23,900
1909	139	357	430	4,190	2,240	4,130	7,560	6,640	14,500	2,370	151	116	42,800
1910	164	1,050	1,540	-	-	-	-	-	-	-	-	476	-
1911	615	476	307	1,970	4,030	13,800	-	-	6,660	1,250	137	105	-
1912	272	476	430	373	955	3,770	8,030	14,600	26,900	4,140	1,760	281	62,000
1913	812	678	545	615	1,110	6,120	10,700	4,690	10,200	3,560	1,130	881	41,000
1914	1,160	1,520	1,310	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Mi..imum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1898	(a)	b257	(c)	-	-	-	-	-
1899	(d)	1,580	Apr.16, 17,1899	1	240	174,000	243	175,100
1900	51	-	-	-	-	-	-	-
1902	85	-	-	-	-	-	-	-
1903	100	-	-	-	-	-	-	-
1904	133,1564	-	-	-	-	-	-	-
1905	176	*57	May 9, 1905*	0	*20.2	*14,620	*18.6	*13,500
1906	212	334	Apr. 11, 1906	0	*66.8	*48,400	*66.5	*48,200
1907	250	1,020	Apr.18-20,1907	0	183	131,000	185	133,000
1908	250	530	June 20, 1908	.5	33.7	23,900	29.5	21,200
1909	270	502	June 8,9,1909	.5	59.4	42,800	61.7	44,700
1910	290	-	-	-	-	-	-	-
1911	330	-	-	-	-	-	-	-
1912	330	756	June 10-15,1912	2	85.8	62,000	86.6	62,800
1913	360	414	Apr. 3, 1913	1	56.7	41,000	59.4	43,000
1914	390	-	-	-	-	-	-	-

* Revised.
a 20th Ann. Rpt., Pt. 4.
b Maximum observed during period April to September.
c May 10, 17, 18, 25, 1898.
d 21st Ann. Rpt., Pt. 4.

1/ Published as "at Peko", 1898-1900, and as "near Elburz", 1903-6.

368. Humboldt River near Elko, Nev.

Location (revised).--Lat 40°56', long 115°38', in SE¼NW¼ sec. 11, T. 35 N., R. 56 E., 1 mile southwest of Ryndon, 5 miles downstream from North Fork, and 10 miles northeast of Elko.

Gage.--Water-stage recorder. Datum 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.--11 years (1897-1902, 1944-50), 236 cfs.

Extremes.--1895-1902, 1944-50: Maximum discharge, 2,530 cfs June 9, 1945; no flow for several days in August and September 1948.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	72	13	5	-
1896	15	24	31	36	55	125	386	416	1,665	413	48	13	264
1897	27	50	74	77	116	330	1,450	1,945	1,069	205	20	8	448
1898	22	54	89	65	206	271	209	348	359	58	1	2	140
1899	6	15	54	28	81	296	1,206	1,156	1,665	1,007	175	107	484
1900	176	330	96	141	158	198	231	521	723	95	2	8	223
1901	14	39	62	65	671	480	295	511	353	50	12	6	213
1902	8	9	10	57	96	153	322	460	767	187	14	1	174
1945	10.0	28.6	40	59.2	294	404	640	1,395	1,603	624	62.8	14.8	431
1946	37.5	83.7	101	164	180	597	989	926	546	109	15.0	4.49	313
1947	45.0	95.3	130	60.5	207	206	179	267	376	47.6	1.25	1.09	134
1948	2.15	32.5	51.0	58.7	78.9	144	216	173	591	62.1	.53	.65	117
1949	1.27	13.9	23.5	11.0	14.2	194	647	812	470	34.0	1.53	1.08	186
1950	1.58	11.4	16.4	40.6	146	221	408	511	765	209	7.69	1.42	194

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	4,430	799	298	-
1896	922	1,430	1,910	2,210	3,160	7,690	22,970	25,580	99,070	25,400	2,950	774	194,100
1897	1,660	2,980	4,550	4,740	6,440	20,290	89,260	119,600	63,610	12,600	1,260	476	327,500
1898	1,350	3,210	5,470	4,000	11,440	16,660	12,440	21,400	21,360	3,570	81	89	101,100
1899	394	882	1,500	1,720	4,500	18,200	71,760	71,080	99,080	61,920	10,760	6,380	348,200
1900	10,820	19,640	5,900	8,670	8,780	12,180	13,740	32,040	43,020	5,840	123	476	161,200
1901	861	2,320	3,810	4,000	37,260	29,510	17,550	31,420	21,000	3,070	738	357	151,900
1902	492	536	615	3,500	5,330	9,410	19,160	28,280	45,640	11,500	861	60	125,400
1945	615	1,700	2,460	3,640	16,330	24,860	38,080	85,790	95,390	38,390	3,860	881	312,000
1946	2,300	4,980	6,220	10,090	9,990	36,680	58,860	56,910	32,500	6,700	921	267	226,400
1947	2,770	5,670	8,010	3,720	11,510	12,680	10,640	16,400	22,370	2,930	77	65	96,840
1948	132	1,930	3,130	3,610	4,540	8,850	12,880	10,670	35,160	3,820	32	39	84,790
1949	78	830	1,440	676	791	11,910	38,530	49,930	27,970	2,090	94	64	134,400
1950	97	679	1,010	2,500	8,130	13,610	24,280	31,390	45,500	12,840	473	84	140,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1895	(a)	-	-	-	-	-	-	
1896	(b)	1,850	June 7, 1896	10	264	194,100	276	199,000
1897	(c)	2,400	May 28, 1897	5	448	327,500	449	328,300
1898	(d)	565	(e)	1	140	101,100	130	93,810
1899	(f)	2,340	June 23-25,1899	4	484	348,200	527	381,800
1900	(g)	945	June 10, 1900	0	223	161,200	183	131,900
1901	75	2,340	Feb. 24, 1901	.5	213	151,900	206	146,600
1902	85	1,140	June 21, 1902	1	174	125,400	-	-
1945	1040	h2,530	June 9, 1945	-	431	312,000	443	320,700
1946	1060	h1,370	Apr. 23, 1946	3.4	313	226,400	317	229,400
1947	1090	h692	June 3, 1947	.8	134	96,840	118	85,580
1948	1120	h1,020	June 7, 1948	0	117	84,790	113	81,950
1949	1150	h1,380	May 21, 1949	.8	186	134,400	185	133,800
1950	1180	h1,240	June 10, 1950	1.1	194	140,600	210	152,000

a Bull. 140.
b 18th Ann. Rept., Pt. 4.
c 19th Ann. Rept., Pt. 4.
d 20th Ann. Rept., Pt. 4.
e Feb. 28, Mar. 4, 1898
f 21st Ann. Rept., Pt. 4.
g 22nd Ann. Rept., Pt. 4.
h Momentary maximum.

369. South Fork Humboldt River near Lee, Nev.

Location.--Lat 40°34', long 115°33', in SE¼ sec. 16, T. 31 N., R. 57 E., 400 ft downstream from Kleckner Creek and 2½ miles east of Lee.

Drainage area.--54 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,970 ft (from topographic map).

Average discharge.--5 years (1945-50), 69.6 cfs.

Extremes.--1945-50: Maximum discharge, 815 cfs June 23, 1945 (gage height, 3.70 ft); minimum, 3.7 cfs Nov. 18, 1948.

Remarks.--A few small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	-	-	-	‡10	11.8	20.8	85.2	322	466	263	37.5	12.1	-
1946	11.0	12.0	12.3	12.5	17.1	35.4	162	282	324	92.1	15.1	7.04	82.0
1947	12.6	16.6	15.9	10.6	16.8	34.1	75.5	274	191	55.7	12.3	6.55	60.3
1948	8.63	12.0	11.7	11.9	11.2	13.3	50.0	186	344	78.1	12.3	6.60	61.9
1949	7.59	7.71	7.46	6.86	9.01	17.8	113	292	272	58.6	10.9	5.44	67.5
1950	7.04	8.87	7.48	9.09	10.5	19.9	77.7	264	358	129	15.9	7.54	76.3

‡ Not previously published; estimated on basis of weather records and records for station on Lamoille Creek near Lamoille.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	-	-	-	‡615	657	1,260	5,070	19,800	27,710	16,180	2,310	720	-
1946	674	716	756	772	950	2,170	9,650	17,350	19,270	5,660	956	419	59,340
1947	776	988	978	655	934	2,100	4,490	16,840	11,350	3,420	755	390	43,680
1948	531	713	720	731	646	819	2,970	11,410	20,470	4,800	757	393	44,960
1949	467	459	459	422	501	1,100	6,730	17,960	16,210	3,600	672	324	48,900
1950	433	528	460	559	584	1,230	4,620	16,230	21,270	7,930	976	448	55,270

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1945	1040	815	June 23, 1945	-	-	-	‡106	‡76,470
1946	1060	487	June 5, 1946	-	82.0	59,340	82.8	59,940
1947	1090	414	May 6, 1947	5.7	60.3	43,680	59.3	42,900
1948	1120	529	May 27, 1948	4.6	61.9	44,960	61.1	44,380
1949	1150	543	June 11, 1949	4.4	67.5	48,900	67.6	48,940
1950	1180	762	May 30, 1950	5.0	76.3	55,270	-	-

‡ Not previously published.

370. Huntington Creek near Lee, Nev.

Location.--Lat 40°35', long 115°43', in NE¼ sec. 12, T. 31 N., R. 55 E., 7 miles west of Lee.

Gage.--Water-stage recorder. Altitude of gage is 5,290 ft (from river-profile map).

Extremes.--1948-50: Maximum discharge, 532 cfs (revised) May 16, 1949 (gage height, 4.52 ft); minimum 1.0 cfs Aug. 10, 1949.

Remarks.--Diversions for irrigation of 17,700 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	‡4	‡6	9	8	10	54.8	120	132	58.4	6.02	2.56	2.90	‡34.5
1950	5.76	9.48	10.5	12.0	29.3	37.0	78.4	92.8	82.0	13.8	3.66	3.82	31.4

‡ Not previously published; estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	‡246	‡357	553	492	555	3,370	7,150	8,110	3,480	370	158	172	‡25,010
1950	354	564	646	738	1,630	2,280	4,660	5,710	4,880	849	225	227	22,760

‡ Not previously published; estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second, of Huntington Creek near Lee, Nev.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1180	*532	May 16, 1949	-	‡34.5	‡25,010	35.1	25,420
1950	1180	242	June 8, 1950	2.2	31.4	22,760	-	-

* Revised.
‡ Not previously published.

371. South Fork Humboldt River above Dixie Creek, near Elko, Nev.

Location.--Lat 40°41'05", long 115°48'45", in NW¼SW¼ sec. 5, T. 32 N., R. 55 E., 1½ miles (revised) upstream from Dixie Creek and 10½ miles south (revised) of Elko.

Gage.--Water-stage recorder. Altitude of gage is 5,140 ft (from river-profile map).

Extremes.--1948-50: Maximum discharge, 835 cfs June 2, 1950 (gage height, 4.60 ft); minimum, 2.5 cfs Sept. 6, 1949.

Remarks.--No diversion.

Monthly and yearly mean discharge, in cubic feet per second.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	‡6	‡10	‡22.7	15.2	15.9	95.5	245	421	342	49.1	7.51	5.20	‡103
1950	13.6	23.8	31.5	40.0	73.6	74.3	172	321	454	150	17.2	9.59	115

‡ Not previously published; partly estimated on basis of records for South Fork Humboldt River near Elko, Nev.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	‡369	‡595	‡1,400	932	883	5,870	14,550	25,900	20,350	3,020	462	309	‡74,640
1950	835	1,410	1,940	2,460	4,090	4,570	10,250	19,720	27,010	9,200	1,060	571	83,120

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1150	807	May 17, 1949	-	‡103	‡74,640	106	76,460
1950	1180	835	June 2, 1950	4.8	115	83,120	-	-

‡ Not previously published.

372. South Fork Humboldt River near Elko, Nev.1/

Location.--Lat 40°43'15", long 115°49'50", in NW¼NW¼ sec. 30, T. 33 N., R. 55 E., 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.

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.--46 years (1896-1909, 1910-18, 1920-22, 1923-32, 1936-50), 131 cfs.

Extremes.--1896-1922, 1923-32, 1936-50: Maximum daily discharge, 2,400 cfs Jan. 26, 1914; maximum gage height observed, 12.0 ft, site and datum then in use, Jan. 26, 1914 (ice jam); practically no flow during some periods in nearly every year since 1915.

Remarks.--Many diversions for irrigation above station. Station is below all diversions except those of Hunter & Banks ranch 3 miles downstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	-	-	-	-	-	-	5	-
1897	10	22	36	21	48	119	535	1,060	553	164	28	5	217
1898	31	59	65	78	191	116	165	290	355	86	4	2	120
1899	18	29	39	98	172	186	401	300	852	531	111	20	230
1900	38	54	54	69	64	109	157	449	521	92	4	3	134
1901	24	50	44	33	408	173	180	457	379	81	21	8	155
1902	37	55	51	37	61	92	349	550	959	313	59	7	214
1903	29	a35	a40	a50	a60	a125	222	332	808	102	12	2	a151
1904	5	7	8	3.7	‡64	85.8	198	556	635	207	24.9	17.0	‡151
1905	21.4	8.0	2.0	0	10.2	0	149	465	588	187	18	4.7	121

a Revised; only monthly figure revised; revised daily figures not available.
‡ Not previously published; estimated or partly estimated on basis of records for Humboldt River at Palisade.

1/ Published as "at Mason's Ranch", 1896-1902.

Monthly and yearly mean discharge, in cubic feet per second, of South Fork Humboldt River near Elko, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	9.9	†23.8	25	19.2	101	199	320	371	*812	*408	20.2	0	*192
1907	12.2	18.0	18.0	18.0	25.0	143	376	450	1,030	649	118	42.2	242
1908	42.9	40.1	40.7	46.1	51.9	77.8	93.6	112	486	245	27.1	18.0	107
1909	21.9	29.9	25.0	164	183	154	129	184	663	113	3.3	9.7	140
1910	11.0	30.3	74.7	-	-	-	-	-	-	-	-	8	-
1911	13	12	3	44.8	25	79.1	100	165	492	42.9	3.65	1.33	82.2
1912	10.3	14.7	15	20	25	58.2	173	425	946	203	24.8	23.8	162
1913	39.9	55.4	30	25	35	65.5	150	248	437	141	12.4	10.8	104
1914	22.4	33.5	33.5	223	87.3	243	328	587	675	135	14.4	4.6	199
1915	18.7	18.0	10.0	12.0	28.0	35.6	47.0	88.3	160	19.0	.35	0	36.3
1916	2.81	9.25	11.1	10	14.8	158	174	149	218	69.4	.91	.15	68.1
1917	21.0	22.6	12.0	.8.9	19.1	340	292	382	632	195	18.5	1.95	162
1918	8.49	16.9	39.3	37.3	15.0	62.8	42.4	29.6	145	20	0	.83	34.8
1919	-	-	-	-	-	-	‡174	276	38.6	0	0	0	-
1920	.03	4.5	-	-	-	-	-	‡254	272	35.0	1.0	0	-
1921	5.2	21.1	25.0	26.2	‡35	‡125	310	991	1,020	288	9.7	5.5	‡239
1922	8.3	14.3	‡18	‡12	‡20	‡65	311	541	573	70.7	4	3	‡137
1924	31.4	44.3	35.5	20	35	58.0	156	260	36.0	.4	0	0	56.4
1925	7.2	17.4	12.7	15.0	35.5	55.8	117	445	521	201	17.2	14.6	127
1926	23.1	30	20	15	35	86.6	120	124	31.1	2.3	0	0	40.5
1927	3.4	10.6	16.0	‡25	‡100	90	155	*357	*421	60.2	5.2	5.2	‡104
1928	9.2	23.8	27.7	25	40	101	58.6	*258	239	10.1	.1	0	*66.0
1929	6.4	16.8	20	20	29	130	56.1	147	*281	39.7	2.7	5.5	*62.8
1930	9.6	14.1	20	15	30	51.7	75.8	328	363	29.8	38.6	4.6	81.7
1931	20.1	23.7	20	20	25	36.4	32.3	17.4	1.3	0	0	0	16.3
1932	0	0	0	0	4.1	56.1	315	509	952	300	15	5	180
1937	11.0	18.4	24.1	25	35	75	172	367	325	43.3	2.8	2	91.7
1938	5.0	11.0	15	20	30	50	154	312	414	160	4.0	9.5	98.7
1939	17.6	44.3	55	50	40	210	283	288	126	15.2	2.8	3.5	94.9
1940	16.4	17.9	17.8	30.8	45.6	92.1	261	499	241	18.1	0	0	103
1941	4.5	10.0	13.4	20	52.5	60.8	250	612	577	148	56.8	18.5	152
1942	34.2	61.2	79.1	66.6	92.7	257	636	525	825	237	11.8	40.7	244
1943	11.3	29.6	51.9	62.4	152	170	328	273	383	113	8.6	2.0	131
1944	9.38	23.9	20.1	14	18	80.9	245	469	708	251	16.2	3.47	155
1945	10.9	29.2	20	25	100	213	509	922	950	379	57.0	26.6	270
1946	33.7	58.0	41.7	38.1	88.8	268	497	485	399	109	15.7	8.74	170
1947	44.2	60.7	63.3	23.4	77.8	91.5	114	295	274	48.1	6.96	5.40	91.9
1948	16.2	31.8	36.0	34.5	32.8	51.6	117	184	399	54.7	2.90	1.91	79.9
1949	9.01	14.1	26.5	18.1	25.0	60.5	298	445	344	47.0	5.16	2.26	108
1950	9.68	19.3	19.9	28.7	51.5	77.0	200	339	448	133	14.6	6.45	112

* Revised.
† Corrected.
‡ Not previously published; estimated or partly estimated on basis of records for Humboldt River at Palisade.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	-	-	-	-	-	-	298	-
1897	605	1,280	2,190	1,290	2,670	7,320	31,840	65,420	32,910	10,080	1,720	298	157,600
1898	1,910	3,510	4,000	4,800	10,610	7,130	9,820	17,860	21,120	5,290	246	119	86,400
1899	1,110	1,730	2,370	6,030	9,550	11,440	23,860	18,450	50,700	32,650	6,820	1,190	166,000
1900	2,340	3,210	3,320	4,240	3,550	6,700	9,340	27,610	31,000	5,660	246	179	97,400
1901	1,480	2,980	2,700	2,030	22,660	10,640	10,710	28,100	22,550	4,980	1,290	476	111,000
1902	2,280	3,270	3,140	2,280	3,390	5,660	20,770	33,820	57,060	19,250	3,630	417	155,000
1903	1,780	*2,080	*2,460	*3,070	*3,330	*7,690	13,210	20,410	48,080	6,270	738	119	*109,000
1904	307	417	492	228	‡3,680	5,280	11,780	34,190	37,780	12,730	1,530	1,010	‡109,000
1905	1,320	476	123	0	567	0	8,870	28,590	34,990	11,500	1,110	280	87,800
1906	608	†1,418	1,537	1,180	5,610	12,200	19,000	22,800	*48,300	*25,100	1,240	0	*139,000
1907	750	1,070	1,110	1,100	1,390	8,790	22,400	27,700	61,300	39,900	7,260	2,510	175,000
1908	2,640	2,390	2,500	2,830	2,990	4,780	5,570	6,890	28,900	15,100	1,670	1,070	77,300
1909	1,350	1,780	1,540	10,100	10,200	9,740	7,680	11,300	39,500	6,950	203	577	101,000
1910	676	1,800	4,590	-	-	-	-	-	-	-	-	476	-
1911	799	714	492	2,750	1,390	4,860	5,950	10,100	29,300	2,640	224	79	59,300
1912	633	875	922	1,230	1,440	3,580	10,300	26,100	56,300	12,500	1,520	1,420	117,000
1913	2,450	3,300	1,840	1,540	1,940	4,030	8,930	15,200	26,000	8,670	762	643	75,300
1914	1,380	1,990	2,060	13,700	4,850	14,900	19,500	36,100	40,200	8,300	885	274	144,000
1915	1,150	1,070	615	738	1,560	2,190	2,800	5,430	9,520	1,170	21	0	26,300
1916	173	550	682	615	851	9,720	10,400	9,160	13,000	4,270	56	9	49,500
1917	1,290	1,340	738	547	1,060	20,900	17,400	23,500	37,600	12,000	1,140	116	118,000
1918	522	1,010	2,420	2,290	833	3,860	2,520	1,820	8,630	1,230	0	50	25,200
1919	-	-	-	-	-	-	‡10,300	17,000	2,300	0	0	0	-
1920	2	266	-	-	-	-	-	‡15,600	16,200	2,150	61	0	-
1921	320	1,260	1,540	1,610	‡1,940	‡7,690	18,400	60,900	60,700	17,700	596	327	‡173,000
1922	510	851	‡1,110	‡738	‡1,110	‡4,000	18,500	33,300	34,100	4,350	†246	†179	‡99,000
1924	1,930	2,640	2,180	1,230	2,010	3,570	9,280	16,000	2,140	25	0	0	41,000
1925	443	1,040	781	922	1,970	3,430	10,500	27,400	31,000	12,400	1,060	869	91,800

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of South Fork Humboldt River near Elko, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1926	1,420	1,790	1,230	922	1,940	5,320	7,140	7,620	1,850	141	0	0	29,400
1927	209	631	984	‡1,540	‡5,560	5,530	9,220	*21,900	*25,100	3,700	320	309	‡75,000
1928	566	1,420	1,700	1,540	2,300	6,210	3,490	*15,800	14,200	621	6	0	*47,900
1929	397	1,000	1,230	1,230	1,610	7,990	3,340	9,040	*16,700	2,440	168	327	*45,500
1930	590	839	1,230	922	1,670	3,180	4,510	20,200	21,600	1,830	2,370	274	59,200
1931	1,240	1,410	1,230	1,230	1,390	2,240	1,920	1,070	79	0	0	0	11,800
1932	0	0	0	0	236	3,450	18,700	31,300	56,600	18,400	922	298	†130,000
1937	678	1,090	1,480	1,540	1,940	4,610	10,230	22,550	19,330	2,660	171	119	66,400
1938	307	657	922	1,230	1,670	3,070	9,170	19,190	24,620	9,810	246	563	71,460
1939	1,080	2,640	3,380	3,070	2,220	12,940	16,840	17,700	7,500	932	173	210	68,680
1940	1,010	1,070	1,090	1,890	2,620	5,660	15,510	30,690	14,340	1,110	0	0	74,990
1941	278	595	823	1,230	2,910	3,740	14,900	37,630	34,320	9,130	3,490	1,100	110,100
1942	2,100	3,640	4,860	4,100	5,150	15,820	37,840	38,440	49,100	14,590	726	242	176,600
1943	696	1,760	3,190	3,830	8,410	10,440	19,530	16,760	22,790	6,970	545	119	95,040
1944	577	1,420	1,240	861	1,040	4,970	14,550	28,850	42,110	15,430	999	206	112,300
1945	672	1,740	1,230	1,540	5,550	13,090	30,260	56,670	56,510	23,280	3,500	1,580	195,600
1946	2,070	3,450	2,560	2,340	4,930	16,500	29,570	29,800	23,770	6,690	965	520	123,200
1947	2,720	3,610	3,890	1,440	4,320	5,630	6,800	18,120	16,320	2,960	428	322	66,560
1948	996	1,890	2,220	2,120	1,890	3,170	6,950	11,330	23,760	3,370	178	114	57,990
1949	554	837	1,630	1,110	1,390	3,720	17,720	27,370	20,440	2,890	317	134	78,110
1950	595	1,150	1,220	1,770	2,860	4,730	11,920	20,820	26,660	8,200	898	384	81,210

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1896	(a)	-	-	-	-	-	-	-
1897	(a)	b1,330	May 25, 1897	2	217	157,600	224	163,000
1898	(c)	b473	June 18, 1898	.1	120	86,400	114	82,190
1899	(d)	b1,370	June 21, 1899	6	230	166,000	235	169,600
1900	(e)	b740	June 10, 1900	.5	134	97,400	132	95,690
1901	75	b1,480	Feb.18-20,1901	4	155	111,000	157	112,100
1902	85	b1,380	June13,14,1902	0	214	155,000	*211	*152,600
1903	100	b1,170	June11-13,1903	2	*151	*109,000	*144	*104,100
1904	133	b1,180	May 26, 1904	2	‡151	‡109,000	‡152	‡110,100
1905	176	b816	June 17, 1905	0	121	87,800	123	89,520
1906	212,1514	*b1,010	June16-24,1906	0	*192	*139,000	*191	*138,400
1907	250	b1,260	June 8, 1907	0	242	175,000	248	180,000
1908	250	b850	June 17, 1908	15	107	77,300	103	74,400
1909	270	b1,090	June 7,8,1909	2	140	101,000	143	103,000
1910	290	-	-	-	-	-	-	-
1911	330	b856	June 14, 1911	0	82.2	59,300	82.8	59,700
1912	330	b1,470	June9,14,1912	5	162	117,000	168	122,000
1913	360	b632	May26-30,1913	6	104	75,300	101	73,500
1914	390	f2,400	Jan. 26, 1914	2.5	199	144,000	195	142,000
1915	410	372	June 10, 1915	0	36.3	26,300	34.3	24,800
1916	440	438	June 18, 1916	0	68.1	49,500	70.8	51,400
1917	460	1,700	Mar. 28, 1917	0	162	118,000	163	118,000
1918	480	1,300	June 21, 1918	0	34.8	25,200	-	-
1919	510	-	-	-	-	-	-	-
1920	510	-	-	-	-	-	-	-
1921	530	2,070	May 24, 1921	0	‡239	‡173,000	‡238	‡172,000
1922	550	-	-	-	‡137	‡99,000	-	-
1924	590	470	May 18, 1924	0	56.4	41,000	50.3	36,500
1925	610	1,470	July 4, 1925	-	127	91,800	130	94,000
1926	630	244	May 21, 1926	0	40.5	29,400	36.9	26,800
1927	650,1514	*b885	May 20, 1927	-	‡104	‡75,000	‡106	‡76,900
1928	670,1514	*b957	May 27, 1928	0	*66.0	*47,900	*64.2	*46,800
1929	690,1514	*b990	June 17, 1929	0	*62.8	*45,500	*62.9	*45,500
1930	705	b475	(g)	0	81.7	59,200	83.4	60,400
1931	720	b51	Mar. 10, 1931	0	16.3	11,800	10.9	7,930
1932	735,1090	b1,490	June 16, 1932	0	180	†130,000	-	-
1937	830	800	June 1, 1937	-	91.7	66,400	89.8	65,040
1938	860	770	June 6, 1938	1	98.7	71,460	106	76,670
1939	880	476	Mar. 28, 1939	2	94.9	68,680	89.4	64,260
1940	900	750	May 16, 1940	0	103	74,990	101	73,520

* Revised.
† Corrected.
‡ Not previously published.
a 19th Ann. Rpt., Pt. 4.
b Maximum observed.
c 20th Ann. Rpt., Pt. 4.
d 21st Ann. Rpt., Pt. 4.
e 22nd Ann. Rpt., Pt. 4.
f Maximum daily.
g May 29, 30, June 12-14, 1930.

Note.--Records for Jan. 23, 30, Feb. 6, 13, 1927, published in WSP 650, have been found in error and should not be used.

Yearly discharge, in cubic feet per second, of South Fork Humboldt River near Elko, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	1,560	Aug. 8, 1941	1	152	110,100	164	119,000
1942	960	1,410	May 27, 1942	3	244	176,600	237	171,700
1943	980	1,080	June 2, 1943	1	131	95,040	128	92,630
1944	1010	975	June 10, 1944	1.6	155	112,300	155	112,700
1945	1040	1,440	May 11, 1945	7.4	270	195,600	276	200,100
1946	1060	740	Apr. 20, 1946	5.8	170	123,200	173	125,300
1947	1090	608	June 1, 1947	1.5	91.9	66,560	84.9	61,450
1948	1120	736	June 5, 1948	0	79.9	57,990	77.0	55,900
1949	1150	910	May 17, 1949	.6	108	78,110	108	78,060
1950	1180	848	May 31, 1950	2.3	112	81,210	-	-

373. Humboldt River near Carlin, Nev.

Location (revised).--Lat 40°43'40", long 116°00'30", in sec. 21, T. 33 N., R. 53 E., 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.

Gage.--Water-stage recorder. Datum of gage is 4,931.91 ft above mean sea level (levels by Nevada State Highway Department).

Average discharge.--7 years (1943-50), 361 cfs.

Extremes.--1943-50: Maximum discharge, 3,640 cfs June 10, 1945 (gage height, 7.78 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.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	16.8	64.2	81.5	70.2	127	396	605	880	1,483	606	32.7	12.4	364
1945	17.6	51.8	62.0	84.9	409	593	1,136	2,345	2,478	1,102	133	40.9	705
1946	66.0	138	145	232	283	872	1,389	1,314	916	227	38.5	18.3	470
1947	82.4	145	195	87.5	295	307	287	444	636	93.9	13.1	12.3	215
1948	15.6	46.0	80.9	100	118	184	327	265	925	141	8.47	5.82	184
1949	12.3	25.9	47.3	30.0	44.2	286	893	1,147	816	83.6	14.1	8.01	284
1950	16.5	27.1	45.5	92.1	200	314	599	754	1,220	383	42.6	16.7	308

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1944	1,030	3,820	5,010	4,320	7,310	24,370	35,980	54,090	88,250	37,270	2,010	736	264,200
1945	1,080	3,080	3,810	5,220	22,690	36,490	67,580	144,200	147,500	67,770	8,180	2,440	510,000
1946	4,060	8,240	8,920	14,270	15,710	53,630	82,670	80,800	54,490	13,970	2,370	1,090	340,200
1947	5,060	8,610	11,970	5,380	16,380	18,900	17,050	27,320	37,860	5,770	805	732	155,800
1948	960	2,740	4,980	6,170	6,790	11,330	19,480	16,300	55,050	8,700	521	346	133,400
1949	754	1,540	2,910	1,840	2,450	17,560	53,140	70,520	48,550	5,140	870	477	205,600
1950	1,020	1,610	2,800	5,660	11,130	19,310	35,640	46,370	72,300	23,560	2,620	992	223,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1944	1010	1,930	June 15, 1944	10	364	264,200	361	262,300
1945	1040	3,640	June 10, 1945	13	705	510,000	723	523,300
1946	1060	1,870	Apr. 26, 27, 1946	12	470	340,200	476	344,600
1947	1090	1,080	June 2, 1947	8.5	215	155,800	192	138,900
1948	1120	1,370	June 10, 1948	3.8	184	133,400	179	129,900
1949	1150	1,800	May 22, 1949	6.0	284	205,800	285	206,000
1950	1180	1,730	June 8, 1950	11	308	223,000	-	-

374. Maggie Creek at Carlin, Nev.

Location.--Lat 40°43'10", long 116°05'40", in sec. 26, T. 33 N., R. 52 E., 700 ft upstream from highway bridge, half a mile upstream from mouth, and half a mile east of Carlin.

Gage.--Staff gage. Altitude of gage is 4,910 ft (from topographic map). Prior to Jan. 20, 1924, at several sites from 100 ft upstream to 600 ft downstream from described site at different datums.

Average discharge.--9 years (1913-1921, 1923-24), 23.2 cfs.

Extremes.--1913-24: Maximum discharge observed, 800 cfs May 7, 1922 (gage height, 4.3 ft, site and datum then in use); no flow at times.

Remarks.--Diversions above station for irrigation of 3,504 acres, 5 of which are below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	6.01	5.16	5.38	-
1914	5.68	6.99	3.38	27.5	39.0	126	210	109	27.7	3.12	.76	.79	46.6
1915	6.63	6.63	3.00	1.64	8.41	15.4	16.1	4.56	3.26	.91	.05	.67	5.57
1916	5.11	3.58	2.00	1.00	7.28	33.4	151	86.2	28.5	12.0	4.55	1.00	27.8
1917	12.5	5.48	3.97	.90	28.0	38.5	162	210	67.4	3.91	.83	1.55	44.6
1918	3.53	6.06	4.09	3.92	4.84	18.1	16.6	1.79	1.5	.91	6.24	1.58	†5.76
1919	2.1	1.1	1.4	.50	3.8	34.1	94.1	35.7	15.3	2.63	0	0	15.9
1920	.8	4.8	1.48	3.35	22.1	31.7	49.0	54.4	4.17	.10	0	0	14.3
1921	.4	2.6	3.8	9.8	66.9	196	117	110	24.0	2.5	1.0	1.0	44.5
1922	2.3	5.2	10.5	-	-	-	223	422	-	-	-	-	-
1923	-	-	-	-	-	-	47.7	43.5	24.0	5.7	4.1	3.2	-
1924	3.5	2	1	0	9.3	8.9	20.6	3.4	.2	.2	.1	0	4.1

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	370	317	320	-
1914	349	416	208	1,690	2,170	7,750	12,500	6,700	1,650	192	47	47	33,700
1915	408	395	184	101	467	947	958	280	194	56	3	40	4,030
1916	314	213	123	62	419	2,050	8,980	5,300	1,700	738	280	60	20,200
1917	769	326	244	55	1,560	2,370	9,640	12,900	4,010	240	51	92	32,300
1918	217	361	251	241	269	1,110	988	110	89	56	384	94	4,170
1919	129	67	87	31	210	2,100	5,600	2,200	910	162	0	0	11,500
1920	52	286	91	206	1,270	1,950	2,920	3,340	248	6	0	0	10,400
1921	25	155	234	603	3,720	12,100	6,960	6,760	1,430	154	61	60	32,300
1922	141	309	646	-	-	-	13,300	25,900	-	-	-	-	-
1923	-	-	-	-	-	-	2,840	2,670	1,430	350	252	190	-
1924	215	119	61	0	535	547	1,230	209	12	12	6	0	2,950

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	390	‡394	Apr. 28, 1914	0.3	46.6	33,700	46.6	33,700
1915	410	29	Mar.29,31 1915	-	5.57	4,030	5.11	3,700
1916	440	183	Apr. 11, 1916	-	27.8	20,200	28.8	20,900
1917	460	300	Apr. 27, 1917	.3	44.6	32,300	43.9	31,700
1918	480	31	Apr. 11, 1918	.2	†5.76	4,170	5.01	3,620
1919	510	160	Apr. 6, 1919	0	15.9	11,500	16.1	11,600
1920	510	85	May 3, 1920	0	14.3	10,400	14.3	10,400
1921	530	416	Mar. 5, 1921	0	44.5	32,300	45.5	32,900
1922	550	800	May 7, 1922	-	-	-	-	-
1923	570	a73	May 22, 1923	-	-	-	-	-
1924	590	36	Apr. 17, 1924	0	4.1	2,950	-	-

† Corrected.
‡ Not previously published.
a Maximum during period April to September.

375. Humboldt River at Palisade, Nev.

Location.--Lat 40°36'25" (revised), long 116°12'05", in SE¼SE¼ sec. 35 (revised), T. 32 N., R. 51 E., 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.

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 site a quarter of a mile upstream at various datums.

Average discharge.--43 years (1902-6, 1911-50), 360 cfs.

Extremes.--1902-6, 1911-50: Maximum discharge, 6,250 cfs Feb. 26, 1943 (gage height, 9.92 ft); minimum, 2 cfs Aug. 25-28, 1931.

Remarks.--Diversions above station for irrigation of about 150,000 acres of hay and pasture land.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	‡30	‡45.7	64	*75	*75	374	960	771	*1,287	254	34	24	‡332
1904	3.6	55	67	*65.8	*446	910	1,128	1,345	1,532	500	91.4	65.7	*518
1905	13.5	165	143	149	216	296	397	793	884	286	66.6	34.0	297
1906	54.7	72.0	85.2	120	129	827	1,960	1,450	1,740	1,060	90.9	30.7	635
1911	-	-	-	-	-	-	-	-	-	-	67.5	55.0	-
1912	73.1	90.9	*72.5	*103	172	288	603	1,010	*1,870	559	164	82.3	*423
1913	199	280	188	123	149	399	759	534	1,060	422	112	85.1	359
1914	*115	*179	*123	*561	*598	1,660	1,650	1,750	1,790	514	*84.0	*35.5	*755
1915	115	131	93.6	75.0	161	277	239	165	255	61.6	17.1	17.4	133
1916	25.3	45.7	82.5	71.3	139	886	1,260	675	542	215	32.6	24.8	333
1917	66.0	79.3	86.8	70.5	114	459	1,520	2,120	2,160	760	128	39.4	635
1918	46.8	94.4	129	124	122	336	302	69.2	208	57.8	23.2	41.0	129
1919	43.2	56.2	57.8	62.2	132	649	915	721	264	20.9	10.7	10.6	245
1920	19.4	25.4	24.1	45.4	107	163	341	595	673	99.8	17.4	15.5	177
1921	29.5	63.8	87.5	128	838	1,920	1,280	2,250	3,020	644	78.7	34.5	862
1922	47.1	96.7	125	96.2	109	633	1,530	2,560	1,780	255	70.9	39.3	613
1923	55.4	108	120	136	225	493	566	445	1,230	423	61.6	44.7	325
1924	114	150	122	85	277	294	429	335	95.7	16.5	10.0	10.8	161
1925	19.6	33.6	32.7	59.1	253	406	938	1,290	1,410	615	97.7	65.5	435
1926	104	143	161	83.2	186	380	235	125	45.0	24.8	9.7	12.8	126
1927	22.1	32.3	39.9	55.4	434	429	598	1,050	1,150	231	32.5	18.0	339
1928	31.5	75.8	80.3	96.9	166	428	385	567	423	73.3	16.9	15.5	196
1929	23.5	27.5	37.2	42.9	56.3	214	501	310	530	136	22.9	20.6	160
1930	29.0	24.6	48.1	59.4	133	189	130	493	532	70.6	42.3	20.9	147
1931	39.7	38.0	35	37.2	86.8	172	143	41.7	6.3	5.7	3.7	6.5	51.1
1932	10.3	10.3	10	10	30.1	214	865	1,260	1,970	692	57.3	26.8	429
1933	31.5	39.2	42.6	50.9	51.9	201	343	400	874	121	16.1	14.3	182
1934	18.8	19.7	33.7	59.9	114	104	29.9	11.3	11.4	8.4	4.1	7.8	34.8
1935	16.4	16.8	31.8	40.0	60.7	119	238	476	1,390	237	21.6	16.2	221
1936	17.0	16.3	28.3	47.0	135	317	1,220	1,320	1,150	159	43.2	27.0	372
1937	32.7	37.4	52.6	57.1	92.3	388	747	753	831	119	18.1	17.0	262
1938	25.9	31.6	44.7	55.5	86.4	254	608	988	1,133	489	41.8	28.0	316
1939	44.0	88.7	109	94.4	74.3	729	890	573	176	44.0	20.2	24.0	240
1940	40.4	35.2	49.5	76.8	184	286	454	788	569	57.4	13.9	17.2	214
1941	23.3	28.6	35.1	51.9	221	297	619	1,096	1,461	386	112	50.6	364
1942	80.5	189	276	223	331	1,017	2,657	1,752	2,158	604	57.7	29.0	780
1943	39.8	92.9	225	559	1,272	1,861	2,475	1,393	1,528	433	59.6	21.5	824
1944	35.3	77.9	99.4	90.3	164	491	688	942	1,527	635	48.2	24.2	401
1945	33.4	64.6	78.2	109	504	712	1,533	2,708	2,612	1,179	159	61.7	813
1946	88.8	165	173	281	333	1,054	1,612	1,425	976	239	52.5	33.4	536
1947	106	162	217	107	363	369	316	456	680	114	25.1	24.0	243
1948	29.4	51.8	94.1	120	140	206	361	260	964	152	20.4	17.1	200
1949	27.7	30.6	54.7	31.0	51.0	324	1,053	1,252	895	108	27.8	21.1	323
1950	31.5	35.9	49.1	106	240	408	822	871	1,235	373	52.0	28.9	353

* Revised.
‡ Not previously published; estimated on basis of records for South Fork Humboldt River near Elko.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	‡1,845	‡2,720	3,935	*4,623	*4,143	23,050	57,120	47,418	*76,560	15,620	2,091	1,428	‡240,500
1904	2,214	3,273	4,120	*4,046	*25,640	55,950	67,120	82,700	91,160	30,740	5,620	3,909	*376,500
1905	8,301	9,818	8,793	9,162	12,000	18,200	23,620	48,760	52,600	17,580	4,095	2,023	215,000
1906	3,363	4,284	5,239	7,380	7,160	50,800	117,000	89,200	104,000	65,200	5,420	1,830	460,900
1911	-	-	-	-	-	-	-	-	-	-	4,150	3,270	-
1912	4,490	5,410	*4,460	*6,340	9,890	17,700	35,900	62,100	*111,400	34,400	10,100	4,900	*307,000
1913	12,200	16,700	11,600	7,560	8,280	24,500	45,200	32,800	63,100	25,900	6,890	5,060	260,000
1914	*7,050	*10,600	*7,580	*34,500	*33,200	102,000	98,200	108,000	107,000	31,600	*5,160	*2,110	*547,000
1915	7,070	7,800	5,760	4,610	8,940	17,000	14,200	10,100	15,200	3,790	1,050	1,040	96,600

* Revised.
‡ Not previously published; estimated on basis of records for South Fork Humboldt River near Elko.

Monthly and yearly runoff, in acre-feet, of Humboldt River at Palisade, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	1,560	2,720	5,070	4,380	8,000	54,500	75,000	41,500	32,300	13,200	2,000	1,480	242,000
1917	4,060	4,720	5,340	4,330	6,330	28,200	90,400	130,000	129,000	46,700	7,870	2,340	459,000
1918	2,880	5,620	7,930	7,620	6,780	20,700	18,000	4,250	12,400	3,550	1,430	2,440	93,600
1919	2,660	3,340	3,550	3,820	7,330	39,900	54,400	44,300	15,700	1,290	658	631	178,000
1920	1,190	1,510	1,480	2,790	6,160	10,000	20,300	36,600	40,000	6,140	1,070	922	128,000
1921	1,810	3,800	5,380	7,870	46,500	118,000	76,200	138,000	180,000	39,600	4,840	2,050	624,000
1922	2,900	5,750	7,690	5,920	6,050	38,900	91,000	157,000	106,000	15,700	4,360	2,340	444,000
1923	3,410	6,430	7,380	8,360	12,500	30,300	33,700	27,400	73,200	26,000	3,790	2,660	235,000
1924	7,010	8,930	7,500	5,230	15,900	18,100	25,500	20,600	5,690	1,010	615	643	117,000
1925	1,210	2,000	2,010	3,630	14,100	25,000	55,800	79,300	83,900	37,800	6,010	3,900	315,000
1926	6,400	8,510	9,900	5,120	10,300	23,400	14,000	7,690	2,680	1,520	596	762	90,900
1927	1,360	1,920	2,450	3,410	24,100	26,400	35,600	64,600	68,400	14,200	2,000	1,070	245,000
1928	1,940	4,510	4,940	5,960	9,550	26,300	22,900	34,900	25,200	4,510	1,040	922	143,000
1929	1,440	1,640	2,290	2,640	3,130	13,200	29,800	19,100	31,500	8,360	1,410	1,230	116,000
1930	1,780	1,460	2,960	3,650	7,390	11,600	7,740	30,300	31,700	4,340	2,600	1,240	107,000
1931	2,440	2,260	2,150	2,290	4,820	10,600	8,510	2,560	372	350	226	388	37,000
1932	633	613	615	615	1,730	13,200	51,500	77,500	117,000	42,500	3,520	1,590	311,000
1933	1,940	2,330	2,620	3,130	2,880	12,400	20,400	24,600	52,000	7,440	990	851	132,000
1934	1,150	1,170	2,070	3,680	6,350	6,370	1,780	692	678	518	250	462	25,170
1935	1,010	1,000	1,950	2,460	3,370	7,300	14,150	29,290	82,470	14,580	1,330	962	159,900
1936	1,040	967	1,740	2,890	7,760	19,480	72,650	81,120	68,490	9,770	2,650	1,590	270,160
1937	2,010	2,230	32240	3,510	5,130	23,870	44,470	46,330	49,470	7,330	1,110	1,010	189,700
1938	1,590	1,880	2,750	3,410	4,800	15,640	36,150	60,770	67,420	30,080	2,570	1,660	228,700
1939	2,700	5,280	6,730	5,800	4,130	44,750	52,940	35,240	10,450	2,710	1,240	1,430	173,400
1940	2,480	2,090	3,050	4,720	10,580	17,590	27,040	48,460	33,870	3,530	853	1,030	155,300
1941	1,430	1,700	2,160	3,190	12,280	18,230	36,850	67,400	86,920	23,750	6,880	3,010	263,800
1942	4,950	11,240	17,000	13,730	18,380	62,520	158,100	107,700	128,400	37,140	3,550	1,720	564,400
1943	2,450	5,530	13,810	34,390	70,670	114,400	147,300	85,640	90,950	26,640	3,660	1,280	596,700
1944	2,170	4,640	6,110	5,550	9,420	30,210	40,940	57,940	90,870	39,060	2,960	1,440	291,300
1945	2,050	3,840	4,810	6,720	28,000	43,750	91,240	166,500	155,400	72,510	9,790	3,670	588,300
1946	5,460	9,800	10,650	17,270	18,470	64,790	95,900	87,630	58,060	14,670	3,230	1,990	387,900
1947	6,490	9,630	13,370	6,580	20,160	22,660	18,800	28,040	40,460	7,030	1,540	1,430	176,200
1948	1,810	3,080	5,790	7,390	8,060	12,660	21,480	16,000	57,380	9,330	1,250	1,020	145,200
1949	1,700	1,820	3,360	1,910	2,830	19,950	62,690	76,990	53,250	6,620	1,710	1,260	234,100
1950	1,940	2,130	3,020	6,510	13,350	25,070	48,930	53,580	73,490	22,930	3,200	1,720	255,900

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100,1514	‡1,840	June 13, 1903	21	‡332	‡240,500	*334	*241,652
1904	133,1514	1,835	(a)	24	*518	*376,500	*542	*393,800
1905	176	1,220	May 29, 1905	34	297	215,000	278	200,900
1906	212	2,620	Apr. 28, 1906	20	635	460,900	-	-
1911	-	-	-	-	-	-	-	-
1912	330,1514	*2,950	June 15, 1912	-	*423	*307,000	*459	*333,000
1913	360	1,270	June 13-15,1913	60	359	260,000	*338	*245,000
1914	390,1514	2,780	Jan. 25, 1914	*34	*755	*547,000	*749	*542,000
1915	410	382	June 12, 1915	12	133	96,600	118	85,300
1916	440	1,810	Mar. 21, 1916	17	333	242,000	340	246,000
1917	460	3,170	May 30, 1917	32	635	459,000	638	462,000
1918	480	595	June 23, 1918	13	129	93,600	120	86,700
1919	510	1,440	Mar. 28, 1919	9	245	178,000	238	172,000
1920	510	803	May28-31,1920	14	177	128,000	186	135,000
1921	530	4,300	Mar. 5, 1921	20	862	624,000	870	629,000
1922	550	3,350	May 9, 1922	27	613	444,000	614	445,000
1923	570	1,450	June 8, 1923	27	325	235,000	333	241,000
1924	590	537	Apr. 18, 1924	9	161	117,000	136	98,500
1925	610	2,220	June 8, 1925	15	435	315,000	462	334,000
1926	630	459	Mar. 17, 1926	6	126	90,900	99.1	71,800
1927	650	1,820	June 20, 1927	14	339	245,000	347	251,000
1928	670	986	May 27, 1928	11	196	143,000	188	137,000
1929	690	1,900	Apr. 6, 1929	14	160	116,000	161	117,000
1930	705	794	May 22, 1930	16	147	107,000	148	107,000
1931	720	216	Mar. 24, 1931	2	51.1	37,000	44.2	32,000
1932	735	2,580	June 22, 1932	7	429	311,000	436	316,000
1933	750	1,330	June 17, 1933	11	182	132,000	178	129,000
1934	765	162	Feb. 26,28,1934	3	34.8	25,170	34.2	24,740
1935	790	1,890	June 15, 1935	13	221	159,900	221	159,700
1936	810	2,290	Apr. 22, 1936	11	372	270,160	377	273,900
1937	830	b1,400	June 2, 1937	11	262	189,700	260	188,400
1938	860	1,660	June 8, 1938	18	316	228,700	328	237,200
1939	880	1,900	Mar. 27, 1939	15	240	173,400	230	166,300
1940	900	b1,210	May 30, 1940	11	214	155,300	211	153,000

* Revised.
‡ Not previously published.
a May 26 to June 3, 1904.
b Momentary maximum.

Yearly discharge, in cubic feet per second, of Humboldt River at Palisade, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	b2,110	June 12, 1941	17	364	263,800	403	291,700
1942	960	b4,100	Apr. 8, 1942	27	780	564,400	764	553,000
1943	980	b6,250	Feb. 26, 1943	19	824	596,700	812	587,800
1944	1010	b2,000	June 15, 1944	22	401	291,300	398	289,100
1945	1040	b3,780	June 11, 1945	20	813	588,300	834	603,500
1946	1060	b2,040	Apr. 26, 1946	26	536	387,900	541	391,500
1947	1090	b1,110	June 2, 1947	20	243	176,200	217	157,400
1948	1120	b1,530	June 9, 1948	12	200	145,200	195	141,400
1949	1150	b1,960	May 22, 1949	17	323	234,100	324	234,300
1950	1180	b1,770	June 9, 1950	21	353	255,900	-	-

b Momentary maximum.

376. 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., 1⅞ miles upstream from mouth and 1½ miles southeast of Palisade.

Supplemental records available.--November 1902 to December 1904, gage heights and discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map). Prior to Jan. 1, 1946, staff gage at site half a mile downstream at different datums. Jan. 1 to July 18, 1946, water-stage recorder at site 1,000 ft downstream at different datum.

Average discharge.--6 years (1912-14, 1946-50), 14.6 cfs.

Extremes.--1912-14, 1946-50: Maximum discharge observed, 1,000 cfs (revised) Jan. 25, 26, 1914 (gage height, about 4 ft, site and datum then in use, from statement by observer, water over top of gage); minimum, 0.1 cfs on several days during 1947-50.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	17.2	15.0	34.6	20.3	2.89	2.44	3.70	3.41	-
1913	12.8	17.1	17.7	7.0	13.4	16.2	10.9	1.9	3.9	6.1	5.1	11.8	10.3
1914	10.2	15.6	16.1	*126	73.4	80.9	67.6	24.0	9.53	11.9	3.81	3.44	*36.7
1946	-	-	-	20.1	63.6	70.0	108	28.0	16.7	13.0	3.75	7.09	-
1947	19.3	20.1	18.4	12.3	31.4	16.5	7.45	2.69	2.21	.22	.42	.89	10.9
1948	6.27	13.0	13.1	15.0	15.4	15.8	8.50	1.64	.58	.22	.22	.35	7.49
1949	5.17	10.8	12	11	10.5	35.6	47.0	13.1	.35	.67	.85	.98	12.6
1950	6.06	11.1	9.52	10.5	17.0	16.9	24.8	11.2	3.52	1.66	.36	.89	9.39

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	989	922	2,060	1,250	172	150	228	203	-
1913	787	1,020	1,090	430	744	996	649	117	232	375	314	702	7,460
1914	627	928	990	*7,760	4,080	4,970	4,020	1,480	567	732	234	205	*26,600
1946	-	-	-	1,240	3,530	4,310	6,450	1,720	993	801	231	422	-
1947	1,190	1,200	1,130	758	1,740	1,010	443	165	132	13	26	53	7,860
1948	386	774	805	924	887	974	506	101	35	14	13	21	5,440
1949	318	645	738	676	584	2,190	2,800	808	200	41	52	58	9,110
1950	373	662	585	647	942	1,040	1,470	688	209	102	22	53	6,790

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a82	Apr. 26, 1912	-	-	-	-	-
1913	360	a28	Dec. 3, 1912	1	10.3	7,460	9.9	7,100
1914	390,1514	*a1,000	Jan.25,26,1914	2.5	*36.7	*26,600	-	-
1946	1090	600	Feb. 24, 1946	-	-	-	32.1	23,220
1947	1090	76	Feb. 10, 1947	.1	10.9	7,860	8.72	6,300
1948	1120	28	Jan. 9, 1948	.1	7.49	5,440	7.13	5,180
1949	1150	146	Mar. 19, 1949	.1	12.6	9,110	12.5	9,030
1950	1180	53	Apr. 18, 1950	.1	9.39	6,790	-	-

* Revised.
a Maximum observed.

377. Humboldt River near Argenta, Nev.

Location.--Lat 40°40', long 116°40', in NW¼ sec. 2, T. 32 N., R. 47 E., 2½ miles east of Argenta and 15½ miles east of Battle Mountain.

Gage.--Water-stage recorder. Altitude of gage is 4,580 ft.

Extremes.--1946-50: Maximum discharge, 1,780 cfs Apr. 27, 28, 1946 (gage height, 8.58 ft); minimum, 0.5 cfs Oct. 11, 1948.

Remarks.--Many diversions above station for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	-	-	-	-	-	1,047	1,551	1,233	859	238	43.5	16.8	-
1947	84.5	155	210	113	362	368	292	249	518	94.6	5.46	.76	204
1948	7.36	39.2	91.5	123	141	206	317	181	730	153	8.66	1.24	166
1949	2.40	17.7	46.9	30.8	45.8	320	894	986	794	103	3.84	1.22	271
1950	9.56	27.4	45.4	59.1	226	409	747	714	1,028	366	34.5	6.01	305

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	-	-	-	-	-	64,370	92,310	75,830	51,130	14,660	2,670	1,000	-
1947	5,200	9,240	13,590	6,940	20,080	22,640	17,380	15,290	30,830	5,820	336	45	147,400
1948	453	2,330	5,630	7,540	8,080	12,680	18,870	11,150	43,430	9,430	532	74	120,200
1949	148	1,050	2,890	1,890	2,540	19,660	53,190	60,620	47,230	6,340	236	73	195,900
1950	588	1,630	2,790	3,630	12,530	25,160	44,470	43,930	61,150	22,520	2,120	358	220,900

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1946	1060	1,780	Apr.27,28,1946	-	-	-	-	-
1947	1090	797	June 3, 1947	0.7	204	147,400	176	127,800
1948	1120	974	June 12, 1948	.7	166	120,200	160	115,900
1949	1150	1,450	May 24, 1949	.6	271	195,900	272	196,800
1950	1180	1,330	June 11, 1950	1.3	305	220,900	334	242,000

378. Rock Creek at Rock Creek Ranch, near Battle Mountain, Nev.

Location.--Lat 41°06', long 116°43', in sec. 7, T. 37 N., R. 47 E., 1,000 ft below diversion dam at mouth of canyon and 35 miles north of Battle Mountain.

Gage.--Staff gage. Altitude of gage is about 5,000 ft. Prior to Nov. 8, 1916, at site about 1¼ miles upstream at different datum.

Extremes.--1915-17: Maximum discharged observed, 933 cfs Mar. 21, 1916 (gage height, 6.06 ft); minimum observed, 0.4 cfs July 5, 7, 1915.

Remarks.--Flow slightly regulated by small reservoir below Squaw Valley. Many small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	-	9.57	3.71	5.32	4.61	-
1916	-	-	-	-	-	-	-	-	-	-	-	-	-
1917	5.80	5.66	5.00	4.00	5.84	20.4	-	-	-	5.13	3.04	5.65	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	-	-	569	228	327	274	-
1916	-	-	-	-	-	-	-	-	-	-	-	-	-
1917	357	337	307	246	324	1,250	-	-	-	315	187	336	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	-	-	-	-	-	-	-
1916	440	933	Mar. 21, 1916	-	-	-	-	-
1917	460	330	(a)	-	-	-	-	-

a Between Apr. 8 and June 14, 1917.

379. Rock Creek near Battle Mountain, Nev.

Location.--Lat 40°51', long 116°36', in NE¼ sec. 17, T. 34 N., R. 48 E., at mouth of canyon and 22 miles northeast of Battle Mountain.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft. Prior to Mar. 26, 1918, staff gage at site about 11 miles upstream at different datum. Mar. 26, 1918, to Jan. 3, 1946, water-stage recorder at present site at different datum.

Average discharge.--10 years (1918-23, 1945-50), 29.0 cfs.

Extremes.--1918-25, 1927-29, 1946-50: Maximum discharge, 2,750 cfs (revised) Feb. 11, 1921 (gage height, 5.54 ft, datum then in use); no flow at times during July, August, September, and October nearly every year.

Remarks.--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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	142	85	500	276	39	-	-	-
1918	-	-	-	-	-	-	12.8	1.9	-	.2	0.1	2.3	-
1919	2.4	3.3	3.0	2.0	13.9	144	182	45.0	19.3	0	0	0	34.6
1920	1.4	3.3	1.0	1.0	6.4	28.6	104	87.7	17.8	1.8	0	.5	21.1
1921	1.06	3.2	1.9	13.2	156	323	131	99.1	52	4.45	.05	.60	64.9
1922	4.6	4.0	2.1	1.0	1.0	58.5	322	265	27.0	.97	0	0	57.3
1923	1.3	1.5	2.0	4.0	7.3	29.9	82.4	27.4	19.8	6.0	0	2.0	15.2
1924	-	-	-	-	-	-	‡27.2	1.2	.5	0	0	0	-
1925	-	-	-	-	-	-	-	18.2	10.0	1.2	1	1	-
1927	-	-	-	-	-	‡99.2	104	34.6	8.7	‡3.4	-	-	-
1928	-	-	-	-	-	‡54.5	24.1	4.3	-	-	-	-	-
1929	-	-	-	-	-	‡28.1	‡26.8	-	-	-	-	-	-
1946	‡2	‡4	‡9.84	‡5.39	27.2	108	150	62.7	32.0	21.8	11.8	17.2	‡37.6
1947	8.68	6.32	5.76	1.0	35.1	9.38	14.5	13.7	2.11	0	0	0	7.85
1948	.60	1.50	1.56	2.74	10.5	16.3	50.3	18.3	9.48	.05	0	.04	9.21
1949	.65	1.01	.5	.3	1.70	34.7	101	39.7	9.40	.05	0	0	15.8
1950	.71	1.12	.83	8.84	27.1	78.5	110	67.3	17.1	.90	.01	.31	26.0

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	8,731	5,058	30,740	16,420	2,398	-	-	-
1918	-	-	-	-	-	-	762	117	-	12	6	137	-
1919	144	196	183	123	772	8,850	10,800	2,770	1,150	0	0	0	25,000
1920	87	195	61	61	369	1,760	6,190	5,390	1,060	113	0	28	15,300
1921	65	190	117	812	8,660	19,900	7,800	6,090	3,090	274	3	36	47,000
1922	283	238	129	61	56	3,600	19,200	16,300	1,610	60	0	0	41,500
1923	80	89	123	246	405	1,840	4,900	1,680	1,180	369	0	119	11,000
1924	-	-	-	-	-	-	‡1,620	74	30	0	0	0	-
1925	-	-	-	-	-	-	-	1,120	595	74	61	60	-
1927	-	-	-	-	-	‡6,100	6,190	2,130	518	‡208	-	-	-
1928	-	-	-	-	-	‡3,350	1,430	264	-	-	-	-	-
1929	-	-	-	-	-	‡1,730	‡1,590	-	-	-	-	-	-
1946	‡123	‡238	‡605	‡331	1,510	6,670	8,930	3,860	1,900	1,340	728	1,020	‡27,260
1947	534	376	354	61	1,950	577	865	841	126	0	0	0	5,680
1948	37	89	96	168	605	1,000	2,990	1,130	564	34	0	24	6,680
1949	40	60	31	18	94	2,130	6,020	2,440	559	30	0	0	11,400
1950	44	66	51	544	1,500	4,830	6,540	4,140	1,020	55	.4	18	18,810

‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1896	11	a1,130	May 31, 1896	-	-	-	-	-
1918	480	350	(b)	-	-	-	-	-
1919	510	700	Mar. 21, 1919	0	34.6	25,000	34.3	24,800
1920	510	212	Apr. 20, 1920	0	21.1	15,300	21.1	15,300
1921	530	*2,750	Feb. 11, 1921	0	64.9	47,000	65.4	47,300
1922	550	*851	Apr. 24, 1922	0	57.3	41,500	56.9	41,200
1923	570	292	Apr. 7, 1923	0	15.2	11,000	-	-
1924	590	-	-	-	-	-	-	-
1925	610	-	-	-	-	-	-	-
1927	650	-	-	-	-	-	-	-
1928	670	-	-	-	-	-	-	-
1929	690	-	-	-	-	-	-	-
1946	1060	230	Mar. 24, 1946	-	‡37.6	‡27,260	‡38.1	‡27,550
1947	1090	213	Feb. 11, 1947	0	7.85	5,680	6.41	4,640
1948	1120	134	Mar. 25, 1948	0	9.21	6,680	9.08	6,590
1949	1150	194	Apr. 9, 1949	0	15.8	11,400	15.8	11,420
1950	1180	*363	Mar. 31, 1950	0	26.0	18,810	-	-

* Revised. ‡ Not previously published. a Maximum daily. b Sometime between June 19 and 25, 1918.

380. Humboldt River at Battle Mountain, Nev.

Location.--Lat 40°39', long 116°56', in SE¼ sec. 8, T. 32 N., R. 45 E., 1 mile northeast of Battle Mountain. Reese River enters Humboldt River several miles below station.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft (from topographic map). June 28, 1896, to Dec. 31, 1897, staff gage 1,500 ft upstream and Mar. 1, 1921, to Apr. 19, 1924, staff gage 900 ft downstream, both at different datums.

Average discharge.--8 years (1896-97, 1921-23, 1945-50), 348 cfs.

Extremes.--1896-97, 1921-24, 1945-50: Maximum discharge observed, 3,130 cfs June 2, 1897 (gage height, 8.80 ft, site and datum then in use); no flow Sept. 8 to Oct. 22, 1948, and Sept. 21-26, 1949.

Remarks.--Many diversions above station for irrigation. Records do not include flow in secondary channels or ditches, much of which is used for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	-	-	743	2,664	971	48	16	-
1897	26	82	121	*145	183	265	2,287	2,876	2,070	*388	*28	*5	*705
1898	*30	*90	*192	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	1,360	1,240	1,280	1,500	673	90.4	20.7	-
1922	17.8	74.6	104	95.9	144	572	1,300	1,530	1,400	274	48.3	23.9	465
1923	27.1	80.1	138	151	137	467	*511	134	860	‡399	‡45	‡30	‡248
1924	88.8	149	110	68.4	346	317	‡248	-	-	-	-	-	-
1946	‡73.5	‡137	‡150	‡311	350	1,050	1,419	1,169	907	247	50.3	16.8	‡490
1947	85.9	152	226	113	365	374	284	216	466	95.7	4.14	.10	197
1948	3.17	35.5	87.5	114	133	200	306	172	641	158	7.05	.02	154
1949	.04	11.8	44.1	29.5	43.0	297	790	868	805	110	3.72	.12	250
1950	4.99	23.6	35.9	44.4	174	368	702	609	951	356	35.1	4.10	275

* Revised.
‡ Not previously published; estimated on basis of records for station at Palisade.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	-	-	-	45,686	158,519	89,705	2,951	952	-
1897	1,599	4,879	7,440	*8,896	10,163	16,294	136,086	176,839	123,173	*23,365	*1,719	*288	*510,741
1898	*1,834	*5,334	*11,810	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	83,600	73,800	78,700	89,300	41,400	5,560	1,230	-
1922	1,090	4,440	6,400	5,900	8,000	35,200	77,400	94,100	83,300	16,800	2,970	1,420	337,000
1923	1,670	4,770	8,480	9,280	7,610	28,700	*30,400	8,240	51,200	‡24,500	‡2,770	‡1,790	‡179,000
1924	5,460	8,870	6,760	4,210	19,900	19,500	‡14,800	-	-	-	-	-	-
1946	‡4,520	‡8,130	‡9,220	‡19,100	19,420	64,560	84,440	71,900	53,980	15,200	3,090	1,000	‡354,600
1947	5,280	9,040	13,900	6,920	20,280	22,970	16,930	13,300	27,740	5,890	255	6.0	142,500
1948	195	2,100	5,380	7,010	7,630	12,290	18,220	10,560	38,140	9,690	434	1.4	111,700
1949	2.4	703	2,710	1,810	2,390	18,260	47,020	53,360	47,880	6,780	228	7.3	181,200
1950	307	1,400	2,210	2,730	9,670	22,630	41,750	37,450	56,600	21,880	2,160	244	199,000

* Revised.
‡ Not previously published; estimated on basis of records for station at Palisade.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1896	(a)	b3,001	June 21, 1896	-	-	-	-	-
1897	c,1514	b3,130	June 2, 1897	*4	*705	*510,741	*712	*515,801
1921	530	b1,560	June19, 20, 1921	-	-	-	-	-
1922	550	b1,560	May 10-13,1922*	11	465	337,000	469	340,000
1923	570,1514	b1,070	June23,24, 1923	-	‡248	‡179,000	‡256	‡186,000
1924	590	-	-	-	-	-	-	-
1946	1060	1,500	Apr. 24, 1946	‡10	‡490	‡354,600	‡499	‡360,900
1947	1090	675	June 2, 1947	.1	197	142,500	168	122,000
1948	1120	909	June 15, 1948	0	154	111,700	148	107,400
1949	1150	1,180	May 30, 1949	0	250	181,200	251	181,700
1950	1180	1,170	June 14, 1950	.1	275	199,000	-	-

* Revised.
‡ Not previously published

a 18th Ann. Rept., Pt. 4.
b Maximum observed.
c 19th Ann. Rept., Pt. 4.

381. Reese River near Berlin, Nev.

Location.--Lat 38°54', long 117°29', in SW¼ sec. 16, T. 12 N., R. 40 E., just upstream from mouth of Illinois Creek, 1 mile downstream from Indian Creek, and 7 miles east of Berlin.

Drainage area.--94 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 6,860 ft (from river-profile map). Prior to June 29, 1915, at datum 1.17 ft lower.
Supplementary staff gage about 1½ miles downstream at altitude 6,780 ft (from river-profile map) used Nov. 1, 1913, to Apr. 28, 1914; Oct. 20 to Nov. 10, 1914; Mar. 1 to Apr. 18, 1915.

Extremes.--1913-16: Maximum discharge observed, 173 cfs Sept. 2, 1913 (gage height, 5.5 ft); minimum observed, 1.0 cfs Oct. 8, 9, 1913.

Remarks.--One small diversion for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	4.89	4.80	14.2	-
1914	2.85	4.33	3.65	5.84	7.12	28.0	40.1	118	70.5	21.3	5.26	4.12	26.1
1915	5.89	-	-	-	-	12.1	47.6	73.4	69.4	24.4	11.2	2.84	-
1916	4.09	5.01	-	-	-	-	-	-	31.7	8.08	3.31	2.29	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	301	295	845	-
1914	175	258	224	359	395	1,720	2,390	7,260	4,200	1,310	323	245	18,900
1915	362	-	-	-	-	744	2,830	4,510	4,130	1,500	689	169	-
1916	251	298	-	-	-	-	-	-	1,890	497	204	136	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	a173	Sept. 2, 1913	-	-	-	-	-
1914	440	166	May 22, 1914	1	26.1	18,900	-	-
1915	440	128	June2,3,4,1915	-	-	-	-	-
1916	440	b65	May 7, 1916	-	-	-	-	-

a Maximum during period June to September.
b Maximum during period May to September.

382. Big Creek near Austin, Nev.

Location.--Lat 39°21', long 117°09', in sec. 9, T. 17 N., R. 43 E., near Toiyabe National Forest boundary and 14 miles southwest of Austin.

Drainage area.--About 9 sq mi.

Gage.--Staff gage and timber flume control. Prior to Mar. 9, 1916, staff gage 300 ft upstream at different datum.

Extremes.--1914, 1916: Maximum discharge observed, 16 cfs July 10, 1914 (gage height, 1.79 ft, site and datum then in use); minimum observed, 3.1 cfs May 21, 1916.

Remarks.--Small diversion above station for irrigation of a few acres of meadow land.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	4.11	4.02	4.1	4.1	4.1	5.47	7.03	9.3	-	-	-	-
1916	-	-	-	-	-	-	4.0	3.1	5.3	-	-	3.3	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	245	247	252	228	252	325	432	553	-	-	-	-
1916	-	-	-	-	-	-	259	298	437	-	-	218	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	390	a16	July 10, 1914	-	-	-	-	-
1916	440	b9.8	July 4, 1916	-	-	-	-	-

a Maximum observed during period October 1913 to July 1914.
b Maximum observed during period March to July.

383. Humboldt River near Valmy, Nev.

Location.--Lat 40°48', long 117°04', in NE¼NW¼ sec. 30, T. 34 N., R. 44 E., 3½ miles east of Valmy and 13 miles northwest of Battle Mountain.

Gage.--Water-stage recorder. Altitude of gage is 4,440 ft (from topographic map).

Extremes.--1950: Maximum discharge during period March to September, 910 cfs June 15, 16 (gage height, 6.57 ft); minimum, 1.0 cfs September 28.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	370	613	574	793	380	67.4	113	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1950	-	-	-	-	-	22,750	36,500	35,280	47,160	23,350	4,140	672	-

Note.--Records for 1950 are published in WSP 1214.

384. Humboldt River at Comus, Nev.1/

Location.-- Lat 41°00', long 117°19', in SE¼ sec. 14, T. 36 N., R. 41 E., at Comus section house of Southern Pacific Railroad, 9 miles northeast of Golconda, and 32 miles northwest of Battle Mountain.

Gage.--Water-stage recorder. Altitude of gage is 4,350 ft (from topographic map). Prior to Sept. 25, 1917, staff or chain gages at several sites and datums about 10 miles downstream. Sept. 25, 1917, to June 30, 1923, and May 23, 1925, to May 31, 1926, staff gages at several sites within half a mile of present site at different datums.

Average discharge.--36 years (1894-1909, 1910-26, 1945-50), 287 cfs.

Extremes.--1894-1909, 1910-26, 1945-50: Maximum discharge observed, 3,880 cfs (revised) June 24-26, 1921 (gage height, 10.9 ft, site and datum then in use); no flow at times.

Remarks.--Diversions above station for irrigation below.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	‡55	90	117	141	180	478	913	672	353	80	12	0.93	‡258
1896	.82	1.8	11.0	42	78	28	128	303	1,009	752	108	22	207
1897	33	80	125	148	200	234	1,260	2,860	2,200	499	95	17	647
1898	26	80	170	205	266	418	190	94	249	119	8	1	151
1899	1	1	7	69	292	433	1,380	1,850	1,430	1,640	523	56	643
1900	36	93	126	179	247	247	102	192	352	72	5	3	137
1901	3	3	17	65	323	1,500	423	382	276	48	12	2	255
1902	4	9	31	56	65	117	177	258	413	282	38	16	122
1903	4	3	8	53	164	236	496	283	445	311	37	11	170
1904	8	1.6	1.1	‡.5	‡70.5	625	887	739	902	562	124	*13.7	‡328
1905	76.2	138	173	155	196	218	272	308	239	184	25.1	.33	165
1906	.23	.29	.22	20.0	172	324	1,160	1,000	836	704	131	26.2	365
1907	11.4	21.2	69.1	147	864	1,540	3,110	1,690	1,500	1,750	533	*186	*950
1908	*188	*309	*424	*292	*255	402	286	271	487	557	83.7	7.90	*297
1909	4.65	14.2	153	282	340	535	820	692	722	480	32.3	9.2	340
1910	5.7	18.5	91.2	-	-	-	-	-	-	-	-	1.3	-
1911	*1.4	*1.31	*11.6	*107	*397	*470	*627	*267	*349	*204	*17.3	*.28	*202
1912	*.55	*5.05	*12.2	*14.0	*51.3	108	272	375	784	570	120	31.7	195
1913	40.0	144	143	90	*129	*230	*315	*187	371	424	128	35.4	187
1914	42.8	112	119	396	658	1,290	1,540	1,420	1,540	516	60.4	24.3	642
1915	41.0	61.7	85.7	93.1	121	156	186	43.6	5.85	1.23	.47	.29	65.9
1916	.48	*1.01	2.94	*39.4	164	462	1,230	623	71.1	46 2	40.5	16.2	*225
1917	2.5	*29.7	62.8	*55	82.4	302	946	1,450	1,530	847	*172	24.6	460
1918	16.8	40.5	89.5	109	126	251	178	9.79	3.35	1.11	1.00	1.67	68.7
1919	1.68	2.83	3.19	7.3	44.8	268	962	332	71.1	5.65	1.00	1.0	141
1920	1.0	1.0	1.4	3.6	42.6	116	57.8	28.6	101	84.7	4.90	0	36.8
1921	.1	10.3	34.6	78.7	432	1,470	*1,220	*1,220	*2,740	*1,010	96.7	15.4	*692
1922	16.2	42.8	80	*100	*149.1	640	1,230	*2,118	1,480	484	46.5	15	*535
1923	10.7	38.1	107	126	138	480	404	61.7	510	‡374	‡30	‡20	‡192
1924	‡40	‡100	‡100	‡100	‡170	‡200	‡200	‡130	‡30	‡3.0	‡1.0	‡.5	‡89.2
1925	‡1.0	‡20	‡20	‡40	‡180	‡300	‡500	‡513	878	575	134	44.4	‡267
1926	89.4	131	*172	*80	*186	287	85.8	47.6	‡20	‡10	‡1.0	‡1.0	‡92.1
1946	‡60	‡90	‡140	‡298	‡284	889	1,285	1,219	889	284	52.7	6.07	‡458
1947	86.4	139	221	110	324	359	227	174	381	102	5.35	.22	176
1948	.40	6.95	68	102	123	173	263	159	445	193	6.70	.26	128
1949	.28	.42	17.0	15.5	26.8	220	561	674	788	152	5.82	.29	205
1950	.13	4.16	25.2	29.5	145	329	549	481	734	394	46.3	.60	228

* Revised.

‡ Not previously published; estimated on basis of scattered discharge measurements, some gage-height record, or records for station at Palisade.

1/ Published as "near Golconda" prior to 1918.

Monthly and yearly runoff, in acre-feet, of Humboldt River at Comus, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	‡3,380	5,360	7,190	8,670	9,720	29,390	54,330	41,320	21,000	4,920	738	55	‡186,100
1896	50	107	674	2,580	4,490	1,720	7,620	18,630	60,040	46,240	6,640	1,310	150,100
1897	2,030	4,750	7,690	9,100	11,110	14,390	75,210	175,900	130,700	30,680	5,841	1,010	468,400
1898	1,600	4,760	10,450	12,600	14,770	25,700	11,310	5,780	14,820	7,320	492	60	109,700
1899	61	60	430	4,240	16,220	26,620	82,290	113,900	84,910	101,100	32,160	3,330	465,300
1900	2,210	5,530	7,750	11,010	13,720	15,190	6,070	11,810	20,940	4,430	307	179	99,150
1901	184	179	1,040	4,000	17,940	92,290	25,170	23,490	16,420	2,950	738	119	184,500
1902	246	536	1,910	3,440	3,610	7,190	10,530	15,860	24,580	17,340	2,340	952	88,530
1903	246	179	492	3,260	9,110	14,510	29,510	17,400	26,480	19,120	2,280	655	123,240
1904	492	95	68	‡31	‡4,050	38,430	52,780	45,440	53,670	34,560	7,620	*815	‡238,100
1905	4,680	8,210	10,640	9,530	10,880	13,400	16,180	18,940	14,220	11,310	1,540	20	119,600
1906	14	17	14	1,230	9,550	19,900	69,000	61,500	49,700	4,3300	8,060	1,560	263,800
1907	701	1,260	4,250	9,040	48,000	94,700	185,000	104,000	89,300	108,000	32,800	*11,070	*688,100
1908	*11,570	*18,370	*26,040	*17,940	*14,680	24,700	17,000	16,700	29,000	34,200	5,150	470	*215,800
1909	286	845	9,410	17,300	18,900	32,900	48,800	42,500	43,000	29,500	1,990	547	246,000
1910	350	1,100	5,610	-	-	-	-	-	-	-	-	77	-
1911	*86	*78	*713	*6,570	*22,050	*28,920	*37,290	*16,410	*20,780	*12,570	*1,061	*16	*146,500
1912	*34	*301	*753	*863	*2,950	6,640	16,200	23,100	46,700	35,000	7,380	1,890	141,800
1913	2,460	8,570	8,790	5,530	*7,160	*14,160	*18,720	*11,530	22,100	26,100	7,870	2,110	135,100
1914	2,630	6,660	7,320	24,300	36,500	79,300	91,600	87,300	91,600	31,700	3,710	1,450	464,000
1915	2,520	3,670	5,270	5,720	6,720	9,590	11,100	2,680	347	76	29	17	47,700
1916	29	*60	*180	*2,420	9,430	28,400	73,200	38,900	4,230	2,840	2,490	964	*163,100
1917	154	*1,770	3,860	*3,380	4,580	18,600	56,300	89,200	91,000	52,100	*10,570	1,460	333,000
1918	1,030	2,410	5,500	6,700	7,000	15,400	10,600	602	198	68	61	99	49,700
1919	103	168	196	448	2,490	16,500	57,200	20,400	4,230	347	61	60	102,000
1920	61	60	83	218	2,450	7,130	3,440	1,760	6,010	5,210	301	0	26,700
1921	6	613	2,130	†4,840	24,000	90,400	*72,690	*74,960	*163,100	*61,980	5,950	916	*501,600
1922	996	2,550	4,920	*6,150	*8,280	39,400	73,200	*130,200	88,100	29,800	2,860	893	*387,300
1923	658	2,270	6,580	7,750	7,660	29,500	24,000	3,790	30,300	‡23,010	‡1,840	‡1,190	‡138,500
1924	‡2,460	‡5,950	‡6,150	‡6,150	‡9,780	‡12,300	‡11,900	‡7,990	‡1,790	‡184	‡61	‡30	‡64,740
1925	‡61	‡1,190	‡1,230	‡2,460	‡10,000	‡18,450	‡29,750	‡31,520	52,200	35,400	8,240	2,640	‡193,100
1926	5,500	7,800	*10,570	*4,920	*10,340	17,600	5,110	2,930	‡1,190	‡615	‡61	‡60	‡66,700
1946	‡3,690	‡5,360	‡8,610	‡18,350	‡15,760	54,670	76,670	74,950	52,870	17,440	3,240	361	‡331,800
1947	5,310	8,300	13,590	6,760	18,000	22,080	13,520	10,700	22,660	6,300	329	13	127,600
1948	25	414	4,180	6,280	7,090	10,610	15,620	9,750	26,480	11,850	412	15	92,730
1949	17	25	1,040	954	1,490	13,540	33,380	41,440	46,860	9,380	358	17	148,500
1950	6.1	247	1,550	1,810	8,060	20,240	32,690	29,580	43,680	24,200	2,840	36	164,900

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1895	Bull. 140	1,040	(a)	0.7	‡258	‡186,100	236	171,000
1896	(b)	1,610	(c)	1.0	207	150,100	226	163,700
1897	(d)	3,100	May 3, 1897	7	647	468,400	649	470,800
1898	(e)	485	Mar.15-18,1898	1.0	151	109,700	130	93,400
1899	(f)	2,230	May 4, 1899	.7	643	465,300	661	480,300
1900	(g)	464	June15,16,1900	3	137	99,150	118	85,050
1901	75	3,080	Mar. 8, 1901	1	255	184,500	256	185,800
1902	85	523	(h)	.5	122	88,530	120	86,800
1903	100	740	(i)	1	170	123,240	171	123,000
1904	133,1564	1,060	Apr. 16, 1904	-	‡328	‡238,100	‡359	‡260,900
1905	176	356	(j)	0	165	119,600	133	96,060
1906	212	1,420	Apr.25-30,1906	0	365	263,800	373	270,000
1907	250,1564	3,160	(k)	10	*950	*688,100	*1,020	*737,900
1908	250,1564	880	July2,3,4,1908	2.5	*297	*215,800	*239	*174,000
1909	270	900	June 19, 1909	1.5	340	246,000	335	243,000
1910	-	-	-	-	-	-	-	-
1911	330,1564	*799	Apr.1,2, 1911	0	*202	*146,500	*203	*146,800
1912	330,1564	1,240	June 30, 1912	0	195	141,800	*221	*160,500
1913	360,1564	680	June 26, 1913	10	187	135,100	*183	*132,900
1914	390	1,730	(m)	19	642	464,000	635	458,900
1915	410	352	Apr. 6, 1915	.2	65.9	47,700	*50.4	*36,550
1916	440,1564	1,320	Apr.23, 24,1916	.4	*225	*163,100	*232	*168,700
1917	460,1564	1,950	May 31, 1917	2.5	460	333,000	*464	*336,100
1918	480	312	Apr. 4, 1918	1.0	68.7	49,700	57.0	41,200
1919	510	1,250	Apr.10-12,1919	0	141	102,000	141	101,900
1920	510	234	June 22, 1920	0	36.8	26,700	40.3	29,270
1921	530,1564	*3,880	June 24-26,1921	.1	*692	*501,600	*700	*506,900
1922	550,1564	*2,970	May 17, 1922	-	*535	*387,300	*536	*388,400
1923	570	910	June 22, 1923	-	*192	*138,500	*199	*143,600
1924	590	-	-	-	‡89.2	‡64,740	‡72.5	‡52,670
1925	610	1,180	June 18, 1925	-	‡267	‡193,100	‡296	‡214,500

* Revised.
‡ Not previously published.
a Apr. 5, 10, 25, 26, 1895.
b 18th Ann. Rept., Pt. 4.
c June 30, July 1, 2, 1896.
d 19th Ann. Rept., Pt. 4.
e 20th Ann. Rept., Pt. 4.
f 21st Ann. Rept., Pt. 4.
g 22nd Ann. Rept., Pt. 4.
h June 23, 25, 28, 1902.
i June 27 to July 2, 1903.
j May 30 to June 1, 1905.
k Apr. 8 to May 1, 1907.
m Mar. 30, 31, Apr. 24, 1914.

Yearly discharge, in cubic feet per second, of Humboldt River at Comus, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1926	630,1564	*354	Mar. 20, 1926*	-	‡92.1	‡66,700	-	-
1946	1060	n1,400	May 3, 1946	1.9	‡458	‡331,800	‡471	‡341,300
1947	1090	n535	Feb. 15, 1947	.2	176	127,600	145	105,000
1948	1120	n748	June 17, 1948	.1	128	92,730	123	89,190
1949	1150	n952	June 3, 1949	.2	205	148,500	206	149,200
1950	1180	n889	June 19, 1950	.1	228	164,900	-	-

‡ Not previously published.
n Momentary maximum.

385. Little Humboldt River at Chimney dam site, near Paradise Valley, Nev.

Location.--Lat 41°24', long 117°11', in NE¼ sec. 36, T. 41 N., R. 42 E., at Chimney dam site, 300 ft downstream from confluence of North and South Fork and 25 miles east of Paradise Valley.

Gage.--Water-stage recorder. Altitude of gage is 4,580 ft (from river-profile map).

Average discharge.--9 years (1941-50), 24.4 cfs.

Extremes.--1941-50: Maximum discharge, 4,000 cfs about Jan. 22, 1943 (gage height, 14.4 ft, from floodmark), from rating curve extended above 360 cfs on basis of slope-area determination of peak flow; no flow at times in most years.

Remarks.--Several small diversions for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	3	5	5.2	5	8.0	36.9	102	73.1	41.6	7.1	0.6	2.6	24.1
1943	3.4	5.6	13.0	236	152	126	170	70.0	51.6	9.7	1.6	1.7	69.3
1944	1.86	1.99	2.14	2.02	3.09	10.1	45.4	41.4	26.1	5.57	7.81	.62	11.7
1945	1.75	3.17	3.21	4.96	56.9	40.9	97.9	130	65.6	11.6	1.53	.60	34.6
1946	2.02	4.32	7.13	6.93	14.1	58.2	95.1	48.0	11.7	2.24	.39	.90	20.9
1947	5.09	7.72	7.97	2.17	19.5	16.9	25.8	20.7	5.91	.27	0	0	9.24
1948	.01	1.38	1.93	2.86	5.26	12.7	48.3	41.0	16.9	1.77	.14	.11	11.0
1949	0	0	.3	.22	2.38	14.3	88.1	81.7	19.7	2.86	.38	.55	17.6
1950	2.01	3.02	3.16	5.49	12.8	34.9	89.4	74.5	27.4	3.84	.42	.44	21.4

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1942	184	298	319	307	446	2,270	6,040	4,500	2,480	438	36	153	17,470
1943	206	331	797	14,520	8,420	7,780	10,100	4,180	3,070	559	101	99	50,160
1944	115	118	131	124	178	623	2,700	2,550	1,550	342	48	37	8,520
1945	108	189	198	305	3,160	2,510	5,820	8,020	3,910	711	94	36	25,060
1946	124	257	439	426	780	3,580	5,660	2,950	695	138	24	53	15,130
1947	313	459	490	134	1,080	1,040	1,540	1,270	352	17	0	0	6,700
1948	.8	82	118	176	302	782	2,880	2,520	1,000	109	8.5	6.7	7,980
1949	0	0	18	13	132	881	5,240	5,020	1,170	176	23	33	12,710
1950	124	180	194	338	713	2,140	5,320	4,580	1,630	236	26	26	15,510

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1942	980	244	Apr. 4, 1942	0	24.1	17,470	24.7	17,890
1943	980	4,000	(a)	1	69.3	50,160	67.9	49,190
1944	1010	83	Apr. 30, 1944	.4	11.7	8,520	11.9	8,650
1945	1040	560	Feb. 2, 1945	0	34.6	25,060	35.1	25,390
1946	1060	148	Apr. 4, 1946	0	20.9	15,130	21.5	15,570
1947	1090	76	Feb. 14, 1947	0	9.24	6,700	7.78	5,630
1948	1120	112	Apr. 19, 1948	0	11.0	7,980	10.8	7,800
1949	1150	161	May 17, 1949	0	17.6	12,710	18.2	13,190
1950	1180	132	Apr. 4, 1950	0	21.4	15,510	-	-

a About Jan. 22, 1943.

386. Little Humboldt River near Paradise Valley, Nev.

Location.--Lat 41°25', long 117°22', in SE¼ sec. 20, T. 41 N., R. 41 E., 3½ miles downstream from Bullshead Ranch and 9½ miles southeast of Paradise Valley.

Drainage area.--1,030 sq mi, approximately.

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 datums.

Average discharge.--12 years (1921-23, 1924-27, 1943-50), 22.1 cfs.

Extremes.--1921-28, 1943-50: Maximum discharge, 500 cfs Feb. 23, 1927 (gage height, 12.1 ft, datum then in use), from rating curve extended above 150 cfs; minimum, 5 cfs Dec. 28, 1924.

Remarks.--Bullshead Ranch diverts for irrigation above station. Station is above all diversions in Paradise Valley.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	10.7	11.4	11.1	11.1	11.8	33.1	†78.7	201	60.0	11.7	11.1	11.0	38.7
1923	8.3	11.1	13.5	14.8	24.5	26.4	23.0	19.7	27.7	11.7	8.1	12.0	16.6
1924	-	-	-	-	-	-	15.5	9.4	8.7	9.0	9.0	9.3	-
1925	9.9	10.9	8.0	13.1	20.2	26.3	22.7	20.1	11.6	8.4	8	10	14.1
1926	13.8	15.0	18.0	13.1	30.1	39.1	19.7	17.4	8.8	9.0	9.0	9.9	16.8
1927	11.0	11.4	10.7	11.2	‡63.4	‡71.4	‡139	122	45.9	12.4	10	12	‡43.1
1928	13.2	15.2	13.3	11.4	-	-	-	-	-	-	-	-	-
1944	8.79	9.30	9.04	8.61	9.16	12.7	24.9	35.5	24.6	10.7	7.34	6.27	13.9
1945	6.81	8.67	8.43	9.09	61.3	37.5	74.0	123	67.2	13.7	7.66	7.59	35.2
1946	8.49	9.31	9.95	10.0	12.3	49.8	84.0	45.2	14.4	7.78	7.48	7.88	22.2
1947	8.35	9.74	11.0	8.23	20.3	20.1	25.4	22.4	8.68	6.65	6.80	7.07	12.8
1948	7.20	7.62	7.73	7.84	7.55	9.83	34.9	37.1	21.1	7.32	6.32	6.84	13.5
1949	7.02	7.43	7.16	6.70	9.11	13.2	50.4	68.5	21.8	6.72	6.17	6.65	17.6
1950	7.26	7.43	7.01	8.10	11.6	25.9	65.2	64.3	28.1	8.22	6.18	6.17	20.5

† Corrected.
‡ Not previously published; partly estimated on basis of records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	658	678	682	682	655	2,040	4,680	12,400	3,570	719	682	655	28,100
1923	510	660	830	910	1,360	1,620	1,370	1,210	1,650	719	498	714	12,100
1924	-	-	-	-	-	-	922	578	518	553	553	553	-
1925	609	649	492	806	1,120	1,620	1,350	1,240	690	516	492	595	10,200
1926	848	893	1,110	806	1,670	2,400	1,170	1,070	524	553	553	589	12,200
1927	676	678	658	689	‡3,520	‡4,390	‡8,270	7,500	2,730	762	615	714	‡31,200
1928	812	904	818	701	-	-	-	-	-	-	-	-	-
1944	540	553	556	530	527	781	1,480	2,180	1,460	660	451	373	10,090
1945	419	516	518	559	3,410	2,310	4,410	7,580	4,000	843	471	452	25,490
1946	522	554	612	616	684	3,060	5,000	2,780	856	478	460	469	16,090
1947	514	579	678	506	1,130	1,230	1,510	1,370	516	409	418	420	9,280
1948	443	453	475	482	449	604	2,080	2,280	1,260	450	389	407	9,770
1949	432	442	440	412	506	811	3,000	4,210	1,300	413	380	396	12,740
1950	447	442	431	498	643	1,590	3,880	3,950	1,670	505	380	367	14,800

‡ Not previously published; partly estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	550	331	May 8, 1922	10	38.7	28,100	38.7	28,080
1923	570	52	Feb. 20, 1923	-	16.6	12,100	-	-
1924	590	-	-	-	-	-	-	-
1925	610	36	Mar.20,29,1925	5	14.1	10,200	15.6	11,280
1926	630	66	Mar. 7, 1926	8	16.8	12,200	15.7	11,350
1927	650	500	Feb. 23, 1927	-	‡43.1	‡31,200	‡43.8	‡31,720
1928	670	-	-	-	-	-	-	-
1944	1010	47	May 5, 1944	6.1	13.9	10,090	13.6	9,900
1945	1040	250	Feb. 2, 1945	5.8	35.2	25,490	35.5	25,720
1946	1060	108	Apr. 22, 1946	7.2	22.2	16,090	22.3	16,170
1947	1090	48	(a)	6.4	12.8	9,280	12.3	8,880
1948	1120	62	June 4, 1948	6.1	13.5	9,770	13.4	9,720
1949	1150	103	May 20, 1949	5.2	17.6	12,740	17.6	12,750
1950	1180	85	(b)	5.7	20.5	14,800	-	-

‡ Not previously published.
a Feb. 14, 15 or 16, 1947.
b Apr. 25, May 2, 1950.

387. 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., 0.6 mile upstream from Humboldt County Recreation Park and 7 miles northeast of Paradise Valley.

Drainage area.--172 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 4,700 ft (from extension of river-profile map). Prior to Oct. 22, 1946, at several sites within 400 ft of present site at different datums.

Average discharge.--29 years (1921-50), 28.6 cfs.

Extremes.--1921-50: Maximum discharge, 9,000 cfs Jan. 21, 1943 (gage height, 11.3 ft, present datum), by slope-area determination of peak flow; minimum, 1.8 cfs Feb. 6, 1945.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	7.9	9.7	9.8	7.8	8.5	20.5	105	196	78.6	11.0	7.3	7.0	39.2
1923	8.1	8.4	9.5	8.3	7.8	15.9	40.3	59.5	42.3	15.2	5.4	6.7	19.0
1924	10.2	10.2	9.3	7.0	15.0	12.4	28.3	25.7	8.6	6.0	6.9	6.3	12.1
1925	11.4	10.4	10	12.5	41.4	29.2	56.3	65	22.4	7.5	7.2	7.8	23.3
1926	10.8	10.6	12.9	10.3	30.8	53.7	66.8	56.8	15.5	7.9	8.0	7.9	24.3
1927	8.9	9.0	‡9	‡11	‡68.8	‡81.4	138	152	85.5	18.8	6.0	6.7	‡49.3
1928	8.5	16.8	14.7	13.0	12.8	75.6	58.2	105	21.7	5.9	4.3	4.2	28.5
1929	5.8	6.7	7.4	7	7.1	25.1	31.9	52.4	27.4	6.2	4.2	5.2	15.6
1930	6.6	6.0	9.2	8.0	18.5	28.3	37.7	64.7	25.7	6.2	6	7	18.7
1931	8	8	5	6	10.0	12.8	14.0	14.7	6.4	4.6	4	4.7	8.2
1932	5.0	5.1	5.8	7.0	7.2	74.9	142	164	110	14.0	7.0	7.0	45.8
1933	7.97	8.4	8.97	9	10	12.2	41.3	61.2	42.7	6.03	8.84	6.5	18.6
1934	7.9	8	7	7	12	24.4	33.3	21.0	9.4	4.6	4.0	4.9	11.9
1935	5	6	7	8	9	16.2	89.7	122	71.5	9.1	5.1	5.0	29.5
1936	5.3	5.7	6	7	10	34.5	119	88.4	36.0	7.5	5.0	5.5	27.4
1937	6.5	6.5	6.2	5.9	7.2	28.3	75.6	85.2	37.7	7.2	4.1	4.2	22.9
1938	5.7	6.2	9.1	7.4	7.9	47.4	181	193	77.2	20.2	5.2	5.1	47.3
1939	7.6	10.4	10.3	9.2	10.0	81.7	67.2	39.4	11.0	4.7	3.7	5.2	21.8
1940	6.2	6.4	8.0	9.9	*32.6	*65.1	*90.4	*79.2	17.1	5.0	4.0	5.3	*27.4
1941	6.0	9.2	9.5	9.5	49.4	73.6	60.8	119	44.0	9.7	5.1	5.6	33.4
1942	7.1	8.5	9.5	10.0	11.6	43.0	129	109	78.5	14.1	5.2	5.4	35.9
1943	7.5	11.8	18.5	149	116	102	160	99.7	72.9	16.7	6.6	6.6	63.6
1944	7.55	8.63	8.19	9.54	11.0	17.3	58.1	88.2	51.7	15.0	5.47	5.52	23.8
1945	7.20	9.84	8.75	12.5	*74.6	48.0	97.9	163	106	18.3	7.16	6.35	*46.3
1946	7.72	9.16	16.8	14.4	20.9	67.2	114	79.4	28.9	6.68	5.42	6.17	31.3
1947	8.80	13.5	12.2	8.57	20.0	26.4	48.1	47.1	18.4	5.65	4.34	4.92	18.1
1948	6.38	8.74	8.87	22.3	11.1	17.0	62.5	88.8	57.2	9.68	5.36	5.85	25.3
1949	5.89	7.40	8.36	7.32	10.2	21.1	98.7	89.9	26.4	6.05	4.35	4.71	24.2
1950	6.09	7.44	6.96	14.1	21.8	54.8	107	115	60.7	11.1	5.65	6.27	34.8

* Revised.
‡ Not previously published; partly estimated on basis of available observations of stage and records for nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	486	577	603	480	472	1,260	6,250	12,100	4,680	676	449	417	28,400
1923	498	500	584	510	433	978	2,400	3,660	2,520	935	332	399	13,700
1924	627	607	572	430	863	762	1,680	1,580	512	369	424	375	8,800
1925	701	619	615	769	2,300	1,800	3,350	4,000	1,330	461	443	464	16,900
1926	664	631	793	633	1,710	3,300	3,970	3,490	922	486	492	410	17,600
1927	547	536	‡553	‡676	‡3,820	‡5,000	8,210	9,350	5,090	1,160	369	399	‡35,700
1928	523	1,000	904	799	736	4,650	3,460	6,460	1,290	363	264	250	20,700
1929	357	399	455	430	394	1,540	1,900	3,220	1,630	381	258	309	11,300
1930	406	357	566	492	1,030	1,740	2,240	3,980	1,530	381	369	417	13,500
1931	492	476	307	369	555	787	833	904	381	283	246	280	5,910
1932	307	304	357	430	414	4,610	8,450	10,100	6,550	861	430	417	33,200
1933	490	500	552	553	555	750	2,460	3,760	2,540	371	544	387	13,500
1934	484	478	430	430	666	1,500	1,980	1,290	557	286	246	290	8,640
1935	307	357	430	492	500	996	5,340	7,510	4,260	557	311	298	21,360
1936	325	341	369	430	575	2,120	7,080	5,440	2,140	458	307	329	19,910
1937	401	389	379	361	399	1,740	4,500	5,240	2,240	440	254	250	16,590
1938	351	367	561	452	440	2,910	10,800	11,900	4,590	1,240	321	303	34,240
1939	468	621	631	567	557	5,020	4,000	2,420	653	290	228	307	15,760
1940	381	379	492	609	*1,880	*4,000	*5,380	*4,870	1,020	305	248	315	*19,880
1941	371	549	585	581	2,740	4,530	3,620	7,330	2,620	597	315	331	24,170
1942	438	506	585	617	643	2,640	7,660	6,680	4,670	865	321	321	25,950
1943	462	702	1,140	9,180	6,470	6,280	9,530	6,130	4,340	1,030	409	393	46,070
1944	465	513	503	587	631	1,060	3,460	5,420	3,070	922	337	329	17,300
1945	443	586	538	768	*4,140	2,950	5,820	10,000	6,330	1,130	440	378	*33,520
1946	475	545	1,030	885	1,160	4,130	6,760	4,880	1,720	411	333	367	22,700
1947	542	803	750	527	1,110	1,620	2,860	2,900	1,090	348	267	293	13,110
1948	393	532	545	1,370	641	1,040	3,720	5,460	3,400	595	330	348	18,370
1949	362	441	514	450	565	1,300	5,870	5,530	1,570	372	268	280	17,520
1950	374	443	428	868	1,210	3,370	6,370	7,090	3,610	683	348	373	25,170

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Martin Creek near Paradise Valley, Nev.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	550	275	May 19, 1922	-	39.2	28,400	39.2	28,400
1923	570	101	May 21, 1923	5	19.0	13,700	19.3	14,000
1924	590	74	Feb. 8, 1924*	0	12.1	8,800	12.3	8,930
1925	610	*550	Feb. 4, 1925	6	23.3	16,900	23.5	17,000
1926	630	*220	Mar. 4, 1926	7	24.3	17,600	‡23.6	‡17,100
1927	650	*2,000	Feb.21,or 22,1927	-	‡49.3	‡35,700	‡50.4	‡36,500
1928	670	-	-	2	28.5	20,700	26.8	19,500
1929	690	82	May 24, 1929	4	15.6	11,300	15.7	11,400
1930	705	*85	(a)	4	18.7	13,500	18.6	13,500
1931	720	106	Mar. 18, 1931	-	8.2	5,910	7.8	5,610
1932	735	‡420	Mar. 19, 1932	3	45.8	33,200	46.6	33,800
1933	750	*570	Aug. 18, 1933	6	18.6	13,500	18.4	13,300
1934	765	-	-	-	11.9	8,640	11.5	8,340
1935	790	242	May 31, 1935	-	29.5	21,360	29.4	21,300
1936	810	200	Apr. 23, 1936	-	27.4	19,910	27.6	20,050
1937	830	247	Apr. 15, 1937	4	22.9	16,590	23.1	16,700
1938	860	*1,000	Apr. 19, 1938	4	47.3	34,240	47.9	34,680
1939	880	330	Mar. 20, 1939	3	21.8	15,760	21.1	15,290
1940	900,1514	*441	Feb. 27, 1940	4	*27.4	*19,880	*27.7	*20,130
1941	930	361	Mar. 1, 1941	5	33.4	24,170	33.4	24,190
1942	960	400	Mar. 31, 1942	5	35.9	25,950	36.9	26,720
1943	980	9,000	Jan. 21, 1943	5	63.6	46,070	62.5	45,240
1944	1010	145	May 10, 1944	4.9	23.8	17,300	24.0	17,380
1945	1040,1514	*1,500	Feb. 2, 1945	4.9	*46.3	*33,520	*47.0	*34,010
1946	1060	269	Dec. 28, 1945	4.9	31.3	22,700	31.4	22,740
1947	1090	296	Feb. 12, 1947	4.2	18.1	13,110	17.2	12,480
1948	1120	201	Jan.7or8,1948	5.0	25.3	18,370	25.1	18,220
1949	1150	209	Apr. 12, 1949	3.8	24.2	17,520	24.1	17,450
1950	1180	262	Mar. 19, 1950	5.1	34.8	25,170	-	-

* Revised.
‡ Not previously published.
a Sometime in May 1930.

388. Cottonwood Creek near Paradise Valley, Nev.

Location.--Lat 41°33', long 117°35', in SW¼ sec. 3, T. 42 N., R. 39 E., 5 miles northwest of Paradise Valley.

Gage.--Staff gage. Prior to Apr. 7, 1927, at site 75 ft downstream at different datum.

Average discharge.--9 years (1925-34) 5.41 cfs.

Extremes.--1925-34: Maximum discharge observed, 183 cfs Mar. 19, 1932 (gage height, 5.80 ft); no flow at times in most years.

Remarks.--Two small diversions for irrigation above station.

Cooperation.--Records for Mar. 12 to June 23, 1934, furnished by Little Humboldt River water commissioner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	-	9.0	0.8	0	0	-
1926	1.7	1.3	3.3	1.8	2.8	7.4	14.3	13.4	2.7	.1	0	0	4.1
1927	.5	2.3	1.1	2.5	12.8	15.2	28.4	33.7	28.0	6.5	1.3	.7	11.0
1928	2.00	4.60	5.68	6.45	6.45	20.6	17.4	29.1	7.47	1.35	0	0	8.46
1929	4.1	1.1	1.8	2.0	2.0	5.2	6.4	14.9	7.8	1.0	0	0	3.9
1930	1.3	1.7	2.4	2.0	4.3	5.0	8.7	12.9	9.1	1.2	.7	.4	4.1
1931	2.0	3.5	1.0	1.0	1.2	2.2	2.5	2.3	.7	0	0	0	1.4
1932	0	.5	.5	.5	.5	18.9	26.0	35.1	29.6	6.3	.5	.13	9.9
1933	.7	.9	1.0	1.0	1.0	2.29	7.23	12.7	10.1	.97	.5	.5	3.24
1934	.4	.3	.3	.3	1.0	5.3	10.5	7.8	3.3	1.0	.5	.5	2.6

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	-	-	-	-	-	-	-	-	536	49	0	0	-
1926	105	77	203	111	156	455	851	824	160	8	0	0	2,950
1927	31	137	68	154	711	935	1,690	2,070	1,670	400	80	42	7,990
1928	123	274	349	397	371	1,270	1,040	1,790	444	83	0	0	6,140
1929	252	66	111	123	111	320	381	916	464	61	0	0	2,800
1930	80	101	148	123	239	307	518	793	542	74	43	24	2,990
1931	120	206	61	61	67	137	150	141	44	0	0	0	987
1932	0	30	31	31	29	1,160	1,550	2,160	1,760	387	31	8	7,180
1933	43	54	61	61	56	141	430	781	601	60	31	30	2,350
1934	25	18	18	18	56	327	625	478	194	61	31	30	1,880

Yearly discharge, in cubic feet per second, of Cottonwood Creek near Paradise Valley, Nev.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1925	610	-	-	-	-	-	-	-
1926	630	22	May 4, 5,1926	0	4.1	2,950	3.9	2,800
1927	650	75	Apr. 26, 1927	0	11.0	7,990	11.6	8,300
1928	670	120	Mar. 25, 1928	0	8.46	6,140	8.0	5,820
1929	690	21	May23,24,1929	0	3.9	2,800	3.7	2,700
1930	705	18	(a)	0	4.1	2,990	4.2	3,050
1931	720	18	Nov. 16, 1931	0	1.4	987	.9	661
1932	735	183	Mar. 19, 1932	0	9.9	7,180	10.0	7,270
1933	750	22	June 2, 1933	-	3.24	2,350	3.1	2,250
1934	765	22	(b)	-	2.6	1,880	-	-

a May 27, 29, Aug. 6, 7, 1930.
b Mar. 29 to Apr. 1, 1934.

389. Cottonwood Creek at Paradise Valley, Nev.

Location.--Lat 41°31'00", long 117°32'30", in NW¼ sec. 25, T. 42 N., R. 39 E., at highway bridge, 300 ft west of Paradise Valley Post Office.

Drainage area.--62 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,520 ft (from river-profile map).

Average discharge.--6 years (1944-50), 8.06 cfs.

Extremes.--1944-50: Maximum discharge, 794 cfs Mar. 19, 1950 (gage height, 3.16 ft), from rating curve extended above 100 cfs on basis of slope-area determination of peak flow; no flow part of each day Oct. 8, 1948, Nov. 16, 1949.

Remarks.--Several diversions for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	0.3	0.40	0.51	0.52	27.8	18.1	39.6	65.2	34.5	1.22	0.56	0.50	15.6
1946	.31	.44	11.6	10.1	10.3	43.0	52.8	20.3	2.31	1.03	.94	.31	12.8
1947	.27	1.44	.29	.29	1.54	.56	6.77	2.92	.49	.34	.19	.18	1.26
1948	.15	.13	.10	3.06	.49	2.61	6.15	15.7	10.1	.95	.32	.21	3.33
1949	.16	.22	.15	.15	.59	21.9	14.6	8.92	2.29	.47	.31	.13	4.18
1950	.17	.20	.25	14.8	11.4	31.8	31.2	29.6	13.0	1.5	.35	.23	11.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	18	24	31	32	1,540	1,110	2,360	4,010	2,050	75	34	30	11,310
1946	19	26	716	622	573	2,640	3,140	1,250	137	63	58	18	9,260
1947	17	86	18	18	86	35	403	180	29	21	12	11	916
1948	9.3	7.5	6.1	188	28	160	366	963	601	58	19	12	2,420
1949	9.9	13	8.9	9.1	33	1,350	868	548	136	29	19	7.5	3,030
1950	11	12	16	907	633	1,960	1,850	1,820	774	93	21	14	8,110

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1945	1040	253	Feb. 14, 1945	-	15.6	11,310	16.6	12,000
1946	1060	264	Dec. 28, 1945	0.2	12.8	9,260	11.9	8,620
1947	1090	16	Apr. 16, 1947	.1	1.26	916	1.13	818
1948	1120	88	Jan. 8, 1948	.1	3.33	2,420	3.34	2,430
1949	1150	73	Mar. 15, 1949	.1	4.18	3,030	4.19	3,040
1950	1170	794	Mar. 19, 1950	.1	11.2	8,110	-	-

390. Humboldt River at Winnemucca, Nev.

Location.--Lat 40°59', long 117°44', in sec. 20, T. 36 N., R. 38 E., at Winnemucca and 4 miles downstream from Little Humboldt River.

Gage.--Staff gage. Altitude of gage is about 4,280 ft (from topographic map).

Extremes.--1924-25: Maximum discharge observed during period October to May, 670 cfs Apr. 30, 1925 (gage height, 6.90 ft); minimum observed, 2 cfs Oct. 18, 1924.

Remarks.--Many diversions for irrigation above and below station.

Monthly and yearly mean discharge, in cubic feet per second, of Humboldt River at Winnemucca, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	6.8	13.3	7.0	49.0	126	290	191	508	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1925	418	791	430	3,010	7,000	17,800	11,400	31,200	-	-	-	-	-

391. Humboldt River near Rose Creek, Nev.

Location.--Lat 40°52', long 118°00', in NW¼ sec. 36, T. 35 N., R. 35 E., 5½ miles southwest of Rose Creek and 15½ miles southwest of Winnemucca.

Gage.--Water-stage recorder.

Extremes.--1948-50: Maximum discharge, 708 cfs June 24, 1948 (gage height, 4.86 ft); minimum, 6.5 cfs Sept. 2, 1949.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	-	-	107	215	217	48.6	21.8	-
1949	21.2	25.4	26.0	26.1	37.4	161	339	446	578	224	56.1	21.7	164
1950	22.2	21.6	28.9	34.2	131	269	323	341	484	436	99.9	45.7	186

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	-	-	6,570	12,810	13,350	2,990	1,300	-
1949	1,300	1,510	1,600	1,610	2,080	9,910	20,180	27,430	34,390	13,750	3,450	1,290	118,500
1950	1,360	1,290	1,780	2,100	7,290	16,550	19,220	20,970	28,790	26,790	6,140	2,720	135,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120	708	June 24, 1948	-	-	-	-	-
1949	1150	639	June 2, 1949	11	164	118,500	164	118,500
1950	1180	684	June26,27,1950	19	186	135,000	-	-

392. Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Imlay, Nev.[1]

Location.--Lat 40°40', long 118°12', in NE¼ sec. 1, T. 32 N., R. 33 E., 3 miles northwest of Imlay and 9 miles downstream from headgates.

Supplemental records available.--October 1914 to May 1915, gage heights and discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 4,170 ft (from topographic map). Prior to Oct. 18, 1946, water-stage recorder at site 9 miles upstream at different datum.

Average discharge.--17 years (1915-17, 1918-22, 1925-31, 1937-38, 1946-50), 18.0 cfs.

Extremes.--1914, 1915-17, 1918-22, 1925-31, 1937-38, 1946-50: Maximum daily discharge, 312 cfs July 18, 1938; no flow for long periods.

Remarks.--Canal diverts water from Humboldt River in NW¼ sec. 29, T. 33 N., R. 35 E., for storage in Pitt-Taylor Reservoirs 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.

Cooperation.--Records for 1937-38, furnished by Bureau of Reclamation.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	2,830	4,670	6,210	7,560	3,900	22	1,260	-
1915	-	-	-	-	-	-	-	-	-	-	-	-	-
1916	0	0	0	0	3,180	9,650	5,200	3,020	40	0	0	0	21,100
1917	79	1,980	3,070	2,460	3,330	9,100	.4	8,670	1,720	1,780	125	0	32,300
1918	-	1,780	1,850	-	-	-	-	-	-	-	-	-	-
1919	0	264	615	1,130	3,100	401	845	0	0	0	0	0	6,360
1920	0	0	1,540	3,250	1,110	0	0	0	0	0	0	0	5,900

1/ Published as "near Mill City", 1914-31, 1937-38.

Monthly and yearly diversions, in acre-feet, of Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Imlay, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	0	0	0	0	0	3,580	11,400	8,790	11,400	6,330	0	0	41,500
1922	732	2,510	6,460	4,930	0	0	0	0	5,150	2,710	0	0	22,500
1923	1,760	-	-	-	-	-	0	0	2,110	6,330	307	46	-
1924	-	-	-	-	-	-	-	0	0	0	0	0	-
1925	-	-	-	-	-	31	0	0	6,550	7,260	2,250	0	-
1926	3,880	7,380	8,480	9,220	2,510	1,030	0	0	0	0	0	0	32,500
1927	246	720	689	762	1,590	2,250	0	0	0	0	0	0	6,260
1928	732	1,040	615	615	6,900	5,450	0	0	0	0	0	0	15,400
1929	307	928	1,380	1,230	1,160	381	0	0	0	0	0	0	5,390
1930	178	476	553	430	555	357	0	0	0	0	0	0	2,550
1931	2,010	1,780	1,840	1,540	1,100	449	0	0	0	0	0	0	8,720
1937	-	-	-	1,420	1,675	4,680	3,800	14,440	13,230	678	0	662	-
1938	1,360	1,360	1,800	1,860	4,480	3,750	0	0	4,280	14,350	3,130	950	37,320
1947	0	0	50	301	3,530	5,760	326	54	0	0	0	0	9,970
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0

393. Humboldt River near Imlay, Nev.

Location.--Lat 40°41'30", long 118°12'10", in SE¼ sec. 25, T. 33 N., R. 33 E., 1 mile upstream from old Calahan Dam and 4 miles northwest of Imlay.

Drainage area.--13,500 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,130 ft (from topographic map). Prior to Apr. 28, 1945, at site 1 mile downstream at different datum. Apr. 28, 1945, to Aug. 20, 1947, at present site at datum 1 ft higher than present.

Average discharge.--11 years (1935-41, 1945-50), 113 cfs.

Extremes.--1935-41, 1945-50: Maximum daily discharge, 2,220 cfs May 31, June 1, 1945 (gage height, 10.49 ft, present datum); no flow at times in several years.

Remarks.--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 also affected by many other diversions for irrigation above station.

Cooperation.--Records prior to April 1945 furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1935	-	-	-	-	-	-	-	-	38.1	223	48.3	4.0	-
1936	0	0	0	5	3	107	215	399	479	301	77.7	22.8	135
1937	2.0	5.0	7.0	2.9	3.4	164	339	88.3	41.0	140	49.5	9.7	71.2
1938	0	0	0	9.4	8.5	73.6	181	354	387	267	62.5	23.7	114
1939	5.0	8.1	10.1	12.8	12.9	127	449	298	117	17.1	10.6	3.3	89.3
1940	0	0	0	0	10	122	162	169	243	85.6	23.5	8.8	68.6
1941	0	0	0	0	0	120	272	373	463	402	31.5	14.4	140
1942	‡10	‡5	‡180	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	1,409	1,920	1,507	433	143	-
1946	98.1	155	199	323	276	542	938	1,095	793	380	113	53.0	414
1947	99.1	144	216	121	209	228	157	95.5	218	144	32.5	21.6	140
1948	23.3	28.5	57.8	91.7	108	159	192	95.3	187	226	35.7	15.2	102
1949	15.8	18.6	24.1	22.6	27.9	143	329	431	582	245	55.2	19.4	160
1950	18.9	19.8	27.3	48.1	131	264	308	324	452	447	106	45.3	183

‡ Not previously published; estimated on basis of outflow from Rye Patch Reservoir and available gage-height record.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1935	-	-	-	-	-	-	-	-	2,270	13,730	2,970	236	-
1936	0	0	0	307	288	6,600	12,800	24,550	28,490	18,500	4,780	1,360	97,670
1937	125	298	432	180	190	10,110	20,170	5,430	2,440	8,580	3,050	577	51,580
1938	0	0	0	580	475	4,520	10,750	21,770	23,010	16,390	3,840	1,410	82,740
1939	310	480	620	785	716	7,780	26,750	18,310	6,980	1,050	653	196	64,650
1940	0	0	0	0	575	7,520	9,610	10,390	14,480	5,270	1,440	522	49,810
1941	0	0	0	0	0	7,410	16,160	22,960	27,580	24,690	1,930	855	101,600
1942	‡615	‡298	‡11,090	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	86,630	114,200	92,670	26,640	8,510	-
1946	6,030	9,220	12,260	19,830	15,320	33,340	55,820	67,320	47,190	23,380	6,960	3,150	299,800
1947	6,090	8,580	13,260	7,430	11,630	13,990	9,320	5,870	12,980	8,870	2,000	1,290	101,300
1948	1,430	1,700	3,560	5,640	6,210	9,810	11,340	5,860	11,110	13,870	2,190	904	73,710
1949	972	1,100	1,480	1,390	1,550	8,770	19,600	26,520	34,640	15,070	3,400	1,150	115,600
1950	1,160	1,180	1,680	2,960	7,290	16,250	18,320	19,910	26,930	27,500	6,510	2,700	132,400

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Humboldt River near Imlay, Nev.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1935	790	-	-	0	-	-	-	-
1936	810	564	June 4, 1936	0	135	97,670	136	98,530
1937	830	405	Apr. 6, 1937	0	71.2	51,580	70.1	50,730
1938	860	480	June 9, 1938	0	114	82,740	116	84,160
1939	880	497	Apr. 21, 1939	0	89.3	64,630	87.3	63,220
1940	900	363	June 18, 1940	0	68.6	49,810	68.6	49,810
1941	930	588	July 8, 1941	0	140	101,600	‡157	‡113,600
1945	1060	a2,220	(b)	-	-	-	-	-
1946	1060	a1,210	May14-16,1946	42	414	299,800	415	300,200
1947	1090	382	June 20, 1947	19	140	101,300	111	80,070
1948	1120	430	June 25, 1948	14	102	73,710	97.2	70,580
1949	1150	644	June 6, 1949	14	160	115,600	160	116,100
1950	1180	648	July 2, 1950	17	183	132,400	-	-

‡ Not previously published.
a Maximum daily.
b May 31, June 1, 1945.

394. Humboldt River near Humboldt, Nev.

Location.--Lat 40°36', long 118°20', in sec. 26, T. 32 N. (revised), R. 32 E., about 2 miles upstream from mouth of Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal and about 4 miles (revised) west of Humboldt.

Gage.--Staff gage. Altitude of gage is 4,080 ft (from topographic map).

Extremes.--April to August 1933: Maximum daily discharge, 253 cfs May 8; no flow August 28-31.

Remarks.--Many diversions above station for irrigation above and below station. Except for possible channel losses, records herein, when combined with those of Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal (see following station), are equivalent to records for station near Rye Patch (see p. 393).

Cooperation.--Records furnished by water commissioner for Humboldt River.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July	Aug.
1933	‡178	149	92.8	68.1	15.7

‡ Not previously published; April 1, 2 estimated on basis of water commissioner's notes.

Monthly runoff, in acre-feet

Year	Apr.	May	June	July	Aug.
1933	‡10,500	9,160	5,520	4,190	965

‡ Not previously published; April 1, 2 estimated on basis of water commissioner's notes.

395. Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev.

Location.--Lat 40°36'25", long 118°18'20", in SE¼ sec. 30, T. 32 N., R. 33 E., at outlet of lower Humboldt (Taylor-Pitt) Reservoir and 2½ miles west of Humboldt.

Gage.--Water-stage recorder and Cippoletti weir. Altitude of gage is 4,140 ft (from topographic map). Feb. 15, 1914, to Sept. 30, 1924, water-stage recorder and Cippoletti weir. Oct. 1, 1924, to April 1936, staff gage and Cippoletti weir.

Average discharge.--26 years (1914-20, 1921-41), 14.0 cfs.

Extremes.--1914-20, 1921-41: Maximum discharge (revised), 296 cfs Apr. 30, 1915; practically no flow at times during each year.

Remarks.--Flow regulated by reservoir outlet gates a few hundred feet upstream. Canal conducts stored water released from Humboldt (Taylor-Pitt) Reservoirs to Rye Patch Reservoir, from which it is later released and carried in natural river channel to Lovelock district for use in irrigation.

Cooperation.--Records for 1934-36 furnished by Humboldt River water commissioner and for 1937-41 by Bureau of Reclamation.

Monthly and yearly diversion, in acre-feet, of Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	*1,000	2,810	4,340	3,000	*1,290	*4,340	*311	-
1915	181	67	31	31	381	241	7,080	4,800	6,010	2,580	0	0	21,400
1916	0	0	0	0	0	0	0	‡309	‡3,050	6,950	‡2,330	0	‡12,600
1917	0	0	0	0	0	0	21.4	34.9	77.4	1,590	98.4	49.6	1,870
1918	0	0	0	0	0	‡19	4,290	10,600	4,430	5,880	‡389	0	25,600
1919	0	0	0	0	0	0	0	0	‡1,450	‡1,070	0	0	2,520
1920	0	0	0	0	0	0	0	‡1,520	0	0	0	0	1,520
1921	-	-	-	-	-	-	-	-	-	-	-	-	-
1922	510	119	123	123	111	123	119	154	321	221	†2,690	500	‡5,110
1923	‡200	‡30	‡31	‡31	‡28	‡31	1,770	†8,100	2,390	†964	†1,540	327	‡15,400
1924	31	30	264	990	29	178	5,440	10,800	3,920	10,600	1,380	428	34,100
1925	123	30	31	31	28	31	530	271	42	31	31	30	1,210
1926	61	60	61	61	56	830	4,720	11,400	7,020	7,870	2,310	369	34,800
1927	‡31	‡30	‡31	‡31	‡28	‡31	‡183	1,880	262	185	452	0	‡3,170
1928	0	0	0	0	0	0	101	5,860	2,320	3,700	0	0	12,000
1929	0	0	0	0	0	0	0	264	1,090	0	0	0	1,350
1930	0	0	0	0	0	0	0	412	0	0	0	0	412
1931	0	0	0	0	0	0	0	1,680	0	0	0	0	1,680
1932	0	0	0	0	0	0	0	0	0	0	0	948	948
1933	12	0	0	0	0	0	732	2,980	3,270	1,350	1,640	0	9,980
1934	0	0	0	0	0	0	1,560	0	0	0	0	0	1,560
1935	0	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	1,850	2,020	292	847	1,530	442	6,980
1937	0	0	0	0	0	0	0	7,140	2,910	5,880	6,640	1,520	24,090
1938	0	0	0	0	0	0	970	1,960	599	0	0	274	3,800
1939	337	355	0	0	0	599	3,550	2,760	3,500	5,180	1,280	692	18,250
1940	186	0	0	0	0	676	2,720	6,330	1,240	3,590	706	603	16,050
1941	0	0	0	0	0	67	3,040	3,070	32	0	111	976	7,300

* Revised; revised daily discharge published in WSP 1444.
† Corrected.
‡ Not previously published; partly estimated on basis of reservoir gate changes and 2 discharge measurements.

396. 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.

Gage.--Mercury indicating gage. Datum of gage is at mean sea level (Southern Pacific Railroad datum).

Extremes.--1936-50: Maximum contents, 196,900 acre-ft Apr. 9, 1946 (elevation, 4,134.62 ft); minimum, 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 (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 for 1936-40 furnished by Bureau of Reclamation; records thereafter furnished by Pershing County Water Conservation District of Nevada.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1936	-	-	-	-	373	4,540	5,460	4,090	10,540	15,760	9,890	9,790
1937	9,340	9,130	9,140	9,030	9,860	17,980	29,230	13,640	8,140	5,920	3,580	2,990
1938	1,930	2,300	2,630	3,000	3,530	5,460	8,490	12,240	20,310	22,100	15,400	13,680
1939	13,340	13,370	13,540	13,920	14,290	20,310	29,800	29,890	26,260	13,160	8,360	8,030
1940	8,250	8,180	8,410	9,440	10,020	15,060	16,280	10,020	15,250	8,540	7,140	6,890
1941	6,170	6,060	6,610	7,110	7,590	11,610	16,870	17,140	32,010	34,510	28,520	27,180
1942	26,650	26,900	35,880	45,160	61,690	81,090	113,700	158,000	159,800	179,100	169,700	163,400
1943	158,900	156,500	158,800	170,600	172,900	179,100	175,700	159,300	170,500	168,400	153,900	145,700
1944	143,500	143,600	147,800	152,800	156,600	167,400	179,100	162,700	169,400	179,100	165,700	160,200
1945	157,800	159,700	162,500	168,100	179,100	179,100	172,600	173,900	180,400	174,800	172,100	168,400
1946	169,700	179,900	187,600	147,900	160,800	187,600	167,400	165,700	173,700	166,600	153,900	143,300
1947	145,600	151,400	163,200	169,400	178,600	186,000	168,200	152,900	149,500	132,500	118,900	107,200
1948	105,100	107,300	109,400	110,600	114,300	120,000	113,100	99,270	90,290	74,600	61,380	51,970
1949	50,090	51,080	51,610	51,920	55,510	65,420	65,420	66,090	72,770	57,190	44,790	35,520
1950	30,640	32,010	33,240	35,850	42,690	54,880	51,610	47,520	48,990	47,980	37,030	29,030

397. Humboldt River near Rye Patch, Nev.1/

Location.--Lat 40°27'33", long 118°18'30", in NE¼ sec. 18, T. 30 N., R. 33 E., 1,000 ft downstream from Rye Patch Dam and 1½ miles northwest of Rye Patch.

Drainage area.--13,700 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,050 ft (from topographic map). Prior to Oct. 1, 1935, water-stage recorder or staff gages at several sites about 7 miles downstream at different datums. Oct. 1, 1935, to Oct. 13, 1945, water-stage recorder at site half a mile downstream at different datum.

Average discharge.--36 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-41, 1943-50), 203 cfs.

Extremes.--1896-1922, 1924-32, 1935-41, 1943-50: Maximum discharge observed, 3,050 cfs May 12, 1897 (gage height, 12.0 ft, site and datum then in use); practically no flow at times during most years.

Remarks.--Prior to Feb. 20, 1936, flow partly regulated by reservoirs of Humboldt-Lovelock Irrigation, Light & Power Co. near Humboldt; thereafter completely regulated by Rye Patch Reservoir and slightly regulated by Humboldt (Pitt-Taylor) Reservoirs. Diversions above station for irrigation above and below station.

Cooperation.--Records for 1935-41 furnished by Bureau of Reclamation and those for 1943-45 furnished by Pershing County Water Conservation District of Nevada.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	72	54	28	110	503	1,001	196	70	-
1897	32	-	79	*115	*186	*258	958	2,691	2,114	842	*166	*51.8	-
1898	*34.8	34.1	*89.8	259	300	451	169	39	28	-	-	-	-
1899	-	-	-	-	-	-	-	-	-	2,005	606	150	-
1900	65	90	259	308	252	255	89	32	118	190	45	28	144
1901	34	41	50	113	222	1,318	587	317	133	108	39	17	248
1902	48	30	51	94	91	96	107	52	137	276	75	35	91
1903	32	30	28	71	125	124	349	169	157	307	78	23	124
1904	15	19	20	16	77	363	667	625	656	575	145	22	267
1905	63	90	174	260	252	209	96	13	2	156	95	17	119
1906	20	33	63	129	87.7	172	595	835	638	735	229	54.1	299
1907	30.4	40.2	93.2	167	427	835	1,760	1,650	1,040	1,520	599	181	695
1908	118	145	203	251	276	337	183	58.0	27.7	390	192	57.7	199
1909	40.9	57.0	100	265	432	490	616	470	384	497	123	20.5	290
1910	39.6	21.4	129	-	-	-	-	-	-	-	-	20	-
1911	25	20	20	36.3	209	240	614	331	129	256	78.3	18.4	165
1912	22.4	22.8	29.3	35	45.2	92.1	101	233	523	733	234	118	182
1913	91.7	159	70	40	30	177	261	171	152	486	292	142	174
1914	90.4	58.4	177	296	672	936	1,530	1,480	1,220	823	238	65.6	632
1915	26.7	53.9	34.5	30.0	121	197	185	129	115	47.8	.19	.09	77.9
1916	7.89	17.9	18.9	17.0	98.0	166	622	491	153	152	61.5	16.8	151
1917	29.1	14.4	8.61	2.0	8.57	59.1	486	1,040	‡1,620	-	-	-	-
1918	48.5	25.8	17.4	17.9	160	214	219	178	97.1	98.6	24.8	5.7	91.7
1919	23.1	17.1	6.5	22.9	13.8	92.6	391	254	72.7	48.8	3.2	1.3	79.0
1920	15.9	9.9	1.0	5.2	10.3	16.3	7.8	28.4	.03	0	7.4	.1	8.57
1921	1.8	13.0	30.5	59.9	177	602	736	769	1,300	1,150	251	70.7	432
1922	52.4	22.1	13.6	11.2	162	360	951	1,520	1,330	551	199	116	442
1925	12.8	-	-	-	-	47.4	31.8	270	458	-	-	-	-
1926	-	-	-	-	-	-	-	-	120	-	-	-	-
1927	-	-	-	-	-	114	196	173	265	250	-	-	-
1928	-	11.8	18.2	-	-	159	380	110	34.7	54.6	3.2	1.5	-
1930	-	-	-	-	-	-	56.9	35.6	65.0	4.6	-	-	-
1931	0	0	0	0	0	‡23.0	53.8	54.5	22	0	0	0	‡11.2
1932	0	0	0	0	0	75.1	187	410	652	635	193	55	184
1936	0	0	0	0	0	3.3	205	401	352	197	180	17.8	113
1937	0	0	0	0	0	0	132	446	172	267	270	52.2	107
1938	21.8	0	0	0	0	29.7	141	278	212	211	142	41.6	90.4
1939	11.0	5.3	0	0	0	165	305	302	193	279	99.4	18.4	103
1940	12.1	1.2	0	0	0	17.2	179	351	135	234	43.5	18.2	83.0
1941	13.6	6.2	0	0	0	35.0	198	383	161	278	89.2	27.9	100
1944	21.7	9.8	0	0	0	8.52	92.2	209	244	312	257	963	105
1945	18.2	10.0	5.03	0	0	196	847	1,287	1,725	1,555	370	105	512
1946	21.8	6.11	69.2	972	6.47	60.6	1,171	1,063	542	389	189	144	388
1947	35.2	27.2	5.2	4.71	4.82	65.4	422	401	244	367	153	132	156
1948	34.4	3.31	3.11	3.07	2.28	23.5	305	273	286	394	172	127	136
1949	26.6	1.43	1.38	1.23	1.14	1.16	261	382	372	433	208	143	153
1950	77.3	1.07	.82	.96	1.06	38.2	316	342	340	414	255	164	163

* Revised; only monthly figures revised; revised daily figures not available.
‡ Not previously published; partly estimated on basis of records for station at Lovelock.

1/ Published as "near Oreana" prior to 1935.

Monthly and yearly runoff, in acre-feet, of Humboldt River near Rye Patch, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1896	-	-	-	-	4,140	3,320	1,670	6,760	29,930	61,550	12,050	4,160	-
1897	1,970	-	4,860	*7,060	*10,320	*15,850	57,000	165,500	125,800	51,770	*10,230	*3,080	-
1898	*2,140	*2,030	*5,520	15,920	16,660	27,730	10,060	2,400	1,670	-	-	-	-
1899	-	-	-	-	-	-	-	-	-	123,300	37,260	8,930	-
1900	4,000	5,360	15,920	18,940	14,000	15,680	5,300	1,970	7,020	11,680	2,770	1,670	103,300
1901	2,090	2,440	3,070	6,950	12,330	81,040	34,930	19,490	7,910	6,640	2,400	1,010	180,300
1902	2,950	1,780	3,140	5,780	5,050	5,900	6,370	3,200	8,150	16,970	4,610	2,080	65,980
1903	1,970	1,780	1,720	4,370	6,940	7,620	20,770	10,390	9,340	18,880	4,800	1,370	89,950
1904	922	1,130	1,230	984	4,410	22,320	39,690	38,430	39,040	35,360	8,920	1,320	193,800
1905	3,870	5,340	10,700	15,990	14,000	12,850	5,710	812	115	9,590	5,860	1,030	85,870
1906	1,230	1,970	3,860	7,930	4,870	10,600	35,400	51,300	38,000	45,200	14,100	3,220	218,000
1907	1,870	2,390	5,730	10,300	23,700	51,300	105,000	101,000	61,900	93,500	36,800	10,800	504,000
1908	7,260	8,630	12,500	15,400	15,900	20,700	10,900	3,570	1,650	24,000	11,800	3,430	136,000
1909	2,510	3,390	6,150	16,300	24,000	30,100	36,700	28,900	22,800	30,600	7,560	1,220	210,000
1910	2,430	1,270	7,930	-	-	-	-	-	-	-	-	1,190	-
1911	1,540	1,190	1,230	2,230	11,600	14,800	36,500	20,400	7,680	15,700	4,810	1,090	119,000
1912	1,380	1,360	1,800	2,150	2,600	5,660	6,010	14,300	31,100	45,100	14,400	7,020	133,000
1913	5,640	9,460	4,300	2,460	1,670	10,900	15,500	10,500	9,040	29,900	18,000	8,450	126,000
1914	5,560	3,470	10,900	18,200	37,300	57,600	91,000	91,000	72,600	50,600	14,600	3,900	457,000
1915	1,640	3,210	2,120	1,840	6,720	12,100	11,000	7,930	6,840	2,940	12	5	56,400
1916	485	1,070	1,160	1,050	5,620	10,200	37,000	30,200	9,100	9,350	3,780	1,000	110,000
1917	1,790	857	529	123	476	3,630	28,900	64,000	‡96,100	-	-	-	-
1918	2,980	1,540	1,070	1,100	8,890	13,200	13,000	10,900	5,780	6,060	1,520	339	66,400
1919	1,420	1,020	398	1,410	766	5,690	23,300	15,600	4,330	3,000	194	77	57,200
1920	978	591	60	317	592	1,000	466	1,750	2	0	452	8	6,220
1921	111	774	1,880	3,680	9,830	37,000	43,800	47,300	77,400	70,700	15,400	4,210	312,000
1922	3,220	1,320	836	689	9,000	22,100	56,600	93,500	79,100	33,900	12,200	6,900	319,000
1925	787	-	-	-	-	2,910	1,890	16,600	27,300	-	-	-	-
1926	-	-	-	-	-	-	-	-	7,140	-	-	-	-
1927	-	-	-	-	-	7,010	11,700	10,600	15,800	15,400	-	-	-
1928	-	702	1,120	-	-	9,780	22,600	6,760	2,060	3,360	197	89	-
1930	-	-	-	-	-	-	3,390	2,190	3,870	283	-	-	-
1931	0	0	0	0	0	‡1,410	3,200	3,350	133	0	0	0	‡8,090
1932	0	0	0	0	0	4,620	11,100	25,200	38,800	39,000	11,900	3,270	134,000
1936	0	0	0	0	0	204	12,190	24,640	20,960	12,110	11,060	1,060	82,220
1937	0	0	0	0	0	0	7,870	27,450	10,210	16,390	12,700	3,110	77,730
1938	1,340	0	0	0	0	1,830	8,380	17,100	12,610	12,990	8,750	2,470	65,470
1939	678	313	0	0	0	1,010	18,140	18,580	11,470	17,160	6,110	1,100	74,560
1940	746	71	0	0	0	1,080	10,660	21,570	8,020	14,400	2,670	1,080	60,280
1941	839	371	0	0	0	2,150	11,780	23,540	9,580	17,120	5,480	1,660	72,520
1944	1,340	583	0	0	0	524	5,480	12,820	14,510	19,190	15,810	5,730	75,990
1945	1,120	595	310	0	0	12,020	50,390	79,140	102,600	95,640	22,780	6,230	370,800
1946	1,340	363	4,250	59,750	359	3,710	69,660	65,340	32,250	23,920	11,650	8,550	281,200
1947	2,170	1,620	320	289	268	4,020	25,120	24,660	14,490	22,590	9,390	7,860	112,800
1948	2,120	197	191	189	131	1,450	18,130	16,780	17,020	24,200	10,570	7,540	98,520
1949	1,640	85	85	75	63	72	15,540	23,460	22,160	26,590	12,770	8,490	111,000
1950	4,760	64	50	59	59	2,350	18,820	21,020	20,240	25,460	15,660	9,750	118,300

* Revised.
‡ Not previously published; partly estimated on basis of records for station at Lovelock.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1896	(a)	b1,510	July 10, 1896	-	-	-	-	-
1897	(c)	b3,050	May 12, 1897	-	-	-	641	465,300
1898	(d)	b642	Mar.9,10, 1898	-	-	-	-	-
1899	(e)	-	-	-	-	-	-	-
1900	(f)	b561	Dec.24-26,1899	22	144	103,300	120	86,620
1901	75	b2,620	Mar. 17, 1901	10	248	180,300	249	170,600
1902	85	b511	July 9, 1902	19	91	65,980	88	63,590
1903	100	b580	June 30, 1903	19	124	89,950	121	87,760
1904	133	b950	May 2,3, 1904	3	267	193,800	289	210,400
1905	176	b440	Jan. 1, 1905	0	119	85,870	101	73,020
1906	212	b1,010	June 6, 1906	12	299	218,000	303	221,000
1907	250	b2,220	May 4,5, 1907	16	695	504,000	720	588,000
1908	250	b670	July 15, 1908	16	199	136,000	164	119,000
1909	270	b680	July 1,2,1909	6	290	210,000	287	207,000
1910	290	-	-	-	-	-	-	-
1911	330	b760	Apr.13-16,1911	-	165	119,000	165	119,000
1912	330	b1,240	July 8, 1912	-	182	133,000	203	148,000
1913	360	b1,270	July 23, 1913	-	174	126,000	175	126,000
1914	390	g2,000	May 2,3, 1914	30	632	457,000	613	444,000
1915	410	322	May 1, 1915	0	77.9	56,400	72.0	52,100

a 18th Ann. Rept., Pt. 4.
b Maximum observed.
c 19th Ann. Rept., Pt. 4.
d 20th Ann. Rept. Pt. 4.
e 21st Ann. Rept., Pt. 4.
f 22nd Ann. Rept., Pt. 4.
g Maximum daily.

Yearly discharge, in cubic feet per second, of Humboldt River near Rye Patch, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	440	793	May 2, 1916	2.6	151	110,000	152	110,000
1917	460	1,910	June 7, 1917	-	-	-	-	-
1918	480	551	June 21, 1918	0	91.7	66,400	87.9	63,600
1919	510	1,280	May 29, 1919	0	79.0	57,200	77.3	56,000
1920	510	185	Aug. 26, 1920	0	8.57	6,220	10.1	7,350
1921	530	1,980	July 2, 1921	0	432	312,000	435	315,000
1922	550	2,280	May 27, 1922	-	442	319,000	-	-
1925	610	-	-	-	-	-	-	-
1926	630	-	-	-	-	-	-	-
1927	650	370	June 16, 1927	-	-	-	-	-
1928	670	498	Apr.12-14,1928	-	-	-	-	-
1930	705	230	Aug. 12, 1930	-	-	-	-	-
1931	720	117	May 11, 1931	0	‡11.2	‡8,090	‡11.2	‡8,090
1932	735	-	-	0	184	134,000	-	-
1936	810	477	May 26, 1936	0	113	82,220	113	82,220
1937	830	568	May 19, 1937	0	107	77,730	109	79,070
1938	860	451	May 21, 1938	0	90.4	65,470	89.9	65,120
1939	880	491	Apr.29-30,1939	0	103	74,560	103	74,390
1940	900	414	May 21, 1940	0	83.0	60,280	83.6	60,670
1941	930	460	May21-26,1941	0	100	72,520	-	-
1944	1040	390	(h)	0	105	75,990	105	76,080
1945	1040	2,000	June 19-23,1945	0	512	370,800	518	374,800
1946	1060	1,730	Apr.28-30,1946	3.5	388	281,200	386	279,300
1947	1090	554	July 13, 1947	4.3	156	112,800	154	111,200
1948	1120	481	July 16, 1948	1.8	136	98,520	135	97,820
1949	1150	612	June 12, 1949	.8	153	111,000	158	114,100
1950	1180	605	July 23, 1950	.6	163	118,300	-	-

‡ Not previously published.
h July 31 to Aug. 4, 1944.

398. Humboldt River near Lovelock, Nev.

Location.--Lat 40°03', long 118°28', in NE¼ sec. 11, T. 25 N., R. 31 E., 600 ft downstream from breached dam of Lovelock Land and Development Co. and 9 miles south of Lovelock.

Drainage area.--14,200 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 3,900 ft (from topographic map). Prior to Aug. 3, 1913, staff gage, Aug. 3, 1913, to Sept. 30, 1925, water-stage recorder, and Oct. 1, 1925, to Sept. 30, 1927, staff gage, all at site 900 ft downstream at different datums.

Average discharge.--11 years (1913-16, 1918-22, 1923-27), 92.3 cfs.

Extremes.--1912-27, 1950: Maximum discharge, 1,700 cfs May 29, 30, 1922 (gage height, 5.90 ft, site and datum then in use); no flow at times in most years prior to construction of Rye Patch Dam.

Remarks.--Station below all diversions. Flow regulated by Rye Patch Reservoir since Feb. 20, 1936, and by diversions for irrigation in Lovelock Valley.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	0	0	0	‡61.0	337	2.7	22.3	-
1913	3.0	40.0	41.0	-	-	-	0	0	20.3	60.3	20.7	18.0	-
1914	14.3	46.5	166	262	605	771	1,100	1,160	1,020	516	50.1	9.01	475
1915	14.9	12.7	23.1	24.5	113	132	8.33	.22	.05	.05	.05	.05	26.3
1916	.145	.100	.168	.132	66.6	10.9	.100	0	0	0	0	0	6.25
1917	0	0	0	0	0	0	0	-	-	-	-	-	-
1918	-	-	-	-	-	-	-	-	0	0	0	0	-
1919	0	0	0	0	0	0	0	0	0	0	0	0	0
1920	0	0	0	0	0	0	0	0	0	0	0	0	0
1921	0	0	0	0	0	8.2	165	271	884	868	7.7	0	182
1922	0	0	0	.9	133	360	783	839	1,100	438	19.4	0	305
1923	0	0	-	-	-	-	15.3	0	-	33.9	0	0	-
1924	0	0	0	0	87.0	49.2	0	0	0	0	0	0	11.1
1925	0	0	0	0	0	0	0	0	0	0	0	0	0
1926	15.8	0	0	0	81.6	17.8	0	0	0	0	0	0	9.12
1927	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	-	-	-	-	-	-	-	-	-	9.1	11.5	5.62	-

‡ Not previously published; computed on basis of no flow June 1-26.

Monthly and yearly runoff, in acre-feet, of Humboldt River near Lovelock, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	0	0	0	‡3,630	20,700	166	1,330	-
1913	184	2,380	2,520	-	-	-	0	0	1,210	3,710	1,270	1,070	-
1914	879	2,770	10,200	16,100	33,600	47,400	65,500	71,300	60,700	31,700	3,080	536	344,000
1915	916	756	1,420	1,510	6,280	8,120	50	14	3	3	3	3	19,100
1916	9	6	10	8	3,830	670	6	0	0	0	0	0	4,540
1917	0	0	0	0	0	0	0	-	-	-	-	-	-
1918	-	-	-	-	-	-	-	-	0	0	0	0	-
1919	0	0	0	0	0	0	0	0	0	0	0	0	0
1920	0	0	0	0	0	0	0	0	0	0	0	0	0
1921	0	0	0	0	0	504	9,820	16,700	52,600	53,400	473	0	133,000
1922	0	0	0	55	7,390	22,100	46,600	51,600	65,500	26,900	1,190	0	221,000
1923	0	0	-	-	-	-	910	0	-	2,080	0	0	-
1924	0	0	0	0	5,000	3,030	0	0	0	0	0	0	8,030
1925	0	0	0	0	0	0	0	0	0	0	0	0	0
1926	972	0	0	0	4,530	1,090	0	0	0	0	0	0	6,590
1927	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	-	-	-	-	-	-	-	-	-	560	706	335	-

‡ Not previously published; computed on basis of no flow June 1-26.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	-	-	0	-	-	-	-
1913	360	-	-	0	-	-	-	-
1914	390	1,450	May 4, 1914	1.0	475	344,000	458	333,000
1915	410	270	Mar. 5, 1915	0	26.3	19,100	22.1	16,000
1916	440	257	Mar. 17, 1916	0	6.25	4,540	6.22	4,510
1917	460	-	-	0	-	-	-	-
1918	480	-	-	0	-	-	-	-
1919	510	0	-	0	0	0	0	0
1920	510	0	-	0	0	0	0	0
1921	530	1,540	July 6, 1921	0	182	133,000	182	133,000
1922	550	1,700	May29,30,1922	0	305	221,000	-	-
1923	570	-	-	0	-	-	-	-
1924	590	-	-	0	11.1	8,030	11.1	8,030
1925	610	0	-	0	0	0	1.35	972
1926	630	a172	Feb.19,28,1926	0	9.12	6,590	7.78	5,620
1927	650	0	-	0	0	0	-	-
1950	1244	-	-	-	-	-	-	-

a Maximum observed.

PYRAMID AND WINNEMUCCA LAKES BASIN

399. 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. 296B, 150 ft southwest of milepost 297, 6 miles west of Nixon, and 11.5 miles south along Southern Pacific Railroad from station at Sutcliffe.

Gage.--Benchmark N-21 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. Elevations herein have been adjusted to datum of 1929.

Extremes.--1926-50: Maximum elevation observed, 3,848.5 ft June 1926; minimum observed, 3,802.11 ft Sept. 25, 1950.

Cooperation.--Records for 1904-47 furnished by Bureau of Indian Affairs; those for 1948 furnished by Bureau of Indian Affairs and Federal Court Watermaster for Truckee River. One lake elevation in 1949 furnished by Federal Court Watermaster for Truckee River.

Elevation, in feet, above mean sea level

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
				1911-Con.		1914		1922-Con.	
1867	3,875.9	1891	3,877.9	Aug. 8	3,869.5	February	3,864.2	September	3,855.6
				Aug. 27	3,869.0	July	3,866.4		
				Sept. 5	3,868.7			1924	
1871	3,884.9	1904	3,861.6	Oct. 10	3,867.9	1915		March	3,854.0
		1909		1912		July	3,861.6	1926	
1882		April	3,869.2	June	3,866.6			June	3,848.5
September	3,865.9	1911				1917	3,861.4	1927	
		July 1	3,869.7	1913		1922		January	3,845.8
1890	3,874.9	July 14	3,869.7	July	3,864.6	August	3,856.2	April	3,846.0

Elevation, in feet, above mean sea level, of Pyramid Lake near Nixon, Nev.--Continued

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
1927-Con.		1933-Con.		1937-Con.		1941-Con.		1945-Con.	
May	3,846.1	Aug. 14	3,827.8	July 22	3,818.2	May 19	3,816.83	June 18	3,817.02
June	3,846.3	Sept.27	3,827.5	Aug. 21	3,817.85	June 21	3,817.00	July 20	3,816.77
June	3,846.6	Oct. 19	3,827.3	Sept.18	3,817.15	July 18	3,816.92	Aug. 23	3,816.17
July	3,846.3	Nov. 21	3,826.9	Oct. 21	3,816.7	Aug. 19	3,816.29	Sept.11	3,815.84
July	3,846.2	Dec. 22	3,826.5	Nov. 19	3,816.55	Sept.16	3,815.92	Oct. 28	3,815.25
August	3,845.9			December	3,816.5	Oct. 15	3,815.23	Nov. 14	3,814.90
September	3,845.5	1934		Dec. 28	a3,817.15	Nov. 14	3,815.19	Dec. 26	3,814.69
October	3,844.8	Jan. 18	3,825.6			Dec. 9	3,815.10		
		Feb. 22	3,825.6	1938				1946	
1928		Mar. 15	3,825.5	Jan. 19	3,816.8	1942		Jan. 18	3,815.75
March	3,844.7	Apr. 17	3,825.3	Feb. 22	3,816.55	Jan. 27	3,815.25	Feb. 16	3,814.68
April	3,845.1	May 21	3,825.0	Mar. 26	3,816.8	Feb. 20	3,815.94	Mar. 28	3,814.98
April	3,846.2	June 17	3,825.0	Apr. 29	3,817.8	Mar. 17	3,816.25	Apr. 22	3,815.10
June	3,845.1	July 13	3,824.7	June 7	3,820.65	Apr. 18	3,816.85	May 29	3,815.51
June	3,844.7	Aug. 18	3,824.1	June 21	3,821.2	May 18	3,817.37	June 18	3,815.21
July	3,844.5	Sept.11	3,823.7	July 20	3,821.35	June 22	3,817.84	July 20	3,814.92
July	3,844.5	Oct. 20	3,823.1	Aug. 18	3,820.85	July 15	3,818.35	Aug. 22	3,814.55
August	3,844.1	Nov. 20	3,822.85	Sept.19	3,820.35	Aug. 5	3,818.08	Sept.19	3,814.01
September	3,843.7	Dec. 19	3,822.65	Oct. 19	3,819.95	Sept.14	3,817.33	Oct. 13	3,813.33
October	3,843.3			Nov. 18	3,819.7	Oct. 15	3,816.83	Nov. 25	3,812.93
		1935		Dec. 17	3,819.65	Nov. 20	3,816.33	Dec. 14	3,812.66
1929		Jan. 12	3,822.35			Dec. 10	3,816.46		
May	3,841.6	Feb. 20	3,822.15	1939				1947	
June	3,841.4	Mar. 26	3,821.95	Jan. 18	3,819.95	1943		Jan. 9	3,812.56
September	3,839.8	Apr. 26	3,821.75	Feb. 17	3,819.8	Jan. 13	3,816.58	Feb. 18	3,812.34
		May 21	3,822.45	Mar. 20	3,819.85	Feb. 16	3,818.00	Mar. 16	3,811.96
1930		June 21	3,822.5	Apr. 18	3,819.9	Mar. 16	3,818.25	Apr. 29	3,811.82
March	3,838.6	July 19	3,822.15	May 27	3,819.8	Apr. 22	3,820.64	May 30	3,812.43
June	3,838.0	Aug. 20	3,821.6	June 28	3,819.35	May 20	3,821.47	June 6	3,812.49
		Sept.20	3,821.25	July 18	3,819.05	June 17	3,821.64	July 19	3,812.62
1931		Oct. 21	3,821.0	Aug. 18	3,818.6	July 28	3,821.21	Aug. 13	3,811.96
May	3,835.5	Nov. 22	3,820.35	Sept.19	3,817.9	Aug. 21	3,820.69	Sept.16	3,811.37
Oct. 28	3,832.2	Dec. 23	3,819.9	Oct. 20	3,817.50	Sept. 7	3,820.37	Oct. 30	3,811.05
Dec. 15	3,831.8			Nov. 20	3,817.25	Oct. 22	3,819.73		
		1936		Dec. 7	3,817.16	Nov. 13	3,819.52	1948	
1932		Jan. 20	3,819.85			Dec. 16	3,819.21	Jan. 20	3,809.87
Jan. 22	3,831.6	Feb. 24	3,819.6	1940				Feb. 25	3,809.72
Feb. 17	3,831.5	Mar. 19	3,819.55	Jan. 14	3,816.99	1944		Mar. 8	3,809.68
Apr. 15	3,831.4	Apr. 24	3,819.6	Feb. 19	3,816.92	Jan. 27	3,819.12		
May 18	3,831.6	May 23	3,819.95	Mar. 9	3,816.69	Feb. 20	3,818.98	1949	
June 21	3,831.9	June 3	3,820.4	Apr. 12	3,817.34	Mar. 16	3,818.89	Mar. 5	3,805.50
July 6	3,831.8	July 20	3,819.9	May 19	3,818.68	June 19	3,819.00	Aug. 31	3,805.10
July 29	3,831.5	Aug. 18	3,819.65	June 17	3,818.85	July 29	3,818.47	Sept.29	3,804.61
Aug. 15	3,831.2	Sept.21	3,818.9	July 24	3,818.19	Aug. 15	3,818.25	Nov. 7	3,804.10
Sept.17	3,830.7	Oct. 21	3,818.40	Aug. 16	3,817.92	Sept.24	3,817.50	Dec. 9	3,803.77
Oct. 13	3,830.2	Nov. 19	3,818.15	Sept.20	3,817.08	Oct. 17	3,817.26		
Nov. 17	3,829.7	Dec. 19	3,817.8	Oct. 11	3,816.79	Nov. 17	3,816.87	1950	
Dec. 24	3,829.4			Nov. 12	3,816.66	Dec. 12	3,816.57	Jan. 7	3,803.55
		1937		Dec. 11	3,816.55			Feb. 11	3,803.32
1933		Jan. 29	3,816.4			1945		Apr. 10	3,803.22
Jan. 28	3,829.1	Feb. 17	3,816.8	1941		Jan. 24	3,816.44	May 12	3,803.28
Apr. 20	3,828.9	Mar. 23	3,817.45	Jan. 17	3,816.75	Feb. 19	3,816.52	June 12	3,803.54
May 19	3,828.8	Apr. 20	3,817.9	Feb. 15	3,817.04	Mar. 31	3,816.37	July 18	3,803.15
June 26	3,829.2	May 22	3,818.4	Mar. 25	3,816.99	Apr. 17	3,816.50	Aug. 16	3,802.59
July 7	3,828.7	June 19	3,818.35	Apr. 21	3,816.92	May 10	3,816.74	Sept.25	3,802.11

a Rise primarily the result of flood in Truckee River.

400. Truckee River at Tahoe, Calif.

Location.--Lat 39°09'55", long 120°08'45", in NW¼ sec. 7, T. 15 N., R. 17 E., at Tahoe, just downstream from dam at outlet of Lake Tahoe.

Drainage area.--519 sq mi.

Gage.--Water-stage recorder. Datum of gage is 6,219.01 ft above mean sea level, datum of 1929. Prior to Nov. 12, 1912, staff gage 100 ft upstream at different datum. Nov. 12, 1912, to Sept. 30, 1937, staff gage at described site and datum.

Average discharge.--43 years (1900-1943), 248 cfs.

Extremes.--1895-96; 1900-1943: Maximum daily discharge, 1,819 cfs Jan. 30, 1943; no flow at times in 1900, 1901, 1914, 1918-43.

Remarks.--Flow regulated by dam at outlet of Lake Tahoe and occasionally by pumping from the lake.

Cooperation.--Records after Oct. 1, 1911, furnished by Bureau of Reclamation, Truckee-Carson Irrigation District, and the Federal Court Watermaster; those for October to December 1943 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second, of Truckee River at Tahoe, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	914	425	374	-
1896	415	437	250	262	290	-	-	-	-	-	-	-	-
1900	-	-	-	-	-	0	0	0	52	214	232	196	-
1901	159	135	81	102	81	30	9	0	30	225	419	326	133
1902	282	247	111	125	73	52	48	97	95	204	406	350	174
1903	324	346	326	266	103	190	13	13	38	205	344	398	214
1904	374	255	260	305	111	401	610	799	899	873	787	761	536
1905	672	711	614	410	433	321	20.9	173	212	303	391	385	387
1906	390	305	271	304	396	443	488	543	594	725	753	759	498
1907	726	695	647	697	732	765	806	919	1,130	1,300	1,250	1,210	906
1908	1,100	925	823	752	666	596	212	56.8	53.9	311	453	390	528
1909	354	300	278	220	630	660	584	321	569	555	525	452	454
1910	413	374	559	883	791	†398	315	148	332	656	628	436	481
1911	339	281	262	307	590	671	592	153	447	771	409	377	433
1912	359	365	400	422	261	229	67.0	23.5	22.1	154	425	356	257
1913	335	273	295	368	272	196	8.3	6.3	16.1	236	375	418	234
1914	364	299	263	70.1	50.1	24.0	5.0	103	188	247	342	486	204
1915	392	497	512	346	200	202	7.5	5.2	9.0	186	438	363	264
1916	288	297	292	361	315	626	34.1	17.7	12.9	96.3	479	395	269
1917	406	388	319	481	324	251	30.8	23.0	817	602	560	430	386
1918	337	300	325	354	342	316	18.0	18.0	85.8	631	638	398	314
1919	236	270	284	285	217	227	0	0	194	482	538	434	265
1920	328	352	306	303	255	248	19.3	0	50.5	364	454	255	245
1921	142	113	156	134	68.2	1.3	0	0	0	214	447	451	145
1922	318	191	150	216	280	348	123	0	0	163	453	477	226
1923	377	341	330	285	272	151	0	0	0	179	479	468	240
1924	331	338	348	379	244	283	105	114	225	134	193	249	245
1925	98.5	24.4	0	0	0	0	0	0	0	321	361	159	81.3
1926	124	79.4	63.3	50.8	54.8	17.4	0	0	199	276	130	42.5	86.7
1927	3.71	0	21.6	27.2	36.1	0	0	0	5.3	119	387	413	84.6
1928	327	172	183	259	198	47.6	0	0	197	450	476	415	228
1929	239	133	78.5	74.0	71.0	47.9	8.9	0	40.6	180	194	214	107
1930	72.2	76.5	25.7	3.23	2.50	13.6	0	0	41.4	183	161	258	70.0
1931	49.7	25.3	.71	.29	.86	.16	0	0	0	0	0	0	6.47
1932	0	0	0	0	0	0	0	0	0	112	106	44.2	22.1
1933	15.7	.50	0	0	0	0	0	0	7.60	38.6	19.2	2.53	7.12
1934	0	0	0	.23	.93	2.81	13.0	20.6	24.1	182	274	157	56.7
1935	48.9	16.1	0	0	0	0	0	0	3.30	41.5	17.5	2.40	11.0
1936	0	0	0	0	4.62	16.4	0	0	0	271	444	314	88.0
1937	185	103	72.7	91.2	128	94.5	0	0	35.6	393	424	243	148
1938	138	102	71.9	157	138	134	12.5	0	0	85.7	358	401	133
1939	293	272	345	357	343	210	0	84.7	366	469	490	480	309
1940	353	269	185	7.7	0	0	0	0	38.9	356	242	364	152
1941	319	129	268	81.8	8.25	0	0	0	.63	180	366	401	147
1942	321	198	94.5	0	715	225	208	654	1,082	253	444	451	383
1943	184	128	65.5	433	1,555	906	896	436	220	286	470	394	490
1944	196	199	258	-	-	-	-	-	-	-	-	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1895	-	-	-	-	-	-	-	-	-	56,200	26,111	22,244	-
1896	25,538	26,002	15,388	16,102	16,677	-	-	-	-	-	-	-	-
1900	-	-	-	-	-	0	0	0	3,106	13,131	14,261	11,667	-
1901	9,781	8,047	4,981	6,262	4,502	1,845	565	0	1,765	13,809	25,760	19,395	96,700
1902	17,308	14,678	6,841	7,686	4,054	3,197	2,856	5,964	5,653	12,543	24,964	20,826	127,000
1903	19,922	20,588	20,045	16,356	5,720	11,683	774	799	2,261	12,605	21,152	23,683	156,000
1904	22,996	15,174	15,987	18,750	6,385	24,660	36,300	49,130	53,490	53,680	48,390	45,280	390,000
1905	41,320	42,310	37,750	25,210	24,050	19,740	1,244	10,640	12,620	18,630	24,040	22,910	280,000
1906	23,980	18,150	16,660	18,700	22,000	27,200	29,000	33,400	35,300	44,600	46,300	45,200	360,000
1907	44,600	41,400	39,800	42,900	40,700	47,000	48,000	56,500	67,200	79,900	76,900	72,000	657,000
1908	67,600	55,000	50,600	46,200	38,300	36,600	12,600	3,490	3,210	19,100	27,900	23,200	384,000
1909	21,800	17,900	17,100	13,500	35,000	40,600	34,800	19,700	33,900	34,100	32,300	26,900	328,000
1910	25,400	22,300	34,400	54,300	43,900	24,500	9,040	9,100	19,800	40,300	38,600	25,900	348,000
1911	20,800	16,700	16,100	18,900	32,800	41,300	35,200	9,410	26,600	47,400	25,100	22,400	313,000
1912	22,100	21,700	24,600	25,900	15,000	14,100	3,990	1,440	1,320	9,470	26,100	21,200	187,000
1913	20,600	16,200	18,100	22,600	15,100	12,100	494	387	958	14,500	23,100	24,900	169,000
1914	22,400	17,800	16,200	4,310	2,780	1,480	298	6,330	11,200	15,200	21,000	28,900	148,000
1915	24,100	29,600	31,500	21,300	11,100	12,400	446	320	536	11,400	26,900	21,600	191,000
1916	17,700	17,700	18,000	22,200	18,100	38,500	2,030	1,090	768	5,920	29,500	23,500	195,000
1917	25,000	23,100	19,600	29,600	18,000	15,400	1,830	1,410	48,600	37,000	34,400	25,600	280,000
1918	20,700	17,900	20,000	21,800	19,000	19,400	1,070	1,110	4,990	38,800	39,200	23,700	228,000
1919	14,500	16,100	17,500	17,500	12,100	14,000	0	0	11,500	29,600	33,100	25,800	192,000
1920	20,200	20,900	18,800	18,600	14,700	15,200	1,150	0	3,000	22,400	27,900	15,200	178,000
1921	8,730	6,720	9,590	8,240	3,790	77.5	0	0	0	13,200	27,500	26,800	105,000
1922	19,600	11,400	9,220	13,300	15,600	21,400	7,320	0	0	10,000	27,900	28,400	164,000
1923	23,200	20,300	20,300	17,500	15,100	9,280	0	0	0	11,000	29,500	27,800	174,000
1924	20,400	20,100	21,400	23,300	14,000	17,400	6,250	7,010	13,400	8,240	11,900	14,800	178,000
1925	6,060	1,450	0	0	0	0	0	0	0	19,700	22,200	9,460	58,900

Monthly and yearly runoff, in acre-feet, of Truckee River at Tahoe, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1926	7,620	4,720	3,890	3,120	3,040	1,070	0	0	11,800	17,000	7,990	2,530	62,800
1927	228	0	1,330	1,670	2,000	0	0	0	315	7,320	23,800	24,600	61,300
1928	20,100	10,200	11,300	15,900	11,400	2,930	0	0	11,700	27,700	29,300	24,700	165,000
1929	14,700	7,910	4,830	4,830	3,940	2,950	530	0	2,420	11,100	11,900	12,700	77,500
1930	4,440	4,550	1,580	199	139	836	0	0	2,460	11,300	9,900	15,400	50,800
1931	3,060	1,510	43.7	17.8	47.8	9.8	0	0	0	0	0	0	4,690
1932	0	0	0	0	0	0	0	0	0	6,890	6,520	2,630	16,000
1933	965	29.8	0	0	0	0	0	0	452	2,370	1,180	151	5,150
1934	0	0	0	13.9	51.6	173	774	1,270	1,430	11,200	16,800	9,340	41,100
1935	3,000	960	0	0	0	0	0	0	196	2,550	1,070	143	7,920
1936	0	0	0	0	266	1,010	0	0	0	16,640	27,300	18,700	63,920
1937	11,400	6,110	4,470	5,610	7,120	5,810	0	0	2,120	24,180	26,070	14,480	107,400
1938	8,460	6,060	4,420	9,680	7,640	8,270	746	0	0	5,270	22,030	23,840	96,420
1939	18,040	16,160	21,240	21,920	19,050	12,940	0	5,210	21,790	28,850	30,130	28,530	223,900
1940	21,680	16,000	11,360	476	0	0	0	0	2,310	21,880	14,890	21,670	110,300
1941	19,630	7,660	16,480	5,030	458	0	0	0	38	11,080	22,480	23,870	106,700
1942	19,730	11,760	5,810	0	39,720	13,860	12,390	40,190	64,390	15,570	27,310	26,850	277,600
1943	11,290	7,630	4,030	26,630	86,380	55,720	53,300	26,820	13,090	17,590	28,920	23,470	354,900
1944	12,020	11,820	15,890	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1895	300	-	-	-	-	-	-	-
1896	300	-	-	-	-	-	-	-
1900	300	-	-	-	-	-	-	-
1901	300	555	Aug.11-18,1901	0	133	96,700	155	113,000
1902	300	445	Aug.14-24,1902	25	174	127,000	204	148,000
1903	300	426	Sept.3-15,1903	13	214	156,000	205	149,000
1904	300	931	June19-23,1904	13	536	390,000	629	457,000
1905	300	790	Oct.20,21,1904	15	387	280,000	301	218,000
1906	300	838	Aug.18-22,1906	229	498	360,000	589	428,000
1907	300	1,340	July13-20,1907	392	906	657,000	971	704,000
1908	300	1,210	Oct. 1, 1907	119	528	384,000	369	267,000
1909	300	869	(a)	35	454	328,000	488	353,000
1910	300	898	Jan.2-12,1910	108	481	348,000	441	319,000
1911	300	861	July20-23,1911	145	433	313,000	452	328,000
1912	330	617	(b)	18	257	187,000	239	173,000
1913	360	520	Aug.25-26,1913	5	234	169,000	235	171,000
1914	390	618	July 4-6,1914	0	204	148,000	244	177,000
1915	410	652	Nov. 24, 1914	5	264	191,000	220	159,000
1916	440	1,010	Mar.5,6, 1916	12	269	195,000	288	209,000
1917	460	1,160	Oct. 21, 1916	23	386	280,000	373	270,000
1918	480	725	July23-25,1918	0	314	228,000	300	217,000
1919	510	725	June28-30,1919	0	265	192,000	281	204,000
1920	510	518	Aug.11-12,1920	0	245	178,000	197	143,000
1921	530	465	Aug. 17, 1921	0	145	105,000	165	120,000
1922	550	487	Aug.21-24,1922	0	226	164,000	259	188,000
1923	570	490	Aug.12-22,1923	0	240	174,000	238	172,000
1924	590	402	Jan. 3, 1924	0	245	178,000	171	124,000
1925	610	476	(c)	0	81.3	58,900	93.4	67,600
1926	630	384	June 23, 1926	0	86.7	62,800	66.4	48,100
1927	650	429	Sept.24-30,1927	0	84.6	61,300	140	101,000
1928	670	490	(d)	0	228	165,000	208	151,000
1929	690	315	Oct. 1, 1928	0	107	77,500	83.9	60,700
1930	720	304	Sept. 5, 1930	0	70.0	50,800	61.8	44,800
1931	720	59	Oct.1,2, 1930	0	6.47	4,690	.10	75
1932	735	172	July 16,17,1932	0	22.1	16,000	23.5	17,000
1933	750	50	(e)	0	7.12	5,150	5.75	4,150
1934	765	288	(f)	0	56.7	41,100	62.2	45,010
1935	790	51	Oct. 12, 1934	0	11.0	7,920	5.48	3,960
1936	810	471	Aug.6-10,1936	0	88.0	63,920	118	85,900
1937	830	466	Aug.5-9, 1937	0	148	107,400	144	104,300
1938	880	505	July28,29, 1938	0	133	96,420	184	132,900
1939	880	490	(g)	0	309	223,900	300	217,500
1940	900	428	July 30, 1940	0	152	110,300	145	105,000
1941	930	468	(h)	0	147	106,700	138	100,300
1942	960	1,413	June 25,26,1942	0	383	227,600	364	263,200
1943	980	1,819	Jan. 30, 1943	0	490	354,900	‡513	‡371,600

‡ Not previously published.

a June 20-23, 25-30, July 1-3, 5-8, 1909.
b Dec. 29, 1911, to Jan. 1, 1912.
c July 31, Aug. 1, 6, 1925.
d July 17-27, Aug. 2-8, 1928.
e June 28 to July 9, 1933.
f July 23, 28-20, 1934.
g July 23 to Sept. 15, 1939.
h Sept. 21-25, 28-29, 1941.

401. Truckee River near Truckee, Calif.

Location.--Lat 39°17'30", long 120°12'30", in SW¼NE¼ sec. 28, T. 17 N., R. 16 E., 1.4 miles upstream from Donner Creek and 2.5 miles southwest of Truckee.

Drainage area.--565 sq mi (revised).

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

Average discharge.--5 years (1945-50), 251 cfs.

Extremes.--1944-50: Maximum discharge, 1,110 cfs Feb. 2, 1945; maximum gage height, 6.07 ft Jan. 25, 1949 (ice jam); minimum discharge, 11 cfs Jan. 27, 1948.

Remarks.--Flow regulated by Lake Tahoe Reservoir (operating capacity, about 730,000 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	-	-	‡242	80.6	141	70.6	230	381	208	360	476	252	-
1946	199	201	190	101	88.9	134	328	489	239	328	419	215	246
1947	284	283	229	201	164	292	247	251	238	379	226	442	270
1948	387	300	312	112	117	254	255	291	278	315	429	379	287
1949	251	161	211	181	208	159	274	311	271	450	309	173	247
1950	69.8	58.9	44.0	77.6	74.7	101	272	407	294	269	391	400	205

‡ Not previously published; partly estimated on basis of winter flow for later years.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1945	-	-	‡14,860	4,960	7,830	4,340	13,670	23,400	12,360	22,130	29,290	15,020	-
1946	12,240	11,960	11,700	6,240	4,930	8,250	19,520	30,040	14,200	20,170	25,760	12,780	177,800
1947	17,450	16,820	14,090	12,350	9,100	17,960	14,710	15,440	14,140	23,330	13,910	26,280	195,600
1948	23,820	17,830	19,190	6,900	6,730	15,840	15,180	17,900	16,560	19,380	26,390	22,530	208,000
1949	15,430	9,610	12,960	11,140	11,540	9,770	16,330	19,100	16,130	27,650	19,030	10,320	178,900
1950	4,290	3,510	2,700	4,770	4,150	6,240	16,180	25,040	17,470	16,550	24,050	23,780	148,700

‡ Not previously published; partly estimated on basis of winter flow for later years.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1945	1040	1,110	Feb. 2, 1945	-	-	-	233	168,900
1946	1060	838	Apr. 25, 1946	64	246	177,800	263	190,200
1947	1090	677	Nov. 23, 1946	52	270	195,600	287	208,100
1948	1120	708	Oct. 16, 1947	34	287	208,000	255	185,200
1949	1150	671	May 14, 1949	28	247	178,900	209	151,500
1950	1180	700	Jan. 22, 1950	17	205	148,700	-	-

402. Donner Creek at Donner Lake, near Truckee, Calif.

Location.--Lat 39°19'25", long 120°14'00", in SW¼NW¼ sec. 17, T. 17 N., R. 16 E., at Donner Lake, half a mile upstream from Cold Creek, and 3 miles west of Truckee.

Drainage area.--14.5 sq mi (revised).

Gage.--Staff gage. Altitude of gage is 5,930 ft (from topographic map).

Extremes.--1909-10: Maximum discharge observed, 121 cfs Nov. 25, 1909; minimum daily, 1 cfs Nov. 1-10, 1909, July 25 to Aug. 30, 1910.

Remarks.--Flow regulated by dam at outlet of Donner Lake.

Cooperation.--Records furnished by Stone and Webster Engineering Corp.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	30.3	57.4	10.6	11.1	55.8	93.6	88.7	21.0	4.0	1.0	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	1,800	3,530	652	616	3,430	5,570	5,450	1,250	246	61	-	-

403. Donner Creek near Truckee, Calif.

Location.--Lat 39°19'15", long 120°12'10", in SE¼ sec. 16, T. 17 N., R. 16 E., 1 mile downstream from Cold Creek, 1.5 miles southwest of Truckee, and 2 miles downstream from Donner Lake.

Drainage area.--30 sq mi (approximately).

Gage.--Water-stage recorder. Altitude of gage is 5,850 ft (from topographic map). Prior to Sept. 12, 1909, staff gage 40 ft upstream at different datum. Sept. 12, 1909, to Sept. 30, 1915, staff gage at described site and datum.

Average discharge.--26 years (1902-13, 1928-43), 76.7 cfs.

Extremes.--1902-15, 1928-43: Maximum discharge, 1,800 cfs Dec. 11, 1937 (gage height, 6.2 ft on outside gage); no flow on several days in 1906, 1907, and 1913.

Remarks.--Flow regulated by Donner Lake. No diversion.

Cooperation.--Records for 1928-43, furnished by Truckee-Carson Irrigation District and Federal Court Watermaster; those for October to December 1943 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	*5	*6	*28	*31	*56	*178	*328	*170	23	3	1	‡69
1904	3	92	16	*14.5	145	391	312	482	326	59.4	†8.8	30.6	*156
1905	50.6	12.0	9.2	17.8	53.1	130	163	218	114	8.6	.51	3.6	65.0
1906	4.4	.29	1.6	38.3	32	54.5	161	506	493	269	21.4	13.5	133
1907	11.1	16.3	20.0	29.9	92.5	239	296	392	349	158	40.1	29.9	139
1908	12.1	10.3	11.2	30.7	35.9	54.3	145	147	120	44.0	10.9	8.1	52.5
1909	3.2	6.4	15.4	214	38.2	51.0	150	*343	*382	69.2	11.8	4.9	*108
1910	3.4	140	208	72.0	75.6	148	252	210	59.6	10.1	1.41	1.89	98.5
1911	2.50	7.47	20.5	59.4	110	50.7	210	354	526	136	14.4	6.88	124
1912	5.92	10.4	10.8	24.1	12.4	8.82	31.0	173	148	44.8	3.60	1.36	39.6
1913	2.39	11.1	4.29	6.74	2.62	6.82	47.8	71.7	28.6	8.46	37.3	1.26	19.2
1914	-	-	-	-	-	-	-	-	302	78.1	15.6	-	-
1915	-	-	-	23.5	47.4	34.3	203	313	199	40.7	10.2	9.17	-
1928	-	-	-	-	-	-	176	210	44.2	5.29	2.00	2.00	-
1929	2.00	6.70	2.0	24.1	43.9	16.0	48.7	167	80.0	42.7	26.3	2.10	38.4
1930	1.0	1.0	34.5	42.5	58.0	68.9	158	156	86.1	21.5	38.6	1.57	55.6
1931	1.19	25.1	3.77	7.94	12.3	24.0	51.7	83.8	27.1	23.2	20.9	26.4	25.6
1932	22.8	6.93	27.5	50.9	43.3	8.10	74.2	290	213	45.3	48.8	9.63	70.1
1933	13.1	39.8	15.3	16.3	5.04	6.19	43.2	132	190	71.4	20.0	2.00	46.2
1934	2.3	8.1	14.3	15.4	21.8	113	127	59.4	34.3	67.5	23.5	7.1	41.3
1935	2.2	6.33	2	6	8.14	17.0	183	325	181	74.9	53.7	7.87	72.5
1936	-	-	-	26.1	40.7	98.0	265	356	197	30.9	5.6	4.1	‡86
1937	4.0	4.0	5.5	7.2	8.2	67.1	172	296	149	14.9	5.4	5.5	61.8
1938	4.7	6.1	193	25.9	153	54.1	186	440	290	59.9	5.9	4.0	118
1939	34.3	6.1	6.2	10.6	13.5	50.6	140	94.6	17.9	3.9	3.1	3.0	32.1
1940	18.9	15.4	10.0	54.9	60.0	256	291	304	93.6	9.7	3.5	32.2	95.9
1941	†19.3	9.20	13.8	12.3	42.4	79.5	145	338	122	24.0	4.58	3.50	68.0
1942	33.3	9.1	91.0	80.2	82.0	59.0	180	236	237	36.9	4.5	4.0	87.6
1943	4.0	40.0	48.3	109	103	93.1	254	217	97.0	34.9	4.5	83.8	90.3
1944	25.2	18.0	10.0	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; yearly figure only partly estimated on basis of records for stations on nearby streams; some monthly figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	*276	*345	*1,740	*1,710	*3,470	*10,600	*20,100	*10,100	1,414	184	60	‡50,100
1904	184	5,474	984	*893	8,341	24,040	18,560	29,640	19,400	3,652	†541	1,821	*113,500
1905	3,111	714	566	1,094	2,949	7,993	9,699	13,400	6,783	529	31	214	47,100
1906	270	17	98	2,360	1,780	3,350	9,580	31,100	29,300	16,500	1,320	803	96,500
1907	682	970	1,230	1,840	5,140	14,700	17,600	24,100	20,800	9,720	2,470	1,780	101,000
1908	744	613	689	1,890	2,060	3,340	8,630	9,040	7,140	2,700	670	482	38,000
1909	197	381	947	13,200	2,120	3,140	8,930	*21,100	*22,700	4,250	726	292	*78,000
1910	209	8,330	12,800	4,430	4,200	9,100	15,000	12,900	3,550	621	86.7	112	71,300
1911	154	444	1,260	3,650	6,110	3,120	12,500	21,800	31,300	8,360	885	409	90,000
1912	364	619	664	1,480	713	542	1,840	10,600	8,810	2,750	221	80.9	28,700
1913	147	660	264	414	146	419	2,840	4,410	1,700	520	2,290	75	13,900
1914	-	-	-	-	-	-	-	-	18,000	4,800	959	-	-
1915	-	-	-	1,440	2,630	2,110	12,100	19,200	11,800	2,500	627	546	-
1928	-	-	-	-	-	-	10,500	12,900	2,630	325	123	119	-
1929	123	399	123	1,480	2,440	984	2,900	10,300	4,760	2,630	1,620	125	27,900
1930	61.5	59.5	2,120	2,610	3,220	4,240	9,400	9,590	5,120	1,320	2,370	93.4	40,200
1931	73.2	1,490	232	488	683	1,480	3,080	5,150	1,610	1,430	1,290	1,570	18,600
1932	1,400	412	1,690	3,130	2,490	498	4,420	17,800	12,700	2,790	3,000	573	50,900
1933	806	2,370	941	1,000	280	381	2,570	8,120	11,300	4,390	1,230	119	33,500
1934	139	482	879	947	1,210	6,950	7,560	3,650	2,040	4,150	1,440	421	29,900
1935	135	377	123	369	452	1,050	10,860	19,980	10,780	4,600	3,300	468	52,490

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Donner Creek near Truckee, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	-	-	-	1,600	2,340	6,020	15,750	21,900	11,730	1,900	345	244	‡62,510
1937	246	238	335	442	458	4,130	10,240	18,190	8,860	914	333	327	44,710
1938	290	365	11,850	1,590	8,490	3,330	11,080	27,070	17,270	3,680	361	238	85,610
1939	2,110	365	381	655	748	3,110	8,360	5,820	1,070	238	188	179	23,220
1940	1,160	916	615	3,380	3,450	15,750	17,320	18,690	5,570	599	216	1,920	69,590
1941	1,180	547	847	756	2,350	4,890	8,620	20,810	7,250	1,480	282	208	49,220
1942	2,050	543	5,600	4,930	4,560	3,630	10,680	14,510	14,130	2,270	280	238	63,420
1943	246	2,380	2,970	6,730	5,700	5,720	15,110	13,350	5,770	2,150	278	4,990	65,390
1944	1,550	1,070	615	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; yearly figure only partly estimated on basis of records for stations on nearby streams; some monthly figures not available.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300,1564	*478	May 13, 1903	-	‡69	‡50,100	*77.5	*56,000
1904	300,1564	709	May22,23,1904	1	*156	*113,500	*153	*111,300
1905	300	290	Apr. 27, 1905	.2	65.0	47,100	59.6	43,300
1906	300	698	May 21, 1906	0	133	96,500	136	99,000
1907	300	a980	Mar. 18, 1907	0	139	101,000	138	100,000
1908	300	224	Apr. 20, 1908	5	52.5	38,000	51.7	37,500
1909	300,1564	812	Jan. 16, 1909	1	*108	*78,000	*135	*97,800
1910	300	862	Dec. 1, 1909	1	98.5	71,300	71.6	51,900
1911	300,330	670	June 13, 1911	1.2	124	90,000	124	89,800
1912	330	350	June2-4, 1912	.8	39.6	28,700	38.8	28,100
1913	360	278	Aug. 12, 1913	0	19.2	13,900	19.0	13,800
1914	390	a510	June 2,3,1914	-	-	-	-	-
1915	410	a518	May13,14,1915	-	-	-	-	-
1928	750	-	-	-	-	-	-	-
1929	750	266	May 20, 1929	1	38.4	27,900	40.6	29,500
1930	750	287	May 21, 1930	1	55.6	40,200	55.0	39,800
1931	750	152	May 3, 1931	1	25.6	18,600	28.0	20,300
1932	750	522	May 14, 1932	1	70.1	50,900	70.9	51,500
1933	750	410	May 31, 1933	2	46.2	33,500	42.6	30,900
1934	765	415	Mar. 29, 1934	2	41.3	29,900	40.1	29,000
1935	790	470	May 26, 1935	2	72.5	52,490	‡72.6	‡52,540
1936	810	653	June 7, 1936	-	‡86	‡62,510	86.3	62,650
1937	880	387	May 29, 1937	4	61.8	44,710	77.9	56,400
1938	880	b1,800	Dec. 11, 1937	4	118	85,610	105	75,960
1939	880	276	Apr.7,8, 1939	3	32.1	23,220	31.8	23,060
1940	900	b1,137	Mar. 30, 1940	3	95.9	69,590	95.7	69,470
1941	930	b540	May 11, 1941	3	68.0	49,220	75.7	54,840
1942	980	b519	Apr. 25, 1942	3	87.6	63,420	84.0	60,820
1943	980	b463	May 1, 1943	3	90.3	65,390	‡87.1	‡63,030
1944	-	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a Maximum observed.
b Momentary maximum.

404. South Fork Prosser Creek near Truckee, Calif.

Location.--Lat 39°22'35", long 120°15'45", in SW¼ sec. 25, T. 18 N., R. 15 E., at bridge 2 miles upstream from North Fork Prosser Creek and 6 miles northwest of Truckee.

Drainage area.--5.8 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 6,450 ft (from topographic map).

Extremes.--1909-10: Maximum discharge observed, 175 cfs Dec. 1, 1909; minimum, 4 cfs Nov. 12, 1909, July 15 to Aug. 31, 1910.

Cooperation.--Records furnished by Stone and Webster Engineering Corp.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	‡6	56.3	39.4	19.7	19.1	25.9	65.7	65.8	28.4	6.8	4.0	‡4	‡28.4

‡ Not previously published; estimated on basis of records for Prosser Creek near Hobart Mills.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	‡369	3,350	2,420	1,210	1,060	1,590	3,910	4,050	1,690	418	246	‡238	‡20,550

‡ Not previously published; estimated on basis of records for Prosser Creek near Hobart Mills.

405. Prosser Creek near Truckee, Calif.[1]

Location.--Lat 39°22'45", long 120°09'00", in SW¼ sec. 25 (revised), T. 18 N., R. 16 E. (revised), at highway bridge, 200 ft downstream from Alder Creek, 2 miles upstream from mouth, and 4 miles north of Truckee.

Drainage area.--48 sq mi (approximately).

Gage.--Staff gage. Altitude of gage is 5,650 ft (from topographic map). Prior to June 1, 1911, staff gages in vicinity of described site at different datums.

Average discharge.--5 years (1903-4, 1907-11), 140 cfs.

Extremes.--1903-4, 1907-12: Maximum discharge observed, 1,360 cfs Jan. 16, 1909 (gage height, 5.8 ft); minimum daily, 4 cfs Aug. 12, 1908.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	*43.0	*18.7	*13.0	-
1904	‡15.2	‡128	*33.5	*40	*235	329	380	433	296	128	45.8	26.4	‡174
1908	39.5	35.3	29.0	29.0	29.1	107	177	173	160	56.0	8.9	21.9	72.1
1909	34.3	30.0	41.6	277	92.0	110	375	460	374	142	23.4	16.1	165
1910	45.6	151	*170	*105	*110	212	299	226	175	32.0	10.0	10.7	*129
1911	11.2	19.5	†28.5	118	105	91.1	290	486	513	179	45.9	19.4	159
1912	22.0	26.1	10.2	16.0	19.3	26.0	63.6	99.7	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	*2,640	*1,150	*774	-
1904	‡936	‡1,630	*2,060	*2,460	*13,490	20,230	22,610	26,620	17,610	7,870	2,816	1,571	‡125,900
1908	2,430	2,100	1,780	1,780	1,670	6,580	10,500	10,600	9,520	3,440	547	1,300	52,200
1909	2,110	1,790	2,560	17,000	5,110	6,760	22,300	28,300	22,300	8,730	1,440	958	119,000
1910	2,800	8,980	*10,500	*6,460	*6,110	13,000	17,800	13,900	10,400	1,970	615	637	*93,200
1911	689	1,160	†1,750	7,260	5,830	5,600	17,300	29,900	30,500	11,000	2,820	1,150	115,000
1912	1,350	1,550	627	984	1,110	1,600	3,780	6,130	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for stations on nearby streams.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300,1564	-	-	-	-	-	-	-
1904	300,1564	a1,100	Feb. 24, 1904	-	‡174	‡125,900	-	-
1908	300	221	June 12, 1908	4	72.1	52,200	72.3	52,400
1909	300	a1,360	Jan. 16, 1909	7	165	119,000	187	135,200
1910	300,1564	900	Nov. 21, 1909	7	*129	*93,200	*103	*74,500
1911	310	675	June 5, 1911	10	159	115,000	159	115,000
1912	330	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a Maximum observed.

406. Webber Creek near Truckee, Calif.

Location.--Lat 39°29'05", long 120°24'10", in SE¼NE¼ sec. 28, T. 19 N., R. 14 E., at outlet of Webber Lake, 1.5 miles upstream from mouth, and 16 miles northwest of Truckee.

Drainage area.--14 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 6,770 ft (from topographic map).

Extremes.--1909-10: Maximum discharge observed, 398 cfs Nov. 25, 1909; minimum, 1 cfs Oct. 19 to Nov. 2, 1909, July 5 to Aug. 31, 1910.

Cooperation.--Records furnished by Stone and Webster Engineering Corp.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	63.3	42.2	28.2	21.5	53.4	143	133	32.5	2.4	1.0	-	‡43.5

‡ Not previously published; yearly figure estimated on basis of weather records; some monthly figures not available.

[1] Published as "near Hobart Mills" prior to 1911.

Monthly and yearly runoff, in acre-feet, of Webber Creek near Truckee, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	3,770	2,590	1,730	1,190	3,280	8,510	8,180	1,930	148	61	-	‡31,500

‡ Not previously published; see footnote to preceding table.

407. Little Truckee River near Truckee, Calif.

Location.--Lat 39°29'40", long 120°20'00", in SW¼ sec. 17 (revised), T. 19 N. (revised), R. 15 E., 4 miles upstream from Independence Creek and 14 miles northwest of Truckee.

Drainage area.--33.2 sq mi.

Gage.--Staff gage. Altitude of gage is 6,450 ft (from topographic map).

Extremes.--1909-10: Maximum discharge observed, 478 cfs Apr. 27, 28, 1910; no flow Aug. 26-31, 1910.

Cooperation.--Records furnished by Stone and Webster Engineering Corp.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	103	76.5	46.9	56.6	172	306	332	136	29.9	1.5	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	6,130	4,700	2,880	3,140	10,600	18,200	20,400	8,090	1,840	92	-	-

408. Little Truckee River near Hobart Mills, Calif.

Location.--Lat 39°30', long 120°16', in sec. 14, T. 19 N., R. 15 E., half a mile upstream from Independence Creek and 7½ miles northwest of Hobart Mills.

Drainage area.--33 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,330 ft (from topographic map).

Extremes.--1946-50: Maximum discharge, 792 cfs May 24, 1950 (gage height, 4.49 ft); minimum, 1.1 cfs Aug. 19, 20, 23, 1949.

Remarks.--One transmountain diversion to Sierra Valley above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	13.7	33.7	53.4	145	198	31.1	1.87	1.64	2.35	-
1948	12.3	10.5	8.7	45.3	19.1	16.5	115	275	283	26.2	3.79	2.77	68.0
1949	4.96	9.6	7.11	7.60	10.3	11.7	169	319	78.6	2.68	1.50	2.08	52.2
1950	3.95	7.43	6.97	14.4	22.2	37.0	209	431	271	48.1	3.35	3.07	88.3

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1947	-	-	-	841	1,870	3,280	8,630	12,200	1,850	115	101	140	-
1948	754	623	536	2,780	1,100	1,020	6,840	16,930	16,840	1,610	233	165	49,390
1949	305	571	437	467	574	718	10,030	19,600	4,680	165	92	124	37,760
1950	243	442	429	886	1,240	2,280	12,450	26,490	16,150	2,960	206	183	63,960

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1947	1120	569	May 2, 1947	1.5	-	-	42.7	30,940
1948	1120	699	May 27, 1948	2.5	68.0	49,390	67.3	48,830
1949	1150	706	May 14, 1949	1.3	52.2	37,760	51.9	37,560
1950	1180	792	May 24, 1950	2.2	88.3	63,960	-	-

409. Independence Creek near Truckee, Calif.1/

Location.--Lat 39°27'10", long 120°17'20", in SW¼ sec. 35, T. 19 N., R. 15 E., 75 ft downstream from Independence Lake outlet, 4½ miles upstream from mouth, and 10 miles northeast of Truckee.

Drainage area.--8.4 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 6,940 ft (from topographic map). Prior to July 1, 1904, at site about 600 ft downstream at approximately same datum.

Average discharge.--5 years (1902-7), 39.3 cfs.

Extremes.--1902-7, 1909-10: Maximum discharge observed, 286 cfs June 23, 1907 (gage height, 3.9 ft); no flow Sept. 28 to Nov. 10, 1905, and June 1, 1906.

Remarks.--Flow regulated by Independence Lake (usable capacity, 17,300 acre-ft in 1950). No diversion above station.

Cooperation.--Records for 1909-10 furnished by Stone and Webster Engineering Corp.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	9.50	8.01	17.9	37.2	19.7	26.1	92.6	73.2	19.3	3.56	0.73	‡26.2
1904	' 3.22	28.0	6.88	6.24	39.7	56.5	41.4	128	114	43.7	5.97	2.41	39.8
1905	19.6	6.13	29.0	44.3	18.4	34.5	53.0	118	99.9	8.41	2.42	.22	36.2
1906	0	4.90	3.37	27.2	8.33	18.6	21.8	89.7	159	141	16.0	4.55	41.2
1907	15.0	11.5	27.8	37.9	32.9	64.9	65.1	124	158	64	21	13	52.9
1910	-	54.6	49.6	7.3	7.3	35.0	72.9	66.4	42.3	-	-	-	-

‡ Not previously published; one monthly figure not available; yearly figure partly estimated on basis of records for stations on nearby streams.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	565	493	1,100	2,070	1,210	1,550	5,690	4,360	1,190	219	43	‡19,000
1904	198	1,670	423	384	2,280	3,470	2,460	7,870	6,780	2,690	367	143	28,700
1905	1,210	365	1,780	2,720	1,020	2,120	3,150	7,260	5,940	517	149	13	26,200
1906	0	292	207	1,670	463	1,140	1,300	5,520	9,460	8,670	984	271	30,000
1907	922	684	1,710	2,330	1,830	3,990	3,870	7,620	9,400	3,940	1,290	774	38,400
1910	-	3,250	3,050	449	405	2,150	4,340	4,080	2,520	-	-	-	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300	154	May 13, 1903	-	‡26.2	19,000	27.4	19,700
1904	300	203	May25,26,1904	0.6	39.8	28,700	41.1	29,800
1905	300	232	May 2-5, 1905	0	36.2	26,200	32.3	23,400
1906	300	268	June 25, 1906	0	41.2	30,000	45.0	32,800
1907	300	286	June 23, 1907	-	52.9	38,400	-	-
1910	330	-	-	-	-	-	-	-

‡ Not previously published.

410. Little Truckee River at Starr, Calif.2/

Location.--Lat 39°27', long 120°06', in SE¼ sec. 32, T. 19 N., R. 17 E., at Starr and about 5 miles north of Boca.

Drainage area.--142 sq mi (revised) at site used 1903-7.

Gage.--Staff gage. Altitude of gage 5,660 ft (from topographic map). Prior to Jan. 1, 1908, staff gage at Pine Station, 2 miles downstream, at different datum.

Average discharge.--7 years (1903-10), 274 cfs.

Extremes.--1903-10: Maximum discharge observed, 1,920 cfs Jan. 15, 16, 1909; minimum, 11 cfs Aug. 23-29, Sept. 1, 2, 7, 11, 1910.

1/ Published as "below Independence Lake", 1902-7.
2/ Published as "at Pine station", 1904-7.

Monthly and yearly mean discharge, in cubic feet per second, of Little Truckee River at Starr, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	*112	22	‡18	-
1904	‡25.7	*171	63.0	*79.1	*393	742	981	1,013	688	209	49.2	37.8	‡370
1905	‡112	55.6	64.6	101	89.0	188	334	477	337	86.3	42.1	37.4	161
1906	44.2	55.4	a45	a95	a100	159	729	972	950	478	91.9	56.7	a315
1907	60.9	79.7	a90	a100	229	417	974	908	761	461	149	95.4	a360
1908	97.3	96.9	122	67.6	65.9	162	†396	332	297	79.5	26.0	21.9	147
1909	40.7	41.0	38.7	520	154	144	786	946	895	235	77.7	22.5	325
1910	34.5	200	*161	*254	a200	484	782	552	189	33.5	12.9	17.0	*243

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for other stations in basin.
a Revised; only monthly figures revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	-	*6,890	1,353	‡1,070	-
1904	‡1,580	*10,180	3,874	*4,865	*22,610	45,620	58,370	62,290	40,940	12,850	3,031	2,249	‡268,000
1905	†6,887	3,308	3,972	6,210	4,943	11,560	19,870	29,330	20,050	5,306	2,589	2,226	116,000
1906	2,718	3,296	*2,770	*5,530	*5,550	9,780	43,400	59,800	56,500	29,400	5,650	3,370	*228,000
1907	3,740	4,740	*5,530	*6,150	12,700	25,600	58,000	55,800	45,300	28,300	9,160	5,680	*261,000
1908	5,980	5,770	7,500	4,160	3,790	9,960	23,600	20,400	17,700	4,890	1,600	1,300	107,000
1909	2,500	2,440	2,380	32,000	8,550	8,850	46,800	58,200	53,300	14,400	4,780	1,340	236,000
1910	2,120	11,900	*9,900	*15,600	*11,100	29,800	46,500	33,900	11,200	2,060	793	1,010	*176,000

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for other stations in basin.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	300,1564	-	-	-	-	-	-	-
1904	300,1564	1,809	Apr. 14, 1904	-	‡370	‡268,000	*368	*270,000
1905	300	760	Apr. 29, 1905	28	161	116,000	*153	*111,000
1906	300	1,350	(a)	-	*315	*228,000	*322	*233,000
1907	300	1,560	Mar. 18, 1907	50	*360	*261,000	*367	*266,000
1908	300	573	(b)	14	147	107,000	130	94,700
1909	300	1,920	Jan.15,16,1909	15	325	236,000	*348	*252,000
1910	300,1564	1,240	Mar. 19, 1910	11	*243	*176,000	-	-

* Revised.
‡ Not previously published.
a May 11, June 12, 1906.
b Apr. 20, 21, May 2, 1908.

411. Little Truckee River at Boca, Calif.

Location.--Lat 39°23'00", long 120°05'40", in sec. 28, T. 18 N., R. 17 E., at Boca, 100 ft upstream from railroad bridge, 150 ft upstream from mouth, and 500 ft downstream from ice-pond dam.

Drainage area.--172 sq mi (revised).

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

Extremes.--1890, 1911-15: Maximum discharge observed, 2,870 cfs May 6, 1890; no flow Sept. 26 to Oct. 5, Oct. 10, 1911, Sept. 6, 7, Oct. 6-13, 1913.

Remarks.--Flow partially regulated at ice-pond dam. Small diversion above station for power development.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	-	-	-	958	1,998	1,491	749	200	97	-
1891	86	-	-	-	-	-	-	-	-	-	-	-	-
1911	-	-	-	61.4	108	194	1,120	1,260	1,210	435	66.3	28.7	-
1912	22.3	32.3	23.2	29.4	28.4	56.3	106	379	353	50.7	20.7	35.7	94.7
1913	20.5	58.4	28.6	20.5	29.7	66.6	358	471	212	57.0	28.2	21.6	114
1914	14.1	33.2	39.3	283	173	558	1,370	1,210	684	199	47.5	30.9	387
1915	34.2	28.4	25.7	23.2	40.6	107	654	630	452	105	20.1	14.4	178

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	-	-	-	57,000	123,000	88,700	46,100	12,300	5,570	-
1891	5,290	-	-	-	-	-	-	-	-	-	-	-	-
1911	-	-	-	3,780	6,000	11,900	66,600	77,500	72,000	26,700	4,080	1,710	-
1912	1,370	1,920	1,430	1,810	1,630	3,460	6,310	23,300	21,000	3,120	1,270	2,120	68,700
1913	1,260	3,480	1,760	1,260	1,650	4,100	21,300	29,000	12,600	3,500	1,730	1,290	82,900
1914	867	1,980	2,420	17,400	9,610	34,300	81,500	74,400	40,700	12,200	2,920	1,840	280,000
1915	2,100	1,690	1,580	1,430	2,250	6,580	38,900	38,700	26,900	6,460	1,240	857	129,000

Yearly discharge, in cubic feet per second, of Little Truckee River at Boca, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1890	300	2,870	May 6, 1890	-	-	-	-	-
1911	310	2,260	Apr. 26, 1911	0	-	-	380	275,000
1912	330	659	June 6, 1912	0	94.7	68,700	97.1	70,500
1913	360	688	May 18, 1913	0	114	82,900	113	81,700
1914	390	2,360	Apr. 15, 1914	12	387	280,000	387	280,000
1915	410	1,600	May 12, 1915	14	178	129,000	-	-

412. Truckee River at Farad, Calif.1/

Location (revised).--Lat 39°25'41", long 120°01'59", in NE¼ sec. 12, T. 18 N., R. 17 E., 0.7 mile downstream from Farad powerplant, 3.4 miles downstream from Bronco Creek, and 3.6 miles north of Iceland.

Drainage area.--940 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (revised, from topographic map). Prior to Aug. 1, 1912, staff gages at different datums, at site about 7 miles upstream March to October 1890, approximately at described site Sept. 7, 1899, to May 31, 1909, and at site about 2½ miles downstream June 1, 1909, to July 31, 1912. Aug. 1, 1912, to Dec. 31, 1937, water-stage recorder at site 4.1 miles upstream at different datum.

Average discharge.--44 years (1899-1943), 804 cfs.

Extremes.--1899-1943: Maximum discharge, 15,500 cfs Dec. 11, 1937 (gage height, 11.59 ft) but may have been exceeded by flood of Mar. 18, 1907; minimum, 28 cfs Dec. 18, 1930.

Remarks.--Flow regulated by Lakes Tahoe, Donner, Independence, and Weber, and since December 1938 by Boca Reservoir (combined usable capacity, about 798,000 acre-ft).

Cooperation.--Records for 1913-29 furnished by Bureau of Reclamation and for 1930-43 by Federal Court Watermaster in cooperation with Truckee-Carson Irrigation District; those for October to December 1943 not previously published by Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	-	-	637	2,751	5,275	4,291	1,870	736	513	-
1891	555	-	-	-	-	-	-	-	-	-	-	-	-
1900	354	581	295	392	318	797	902	1,528	950	459	396	367	612
1901	481	480	407	314	1,082	1,280	1,476	2,478	1,595	686	486	472	936
1902	470	469	445	322	506	402	1,656	1,927	1,358	501	506	482	754
1903	450	416	482	522	463	696	1,301	1,658	1,148	513	490	489	718
1904	507	855	403	419	1,351	2,469	2,897	3,706	2,751	1,497	1,017	903	1,560
1905	1,029	893	834	755	754	1,096	1,114	1,453	1,115	548	503	477	881
1906	487	405	366	592	746	1,130	2,850	3,650	2,830	1,800	763	675	1,360
1907	629	670	662	702	1,220	2,590	3,880	3,980	3,570	2,720	1,680	1,430	1,980
1908	1,200	1,080	1,040	1,020	938	1,140	1,360	1,040	893	550	544	448	938
1909	445	394	370	1,930	1,150	1,170	2,810	2,960	2,850	1,290	762	642	1,400
1910	610	1,010	1,110	1,250	1,180	1,680	1,980	1,430	943	755	668	498	1,090
1911	427	418	473	884	968	1,200	3,250	3,580	4,170	2,080	673	545	1,540
1912	486	521	541	609	381	404	474	1,310	1,120	391	535	459	603
1913	405	438	403	464	403	467	1,010	1,340	685	494	513	484	593
1914	400	409	390	867	531	1,400	2,840	3,100	2,140	856	543	529	1,170
1915	503	570	581	490	416	600	1,620	1,910	1,460	614	574	490	820
1916	402	391	433	580	679	1,930	3,060	2,250	1,750	742	631	506	1,110
1917	491	524	516	574	486	533	1,670	2,030	2,560	1,120	697	530	979
1918	438	409	447	440	493	577	1,410	1,250	779	668	692	532	679
1919	473	428	446	442	453	567	2,140	2,300	691	600	600	512	806
1920	408	415	434	411	386	492	791	1,430	673	495	502	330	565
1921	222	340	350	453	427	1,000	1,170	1,520	1,280	540	514	509	695
1922	384	308	282	395	424	499	915	3,310	2,240	648	521	504	872
1923	419	417	456	426	456	631	1,300	1,900	979	586	530	517	720
1924	422	405	407	439	434	409	488	499	284	181	220	279	372
1925	171	144	88.7	96.1	604	567	1,120	1,330	632	471	419	258	490
1926	240	185	209	202	288	523	1,100	772	411	322	212	102	381
1927	69.8	221	260	320	681	962	1,720	2,310	2,020	635	510	491	849
1928	437	444	392	452	383	1,680	1,220	1,370	526	517	514	454	701
1929	295	237	226	195	190	335	506	1,020	497	319	252	251	362
1930	139	153	359	200	328	571	1,310	1,020	726	321	278	316	477
1931	132	157	83.5	111	121	304	456	521	142	53.9	53.9	75.0	184
1932	75.3	78.1	115	210	207	497	1,360	1,820	1,310	426	227	121	537
1933	98.3	95.3	91.2	94.5	85.3	142	573	811	1,070	240	83.5	47.3	286
1934	77.6	106	139	159	220	695	632	349	174	300	353	221	286
1935	109	141	85.0	143	155	176	1,589	2,029	1,229	312	137	73.4	515

† Corrected.

1/ Published as "near Boca", 1890, as "at or near Nevada-California State line", 1899-1912, and as "at Iceland", 1912-37.

Monthly and yearly mean discharge, in cubic feet per second, of Truckee River at Farad, Calif.--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	75.7	83.0	94.9	222	301	809	2,063	1,994	1,078	520	483	368	674
1937	249	162	136	325	430	521	1,250	1,684	791	535	461	287	570
1938	205	223	1,368	394	430	511	2,333	4,140	2,587	744	509	498	1,165
1939	455	418	436	431	414	498	592	569	506	500	503	499	486
1940	403	323	303	425	474	1,079	1,897	2,117	905	525	508	498	789
1941	424	458	464	429	646	639	741	1,687	923	552	517	506	666
1942	417	435	616	663	1,187	631	2,005	2,131	2,698	694	509	504	1,036
1943	416	470	567	1,060	2,324	1,937	2,904	1,822	1,052	579	540	524	1,173
1944	487	459	434	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1890	-	-	-	-	-	39,200	164,000	325,000	255,000	115,000	45,300	30,500	-
1891	34,100	-	-	-	-	-	-	-	-	-	-	-	-
1900	21,767	34,572	18,139	24,103	17,661	49,006	53,673	93,953	56,529	28,223	24,349	21,838	444,000
1901	29,575	28,562	25,025	19,308	60,092	78,708	87,829	152,370	94,910	42,181	29,884	28,086	677,000
1902	28,900	27,908	27,347	19,799	28,102	24,718	98,539	118,487	80,807	30,805	31,113	28,681	545,000
1903	27,669	24,754	29,637	32,097	25,714	42,180	77,415	101,946	68,311	31,543	30,129	29,098	520,000
1904	31,174	50,876	24,780	25,760	77,710	151,800	172,400	227,900	163,700	92,050	62,530	53,730	1,130,000
1905	63,270	53,140	51,280	46,420	41,880	67,390	66,290	89,340	66,350	33,700	30,930	28,380	638,000
1906	29,940	24,100	22,500	36,400	41,400	69,500	170,000	224,000	168,000	111,000	46,900	40,200	984,000
1907	38,700	39,900	40,700	43,200	67,800	159,000	231,000	245,000	212,000	167,000	103,000	85,100	1,430,000
1908	73,800	64,300	64,000	62,700	54,000	70,100	80,900	64,000	53,100	33,800	33,400	26,700	681,000
1909	27,400	23,400	22,800	119,000	63,900	71,900	167,000	182,000	170,000	79,300	46,900	38,200	1,010,000
1910	37,500	60,100	68,200	76,900	65,500	103,000	118,000	87,900	56,100	46,400	41,100	29,600	790,000
1911	26,300	24,900	29,100	40,800	53,800	73,800	193,000	220,000	248,000	128,000	41,400	32,400	1,110,000
1912	29,900	31,000	33,300	37,400	21,900	24,800	28,200	80,600	66,600	24,000	32,900	27,300	438,000
1913	24,900	26,100	24,800	28,500	22,400	28,700	60,100	82,400	40,800	30,400	31,500	28,800	429,000
1914	24,600	24,300	24,000	53,300	29,500	86,100	169,000	191,000	127,000	52,600	33,400	31,500	846,000
1915	30,900	33,900	35,700	30,100	23,100	36,900	96,400	117,000	86,900	37,800	35,300	29,200	593,000
1916	24,700	23,300	26,600	35,700	39,100	119,000	182,000	138,000	104,000	45,600	38,800	30,100	807,000
1917	30,200	31,200	31,700	35,300	27,000	32,800	99,400	125,000	152,000	68,900	42,900	31,500	708,000
1918	26,900	24,300	27,500	27,100	27,400	35,500	83,900	76,900	46,400	41,100	42,500	31,700	491,000
1919	29,100	25,500	27,400	27,200	25,200	34,900	127,000	141,000	41,100	36,900	36,900	30,500	583,000
1920	25,100	24,700	26,700	25,300	22,200	30,300	47,100	87,900	40,000	30,400	30,900	19,600	410,000
1921	13,700	20,200	21,500	27,900	23,700	61,500	69,600	93,500	76,200	33,200	31,600	30,300	503,000
1922	23,600	18,300	17,300	24,300	23,500	30,700	54,400	204,000	133,000	39,800	32,000	30,000	631,000
1923	25,800	24,800	28,000	26,200	25,300	38,800	77,400	117,000	58,300	36,000	32,600	30,800	521,000
1924	25,900	24,100	25,000	27,000	25,000	25,100	29,000	30,700	16,900	11,100	13,500	16,600	270,000
1925	10,500	8,570	5,450	5,910	33,500	34,900	66,600	81,800	37,600	29,000	25,800	15,400	355,000
1926	14,800	11,000	12,900	12,400	16,000	32,200	65,500	47,500	24,500	19,800	13,000	6,070	276,000
1927	4,290	13,200	16,000	19,700	37,800	59,200	102,000	142,000	120,000	39,000	31,400	29,200	614,000
1928	26,900	26,400	24,100	27,800	22,000	103,000	72,600	84,200	31,300	31,800	31,600	27,000	509,000
1929	18,100	14,100	13,900	12,000	10,600	20,600	30,100	62,700	29,600	19,600	15,500	14,900	262,000
1930	8,550	9,100	22,100	12,300	18,200	35,100	78,000	62,700	43,200	19,700	17,100	18,800	345,000
1931	8,120	9,340	5,130	6,820	6,720	18,700	27,100	32,000	8,450	3,310	3,310	4,460	133,000
1932	4,630	4,650	7,070	12,900	11,900	30,600	80,900	112,000	78,000	26,200	14,000	7,200	390,000
1933	6,040	5,670	5,610	5,810	4,740	8,730	34,100	49,900	63,700	14,800	5,130	2,810	207,000
1934	4,770	6,310	8,550	9,780	12,200	42,700	37,600	21,500	10,400	18,400	21,700	13,200	207,000
1935	6,730	8,380	5,220	8,790	8,610	10,810	94,580	124,800	73,120	19,190	8,400	4,370	373,000
1936	4,660	4,940	5,840	13,680	17,340	49,750	122,700	122,600	64,160	31,970	29,730	21,880	489,200
1937	15,290	9,630	8,510	19,980	23,870	32,010	74,370	103,500	47,080	32,870	28,370	17,070	412,600
1938	12,600	13,290	84,130	24,250	123,890	31,450	138,800	254,600	153,900	45,740	31,270	29,610	843,500
1939	27,970	24,900	26,810	26,520	22,990	30,620	35,240	34,980	30,080	30,770	30,900	29,710	351,500
1940	24,780	19,230	18,650	26,150	27,250	66,320	112,900	130,200	53,860	32,300	31,250	29,620	572,500
1941	26,070	27,240	28,560	26,350	35,900	39,290	44,110	103,700	54,910	33,950	31,810	30,090	482,000
1942	25,670	25,860	37,900	40,750	65,920	38,770	119,300	131,000	160,500	42,690	31,300	29,970	749,800
1943	25,570	27,940	34,870	65,200	129,100	119,100	172,800	112,100	62,600	35,620	33,180	31,180	849,300
1944	29,940	27,330	26,700	-	-	-	-	-	-	-	-	-	-

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1890	300	-	-	-	-	-	-	-
1900	300	1,885	May10,11,20,1900	205	612	444,000	625	452,000
1901	300	4,370	May 12, 1901	205	936	677,000	938	678,000
1902	300	3,596	Apr. 19, 1902	247	754	545,000	751	543,000
1903	300	3,211	Mar. 30, 1903	280	718	520,000	753	545,000
1904	300	6,730	Feb. 24, 1904	230	1,560	1,130,000	1,650	1,200,000
1905	300	2,090	Apr. 26, 1905	444	881	638,000	756	547,000
1906	300	5,410	May 7,9, 1906	300	1,360	984,000	1,420	1,030,000
1907	300	15,300	Mar. 18, 1907	490	1,980	1,430,000	2,090	1,520,000
1908	300	1,870	Apr. 21, 1908	360	938	681,000	762	552,000
1909	300	8,110	Jan. 16, 1909	310	1,400	1,010,000	1,530	1,110,000
1910	300	3,890	Mar. 19, 1910	385	1,090	790,000	974	705,000

Yearly discharge, in cubic feet per second, of Truckee River at Farad, Calif.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	300	5,830	Apr. 26, 1911	385	1,540	1,110,000	1,550	1,130,000
1912	330	2,230	(a)	330	603	438,000	578	420,000
1913	360	1,875	May 18, 1913	335	593	429,000	590	426,000
1914	390	4,280	Apr. 15, 1914	330	1,170	846,000	1,210	874,000
1915	410	4,470	May 12, 1915	373	820	593,000	784	567,000
1916	440	4,370	Apr. 10, 1916	358	1,110	807,000	1,140	825,000
1917	460	3,650	June 10, 1917	390	979	708,000	959	694,000
1918	480	2,070	(b)	359	679	491,000	683	494,000
1919	510	4,370	May 1-3, 1919	358	806	583,000	798	577,000
1920	510	2,030	May 21, 1920	222	565	410,000	536	389,000
1921	530	2,100	May 14, 1921	175	695	503,000	700	507,000
1922	550	4,670	May 7, 1922	203	872	631,000	898	650,000
1923	570	2,620	May 11, 1923	379	720	521,000	715	517,000
1924	590	767	Feb. 8, 1924	122	372	270,000	302	219,000
1925	610	3,430	Feb. 6, 1925	40	490	355,000	509	369,000
1926	630	1,590	Apr. 30, 1926	75	381	276,000	373	270,000
1927	650	3,700	Apr. 27, 1927	56	849	614,000	910	658,000
1928	670	12,000	Mar. 25, 1928	341	701	509,000	658	477,000
1929	690	1,480	June 16, 1929	145	362	262,000	353	255,000
1930	720	1,720	Apr. 23, 1930	85	477	345,000	454	328,000
1931	720	888	Mar. 18, 1931	46	184	133,000	176	127,000
1932	735	2,950	May 13, 1932	42	537	390,000	538	391,000
1933	750	2,010	May 30, 1933	37	286	207,000	239	209,000
1934	765	2,500	Mar. 29, 1934	54	286	207,000	287	207,800
1935	790	2,640	Apr. 29, 1935	49	515	373,000	508	368,100
1936	810	3,314	Apr. 18, 1936	51	674	489,200	699	507,200
1937	830	2,340	(c)	99	570	412,600	676	489,100
1938	880	d15,500	Dec. 11, 1937	157	1,165	843,500	1,123	813,200
1939	880	857	Apr. 8, 1939	348	486	351,500	462	334,500
1940	900	d7,120	Mar. 30, 1940	290	789	572,500	815	591,700
1941	930	d2,518	May 13, 1941	384	666	482,000	676	489,500
1942	960	d3,425	June 6, 1942	398	1,036	749,600	1,034	748,600
1943	980	d6,260	Jan. 22, 1943	383	1,173	849,300	‡1,167	‡844,800

‡ Not previously published.
a May 15, June 4, 1912.
b Apr. 10, 21, 23, 1918.
c Apr. 15, May 14, 1937.
d Momentary maximum.

413. Truckee River near Essex, Nev.

Location.--Lat 39°30', long 120°00', in sec. 19, T. 19 N., R. 18 E., near the state line and about 12 miles upstream from Reno.

Drainage area.--991 sq mi.

Gage.--Staff gage. Altitude of gage is 4,920 ft (from topographic map).

Extremes.--May to September 1889: Maximum discharge observed, 2,570 cfs May 21; minimum not determined.

Remarks.--Flow regulated by Lake Tahoe, Donner, and Independence Lakes. Many diversions for irrigation above station.

Monthly mean discharge, in cubic feet per second

Year					May	June	July	Aug.	Sept.				
1889					2,314	771	278	200	200				

Monthly runoff, in acre-feet

Year					May	June	July	Aug.	Sept.				
1889					131,200	45,870	17,100	12,300	11,900				

414. Truckee River at Laughtons, Nev.

Location.--Lat 39°31', long 119°54', in sec. 13, T. 19 N., R. 18 E., 6 miles upstream from Reno.

Drainage area.--1,050 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,640 ft (from topographic map).

Extremes.--May to September 1890: Maximum discharge observed, 6,310 cfs May 28 (gage height, 11.1 ft); minimum observed, 320 cfs sometime in September.

Remarks.--Flow regulated by Lake Tahoe, Donner, and Independence Lakes. Many diversions for irrigation above station.

Monthly mean discharge, in cubic feet per second, of Truckee River at Laughtons, Nev.

Year					May	June	July	Aug.	Sept.				
1890					-	3,690	2,226	604	368				

Monthly runoff, in acre-feet

Year					May	June	July	Aug.	Sept.				
1890					-	219,600	136,900	37,150	21,900				

415. Truckee River at Reno, Nev.

Location.--Lat 39°32', long 119°47', in sec. 12, T. 19 N., R. 19 E., half a mile east of Reno and 5 miles upstream from Steamboat Creek.

Drainage area.--1,070 sq mi, approximately.

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.--17 years (1906-19, 1946-50), 781 cfs.

Extremes.--1906-19, 1947-50: Maximum discharge observed, 14,600 cfs Mar. 18, 1907 (gage height, 8.2 ft, site and datum then in use); minimum observed, 18 cfs July 2, 3, 1912.

Remarks.--Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes, and by several powerplants. Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	1,670	462	386	-
1907	448	644	829	656	1,290	2,670	4,140	3,890	3,440	2,450	1,260	1,030	1,896
1908	977	977	935	936	811	1,060	1,120	684	539	219	209	164	719
1909	302	353	350	2,030	1,200	1,230	2,850	2,810	2,660	1,070	357	268	1,290
1910	379	1,010	1,200	1,260	1,170	1,870	2,030	1,260	415	482	380	354	984
1911	342	359	465	590	976	1,280	3,360	3,250	3,940	1,780	328	306	1,415
1912	383	454	505	568	333	352	211	867	610	568	197	161	392
1913	171	337	309	424	316	346	858	1,040	394	179	194	163	394
1914	189	298	359	1,080	578	1,480	3,190	3,270	2,020	687	149	252	1,130
1915	308	520	518	433	344	553	1,570	1,630	1,170	245	138	111	627
1916	144	290	355	490	704	2,000	2,940	2,190	1,540	436	278	200	962
1917	363	415	402	492	496	524	1,480	1,870	2,530	809	313	172	822
1918	150	240	372	385	451	616	1,330	902	441	331	319	240	480
1919	287	274	332	334	391	496	2,250	2,230	389	283	154	134	630
1947	‡300	‡400	‡350	475	480	495	302	394	162	149	161	195	‡321
1948	322	384	390	444	350	290	363	565	813	196	182	181	373
1949	203	293	333	389	407	326	616	747	209	161	161	970	328
1950	101	151	184	415	448	500	1,240	1,568	974	196	167	245	515

‡ Not previously published; partly estimated on basis of records for other stations on Truckee River.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	-	-	-	-	-	-	-	-	-	103,000	28,400	23,000	-
1907	27,500	38,300	51,000	40,300	71,600	164,000	246,000	239,000	205,000	151,000	77,500	61,300	1,370,000
1908	60,100	58,100	57,500	57,600	46,600	65,200	66,600	42,100	32,100	13,500	12,900	9,760	522,000
1909	18,600	21,000	21,500	125,000	66,600	75,600	170,000	173,000	158,000	65,800	22,000	15,900	933,000
1910	23,300	60,100	73,800	77,500	65,000	115,000	121,000	77,500	24,700	29,600	23,400	21,100	712,000
1911	21,000	21,400	28,600	36,300	54,200	78,700	200,000	200,000	234,000	109,000	20,200	18,200	1,020,000
1912	23,600	27,000	31,100	34,900	19,200	21,600	12,600	53,300	36,300	3,490	12,100	9,580	285,000
1913	10,500	20,100	19,000	26,100	17,600	21,300	51,100	64,000	23,400	11,000	11,900	9,700	286,000
1914	11,600	17,700	22,100	66,400	32,100	91,000	190,000	201,000	120,000	42,200	9,160	15,000	818,000
1915	18,900	30,900	31,900	26,600	19,100	34,000	93,400	100,000	69,600	15,100	8,480	6,600	455,000
1916	8,850	17,300	21,800	30,100	40,500	123,000	175,000	135,000	91,600	26,800	17,100	11,900	699,000
1917	22,300	24,700	24,700	30,300	27,500	32,200	88,100	115,000	151,000	49,700	19,200	10,200	595,000
1918	9,220	14,300	22,900	23,700	25,000	37,900	79,100	55,500	26,200	20,400	19,600	14,300	348,000
1919	17,600	16,300	20,400	20,500	21,700	30,500	134,000	137,000	23,100	17,400	9,470	7,970	456,000
1947	‡18,450	‡23,800	‡21,520	29,190	26,630	30,440	18,000	24,210	9,650	9,140	9,900	11,600	‡232,500
1948	19,780	22,860	23,990	27,310	20,120	17,830	21,630	34,740	48,360	12,080	11,200	10,800	270,700
1949	12,490	17,410	20,500	23,920	22,590	20,090	36,630	45,950	12,430	9,880	9,880	5,770	237,500
1950	6,180	9,000	11,320	25,550	24,860	30,760	73,800	96,440	57,970	12,070	10,280	14,600	372,800

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1906	270	-	-	-	-	-	-	-
1907	270	a14,600	Mar. 18, 1907	185	1,896	1,370,000	1,980	1,430,000
1908	270	a1,660	Apr.13,14,1908	125	719	522,000	562	407,000
1909	270	a8,540	Jan. 16, 1909	155	1,290	933,000	1,420	1,030,000
1910	290	a3,360	Mar. 19, 1910	215	984	712,000	864	626,000

a Maximum observed.

Yearly discharge, in cubic feet per second, of Truckee River at Reno, Nev.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	a6,060	Apr. 26, 1911	215	1,415	1,020,000	1,430	1,030,000
1912	330	a1,570	(b)	18	392	285,000	348	253,000
1913	360	a1,520	(c)	19	394	286,000	397	288,000
1914	390	7,520	Dec. 31, 1913	79	1,130	818,000	1,172	849,000
1915	410	a3,900	May 13, 1915	36	627	455,000	581	421,000
1916	440	a5,020	Apr. 11, 1916	88	962	699,000	997	723,000
1917	460	a3,680	Apr. 26, 1917	152	822	595,000	787	570,000
1918	480	a2,040	Apr. 23, 1918	76	480	348,000	492	356,000
1919	510	a4,060	May 1, 1919	97	630	456,000	-	-
1947	1120	1,840	Feb. 12, 1947	-	‡321	‡232,500	325	235,400
1948	1120	1,700	June 9, 1948	150	373	270,700	351	254,500
1949	1150	1,510	May 15, 1949	72	328	237,500	295	213,600
1950	1180	2,620	May 28, 1950	63	515	372,800	-	-

‡ Not previously published.
a Maximum observed.
b May 16, June 4, 1912.
c Apr. 27, May 18, 1913.

416. Franktown Creek at Franktown, Nev.

Location.--Lat 39°16', long 119°51', in sec. 9, T. 16 N., R. 19 E., half a mile west of Franktown and 3 miles upstream from Washoe Lake.

Drainage area.--14 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,200 ft (from topographic map).

Extremes.--1948-50: Maximum discharge, 165 cfs June 15, 1950 (gage height, 3.55 ft), from rating curve extended above 65 cfs; minimum, 0.2 cfs Feb. 7-9, 1949 (flow dammed by snowslide).

Remarks.--Small diversions on tributaries for irrigation above station. During summer, flow sometimes supplemented by diversion from North Creek, a tributary to Lake Tahoe.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	-	‡21.7	23.9	12.3	6.45	2.02	1.60	-
1949	2.89	3.97	3.98	4.51	4.14	6.87	27.8	22.5	10.1	2.64	1.28	1.66	7.69
1950	2.94	3.71	4.74	10.0	10.7	15.1	36.9	38.7	29.2	12.2	4.74	6.04	14.6

‡ Not previously published; partly estimated on basis of records for Little Truckee River near Hobart Mills, Calif.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1948	-	-	-	-	-	-	‡1,290	1,470	730	396	124	95	-
1949	178	236	245	277	230	422	1,650	1,380	602	162	79	99	5,560
1950	181	221	291	617	593	927	2,200	2,380	1,740	750	291	360	10,550

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1948	1120	65	May 6, 1948	-	-	-	-	-
1949	1150	81	Apr. 23, 1949	0.2	7.69	5,560	7.74	5,590
1950	1180	165	June 15, 1950	1.1	14.6	10,550	-	-

417. Galena Creek near Washoe, Nev.

Location.--Lat 39°21', long 119°47', in SW¼ sec. 7 (revised), T. 17 N., R. 20 E., about 1 mile upstream from mouth, 2½ miles (revised) northeast of Washoe, and 14 miles south of Reno.

Drainage area.--18 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,880 ft (from topographic map).

Extremes.--1913-14: Maximum observed gage height, 3.30 ft (discharge not determined) Dec. 31, 1913; minimum observed discharge, 1.5 cfs Dec. 18, 19, 21, 22, 1913, Jan. 11, 12, 1914.

Remarks.--Diversion above gage into Washoe Lake for storage during non-irrigating season. Flow slightly affected by operation of air compressor plant 200 ft upstream from gage.

538662 O - 60 - 27

Monthly and yearly mean discharge, in cubic feet per second, of Galena Creek near Washoe, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	-	4.46	3.73	-
1914	4.47	3.27	5.23	6.84	7.90	16.6	20.9	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	-	-	-	274	222	-
1914	275	195	322	421	439	1,020	1,240	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	‡25	July 22,27,1913	-	-	-	-	-
1914	390	a87	Dec. 31, 1913	-	-	-	-	-

‡ Not previously published; maximum observed during period July to September.
a Maximum daily.

418. Steamboat Creek at Steamboat Springs, Nev.

Location.--Lat 39°23', long 119°44', in SE¼ sec. 33, T. 18 N., R. 20 E., at Steamboat Springs and 11 miles southeast of Reno.

Drainage area.--123 sq mi.

Gage.--Staff gage. Altitude of gage is 4,600 ft (from topographic map). Prior to Jan. 4, 1901, at datum 0.3 ft higher.

Extremes.--1900-1901: Maximum discharge observed, 75 cfs Nov. 21, 1900 (gage height, 2.0 ft, datum then in use); minimum observed, 1.0 cfs Sept. 26, 1900.

Remarks.--Diversions above station for irrigation above and below station. Flow affected by storage in Washoe Lake.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	25	7	3	3	-
1901	5	11	8	7.6	15.6	10.8	7.7	21.4	29.6	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	1,488	430	184	179	-
1901	307	655	492	467	866	664	458	1,316	1,761	-	-	-	-

419. Truckee River at Vista, Nev.

Location.--Lat 39°31', long 119°40', in T. 19 N., R. 20 or 21 E., at railroad bridge a quarter of a mile downstream from Vista and 7 miles east of Reno.

Drainage area.--1,520 sq mi, approximately.

Gage.--Reference point on railroad bridge. Altitude of reference point is 4,400 ft (from topographic map). Prior to Apr. 16, 1907, staff gages at several sites within 300 ft of described site at different datums.

Average discharge.--8 years (1899-1907), 1,183 cfs.

Extremes.--1899-1908: Maximum daily discharge, 17,000 cfs Mar. 18, 1907; minimum daily, 38 cfs July 20-22, 1900.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	-	-	-	-	-	-	-	-	-	-	-	123	-
1900	378	530	456	547	428	857	755	1,257	709	110	122	192	529
1901	429	567	561	661	1,486	1,328	1,380	2,145	1,263	425	315	329	901
1902	477	557	510	389	598	589	1,922	1,610	1,056	292	311	443	729
1903	485	‡780	‡750	653	624	1,077	1,537	1,852	1,020	259	192	321	‡796
1904	486	845	569	*461	1,777	3,481	4,172	†4,984	†3,171	1,313	771	785	*1,894
1905	1,049	924	844	†874	943	1,237	1,003	1,279	930	260	224	279	†820
1906	430	460	421	871	797	1,210	2,910	3,870	3,400	2,170	729	722	1,500
1907	763	900	952	1,060	1,620	‡3,240	‡4,980	4,320	4,100	2,840	1,480	1,250	‡2,292
1908	1,300	1,140	1,090	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for station at Nevada-California state line.

Monthly and yearly runoff, in acre-feet, of Truckee River at Vista, Nev.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1899	-	-	-	-	-	-	-	-	-	-	-	7,319	-
1900	23,240	31,540	28,040	33,630	23,770	52,700	44,930	77,290	42,190	6,764	7,563	11,420	383,000
1901	26,380	33,740	34,500	40,640	82,530	81,660	82,120	131,900	75,160	26,130	19,370	19,580	653,700
1902	29,330	33,140	31,360	23,920	33,210	36,220	114,400	99,000	62,840	17,950	19,120	26,360	526,800
1903	29,820	‡46,420	‡46,120	40,150	34,660	66,220	91,460	113,900	60,690	15,920	11,810	19,100	‡575,200
1904	29,880	50,280	34,990	*28,340	102,200	211,000	248,200	†306,500	†188,700	80,730	47,410	46,710	*1,375,000
1905	64,500	54,980	51,900	†53,740	52,370	76,060	59,680	78,640	55,340	15,990	13,770	16,600	†593,600
1906	26,440	27,370	25,890	53,600	44,300	74,400	173,000	238,000	202,000	133,000	44,800	43,000	1,086,000
1907	46,900	53,600	58,500	65,200	90,000	‡99,300	‡296,300	266,000	244,000	175,000	91,000	74,400	‡1,660,000
1908	79,900	67,800	67,000	-	-	-	-	-	-	-	-	-	-

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1899	(a)	-	-	-	-	-	-	-
1900	51	1,477	(b)	38	529	383,000	544	394,800
1901	75	4,213	May 11, 1901	128	901	653,700	906	652,900
1902	85	4,336	Apr.6,7, 1902	146	729	526,800	‡767	‡555,400
1903	100	5,650	Mar. 31, 1903	130	‡796	‡575,200	786	569,000
1904	133,1634	8,940	Apr. 15, 1904	330	*1,894	*1,375,000	*1,971	*1,431,000
1905	176	2,055	Oct. 12, 1904	150	†820	†593,600	†693	†501,900
1906	212	5,470	May 7,8, 1906	130	1,500	1,086,000	1,610	1,170,000
1907	250	(c)	Mar. 18, 1907	490	‡2,292	‡1,660,000	‡2,370	‡1,716,000

* Revised.
† Corrected.
‡ Not previously published.
a 22nd Ann. Rept., Pt. 4.
b May 3, 8, 10, 11, 12, 1900.
c Estimated daily discharge, 17,000 cfs.

420. Truckee River at Clarks, Nev.1/

Location.--Lat 39°34', long 119°30', in SE¼ sec. 26, T. 20 N., R. 22 E., at highway bridge at Clarks and 18 miles east of Reno.

Drainage area.--1,740 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,270 ft (from topographic map). Prior to Aug. 1, 1910, staff gage about 2 miles downstream at different datum.

Average discharge.--8 years (1907-15), 1,039 cfs.

Extremes.--1907-15: Maximum discharge observed, 8,800 cfs Jan. 17, 1909 (gage height, 14.0 ft, site and datum then in use); minimum daily, 65 cfs Aug. 9, 1913.
Flood in March 1907 reached a stage about 5 ft higher than that of Jan. 17, 1909.

Remarks.--Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes, and by several powerplants. Many diversions for irrigation above station.

Cooperation.--Records furnished by Bureau of Reclamation, 1915-16.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1907	-	-	-	-	-	-	-	-	-	2,700	1,450	1,310	-
1908	1,210	*1,050	*1,000	1,080	858	1,100	1,140	679	602	317	310	270	*802
1909	405	378	368	2,380	1,430	1,260	2,840	2,910	2,790	1,120	498	431	1,400
1910	519	1,050	1,370	1,380	1,420	1,760	1,990	1,480	‡575	‡580	411	401	‡1,080
1911	426	456	586	804	1,180	1,590	3,570	3,500	4,040	2,150	431	412	1,600
1912	514	616	618	689	500	505	342	985	772	153	269	350	526
1913	418	529	415	476	497	452	884	1,080	583	358	313	351	530
1914	456	585	599	2,030	1,040	1,970	3,560	3,530	2,260	822	340	439	1,470
1915	550	762	800	698	750	808	1,870	2,210	1,470	399	237	300	903
1916	341	477	611	-	-	-	-	-	-	-	-	-	-

* Revised, only monthly figures revised; revised daily figures not available.
‡ Not previously published; partly estimated on basis of records for station at Reno.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1907	-	-	-	-	-	-	-	-	-	166,000	89,200	78,000	-
1908	74,400	*62,500	*61,500	66,400	49,400	67,600	67,800	41,800	35,800	19,500	19,100	16,100	*582,000
1909	24,900	22,500	22,600	146,000	79,400	77,500	169,000	179,000	166,000	68,900	30,600	25,600	1,010,000
1910	31,900	62,500	84,200	84,800	78,900	108,000	118,000	91,000	‡34,200	‡35,700	25,300	23,900	‡778,000

* Revised.
‡ Not previously published; partly estimated on basis of records for station at Reno.

1/ Published as "at Derby Dam" prior to August 1910.

Monthly and yearly runoff, in acre-feet, of Truckee River at Clarks, Nev.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	26,200	27,100	36,000	49,400	65,500	97,800	212,000	215,000	240,000	132,000	26,500	24,500	1,150,000
1912	31,600	36,700	38,000	42,400	28,800	31,100	20,400	60,600	45,900	9,410	16,500	20,800	382,000
1913	25,700	31,500	25,500	29,300	27,600	27,800	52,600	66,400	34,700	22,000	19,200	20,900	383,000
1914	28,000	34,800	36,800	125,000	57,800	121,000	212,000	217,000	134,000	50,500	20,900	26,100	1,060,000
1915	33,800	45,300	49,200	42,900	41,700	49,700	111,000	136,000	87,500	24,500	14,600	17,900	654,000
1916	21,000	28,400	37,600	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1907	250	a3,620	July 4, 1907	-	-	-	-	-
1908	250	1,620	Mar. 26, 1908	120	*802	*582,000	626	454,000
1909	270	‡8,800	Jan. 17, 1909	310	1,400	1,010,000	1,550	1,120,000
1910	290	4,300	Nov. 21, 1909	-	‡1,080	‡778,000	‡953	‡689,000
1911	310	5,310	Apr. 27, 1911	290	1,600	1,150,000	1,620	1,170,000
1912	330	1,510	(b)	80	526	382,000	494	359,000
1913	360	1,750	May 29, 1913	65	530	383,000	553	400,000
1914	390	7,760	Jan. 1, 1914	270	1,470	1,060,000	1,510	1,090,000
1915	410	4,320	May 13, 1915	150	903	654,000	846	613,000
1916	440	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.
a Maximum observed during period July to September.
b May 15, June 4, 5, 6, 1912.

421. Truckee River near Wadsworth, Nev. 1/

Location.--Lat 39°50', long 119°22', in sec. 26, T. 23 N., R. 23 E., a quarter of a mile west of Pyramid Lake Indian Agency and 18 miles north of Wadsworth.

Gage.--Staff gage. Altitude of gage is 3,900 ft (from topographic map). Prior to February 1904, at datum 0.31 ft higher.

Extremes.--1902-5: Maximum discharge observed, 4,810 cfs Apr. 16, 1904; minimum daily, 108 cfs Aug. 4-6, 8-13, 1905.

Remarks.--Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes. Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	533	586	487	775	1,645	1,701	-	-	-	-	-
1904	332	489	337	*303	1,300	2,736	3,132	3,414	‡2,709	‡1,200	‡836	799	‡1,466
1905	1,214	974	884	826	827	1,133	935	1,306	935	241	148	229	804
1906	457	434	433	-	-	-	-	-	-	-	-	-	-

* Revised, only monthly figure revised; revised daily figure not available.
‡ Not previously published; partly estimated on basis of records for station at Vista.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	32,770	36,030	27,050	47,650	97,880	104,600	-	-	-	-	-
1904	20,410	29,100	20,720	*18,640	74,780	168,200	186,400	209,900	‡161,200	‡73,790	‡51,410	47,540	‡1,062,000
1905	74,650	57,960	54,360	50,790	45,930	69,670	55,640	80,300	55,640	14,820	9,100	13,630	582,500
1906	28,100	25,820	26,620	-	-	-	-	-	-	-	-	-	-

* Revised.
‡ Not previously published; partly estimated on basis of records for station at Vista.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100	3,475	Mar. 31, 1903	-	-	-	-	-
1904	133	4,810	Apr. 16, 1904	*266	‡1,466	‡1,062,000	‡1,624	‡1,179,000
1905	176	‡1,955	Apr. 27, 1905	108	804	582,500	659	476,100

* Revised.
‡ Not previously published.

1/ Published as "at Pyramid Lake Indian Agency, near Wadsworth", 1903.

422. Lake Winnemucca Inlet near Wadsworth, Nev.1/

Location.--Lat 39°52', long 119°22', in about sec. 11, T. 23 N., R. 23 E., 3 miles north of Pyramid Lake Indian School and 21 miles north of Wadsworth.

Gage.--Staff gage. Altitude of gage is about 3,880 ft (from topographic map).

Extremes.--1903-5: Maximum discharge observed, 798 cfs Apr. 12, 1904 (gage height, 8.99 ft); minimum observed, 1.0 cfs Aug. 21, 1903.

Remarks.--Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes. Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	57	-	-	-	224	154	-	-	-	-
1904	67	127	69	31.9	130	292	490	490	365	111	125	124	202
1905	127	126	117	93.9	103	103	107	189	136	132	135	105	123
1906	99.0	75.5	79.6	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	3,505	-	-	-	13,770	9,164	-	-	-	-
1904	4,120	7,557	4,243	1,961	7,478	17,950	29,160	30,130	21,720	6,825	7,686	7,379	146,200
1905	7,809	7,498	7,194	5,774	5,720	6,333	6,367	11,620	8,093	8,116	8,301	6,248	89,070
1906	6,087	4,493	4,894	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	100	-	-	-	-	-	-	-
1904	133	798	Apr. 12, 1904	-	202	146,200	211	152,800
1905	176	216	May 27, 1905	-	123	89,070	113	82,040

BLACK ROCK DESERT BASIN

423. McDermitt Creek near McDermitt, Nev.

Location.--Lat 41°58', long 117°50', in SE¼SE¼ sec. 8, T. 47 N., R. 37 E., 6½ miles southwest of McDermitt.

Gage.--Water-stage recorder and concrete control.

Extremes.--1948-50: Maximum discharge, 346 cfs (revised) Mar. 20, 1950 (gage height, 3.83 ft); minimum 0.5 cfs Jan. 13, 1949.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	3.03	4.12	4.65	3.22	7.66	18.0	94.3	59.1	20.3	4.05	1.03	1.25	18.4
1950	3.14	4.12	2.46	2.26	16.4	39.1	57.8	43.6	24.5	8.46	2.70	2.54	17.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	186	245	286	198	425	1,100	5,610	3,630	1,210	249	63	75	13,280
1950	193	245	152	139	910	2,410	3,440	2,680	1,460	520	166	151	12,470

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1180	*248	Apr. 12, 1949	0.6	18.4	13,280	18.2	13,150
1950	1180	*346	Mar. 20, 1950	1.0	17.2	12,470	-	-

* Revised.

1/ Published as "north of Pyramid Lake Indian Agency", 1903.

424. East Fork Quinn River near McDermitt, Nev.

Location.--Lat 41°59', long 117°35', in sec. 9, T. 47 N., R. 39 E., 1 mile downstream from South Fork and 7 miles east of McDermitt.

Gage.--Water-stage recorder.

Extremes.--1948-50: Maximum discharge, 394 cfs Mar. 31, 1950 (gage height, 4.70 ft); minimum, 0.5 cfs Sept. 3, 4, 1950.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	2.73	3.92	3.84	3.88	5.47	24.6	131	96.8	25.5	3.97	1.23	1.30	25.4
1950	3.17	4.27	3.88	12.5	14.3	41.7	70.7	53.5	17.7	3.40	1.29	1.47	19.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	168	233	236	239	304	1,520	7,810	5,950	1,520	244	76	77	18,380
1950	195	254	239	767	796	2,560	4,210	3,290	1,050	209	79	87	13,740

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1180	286	Apr. 22, 1949	1.0	25.4	18,380	25.5	18,430
1950	1180	394	Mar. 31, 1950	.5	19.0	13,740	-	-

425. Quinn River near McDermitt, Nev.

Location.--Lat 41°47', long 117°48', in SW¼ sec. 15, T. 45 N., R. 37 E., 1½ miles upstream from Flat Creek and 15½ miles south of McDermitt.

Gage.--Water-stage recorder. Altitude of gage is 4,240 ft (from river-profile map).

Extremes.--1948-50: Maximum discharge, 188 cfs May 20, 1949 (gage height, 3.44 ft); minimum 0.2 cfs Dec. 22, 1948.

Remarks.--Several diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	1.18	1.21	0.82	0.77	0.86	0.72	49.2	98.1	29.7	1.25	0.65	0.70	15.5
1950	.75	.71	.70	.77	1.29	3.61	26.5	34.4	3.99	.90	.78	.66	6.28

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1949	72	72	51	47	48	44	2,920	6,030	1,770	77	40	42	11,220
1950	46	42	43	47	72	222	1,570	2,120	238	55	48	39	4,540

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1949	1180	188	May 20, 1949	0.6	15.5	11,220	15.4	11,160
1950	1180	62	May 5, 1950	.6	6.28	4,540	-	-

426. Long Valley Creek near Scotts, Calif.

Location.--Lat 39°51'20", long 120°04'00", in SW¼ sec. 10, T. 23 N., R. 17 E., at dam site 1.4 miles northeast of Scotts.

Drainage area.--125 sq mi.

Supplemental records available.--February to June 1918, discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,620 ft (from topographic map).

Extremes.--1917, 1919: Maximum discharge observed, 105 cfs Mar. 27, 29, 1919 (gage height, 3.9 ft), from rating curve extended above 50 cfs; no flow for several months each year.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	-	-	-	-	60.5	32.6	2.96	0	0	0.10	-
1919	-	-	-	-	-	-	-	16.3	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	-	-	-	-	3,600	2,000	176	0	0	6	-
1919	-	-	-	-	-	-	-	1,000	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1917	460	104	Apr. 4, 1917	0	-	-	-	-
1919	510	105	Mar.27,29,1919	0	-	-	-	-

427. Baxter Creek near Janesville, Calif.1/

Location.--Lat 40°19'34", long 120°32'24", in NE¼SW¼ sec. 32, T. 29 N., R. 13 E., at D. J. Sweeny ranch, 200 ft downstream from bridge on county road, and 2.2 miles (revised) northwest of Janesville.

Drainage area.--19.6 sq mi.

Supplemental records available.--January to July 1916, gage heights only.

Gage.--Staff gage. Altitude of gage is 4,190 ft. Prior to Mar. 21, 1915, at site 400 ft upstream at different datum. Mar. 21, 1915, to Dec. 20, 1917, at datum 0.07 ft lower.

Extremes.--1913-15, 1918-19: Maximum discharge observed, 360 cfs Jan. 25, 1914 (gage height, 9.6 ft), from rating curve extended above 130 cfs; practically no flow during parts of 1915, 1918, 1919.

Remarks.--Several small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	12.4	11.3	18.0	14.1	6.11	4.76	3.62	-
1914	3.88	5.72	11.0	77.4	46.2	38.0	50.1	49.5	22.4	1.78	.42	.54	25.5
1915	2.62	3.38	3.48	4.45	14.8	9.09	9.63	26.7	3.98	‡.4	-	-	a6.55
1916	0	.95	3.11	-	-	-	-	-	-	-	-	-	-
1918	-	-	-	.69	4.09	15.4	9.88	6.18	.34	0	0	0	-
1919	.54	.41	.56	2.83	13.3	12.1	13.3	18.0	4.00	.01	.01	.02	5.38

‡ Not previously published; partly estimated on basis of observer's notes.
a Not previously published; yearly figure partly estimated on basis of observer's notes; some monthly figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	762	672	1,110	839	376	293	215	-
1914	239	340	676	4,760	2,570	2,340	2,980	3,040	1,330	109	26	32	18,400
1915	161	201	214	274	822	559	573	1,640	237	‡25	-	-	a4,740
1916	0	57	191	-	-	-	-	-	-	-	-	-	-
1918	-	-	-	424	227	947	588	380	20.2	0	0	0	-
1919	33.2	24.4	34.4	174	739	744	791	1,110	238	.6	.6	1.2	3,890

‡ Not previously published; partly estimated on basis of observer's notes.
a Not previously published; see footnote to preceding table.

1/ Published as "near Lassen", 1918-19.

Yearly discharge, in cubic feet per second, of Baxter Creek near Janesville, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1914	410	360	Jan. 25, 1914	0.4	25.5	18,400	24.5	17,800
1915	410	178	May 11, 1915	-	‡6.55	‡4,740	‡6.10	‡4,410
1916	440	-	-	-	-	-	-	-
1918	480	56	Mar.26or27,1918	0	-	-	-	-
1919	510	128	Mar.1,2or3,1919	.01	5.38	3,890	3.18	2,300

‡ Not previously published.

428. Schloss Creek at Janesville, Calif.1/

Location.--Lat 40°18'00", long 120°32'20", in NE¼ sec. 8 (revised), T. 28 N., R. 13 E., about half a mile upstream from road crossing at school house at Janesville.

Drainage area.--1.05 sq mi.

Gage.--Staff gage. Altitude of gage is 4,380 ft (from topographic map). Prior to Dec. 21, 1917, at site 200 ft downstream at different datum.

Extremes.--1915, 1917-19: Maximum discharge observed, 7.6 cfs May 11, 1915 (gage height, 2.7 ft), from rating curve extended above 4.7 cfs; no flow during part of each year.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	1.04	2.14	0.49	-	-	-	-
1918	‡0	‡0	‡0	0	0	0.28	.92	.40	.03	0	0	0	‡0.135
1919	0	0	0	0	.06	.20	1.07	1.22	.008	0	0	0	.214

‡ Not previously published; estimated on basis of weather records.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	62	132	29	-	-	-	-
1918	‡0	‡0	‡0	0	0	17.2	54.7	24.6	1.8	0	0	0	‡98.3
1919	0	0	0	0	3.2	12.3	63.7	75.0	.5	0	0	0	155

‡ Not previously published; estimated on basis of weather records.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	7.6	May 11, 1915	0	-	-	-	-
1918	480	3.2	Apr. 9, 1918	0	‡0.135	‡98.3	0.135	98.3
1919	510	2.0	(a)	0	.214	155	-	-

‡ Not previously published
a Apr. 30, May 1, 3, 1919.

429. Janesville Creek at Janesville, Calif.2/

Location.--Lat 40°17'50", long 120°31'25", in SW¼ sec. 9, T. 28 N., R. 13 E., 40 ft upstream from county road in Janesville.

Drainage area.--1.83 sq mi.

Supplemental records available.--Mar. 3 to June 7, 1913, gage heights and one discharge measurement.

Gage.--Staff gage. Altitude of gage is 4,230 ft (from topographic map). Prior to Dec. 21, 1917, at site 300 ft upstream at different datum.

Extremes.--1915, 1918-19: Maximum discharge observed, 10 cfs Feb. 10, 1919 (gage height, 2.30 ft), from rating curve extended above 4 cfs; no flow during part of each year.

Remarks.--Diversion above station through 3-inch pipeline for municipal use in Janesville.

1/ Published as "at Lassen", 1918-19.
2/ Published as "at Lassen", 1918-19.

Monthly and yearly mean discharge, in cubic feet per second, of Janesville Creek at Janesville, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	1.97	2.53	0.94	-	-	-	-
1918	-	-	-	0.25	0.43	1.13	2.47	1.98	.432	0.024	0	0	‡0.569
1919	0.05	0.10	0.13	.05	1.73	1.60	3.60	3.59	.32	.2	.1	0	.949

‡ Not previously published; yearly figure partly estimated on basis of observer's notes and weather records; some monthly figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	117	156	56	-	-	-	-
1918	-	-	-	15.4	23.9	69.5	147	122	25.7	1.48	0	0	‡413
1919	3.1	6.0	8.0	3.1	96.1	98.4	214	221	19.0	12.3	6.1	0	687

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	8.3	May 11, 1915	0	-	-	-	-
1918	480	4.6	Apr.22,23,1918	0	‡0.569	‡413	0.582	422
1919	510	10	Feb. 10, 1919	0	.949	687	-	-

‡ Not previously published.

430. Susan River at Susanville, Calif.1/

Location.--Lat 40°25'10", long 120°41'05", in NE¼ sec. 36, T. 30 N., R. 11 E., 1¼ miles west (revised) of Susanville, 2 miles upstream from Piute Creek, and 3½ miles downstream from Cheney Creek.

Drainage area.--192 sq mi.

Supplemental records available.--January to December 1902, March to May 1913, gage heights only.

Gage.--Staff gage. Altitude of gage is 4,300 ft (from topographic map). Prior to Sept. 21, 1919, at site about 200 ft downstream at different datum. Datum lowered 2.00 ft Jan. 1, 1904 (revised).

Average discharge.--6 years (1900-1901, 1903-5, 1917-20), 94.3 cfs.

Extremes.--1900-1905, 1917-21: Maximum discharge observed (revised), 2,280 cfs Mar. 30, 1903 (gage height, 8.00 ft, site and datum then in use), from rating curve extended above 720 cfs by logarithmic plotting; minimum observed, 0.8 cfs Aug. 10, 1918.

Remarks.--Diversion 800 ft above station for irrigation. Low-water records after Sept. 21, 1919, affected by flow bypassing station through electric powerplant flume.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	*25.8	*5.61	*4.15	*3.80	-
1901	*9.92	*39.4	*51.8	*36.2	*283	*340	*344	*385	*49.9	*10.7	-	-	a129
1903	-	-	-	-	-	*200	*336	*234	*45.1	*6.16	*3.94	*6.18	-
1904	*10.1	*117	*28.4	*17.2	*368	*651	695	600	160	51	31	16	*228
1905	22	21	47	76.9	96.9	234	264	160	61.3	23.4	12.1	12.3	85.9
1906	15.7	19.0	18.0	-	-	-	-	-	-	-	-	-	-
1917	-	-	-	-	-	76.4	280	246	130	109	77.3	7.37	-
1918	9.11	13.8	13.8	12.1	24.0	89.2	132	63.1	59.9	2.11	2.66	7.71	35.7
1919	13.1	14.5	10.5	13.6	47.5	98.6	274	104	85.5	65.4	2.83	3.72	60.8
1920	7.77	8.28	5.82	7.77	12.0	38.0	*99.7	74.5	52.1	3.93	1.41	3.65	*26.2
1921	6.75	26.9	37.6	114	108	246	178	217	117	-	-	-	-

* Revised.
a Revised; yearly figure partly estimated on basis of normal recession; some monthly figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1900	-	-	-	-	-	-	-	-	*1,530	*345	*255	*226	-
1901	*610	*2,340	*3,190	*2,230	*15,740	*20,940	*20,490	*23,690	*2,970	*659	-	-	a93,250
1903	-	-	-	-	-	*12,300	*19,970	*14,410	*2,680	*379	*242	*368	-
1904	*621	*6,970	*1,750	*1,060	*21,190	*40,000	41,355	36,893	9,521	3,136	1,906	952	*165,400
1905	1,353	1,250	2,890	4,728	5,382	14,390	15,710	9,838	3,648	1,439	744	732	62,100

* Revised.
a Revised; see footnote to preceding table.

1/ Published as "near Susanville", 1901-5.

Monthly and yearly runoff, in acre-feet, of Susan River at Susanville, Calif.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1906	965	1,131	1,107	-	-	-	-	-	-	-	-	-	-
1917	-	-	-	-	-	4,700	16,700	15,100	7,740	6,700	4,750	439	-
1918	560	821	849	744	1,330	5,480	7,850	3,880	3,560	130	164	459	25,800
1919	805	863	646	836	2,640	6,060	16,300	6,390	5,090	4,020	174	221	44,000
1920	478	493	358	478	690	2,340	*5,930	4,580	3,100	242	86.7	217	*18,990
1921	415	1,600	2,310	7,010	6,000	15,100	10,600	13,300	6,960	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1900	300,1564	-	-	-	-	-	-	-
1901	300,1564	*1,050	Feb. 23, 1901	-	*129	*93,250	-	-
1903	300,1564	*2,280	Mar. 30, 1903*	-	-	-	-	-
1904	300,1564	*2,190	Feb. 22, 1904	6.8	*228	*165,400	*223	*161,500
1905	300	*725	Dec. 30, 1904	7	85.9	62,100	82.8	59,810
1917	460	609	Apr. 25, 1917	4.7	-	-	-	-
1918	480	492	Apr. 9, 1918	.9	35.7	25,800	35.8	25,900
1919	510	568	Apr. 4, 1919	2.0	60.8	44,000	59.5	43,100
1920	510,1564	*570	Apr. 15, 1920	-	*26.2	*18,990	*30.3	*21,990
1921	530	1,070	Jan. 17, 1921	-	-	-	-	-

* Revised.

Note.--Records for August to December 1901, January 1903 published in WSP 300 have been found in error on the basis of restudy of the original data. Those records are not published herein and should not be used.

431. Gold Run Creek near Susanville, Calif.

Location.--Lat 40°22'25", long 120°39'10", in NE¼ sec. 17, T. 29 N., R. 12 E., at county road bridge and about 2½ miles south (revised) of Susanville.

Drainage area.--15.1 sq mi.

Supplemental records available.--Feb. 24 to Mar. 31, 1913, gage heights and 2 discharge measurements.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map). Prior to Mar. 21, 1915, at different datum.

Extremes.--1915-16: Maximum daily discharge, 200 cfs Feb. 10, 1916; minimum, less than 2 cfs on many days in October to December 1915.

Remarks.--No storage or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	15.7	39.1	13.8	3.68	‡2	‡1.5	-
1916	‡3	‡2	‡4	13.9	37.2	39.5	35.1	35.1	-	-	-	-	-

‡ Not previously published; estimated or partly estimated on basis of observer's notes.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	934	2,400	821	226	‡123	‡89	-
1916	‡184	‡119	‡246	855	2,140	2,430	2,090	2,160	-	-	-	-	-

‡ Not previously published; estimated or partly estimated on basis of observer's notes.

432. Lassen Creek near Susanville, Calif.

Location.--Lat 40°21'50", long 120°37'00", in NW¼ sec. 22, T. 29 N., R. 12 E., at Drake ranch and 4½ miles southeast of Susanville.

Drainage area.--7.53 sq mi.

Supplemental records available.--Mar. 13 to Apr. 14, 1913, and Dec. 17, 1915, to June 7, 1916, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map). Prior to Mar. 21, 1915, at site 1½ miles downstream at different datum.

Extremes.--April to July 1915: Maximum discharge observed, 50 cfs May 11, 1915 (gage height, 3.56 ft), from rating curve extended above 15 cfs; probably no flow during August and September 1915.

Remarks.--Diversion for irrigation above station.

Monthly mean discharge, in cubic feet per second, of Lassen Creek near Susanville, Calif.

Year						Apr.	May	June	July				
1915						2.27	6.55	0.95	0.06				

Monthly runoff, in acre-feet

Year						Apr.	May	June	July				
1915						135	403	57	4				

433. Willow Creek at Merrillville, Calif.

Location.--Lat 40°34'35", long 120°41'50", in NE¼ sec. 2, T. 31 N., R. 11 E., at Merrillville and 10 miles north of Susanville.

Drainage area.--6.93 sq mi.

Gage.--Staff gage. Altitude of gage is 4,950 ft (from topographic map).

Extremes.--1904-5: Maximum discharge observed, 50 cfs Dec. 30, 1904 (gage height, 1.7 ft); minimum daily, 16 cfs on many days in April to July 1905.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	-	-	-	-	19	18	19	-
1905	19	20	20	18.5	18.8	18.6	17.6	17.1	17.0	16.9	17.7	18.7	18.3
1906	21.9	22.2	24.0	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	-	-	-	-	-	-	1,168	1,107	1,131	-
1905	1,168	1,190	1,230	1,138	1,044	1,144	1,047	1,051	1,012	1,039	1,088	1,113	13,300
1906	1,347	1,321	1,476	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	300	-	-	-	-	-	-	-
1905	300	50	Dec. 30, 1904	16	18.3	13,300	19.1	13,800
1906	300	-	-	-	-	-	-	-

434. Willow Creek near Standish, Calif.

Location.--Lat 40°24'05", long 120°26'55", in SW¼ sec. 6, T. 29 N., R. 14 E., 1½ miles upstream from mouth and 3 miles (revised) northwest of Standish.

Drainage area.--607 sq mi.

Supplemental records available.--June 4, 1900, to Dec. 31, 1901, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,060 feet (from topographic map).

Extremes.--1905: Maximum discharge observed, 238 cfs January 23, February 21, 22 (gage height, 7.8 ft), from rating curve extended above 95 cfs; no flow July 1-3.

Remarks.--Information lacking as to diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	80.4	89.4	33.5	22.9	17.0	21.1	46.2	19.6	41.0	-
1906	31.8	39.6	38.7	-	-	-	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	4,944	4,965	2,060	1,363	1,045	1,256	2,841	1,205	2,440	-
1906	1,955	2,356	2,380	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	300	238	(a)	0	-	-	39.8	28,810
1906	300	-	-	-	-	-	-	-

a Jan. 23, Feb. 21, 22, 1905.

435. Bidwell Creek near Fort Bidwell, Calif.

Location.--Lat 41°57', long 120°11', in NW¼ sec. 18 (revised), T. 47 N., R. 16 E., at O'Conner ranch, 500 ft downstream from unnamed tributary, and 6.3 miles (revised) north of Fort Bidwell.

Drainage area.--5.7 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,150 ft (from topographic map).

Extremes.--January to September 1918: Maximum discharge observed, 26 cfs May 3, 9 (gage height, 2.70, 2.46 ft, respectively); minimum observed, 0.2 cfs August 31, September 2-6.

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	1.20	1.01	1.87	11.6	16.0	9.93	1.25	0.43	0.44	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	73.8	56.1	115	690	984	591	76.9	26.4	26.2	-

436. Bidwell Creek at Fort Bidwell, Calif.1/

Location.--Lat 41°52'30", long 120°09'40", in NW¼ sec. 8, T. 46 N., R. 16 E., at Martin's Hot Springs, at mouth of canyon, and 1 mile north of Fort Bidwell.

Drainage area.--27 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,900 ft (from topographic map). Prior to June 30, 1912, at site 100 ft upstream at different datum.

Extremes.--1911-12, 1918-19: Maximum daily discharge, 172 cfs June 1-6, 1912; minimum observed, 0.5 cfs Aug. 18 to Sept. 6, Sept. 9-30, 1919.

Remarks.--A few small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	4.0	4.0	4.8	7.5	6.2	47.1	111	108	-	-	-	-
1918	-	-	-	6.76	5.89	12.4	32.5	34.4	15.5	3.25	2.40	3.74	-
1919	4.25	5.50	3.5	3.0	3.0	9.76	51.7	82.0	21.0	4.94	1.57	.60	16.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	238	246	295	431	381	2,800	6,800	6,400	-	-	-	-
1918	-	-	-	416	327	762	1,930	2,120	922	200	148	223	-
1919	261	327	215	184	167	600	3,080	5,040	1,250	304	96.5	35.7	11,600

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	360	a172	June 1-6,1912	-	-	-	-	-
1918	480	55	May 5, 1918	-	-	-	10.8	7,850
1919	510	120	(b)	0.5	16.0	11,600	-	-

a Maximum daily.
b Apr. 30, May 1, 1919.

1/ Published as "near Fort Bidwell", 1912.

437. Twelvemile Creek near Fort Bidwell, Calif.

Location.--Lat 42°00', long 120°04', in NE¼ sec. 31, T. 48 N., R. 17 E., at bridge on Fort Bidwell-Warner Lake road, a quarter of a mile downstream from mouth of Tenmile Creek, a quarter of a mile south of California-Oregon State line, and 12 miles northeast of Fort Bidwell.

Drainage area.--17 sq mi (revised), approximately.

Gage.--Staff gage. Altitude of gage is 5,400 ft (from topographic map). Prior to Dec. 8, 1917, at site half a mile downstream at different datum.

Extremes.--1912-13, 1918-19, 1922: Maximum discharge observed. 122 cfs May 18, 19, 24-26, 30, 31, June 1-3, 9, 10, 1922 (gage height, 3.0 ft); minimum observed, 1.0 cfs Aug. 18-28, 1919.

Remarks.--Peterson ditch, capacity about 20 cfs, diverted from South Fork of Twelvemile Creek 3 miles above gage. La Xague and Fisher ditches diverted below gage.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	91.5	-	-	-	-
1913	-	-	-	-	-	-	11.3	65.4	-	-	-	-	-
1918	-	-	-	2.72	2.70	4.05	16.5	39.7	14.8	1.85	1.42	1.43	-
1919	1.81	2.59	2.02	1.2	1.2	2.86	15.8	68.6	18.3	3.25	1.28	1.27	10.1
1922	-	-	-	-	-	-	-	-	70.7	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	5,440	-	-	-	-
1913	-	-	-	-	-	-	672	4,020	-	-	-	-	-
1918	-	-	-	167	150	249	982	2,440	881	114	87.3	85.1	-
1919	111	154	124	73.8	66.6	176	940	4,220	1,090	200	78.7	75.6	7,310
1922	-	-	-	-	-	-	-	-	4,210	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	360	-	-	-	-	-	-	-
1913	360	-	-	-	-	-	-	-
1918	480	*107	May 1,5, 1918	-	-	-	7.66	5,540
1919	510	102	May28,29,1919	1.0	10.1	7,310	-	-
1922	550	a122	(b)	-	-	-	-	-

* Revised.
a Maximum observed May 16 to June 30, 1922.
b May 18, 19, 24-26, 30, 31, June 1-3, 9, 10, 1922.

438. Keeno Creek near Fort Bidwell, Calif.

Location.--Lat 41°58', long 120°00', in sec. 3 (revised), T. 47 N., R. 17 E., on California-Nevada State line, 1 mile upstream from Cowhead Slough, 9 miles southwest of town of Warner Lake, Oreg., and 12 miles northeast of Fort Bidwell.

Drainage area.--6 sq mi, approximately.

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

Extremes.--1918-19: Maximum discharge, 100 cfs Apr. 2, 1919 (gage height, 2.65 ft, from floodmarks), from rating curve extended above 40 cfs; no flow for many months.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	0	0	0	0	0	*2.88	0	0	0	0	0	0	*0.24
1919	0	0	0	0	0	1.0	9.5	0	0	0	0	0	.87

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	0	0	0	0	0	*177	0	0	0	0	0	0	*177
1919	0	0	0	0	0	61	565	0	0	0	0	0	626

* Revised.

Yearly discharge, in cubic feet per second, of Keeno Creek near Fort Bidwell, Calif.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	*40	Mar.18or19,1918	0	*0.24	*177	*0.24	*177
1919	510	100	Apr. 2, 1919	0	.87	626	-	-

* Revised.
Note.--Figures of daily discharge for Mar. 19, 26, 1918, published in WSP 480, have been revised to 28 cfs and 20 cfs, respectively.

439. Fifteenmile Creek near Warner Lake, Oreg.1/

Location.--Lat 42°01', long 120°01', in sec. 21, T. 41 S., R. 23 E., half a mile (revised) north of California-Oregon State line, 6 miles south of former town of Warner Lake, and 13 miles southwest of Adel.

Drainage area.--15 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,400 ft (from topographic map).

Extremes.--1913, 1918-19, 1922: Maximum discharge observed, 88 cfs (revised) Apr. 4, 1919 (gage height, 2.9 ft); minimum observed, 0.5 cfs Aug. 18 to Sept. 8, 1918.

Remarks.--A few small diversions for irrigation above station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	9.94	-	-	-	-	-	-
1918	-	-	-	1.33	1.20	3.77	3.46	*2.69	1.24	0.68	0.55	0.57	-
1919	1.00	1.45	0.79	.1	.5	3.35	14.0	6.35	2.36	1.17	.94	1.0	2.75
1922	-	-	-	-	-	-	17.5	16.0	5.41	-	-	-	-

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	591	-	-	-	-	-	-
1918	-	-	-	81.8	66.6	232	206	*165	73.8	41.8	33.8	33.9	-
1919	61.5	86.3	48.6	6.1	27.8	206	833	390	140	71.9	57.7	59.5	1,990
1922	-	-	-	-	-	-	1,040	984	322	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	43	Mar. 31, 1913	-	-	-	-	-
1918	480,1564	24	Apr. 9, 1918	-	-	-	*1.56	*1,130
1919	510	*88	Apr. 4, 1919	0.8	2.75	1,990	-	-
1922	550	45	Apr.22,27,1922	-	-	-	-	-

* Revised.

440. Rock Creek near Fort Bidwell, Calif.

Location.--Lat 41°58', long 119°59', on line between secs. 21 and 28, T. 46 N. (revised), R. 18 E., in Washoe County, Nev., 1½ miles above mouth, 9 miles south of town of Warner Lake, Oreg., and 13 miles northeast of Fort Bidwell.

Drainage area.--19 sq mi (revised), approximately.

Gage.--Staff gage. Altitude of gage is 5,500 ft (from topographic map). Mar. 7 to May 15, 1913, at datum 0.51 ft lower.

Extremes.--1913, 1918-19: Maximum discharge, about 700 cfs about Apr. 2, 1919 (gage height, 4.0 ft, from floodmarks), from rating curve extended above 310 cfs; no flow during part of each year.

Cooperation.--Records for 1913 furnished by Modoc County Irrigation Co.

1/ Published as "near Fort Bidwell, Calif.", 1913.

Monthly and yearly mean discharge, in cubic feet per second, of Rock Creek near Fort Bidwell, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	37.5	-	-	-	-	-	-
1918	-	-	-	0.2	0.5	2.68	4.08	0.10	0.1	0.1	0.1	0.1	-
1919	0.2	0.2	0.1	0	0	16.5	105	1.6	.04	0	0	0	10.2

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	2,230	-	-	-	-	-	-
1918	-	-	-	12.3	27.8	1,650	243	6.1	6.0	6.1	6.1	6.0	-
1919	12.3	11.9	6.1	0	0	1,010	6,250	98.4	2.4	0	0	0	7,390

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	-	-	-	-	-	-	-
1918	480	209	Mar.25or26,1918	-	-	-	2.75	1,990
1919	510	a700	(b)	0	10.2	7,390	-	-

a About.
b About Apr. 2, 1919.

441. Twentymile Creek below Rock Creek, near Fort Bidwell, Calif.1/

Location.--Lat 42°00', long 119°59', in sec. 16, T. 46 N. (revised), R. 18 E., in Nevada, just downstream from Rock Creek, one mile east of corner between California, Nevada and Oregon, and 15 miles northeast of Fort Bidwell.

Drainage area.--120 sq mi, approximately, including 46 sq mi in Cowhead Lake area.

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

Remarks.--Several diversions above station.

Cooperation.--Records furnished by Modoc County Irrigation Co.

Monthly mean discharge, in cubic feet per second

Year							Apr.						
1913							71.3						

Monthly runoff, in acre-feet

Year							Apr.						
1913							4,240						

442. West Fork of Horse Creek near Fort Bidwell, Calif.

Location.--Lat 41°58', long 119°56', in NE¼ sec. 26, T. 46 N., R. 18 E., in Washoe County, Nev., 1,200 ft upstream from East Fork of Horse Creek, 5 miles upstream from Twentymile Creek, 10 miles south of town of Warner Lake, Oreg., and 14 miles northeast of Fort Bidwell.

Drainage area.--14 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,700 ft (from topographic map).

Extremes.--1917-19: Maximum discharge, 146 cfs about Apr. 3, 1919 (gage height, 1.3 ft, from floodmarks), from rating curve extended above 90 cfs; no flow during part of each year.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	0	0	0	0	0	*3.51	0.04	0	0	0	0	0	*0.30
1919	0	0	0	0	0	0	9.8	0	0	0	0	0	.81

* Revised.

1/ Published as Fifteenmile Creek.

Monthly and yearly runoff, in acre-feet, of West Fork of Horse Creek near Fort Bidwell, Calif.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	0	0	0	0	0	*216	2.4	0	0	0	0	0	*218
1919	0	0	0	0	0	0	583	0	0	0	0	0	583

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	*92	Mar.19or20,1918	0	*0.30	*218	*0.30	*218
1919	510	146	(a)	0	.81	583	-	-

* Revised.
a About Apr. 3, 1919.
Note.--Figures of daily discharge for Mar. 19, 20, 1918, published in WSP 480, have been revised to 36 cfs and 14 cfs, respectively.

443. East Fork of Horse Creek near Fort Bidwell, Calif.

Location.--Lat 41°59', long 119°56', on line between secs. 23 and 24, T. 46 N., R. 18 E., Washoe County, Nev., three-quarters of a mile upstream from West Fork of Horse Creek, 5 miles upstream from Twentymile Creek, 10 miles south of town of Warner Lake, Oreg., and 14 miles northeast of Fort Bidwell.

Drainage area.--12 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,700 ft (from topographic map).

Extremes.--1918-19: Maximum discharge, 38 cfs about Apr. 3, 1919 (gage height, 2.5 ft, from floodmarks), from rating curve extended above 11 cfs; minimum observed, 0.2 cfs.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	0.6	0.6	1.27	0.65	0.40	0.4	0.3	0.3	0.3	-
1919	0.4	0.3	0.2	.2	.4	2.5	7.0	.5	.4	.3	.2	.2	1.05

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	-	36.9	33.3	78.1	38.7	24.6	23.8	18.4	18.4	17.9	-
1919	24.6	17.9	12.3	12.3	22.2	154	417	30.7	23.8	18.4	12.3	11.9	757

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	-	-	-	-	-	0.48	345
1919	510	38	(a)	-	1.05	757	-	-

a About Apr. 3, 1919.

444. Twentymile Creek near Adel, Oreg.1/

Location (revised).--Lat 42°04', long 119°57', in NW¼ sec. 25, T. 40 S., R. 23 E., 8 miles downstream from confluence of Twelvemile and Fifteenmile Creeks and 8 miles southwest of Adel.

Drainage area.--194 sq mi, including 46 sq mi in Cowhead Lake area.

Gage.--Water-stage recorder at present site after Mar. 11, 1945. Datum of gage is 4,561.71 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 21, 1940, staff gage or water-stage recorder at sites within 1 mile downstream at various datums. Sept. 21, 1940, to Nov. 30, 1944, water-stage recorder 1¾ miles (revised) upstream at different datums.

Average discharge.--15 years (1910-15, 1918-19, 1940-44, 1945-50), 42.9 cfs.

Extremes.--1910-16, 1917-19, 1921-22, 1940-50: 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.--Many diversions for irrigation above station. No regulation.

1/ Published as "near Warner Lake", 1910-22.

Monthly and yearly mean discharge, in cubic feet per second, of Twentymile Creek near Adel, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	458	118	66.2	18.6	5.44	3.97	3.73	-
1911	3.94	6.53	35.5	7.88	12.6	225	262	84.8	124	22	4.7	3.9	66.1
1912	4.93	7.03	6.54	8.45	19.4	23.9	25.4	65.2	78.6	15.2	4.93	5.05	22.0
1913	5.37	6.57	6.75	6.50	10.4	72.4	73.8	65.4	43.5	9.46	3.10	3.30	25.6
1914	3.53	3.78	5.42	19.6	21.8	339	121	109	46.8	8.69	2.18	3.19	57.4
1915	4.65	4.89	6.04	7.14	8.68	79.4	50.2	96.1	37.7	5.96	2.21	2.70	25.6
1916	3.96	6.02	7.03	6.83	69.1	286	80.8	81.8	63.6	-	-	-	-
1918	-	-	-	5.77	6.94	56.6	27.6	38.8	15.2	1.81	1.67	2.19	-
1919	4.0	5.0	3.85	6.50	17.0	91.9	236	81.0	19.5	†3.66	2.25	3.24	†39.4
1921	-	-	-	-	-	-	65.4	113	75.5	7.82	2.65	3.15	-
1922	3.80	4.95	5.25	5.75	5.61	9.48	344	137	68.4	-	-	-	-
1941	4.24	4.07	6.18	4.63	55.0	243	102	90.8	31.1	6.80	2.50	3.18	46.1
1942	4.18	4.60	14.3	64.9	26.1	113	166	116	82.5	10.1	1.77	2.16	50.5
1943	3.39	10.1	106	47.8	37.5	578	148	101	75.3	16.2	3.42	3.51	95.0
1944	4.99	5.77	7.08	5.98	8.63	39.8	47.8	46.8	58.5	8.45	2.45	2.48	19.9
1945	3.67	5.00	-	-	-	92.4	74.5	124	59.3	6.46	3.06	3.19	-
1946	3.51	5.48	92.7	24.9	61.0	173	92.6	93.3	29.6	7.54	2.71	2.70	49.2
1947	3.27	3.94	5.22	4.01	48.0	23.9	24.5	43.7	14.8	2.77	1.93	2.40	14.6
1948	3.73	4.63	4.49	23.1	17.9	33.1	69.4	108	111	8.10	2.33	2.13	32.2
1949	3.47	5.23	6.50	4.20	8.27	77.3	365	110	28.6	4.30	2.87	3.21	51.4
1950	3.73	4.27	3.71	48.2	124	126	85.4	114	68.0	11.9	2.31	3.00	49.1

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	28,200	7,020	4,070	1,110	334	244	222	-
1911	242	389	2,180	485	700	13,800	15,600	5,210	7,380	1,350	289	232	47,900
1912	303	418	402	520	1,120	1,470	1,510	4,010	4,680	935	303	300	16,000
1913	330	391	415	400	578	4,450	4,390	4,020	2,590	582	191	196	18,500
1914	217	225	333	1,210	1,210	20,800	7,200	6,700	2,780	534	134	190	41,500
1915	286	291	371	439	482	4,880	2,990	5,910	2,240	366	136	161	18,600
1916	243	358	432	420	3,970	17,600	4,810	5,030	3,780	-	-	-	-
1918	-	-	-	355	385	3,480	1,640	2,390	904	111	103	130	-
1919	246	298	237	400	944	5,650	14,000	4,980	1,160	†225	138	193	†28,500
1921	-	-	-	-	-	-	3,890	6,950	4,490	481	163	187	-
1922	234	295	323	354	312	583	20,500	8,420	4,070	-	-	-	-
1941	260	242	380	285	3,060	14,910	6,050	5,580	1,850	418	154	189	33,380
1942	257	274	882	3,990	1,450	6,940	9,880	7,130	4,910	624	109	129	36,580
1943	209	598	6,490	2,940	2,080	35,550	8,790	6,220	4,480	995	210	209	68,770
1944	307	344	435	368	497	2,450	2,840	2,880	3,480	519	151	148	14,420
1945	226	297	-	-	-	3,480	4,430	7,640	3,530	397	188	190	-
1946	216	326	5,700	1,530	3,390	10,650	5,510	5,730	1,760	464	166	161	35,600
1947	201	234	321	247	2,660	1,470	1,460	2,690	879	170	119	143	10,590
1948	229	276	276	1,420	1,030	2,040	4,130	6,670	6,580	498	143	127	23,420
1949	213	311	400	258	459	4,750	21,720	6,780	1,700	265	176	191	37,220
1950	229	254	228	2,960	6,860	7,750	5,080	7,040	4,050	735	142	178	35,510

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	290	a2,610	Mar. 1, 1910	-	-	-	-	-
1911	330	‡b1,170	Mar. 30, 1911	3.0	66.1	47,900	63.8	46,200
1912	330	‡464	Mar. 26, 1912	3.8	22.0	16,000	22.0	16,000
1913	360	‡b770	Mar. 30, 1913	2.9	25.6	18,500	25.1	18,200
1914	390	1,140	Mar. 6, 1914	2.0	57.4	41,500	57.7	41,700
1915	410	b1,020	May 10, 1915	1.8	25.6	18,600	25.7	18,600
1916	440	1,130	Mar.14or15,1916	-	-	-	-	-
1918	480	b380	Mar. 18, 1918	-	-	-	14.2	10,300
1919	510	b2,400	Apr. 4, 1919	-	†39.4	†28,500	-	-
1921	530	2,000	Mar. 4, 1921	-	-	-	-	-
1922	550	1,500	Apr.26,27,1922	-	-	-	-	-
1941	930	1,060	Feb. 28, 1941	1.9	46.1	33,380	46.8	33,910
1942	960	1,460	Jan. 27, 1942	1.1	50.5	36,580	58.6	42,460
1943	980	3,000	Dec. 27, 1942	2.5	95.0	68,770	86.4	62,560
1944	1010	340	Mar. 17, 1944	1.8	19.9	14,420	-	-
1945	1040,1090	561	June 6, 1945	-	-	-	-	-
1946	1090	1,930	Dec. 28, 1945	-	49.2	35,600	41.6	30,120
1947	1090	1,420	Feb. 12, 1947	1.7	14.6	10,590	14.7	10,620
1948	1120	1,340	June 5, 1948	1.4	32.2	23,420	32.4	23,560
1949	1150	988	Apr. 8, 1949	• 2.6	51.4	37,220	51.1	37,010
1950	1180	1,020	Mar. 17, 1950	2.0	49.1	35,510	-	-

† Corrected.
‡ Not previously published.
a Maximum observed during period March to September.
b Maximum observed.

538662 O - 60 - 28

445. Deep Creek above Dismal Creek, near Warner Lake, Oreg.

Location (revised).--Lat 42°04', long 120°09', in S½ sec. 29, T. 40 S., R. 22 E., 300 ft upstream from Dismal Creek, 11 miles west of former town of Warner Lake, and 15 miles southwest of Adel.

Drainage area.--13 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,800 ft (from topographic map). Prior to Apr. 22, 1918 (revised), staff gage 200 ft upstream at different datum.

Extremes.--1918-19: Maximum discharge observed, 186 cfs May 22, 1919 (gage height, 4.3 ft); minimum observed, 1.1 cfs Aug. 28, 1918 (gage height, 2.49 ft).

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	4.6	4.6	4.6	7.00	38.6	70.3	27.3	4.42	1.91	2.56	-
1919	-	-	-	-	-	-	-	‡120	51.6	3.27	2.37	2.50	-

‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1918	-	-	283	283	255	430	2,300	4,320	1,620	272	117	152	-
1919	-	-	-	-	-	-	-	‡7,380	3,070	201	146	149	-

‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1918	480	138	May 4, 1918	-	-	-	-	-
1919	510	a186	May 22, 1919	-	-	-	-	-

a Maximum observed during period May to September 1919.

446. Dismal Creek above Big Valley, near Warner Lake, Oreg.1/

Location.--Lat 42°01', long 120°08', in sec. 16, T. 41 S., R. 22 E., 1 mile north of California-Oregon State line, 11 miles southwest of former town of Warner Lake, and 17 miles southwest of Adel.

Drainage area.--12.5 sq mi.

Supplemental records available.--December 1918 to October 1919, periodic discharge measurements only.

Gage.--Staff gage. Altitude of gage is 6,000 ft (from topographic map).

Extremes.--Apr. 11 to June 30, 1913: Maximum discharge observed, 151 cfs May 25 (gage height, 1.75 ft); minimum daily, 3 cfs Apr. 11-14.

Remarks.--Records for high-water season only. No diversion or regulation above station.

Monthly mean discharge, in cubic feet per second

Year						Apr.	May	June					
1913						-	75.4	‡43.8					

‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.

Monthly runoff, in acre-feet

Year						Apr.	May	June					
1913						-	4,640	‡2,610					

‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.

1/ Published as "near Fort Bidwell, Calif.," 1913.

447. Dismal Creek near Warner Lake, Oreg.

Location.--Lat 42°04', long 120°08', in SE¼ sec. 29, T. 40 S., R. 22 E., 125 ft upstream from mouth, 10 miles west of former town of Warner Lake, and 15 miles southwest of Adel.

Drainage area.--14 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,800 ft (from topographic map).

Extremes.--May to September 1919: Maximum discharge, 343 cfs May 22 (gage height, 2.8 ft), from rating curve extended above 120 cfs; minimum, 0.3 cfs Sept. 12-25 (gage height, 0.70 ft).

Remarks.--Records for irrigation season only. Two small ditches divert water 500 ft upstream from gage. No regulation.

Monthly mean discharge, in cubic feet per second

Year	May	June	July	Aug.	Sept.
1919	‡134	24.0	4.17	0.86	0.57

‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.

Monthly runoff, in acre-feet

Year	May	June	July	Aug.	Sept.
1919	‡8,240	1,430	256	52.9	33.9

‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.

448. Deep Creek below Dismal Creek, near Warner Lake, Oreg.1/

Location.--Lat 42°04', long 120°09', in SW¼ sec. 29, T. 40 S., R. 22 E., 200 ft downstream from Dismal Creek, 10 miles west of former town of Warner Lake, and 15 miles southwest of Adel.

Drainage area.--27 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,800 ft (from topographic map). May 1 to June 30, 1913, staff gage at same site at different datum.

Extremes.--1913, 1917-19: Maximum discharge observed, 560 cfs May 22, 1919 (gage height, 3.5 ft); minimum observed, 1.6 cfs Sept. 5, 6, 1918 (gage height, 0.24 ft).

Remarks.--Two small diversions; no regulation.

Monthly and yearly discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	195	‡122	-	-	-	-
1918	-	-	6.5	6.5	6.5	12.0	76.2	144	48.5	9.56	3.53	3.45	-
1919	-	-	-	-	-	-	-	‡262	77.8	12.0	4.45	4.18	-

‡ Not previously published; partly estimated on basis of records for station at Adel.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1913	-	-	-	-	-	-	-	12,000	‡7,260	-	-	-	-
1918	-	-	400	400	361	738	4,530	8,850	2,890	588	217	†205	-
1919	-	-	-	-	-	-	-	‡16,100	4,630	738	274	249	-

† Corrected.
‡ Not previously published; partly estimated on basis of records for station at Adel.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1913	360	454	May 24, 1913	-	-	-	-	-
1918	480	317	May 4, 1918	-	-	-	-	-
1919	510	a560	May 22, 1919	-	-	-	-	-

a Maximum observed during period May to September 1919.

1/ Published in 1913 as "above Big Valley, near Fort Bidwell, Calif."

449. Deep Creek at Big Valley, near Lakeview, Oreg.

Location.--Lat 42°08', long 120°08', in N½ sec. 4, T. 40 S., R. 22 E., 6½ miles (revised) upstream from Camas Creek and 12 miles east of Lakeview.

Drainage area.--76 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (from topographic map). Prior to Dec. 20, 1911, staff gage at site a quarter of a mile downstream at different datum. Dec. 20, 1911, to Aug. 21, 1912, water-stage recorder at described site at datum about 0.1 ft lower.

Extremes.--1911-15: Maximum discharge, 790 cfs May 29, 1912 (gage height, 5.27 ft, datum then in use), from rating curve extended above 490 cfs; minimum, 2.5 cfs Aug. 27, 30, 1915 (gage height, 0.30 ft).

Remarks.--Large area irrigated above station by natural flooding in the spring and by ditches during summer. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	‡253	388	53.6	10	11.4	-
1912	18.2	18.6	10	11.2	24.4	19.4	69.1	345	284	28.1	9.3	9.5	70.6
1913	9.2	9.3	8.0	8.00	9.92	35.7	174	324	147	46.9	11.1	6.57	66.1
1914	8.12	11.2	7.00	33.6	15.0	148	285	275	117	20.1	8.10	8.23	78.2
1915	10.7	7.74	6.0	8.0	8.0	44.0	129	197	101	14.2	4.84	3.3	44.7

‡ Not previously published; partly estimated on basis of records for Mud Creek near Plush.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	‡15,600	23,100	3,300	615	678	-
1912	1,120	1,100	615	689	1,400	1,190	4,110	21,200	16,900	1,730	572	565	51,200
1913	566	553	492	492	551	2,200	10,400	19,900	8,750	2,880	682	391	47,900
1914	499	666	430	2,070	833	9,100	17,000	16,900	6,960	1,240	498	490	56,700
1915	658	461	369	492	444	2,710	7,680	12,100	6,010	873	298	196	32,300

‡ Not previously published; partly estimated on basis of records for Mud Creek near Plush.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	330	790	May 29, 1912	-	70.6	51,200	68.9	50,000
1913	360	‡549	May 18, 1913	-	66.1	47,900	66.1	47,800
1914	390	663	Apr. 15, 1914	6.5	78.2	56,700	78.1	56,600
1915	410	355	May 10, 1915	2.5	44.7	32,300	-	-

‡ Not previously published.

450. Camas Creek near Plush, Oreg.

Location.--Lat 42°13', long 120°10', near center sec. 6, T. 39 S., R 22 E., half a mile upstream from Mud Creek and 20 miles southwest (revised) of Plush.

Drainage area.--32 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,500 ft (from topographic map). Prior to Mar. 24, 1912, at different datum.

Extremes.--1911-12: Maximum discharge observed, 242 cfs Apr. 27, 1911 (gage height, 4.1 ft, datum then in use); minimum observed, 0.6 cfs Aug. 22, 1911.

Remarks.--Diversions for irrigation of small areas above station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	96.7	25.4	-	-	-	-
1912	-	-	-	19.3	18.3	22.7	73.7	146	37.1	4.44	1.55	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	5,950	1,510	-	-	-	-
1912	-	-	-	1,190	1,050	1,400	4,390	8,980	2,210	-	-	-	-

Yearly discharge, in cubic feet per second, of Camas Creek near Plush, Oreg.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	330	a242	Apr. 27, 1911	-	-	-	-	-
1912	330	226	May 21, 1912	-	-	-	-	-

a Maximum observed during period April to June 1911.
Note.--Gage-height record for Dec. 25, 1911, to Mar. 23, 1912, published in WSP 330, has been found in error owing to unstable gage and should not be used.

451. Mud Creek near Plush, Oreg.1/

Location (revised).--Lat 42°14', long 120°10', in NW¼ sec. 32, T. 38 S., R. 22 E., 1 mile upstream from mouth and 18 miles southwest of Plush.

Drainage area.--18 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,550 ft (from topographic map). Prior to Oct. 1, 1927, staff gage at site half a mile downstream at different datum.

Extremes.--1911-12, 1915, 1927-30: Maximum discharge observed, 303 cfs May 21, 1912 (gage height, 3.9 ft, site and datum then in use), from rating curve extended above 180 cfs; minimum recorded, 0.4 cfs Sept. 24, 1928 (gage height, 0.28 ft).

Remarks.--No diversion or regulation above station.

Cooperation.--Records for water years 1928-30, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	91.6	50.5	-	-	-	-
1912	-	-	-	6.38	9.78	6.64	18.7	109	37.2	8.80	4.55	-	-
1915	-	-	-	-	-	-	43.3	-	-	-	-	-	-
1928	2.7	88.6	-	-	-	-	49.9	42.9	8.9	4.2	4.6	2.3	-
1929	-	-	-	-	-	-	16.7	15.5	8.2	2.0	2.0	2.5	-
1930	-	-	-	-	-	14.9	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	5,630	3,000	-	-	-	-
1912	-	-	-	392	563	408	1,110	6,700	2,210	541	280	-	-
1915	-	-	-	-	-	-	2,580	-	-	-	-	-	-
1928	166	5,270	-	-	-	-	2,970	2,640	530	258	283	137	-
1929	-	-	-	-	-	-	994	953	488	123	123	149	-
1930	-	-	-	-	-	916	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	330	-	-	-	-	-	-	-
1912	330	a303	May 21, 1912	-	-	-	-	-
1915	410	-	-	-	-	-	-	-
1928	(b)	230	Apr. 30, 1928	-	-	-	-	-
1929	(b)	111	May 2, 1929	-	-	-	-	-
1930	(b)	-	-	-	-	-	-	-

a Maximum observed.
b Reports of State engineer of Oregon.

1/ Published as "near Lakeview" in reports of State engineer of Oregon.

452. Camas Creek near Lakeview, Oreg.

Location.--Lat 42°13', long 120°06', in N½ sec. 2, T. 39 S., R. 22 E., 0.2 mile downstream from Blue Creek and 12 miles east of Lakeview.

Drainage area.--63 sq mi, approximately.

Gage.--Water-stage recorder. Datum of gage is 5,472.41 ft above mean sea level (Oregon State Highway Department benchmark). Prior to Dec. 16, 1949, water-stage recorder or staff gage 500 ft upstream at different datum.

Extremes.--1912-14, 1949-50: Maximum discharge, 454 cfs Apr. 10, 1914 (gage height, 4.47 ft, site and datum then in use), from rating curve extended above 250 cfs; minimum daily, 2 cfs Sept. 16-24, 1913.

Remarks.--Diversions for irrigation of about 1,200 acres above station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	-	‡6.5	-
1913	6.8	17.3	6.0	6.0	9.8	25.3	165	152	39.4	21.2	6.5	3.3	38.2
1914	6	9.4	6.77	28.0	10.0	157	220	112	43.7	11.1	7.32	7.23	51.6
1915	‡11.8	-	-	-	-	-	‡136	-	-	-	-	-	-
1950	-	-	-	19.0	35.3	59.1	185	141	45.4	8.65	4.93	4.10	-

‡ Not previously published; partly estimated on basis of records for Deep Creek at Big Valley, near Lakeview, Oreg.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	-	-	‡387	-
1913	418	1,030	369	369	544	1,560	9,820	9,350	2,340	1,300	400	196	27,700
1914	369	559	416	1,720	555	9,650	13,100	6,890	2,600	682	450	430	37,400
1915	‡726	-	-	-	-	-	‡8,090	-	-	-	-	-	-
1950	-	-	-	1,170	1,960	3,640	11,010	8,850	2,700	532	303	244	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	360	-	-	-	-	-	-	-
1913	360	a255	Apr. 22, 1913	2	38.2	27,700	37.6	27,200
1914	390	454	Apr. 10, 1914	6	51.6	37,400	-	-
1915	410	-	-	-	-	-	-	-
1950	1180	340	Apr. 22, 1950	-	-	-	-	-

a Maximum observed.

453. Crane Creek near Lakeview, Oreg.

Location.--Lat 42°12', long 120°06', in SE¼ sec. 10, T. 39 S., R. 22 E., near outlet of Crane Lake, 2 miles upstream from Sagehen Creek, and 13 miles (revised) east of Lakeview.

Drainage area.--7 sq mi, approximately.

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

Extremes.--March to June 1914: Maximum discharge observed, 47 cfs Apr. 9 (gage height, 7.70 ft), from rating curve extended above 26 cfs; minimum daily, 1.0 cfs June 28-30.

Remarks.--Records for high-water season only. Diversions by flooding in area surrounding Crane Lake. Flow regulated by gates at outlet of Crane Lake.

Monthly mean discharge, in cubic feet per second

Year						Mar.	Apr.	May	June				
1914						-	23.1	3.09	6.17				

Monthly runoff, in acre-feet

Year						Mar.	Apr.	May	June				
1914						-	1,370	190	367				

454. Drake Creek near Adel, Oreg.

Location.--Lat 42°12', long 120°01', in N½ sec. 9, T. 39 S., R. 23 E., a quarter of a mile upstream from Parsnip Creek, 1 mile upstream from mouth, and 6½ miles west of Adel.

Drainage area.--47 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 5,100 ft (estimated from datum of gage installed 900 ft downstream in June 1951). Prior to Dec. 16, 1949, staff gages 500 ft downstream at different datums.

Extremes.--1915, 1922-23, 1949-50: Maximum discharge, 380 cfs Mar. 17, 1950 (gage height, 3.10 ft), from rating curve extended above 30 cfs by logarithmic plotting; minimum daily, 2.5 cfs Jan 2-4, 12-14, 1950.

Remarks.--Records herein include flow of Parsnip Creek. Diversions for irrigation of about 620 acres above station; no regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	-	-	-	*5.57	*11.9	*21.9	*22.2	-	-	-	-	-	-
1950	-	-	-	16.9	31.4	29.2	15.8	15.4	7.58	5.89	5.75	5.54	-

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	-	-	-	*342	*661	*1,350	*1,320	-	-	-	-	-	-
1950	-	-	-	1,040	1,740	1,800	938	950	451	362	354	330	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	a137	Mar. 25, 1915	-	-	-	-	-
1923	1564	*70	Mar. 3, 1923	-	-	-	-	-
1950	221	380	Mar. 17, 1950	2.5	-	-	-	-

* Revised; maximum observed.
a From floodmark.

455. Deep Creek above Adel, Oreg.

Location.--Lat 42°11', long 119°59', in E½ sec. 15, T. 39 S., R. 23 E., a third of a mile downstream from Drake Creek and 5 miles west of Adel.

Drainage area.--249 sq mi.

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, and Dec. 21, 1922, to Sept. 30, 1923, water-stage recorder, at described site at higher datum.

Average discharge.--22 years (1922-23, 1929-50), 104 cfs.

Extremes.--1922-23, 1929-50: Maximum discharge, 5,030 cfs Dec. 11, 1937 (gage height, 7.5 ft, from floodmark); from rating curve extended above 1,200 cfs on basis of velocity-area studies and verified by slope-area determination at gage height 7.3 ft for peak of Dec. 23, 1955; minimum, 1.7 cfs July 20, 27-29, 1934.

Remarks.--Diversions for irrigation of 5,500 acres above station. No regulation.

Cooperation.--Records for water years 1930-32, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	-	-	-	-	‡11.8	-
1923	16.9	22.0	21.5	27.5	43.7	99.5	264	290	259	70.3	15	12	95.1
1930	‡10.0	12.5	45.0	*18.9	140	120	215	159	51.4	8.1	5.3	5.4	‡65.1
1931	10.3	12.1	11.5	12.1	24.8	73.1	90.8	49.5	9.4	2.0	2.0	3.0	25.0
1932	*9.5	10.7	9.9	10	12	*320	*301	*318	149	16.3	6.4	7.0	*97.6
1933	9.8	13.5	8.5	7.0	8.0	18.7	160	168	151	12.9	4.7	5.9	47.3
1934	9.5	12.2	14.7	32.7	38.4	104	96.0	32.3	12.0	2.35	2.08	2.92	29.8
1935	5.20	14.4	21.3	20.4	27.4	66.4	609	447	165	21.0	7.0	7.5	117

* Revised.
‡ Not previously published; partly estimated on basis of records for Chewaucan River near Paisley.

Monthly and yearly mean discharge, in cubic feet per second, of Deep Creek above Adel, Oreg.--Con.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1936	11.3	14.6	13.5	14.9	24.6	195	638	370	101	14.6	7.5	8.7	118
1937	11.1	12.2	11.9	13.8	11.1	37.0	427	290	76.9	10.0	5.15	5.96	75.9
1938	10.3	43.0	293	58.1	58.7	149	856	731	217	36.9	16.4	15.1	207
1939	22.1	35.2	33.5	19.6	19.6	211	256	107	26.8	7.88	5.74	6.66	62.7
1940	9.76	10.3	23.2	52.2	168	286	320	234	40.9	8.45	5.40	7.79	96.8
1941	12.0	22.4	27.5	20.8	61.6	241	209	370	163	25.1	12.4	14.5	98.5
1942	16.7	25.3	84.9	81.3	63.3	164	529	437	333	44.3	11.5	12.6	150
1943	15.6	58.5	119	101	85.2	542	799	495	476	76.4	19.0	18.2	234
1944	26.7	29.7	25.8	21.9	26.4	80.3	172	202	292	42.5	10.3	9.51	78.1
1945	14.1	28.7	39.8	72.7	154	86.8	295	625	239	29.4	10.1	10.8	134
1946	17.6	23.4	62.4	46.6	46.0	189	508	351	96.9	21.2	9.0	10.1	115
1947	17.9	27.9	34.3	23.2	67.9	126	193	161	130	11.7	5.5	8.5	67.0
1948	17.9	25.3	22.1	97.9	55.1	52.0	253	519	401	41.1	12.5	12.8	126
1949	20.0	29.2	25.0	29.1	23.0	64.7	652	421	112	14.4	9.5	11.9	118
1950	17.6	22.2	18.4	56.0	131	189	425	488	252	35.5	14.2	13.3	138

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	-	-	-	-	‡702	-
1923	1,040	1,310	1,320	1,690	2,430	6,120	15,700	17,800	15,400	4,320	922	714	68,800
1930	‡615	744	2,770	*1,160	7,780	7,380	12,800	9,780	3,060	498	326	321	‡47,200
1931	633	720	707	744	1,380	4,490	5,400	3,040	559	123	123	179	18,100
1932	*584	637	609	615	690	*19,700	*17,900	*19,600	8,870	1,000	394	417	*71,000
1933	603	803	523	430	444	1,150	9,520	10,300	8,980	793	289	351	34,200
1934	585	728	904	2,010	2,130	6,400	5,710	1,980	713	144	128	174	21,610
1935	320	855	1,310	1,260	1,520	4,080	36,210	27,490	9,800	1,290	428	448	85,010
1936	692	869	827	914	1,410	11,990	37,970	22,750	6,030	897	458	516	85,320
1937	682	724	730	847	617	2,270	25,410	17,800	4,580	616	317	355	54,950
1938	630	2,560	18,020	3,570	3,260	9,150	50,950	44,980	12,900	2,270	1,010	900	150,200
1939	1,360	2,090	2,060	1,210	1,090	12,990	15,200	6,590	1,590	484	353	396	45,410
1940	600	611	1,430	3,210	9,690	17,580	19,030	14,390	2,430	520	332	464	70,290
1941	736	1,330	1,690	1,280	3,420	14,840	12,420	22,730	9,710	1,540	762	863	71,320
1942	1,030	1,510	5,220	5,000	3,520	10,060	31,480	26,880	19,810	2,720	705	750	108,700
1943	960	3,480	7,290	6,190	4,730	33,300	47,540	30,460	28,330	4,700	1,170	1,080	169,200
1944	1,640	1,770	1,590	1,350	1,520	4,940	10,260	12,440	17,360	2,610	636	566	56,680
1945	865	1,710	2,450	4,470	8,530	5,340	17,540	38,450	14,240	1,810	623	644	96,670
1946	1,080	1,390	3,830	2,860	2,550	11,620	30,250	21,610	5,760	1,300	553	599	83,400
1947	1,100	1,660	2,110	1,430	3,770	7,750	11,500	9,900	7,740	720	339	508	48,530
1948	1,100	1,500	1,360	6,020	3,170	3,200	15,030	31,910	23,840	2,530	766	760	91,190
1949	1,230	1,740	1,540	1,790	1,280	3,980	38,820	25,890	6,680	883	587	710	85,130
1950	1,080	1,320	1,130	3,450	7,250	11,620	25,270	30,020	15,020	2,180	871	793	100,000

* Revised.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	570	-	-	-	-	-	-	-
1923	570	405	Apr. 17, 1923	-	95.1	68,800	-	-
1930	(a)	250	Apr. 9, 1930	‡3	‡65.1	‡47,200	*62.3	*45,200
1931	(a)	294	Mar. 22, 1931	-	25.0	18,100	*24.7	17,900
1932	(a)	*2,400	Mar. 18, 1932	5	*97.6	*71,000	*97.8	*71,100
1933	750	320	Apr. 29, 1933	4	47.3	34,200	47.7	34,500
1934	765	442	Mar. 29, 1934	1.8	29.8	21,610	30.2	21,870
1935	790	1,620	Apr. 16, 1935	3.2	117	85,010	117	84,910
1936	810	1,140	Apr. 17, 1936	7	118	85,320	117	85,070
1937	830	1,980	Apr. 15, 1937	4.8	75.9	54,950	102	74,020
1938	860	5,030	Dec. 11, 1937	6.9	207	150,200	186	134,500
1939	880	890	Mar. 20, 1939	5.4	62.7	45,410	58.8	42,540
1940	900	1,700	Feb. 27, 1940	4.5	96.8	70,290	98.3	71,400
1941	930	604	May 3, 1941	7.7	98.5	71,320	104	75,320
1942	960	944	Apr. 11, 1942	9.4	150	108,700	156	112,700
1943	980	1,760	June 1, 1943	12	234	169,200	224	162,500
1944	1010	1,080	June 9, 1944	7.1	78.1	56,680	78.1	56,710
1945	1040	1,880	May 17, 1945	8.2	134	96,670	135	97,950
1946	1060	957	(b)	8	115	83,400	113	81,970
1947	1090	482	June 9, 1947	4	67.0	48,530	65.8	47,620
1948	1120	1,350	June 5, 1948	8	126	91,190	126	91,740
1949	1150	1,250	Apr. 12, 1949	9	118	85,130	116	84,150
1950	1180	810	Mar. 17, 1950	11	138	100,000	-	-

* Revised.
‡ Not previously published.

a Reports of State engineer of Oregon.
b Dec. 29, 1945, Apr. 19, 1946.

456. Deep Creek at Adel, Oreg.

Location.--Lat 42°10', long 119°54', near center of sec. 21, T. 39 S., R. 24 E., at south edge of Adel and an eighth of a mile upstream from highway bridge.

Drainage area.--274 sq mi (revised).

Gage.--Staff gage. Altitude of gage is 4,500 ft (from topographic map). Mar. 10, 1914, to May 31, 1916, and Jan. 30, 1921, to Aug. 22, 1922, water-stage recorder or staff gage at described site and datum.

Average discharge.--8 years (1909-15, 1918-19, 1921-22), 142 cfs.

Extremes.--1909-16, 1917-19, 1921-22: Maximum discharge observed, 4,950 cfs Mar. 2, 1910 (gage height, 9.0 ft); minimum observed, 1.4 cfs July 18-21, 1919 (gage height, 2.4 ft).

Remarks.--Diversions above station for irrigation by several small ditches, flooding of lowlands during high-flow season, and by 5 canals within 2 miles upstream from station. Return flow from canals enters Deep Creek mostly below this station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	-	406	56.9	6.48	12.2	-
1910	15.9	355	108	240	43.7	807	428	247	53.0	9.77	8.42	15.0	194
1911	17.4	42.1	156	48.0	49.0	298	456	445	426	55.1	11.0	11.6	168
1912	11.9	21.2	19.3	25.9	*61.8	76.4	268	894	590	50.2	13.5	4.7	*170
1913	16.3	54.6	23.6	28.1	31.3	116	563	583	255	115	15.1	14.2	151
1914	23.1	34.9	16.0	109	41.7	493	544	372	159	29.7	5.27	7.01	153
1915	18.1	20.0	20.0	25.0	21.2	113	237	289	133	17.7	3.55	5.0	75.4
1916	9.6	18.5	24.2	7.4	80	412	411	343	-	-	-	-	-
1918	-	-	-	27.8	34.2	150	270	151	29.6	3.74	4.74	9.84	-
1919	29.8	18.5	9.0	8.0	14.0	121	627	393	55.7	4.61	2.85	2.74	107
1921	-	-	-	-	240	519	446	579	300	34.4	4.97	5.73	-
1922	11.5	15.1	30.0	35.6	21.5	24.5	482	663	214	5.43	4.03	4.80	126
1923	9.35	19.0	-	-	-	-	-	-	-	-	-	-	-

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1909	-	-	-	-	-	-	-	-	24,200	3,500	398	726	-
1910	978	21,100	6,640	14,800	2,430	49,600	25,500	15,200	3,150	601	518	893	141,000
1911	1,070	2,510	9,590	2,950	2,720	18,300	27,100	27,400	25,300	3,390	676	690	122,000
1912	732	1,260	1,190	1,590	*3,550	4,700	15,900	55,000	35,100	3,090	830	280	*123,000
1913	1,000	3,250	1,450	1,730	1,740	7,130	33,500	35,800	15,200	7,070	928	845	110,000
1914	1,420	2,080	984	6,700	2,320	30,300	32,400	22,900	9,460	1,830	324	417	111,000
1915	1,110	1,190	1,230	1,540	1,180	6,950	14,100	17,800	7,910	1,090	218	298	54,600
1916	590	1,100	1,490	455	4,600	25,300	24,500	21,100	-	-	-	-	-
1918	-	-	-	1,710	1,900	9,220	16,100	9,280	1,760	230	291	586	-
1919	1,830	1,100	553	492	778	7,440	37,300	24,200	3,310	283	175	163	77,600
1921	-	-	-	-	13,300	31,900	26,500	35,600	17,900	2,120	306	341	-
1922	707	898	1,840	2,190	1,190	1,510	28,700	40,800	12,700	334	248	286	91,400
1923	575	1,130	-	-	-	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1909	370	-	-	-	-	-	-	-
1910	370	4,950	Mar. 2, 1910	7	194	141,000	174	126,000
1911	310,330	‡2,100	Mar. 23, 1911	-	168	122,000	154	112,000
1912	330,1564	‡1,300	May 26, 1912	4	*170	*123,000	*173	*126,000
1913	360	‡1,610	Mar. 31, 1913	6	151	110,000	150	108,000
1914	390	1,340	Mar.7,May10,1914	4.4	153	111,000	152	110,000
1915	410	a552	Apr. 3, 1915	2.0	75.4	54,600	74.9	54,300
1916	440	a1,180	Mar.12,19,1916	-	-	-	-	-
1918	480	†825	Apr.9-11,1918	-	-	-	-	-
1919	510	a1,780	Apr. 4, 1919	1.4	107	77,600	615	44,600
1921	530	a1,290	Mar. 4, 1921	-	-	-	-	-
1922	550	a1,510	Apr. 21, 1922	2.0	126	91,400	-	-

* Revised.
† Corrected.
‡ Not previously published.
a Momentary maximum.

457. Fish Creek near Plush, Oreg.

Location.--Lat 42°23', long 119°54', in sec. 16 (revised), T. 37 S., R. 24 E., just downstream from Adel-Plush road and 3 miles south of Plush.

Drainage area.--38 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,500 ft (from topographic map).

Extremes.--March to April 1914: Maximum discharge, 133 cfs Mar. 5 (gage height, 3.45 ft, from floodmark), from rating curve extended above 80 cfs; no flow at times.

Remarks.--Records for high-water season only. Entire flow of creek diverted at time of spring thaw into reservoir upstream from station.

Monthly mean discharge, in cubic feet per second

Year	Mar.	Apr.
1914	43.4	-

Monthly runoff, in acre-feet

Year	Mar.	Apr.
1914	2,670	-

Note.--Estimated figures of monthly runoff for February and April 1914, published in WSP 390, have been found unreliable on basis of restudy of original data. Those estimates are not published herein and should not be used.

458. Honey Creek at Chalstrand's ranch, near Plush, Oreg.1/

Location.--Lat 42°27', long 120°04', in sec. 13, T. 36 S., R. 22 E., 1¼ miles upstream from Snyder Creek and 9 miles (revised) west of Plush.

Drainage area.--56 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,200 ft (from topographic map).

Extremes.--1910-11: Maximum discharge observed, 162 cfs May 3, 1911 (gage height, 3.3 ft); minimum daily, 1.3 cfs July 23-31, 1910.

Remarks.--Diversions for irrigation of a few hundred acres above station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	-	-	‡2.52	-	-	-
1911	-	-	-	5	3	46.5	61.4	86.5	50.2	8.08	3.56	4.00	-
1912	7.4	8.1	6	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on basis of records for station near Plush.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	-	-	‡155	-	-	-
1911	-	-	-	307	167	†2,860	3,650	5,320	2,990	497	219	238	-
1912	445	482	369	-	-	-	-	-	-	-	-	-	-

† Corrected.
‡ Not previously published; partly estimated on basis of records for station near Plush.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	370	-	-	1.3	-	-	-	-
1911	310	162	May 3, 1911	-	-	-	24.5	17,500

459. Twelvemile Creek near Plush, Oreg.

Location.--Lat 42°23', long 120°01', in SW¼ sec. 4 (revised), T. 37 S., R. 23 E., just downstream from McDowell Creek and 7 miles southwest (revised) of Plush.

Drainage area.--37 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 5,200 ft (from topographic map).

Extremes.--April to December 1911: Maximum discharge observed, 70 cfs June 8 (gage height, 2.75 ft), from rating curve extended above 40 cfs; minimum observed, 0.5 cfs on many days August to October (gage height, 1.0 ft).

Remarks.--Small diversions above station for irrigation. No regulation.

1/ Published as "above Snyder Creek," 1910.

Monthly and yearly mean discharge, in cubic feet per second, of Twelvemile Creek near Plush, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	‡18.7	27.0	46.1	3.18	0.52	0.71	-
1912	0.76	1.31	1.17	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on basis of records for Honey Creek near Plush.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	‡1,110	1,660	2,740	196	32	42	-
1912	47	78	72	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on basis of records for Honey Creek near Plush.

460. Honey Creek near Plush, Oreg.

Location.--Lat 42°25', long 119°55', in NW¼ sec. 29, T. 36 S., R. 24 E., at mouth of canyon, 1 mile northwest of Plush, and 4 miles downstream from Twelvemile Creek.

Drainage area.--156 sq mi.

Supplemental records available.--May to December 1909, gage heights and discharge measurements only.

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. 24, 1910, staff gage half a mile downstream at different datum. Feb. 24, 1910, to Jan. 12, 1912, staff gage, Jan. 13, 1912, to May 16, 1915, water-stage recorder, Mar. 15 to Apr. 6, 1921, staff gage, Apr. 7 to Sept. 30, 1921, water-stage recorder, and Mar. 19 to June 30, 1922, staff gage, all half a mile upstream from present site at different datums.

Average discharge.--24 years (1910-14, 1930-50), 24.6 cfs.

Extremes.--1909-15, 1921-22, 1930-50: Maximum discharge, 3,840 cfs Apr. 15, 1915 (gage height, 9.20 ft, site and datum then in use), from rating curve extended above 2,300 cfs (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.

Flood in February 1890 reached a stage 0.3 ft lower than that of April 1915 (discharge, 3,500 cfs).

Remarks.--Diversions for irrigation of about 2,300 acres above station; no regulation.

Cooperation.--Records for water years 1930-49, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	157	117	267	163	68.7	8.4	1.8	1.5	1.5	-
1911	2.62	a30	a80	7.0	4.0	268	133	155	†134	*8.94	*2.39	1.98	*69.4
1912	2.63	4.37	5.33	7.0	7.0	10.6	32.5	*148	61.7	13.2	9.5	7.7	*25.9
1913	6.5	10.9	16.0	5.00	8.48	21.8	84.2	129	51.1	18.9	3.00	2.00	29.8
1914	3.0	4.26	6.35	18.5	19.1	130	128	90.6	39.9	7.47	1.5	1.0	37.5
1915	-	-	-	-	-	14.2	55.6	‡69.6	-	-	-	-	-
1921	-	-	-	-	-	-	99.3	139	52.6	4.52	.826	.5	-
1922	-	-	-	-	-	-	139	199	44.0	-	-	-	-
1930	-	-	-	-	-	-	-	23.0	9,99	1.04	.18	.11	-
1931	2.0	2.0	3.0	3.0	4.0	7.5	16.1	4.8	1.0	0	0	0	3.6
1932	1.0	1.3	2.1	2.5	14.4	26.0	48.5	57.7	14.4	.5	0	0	14.0
1933	1.0	1.0	1.0	1.0	3.0	4.33	17.4	40.6	25.4	1.76	0	0	8.05
1934	.5	1.2	1.0	1.5	2.1	12.8	11.0	2.9	1.0	0	0	0	2.8
1935	.4	2.0	2.0	2.0	2.2	6.7	68.1	66.1	21.0	1.6	0	0	14.3
1936	1.1	2.0	2.0	1.0	2.4	24.9	95.9	49.4	16.1	.7	0	0	16.2
1937	0	0	0	0	0	9.1	59.1	52.4	18.1	1.6	0	0	11.7
1938	1.6	3.3	33.4	10.0	12.0	38.3	*282	196	47.4	8.2	1.0	1.0	*52.9
1939	1.5	2.7	1.0	1.0	1.0	42.2	35.0	14.1	7.1	.3	0	0	8.9
1940	.5	3.4	4.6	2.0	47.0	81.5	91.1	43.5	8.4	.1	0	0	23.4
1941	2.4	3.9	2.0	2.0	16.2	43.4	50.2	69.4	38.2	3.6	1.0	1.3	19.5
1942	2.7	3.4	b18.3	b15.0	b20.0	b59.7	213	129	53.8	5.52	.36	.38	b43.4
1943	.72	3.22	b4.0	b5.0	b15	c129	183	116	94.0	11.6	1.24	.41	b46.9
1944	1.58	b3.0	b2.5	b2.5	b5.0	b14.6	19.8	21.1	102	11.2	2.25	1.09	b15.5
1945	3.77	b7.61	b8.00	b13.0	b20.0	b17.8	82.7	122	47.8	5.76	1.39	1.31	b27.5
1946	2.26	4.20	6.52	7.18	9.54	44.2	123	61.9	17.5	2.64	.34	.43	23.2
1947	2.50	5.23	7.19	4.98	11.3	17.0	42.6	22.7	17.2	1.36	.47	.66	11.1
1948	.60	1.00	2.00	25.0	5.07	5.63	72.3	206	112	14.4	.45	.59	37.1
1949	2.06	3.73	2.39	1.20	3.27	21.3	167	90.8	23.4	2.43	.27	.40	26.5
1950	.69	1.41	1.29	4.60	14.9	21.1	67.0	93.9	50.0	7.09	1.19	.37	21.9

* Revised.
† Corrected.
‡ Not previously published; partly estimated on basis of records for Deep Creek at Adel.
a Revised; only monthly figure revised; revised daily figures not available.
b Estimated or partly estimated by Geological Survey on basis of records for Deep Creek above Adel.
c Mar. 1-3, 1943, estimated by Geological Survey; Mar. 8-11, 13, 14, 26-31, 1943, revised.

Monthly and yearly runoff, in acre-feet, of Honey Creek near Plush, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	9,650	6,500	16,400	9,700	4,220	500	111	92	89	-
1911	161	*1,790	*4,920	430	222	16,500	7,910	9,530	†7,970	*550	*147	118	*50,200
1912	162	260	328	430	403	652	1,930	*9,100	3,670	812	584	458	*18,800
1913	400	649	984	307	471	1,340	5,010	7,930	3,040	1,160	184	119	21,600
1914	184	253	390	1,140	1,060	7,990	7,620	5,570	2,370	459	92.2	59.5	27,200
1915	-	-	-	-	-	873	3,310	‡4,280	-	-	-	-	-
1921	-	-	-	-	-	-	5,910	8,550	3,130	278	51	30	-
1922	-	-	-	-	-	-	8,270	12,200	2,620	-	-	-	-
1930	-	-	-	-	-	-	-	1,410	594	64	11	6	-
1931	123	119	184	184	222	461	958	295	60	0	0	0	2,610
1932	61	77	129	154	828	1,600	2,890	3,550	857	31	0	0	10,200
1933	60	61	61	61	167	266	1,040	2,500	1,510	108	0	0	5,830
1934	34	73	61	89	117	785	655	177	58	0	0	0	2,050
1935	22	119	123	123	123	411	4,050	4,070	1,250	101	0	0	10,390
1936	65	119	123	61	141	1,530	5,710	3,040	960	44	0	0	11,790
1937	0	0	0	0	0	557	3,520	3,220	1,080	99	0	0	8,480
1938	99	198	2,050	615	666	2,350	*16,800	12,050	2,820	502	61	60	*38,270
1939	91	161	61	61	56	2,590	2,080	867	422	20	0	0	6,410
1940	30	204	284	123	2,700	5,010	5,420	2,670	502	6	0	0	16,950
1941	149	232	123	123	900	2,670	2,990	4,270	2,280	224	61	77	14,100
1942	169	204	a1,130	a922	a1,110	a3,670	12,700	7,920	3,200	340	22	23	a31,410
1943	44	191	a246	a307	a833	b7,960	10,880	7,120	5,590	712	76	25	a33,980
1944	97	a178	a154	a154	a288	a900	1,180	1,300	6,080	687	138	65	a11,220
1945	232	a453	a492	a799	a1,110	a1,090	4,920	7,480	2,850	354	85	78	a19,940
1946	139	250	401	442	530	2,720	7,290	3,810	1,040	162	21	25	16,830
1947	154	311	442	308	629	1,040	2,540	1,400	1,030	84	29	39	8,000
1948	37	60	123	1,540	291	346	4,300	12,660	6,640	882	28	35	26,940
1949	127	222	147	74	181	1,310	9,950	5,580	1,390	150	17	24	19,170
1950	42	84	80	283	826	1,290	3,990	5,780	2,980	436	73	22	15,890

* Revised.
† Corrected.
‡ Not previously published.
a See b footnote to preceding table.
b Mar. 1-3, 1943, estimated by Geological Survey; Mar. 8-11, 13, 14, 26-31, 1943, revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	370	2,240	Feb. 24, 1910	-	-	-	*74.8	*54,100
1911	1564	‡a1,460	Mar.22,23, 1911	*1.5	*69.4	*50,200	*60.6	*43,900
1912	330,1564	‡324	May 30, 1912	-	*25.9	*18,800	*27.7	*20,100
1913	360	950	Mar. 31, 1913	-	29.8	21,600	28.1	20,400
1914	390	465	Apr. 15, 1914	-	37.5	27,200	-	-
1915	410	3,840	Apr. 15, 1915	-	-	-	-	-
1921	530	a288	May 22, 1921	-	-	-	-	-
1922	550	490	May 5,6, 1922	-	-	-	-	-
1930	(b)	-	-	-	-	-	-	-
1931	(b)	*29	Apr. 2, 1931	0	3.6	2,610	3.4	2,450
1932	(b)	*329	Apr. 28, 1932*	0	14.0	10,200	13.9	10,100
1933	(b)	120	Apr. 29, 1933	0	8.05	5,830	8.0	5,820
1934	(b)	45	Mar. 28, 1934	0	2.8	2,050	3.0	2,140
1935	(b)	206	Apr. 16, 1935	0	14.3	10,390	14.4	10,440
1936	(b)	212	Apr. 17, 1936	0	16.2	11,790	15.8	11,490
1937	(b)	385	Apr. 15, 1937	0	11.7	8,480	14.9	10,820
1938	(b)	*872	Apr. 17, 1938*	1	*52.9	*38,270	*50.1	*36,240
1939	(b)	287	Mar. 20, 1939	0	8.9	6,410	9.1	6,610
1940	(b)	*757	Feb. 28, 1940	0	23.4	16,950	23.3	16,940
1941	(b)	294	Feb. 11, 1941	1	19.5	14,100	d20.8	d15,100
1942	(c)	*701	Apr. 11, 1942	.3	d43.4	d31,410	d42.0	d30,390
1943	(c)	*618	Mar. 9, 1943	.4	d46.9	d33,980	d46.9	d33,930
1944	(c)	940	June 9, 1944	.4	d15.5	d11,220	d16.5	d11,970
1945	(c)	452	May 16, 1945	.6	d27.5	d19,940	d27.0	d19,560
1946	(c)	385	Apr. 19, 1946	.2	23.2	16,830	23.4	16,950
1947	(c)	129	Feb. 13, 1947	-	11.1	8,000	10.1	7,320
1948	(c)	1,380	May 21, 1948	.3	37.1	26,940	37.5	27,220
1949	(c)	453	Apr. 19, 1949	-	26.5	19,170	26.1	18,880
1950	1180	194	Feb. 16, 1950	.2	21.9	15,890	-	-

* Revised.
‡ Not previously published.
a Maximum observed.
b Reports of State engineer of Oregon.
c Files of State engineer of Oregon.
d Partly estimated by Geological Survey.

461. Chewaucan River at dam site, near Paisley, Oreg.

Location.--Lat 42°28', long 120°35', in NW¼ sec. 10, T. 36 S., R. 18 E., a quarter of a mile downstream from site of proposed Upper Chewaucan dam, half a mile downstream from Swamp Creek, and 16 miles (revised) south of Paisley.

Drainage area.--158 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 5,050 ft (from river-profile map). Prior to Oct. 1, 1914, staff gage at described site at datum 1.50 ft lower. Oct. 1, 1914, to May 25, 1915, staff gage at described site and datum.

Extremes.--1914-1916: Maximum discharge, 630 cfs about May 26, 1913 (gage height, 3.5 ft, from floodmarks); minimum, 8 cfs Dec. 10, 1915, result of freezeup upstream.

Remarks.--No diversion or regulation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	68.1	44.6	48.6	-
1913	47.2	-	-	-	-	-	-	-	‡208	-	‡48.3	36.0	-
1914	‡40.6	‡54.2	‡45	-	-	-	-	-	-	-	-	‡34.0	-
1915	40.5	36.2	41.1	29.4	30.4	80.6	189	202	130	45.2	28.7	25.6	73.4
1916	26.7	34.5	40.1	30.0	58.5	157	291	352	244	77.5	37.2	30.7	115
1917	30.5	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; estimated or partly estimated on basis of records for Chewaucan River near Paisley and Deep Creek at Adel.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	-	-	-	4,190	2,740	2,890	-
1913	2,900	-	-	-	-	-	-	-	‡12,400	-	‡2,970	2,140	-
1914	‡2,500	‡3,230	‡2,770	-	-	-	-	-	-	-	-	‡2,020	-
1915	2,490	2,150	2,530	1,810	1,690	4,960	11,200	12,400	7,740	2,780	1,760	1,520	53,000
1916	1,640	2,050	2,470	1,840	3,360	9,650	17,300	21,600	14,500	4,770	2,290	1,830	83,300
1917	1,880	-	-	-	-	-	-	-	-	-	-	-	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	-	-	-	-	-	-	-
1913	360	‡630	About May 26, 1913	-	-	-	-	-
1914	390	-	-	-	-	-	-	-
1915	410	272	Apr. 20, 1915	12	73.4	53,000	72.0	52,000
1916	440	594	May 5,6, 1916	-	115	83,300	-	-

‡ Not previously published.
Note.--Records for Dec. 12-20, 1913, published in WSP 390, have been found in error on the basis of restudy of the original data and comparison with records at nearby stations. Those records should not be used.

462. Chewaucan River above Conn ditch, near Paisley, Oreg.1/

Location.--Lat 42°41', long 120°35', in SW¼ sec. 27, T. 33 S., R. 18 E., 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.

Gage.--Water-stage recorder. Datum of gage is 4,504.9 ft above mean sea level (river-profile survey). Prior to July 14, 1912, reference point at present site at different datum. Nov. 6, 1912, to Jan 19, 1914, staff gage, and Jan. 20, 1914, to Sept. 30, 1921, water-stage recorder at various sites within half a mile upstream from Mill Creek at various datums. May 1, 1924, to June 23, 1932, water-stage recorder 200 ft downstream at different datum.

Average discharge.--35 years (1912-21, 1924-50), 120 cfs.

Extremes.--1912-21, 1924-50: Maximum discharge, 1,680 cfs Dec. 11, 1937 (gage height, 4.93 ft); no flow part of each day Dec. 7, 1927, Dec. 12, 1932, result of freezeup.

Remarks.--Annual water-supply papers prior to 1951 are in error stating that records for station at Paisley (see p. 442), 1905-7, 1909-12, are equivalent to records for this station. Diversions for irrigation of about 2,500 acres above station. No regulation.

1/ Published as "above Mill Creek", 1912-14 (1912 to Jan. 19, 1914, used herein), as "at Chewaucan Land and Cattle Co.'s gage", 1914, and as "near Paisley", 1915-21.

Monthly and yearly mean discharge, in cubic feet per second, of Chewaucan River above Conn ditch, near Paisley, Oreg.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	‡165	521	444	98.6	55.0	59.0	-
1913	58.0	76.0	60.5	50	70	165	354	626	274	105	59.3	41.7	162
1914	44.0	59.6	49.7	a93.4	86.1	418	547	561	245	77.7	35.7	38.8	188
1915	52.7	47.2	58.4	52.4	65.7	105	220	222	137	43.2	28.4	25.8	88.0
1916	28.6	37.1	50.7	42.6	90.3	230	375	445	289	89.1	43.2	33.4	146
1917	36.2	34.7	38.9	38.2	478	796	373	547	584	97.4	42.5	33.4	163
1918	35.7	40.8	69.6	60.0	56.3	109	223	199	75.6	29.6	26.6	30.3	79.6
1919	34.5	37.8	38.6	34.4	82.8	99.8	346	383	102	30.9	22.4	27.9	103
1920	28.9	34.0	41.1	52.0	50.1	59.6	109	218	89.8	26.7	18.6	21.7	62.5
1921	40.8	84.2	78.8	121	155	297	383	700	356	73.7	33.2	39.5	197
1924	-	-	-	-	-	-	-	61.4	25.8	14.6	15.0	21.0	-
1925	30.4	43.0	32.0	51.6	124	101	311	470	168	45.5	29.4	31.5	120
1926	30.7	35.1	43.6	34.1	55.5	71.2	132	67.9	25.0	14.6	13.0	17.4	44.8
1927	22.1	55.0	90.7	75.7	112	203	384	722	424	84.8	41.9	42.7	188
1928	43.6	88.1	33.7	75.9	70.9	230	320	519	104	30.8	22.3	21.4	131
1929	28.0	33.1	†40.3	30.0	22.8	94.7	106	207	96.2	31.2	19.4	21.2	†61.1
1930	25.8	41.2	86.7	25.9	124	112	258	164	66.4	25.6	19.9	22.0	80.4
1931	26.0	20.7	10.0	23.8	36.0	57.0	101	71.8	26.8	13.7	9.4	14.1	34.1
1932	22.7	23.3	25.0	28.8	33.1	189	221	446	163	36.0	17.1	17.5	102
1933	22.6	28.5	17.0	23.5	26.7	43.1	142	225	306	42.5	19.2	18.7	76.1
1934	25.0	27.3	36.7	44.9	55.4	153	177	72.8	35.0	14.7	10.7	15.0	55.5
1935	25.3	35.5	31.8	31.9	42.5	75.4	319	458	163	41.7	19.7	18.1	105
1936	24.4	22.9	23.6	46.4	48.6	150	494	537	172	39.8	22.0	28.3	134
1937	25.5	20.8	26.1	25.5	26.4	57.3	269	350	146	47.1	22.5	23.5	86.8
1938	28.9	47.2	173	69.9	85.6	142	665	931	378	74.7	38.1	32.5	223
1939	40.6	48.8	44.8	38.4	39.2	168	277	142	51.9	23.3	15.1	20.3	75.8
1940	26.2	25.9	40.0	61.9	141	296	494	425	98.0	31.2	20.2	24.7	140
1941	32.2	32.8	38.6	43.8	67.4	126	167	405	156	44.4	35.7	35.7	99.0
1942	35.3	50.9	129	86.6	77.9	135	437	430	306	76.0	39.8	33.4	153
1943	33.2	67.0	86.6	107	104	374	784	632	453	110	44.8	37.4	236
1944	43.7	50.6	40.7	41.0	53.0	74.5	100	159	300	91.7	36.8	30.8	85.0
1945	36.0	51.2	56.9	67.4	120	69.9	234	573	270	60.4	31.0	29.1	133
1946	32.1	43.8	84.5	74.8	58.4	186	487	621	187	53.5	28.6	29.4	158
1947	35.9	44.8	42.1	38.7	78.1	93.5	218	221	106	32.0	20.0	22.3	79.2
1948	32.5	33.8	31.4	69.0	53.9	55.6	148	556	530	105	44.5	40.9	142
1949	42.6	45.7	25.8	31.2	39.2	105	416	508	152	45.6	28.7	27.5	122
1950	36.2	41.1	39.2	42.6	98.5	139	296	509	307	67.3	30.9	27.3	136

† Corrected.
‡ Not previously published; partly estimated on basis of records for station at Paisley.
a Records for "Chewaucan Land and Cattle Co.'s gage" and "above Mill Creek" combined to complete month.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1912	-	-	-	-	-	-	‡9,820	32,000	26,400	6,060	3,380	3,510	-
1913	3,570	4,520	3,720	3,070	3,890	10,100	21,100	38,500	16,300	6,460	3,650	2,480	117,000
1914	2,710	3,550	3,060	a5,740	4,780	25,700	32,500	34,500	14,600	4,780	2,200	2,310	136,000
1915	3,240	2,810	3,590	3,220	3,650	6,460	13,100	13,600	8,150	2,660	1,750	1,540	63,800
1916	1,760	2,210	3,120	2,620	5,190	14,100	22,300	27,400	17,200	5,480	2,660	1,990	106,000
1917	†2,230	†2,060	2,390	2,350	2,650	4,890	22,200	33,600	34,800	5,990	2,610	1,990	118,000
1918	2,200	2,430	4,280	3,690	3,130	6,700	13,300	12,200	4,500	1,820	1,640	1,800	57,700
1919	2,120	2,250	2,370	2,120	4,600	6,140	20,600	23,600	6,070	1,900	1,380	1,660	74,800
1920	1,780	2,020	2,530	3,200	2,880	3,660	6,480	13,400	5,340	1,640	1,140	1,290	45,400
1921	2,510	5,010	4,850	7,440	8,610	18,300	22,800	43,000	21,200	4,530	2,040	2,350	143,000
1924	-	-	-	-	-	-	-	3,780	1,540	898	922	1,250	-
1925	1,870	2,560	1,970	3,170	6,890	6,210	18,500	28,900	10,000	2,800	1,810	1,870	86,600
1926	1,890	2,090	2,680	2,100	3,080	4,380	7,860	4,180	1,490	898	799	1,040	32,500
1927	1,360	3,270	5,580	4,650	6,220	12,500	22,800	44,400	25,200	5,210	2,580	2,540	136,000
1928	2,680	5,240	2,070	4,670	4,080	14,100	19,000	31,900	6,190	1,890	1,370	1,270	94,500
1929	1,720	1,970	†2,480	1,840	1,270	5,820	6,310	12,700	5,720	1,920	1,190	1,260	†44,200
1930	1,590	2,450	5,330	1,590	6,890	6,890	15,400	10,100	3,950	1,570	1,220	1,310	58,300
1931	1,600	1,230	615	1,460	2,000	3,500	6,010	4,410	1,590	842	578	839	24,700
1932	1,400	1,390	1,540	1,770	1,900	11,600	13,200	27,400	9,700	2,210	1,050	1,040	74,200
1933	1,390	1,700	1,050	1,440	1,480	2,650	8,450	13,800	18,200	2,610	1,180	1,110	55,100
1934	1,540	1,620	2,260	2,760	3,080	9,380	10,520	4,480	2,080	902	659	895	40,180
1935	1,550	2,110	1,950	1,960	2,360	4,640	18,970	28,140	9,690	2,570	1,210	1,080	76,230
1936	1,500	1,360	1,450	2,850	2,790	9,240	29,420	33,030	10,210	2,450	1,350	1,680	97,330
1937	1,570	1,240	1,610	1,560	1,460	3,520	16,000	21,500	8,670	2,900	1,390	1,400	62,820
1938	1,780	2,810	10,660	4,300	4,760	8,760	39,580	57,240	22,470	4,600	2,340	1,930	161,200
1939	2,500	2,900	2,760	2,360	2,180	10,310	16,460	8,730	3,090	1,430	926	1,210	54,860
1940	1,610	1,540	2,460	3,800	8,100	18,220	29,390	26,160	5,830	1,920	1,240	1,470	101,700
1941	1,980	1,950	2,370	2,690	3,740	7,770	9,960	24,900	9,270	2,730	2,200	2,130	71,690
1942	2,170	3,030	7,910	5,320	4,330	8,310	26,030	26,410	18,220	4,670	2,450	1,990	110,800
1943	2,040	3,980	5,330	6,570	5,760	23,020	46,660	38,840	26,940	6,750	2,760	2,230	170,900
1944	2,690	3,010	2,500	2,520	3,050	4,580	5,950	9,800	17,880	5,640	2,260	1,830	61,710
1945	2,220	3,050	3,500	4,140	6,660	4,300	13,950	35,260	16,080	3,710	1,910	1,730	96,510

† Corrected.
‡ Not previously published; partly estimated on basis of records for station at Paisley.
a See footnote to preceding table.

Monthly and yearly runoff, in acre-feet, of Chewaucan River above Conn ditch near Paisley, Oreg. --Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	1,970	2,610	5,190	4,600	3,240	11,450	28,980	38,180	11,160	3,290	1,760	1,750	114,200
1947	2,210	2,670	2,590	2,380	4,340	5,750	12,990	13,600	6,310	1,970	1,230	1,330	57,370
1948	2,000	2,010	1,930	4,240	3,100	3,420	8,800	34,200	31,530	6,480	2,740	2,440	102,900
1949	2,620	2,720	1,580	1,920	2,180	6,460	24,730	31,220	9,020	2,810	1,770	1,640	88,670
1950	2,220	2,450	2,410	2,620	5,470	8,520	17,620	31,300	18,240	4,140	1,900	1,630	98,520

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	a750	(b)	-	-	-	-	-
1913	360	a855	Apr. 1, May 26, 1913	-	162	117,000	159	115,000
1914	390	1,090	Apr. 15, 1914	29	188	136,000	189	137,000
1915	410	330	Apr. 20, 1915	22	88.0	63,800	84.5	61,200
1916	440	730	May 5, 1916	20	146	106,000	146	106,000
1917	460	1,140	Apr. 23, 24, 1917	17	163	118,000	166	120,000
1918	480	360	Apr. 25, 1918	23	79.6	57,700	76.7	55,500
1919	510	750	Apr. 4, 1919	20	103	74,800	103	74,400
1920	510	347	May 9, 1920	15	62.5	45,400	70.9	51,400
1921	530	1,200	About May 20, 1921	20	197	143,000	-	-
1924	610	-	-	-	-	-	-	-
1925	610	960	Feb. 4, May 21, 1925	-	120	86,600	120	86,800
1926	630	584	Feb. 4, 1926	9	44.8	32,500	49.7	36,000
1927	650	1,450	May 17, 1927	-	188	136,000	188	136,000
1928	670	1,080	Mar. 26, 1928	-	131	94,500	125	90,600
1929	690	423	May 3, 1929	-	†61.1	†44,200	65.5	47,400
1930	705	385	Apr. 8, 1930	-	80.4	58,300	72.3	52,400
1931	720	210	Apr. 1, 1931	-	34.1	24,700	35.3	25,600
1932	735	970	Mar. 19, 1932	15	102	74,200	102	74,000
1933	750	649	May 31, 1933	-	76.1	55,100	77.9	56,300
1934	765	537	Mar. 28, 1934	7	55.5	40,180	55.8	40,370
1935	790	698	Apr. 7, 1935	16	105	76,230	103	74,930
1936	810	923	Apr. 24, 1936	-	134	97,330	134	97,440
1937	830	950	Apr. 13, 1937	16	86.8	62,820	102	73,650
1938	860	1,680	Dec. 11, 1937	23	223	161,200	213	154,100
1939	880	696	Mar. 19, 1939	12	75.8	54,860	72.2	52,310
1940	900	1,360	Mar. 30, 1940	10	140	101,700	141	102,400
1941	930	624	May 8, 1941	8	99.0	71,690	108	78,500
1942	960	762	May 26, 1942	30	153	110,800	151	109,100
1943	980	1,300	June 1, 1943	23	236	170,900	232	167,700
1944	1010	1,070	June 9, 1944	-	85.0	61,710	85.8	62,280
1945	1040	935	May 16, 1945	25	133	96,510	135	97,510
1946	1060	1,020	Apr. 26, 1946	16	158	114,200	155	111,900
1947	1090	906	Feb. 12, 1947	10	79.2	57,370	77.1	55,840
1948	1120	1,160	June 9, 1948	-	142	102,900	143	103,900
1949	1150	754	May 15, 1949	-	122	88,670	123	88,830
1950	1180	821	May 23, 1950	24	136	98,520	-	-

† Corrected.
a Maximum observed.
b May 20, May 28 to June 5, 1912.

463. Conn ditch near Paisley, Oreg.

Location.--Lat 42°41', long 120°35', in SE¼ sec. 27, T. 33 S., R. 18 E., half a mile downstream from intake and 2 miles west (revised) of Paisley.

Gage.--Staff gage. Altitude of gage is 4,500 ft (from river-profile map). Prior to May 1, 1918, staff gage at various sites within 80 ft upstream at different datums.

Average discharge.--5 years (1914-19), 2.25 cfs.

Extremes.--1914-20: Maximum daily discharge, 19 cfs July 20, 1914; no flow at times each year.

Remarks.--Ditch diverted from Chewaucan River in SE¼ sec. 27, T. 33 S., R. 18 E., about half a mile downstream from Mill Creek, for irrigation of 600 acres northwest of Paisley.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	-	490	271	-
1915	63	36	11	0	0	0	132	239	631	198	166	144	1,620
1916	97	14	8	0	0	0	9	79	326	543	283	198	1,560
1917	48	5	11	0	0	0	0	0	404	542	422	327	1,760
1918	24	17	17	2	0	0	0	488	495	480	195	39	1,760
1919	31	53	24	0	0	0	0	322	526	201	185	100	1,440
1920	52	-	-	-	-	-	-	402	356	119	113	58	-

Note.--Footnote in WSP 510 stating canal dry Nov. 15, 1919, to Apr. 30, 1920, has been found in error on the basis of restudy of the original data. Diversion for that period not determined.

464. Chewaucan River at Paisley, Oreg.

Location.--Lat 42°42', long 120°33', in SE¼ sec. 23, T. 33 S., R. 18 E., half a mile west of Paisley and 2½ miles downstream from Mill Creek.

Drainage area.--278 sq mi (revised).

Supplemental records available.--Fragmentary records of daily discharge, April to June 1913, are published in WSP 360.

Gage.--Staff gage. Altitude of gage is 4,390 ft (from river-profile map).

Extremes.--1905-7, 1909-12: Maximum discharge observed, 4,000 cfs Nov. 23, 1909 (gage height, 9.4 ft), from rating curve extended above 850 cfs; minimum observed, 19 cfs July 30, 31, Aug. 3-27, 30, 31, Sept. 1-4, 1905, Aug. 17-24, 1907 (gage height, 3.4 ft).

Remarks.--Diversion by Conn ditch (see p. 441) 2 miles upstream. No regulation. Headings shown as May to July in second table on page 753 of WSP 370 should be October to December.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	94.1	64.6	136	230	238	154	*29.7	19.5	*25.6	-
1906	*32.3	*33.8	*43.4	65.4	62.1	173	551	671	415	110	30.4	37.1	*186
1907	35.2	46.8	66.7	74.7	433	279	859	888	647	134	29.7	29.6	294
1908	34.0	31.7	-	-	-	-	-	-	-	-	-	-	-
1909	-	-	-	-	130	159	516	766	553	85.5	27.2	43.5	-
1910	214	554	199	154	129	521	584	279	69.8	35.0	23.0	35.0	233
1911	45.0	71.3	63.1	40	30	233	520	649	539	88.9	35.9	40.2	197
1912	43.2	55.4	47.0	61.5	77.2	59.4	-	-	-	-	-	-	-

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	5,790	3,590	8,360	13,700	14,600	9,160	*1,830	1,200	*1,520	-
1906	*1,990	*2,010	*2,670	4,020	3,450	10,600	32,800	41,300	24,700	6,760	1,870	2,210	*134,000
1907	2,160	2,780	4,100	4,590	24,000	17,200	51,100	54,600	38,500	8,240	1,830	1,760	211,000
1908	2,090	1,890	-	-	-	-	-	-	-	-	-	-	-
1909	-	-	-	-	7,220	9,780	30,700	47,100	32,900	5,260	1,670	2,590	-
1910	13,200	33,000	12,200	9,470	7,160	32,000	34,800	17,200	4,150	2,150	1,410	2,080	169,000
1911	2,770	4,240	3,880	2,460	1,670	14,300	30,900	39,900	32,100	5,470	2,210	2,390	142,000
1912	2,660	3,300	2,890	3,780	4,440	3,650	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	370,1564	332	Jan. 14, 1905	-	-	-	*91.7	*66,400
1906	370,1564	1,000	May10,11,1906	*25	*186	*134,000	189	137,000
1907	370	‡1,670	Feb. 4, 1907	19	294	211,000	-	-
1908	370	-	-	-	-	-	-	-
1909	370	-	-	-	-	-	-	-
1910	370	‡4,000	Nov. 23, 1909	-	233	169,000	168	121,000
1911	310	992	May5,June 1,1911	-	197	142,000	194	140,000
1912	330	-	-	-	-	-	-	-

* Revised.
‡ Not previously published.

465. Smalls Canal at Paisley, Oreg.1/

Location.--Lat 42°42', long 120°33', in SW¼ sec. 24, T. 33 S., R. 18 E., in western part of Paisley, 600 ft downstream from point of diversion from Chewaucan River, and 600 ft upstream from intake of Bagley ditch.

Gage.--Staff gage. Altitude of gage is 4,370 ft (from river-profile map). Prior to June 29, 1914, staff gage within 50 ft of described site at different datum.

Average discharge.--7 years (1914-21), 15.0 cfs.

Extremes.--1914-21: Maximum daily discharge observed, 107 cfs May 15, 1914; no flow Nov. 27, 1918, Oct. 22-30, 1920.

Remarks.--Canal diverted from Chewaucan River in SW¼ sec. 24, T. 33 S., R. 18 E., for irrigation of the alluvial fan of Chewaucan River above the upper marsh southeast of Paisley. The canal was formerly a natural distributary of Chewaucan River.

1/ Previously published as Smalls Creek.

Monthly and yearly diversions, in acre-feet, of Smalls Canal at Paisley, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	239	769	631	3,190	3,410	1,950	609	501	-
1915	394	182	102	283	104	310	1,700	3,000	2,050	1,140	775	660	10,700
1916	460	196	360	229	156	366	1,130	3,020	3,100	1,670	701	549	10,900
1917	256	232	123	61	111	394	517	2,340	4,020	2,240	756	435	11,500
1918	378	493	291	317	312	554	1,110	3,340	1,650	446	461	780	10,100
1919	365	184	291	246	333	565	1,850	4,070	1,550	842	575	910	11,800
1920	547	154	251	266	198	459	1,600	2,810	1,720	812	787	584	10,200
1921	263	239	52	37	104	280	1,000	2,930	3,010	1,200	232	369	9,720

466. Bagley ditch at Paisley, Oreg.

Location.--Lat 42°42', long 120°33', in SW¼ sec. 24, T. 33 S., R. 18 E., in western part of Paisley, 200 ft downstream from intake.

Gage.--Staff gage. Altitude of gage is 4,370 ft (from river-profile map).

Average discharge.--6 years (1914-20), 9.28 cfs.

Extremes.--1914-20: Maximum daily discharge, 68 cfs May 15, 1914; no flow at times.

Remarks.--Ditch diverted from Smalls Canal in SW¼ sec. 24, T. 33 S., R. 18 E., about 0.2 mile downstream from point of diversion of Smalls Canal from Chewaucan River. Water used for irrigation of 1,200 acres south of Paisley.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	71	526	177	1,990	2,710	1,430	339	295	-
1915	282	104	58	100	85	159	976	1,690	1,130	1,080	555	337	6,560
1916	284	144	276	103	131	266	555	1,530	1,770	1,220	633	485	7,400
1917	92	116	60	13	38	175	336	1,280	2,590	1,670	609	300	7,280
1918	328	340	159	208	240	236	447	1,930	944	350	335	643	6,160
1919	297	168	200	123	167	264	976	2,230	887	610	533	316	6,770
1920	194	18	18	123	34	168	892	2,380	892	516	492	490	6,220

467. Jones-Innis-ZX ditch near Paisley, Oreg.

Location.--Lat 42°42', long 120°32', in NW¼ sec. 19, T. 33 S., R. 19 E., 300 ft downstream from intake and 1 mile east of Paisley.

Gage.--Staff gage. Altitude of gage is 4,300 ft (from river-profile map).

Average discharge.--6 years (1914-20), 15.6 cfs.

Extremes.--1914-21: Maximum daily discharge, 193 cfs June 10, 1917, from rating curve extended above 90 cfs; no flow at times.

Remarks.--Ditch diverted from Chewaucan River in NW¼ sec. 19, T. 33 S., R. 19 E., through natural distributary regulated at intake for irrigation of 2,200 acres in area immediately north of the upper Chewaucan Marsh.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	-	-	-	-	-	-	188	262	-
1915	77	115	105	99	96	87	1,640	6,760	3,320	0	98	331	12,700
1916	336	173	191	62	64	60	1,950	5,160	5,530	570	86	272	14,500
1917	127	61	123	215	200	172	60	4,410	6,900	486	35	508	12,900
1918	174	82	168	164	172	193	1,840	4,210	1,770	108	15	69	8,960
1919	139	143	186	154	167	63	2,010	6,210	2,540	233	53	124	12,000
1920	77	71	86	160	214	549	1,000	4,050	178	241	9	12	6,650
1921	-	-	-	-	-	-	2,040	5,570	4,250	-	-	-	-

538662 O - 60 - 29

468. Chewaucan River at narrows, near Paisley, Oreg.

Location.--Lat 42°37', long 120°25', in NE¼ sec. 24 T., 34 S., R. 19 E., at constriction in Chewaucan Marsh and 8½ miles southeast of Paisley.

Drainage area.--380 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,300 ft (from benchmark one mile southeast of station). Prior to Oct. 22, 1916, staff gage at various sites within three-quarters of a mile downstream and a quarter of a mile upstream at various datums.

Average discharge.--6 years (1914-18, 1919-21), 72.8 cfs.

Extremes.--1914-21: Maximum discharge observed, 832 cfs May 21, 1921 (gage height, 4.65 ft), from rating curve extended above 270 cfs; no flow Sept. 8-10, 1915, result of channel dredging upstream.

Remarks.--Diversions for irrigation of 21,000 acres above station. Some regulation by diversion dams.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	64.8	293	397	363	211	40.2	13.3	13.2	-
1915	29.1	33.4	29.9	28.9	50.1	55.7	89.1	47.8	18.8	22.0	8.88	4.65	34.7
1916	16.6	30.4	43.3	28.9	72.3	128	269	240	116	64.7	22.6	†16.2	87.1
1917	22.2	22.1	28.3	29.3	33.0	54.8	332	376	318	73.3	20.2	18.7	111
1918	24.5	32.3	63.0	54.2	64.1	119	123	29.1	3.56	7.79	7.75	6.12	44.5
1919	-	-	-	-	-	-	129	143	55.1	12.2	4.35	6.75	-
1920	16.1	20.9	25.0	38.7	45.7	28.2	26.2	20.7	2.08	5.23	2.74	3.58	19.5
1921	26.3	79.8	60.9	119	114	263	205	479	253	45.5	15.6	17.7	140

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	3,600	18,000	23,600	22,300	12,600	2,470	818	785	-
1915	1,790	1,990	1,840	1,780	2,780	3,430	5,300	2,930	1,120	1,350	546	277	25,100
1916	1,020	1,810	2,660	1,780	4,160	7,870	16,000	14,800	6,900	3,980	1,390	†964	63,300
1917	1,360	1,320	1,740	1,800	1,830	3,370	19,800	23,100	18,900	4,510	1,240	1,110	80,100
1918	1,510	1,920	3,870	3,330	3,560	7,320	7,320	1,790	212	479	477	364	32,200
1919	-	-	-	-	-	-	7,680	8,790	3,280	750	267	402	-
1920	990	1,240	1,540	2,380	2,640	1,730	1,560	1,270	124	322	168	213	14,200
1921	1,620	4,750	3,740	7,300	6,330	16,200	12,200	29,500	15,100	2,800	960	1,050	102,000

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	410	505	Apr. 20, 21, 24, 1914	-	-	-	-	-
1915	410	154	Apr. 26, 1915	0	34.7	25,100	34.6	25,000
1916	440	366	May 10, 1916	6	87.1	63,300	85.7	62,300
1917	460	710	Apr. 24, 1917	11	111	80,100	115	83,000
1918	480	365	Apr. 10, 1918	2.5	44.5	32,200	-	-
1919	510	322	Apr. 21, 1919	-	-	-	-	-
1920	510	67	Feb. 13, 1920	.3	19.5	14,200	28.0	20,500
1921	530	832	May 21, 1921	7	140	102,000	-	-

469. Chewaucan River at Hotchkiss Ford, near Paisley, Oreg.

Location.--Lat 42°33', long 120°19', near line between secs. 11 and 12, T. 35 S., R. 20 E., just below lower Chewaucan Marsh, 1 mile upstream from Willow Creek, and 15 miles (revised) southeast of Paisley.

Drainage area.--430 sq mi, approximately.

Supplemental records available.--November 1918 to March 1919 and October 1920 to September 1921, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,290 ft (from elevation of Chewaucan Marsh). Prior to Dec. 27, 1918, staff gage 150 ft downstream at different datum.

Average discharge.--5 years (1914-18, 1919-20), 45.2 cfs.

Extremes.--1914-20: Maximum discharge observed, 506 cfs Apr. 26, 27, 1917 (gage height, 4.55 ft, site and datum then in use); no flow Sept. 7-17, 1915, Aug. 2-6, 1918.
Flood in May 1921 reached a stage of over 6 ft and the discharge exceeded 515 cfs.

Remarks.--Diversions for irrigation of about 29,000 acres above station. Regulation by diversion dams.

Monthly and yearly mean discharge, in cubic feet per second, of Chewaucan River at Hotchkiss Ford, near Paisley, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	65.7	248	330	279	215	39.0	11.8	14.5	-
1915	27.6	34.1	30.7	24.7	54.4	45.7	7.58	6.00	.98	15.1	6.76	1.76	21.1
1916	13.4	34.8	42.4	32.9	85.0	100	159	212	84.8	65.8	14.5	11.2	71.3
1917	14.7	20.4	24.2	19.1	25.7	55.6	245	296	283	83.6	7.8	13.5	90.7
1918	17.2	30.5	61.2	52.2	61.8	65.8	74.7	14.1	.90	.89	2.98	3.64	32.0
1919	15.3	-	-	-	-	-	29.5	64.2	24.7	3.07	1.74	4.47	-
1920	18.0	19.1	22.4	24.2	24.6	12.1	3.23	2.73	1.64	1.94	.30	1.83	11.0

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1914	-	-	-	-	3,650	15,200	19,600	17,200	12,800	2,400	726	863	-
1915	1,700	2,030	1,890	1,520	3,020	2,810	448	368	58	929	416	104	15,300
1916	824	2,070	2,610	2,020	4,890	6,150	9,460	13,000	5,050	4,050	892	666	51,700
1917	904	1,210	1,490	1,170	1,430	3,420	14,600	18,200	16,800	5,140	480	803	65,600
1918	1,060	1,810	3,760	3,210	3,430	4,050	4,440	867	54	55	183	217	23,100
1919	941	-	-	-	-	-	1,760	3,950	1,470	189	107	266	-
1920	1,110	1,140	1,380	1,490	1,420	744	192	168	98	119	18	109	7,990

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1914	410	400	Apr.21-24,1914	-	-	-	-	-
1915	410	90	Feb. 6, 1915	0	21.1	15,300	21.0	15,200
1916	440	260	May26,27,1916	3	71.3	51,700	66.8	49,800
1917	460	506	Apr.26,27, 1917	6	90.7	65,600	94.9	68,700
1918	480	172	Apr. 11, 1918	0	32.0	23,100	-	-
1919	510	108	Apr. 7, 1919	-	-	-	-	-
1920	510	72	Jan. 29, 1920	.1	11.0	7,990	-	-

SUMMER LAKE BASIN

470. Summer Lake Canal near Summer Lake, Oreg.

Location.--Lat 43°00', long 120°45', in SE¼ sec. 6, T. 30 S., R. 17 E., at intake above Ana River diversion dam and 2 miles northeast of Summer Lake Post Office.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from plans of Ana River diversion dam). Prior to June 9, 1933, water-stage recorder at described site and datum.

Extremes.--1928, 1931-38, 1940-42: Maximum daily discharge, 59 cfs June 4, 5, 1938; no flow at times each year.

Remarks.--Records for irrigation seasons only. Canal diverts from Ana River at Ana River diversion dam, in SE¼ sec. 6, T. 30 S., R. 17 E., for irrigation of area north and west of Summer Lake. Flow in canal began August 1925. Canal dry during non-irrigation seasons.

Cooperation.--Records, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly diversions, in acre-feet

Year			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July		
1928			-	-	-	803	627	277	238	-		
1931			-	833	2,380	2,240	1,360	1,510	678	-		
1932			-	0	135	2,180	1,270	1,370	946	-		
1933			-	-	-	2,280	1,700	1,510	893	-		
1934			-	-	1,960	1,830	1,340	1,210	-	-		
1935			-	-	-	2,730	1,410	1,310	1,590	-		
1936			-	-	-	2,310	1,950	1,520	-	-		
1937			-	-	-	2,700	-	-	-	-		
1938			-	-	-	2,980	2,720	-	-	-		
1940			-	0	430	2,740	1,780	2,220	734	-		
1941			-	686	2,180	2,810	1,060	-	-	-		
1942			-	-	1,690	2,110	1,280	2,540	2,470	-		

471. Ana River near Summer Lake, Oreg.

Location.--Lat 43°00', long 120°45', in SE¼ sec. 6, T. 30 S., R. 17 E., 400 ft downstream from diversion dam and 2 miles northeast of Summer Lake Post Office.

Supplemental records available.--July 1904 to April 1906 and January 1909 to September 1910, periodic discharge measurements only.

Gage.--Water-stage recorder. Altitude of gage is 4,150 ft (from plans of Ana River diversion dam).

Average discharge.--10 years (1929-39), 81.0 cfs.

Extremes.--1929-39: Maximum discharge, 186 cfs Sept. 15, 1936 (gage height, 3.87 ft), from rating curve extended above 100 cfs; minimum recorded, 5 cfs May 29, 1937.

Remarks.--Records herein do not include diversion by Summer Lake Canal (see preceding station), which diverts 400 ft above station. Flow regulated by gates at diversion dam. Source of stream is Ana River Springs, about three-quarters of a mile above station, which are flooded over by pondage behind diversion dam.

Cooperation.--Records, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	86.1	90.0	92.7	92.0	93.5	95.6	85.4	68.8	69.3	77.2	81.4	88.0	85.0
1931	100	120	111	105	104	102	81.5	65.3	61.0	67.8	62.6	73.7	87.7
1932	94.4	105	99.8	100	99.3	97.1	92.4	86.1	52.7	69.8	69.0	72.7	86.5
1933	87.0	101	103	96.8	94.9	91.6	76.4	71.2	55.6	68.9	63.8	79.6	82.5
1934	86.9	92.7	100	100	100	94.6	83.3	58.4	60.4	58.5	72	81.3	83.1
1935	86.7	90.0	95.0	95.0	94.9	90.1	96.1	64.8	47.1	66.7	66.1	63.1	79.6
1936	93.1	100	92.2	88.7	91.1	94.9	92.8	69.7	56.1	58.9	70.2	78.7	82.2
1937	70.8	87.6	103	101	96.1	105	89.9	56.5	45.1	52.8	51.9	63.5	76.9
1938	83.0	80.6	84.7	82.3	82.0	90.1	88.2	60.5	49.5	67.5	52.5	59.1	73.3
1939	72.1	90.9	107	99.8	95.2	95.5	78.9	39.6	40.4	51.8	56.5	50.5	73.1

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1930	5,290	5,360	5,700	5,660	5,190	5,880	5,080	4,230	4,120	4,750	5,010	5,240	61,500
1931	6,150	7,140	6,820	6,460	5,780	6,270	4,850	4,020	3,630	4,170	3,850	4,390	63,500
1932	5,800	6,250	6,140	6,150	5,710	5,970	5,500	5,290	3,140	4,290	4,240	4,330	62,800
1933	5,350	6,010	6,330	5,950	5,270	5,630	4,550	4,380	3,320	4,240	3,920	4,740	59,700
1934	5,340	5,520	6,150	6,150	5,550	5,820	4,950	3,590	3,590	4,210	4,430	4,840	60,140
1935	5,330	5,360	5,840	5,840	5,270	5,540	5,720	3,980	2,800	4,100	4,060	3,750	57,590
1936	5,720	5,950	5,670	5,450	5,240	5,840	5,520	4,280	3,340	3,620	4,320	4,680	59,630
1937	4,360	5,210	6,350	6,210	5,340	6,480	5,350	3,470	2,690	3,250	3,190	3,780	55,680
1938	5,100	4,790	5,210	5,060	4,550	5,540	5,250	3,720	2,950	4,150	3,230	3,510	53,060
1939	4,430	5,410	6,560	6,140	5,290	5,880	4,690	2,440	2,410	3,190	3,470	3,000	52,910

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1930	(a)	-	-	-	85.0	61,500	90.1	65,300
1931	(a)	172	Nov. 5, 1930	50	87.7	63,500	85.0	61,600
1932	(a)	170	May 29, 1932	46	86.5	62,800	85.8	62,300
1933	(a)	176	June 8, 1933	-	82.5	59,700	81.5	59,000
1934	(a)	106	Sept.10, 1934	56	83.1	60,140	82.4	59,660
1935	(a)	-	-	37	79.6	57,590	80.7	58,400
1936	(a)	186	Sept.15, 1936	31	82.2	59,630	80.2	58,210
1937	(a)	122	Mar. 17, 1937	5	76.9	55,680	75.8	54,860
1938	(a)	156	Mar. 31, 1938	34	73.3	53,060	75.1	54,360
1939	(a)	117	Dec. 14, 1938	38	73.1	52,910	-	-

a Reports of State engineer of Oregon.

472. West Fork Silver Creek near Silver Lake, Oreg.

Location.--Lat 43°05', long 121°05', in NW¼ sec. 8, T. 29 S., R. 14 E., three-quarters of a mile (revised) upstream from mouth and 4 miles (revised) southwest of town of Silver Lake.

Drainage area.--27 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,570 ft (from levels to former gage). Prior to Oct. 18, 1921, water-stage recorder half a mile downstream at different datum. Oct. 18, 1921, to Aug. 31, 1923, and Mar. 11, 1925, to Mar. 16, 1928, water-stage recorder and Mar. 17, 1928, to Apr. 22, 1932, staff gage at described site and datum.

Extremes.--1919-23, 1925-32: Maximum discharge, 138 cfs Apr. 11, 1921 (gage height, 2.24 ft, site and datum then in use), from rating curve extended above 20 cfs; no flow Aug. 17-19, 21, 22, 1932.

Remarks.--No diversion or regulation above station.

Cooperation.--Records for water years 1929-32, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1919	-	-	-	-	-	-	19.2	23.0	7.97	3.43	1.88	-	-
1920	-	-	-	-	-	-	4.39	9.68	4.97	2.25	-	-	-
1921	-	-	-	-	-	32.3	28.4	44.2	22.8	6.93	3.75	2.8	-
1922	-	-	-	-	-	-	18.3	31.7	16.0	5.11	2.96	-	-
1923	-	-	-	-	-	8.94	12.5	13.9	7.71	4.29	2.14	-	-
1925	-	-	-	-	-	-	29.6	41.4	18.2	6.6	2.0	2.1	-
1926	2.0	2.2	2.5	1.0	2.4	3.6	6.8	3.1	1.31	.8	.5	.5	2.21
1927	-	-	-	-	-	18.2	28.4	34.9	16.6	7.1	3.95	2.87	-
1928	3.6	-	-	-	-	6.4	*16.6	*16.8	5.8	2.7	2.0	2.0	-
1929	-	-	-	-	-	-	-	8.9	3.7	2.0	1.0	-	-
1930	-	-	-	-	-	-	9.22	5.24	3.10	2.00	1.15	1.00	-
1931	-	-	-	-	-	2.37	4.17	3.27	1.08	-	-	-	
1932	-	-	-	-	-	-	11.4	20.5	6.4	2.6	1.0	1.0	

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1919	-	-	-	-	-	-	1,140	1,410	474	211	116	-	-
1920	-	-	-	-	-	-	261	595	296	138	-	-	-
1921	-	-	-	-	-	1,990	1,690	2,720	1,360	426	231	167	-
1922	-	-	-	-	-	-	1,090	1,950	952	314	182	-	-
1923	-	-	-	-	-	550	744	855	459	264	132	-	-
1925	-	-	-	-	-	-	1,760	2,550	1,080	406	123	125	-
1926	123	131	154	61	133	221	405	191	78	49	31	30	1,610
1927	-	-	-	-	-	1,120	1,690	2,150	988	437	243	171	-
1928	221	-	-	-	-	394	*988	*1,030	345	166	123	119	-
1929	-	-	-	-	-	-	-	547	220	123	28	-	-
1930	-	-	-	-	-	-	549	322	184	123	71	60	-
1931	-	-	-	-	-	146	248	201	64	-	-	-	-
1932	-	-	-	-	-	-	678	1,260	381	160	61	60	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1919	510	65	Mar. 27, 1919	-	-	-	-	-
1920	510	14	May 9, 1920	-	-	-	-	-
1921	530	138	Apr. 11, 1921	-	-	-	-	-
1922	550	99	Apr. 22, 1922	-	-	-	-	-
1923	570	22	May 11, 1923	-	-	-	-	-
1925	610	*130	May 22, 1925	-	-	-	-	-
1926	630	*16	Dec. 8, 1925*	-	2.21	1,610	-	-
1927	650	65	May 16, 1927	-	-	-	-	-
1928	670,1564	-	-	-	-	-	-	-
1929	(a)	-	-	-	-	-	-	-
1930	(a)	-	-	-	-	-	-	-
1931	(a)	-	-	-	-	-	-	-
1932	(a)	*80	Apr. 27, 1932*	0	-	-	-	-

* Revised.
a Reports of the State engineer of Oregon.

473. Silver Lake Irrigation District canal near Silver Lake, Oreg.

Location.--Lat 43°05', long 121°05', in NE¼ sec. 5, T. 29 S., R. 14 E., near diversion dam of Silver Lake Irrigation District and 2½ miles southwest of Silver Lake Post Office.

Gage.--Staff gage. Altitude of gage is 4,400 ft (from datum of gage on Silver Creek, 1½ miles downstream from point of diversion).

Average discharge.--18 years (1922-28, 1929-41), 4.35 cfs.

Extremes.--1922-28, 1929-41: Maximum daily discharge, 60 cfs June 26-29, 1923; no flow during many months each year.

Remarks.--Canal diverted from Silver Creek, in NE¼ sec. 5, T. 29 S., R. 14 E., water released from Thompson Valley Reservoir for irrigation near town of Silver Lake. Diversion started Mar. 30, 1923, and was last used during 1943 irrigation season.

Monthly and yearly diversions, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1923	0	0	0	0	0	16	553	996	1,760	1,490	71	0	4,890
1924	0	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	34	946	787	1,320	1,960	603	6	5,660
1926	0	0	0	0	0	0	0	1,210	365	0	0	0	1,580
1927	0	0	0	0	0	10	381	1,280	1,740	1,490	560	4	5,470
1928	0	0	0	0	0	0	48	1,440	1,630	1,080	867	5	5,070
1930	0	0	0	0	0	0	0	1,140	0	0	0	0	1,140
1931	0	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	162	1,280	1,320	1,400	0	0	4,160
1933	0	0	0	0	0	0	1	1,070	1,560	523	0	0	3,150
1934	0	0	0	0	0	0	0	357	0	0	0	0	357
1935	0	0	0	0	0	0	103	783	2,000	875	0	0	3,760
1936	0	0	0	0	0	0	179	1,560	1,380	805	0	0	3,920
1937	0	0	0	0	0	0	71	1,520	1,050	805	0	0	3,450
1938	0	0	0	0	0	0	537	1,680	1,760	1,230	825	229	6,260
1939	0	0	0	0	0	0	420	1,900	1,370	500	0	0	4,190
1940	0	0	0	0	0	0	47	339	568	268	252	109	1,580
1941	0	0	0	0	0	6	303	732	538	318	259	0	2,140

474. Silver Creek near Silver Lake, Oreg.

Location.--Lat 43°07', long 121°04', in SW¼ sec. 28, T. 28 S., R. 14 E., 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.

Gage.--Water-stage recorder and, since Sept. 15, 1932, concrete control. Datum of gage is 4361.22 ft (revised) above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to May 24, 1932, staff gage or water-stage recorder at practically same location at datum 1.00 ft higher, or staff gages at diversion dam outlets 1½ miles upstream at different datum.

Average discharge.--38 years (1905-6, 1909-27, 1929-41, 1943-50), including diversion by Silver Lake Irrigation District canal, 23.4 cfs.

Extremes.--1904-7, 1909-50: Maximum discharge observed, 1,800 cfs Mar. 20, 1907 (gage height, 10.08 ft), from rating curve extended above 700 cfs; no flow at times in 1931, 1932, 1934, and 1937.

Remarks.--Silver Lake Irrigation District canal (see preceding station) diverted 1½ miles above station, 1923-43. Records herein, except average discharge, not adjusted for this diversion. 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.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	36.8	43.9	73.9	89.9	47.2	27.8	16.7	17.1	15.4	-
1906	15.7	21.4	*14.2	24.2	27.8	40.4	320	118	45.8	15.4	12.8	12.6	*55.5
1907	12.1	12.9	20.5	30.0	201	189	-	-	-	-	-	-	-
1909	-	-	-	55.1	41.6	77.0	222	133	27.5	17.3	12.0	12.5	-
1910	12.8	126	*30.3	*39.9	66.1	311	150	46.4	23.6	18.5	15.5	18.3	*71.4
1911	15.3	17.3	22.2	13	12	85.6	269	180	54.0	27.1	23.3	23.2	61.9
1912	22.5	21.7	17.8	32.3	41.9	25.5	73.7	199	44.1	20.6	15.0	15.1	44.2
1913	14.6	18.8	14.9	12.9	12.3	22.2	210	145	29.6	17.8	15.2	14.6	44.0
1914	14.1	14.7	9.99	20.0	9.46	180	244	66.0	25.7	15.3	11.2	12.1	52.0
1915	12.6	11.9	6.9	6.9	20.7	40.2	41.7	28.0	16.4	4.85	1.41	1.46	16.0

* Revised.

Monthly and yearly mean discharge, in cubic feet per second, of Silver Creek near Silver Lake, Oreg.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1916	1.49	2.15	7.01	3.0	13.5	177	221	88.2	33.7	20.3	11.0	10.1	49.0
1917	8.99	8.80	4.31	2.84	1.5	10.9	113	165	38.3	7.74	4.16	4.27	31.0
1918	3.70	3.70	8.05	5.77	10.2	34.8	66.8	15.4	6.91	1.83	.30	1.26	13.2
1919	1.05	1.60	2.60	4.84	9.01	17.3	178	60.7	13.5	4.59	1.77	2.29	24.7
1920	2.89	3.03	2.39	5.27	†5.70	†14.3	24.2	48.3	9.87	2.21	1.00	1.86	†10.1
1921	1.98	8.87	10	8	45.6	145	161	135	35.6	†7.45	†4.65	3.67	†47.1
1922	4.01	5.03	5.70	3.18	2.64	4.04	112	44.5	25.7	16.1	5.70	2.62	19.2
1923	2.5	2	2	1.5	1.5	2.42	31.3	35.6	27.4	8.9	9.3	9.7	11.2
1924	2.5	2.5	2	1	2.5	2.5	5.88	7.1	3.8	2.2	1	2	2.91
1925	4.0	3.0	2.0	2.0	14.4	6.9	27.0	40.5	29.0	20.5	3.4	4.2	13.0
1926	4.1	3	2	2	2.8	3.5	11.7	9.0	6.6	.58	.45	.34	3.83
1927	1	3	4	6	10	22.4	38.5	135	37.3	14.5	9.5	4.1	23.9
1928	-	-	-	-	-	-	28.6	36.3	26.1	9.80	2.39	3.08	-
1929	3.2	2.3	-	-	-	-	5.4	17.0	11.9	8.4	2.3	2.0	-
1930	1.92	2.52	1.91	1.81	3.81	3.72	17.3	15.8	12.3	1.60	1.20	1.19	5.41
1931	1.49	1.59	2.22	.5	1.0	2.81	5.61	10.8	2.13	.10	0	0	2.36
1932	.65	2.18	1.0	.5	1.0	3.35	32.8	35.6	22.3	13.8	2.58	2.33	9.83
1933	2.07	1.77	.75	.78	1.32	2.80	11.8	30.4	22.6	16.2	3.12	2.37	8.03
1934	1.32	1.98	1.72	2.17	2.10	2.23	7.75	12.0	6.44	.28	0	0	3.17
1935	.67	1.91	2.00	1.5	1.7	2.26	20.9	35.8	19.3	15.2	3.08	1.64	8.87
1936	1.65	2.07	2.01	1.0	1.48	2.80	20.5	28.2	26.8	16.6	1.51	1.20	8.81
1937	1.04	1.11	1.98	1.80	1.5	1.56	17.7	32.4	23.2	12.3	3.17	.61	8.23
1938	.10	.21	4.56	1.80	1.79	16.7	85.8	121	24.9	17.2	2.88	5.43	23.6
1939	4.61	2.93	3.02	2.93	2.88	9.28	23.5	15.2	13.9	3.23	1.62	1.20	7.01
1940	1.07	1.27	2.14	3.75	9.18	26.3	26.7	34.2	41.4	25.6	4.26	3.23	14.9
1941	2.07	1.88	2.69	4.39	2.83	9.49	19.8	38.2	36.5	21.5	5.67	3.24	12.4
1942	2.65	2.55	3.08	3.66	6.73	9.02	28.8	33.5	33.8	35.7	8.32	9.15	14.8
1943	5.36	2.94	5.84	12.8	9.86	52.2	287	124	48.7	44.5	10.9	12.7	51.3
1944	6.11	6.54	6.39	5.56	5.98	7.55	3.37	29.9	28.9	27.9	8.02	5.11	11.8
1945	2.92	2.55	4.98	5.90	9.73	4.47	5.00	27.8	29.2	34.9	10.9	11.0	12.5
1946	8.01	4.56	4.59	10.7	5.96	19.3	53.5	54.8	38.1	34.2	16.7	7.79	21.6
1947	3.13	3.27	4.62	4.00	5.30	3.67	9.68	35.9	32.8	23.6	8.55	7.79	11.9
1948	7.04	4.23	1.21	8.92	3.98	4.01	15.1	39.0	39.2	37.8	15.6	9.33	15.5
1949	8.95	2.04	3.50	3.50	3.83	7.76	33.2	46.1	50.8	43.8	14.6	6.44	18.8
1950	3.12	4.02	4.46	3.10	6.46	23.3	32.8	50.0	48.5	36.7	16.4	3.60	19.5

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	2,260	2,440	4,540	5,350	2,900	1,650	1,030	1,050	916	-
1906	965	1,270	*873	1,490	1,540	2,480	19,000	7,260	2,730	947	787	750	*40,100
1907	744	768	1,260	1,840	11,200	11,600	-	-	-	-	-	-	-
1909	-	-	-	3,390	2,310	4,730	13,200	8,180	1,640	1,060	738	744	-
1910	787	7,500	*1,860	*2,450	3,670	19,100	8,930	2,850	1,400	1,140	953	1,090	*51,700
1911	941	1,030	1,360	799	666	5,260	16,000	11,100	3,210	1,670	1,430	1,380	44,800
1912	1,380	1,280	1,090	1,990	2,410	1,570	4,390	12,200	2,620	1,270	922	898	32,000
1913	898	1,120	916	793	683	1,360	12,500	8,920	1,760	1,090	935	869	31,800
1914	867	875	614	1,230	525	11,100	14,500	4,060	1,530	941	689	720	37,700
1915	775	708	424	424	1,150	2,470	2,480	1,720	976	298	87	87	11,600
1916	92	128	431	184	776	10,900	13,200	5,420	2,010	1,250	676	601	35,700
1917	553	524	265	175	83	670	6,720	10,100	2,280	476	256	254	22,400
1918	228	220	495	355	566	2,140	3,970	947	411	113	18	75	9,540
1919	65	95	160	298	500	1,060	10,600	3,730	803	282	109	136	17,800
1920	178	180	147	325	†328	†879	1,440	2,970	587	136	61	111	†7,340
1921	122	528	615	492	2,530	8,920	9,580	8,300	2,120	†458	†286	218	34,200
1922	247	299	350	196	147	248	6,660	2,740	1,530	990	350	156	13,900
1923	154	119	123	92	83	149	1,860	2,190	1,630	547	572	577	8,100
1924	154	149	123	61	139	154	350	437	226	135	61	119	2,110
1925	246	179	123	123	800	424	1,610	2,490	1,730	1,260	209	250	9,440
1926	252	179	123	123	156	215	696	553	393	36	28	20	2,770
1927	61	179	246	369	555	1,380	2,290	8,300	2,220	892	584	244	17,300
1928	-	-	-	-	-	-	1,700	2,230	1,550	603	147	183	-
1929	197	137	-	-	-	-	321	1,050	708	516	141	119	-
1930	118	150	117	111	212	229	1,030	972	732	98	74	71	3,910
1931	92	95	136	31	56	173	334	664	127	6.1	0	0	1,710
1932	40	130	61	31	58	206	1,950	2,190	1,330	848	159	139	7,140
1933	127	105	46	48	73	172	702	1,870	1,340	996	192	141	5,810
1934	81	118	106	134	117	137	461	739	383	17	0	0	2,290
1935	41	114	123	92	94	139	1,240	2,200	1,150	935	189	97	6,410
1936	101	123	123	61	85	172	1,220	1,740	1,590	1,020	93	71	6,400
1937	64	66	122	111	83	96	1,050	1,990	1,380	757	195	36	5,950
1938	6	12	280	111	99	1,030	5,100	7,420	1,480	1,060	177	323	17,100
1939	284	175	186	180	160	571	1,400	932	825	199	100	72	5,080
1940	66	76	131	231	528	1,620	1,590	2,100	2,460	1,570	262	192	10,830
1941	127	112	165	270	157	583	1,180	2,350	2,170	1,320	349	193	8,980
1942	163	152	189	225	374	555	1,710	2,060	2,010	2,190	512	544	10,680
1943	330	175	359	784	548	3,210	17,080	7,610	2,900	2,740	670	756	37,160
1944	375	389	393	342	344	464	200	1,840	1,720	1,720	493	304	8,580
1945	180	152	306	363	540	275	297	1,710	1,740	2,140	661	653	9,020

* Revised.
† Corrected.

Monthly and yearly runoff, in acre-feet, of Silver Creek near Silver Lake, Oreg.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1946	492	271	282	657	331	1,180	3,190	3,370	2,270	2,100	1,030	464	15,640
1947	192	194	284	246	295	226	576	2,210	1,950	1,450	526	464	8,610
1948	433	252	74	549	229	247	900	2,400	2,330	2,330	961	555	11,260
1949	550	121	215	215	213	477	1,970	2,840	3,020	2,690	898	383	13,590
1950	192	239	275	190	359	1,430	1,950	3,080	2,890	2,260	1,010	214	14,090

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	370	a203	Apr. 5, 1905	-	-	-	*34.9	*25,200
1906	370,1564	a664	Apr. 9, 1906	7	*55.5	*40,100	55.2	39,800
1907	370	a1,800	Mar. 20, 1907	-	-	-	-	-
1909	370	a368	May 5, 1909	-	-	-	*63.8	*46,100
1910	370,1564	a910	Nov. 23, 1909	11	*71.4	*51,700	*62.0	*44,900
1911	310	a576	Apr. 2, 1911	-	61.9	44,800	62.5	45,300
1912	330	a309	May15-18,1912	-	44.2	32,000	43.0	31,200
1913	360	a337	Apr. 26, 1913	8	44.0	31,800	43.2	31,300
1914	390	a350	Mar.19,20,1914	7.8	52.0	37,700	51.4	37,200
1915	410	a86	Mar.20,21,1915	.8	16.0	11,600	14.3	10,300
1916	440	a710	Mar. 20, 1916	.8	49.0	35,700	50.1	36,400
1917	460	560	Apr. 24, 1917	-	31.0	22,400	30.3	22,000
1918	480	217	Apr. 9, 1918	.3	13.2	9,540	12.3	8,920
1919	510	406	Apr. 5, 1919	-	24.7	17,800	24.9	18,000
1920	510	137	May 9, 1920	.4	†10.1	†7,340	11.2	8,100
1921	530	*345	Apr. 11, 1921	1.1	†47.1	34,200	46.6	33,800
1922	550	378	Apr. 26, 1922	.5	19.2	13,900	18.5	13,400
1923	610	45	June15-18, 1923	-	11.2	8,100	11.2	8,130
1924	610	-	-	-	2.91	2,110	3.07	2,230
1925	610	a122	May 22, 1925	-	13.0	9,440	13.0	9,450
1926	630	†45	May 28, 1926	.3	3.83	2,770	3.74	2,710
1927	650	223	May 16, 1927	-	23.9	17,300	-	-
1928	670	48	May13,14,1928	-	-	-	-	-
1929	690	26	May 18, 1929	-	-	-	-	-
1930	705	25	Apr. 9, 1930	-	5.41	3,910	5.32	3,850
1931	720	16	May 14, 1931	0	2.36	1,710	2.24	1,620
1932	735	44	Apr. 17, 1932	0	9.83	7,140	9.89	7,190
1933	750	37	May 17, 1933	-	8.03	5,810	8.07	5,840
1934	765	18	May 11, 1934	0	3.17	2,290	3.13	2,270
1935	790	54	May 15, 1935	0	8.87	6,410	8.96	6,480
1936	810	42	Apr. 13, 1936	-	8.81	6,400	8.68	6,300
1937	830	41	Apr. 15, 1937	-	8.23	5,950	8.29	6,000
1938	860	364	May 1, 1938	0	23.6	17,100	24.1	17,440
1939	880	35	Apr. 21, 1939	1.1	7.01	5,080	6.50	4,710
1940	900	222	Feb. 28, 1940	1.0	14.9	10,830	15.1	10,960
1941	930	47	July 1, 1941	1.5	12.4	8,980	12.5	9,080
1942	960	54	Apr. 15, 1942	1.8	14.8	10,680	15.3	11,040
1943	980	550	Apr. 15, 1943	1.5	51.3	37,160	51.7	37,460
1944	1010	39	June 16, 1944	2.6	11.8	8,580	11.1	8,060
1945	1040	49	May 29, 1945	1.3	12.5	9,020	13.0	9,420
1946	1060	81	Apr. 27, 1946	2.9	21.6	15,640	21.1	15,260
1947	1090	58	May 27, 1947	2.4	11.9	8,610	12.0	8,700
1948	1120	69	May 27, 1948	.8	15.5	11,260	15.7	11,390
1949	1150	63	May 14, 1949	-	18.8	13,590	18.5	13,410
1950	1180	69	May 24, 1950	2.3	19.5	14,090	-	-

* Revised.
† Corrected.
a Maximum observed.

475. Bridge Creek near Silver Lake, Oreg.

Location.--Lat 43°05', long 121°10', in sec. 3, T. 29 S. (revised), R. 13 E., 6½ miles (revised) southwest of town of Silver Lake.

Drainage area.--30 sq mi, approximately.

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

Extremes.--1922-23: Maximum discharge, 43 cfs June 5, 1922 (gage height, 1.39 ft); minimum recorded, 0.5 cfs Mar. 23, 1923, revised gage height, 0.25 ft).

Remarks.--Diversion by small ditch half a mile upstream from gage. No regulation. Gage heights and discharge measurements published under this name, 1910-12, are for site 5 miles downstream and are not equivalent.

Monthly and yearly mean discharge, in cubic feet per second, of Bridge Creek near Silver Lake, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	‡7.29	22.5	24.0	3.89	1.62	-	-
1923	-	-	-	-	-	1.45	3.49	15.3	10.8	5.25	1.61	-	-

‡ Not previously published; partly estimated on basis of weather records and records for Buck Creek near Silver Lake.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	‡434	1,380	1,430	239	100	-	-
1923	-	-	-	-	-	89	208	941	643	323	99	-	-

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	550	43	June 5, 1922	-	-	-	-	-
1923	570	22	May 17, 1923	-	-	-	-	-

Note.--Discharge records for January 1905 to July 1906 published in WSP 370 have been found in error on the basis of restudy of the original data and comparison with records at nearby stations. Those records are not published herein and should not be used.

476. Buck Creek above Timothy Creek, near Silver Lake, Oreg.1/

Location.--Lat 43°07', long 121°11', in N½ sec. 28, T. 28 S., R. 13 E., 1 mile upstream from Timothy Creek and 7 miles (revised) west of town of Silver Lake.

Drainage area.--250 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,530 ft (from topographic map).

Extremes.--1922-23: Maximum discharge recorded, 138 cfs June 4, 1922 (gage height, 2.33 ft); minimum not determined, occurred during period of ice effect.

Remarks.--Small diversions for irrigation of 100 acres above station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	43.2	60.1	10.7	7.58	-	-
1923	-	-	-	-	-	3.99	9.39	41.6	34.7	19.4	10.3	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1922	-	-	-	-	-	-	-	2,660	3,580	658	466	-	-
1923	-	-	-	-	-	245	559	2,560	2,060	1,190	633	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	550	a138	June 4, 1922	-	-	-	-	-
1923	570	75	May 16, 1923	-	-	-	-	-

a Maximum during period May to August.

477. Buck Creek near Silver Lake, Oreg.2/

Location.--Lat 43°08', long 121°10', in N½ sec. 22, T. 28 S., R. 13 E., 300 ft downstream from highway bridge and 6 miles (revised) west of town of Silver Lake.

Drainage area.--290 sq mi, approximately; at site used prior to 1919, 310 sq mi (revised), approximately.

Supplemental records available.--January to September 1911, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,500 ft (from topographic map). Prior to Mar. 13, 1919, at site 4 miles downstream at different datum.

Extremes (revised).--1905-6, 1909-11, 1919-22: Maximum discharge observed, 330 cfs Feb. 28, 1910 (gage height, 9.0 ft, site and datum then in use), from rating curve extended above 65 cfs; minimum observed, 2 cfs Nov. 5, 6, 22, 1905 (gage height, 3.6 ft, site and datum then in use).

Flood in February 1907 reached a stage of 6.6 ft at described site and datum, from information by observer (discharge, 450 cfs, from rating curve extended above 120 cfs).

Remarks.--A few small diversions for irrigation of about 120 acres above station. No regulation.

1/ Previously published as Buck Creek near Silver Lake.
2/ Published as Bear Creek, 1905-6, 1909-11. Records published in 1922-23 under name of Buck Creek are not equivalent to these records and are published in this report as for Buck Creek above Timothy Creek, near Silver Lake.

Monthly and yearly mean discharge, in cubic feet per second, of Buck Creek near Silver Lake, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	15.0	18.4	9.3	10.2	28.2	44.2	11.0	4.6	3.78	-
1906	6.0	4.77	5.74	8.0	11.1	17.5	21.9	42.6	58.9	34.5	-	-	-
1909	-	-	-	44.3	33.0	15.4	30.7	51.1	59.5	20.9	4.9	4.0	-
1910	4.5	34.4	17.0	19.6	43.8	64.7	34.9	61.3	48.7	15.7	4.0	6.0	29.6
1911	9.7	13.4	12.6	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	12.6	54.7	34.3	11.9	5.55	5.65	-
1920	6.18	6.07	4.0	6.0	6.0	6.58	5.91	26.4	25.3	5.28	-	-	-
1921	-	-	-	-	-	18.8	16.4	54.6	95.1	25.9	9.58	5.99	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1905	-	-	-	922	1,020	572	607	1,730	2,630	676	283	225	-
1906	369	284	353	492	616	1,080	1,300	2,620	3,500	2,120	-	-	-
1909	-	-	-	2,720	1,830	947	1,830	3,140	3,540	1,290	301	238	-
1910	277	2,050	1,050	1,210	2,430	3,980	2,080	3,770	2,900	965	246	357	21,300
1911	596	797	775	-	-	-	-	-	-	-	-	-	-
1919	-	-	-	-	-	-	750	3,360	2,040	732	341	336	-
1920	380	361	246	369	345	405	352	1,620	1,500	325	-	-	-
1921	-	-	-	-	-	1,160	1,060	3,460	5,760	1,740	639	356	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1905	370	55	June11,12, 1905	-	-	-	13.4	9,670
1906	370	83	June12,16, 1906	-	-	-	-	-
1909	370	249	Jan. 21, 1909	-	-	-	26.5	19,200
1910	370	*330	Feb. 28, 1910*	-	29.6	21,300	27.8	20,100
1911	290	-	-	-	-	-	-	-
1919	510	120	May 29, 1919	-	-	-	-	-
1920	510	*70	May 21, 1920*	-	-	-	-	-
1921	530	164	June 7, 1921	-	-	-	-	-

* Revised.

478. Duncan Creek near Silver Lake, Oreg.

Location.--Lat 43°04', long 120°56', in SE¼ sec. 9, T. 29 S., R. 15 E., above backwater from Duncan Reservoir and 7 miles (revised) southeast of town of Silver Lake.

Drainage area.--58 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map).

Extremes.--1922-23: Maximum discharge, 247 cfs May 15, 1922 (gage height, 3.29 ft), from rating curve extended above 94 cfs; no flow at times.

Remarks.--Records for high-water seasons only. No diversion or regulation above station.

Monthly mean discharge, in cubic feet per second

Year						Mar.	Apr.	May	June				
1922						-	-	53.4	-				
1923						-	10.7	2.05	-				

Monthly runoff, in acre-feet

Year						Mar.	Apr.	May	June				
1922						-	-	3,280	-				
1923						-	637	126	-				

Seasonal discharge, in cubic feet per second, of Duncan Creek near Silver Lake, Oreg.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1922	550	247	May 15, 1922	0	-	-	-	-
1923	570	76	Apr. 17, 1923	0	-	-	-	-

MALHEUR AND HARNEY LAKES BASIN

479. Silvies River near Silvies, Oreg.

Location (revised).--Lat 43°55', long 118°58', in SE¼ sec. 14, T. 19 S., R. 31 E., three-quarters of a mile downstream from Trout Creek and 8 miles south of Silvies.

Drainage area.--510 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,500 ft (from topographic map). May 9 to June 26, 1903, at site half a mile upstream at different datum.

Extremes.--1903-4, 1909-12, 1916, 1921-23: Maximum discharge observed, 2,320 cfs Apr. 16, 1904 (gage height, 12.15 ft); no flow Aug. 22 to Sept. 12, 1910.

Remarks.--Diversions above station primarily by flooding during high flow. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	52	9	3	4	-
1904	13	32	20	20	225	355	1,240	530	132	29.0	6.2	4.4	217
1905	19.8	24.0	20	-	-	-	-	-	-	-	-	-	-
1909	-	-	-	145	198	163	230	138	60.4	6.64	2.94	4.43	-
1910	8.13	19.5	a15	a20	a30	*627	322	98.9	7.21	2.34	.71	1.26	*96.7
1911	3.97	9.1	18.2	12	13	108	286	143	46.9	-	-	-	-
1912	-	-	-	-	-	-	‡495	830	-	-	-	-	-
1916	-	-	-	-	-	-	994	397	-	-	-	-	-
1921	-	-	-	-	-	417	1,180	659	-	-	-	-	-
1922	-	-	-	-	-	-	-	491	-	-	-	-	-
1923	-	-	-	-	-	-	350	167	-	-	-	-	-

* Revised.
‡ Not previously published; partly estimated on basis of records for station near Burns.
a Revised; only monthly figure revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	3,090	553	184	238	-
1904	799	1,900	1,230	1,230	12,900	21,800	73,900	32,600	7,860	1,780	381	262	157,000
1905	1,220	1,430	1,230	-	-	-	-	-	-	-	-	-	-
1909	-	-	-	8,920	11,000	10,000	13,700	8,480	3,590	408	181	264	-
1910	500	1,160	*922	*1,230	*1,670	*38,600	19,200	6,080	429	144	44	75	*70,100
1911	244	541	1,120	738	722	6,640	17,000	8,790	2,790	-	-	-	-
1912	-	-	-	-	-	-	‡29,500	51,000	-	-	-	-	-
1916	-	-	-	-	-	-	59,100	24,400	-	-	-	-	-
1921	-	-	-	-	-	25,600	70,200	40,500	-	-	-	-	-
1922	-	-	-	-	-	-	-	30,200	-	-	-	-	-
1923	-	-	-	-	-	-	20,800	10,300	-	-	-	-	-

* Revised.
‡ Not previously published; partly estimated on basis of records for station near Burns.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	370	-	-	-	-	-	-	-
1904	370	2,320	Apr. 16, 1904	-	217	157,000	217	157,000
1909	370	882	Feb. 17, 1909	-	-	-	*81.7	*59,100
1910	370,1564	1,650	Mar. 21, 1910	0	*96.7	*70,100	*95.8	*69,400
1911	310	‡560	Apr. 4, 1911	-	-	-	-	-
1912	330	1,190	Apr. 30, 1912	-	-	-	-	-
1916	440	a1,590	Apr. 2, 1916	-	-	-	-	-
1921	530	1,920	Apr. 12, 1921	-	-	-	-	-
1922	550	1,050	Apr. 24, 1922	-	-	-	-	-
1923	570	518	Apr. 21, 1923	-	-	-	-	-

* Revised.
‡ Not previously published.
a Momentary maximum.

480. Emigrant Creek near Burns, Oreg.

Location.--Lat 43°48', long 119°13', in SW¼ sec. 26, T. 20 S., R. 29 E., half a mile upstream from Skull Creek, 2 miles upstream from mouth, and 17 miles (revised) northwest of Burns.

Drainage area.--240 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,400 ft (from topographic map).

Extremes.--March to April 1921: Maximum discharge observed, 570 cfs Apr. 4, 13 (gage height, 9.4 ft); minimum daily, 170 cfs Mar. 1-5.

Remarks.--A few small diversions for irrigation above station. No regulation.

Monthly mean discharge, in cubic feet per second

Year						Mar.	Apr.						
1921						‡274	‡437						

‡ Not previously published; partly estimated on the basis of records for Silvies River near Burns.

Monthly runoff, in acre-feet

Year						Mar.	Apr.						
1921						‡16,800	‡26,000						

‡ Not previously published; partly estimated on the basis of records for Silvies River near Burns.

481. Silvies River near Burns, Oreg.

Location.--Lat 43°43', long 119°11', in NW¼ sec. 31, T. 21 S., R. 30 E., 5 miles downstream from Emigrant Creek and 11 miles northwest of Burns.

Drainage area.--934 sq mi.

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 1¾ miles downstream at different datum. Apr. 7, 1922, to Oct. 1, 1941, water-stage recorder at site 400 ft upstream at present datum.

Average discharge.--37 years (1903-5, 1909-12, 1917-21, 1922-50), 148 cfs.

Extremes.--1903-6, 1908-50: Maximum discharge, 4,730 cfs Apr. 15, 1904 (gage height, 17.12 ft, site and datum then in use); no flow July 19 to Sept. 22, 1934.

Remarks.--Diversions for irrigation above station primarily by flooding during high flow; no regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	101	23	8	9.5	-
1904	4	39	19	24.0	285	791	2,460	1,060	211	50.1	21.9	16.3	415
1905	29.8	33	30.7	42.0	42.0	290	460	205	73.8	22.9	10.2	9.1	104
1906	14.0	18.5	15.7	21.4	24.6	77.5	1,260	416	428	‡56.7	-	-	-
1909	-	-	-	*181	178	295	537	238	78.5	21.0	8.0	8.0	-
1910	19.0	38.0	28.5	35.7	42.7	1,510	628	162	17.5	8.2	5.6	10.8	209
1911	17.6	29.4	33.4	*20.0	*20.0	215	547	220	50.8	22.0	7.5	8.0	*99.2
1912	16.9	26.6	25.7	*45.3	101	102	714	1,280	459	49.4	10	9	*237
1913	20	40	47	-	-	‡153	974	‡501	-	-	-	-	-
1914	-	-	-	-	-	758	1,230	372	120	42.6	15.0	-	-
1915	-	-	-	-	-	-	306	181	-	-	-	-	-
1916	-	-	-	-	81.0	746	1,560	611	-	-	-	-	-
1917	-	-	-	-	-	-	758	1,540	424	43.3	24.4	15.7	-
1918	-	-	-	-	-	224	337	98.5	18.2	6.7	4.0	6.9	a87.2
1919	14.0	21.4	18.7	13.4	52.5	200	1,140	338	42.1	13.0	9.5	32.4	157
1920	42.7	29.2	22.8	153	96.6	132	388	387	55.9	13.0	6.0	6.0	111
1921	-	-	-	-	-	847	1,730	1,060	266	-	-	-	a347
1922	-	-	-	-	-	61.9	741	974	147	19.7	-	-	-
1923	22.4	30.3	32.2	63.0	54.1	158	580	244	108	32.3	13.7	11.4	112
1924	22.9	23.5	23.4	24.6	252	70.3	129	33.3	11.6	3.96	3.85	3.08	49.1
1925	7.5	17.4	17.0	104	289	435	702	292	110	22.8	7.3	8.7	166
1926	22.6	31.1	38.6	30.2	203	230	214	49.3	10.9	2.6	1.5	4.8	68.9
1927	6.3	14.7	58.5	55.4	94.3	324	732	619	226	37.0	12.6	11.5	183
1928	16.6	24.1	48.2	80.6	63.2	659	705	381	62.5	20.4	8.27	8.51	173
1929	13.4	19.0	21.5	*25.0	*20.0	254	220	143	57.6	18.6	8.6	13.3	*68.1
1930	15.2	19.9	38.0	30.2	98.8	75.9	434	27.0	9.05	3.58	2.50	3.44	30.2

* Revised.

‡ Not previously published; partly estimated on basis of records for Silver Creek near Silver Lake.

a Not previously published; some monthly figures not available; yearly figure partly estimated on basis of records for Silver Creek near Silver Lake.

Monthly and yearly mean discharge, in cubic feet per second, of Silvies River near Burns, Oreg.
--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1931	7.52	8.46	15.4	38.5	41.8	98.0	124	22.7	6.37	2.28	1.11	1.65	30.5
1932	3.88	5.17	10.0	10.0	20.0	255	844	398	76.0	6.62	3.47	2.49	136
1933	7.29	15.1	11.2	15.0	20.0	49.0	278	341	108	13.1	2.23	2.40	71.9
1934	7.34	15.5	27.1	39.7	41.5	30.0	11.7	5.62	2.24	.45	0	.59	15.0
1935	10.9	18.8	15.2	15.0	20.0	67.1	440	117	21.4	6.43	2.48	2.01	61.0
1936	5.48	8.71	10.4	15	20	72.5	728	208	40.2	5.05	5.25	7.03	93.1
1937	8.3	10.6	15	12	18	73.0	430	255	57.4	12.2	3.0	4.1	74.8
1938	9.4	28.9	101	85.8	113	481	*1,412	592	88.1	34.1	12.0	8.6	*247
1939	12.7	28.7	28.1	39.1	45.0	457	539	79.1	17.3	4.0	4.0	5.9	105
1940	6.1	6.6	15.0	31.0	182	489	671	125	16.8	5.3	3.1	5.9	129
1941	11.5	31.1	51.9	58.3	89.0	861	769	436	176	38.5	28.7	33.5	216
1942	34.9	53.4	79.2	65.0	60.0	218	1,367	540	225	51.8	14.1	12.7	226
1943	16.2	38.6	75.9	119	136	587	2,182	673	228	59.4	20.2	11.9	344
1944	21.5	43.9	37.3	31.0	55.0	189	213	75.4	56.9	18.2	6.5	4.9	62.6
1945	7.8	17.1	40.2	137	329	202	605	658	310	39.7	11.9	8.8	196
1946	14.1	31.4	33.3	54.8	56.6	464	1,056	418	116	42.9	12.3	13.5	193
1947	23.7	54.5	98.2	48.7	240	325	484	169	106	22.6	6.9	6.8	131
1948	15.9	29.9	42.5	62.7	159	144	604	1,019	446	84.0	26.8	19.0	221
1949	33.5	44.3	41.0	25.9	111	397	782	432	74.4	11.3	7.4	7.2	164
1950	15.5	29.7	31.5	27.3	37.0	238	764	427	151	34.3	11.6	6.1	148

* Revised.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1903	-	-	-	-	-	-	-	-	6,010	1,410	492	565	-
1904	246	2,320	1,170	1,480	16,400	48,600	146,000	65,000	12,600	3,080	1,350	970	299,000
1905	1,830	1,960	1,890	2,580	2,330	17,800	27,400	12,600	4,390	1,410	627	542	75,400
1906	861	1,100	965	1,320	1,370	4,770	75,000	25,600	25,500	‡3,490	-	-	-
1909	-	-	-	*11,100	9,890	18,100	32,000	14,600	4,670	1,290	492	276	-
1910	1,170	2,260	1,750	2,200	2,370	92,800	37,400	9,960	1,040	504	344	643	152,000
1911	1,080	1,750	2,050	*1,230	*1,110	13,200	32,500	13,500	3,020	1,350	461	476	*71,700
1912	1,040	1,580	1,580	*2,790	5,810	6,270	42,500	78,700	27,300	3,040	615	536	*172,000
1913	1,230	2,380	2,890	-	-	‡9,410	58,000	‡30,800	-	-	-	-	-
1914	-	-	-	-	-	46,600	73,200	22,900	7,140	2,620	922	-	-
1915	-	-	-	-	-	-	18,200	11,100	-	-	-	-	-
1916	-	-	-	-	4,660	45,900	92,800	37,600	-	-	-	-	-
1917	-	-	-	-	-	-	45,100	94,700	25,200	2,660	1,500	934	-
1918	-	-	-	-	-	13,800	20,100	6,060	1,080	412	246	411	63,000
1919	861	1,270	1,150	824	2,920	12,300	67,800	20,800	2,510	799	584	1,930	114,000
1920	2,630	1,740	1,400	9,410	5,560	8,120	23,100	23,800	3,330	799	369	357	80,600
1921	-	-	-	-	-	52,100	103,000	65,200	15,800	-	-	-	a252,000
1922	-	-	-	-	-	3,810	44,100	59,900	8,750	1,210	-	-	-
1923	1,380	1,800	1,980	3,870	3,000	9,720	34,500	15,000	6,430	1,990	842	678	81,200
1924	1,410	1,400	1,430	1,510	14,500	4,320	7,680	2,050	690	244	237	183	35,700
1925	461	1,040	1,050	6,400	16,000	26,700	41,800	18,000	6,550	1,400	449	518	120,000
1926	1,380	1,850	2,370	1,860	11,300	14,100	12,700	3,030	649	160	92	286	49,800
1927	387	875	3,600	3,410	5,240	19,900	43,600	38,100	13,400	2,280	775	684	132,000
1928	1,020	1,430	2,960	4,960	3,640	40,500	42,000	23,400	3,720	1,250	508	506	126,000
1929	824	1,130	1,320	*1,540	*1,110	15,600	13,100	8,790	3,430	1,140	529	791	*49,300
1930	935	1,180	2,340	1,860	5,490	4,670	2,580	1,660	539	220	154	205	21,800
1931	462	503	947	2,370	2,320	6,030	7,380	1,400	379	140	68	98	22,100
1932	239	308	615	615	1,150	15,700	50,200	24,500	4,520	407	213	148	98,600
1933	448	898	689	922	1,110	3,010	16,500	21,000	6,430	806	137	143	52,100
1934	451	925	1,670	2,440	2,300	1,850	696	346	133	27	0	35	10,870
1935	669	1,120	934	922	1,110	4,130	26,180	7,170	1,270	395	152	120	44,170
1936	337	518	641	922	1,150	4,460	43,330	12,780	2,390	310	323	418	67,580
1937	508	631	922	738	1,000	4,490	25,610	15,680	3,420	750	182	244	54,180
1938	579	1,720	6,190	5,280	6,300	29,570	*84,030	36,410	5,240	2,090	740	514	*178,700
1939	780	1,710	1,730	2,400	2,500	28,070	32,040	4,870	1,030	244	244	353	75,970
1940	377	391	922	1,900	10,470	30,060	39,920	7,710	1,000	323	190	353	93,620
1941	704	1,850	3,190	3,580	4,940	52,930	45,780	26,800	10,470	2,370	1,770	2,000	156,400
1942	2,150	3,180	4,870	4,000	3,330	13,390	81,360	33,220	13,370	3,190	865	758	163,700
1943	998	2,300	4,670	7,330	7,550	36,100	129,900	41,370	13,560	3,650	1,240	708	249,400
1944	1,320	2,610	2,290	1,910	3,160	11,620	12,700	4,630	3,390	1,120	397	290	45,440
1945	482	1,020	2,470	8,430	18,250	12,440	36,000	40,450	18,460	2,440	734	524	141,700
1946	865	1,870	2,040	3,370	3,150	28,530	62,830	25,690	6,930	2,640	756	801	139,500
1947	1,460	3,240	6,040	3,000	13,340	19,950	28,790	10,390	6,320	1,390	422	403	94,740
1948	978	1,780	2,610	3,860	9,160	8,880	35,970	62,630	26,510	5,170	1,650	1,130	160,300
1949	2,060	2,640	2,520	1,590	6,150	24,430	46,550	26,560	4,430	692	456	426	118,500
1950	952	1,770	1,940	1,680	2,050	14,600	45,450	26,230	8,970	2,110	714	365	106,800

* Revised.
‡ Not previously published; see footnote to preceding table.
a Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second, of Silvies River near Burns, Oreg.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1903	370	-	-	-	-	-	-	-
1904	370	4,730	Apr. 15, 1904	6	415	299,000	418	301,000
1905	370	-	-	-	104	75,400	100	72,600
1906	370	‡2,100	Apr. 9, 1906	-	-	-	-	-
1909	370,1564	‡1,000	Jan. 22, 1909	-	-	-	*135	*97,600
1910	370	‡3,270	Mar. 20, 1910	4	209	152,000	210	152,000
1911	310,1564	‡924	Apr. 5, 1911	4	*99.2	*71,700	*98.3	*71,000
1912	330,1564	‡1,580	May 12, 1912	-	*237	*172,000	*240	*174,000
1913	360	‡1,420	Apr. 22, 1913	-	-	-	-	-
1914	390	1,820	Apr. 8, 1914	-	-	-	-	-
1915	410	607	Apr. 4, 1915	-	-	-	-	-
1916	440	2,610	Apr. 12, 1916	-	-	-	-	-
1917	460	2,300	Apr. 27, 1917	-	-	-	-	-
1918	480	574	(a)	-	‡87.2	63,000	‡76.5	‡55,400
1919	510	1,450	Apr.5,21,22,1919	-	157	114,000	160	116,000
1920	510	1,020	Jan. 28, 1920	1	111	80,600	‡108	‡78,100
1921	530	3,040	Apr. 13, 1921	-	‡347	‡252,000	-	-
1922	550	1,640	Apr. 25, 1922	-	-	-	-	-
1923	570	960	Apr. 18, 1923	10	112	81,200	111	80,300
1924	590	640	Feb. 7, 1924	.7	49.1	35,700	46.8	34,000
1925	610	900	Apr. 15, 1925	7	166	120,000	170	123,000
1926	630	678	Feb. 8, 1926	1	68.9	49,800	67.8	49,000
1927	650	1,520	Apr. 29, 1927	6	183	132,000	183	132,800
1928	670	1,310	Mar. 12, 1928	5.6	173	126,000	170	123,800
1929	690,1564	464	Mar.14,15, 1929	4	*68.1	*49,300	*69.7	*50,500
1930	705	354	Feb. 14, 1930	.5	30.2	21,800	26.6	19,300
1931	720	214	Apr. 8, 1931	.1	30.5	22,100	29.4	21,300
1932	735	1,080	Apr. 15, 1932	1.2	136	98,600	137	99,500
1933	750	660	May 2, 1933	1.0	71.9	52,100	73.3	53,100
1934	765	75	Dec. 31, 1933	0	15.0	10,870	14.6	10,550
1935	790	875	Apr. 16, 1935	.7	61.0	44,170	59.3	42,940
1936	810	1,520	Apr. 17, 1936	-	93.1	67,580	93.9	68,140
1937	830	859	Apr. 17, 1937	2	74.8	54,180	83.7	60,600
1938	860,1564	*2,510	Apr. 20, 1938	4	*247	*178,700	*241	*174,400
1939	880	1,250	Mar. 20, 1939	2	105	75,970	101	73,440
1940	900	*1,690	Feb. 29, 1940	3	129	93,620	135	97,670
1941	930	1,270	Apr. 2, 1941	7	216	156,400	222	160,800
1942	960	2,060	Apr. 13, 1942	8	226	163,700	223	161,500
1943	980	3,830	Apr. 8, 1943	6	344	249,400	342	247,600
1944	1010	614	Mar. 10, 1944	3	62.6	45,440	59.5	43,190
1945	1040	1,360	Feb. 14, 1945	6	196	141,700	197	142,500
1946	1060	1,720	Apr. 20, 1946	9	193	139,500	201	145,400
1947	1090	669	Apr. 21, 1947	6	131	94,740	123	89,370
1948	1120	1,360	May 23, 1948	9	221	160,300	223	162,200
1949	1150	1,080	Apr. 13, 1949	7	164	118,500	160	115,900
1950	1180	1,150	Apr. 23, 1950	5	148	106,800	-	-

* Revised.
‡ Not previously published.
a Mar. 27, Apr. 1, 1918.

482. Poison Creek near Burns, Oreg.

Location.--Lat 43°37', long 119°00', in S½ sec. 34, T. 22 S., R. 31 E., 100 ft upstream from highway bridge and 3½ miles northeast of Burns.

Drainage area.--81 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,100 ft (from topographic map). Prior to Apr. 6, 1922, at site 150 ft downstream at different datum.

Extremes.--1921-22: Maximum discharge, 476 cfs Apr. 21 or 22, 1922 (gage height, 4.3 ft, from floodmarks), from rating curve extended above 230 cfs; no flow for many days each year.

Remarks.--Records for high water season only. Small diversion for irrigation above station. No regulation.

Monthly mean discharge, in cubic feet per second

Year	Mar.	Apr.	May	June
1921	‡86.8	33.5	‡2.10	-
1922	-	‡66.7	-	-

‡ Not previously published; partly estimated on the basis of records for Silvies River near Burns.

Monthly runoff, in acre-feet

Year	Mar.	Apr.	May	June
1921	+5,340	1,990	‡129	-
1922	-	‡3,970	-	-

‡ Not previously published; partly estimated on the basis of records for Silvies River near Burns.

483. Prater Creek near Burns, Oreg.1/

Location.--Lat 43°37', long 118°57', in S½ sec. 25, T. 22 S., R. 31 E., 1 mile (revised) upstream from highway bridge and 6 miles (revised) northeast of Burns.

Drainage area.--20 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,150 ft (from topographic map).

Extremes.--1921-23: Maximum discharge observed, 115 cfs Apr. 6, 1922 (gage height, 3.8 ft), from rating curve extended above 20 cfs; no flow June 24-30, 1923.

Remarks.--Records for high water seasons only. No diversion or regulation above station.

Monthly mean discharge, in cubic feet per second

Year	Mar.	Apr.	May	June
1921	a19.3	*13.7	2.41	‡0.58
1922	-	19.0	9.38	‡.71
1923	2.17	6.39	1.19	‡.14

* Revised.
‡ Not previously published; partly estimated on basis of records for Silvies River and Buck Creek.
a Not previously published; discharge for Mar. 1-7, 1921, estimated on basis of records for Buck Creek near Silver Lake; daily figures for Mar. 9-22, 1921, revised.

Monthly runoff, in acre-feet

Year	Mar.	Apr.	May	June
1921	a1,190	*815	148	‡35
1922	-	1,130	577	‡42
1923	133	380	73	‡8

* Revised.
‡ Not previously published; partly estimated on basis of records for Silvies River and Buck Creek.
a Not previously published; see footnote to preceding table.

Seasonal discharge, in cubic feet per second

Year	W.S.P. no.	The season					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1921	530,1564	*46	Mar.17-19, 1921	-	-	-	-	-
1922	550	115	Apr. 6, 1922	-	-	-	-	-
1923	570	17	Apr. 17, 1923	0	-	-	-	-

* Revised.
Note.--Maximum observed figures for the season are also maximums for the water year.

484. East Fork Silvies River near Lawen, Oreg.

Location (revised).--Lat 43°25', long 118°48', in NW¼ sec. 8, T. 25 S., R. 32 E., at highway bridge 1 mile south of Lawen.

Gage.--Staff gage. Altitude of gage is 4,090 ft (from topographic map).

Extremes.--March to June 1916: Maximum discharge observed, 272 cfs Apr. 21 (gage height, 2.30 ft); minimum observed, 22 cfs June 15.

Remarks.--Records for high water season only. West Fork (see following station) and East Fork Silvies River are distributaries that originate at bifurcation of Silvies River 15 miles upstream. Diversions from East Fork for irrigation of several thousand acres above station.

Monthly mean discharge, in cubic feet per second

Year	Mar.	Apr.	May	June
1916	-	153	61.6	-

Monthly runoff, in acre-feet

Year	Mar.	Apr.	May	June
1916	-	9,100	3,790	-

1/ Previously published as Prather Creek.

485. West Fork Silvies River near Lawen, Oreg.

Location.--Lat 43°23', long 118°50', in S½ sec. 24, T. 25 S., R. 32 E., 5½ miles south (revised) of Lawen and 18 miles southeast of Burns.

Gage.--Staff gage. Altitude of gage is 4,100 ft (from topographic map).

Extremes.--1916-17, 1919, 1922: Maximum discharge, 1,250 cfs Apr. 16-18, 1916, May 18-20, 1917 (gage height, 9.7 ft); no flow at times.

Remarks.--Records for high water seasons only. East Fork (see preceding station) and West Fork Silvies River are distributaries that originate at bifurcation of Silvies River 20 miles upstream from station. Diversions primarily by flooding for irrigation of many thousand acres above station.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July
1916	968	450	128	-
1917	-	996	305	-
1919	135	121	-	-
1922	‡14.6	20.6	39.5	-

‡ Not previously published; partly estimated on basis of records for Silver Creek near Silver Lake.

Monthly runoff, in acre-feet

Year	Apr.	May	June	July
1916	57,600	27,700	7,620	-
1917	-	61,200	18,100	-
1919	8,030	7,440	-	-
1922	‡869	1,270	2,350	-

‡ Not previously published; see footnote to preceding table.

Seasonal discharge, in cubic feet per second

Year	W.S.P. no.	The season					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	440	1,250	Apr.16-18, 1916	-	-	-	-	-
1917	460	1,250	May18-20,1917	-	-	-	-	-
1919	510	330	May 4, 5, 1919	0	-	-	-	-
1922	550	a232	June 4, 1922	0	-	-	-	-

a Maximum observed.
Note.--Momentary maximums for the season are also momentary maximums for the water year.

486. Donner und Blitzen River near Frenchglen, Oreg.1/

Location.--Lat 42°47', long 118°52', in NW¼ sec. 20, T. 32 S., R. 32½ E., 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.

Gage.--Water-stage recorder and, since Nov. 27, 1937, concrete control. Datum of gage is 4,254 ft above mean sea level (surveys of Fish and Wildlife Service). Prior to December 1937, staff gage at several sites within 1½ miles downstream at different datums.

Average discharge.--20 years (1911-13, 1914-16, 1917-21, 1938-50), 123 cfs.

Extremes.--1911-21, 1929-30, 1937-50: Maximum discharge, 2,270 cfs (revised) May 5, 1942 (gage height, 5.85 ft); minimum, 8 cfs Jan. 14, 1940, result of ice jam upstream.

Remarks.--No diversion or regulation above station.

Cooperation.--Records for 1929-30, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	150	179	322	90.5	35.7	34.2	-
1912	40.8	32.7	28.1	91.5	129	183	296	561	581	93.8	63.8	46.0	†178
1913	50.0	60.5	39.2	33.5	45.2	127	308	360	254	127	72.5	47.5	127
1914	-	-	-	-	-	149	238	481	266	122	51.0	58.0	-
1915	60.8	49.6	29.5	26.0	30.5	42.8	116	649	201	98.4	38.0	420	116
1916	29.8	29.0	26.0	25.4	69.6	374	180	283	308	127	76.0	58.3	132
1917	-	-	-	-	-	-	-	603	802	184	59.3	51.1	-
1918	47.0	47.0	47.0	46.2	81.7	118	172	210	174	42.3	31.3	32.1	87.2
1919	39.5	35.9	40	40	50	139	320	380	123	45.5	27.8	28.4	106
1920	33.5	34.3	45.1	63.5	46.3	96.9	178	473	273	105	43.3	40.5	120

† Corrected.

1/ Published as "near Diamond", 1911-21, and as "at P ranch near Diamond", 1929-30.

Monthly and yearly mean discharge, in cubic feet per second, of Donner und Blitzen River near Frenchglen, Oreg.--Continued

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1921	57.2	93.2	105	92.2	310	340	198	502	387	102	67.4	65.0	192
1929	-	-	-	-	-	-	-	-	-	-	45.2	43.2	-
1930	48.0	51.7	-	-	-	-	181	194	146	45.8	33.3	35.6	-
1938	-	-	-	40	69.9	169	397	455	281	89.1	44.1	40.0	-
1939	43.3	50.5	48.8	42.4	42.4	232	250	227	110	45.5	30.1	29.5	96.2
1940	33.7	32.2	32.5	39.5	72.4	159	255	376	148	43.4	29.7	37.0	105
1941	42.3	56.5	43.6	41.6	145	111	129	403	243	83.8	45.9	42.8	115
1942	45.2	61.0	51.0	77.0	74.0	156	373	463	424	128	52.6	47.7	163
1943	46.8	56.1	123	98.3	150	200	305	315	364	160	61.7	47.0	160
1944	49.3	52.1	45.4	45.8	45.8	83.5	126	243	228	86.9	39.4	36.3	90.0
1945	38.3	42.3	46.9	62.5	90.7	113	352	558	420	138	57.2	46.4	164
1946	47.2	49.9	63.2	50.3	64.4	98.6	218	283	184	80.4	41.7	37.4	102
1947	42.1	51.5	52.4	43.7	61.4	68.4	143	251	141	46.2	30.9	30.1	80.2
1948	34.7	39.6	39.3	83.0	38.8	91.7	162	515	480	104	45.0	40.4	140
1949	41.8	40.7	38.7	33.9	49.2	95.5	208	285	147	50.5	34.6	33.2	88.3
1950	36.8	38.3	33.1	31.9	42.3	107	160	318	290	96.6	42.5	36.3	103

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	8,930	11,000	†19,200	5,560	2,200	2,040	-
1912	2,510	1,950	1,730	5,630	7,420	11,300	17,600	34,500	34,600	5,770	3,920	2,740	130,000
1913	3,070	3,600	2,410	2,060	2,510	7,810	18,300	22,100	15,100	7,810	4,460	2,830	92,100
1914	-	-	-	-	-	9,160	14,200	29,600	15,800	7,500	3,140	3,450	-
1915	3,740	2,950	1,810	1,600	1,690	2,630	6,900	39,900	12,000	6,050	2,340	2,500	84,100
1916	1,830	1,730	1,600	1,560	4,000	23,000	10,700	17,400	18,300	7,810	4,670	3,470	96,100
1917	-	-	-	-	-	-	-	37,100	47,700	11,300	3,650	3,040	-
1918	2,890	2,800	2,890	2,840	4,540	7,260	10,200	12,900	10,400	2,600	1,920	1,910	63,200
1919	2,430	2,140	2,460	2,460	2,780	8,550	19,000	23,400	7,320	2,800	1,710	1,690	76,700
1920	2,060	2,040	2,770	3,900	2,660	5,960	10,600	29,100	16,200	6,460	2,660	2,410	86,800
1921	3,520	5,550	6,460	5,670	17,200	20,900	11,800	30,900	23,000	6,270	4,140	3,870	139,000
1929	-	-	-	-	-	-	-	-	-	-	2,780	2,610	-
1930	2,950	3,080	-	-	-	-	10,800	11,900	8,690	2,820	2,050	2,120	-
1938	-	-	-	2,460	3,880	10,380	23,640	27,960	16,690	5,480	2,710	2,380	-
1939	2,660	3,000	3,000	2,600	2,350	14,270	14,860	13,980	6,550	2,790	1,850	1,760	69,670
1940	2,070	1,920	2,000	2,430	4,170	9,750	15,200	23,130	8,810	2,670	1,820	2,200	76,170
1941	2,600	3,360	2,680	2,560	8,030	6,800	7,700	24,760	14,460	5,150	2,820	2,550	83,470
1942	2,780	3,630	3,130	4,730	4,120	9,600	22,220	28,460	25,220	7,880	3,230	2,840	117,800
1943	2,880	3,340	7,590	6,040	8,310	12,330	18,170	19,370	21,640	9,820	3,800	2,790	116,100
1944	3,030	3,100	2,790	2,700	2,630	5,140	7,500	14,960	13,540	5,340	2,420	2,160	65,310
1945	2,350	2,520	2,880	3,840	5,040	6,940	20,950	34,330	24,990	8,470	3,520	2,760	118,600
1946	2,900	2,970	3,890	3,090	3,580	6,060	13,000	17,370	10,920	4,940	2,560	2,230	73,510
1947	2,590	3,070	3,220	2,690	3,410	4,200	8,530	15,440	8,390	2,840	1,900	1,790	58,070
1948	2,130	2,360	2,410	5,100	2,230	5,640	9,640	31,660	28,560	6,390	2,770	2,400	101,300
1949	2,570	2,420	2,380	2,090	2,740	5,880	12,350	17,520	8,770	3,110	2,130	1,980	63,940
1950	2,270	2,280	2,040	1,960	2,350	6,600	9,540	19,570	17,270	5,940	2,610	2,160	74,590

† Corrected.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Dischsrge	Date					
1911	310	‡1,800	Mar. 21,22,1911	-	-	-	-	-
1912	330	a1,360	Feb. 17, 1912	-	†178	130,000	183	133,000
1913	360	a1,380	Mar. 30, 1913	-	127	92,100	-	-
1914	390	855	May 25, 1914	-	-	-	-	-
1915	410	2,060	May 3, 1915	-	116	84,100	111	80,800
1916	440	1,820	Mar. 12, 1916	23	132	96,100	-	-
1917	460	-	-	-	-	-	-	-
1918	480	442	Mar. 4, 1918	26	87.2	63,200	85.1	61,600
1919	510	1,670	Mar.29,30, 1919	27	106	76,700	106	76,600
1920	510	1,140	Mar.29,30, 1920	29	120	86,800	131	95,500
1921	530	2,200	Mar.3,4, 1921	37	192	139,000	-	-
1929	(b)	-	-	-	-	-	-	-
1930	(b)	276	Apr. 24, 1930	-	-	-	-	-
1938	860	*a1,080	Dec. 11, 1937	-	-	-	144	104,200
1939	880	*1,580	Mar. 24, 1939	28	96.2	69,670	92.5	67,000
1940	900	1,570	Mar. 30, 1940	18	105	76,170	109	78,820

* Revised.
† Corrected.
‡ Not previously published.
a Maximum observed.
b Reports of State engineer of Oregon.

Notes.--Records for January 1909 to September 1910, published in WSP 370 as "at mouth of canyon, near Diamond", and February 1909 to July 1910, published in WSP 270, 290, and 370 for a non-equivalent site as "near Diamond", have been found in error on the basis of restudy of the original data and comparison with records at nearby stations. Those records are not published herein and should not be used.

Figures of discharge for December 1911 published in WSP 330 are in error; figures in WSP 310 should be used.

538662 O - 60 - 30

Yearly discharge, in cubic feet per second, of Donner und Blitzen River near Frenchglen, Oreg.--Con.

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1941	930	834	May 12, 1941	22	115	83,470	117	84,370
1942	960	*2,270	May 5, 1942	22	163	117,800	169	122,100
1943	980	*1,230	Jan. 21, 1943	24	160	116,100	154	111,200
1944	1010	545	Mar. 9, 1944	26	90.0	65,310	88.4	64,140
1945	1040	1,280	June 4, 1945	22	164	118,600	167	120,600
1946	1060	628	Dec. 28, 1945	26	102	73,510	100	72,630
1947	1090	646	May 2, 1947	26	80.2	58,070	77.5	56,090
1948	1120	*1,700	May 19, 1948	18	140	101,300	140	101,800
1949	1150	1,020	May 16, 1949	25	88.3	63,940	87.2	63,160
1950	1180	793	Mar. 17, 1950	18	103	74,590	-	-

* Revised.

487. Mud Creek near Diamond, Oreg.

Location.--Lat 42°50', long 118°51', in NW¼ sec. 4, T. 32 S., R. 32½ E., 3 miles east of Frenchglen and 16 miles (revised) southwest of Diamond.

Drainage area.--30 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map). Mar. 18, 1911, to Sept. 30, 1916, at described site at different datum.

Average discharge.--5 years (1911-16), 5.67 cfs.

Extremes.--1911-16, 1930: Maximum discharge observed, 154 cfs May 3, 1915 (gage height, 5.65 ft, datum then in use), from rating curve extended above 45 cfs; minimum daily, 0.1 cfs July 29 to Aug. 31, Sept. 4, 11, 1915.

Remarks.--No diversion or regulation above station.

Cooperation.--Records for 1930, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	10.5	14.9	12.6	1.10	0.24	0.2	-
1912	0.2	0.2	0.2	4.52	1.75	.93	15.4	59.0	22.9	1.01	.89	.80	9.04
1913	1.38	1.45	1.13	1.26	1.18	4.16	23.1	31.7	7.67	3.64	1.24	1.00	6.58
1914	1.0	.92	.95	1.50	.98	2.90	16.5	13.6	4.97	1.59	.37	.50	†3.82
1915	.75	.80	.49	.40	.40	.79	3.28	26.6	6.60	1.89	.10	.15	†3.52
1916	.22	.28	.20	.24	2.33	8.78	9.67	25.1	14.0	3.23	.36	.30	5.40
1930	-	-	-	-	-	-	7.88	8.56	3.09	-	-	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	625	916	750	68	15	12	-
1912	12	12	12	278	101	57	916	3,630	1,360	62	55	48	6,540
1913	85	86	69	77.5	65.5	256	1,370	1,950	456	224	76.2	59.5	4,770
1914	61	55	58	92	54	178	982	836	296	98	23	30	2,760
1915	46	48	30	25	22	49	195	1,640	393	116	6	9	2,580
1916	14	17	12	15	134	540	575	1,540	833	199	22	18	3,920
1930	-	-	-	-	-	-	469	526	184	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	25	May 5, 1911	-	-	-	-	-
1912	330	‡112	Apr. 24, 1912	-	9.04	6,540	9.29	6,750
1913	360	46	May 10, 1913	-	6.58	4,770	6.48	4,710
1914	390	41	Apr. 19, 20, 1914	-	†3.82	2,760	3.75	2,710
1915	410	154	May 3, 1915	0.1	†3.52	2,580	3.41	2,500
1916	440	100	May 26, 1916	.2	5.40	3,920	-	-
1930	(a)	12	(b)	-	-	-	-	-

† Corrected.
‡ Not previously published; momentary maximum.
a Reports of State engineer of Oregon.
b May 1-7, 9-11, 1930.

488. Bridge Creek near Frenchglen, Oreg.[1]

Location.--Lat 42°50', long 118°51', in NW¼ sec. 33, T. 31 S., R. 32½ E., at mouth of canyon and 3½ miles northeast of Frenchglen.

Drainage area.--30 sq mi, approximately.

Gage.--Water-stage recorder and, since Oct. 31, 1939, concrete control. Datum of gage is 4,184.93 ft above mean sea level (surveys of Fish and Wildlife Service). Prior to Dec. 21, 1937, staff gage at sites within 1 mile upstream at different datums. Dec. 21, 1937, to May 17, 1938, staff gage 1,000 ft downstream at different datum. May 18, 1938, to Aug. 22, 1939, staff gage at present site and datum.

Average discharge.--16 years (1912-16, 1938-50), 14.1 cfs.

Extremes.--1911-16, 1937-50: Maximum discharge, 253 cfs (revised) Feb. 22, 1943 (gage height, 2.55 ft), from rating curve extended above 65 cfs by logarithmic plotting; minimum observed, 7 cfs Feb. 24, 25, 1912, Dec. 30, 1937, to Jan. 4, 1938.

Remarks.--No diversion or regulation above station. Low-water flow is sustained by large springs.

Cooperation.--Records for 1930, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	15.5	17.0	13.7	10.3	10	-	-
1912	-	-	-	17.2	11.4	9.8	26.0	40.9	24.5	14.1	13.3	13.0	-
1913	13.2	13.0	13.0	13.2	12.2	13.2	19.9	28.9	15.2	13.7	14.4	14.0	15.3
1914	14.0	14.4	14.0	15.8	14.0	14.8	20.0	22.4	11.8	11.0	12.0	12.0	14.7
1915	12.0	12.0	10.8	8.0	8.0	8.0	8.2	17.7	10.8	10.0	10.0	10.0	10.5
1916	7.50	7.50	7.50	7.50	14.8	17.0	14.3	29.8	18.4	14.2	12.0	12.0	13.5
1930	-	-	-	-	-	-	11.7	11.0	10.5	-	-	-	-
1938	-	-	-	7.8	11.0	14.3	34.3	24.9	13.5	11.4	12.0	12.3	-
1939	12.3	13.8	12.5	12.0	11.1	34.9	16.9	12.1	11.0	10.5	10.0	10.0	14.0
1940	10.5	10.4	9.1	8.3	10.6	12.8	18.4	12.4	10.1	9.9	9.4	10.4	11.0
1941	12.8	11.9	10.0	10.2	14.6	12.1	13.1	18.9	14.8	10.8	11.3	11.1	12.6
1942	10.8	10.1	9.75	11.6	12.3	17.8	33.3	44.2	22.8	15.1	14.4	14.6	18.1
1943	14.1	14.1	15.7	13.9	20.8	21.5	31.0	20.1	24.6	16.0	16.0	15.3	18.5
1944	14.7	14.2	13.3	13.4	12.9	13.1	14.2	14.1	18.9	13.0	13.0	13.0	14.0
1945	14.2	13.5	12.8	11.5	11.3	15.0	25.7	40.9	22.7	14.1	12.4	13.6	17.3
1946	14.3	14.1	14.0	13.6	14.3	14.5	15.3	17.5	14.3	11.8	13.7	13.6	14.3
1947	12.2	11.7	11.6	11.4	12.0	11.3	15.8	12.8	11.5	10.5	9.88	9.95	11.7
1948	9.83	9.43	8.34	9.95	8.23	11.9	23.7	38.0	16.9	11.0	12.3	15.8	14.6
1949	11.8	11.7	11.5	11.1	11.9	13.1	21.4	20.2	14.0	12.4	12.0	12.0	13.6
1950	11.5	11.3	11.0	11.0	10.0	11.9	16.5	17.1	13.6	11.3	11.9	12.0	12.4

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	922	1,050	815	633	615	-	-
1912	-	-	-	1,060	656	603	1,550	2,510	1,460	867	818	774	-
1913	812	774	799	812	678	812	1,180	1,780	904	842	885	833	11,100
1914	861	857	861	972	778	910	1,190	1,380	702	676	738	714	10,600
1915	738	714	664	492	444	492	488	1,090	643	615	615	595	7,590
1916	461	446	461	461	851	1,050	851	1,830	1,090	873	738	714	9,830
1930	-	-	-	-	-	-	696	676	619	-	-	-	-
1938	-	-	-	478	609	877	2,040	1,530	801	702	738	734	-
1939	754	821	772	738	615	2,150	1,000	742	655	647	615	595	10,100
1940	647	619	559	510	609	785	1,090	762	601	611	579	617	7,990
1941	785	710	613	627	809	742	778	1,160	881	662	694	660	9,120
1942	666	603	599	711	682	1,100	1,980	2,720	1,350	930	883	869	13,090
1943	869	839	966	857	1,150	1,320	1,840	1,230	1,470	984	984	908	13,420
1944	906	845	817	823	744	803	847	865	1,120	799	799	776	10,140
1945	873	803	785	710	629	920	1,530	2,510	1,350	869	764	809	12,550
1946	879	839	859	839	795	889	908	1,080	853	728	841	811	10,320
1947	748	698	712	700	668	696	940	785	682	649	608	592	8,480
1948	604	561	513	612	474	729	1,410	2,330	1,010	676	758	942	10,620
1949	728	694	710	682	662	807	1,280	1,240	831	764	738	714	9,850
1950	706	672	676	676	555	731	984	1,050	809	692	734	714	9,000

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	a23	Apr. 27, 1911	-	-	-	-	-
1912	330	a106	Apr. 24, 1912	-	-	-	17.5	12,700
1913	360	a44	May 10, 1913	-	15.3	11,100	15.6	11,300
1914	390	a29	May 24, 1914	-	14.7	10,600	14.0	10,200
1915	410	a166	May 3, 1915	-	10.5	7,590	9.4	6,840

a Maximum observed.

1/ Published as "near Diamond", 1911-16, 1930.

Yearly discharge, in cubic feet per second, of Bridge Creek near Frenchglen, Oreg.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1916	440	a163	May 26, 1916	7.5	13.5	9,830	-	-
1930	(b)	-	-	-	-	-	-	-
1938	860	a118	Apr. 19, 1938	-	-	-	15.0	10,860
1939	880	a230	Mar.16-18,1939	-	14.0	10,100	13.2	9,580
1940	900	34	Mar. 26, 1940	8	11.0	7,990	11.4	8,270
1941	930	*81	June 7, 1941	9	12.6	9,120	12.3	8,880
1942	960	*186	May 28, 1942	9.4	18.1	13,090	19.2	13,900
1943	980	*253	Feb. 22, 1943	13	18.5	13,420	18.4	†13,310
1944	1010	106	June 9, 1944	12	14.0	10,140	13.8	10,040
1945	1040	151	May 19, 1945	10	17.3	12,550	17.5	12,670
1946	1060	38	May 23, 1946	11	14.3	10,320	13.7	9,900
1947	1090	26	Apr. 6, 1947	9.7	11.7	8,480	11.0	8,000
1948	1120	143	May 19, 1948	7.6	14.6	10,620	15.3	11,070
1949	1150	46	May 15, 1949	10	13.6	9,850	13.5	9,770
1950	1180	38	Mar. 30, 1950	9.2	12.4	9,000	-	-

* Revised.
† Corrected.
a Maximum observed.
b Reports of State engineer of Oregon.

489. Krumbo Creek near Diamond, Oreg.1/

Location.--Lat 42°57', long 118°48', in NW¼ sec. 19, T. 30 S., R. 32 E., 4 miles upstream from mouth and 7 miles southwest of Diamond.

Drainage area.--37 sq mi (revised), approximately.

Supplemental records available.--Apr. 14 to Sept. 2, 1913, gage heights and discharge measurements only.

Gage.--Staff gage. Altitude of gage is 4,170 ft (from topographic map). Mar. 17 to June 30, 1911, at described site at different datum.

Extremes.--1911, 1913, 1930: Maximum discharge observed, 68 cfs Mar. 22, 1911 (gage height, 4.7 ft, datum then in use), from rating curve extended above 19 cfs; minimum daily, 1.5 cfs June 26, 27, 1930.

Remarks.--Records for high-water seasons only. No diversion or regulation above station.

Cooperation.--Records for 1930, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly mean discharge, in cubic feet per second

Year					Mar.	Apr.	May	June	July				
1911					-	*6.39	*3.92	*3.63	(a)				
1930					-	2.95	2.43	2.75	-				

* Revised; revised daily discharge published in WSP 1564.
a Records for July 1-18, 1911, published in WSP 310, have been found in error on the basis of restudy of original data and comparison with records at nearby stations. Those records should not be used.

Monthly runoff, in acre-feet

Year					Mar.	Apr.	May	June	July				
1911					-	*380	*241	*216	(a)				
1930					-	176	149	164	-				

* Revised.
a See footnote to preceding table.

490. Donner und Blitzen River near Narrows, Oreg.

Location.--Lat 43°01', long 118°50', in NE¼ sec. 26, T. 29 S., R. 31 E., at Grain Camp, 2 to 3 miles upstream from Kiger Creek, and 18 miles (revised) south of Narrows.

Drainage area.--420 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,140 ft (from topographic map).

Extremes.--1915-20: Maximum discharge, 780 cfs in March 1917 (gage height, 7.5 ft, from floodmarks); minimum observed (revised), 0.2 cfs June 2, 1918 (gage height, 0.32 ft).

Remarks.--Diversions above station for irrigation of many thousand acres by flooding during high flow and by several canals. Regulation by diversion dams during summer seasons.

1/ Published as "near Frenchglen," 1930, in State Bulletin no. 8.

Monthly and yearly mean discharge, in cubic feet per second, of Donner und Blitzen River near Narrows, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	68.2	198	179	72.9	-	-	-
1916	-	-	-	-	-	-	-	119	185	-	-	-	-
1917	-	-	-	-	-	-	-	383	399	150	-	-	-
1918	50.0	53.6	62.9	67.8	61.0	88.2	98.1	61.6	2.75	1.39	11.1	10.4	47.4
1919	28.8	40.1	32.3	30.0	31.8	71.8	168	229	-	-	-	-	-
1920	34.6	59.7	109	126	68.6	142	180	272	110	47.8	49.1	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1915	-	-	-	-	-	-	4,060	12,200	10,700	4,480	-	-	-
1916	-	-	-	-	-	-	-	7,320	11,000	-	-	-	-
1917	-	-	-	-	-	-	-	23,600	23,700	9,220	-	-	-
1918	3,070	3,190	3,870	4,170	3,390	5,420	5,840	3,790	164	86	682	619	34,300
1919	1,770	2,390	1,990	1,840	1,770	4,410	10,000	14,100	-	-	-	-	-
1920	2,130	3,550	6,700	7,750	3,950	8,730	10,700	16,700	6,550	2,940	3,020	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1915	410	392	May 16, 1915	-	-	-	-	-
1916	440	270	June 14, 1916	-	-	-	-	-
1917	460	a780	(b)	-	-	-	-	-
1918	480	166	May 8,9, 1918	0.2	47.4	34,300	42.0	30,300
1919	510	432	Mar. 30, 1919	-	-	-	-	-
1920	510	364	(c)	16	-	-	-	-

a Momentary maximum.
b Sometime during March 1917.
c Mar. 2, May 10, 11, 22-24, 1920.

491. Kiger Creek near Diamond, Oreg.

Location.--Lat 43°00', long 118°38', in SW¼ sec. 3, T. 30 S., R. 33 E., 2 miles southeast of Diamond and 18 miles northeast of Frenchglen.

Drainage area.--75 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,250 ft (from topographic map). Prior to May 27, 1917, staff gage, and May 27, 1917, to May 29, 1921, water-stage recorder near described site at different datums. Mar. 11 to July 8, 1930, staff gage half a mile upstream at different datum.

Extremes.--1911-13, 1916-21, 1930, 1941: Maximum discharge observed, 330 cfs May 19, 1912 (gage height, 4.7 ft, datum then in use), from rating curve extended above 140 cfs; minimum observed, 3.2 cfs Feb. 16, 1918.

Remarks.--No diversion or regulation above station.

Cooperation.--Records for 1930 and 1941, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	70.7	79.9	103	22.9	10.0	-	-
1912	-	-	-	-	-	28.5	98.2	214	198	45.1	32.4	16.0	-
1913	24.5	28.3	-	-	-	-	-	124	77.2	29.0	12.5	-	-
1916	-	-	-	-	-	-	-	89.4	85.6	47.7	13.5	-	-
1917	-	-	-	-	-	-	-	159	192	-	-	-	-
1918	-	-	-	-	-	-	-	61.5	47.4	9.57	5.08	5.98	-
1919	6.60	7.97	9.0	7.0	9.0	15.5	85.8	122	43.7	14.9	6.17	7.28	28.0
1920	-	-	-	-	-	-	-	131	71.7	29.9	11.4	12.2	-
1921	-	-	-	-	-	-	62.3	94.9	-	-	-	-	-
1930	-	-	-	-	-	-	41.4	46.8	*34.2	-	-	-	-
1941	-	-	-	-	-	-	43.5	108	64.8	16.2	-	-	-

* Revised.

Monthly and yearly runoff, in acre-feet, of Kiger Creek near Diamond, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	4,210	4,910	6,130	1,410	615	-	-
1912	-	-	-	-	-	1,750	5,840	13,200	11,800	2,770	1,990	952	-
1913	1,510	1,680	-	-	-	-	-	7,620	4,590	1,780	744	-	-
1916	-	-	-	-	-	-	-	5,500	5,090	2,930	830	-	-
1917	-	-	-	-	-	-	-	9,780	11,400	-	-	-	-
1918	-	-	-	-	-	-	-	3,780	2,820	588	312	356	-
1919	406	474	553	430	500	953	5,110	7,500	2,600	916	379	433	20,300
1920	-	-	-	-	-	-	-	8,060	4,270	1,840	701	726	-
1921	-	-	-	-	-	-	3,710	5,840	-	-	-	-	-
1930	-	-	-	-	-	-	2,460	2,880	*2,040	-	-	-	-
1941	-	-	-	-	-	-	2,590	6,630	3,850	998	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	a183	June 4, 1911	-	-	-	-	-
1912	330	a330	May 19, 1912	-	-	-	-	-
1913	360	-	-	-	-	-	-	-
1916	440	a163	June 10, 1916	-	-	-	-	-
1917	460	-	-	-	-	-	-	-
1918	480	105	May 5, 1918	-	-	-	-	-
1919	510	181	Apr. 25, 1919	-	28.0	20,300	-	-
1920	510	201	May 21, 1920	-	-	-	-	-
1921	530	163	May 27, 1921	-	-	-	-	-
1930	(b)	a‡58	June 11, 1930	-	-	-	-	-
1941	(b)	a186	May 12, 1941	-	-	-	-	-

‡ Not previously published.
a Maximum observed.
b Reports of State engineer of Oregon.
Note.--Records of discharge for February 1909 to May 1910, published in WSP 290 and 370, have been found in error on the basis of restudy of the original data and comparison with records for nearby stations. Those records are not published herein and should not be used.

492. Cucamonga Creek near Diamond, Oreg.1/

Location (revised).--Lat 42°59', long 118°41', in NW¼ sec. 8, T. 30 S., R. 33 E., 2 miles south of Diamond and 16 miles northeast of Frenchglen.

Drainage area.--15 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,250 ft (from topographic map). Apr. 11 to Sept. 2, 1916, at site a quarter of a mile upstream at different datum.

Extremes.--1916, 1930: Maximum discharge observed, 77 cfs May 25, 1916 (gage height, 3.7 ft, site and datum then in use), from rating curve extended above 15 cfs; no flow at times.

Remarks.--Records for high-water seasons only. No diversion or regulation above station.

Cooperation.--Records for 1930, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly mean discharge, in cubic feet per second

Year				Mar.	Apr.	May	June	July	Aug.	Sept.			
1916				-	-	11.2	6.18	3.05	0.53	-			
1930				-	1.27	1.80	.77	-	-	-			

Monthly runoff, in acre-feet

Year				Mar.	Apr.	May	June	July	Aug.	Sept.			
1916				-	-	689	368	188	33	-			
1930				-	76	111	46	-	-	-			

Note.--Records for March 1911 to August 1913 published in WSP 310, 330, and 360 have been found in error on the basis of restudy of the original data and comparison with records at nearby stations. Those records are not published herein and should not be used.

1/ Published as Cocomongo Creek, 1911.

493. McCoy Creek near Diamond, Oreg.

Location.--Lat 42°59', long 118°43', in SE¼ sec. 2, T. 30 S., R. 32 E., 3 miles (revised) southwest of Diamond and 15 miles northeast of Frenchglen.

Drainage area.--45 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map). Prior to May 1, 1919, and Apr. 9, 1920, to Sept. 30, 1921, Mar. 11 to July 8, 1930, at sites within half a mile upstream at different datums. May 1 to Sept. 30, 1919, at site 2 miles downstream at different datum.

Extremes.--1910-11, 1913-14, 1916-21, 1930, 1941: Maximum discharge observed, 385 cfs May 12, 1941 (gage height, 2.78 ft), from rating curve extended above 110 cfs; minimum observed, 0.7 cfs Mar. 14, 1918 (gage height, 1.48 ft, site and datum then in use).

Remarks.--No diversion or regulation above station.

Cooperation.--Records for 1930, 1941, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	-	21.1	3.87	1.13	1.86	-
1911	3.78	4.93	5.12	-	-	-	25.4	54.4	110	19.5	4.42	3.94	-
1914	12.9	8.3	6.0	9.0	6.0	12.4	49.9	93.4	36.1	10.5	1.5	3.0	†20.8
1916	-	-	-	-	-	-	-	70.5	86.8	43.7	5.95	-	-
1917	-	-	-	-	-	-	-	66.2	146	46.6	8.43	5.97	-
1918	5.93	6.61	5.57	4.52	4.10	6.33	25.9	58.6	42.4	4.21	2.15	1.51	14.0
1919	1.58	1.78	2.34	2.23	3.60	7.27	37.3	119	29.5	6.50	3.00	3.46	18.2
1920	-	-	-	-	-	-	20.1	80.6	69.7	24.0	49.7	71.5	-
1921	9.58	15.2	16.4	14.6	29.9	25.2	31.8	119	120	26.6	11.3	8.65	†35.7
1930	-	-	-	-	-	-	37.7	58.2	40.7	-	-	-	-
1941	-	-	-	-	-	-	22.6	135	69.1	15.8	-	-	-

† Corrected.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1910	-	-	-	-	-	-	-	-	1,260	238	69	111	-
1911	232	293	315	-	-	-	1,510	3,340	6,550	1,200	272	234	-
1914	793	494	369	553	333	762	2,970	5,740	2,150	646	92	179	15,100
1916	-	-	-	-	-	-	-	4,330	5,160	2,690	366	-	-
1917	-	-	-	-	-	-	-	4,070	8,690	2,870	518	355	-
1918	365	393	342	278	228	389	1,540	3,600	2,520	259	132	90	10,100
1919	97	106	144	137	200	447	2,220	7,320	1,760	400	184	206	13,200
1920	-	-	-	-	-	-	1,200	4,960	4,150	1,480	306	425	-
1921	589	904	1,010	898	1,660	1,550	1.890	7,320	7,140	1,640	695	515	25,800
1930	-	-	-	-	-	-	2,240	3,580	2,420	-	-	-	-
1941	-	-	-	-	-	-	1,340	8,290	4,110	970	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1910	290	-	-	-	-	-	-	-
1911	310	‡203	June 11, 1911	-	-	-	-	-
1914	390	a146	May 8, 1914	-	†20.8	15,100	-	-
1916	440	190	June 5,6,1916	-	-	-	-	-
1917	460	a300	June 17, 1917	-	-	-	-	-
1918	480	107	June 3, 1918	0.9	14.0	10,100	13.0	9,380
1919	510	205	May22,23,1919	1.4	18.2	13,200	-	-
1920	510	a175	July 4, 1920	-	-	-	-	-
1921	530	264	May 27, 1921	†5.8	†35.7	25,800	-	-
1930	(b)	-	-	-	-	-	-	-
1941	(b)	a385	May 12, 1941	-	-	-	-	-

† Corrected.
‡ Not previously published; maximum observed.
a Maximum observed.
b Files of State engineer of Oregon.

Note.--Records for February to June 1909 published in WSP 270 and 370, and June 1912 to June 1913 published in WSP 330 and 360, have been found in error on basis of restudy of the original data and comparison with records at nearby stations. Those records are not published herein and should not be used.

494. Riddle Creek near Smith, Oreg.

Location.--Lat 43°05', long 118°34', in S½ sec. 6 (revised), T. 29 S., R. 34 E., 2 miles (revised) east of former town of Smith and 6½ miles northeast of Diamond.

Drainage area.--60 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,250 ft (from topographic map).

Extremes.--March to June 1911. Maximum discharge observed, 148 cfs Mar. 22 (gage height, 3.0 ft), from rating curve extended above 80 cfs; minimum daily, 5 cfs June 13-30.

Remarks.--Records for high-water season only. No diversion or regulation above station.

Monthly mean discharge, in cubic feet per second

Year						Mar.	Apr.	May	June				
1911						-	28.2	14.3	6.20				

Monthly runoff, in acre-feet

Year						Mar.	Apr.	May	June				
1911						-	1,680	879	369				

495. Riddle Creek near Diamond, Oreg.

Location.--Lat 43°07', long 118°37', in S½ sec. 23, T. 28 S., R. 33 E., at highway bridge 8 miles north (revised) of Diamond and 20 miles southeast of Narrows.

Drainage area.--120 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,100 ft (from topographic map).

Extremes.--1917-21: Maximum discharge, 330 cfs Mar. 27, 1917 (gage height, 4.5 ft), from rating curve extended above 140 cfs; minimum observed, 0.2 cfs June 17, 19-22, 1919 (gage height, 0.20 ft).

Remarks.--Diversions for irrigation of hay land above station. No regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	-	-	-	-	134	109	31.5	7.4	9.2	6.9	-
1918	-	-	-	-	-	-	15.0	1.13	.797	1.95	1.66	-	-
1919	-	-	-	-	-	13.4	47.0	9.17	1.0	-	-	-	-
1920	-	-	-	-	-	-	47.1	24.9	8.85	-	-	-	-
1921	-	-	-	-	-	56.0	18.2	15.2	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1917	-	-	-	-	-	-	7,970	6,700	1,870	455	566	411	-
1918	-	-	-	-	-	-	893	70	47	120	102	-	-
1919	-	-	-	-	-	824	2,800	564	60	-	-	-	-
1920	-	-	-	-	-	-	2,800	1,530	527	-	-	-	-
1921	-	-	-	-	-	3,440	1,080	935	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1917	460	a330	Mar. 27, 1917	-	-	-	-	-
1918	480	50	Mar. 28, 1918	-	-	-	-	-
1919	510	106	Mar. 31, 1919	-	-	-	-	-
1920	510	93	Apr. 15, 1920	-	-	-	-	-
1921	530	219	Feb.10,11, 1921	-	-	-	-	-

a Momentary maximum.

Note.--Estimated figure of annual runoff in acre-feet published in WSP 480 for water-year 1918 has been found unreliable on basis of restudy of the original data. That figure is not published herein and should not be used.

496. Donner und Blitzen River near Voltage, Oreg.

Location.--Lat 43°16', long 118°51', in SW¼ sec. 2, T. 27 S., R. 31 E., just downstream from Sodhouse diversion dam of Fish and Wildlife Service, 1½ miles south of headquarters for Malheur Migratory Waterfowl Refuge, and 2 miles southwest of Voltage.

Drainage area.--760 sq mi, approximately.

Gage.--Water-stage recorder. Datum of gage is 4,097.58 ft above mean sea level, datum of 1929 (levels by Fish and Wildlife Service). Prior to June 16, 1939, staff gage 30 ft downstream. Since May 19, 1938, supplementary staff gage 1½ miles downstream.

Average discharge.--5 years (1938-43), 96.8 cfs.

Extremes.--1938-46: Maximum discharge, 616 cfs Jan. 30, 1942 (gage height, 6.26 ft); minimum not determined, water below inlet at times.
Little or no flow at times June to August 1918 at site 1½ miles downstream.

Remarks.--Records show flow passing gage; most of flow diverted above station for irrigation and for flooding waterfowl refuge. Some regulation by diversion dams.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	190	246	285	209	71.8	36.0	26.7	-
1939	40.1	68.9	81.6	91.4	62.3	203	144	18.1	13.2	9.4	6.4	9.6	62.3
1940	16.0	30.1	45.3	66.8	74.0	44.8	49.2	25.4	15.2	13.2	3.0	6.0	32.3
1941	23.4	86.1	67.7	79.4	172	77.9	17.2	65.6	41.8	33.5	18.5	40.0	59.5
1942	51.2	91.4	84.6	199	249	206	340	337	384	134	16.4	18.0	175
1943	33.8	83.6	173	195	244	290	277	92.2	265	133	43.0	44.3	155
1944	54.5	97.5	91.3	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	126	77.8	114	336	346	87.4	-	-	-
1946	-	82.4	-	-	-	109	-	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1938	-	-	-	-	-	11,700	14,640	17,500	12,430	4,420	2,210	1,590	-
1939	2,460	4,100	5,020	5,620	3,460	12,470	8,560	1,110	783	577	395	573	45,130
1940	986	1,790	2,780	4,110	4,250	2,750	2,930	1,560	906	813	184	357	23,420
1941	1,440	5,130	4,160	4,880	9,580	4,790	1,020	4,030	2,490	2,060	1,140	2,380	43,100
1942	3,150	5,440	5,200	12,210	13,810	12,650	20,230	20,730	22,830	8,240	1,010	1,070	126,600
1943	2,080	4,970	10,650	11,980	13,530	17,860	16,470	5,670	15,760	8,170	2,640	2,640	112,400
1944	3,350	5,800	5,610	-	-	-	-	-	-	-	-	-	-
1945	-	-	-	-	7,000	4,780	3,410	18,010	20,570	5,380	-	-	-
1946	-	4,910	-	-	-	6,670	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1938	860	a403	Mar. 4, 1938	-	-	-	-	-
1939	880	a416	Mar. 29, 1939	5	62.3	45,130	54.0	39,100
1940	900	274	(b)	-	32.3	23,420	39.4	28,590
1941	930	356	Feb. 26, 1941	7	59.5	43,100	63.8	46,160
1942	960	616	Jan. 30, 1942	12	175	126,600	180	130,500
1943	980	522	Feb. 25, 1943	-	155	112,400	151	109,500
1944	1010	287	Oct. 21, 1943	-	-	-	-	-
1945	1040	464	May 10, 1945	-	-	-	-	-
1946	1060	362	Nov. 5, 1945	-	-	-	-	-

a Maximum observed.
b Sometime during September 1940.
Note.--Records for April 1916 to June 1919, published in WSP 440, 460, 480, and 510, and March 1921 to June 1922, published in WSP 530 and 550, have been found in error on the basis of restudy of the original data and comparison with records at nearby stations. Those records are not published herein and should not be used.

497. Malheur Lake Outlet at Narrows, Oreg.[1]

Location.--Lat 43°17', long 118°58', in sec. 26, T. 26 S., R. 31 E., at highway bridge across channel connecting Malheur and Harney lakes, a few hundred feet west of town of Narrows.

Drainage area.--2,150 sq mi, approximately.

Supplemental records available.--May 1903 to July 1906, September 1909, March to September 1911, April to June 1912, April to August 1913, June 1914, gage heights only.

Gage.--Staff gage. Datum of gage is 4,088.86 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--March to June 1916: Maximum discharge observed, 203 cfs May 14; no flow March 31 to April 21.
Maximum stage known, 6.4 ft May 12-16, 1904 (discharge not determined). A discharge of 841 cfs was measured May 5, 1943 (gage height, 6.16 ft).

Remarks.--Records for high-water season only. Diversions for irrigation of thousands of acres above station. Natural regulation by Malheur Lake. Outflow from Malheur Lake into Mud Lake occurs when Malheur Lake is higher than elevation 4,091.5 ft, and Mud Lake when full spills over a sand reef, or is drained, into Harney Lake.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July
1916	87	178	146	60

Monthly runoff, in acre-feet

Year	Apr.	May	June	July
1916	1,550	10,900	8,690	3,700

498. Mud Lake Outlet near Narrows, Oreg.

Location.--Lat 43°14', long 119°02', in NW¼ sec. 17, T. 27 S., R. 30 E., half a mile upstream from gap in sand reef through which outflow enters Harney Lake, and 5 miles (revised) southwest of town of Narrows.

Drainage area.--2,160 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,085 ft (from altitudes of Malheur and Harney Lakes). Prior to May 13, 1922, near described site at various datums.

Extremes.--1916-18, 1921-22: Maximum discharge observed, 245 cfs June 6, 1921 (gage height, 4.6 ft); no flow at times.

Remarks.--Records for high-water seasons only. Diversions for irrigation of many thousand acres above station. Natural regulation by lakes. Record of peak stages for Malheur Lake, 1923-42, indicates very little, if any, flow into Mud Lake from that source during 1924-26, 1930-37. It is probable that no outflow from Mud Lake occurred during those years. Mud and Harney Lakes were reported dry during 1932-34.

Monthly mean discharge, in cubic feet per second

Year	Apr.	May	June	July	Aug.	Sept.
1916	-	-	82.8	23.7	-	-
1917	-	151	196	59.1	23.5	19.6
1918	50	22	-	-	-	-
1921	-	-	183	49.3	22.5	-
1922	-	47.5	36.9	2	-	-

Monthly runoff, in acre-feet

Year	Apr.	May	June	July	Aug.	Sept.
1916	-	-	4,930	1,460	-	-
1917	-	9,280	11,700	3,630	1,440	1,170
1918	2,980	1,350	-	-	-	-
1921	-	-	10,900	3,030	1,380	-
1922	-	2,920	2,200	123	-	-

Note.--Estimated annual runoff in acre-feet for water year 1918, published in WSP 480, has been found unreliable on basis of restudy of the original data. That figure is not published herein and should not be used.

1/ Published as Malheur Lake at Narrows, 1903-6, 1909, 1911-13.

499. Silver Creek above Suntex, Oreg.1/

Location.--Lat 43°38', long 119°40', in NW¼ sec. 30, T. 22 S., R. 26 E., 3 miles downstream from Nichols Creek and 3½ miles northwest of Suntex.

Drainage area.--260 sq mi, approximately.

Gage.--Staff gage. Datum of gage is 4,339.70 ft above mean sea level, unadjusted. Prior to Feb. 15, 1909, at site 300 ft downstream at different datum. Feb. 15 to Dec. 12, 1909, Apr. 6 to Aug. 2, 1910, at described site at different datum. Mar. 6, 1921, to May 27, 1923, Feb. 4 to May 13, 1925, water-stage recorder at described site and datum.

Extremes.--1904-6, 1909-12, 1914-23, 1925-26: Maximum discharge, 1,760 cfs Apr. 14, 1904 (gage height, 13.95 ft, from floodmark, site and datum then in use); no flow at times.

Remarks.--Diversions for irrigation of about 300 acres above station; no regulation.

Cooperation.--Records for 1925-26, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	10.0	20.0	450	935	206	38.7	54.2	5.8	2.6	-
1905	2.3	6.2	7.0	30.0	41.9	128	110	51.0	15.5	2.2	0	0	32.8
1906	-	-	-	-	12.2	70.5	551	82.5	123	-	-	-	-
1909	-	-	-	-	37.4	58.2	181	31.1	10.3	4.20	.54	0	-
1910	4.04	7.77	6.97	-	-	-	107	22.9	7.47	1.73	.01	0	-
1911	1.74	4.00	4.52	-	-	130	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	371	240	33.2	-	-	-	-
1914	-	-	-	-	-	383	221	-	-	-	-	-	-
1915	-	-	-	-	-	-	182	-	-	-	-	-	-
1916	-	-	-	-	-	-	277	53	-	-	-	-	-
1917	-	-	-	-	-	-	191	269	38.5	-	-	-	-
1918	-	-	-	-	-	-	67.2	8.1	-	-	-	-	-
1919	-	-	-	-	-	-	338	44	-	-	-	-	-
1920	-	-	-	-	28.7	31.9	171	65.7	-	-	-	-	-
1921	-	-	-	-	-	285	332	90.0	40.0	-	-	-	-
1922	-	-	-	-	-	-	324	242	25.8	-	-	-	-
1923	-	-	-	-	-	38.7	183	47.1	-	-	-	-	-
1925	-	-	-	-	94.7	112	188	39.6	-	-	-	-	-
1926		-	-	-	19.5	61	53	-	-	-	-	-	-

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1904	-	-	-	615	1,150	27,700	55,600	12,700	2,300	3,330	357	155	-
1905	141	369	430	1,840	2,330	7,870	6,540	3,140	922	135	0	0	23,700
1906	-	-	-	-	680	4,330	32,800	5,070	7,320	-	-	-	-
1909	-	-	-	-	2,080	3,580	10,800	1,910	613	258	33	0	-
1910	248	462	429	-	-	-	6,370	1,410	444	106	0	0	-
1911	107	238	278	-	-	7,990	-	-	-	-	-	-	-
1912	-	-	-	-	-	-	22,100	14,800	1,980	-	-	-	-
1914	-	-	-	-	-	23,600	13,200	-	-	-	-	-	-
1915	-	-	-	-	-	-	10,800	-	-	-	-	-	-
1916	-	-	-	-	-	-	16,500	3,260	-	-	-	-	-
1917	-	-	-	-	-	-	11,400	16,500	2,290	-	-	-	-
1918	-	-	-	-	-	-	4,000	498	-	-	-	-	-
1919	-	-	-	-	-	-	20,100	2,710	-	-	-	-	-
1920	-	-	-	-	1,650	1,960	10,200	4,040	-	-	-	-	-
1921	-	-	-	-	-	17,500	19,800	5,530	2,380	-	-	-	-
1922	-	-	-	-	-	-	19,300	14,900	1,540	-	-	-	-
1923	-	-	-	-	-	2,380	10,900	2,900	-	-	-	-	-
1925	-	-	-	-	5,260	6,890	11,200	2,430	-	-	-	-	-
1926	-	-	-	-	1,200	3,750	3,150	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1904	370	1,760	Apr. 14, 1904	-	-	-	-	-
1905	370	223	Mar. 18, 1905	0	32.8	23,700	-	-
1906	370	870	Apr. 19, 1906	0	-	-	-	-
1909	370	344	Apr.3,14,1909	0	-	-	-	-
1910	370	-	-	-	-	-	-	-

1/ Published as "near Riley", 1904-6, 1909-11, and as "above Riley", 1912, 1914-18.

Yearly discharge, in cubic feet per second, of Silver Creek above Suntex, Oreg.--Continued

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	475	Apr. 1, 1911	-	-	-	-	-
1912	330	a610	About Apr. 30, 1912	-	-	-	-	-
1914	390	701	Mar. 19, 1914	-	-	-	-	-
1915	410	a610	Apr. 3, 1915	-	-	-	-	-
1916	440	698	Mar. 19, 1916	-	-	-	-	-
1917	460	642	Apr. 26, 1917	-	-	-	-	-
1918	480	236	Mar. 24, 28, 1918	-	-	-	-	-
1919	510	645	Apr. 4, 1919	-	-	-	-	-
1920	510	a520	Jan. 27, 1920	-	-	-	-	-
1921	530	a590	Apr. 3, 1921	-	-	-	-	-
1922	550	a955	Apr. 23, 1922	-	-	-	-	-
1923	570	a253	Apr. 16, 1923	-	-	-	-	-
1925	(b)	a723	Feb. 5, 1925	-	-	-	-	-
1926	(b)	-	-	-	-	-	-	-

a Momentary maximum.
b Reports of State engineer of Oregon.

500. Chickahominy Creek near Suntex, Oreg.1/

Location.--Lat 43°33', long 119°37', in NE¼ sec. 29, T. 23 S., R. 26 E., at former Bend-Burns highway bridge, 2½ miles (revised) south of Suntex, and 4½ miles west of Riley.

Drainage area.--90 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map). Prior to Mar. 3, 1921, at described site at different datum.

Extremes.--1917, 1922-23: Maximum discharge observed, 264 cfs Apr. 22, 1922 (gage height, 1.94 ft); no flow at times each year.

Remarks.--Records for high-water seasons only. Small diversions for irrigation above station. No regulation.

Monthly mean discharge, in cubic feet per second

Year					Feb.	Mar.	Apr.	May					
1917					-	1.65	12.4	-					
1922					-	-	2.2	-					
1923					-	-	-	-					

Monthly runoff, in acre-feet

Year					Feb.	Mar.	Apr.	May					
1917					-	102	739	-					
1922					-	-	2,510	-					
1923					-	-	-	-					

501. Silver Creek below Suntex, Oreg.2/

Location.--Lat 43°31', long 119°27', in N½ sec. 14, T. 24 S., R. 27 E., 4½ miles downstream from Chickahominy Creek, 6½ miles southeast of Riley, and 11 miles (revised) southeast of Suntex.

Drainage area.--550 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 4,270 ft (from topographic map). Prior to May 1, 1912, staff gage 2 miles upstream at different datum. May 1, 1912, to Apr. 19, 1919, staff gage and Apr. 20 to May 17, 1919, water-stage recorder, at described site at different datums.

Extremes.--1912-13, 1921-23: Maximum discharge, 764 cfs Apr. 28, 1922 (gage height, 4.20 ft); no flow for many days each year.

Remarks.--Records for high-water seasons only. Diversions for irrigation of about 3,800 acres above station. Some regulation at times by diversion dams upstream.

1/ Published as "near Riley", 1917.
2/ Published as "below Riley", 1912-15, 1917, 1919.

Monthly and yearly mean discharge, in cubic feet per second, of Silver Creek below Suntex, Oreg.

Year					Feb.	Mar.	Apr.	May	June	July			
1912					-	-	203	214	15.8	-			
1913					-	-	-	‡24.9	.2	-			
1921					-	247	306	86.9	28.9	-			
1922					-	-	301	242	-	-			
1923					-	15.0	90.0	9.9	-	-			

‡ Not previously published; partly estimated on basis of records for Cucamonga Creek and McCoy Creek near Diamond.

Monthly runoff, in acre-feet

Year					Feb.	Mar.	Apr.	May	June	July			
1912					-	-	12,100	13,200	940	-			
1913					-	-	-	‡1,530	12	-			
1921					-	15,200	18,200	5,340	1,720	-			
1922					-	-	17,900	14,900	-	-			
1923					-	922	5,890	609	-	-			

‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	The season					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1912	330	‡394	Apr. 11, 1912	0	-	-	-	-
1913	360	-	-	0	-	-	-	-
1921	530	510	Apr. 4, 1921	0	-	-	-	-
1922	550	764	Apr. 28, 1922	0	-	-	-	-
1923	570	184	Apr. 20, 1923	0	-	-	-	-

‡ Not previously published.

Notes.--Momentary maximums for the season are also momentary maximums for the water year.

Figures of runoff for May 1913 published in footnote in WSP 360 are for the period May 6-31, 1913.

Records for February 1914 to March 1915, April to May 1917, March to May 1919, published in WSP 510, have been found unreliable on the basis of restudy of the original data. Those records are not published herein and should not be used.

502. Silver Creek near Narrows, Oreg.

Location.--Lat 43°23', long 119°22', in NW¼ sec. 21, T. 25 S., R. 28 E., 14 miles southeast of Riley and 22 miles (revised) northwest of town of Narrows.

Drainage area.--630 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,140 ft (from topographic map).

Extremes.--1917, 1919-23: Maximum discharge observed, 563 cfs (revised) Apr. 29, 1922 (gage height, 5.3 ft); no flow at times each year.

Remarks.--Records for high-water seasons only. Many diversions for irrigation above station. Some regulation by irrigation dams upstream. Records herein include flow in Dunn Field ditch, which diverted a short distance upstream.

Monthly mean discharge, in cubic feet per second

Year					Feb.	Mar.	Apr.	May	June				
1917					-	-	110	228	11.7				
1919					-	-	248	-	-				
1920					-	-	61.6	-	-				
1921					-	198	261	77.4	-				
1922					-	-	‡217	*229	-				
1923					-	45.0	82.8	-	-				

* Revised.

‡ Not previously published; partly estimated on basis of records for station below Suntex.

Monthly runoff, in acre-feet

Year					Feb.	Mar.	Apr.	May	June				
1917					-	-	6,550	14,000	696				
1919					-	-	14,800	-	-				
1920					-	-	3,660	-	-				
1921					-	12,200	15,500	4,760	-				
1922					-	-	‡12,900	*14,100	-				
1923					-	89	4,930	-	-				

* Revised.

‡ Not previously published; partly estimated on basis of records for station below Suntex.

Yearly discharge, in cubic feet per second, of Silver Creek near Narrows, Oreg.

Year	W.S.P. no.	The season					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1917	460	419	Apr.29,30,1917	0	-	-	-	-
1919	510	360	Apr. 7, 1919	0	-	-	-	-
1920	510	156	Apr. 30, 1920	0	-	-	-	-
1921	530	391	Apr. 5,6,1921	0	-	-	-	-
1922	550,1564	*563	Apr. 29, 1922*	0	-	-	-	-
1923	570	150	Apr.19-21,1923	0	-	-	-	-

* Revised.

Note.--Maximums for the season are also maximums for the water year.
Records as published in WSP 550 did not include diversion by Dunn Field ditch; adjusted herein to include diversion.

ALVORD LAKE BASIN

503. Trout Creek near Denio, Oreg.

Location.--Lat 42°10', long 118°28', in SW¼ sec. 26, T. 39 S., R. 36 E., 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.

Gage.--Water-stage recorder. Datum of gage is 4,351.59 ft above mean sea level, datum of 1929. Prior to Apr. 15, 1922, staff gage 0.4 mile downstream at different datum. Apr. 28, 1922, to June 14, 1932, water-stage recorder 10 ft upstream at datum 0.50 ft higher.

Average discharge.--19 years (1922-23, 1932-50), 13.8 cfs.

Extremes.--1911-12, 1922-23, 1925-50: Maximum discharge, 470 cfs (revised) Aug. 1, 1933 (gage height, 5.26 ft), from rating curve extended above 230 cfs by logarithmic plotting; probably no flow at times.
Maximum stage known, 6.0 ft (caused by cloudburst), probably occurred in 1924 or 1925.

Remarks.--Diversions for irrigation of about 800 acres above station; no regulation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	39.4	71.1	82.0	18.9	5	2	-
1912	7	16	18	12.0	10.0	20.0	-	-	-	-	-	-	-
1922	-	-	-	-	-	-	-	83.4	39.5	6.80	1.37	2.10	-
1923	2.75	4.16	3.62	3.58	3.98	4.16	10.4	23.8	15.1	6.00	2.18	1.46	6.78
1924	6.02	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	-	-	‡31.8	30.2	9.7	-	-	-	-
1926	-	-	-	-	-	-	-	31.4	5.0	1.1	1.1	2.7	-
1927	-	-	-	-	-	-	-	92.5	66.9	16.9	12.1	14.8	-
1928	-	-	-	-	-	-	23.0	56.4	11.5	6.4	2.5	2.2	-
1929	-	-	-	-	-	-	16.3	45.9	17.0	3.0	2.1	2.6	-
1930	-	-	-	-	-	-	16.4	25.1	6.7	.8	.8	1.4	-
1931	-	-	-	-	-	-	6.65	7.75	4.30	1.34	.39	.48	-
1932	-	-	-	-	-	-	43.8	*116	49.0	10.1	2.31	1.97	-
1933	4.29	5.06	4.07	5.78	4.12	5.71	12.6	31.6	29.9	4.10	2.29	1.52	9.26
1934	3.11	3.97	4.10	4.10	4.87	6.85	10.9	4.41	2.50	1.04	.10	.13	3.82
1935	1.83	3.03	3.22	2.96	3.36	4.71	43.2	91.6	59.7	9.55	1.95	1.40	18.9
1936	3.46	5.54	5.38	6.23	4.71	5.0	30.8	40.0	19.2	2.88	1.54	3.47	10.7
1937	3.86	4.04	3.41	3.86	4.88	6.00	12.8	58.5	22.8	4.63	1.30	1.61	10.7
1938	3.04	3.97	7.01	5.44	8.11	16.0	67.9	142	50.1	13.7	3.90	3.12	27.1
1939	6.99	7.95	6.73	6.37	6.17	17.2	27.1	19.6	5.50	1.98	.79	1.08	8.97
1940	2.96	3.26	3.47	4.82	6.32	14.7	38.1	54.8	10.5	2.57	.95	3.20	12.2
1941	4.33	9.23	7.15	6.20	11.7	19.7	25.4	68.0	22.9	6.46	3.06	3.12	15.6
1942	5.49	6.11	5.31	5.11	6.10	9.00	42.6	91.0	68.9	11.2	4.05	3.87	21.6
1943	4.86	6.81	7.63	8.69	14.8	26.9	73.5	47.5	44.0	13.7	4.20	3.80	21.3
1944	5.73	6.55	4.47	5.17	6.32	7.28	18.2	56.4	30.8	11.2	3.63	2.65	13.2
1945	6.16	6.81	5.83	6.14	11.0	13.0	39.8	109	64.9	14.6	6.21	4.33	24.0
1946	6.95	8.84	8.22	8.62	9.40	16.7	50.5	42.6	14.2	6.03	3.75	4.25	15.0
1947	6.29	7.29	6.75	5.85	5.94	5.42	16.8	22.9	15.8	4.07	1.17	2.38	8.38
1948	4.62	6.45	6.45	6.17	6.07	6.14	19.7	54.9	45.9	11.3	3.58	3.32	14.6
1949	5.54	6.56	5.60	3.40	4.01	7.26	25.9	37.9	13.4	3.98	1.40	1.28	9.71
1950	3.55	4.60	5.37	4.67	4.65	5.80	21.1	44.1	21.7	6.12	2.98	2.71	10.6

* Revised.
‡ Not previously published; partly estimated on basis of records for Chewaucan River near Paisley.

Monthly and yearly runoff, in acre-feet, of Trout Creek near Denio, Oreg.

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	2,340	4,370	†4,880	1,160	307	119	-
1912	430	952	1,110	738	575	1,230	-	-	-	-	-	-	-
1922	-	-	-	-	-	-	-	5,130	2,350	418	84	125	-
1923	169	248	223	220	221	256	619	1,460	898	369	134	87	4,900
1924	370	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	-	-	‡1,890	1,860	577	-	-	-	-
1926	-	-	-	-	-	-	-	1,930	298	68	68	161	-
1927	-	-	-	-	-	-	-	5,690	3,980	1,040	744	881	-
1928	-	-	-	-	-	-	1,370	3,470	684	394	154	131	-
1929	-	-	-	-	-	-	970	2,820	1,010	184	129	155	-
1930	-	-	-	-	-	-	976	1,540	399	49	49	83	-
1931	-	-	-	-	-	-	396	477	256	82	24	29	-
1932	-	-	-	-	-	-	2,610	*7,130	2,920	621	142	117	-
1933	264	301	250	355	229	351	750	1,940	1,780	252	141	90	6,700
1934	191	236	252	252	271	421	647	271	149	64	6	8	2,770
1935	113	180	198	182	187	290	2,570	5,630	3,550	587	120	84	13,690
1936	213	330	331	383	271	307	1,830	2,460	1,140	177	95	207	7,740
1937	238	240	209	237	271	369	761	3,600	1,350	285	80	96	7,740
1938	187	236	431	335	450	982	4,040	8,720	2,980	845	240	186	19,630
1939	430	473	414	392	343	1,060	1,610	1,210	327	122	49	64	6,490
1940	182	194	214	296	364	905	2,270	3,370	624	158	58	190	8,820
1941	266	549	440	381	648	1,210	1,510	4,180	1,360	397	188	186	11,320
1942	337	363	326	314	339	553	2,530	5,590	4,100	691	249	230	15,620
1943	299	405	469	534	821	1,660	4,370	2,920	2,620	845	258	226	15,430
1944	352	390	275	318	363	448	1,080	3,470	1,830	691	223	158	9,600
1945	379	405	358	377	612	797	2,370	6,700	3,860	895	382	257	17,390
1946	427	526	505	530	522	1,030	3,000	2,620	843	371	231	253	10,860
1947	387	434	415	360	330	333	999	1,410	938	250	72	142	6,070
1948	284	384	396	379	349	378	1,180	3,380	2,730	692	220	198	10,570
1949	341	390	344	209	223	446	1,540	2,330	800	245	86	76	7,030
1950	218	274	330	287	258	356	1,260	2,710	1,290	376	183	161	7,700

* Revised.
† Corrected.
‡ Not previously published; see footnote to preceding table.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	a132	June 5, 1911	-	-	-	-	-
1912	330	-	-	-	-	-	-	-
1922	550	149	May 19, 1922	-	-	-	-	-
1923	570	a39	May 18, 1923	0.8	6.78	4,900	-	-
1924	570	-	-	-	-	-	-	-
1925	610	92	Apr. 15, 1925	-	-	-	-	-
1926	630	85	May 5, 1926	-	-	-	-	-
1927	650	235	May 18, 1927	-	-	-	-	-
1928	670	138	May 9, 1928	-	-	-	-	-
1929	690	89	May 17, 1929	-	-	-	-	-
1930	705	42	Apr. 24, 1930	-	-	-	-	-
1931	720	46	May 2, 1931	-	-	-	-	-
1932	735,1564	*256	May 14, 1932	-	-	-	-	-
1933	750	*470	Aug. 1, 1933	-	9.26	6,700	90.8	6,570
1934	765	*31	Oct. 30, 1933*	-	3.82	2,770	3.56	2,580
1935	790	163	May 30, 1935	.8	18.9	13,690	19.5	14,070
1936	810	78	Apr. 24, 1936	.6	10.7	7,740	10.4	7,560
1937	830	127	May 14, 1937	.8	10.7	7,740	10.9	7,900
1938	860	*305	May 16, 1938	2.1	27.1	19,630	27.8	20,100
1939	880	55	Mar. 25, 1939	.5	8.97	6,490	7.96	5,770
1940	900	107	May 11, 1940	.5	12.2	8,820	13.1	9,490
1941	970	124	May 12, 1941	1.5	15.6	11,320	15.3	11,090
1942	960	239	May 23, 1942	1.0	21.6	15,620	21.8	15,770
1943	980	112	Apr. 18, 1943	2.8	21.3	15,430	21.1	15,270
1944	1010	124	May 10, 1944	1.8	13.2	9,600	13.4	9,720
1945	1040	228	May 11, 1945	3.2	24.0	17,390	24.5	17,710
1946	1060	101	Apr. 26, 1946	3.2	15.0	10,860	14.7	10,640
1947	1090	60	May 3, 1947	.8	8.38	6,070	8.15	5,900
1948	1120	131	June 4, 1948	2.0	14.6	10,570	14.6	10,580
1949	1150	73	May 16, 1949	.7	9.71	7,030	9.36	6,780
1950	1180	88	May 23, 1950	2.2	10.6	7,700	-	-

* Revised.
a Maximum observed.

504. Little Cottonwood Creek near Denio, Oreg.

Location.--Lat 42°10', long 118°36', in NE¼ sec. 28, T. 39 S., R. 35 E., near mouth of canyon, 8 miles south of Fields, and 11½ miles north (revised) of Denio.

Drainage area.--8 aq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,200 ft (from topographic map).

Extremes.--1911-12: Maximum discharge observed, 32 cfs Apr. 26, 1911 (gage height, 1.5 ft), from rating curve extended above 10 cfs; no flow at times.
Normally no flow except during snow-melt seasons.

Remarks.--Records for high-water seasons only. No diversion or regulation above station.

Monthly mean discharge, in cubic feet per second

Year	Feb.	Mar.	Apr.	May	June	July	Aug.
1911	-	-	10.2	8.6	4.73	0.71	0.10
1912	1.1	1.4	3.6	-	-	-	-

Monthly runoff, in acre-feet

Year	Feb.	Mar.	Apr.	May	June	July	Aug.
1911	-	-	607	529	281	44	6
1912	63	86	214	-	-	-	-

TUMTUM LAKE BASIN

505. Van Horn Creek near Denio, Oreg.

Location (revised).--Lat 42°03', long 118°37', in NE¼ sec. 4, T. 41 S., R. 35 E., downstream from Denio-Fields highway bridge and 4 miles northeast of Denio.

Drainage area.--10 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,300 ft (from topographic map).

Extremes.--March to June 1911: Maximum discharge observed, 17 cfs Apr. 1 (gage height, 1.10 ft); no flow May 8 to June 30.

Remarks.--Records for high-water season only. Diversion by 2 ditches for irrigation of about 40 acres above station. No regulation.

Monthly mean discharge, in cubic feet per second

Year	Mar.	Apr.	May	June
1911	-	8.2	0.3	0

Monthly runoff, in acre-feet

Year	Mar.	Apr.	May	June
1911	-	488	18	0

506. Home Creek near Beckley, Oreg.1/

Location.--Lat 42°33', long 118°56', in NE¼ sec. 10, T. 35 S., R. 32 E., 12 miles southeast of former town of Beckley and 19 miles south of Frenchglen.

Drainage area.--38 sq mi, approximately.

Gage.--Staff gage. Altitude of gage is 4,600 ft (from topographic map). Prior to Mar. 13, 1930, near described site at different datums.

Extremes.--1911-12, 1915-17, 1930: Maximum discharge observed, 330 cfs Apr. 27, 1912 (gage height, 4.7 ft, datum then in use), from rating curve extended above 35 cfs; minimum observed, 0.1 cfs Sept. 8, 9, 16, 1916.

Remarks.--No diversion or regulation above station.

Cooperation.--Records for 1930, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	-	2.15	-	-	-
1912	-	-	-	-	-	21.2	134	140	33.9	3.40	-	-	-
1915	-	-	-	-	-	-	36.0	41.4	7.1	-	-	-	-
1916	1.8	8.6	4.5	*3.4	15.0	27.1	15.0	37.7	10.0	3.3	1.4	.8	*10.7
1917	2.4	2.8	2.0	*1.6	1.6	1.9	39.8	97.5	27.6	-	-	-	-
1930	-	-	-	-	-	-	20.9	7.37	3.05	1.59	1.39	2.30	-

* Revised; only monthly figure revised; revised daily figures not available.

Monthly and yearly runoff, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1911	-	-	-	-	-	-	-	-	-	132	-	-	-
1912	-	-	-	-	-	1,300	7,970	8,610	2,020	209	-	-	-
1915	-	-	-	-	-	-	2,140	2,550	422	-	-	-	-
1916	111	512	277	*209	863	1,670	893	2,320	595	203	86	48	*7,790
1917	148	167	123	*98	89	117	2,370	6,000	1,640	-	-	-	-
1930	-	-	-	-	-	-	1,240	453	181	98	85	137	-

* Revised.

Yearly discharge, in cubic feet per second

Year	W.S.P. no.	Water year ending Sept. 30					Calendar year	
		Maximum observed		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet
		Discharge	Date					
1911	310	-	-	-	-	-	-	-
1912	410	330	Apr. 27, 1912	-	-	-	-	-
1915	410	165	May 5, 1915	-	-	-	-	-
1916	440	104	May 25, 1916	0.1	*10.7	*7,790	*10.1	*6,890
1917	460	a250	May 1, 1917	-	-	-	-	-
1930	(b)	‡30	Apr.7-9, 1930	-	-	-	-	-

* Revised.
‡ Not previously published.
a Momentary maximum.
b Reports of State engineer of Oregon.

1/ Published as "near Narrows", 1911.

538662 O - 60 - 31

INDEX

U.S. GOVERNMENT PRINTING OFFICE: 1960 O - 538662