Surface Water Supply of the United States 1959

Part 13. Snake River Basin

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1637

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

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PREFACE

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

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

Lynn Crandall, succeeded by W. I. Travis (Boise, Idaho)	Idaho Falls, Idaho
W. T. Miller	Denver, Colo.
T. R. Newell, succeeded by W. I. Travis	Boise, Idaho
K. N. Phillips	Portland, Oreg.
F. M. Veatch	Tacoma, Wash.
M. T. Wilson	Salt Lake City, Utah

CALENDAR FOR WATER YEAR 1959

OCTOBER 1958

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

NOVEMBER 1958

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

DECEMBER 1958

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

JANUARY 1959

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

FEBRUARY 1959

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

MARCH 1959

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

APRIL 1959

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

MAY 1959

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

JUNE 1959

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

JULY 1959

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

AUGUST 1959

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

SEPTEMBER 1959

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

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SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1959

SCOPE OF WORK

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

COOPERATION

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

Idaho: Idaho Department of Reclamation, G. N. Carter, State reclamation engineer; Idaho State Fish and Game Commission, Ross Leonard,, director.

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

Oregon: Office of the State Engineer, L. A. Stanley, and State Highway Commission, M. K. McIver, chairman.

Utah: Office of the State Engineer, W. D. Criddle.

Washington: State Department of Conservation, Earl Coe, director, through Division of Water Resources, M. G. Walker, supervisor.

Wyoming: Office of the State Engineer, Earl Lloyd.

Assistance in the form of funds or services was given by the Corps of Engineers, Department of the Army, in collecting records published herein for 19 gaging stations, of which 13 were in Idaho, 2 in Oregon, 2 in Washington, and 2 in Wyoming.

Assistance was also furnished by the Forest Service of the Department of Agriculture; by the Bonneville Power Administration, and the Bureau of Reclamation of the United States Department of the Interior; and by the Atomic Energy Commission.

The following organizations aided in collecting records:

Idaho: Board of Control for Boise Project, Idaho Power Co., Idaho Water District 36, North Side Canal Co., Twin Falls Canal Co., Utah Power & Light Co., Washington Water Power Co., Pacific Northwest Power Co., American Falls Reservoir District 2, and watermasters for Big Lost, Little Lost, Bid Wood, Little Wood, Boise, and Lake Fork Payette Rivers, and Mud Lake.

Oregon: Baker, Malheur, Union, and Wallowa Counties; Idaho Power Co., Pacific Power & Light Co., and Warmsprings Irrigation District.

Washington: Washington Water Power Co.

DIVISION OF WORK

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

State	District office	Address
Idaho a/	Boise	914 Jefferson Street.
Nevada b/	Salt Lake City, Utah	463 Federal Building.
Oregon c/	Portland	1001 NE. Lloyd Boulevard.
Utah	Salt Lake City	463 Federal Building.
Washington	Tacoma	207 Federal Building.
Wyoming d/	Denver, Colo	Denver Federal Center.

a/ Including Salmon Falls Creek above upper Vineyard ditch, near Contact, Nev., and near San Jacinto, Nev.; Snake River at Oxbow, Oreg., and near Anatone, Wash.; and all stations in the Snake River basin in Wyoming except Swift Creek near Afton, Wyo.
b/ Except for Salmon Falls Creek above upper Vineyard ditch, near Contact and near San Jacinto.
c/ Except for Snake River at Oxbow.
d/ Includes only the station for Swift Creek near Afton in the Snake River basin in Wyoming.

Information of a more detailed nature than that published for most of the gaging stations given in this report is on file in the district offices listed above. Provisional records of discharge prior to publication, and other unpublished data concerning the gaging-station records may generally be obtained from the district office.

DEFINITION OF TERMS AND ABBREVIATIONS

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

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

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

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

Cubic feet per second per square mile (cfsm) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

Acre-foot (ac-ft) is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, a long reach of the channel, or an artificial structure.

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

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

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

DOWNSTREAM ORDER AND STATION NUMBERS

Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records was changed. In this report, in a downstream direction along the main stem, all stations on a tributary entering above a main-stem station are listed before that station. If a tributary enters between two main-stem stations, it is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. To indicate the rank of any tributary on which a gaging station is situated and the stream to which it is immediately tributary, each indention in the listing of gaging stations in the table of contents of this report represents one rank. This downstream order and system of idention show which gaging stations are on tributaries between any two stations on a main stem and the rank of the tributary on which each gaging station is situated.

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

As an added means of identification, each gaging station and partial-record station has been assigned a station number. The numbers have been assigned in the same downstream order used in this report. In assigning station numbers, no distinctior is made between partial-record stations and regular gaging stations, so that the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete number for each station includes the part number, but the station number shown in this report, just to the left of the station name, consists of only the essential digits of the complete number. For example, for a station with the complete number 13-0100.00, the station number shown in this report is 100. The notation to the left of the hyphen is the part number; it is 13 for all stations in this report and is therefore omitted.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record

of fluctuations. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and are also outlined in standard textbooks on the measurement of stream discharge.

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

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

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

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

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, general remarks, and notations of revisions of the previously published record. The location of the gaging

station and the drainage area are obtained from the most accurate maps available. River mileage, given under "Location" for some stations, is that determined and used by the Corps of Engineers unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at the present site. Under "Gage" are given the type of gage currently in use and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the third or last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder, a crest-stage indicator, or a non-recording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual reports. In order to make it easier to find such revised records, a paragraph headed "Revisions (water years)" has been added to the description of all stations for which revised records have been published. Listed therein are all reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are concerned in the revisions, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

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

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

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

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "Mean" gives the average flow in cubic feet per second during the month. Discharge for the month may be expressed in cubic feet per second per square mile (line headed "Cfsm"), or in inches (line headed "In."), or in acre-feet (line headed "Ac-ft"). Figures for cubic feet per second per square mile and runoff in inches are omitted if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges, not the momentary discharge when the water was at crest stage. Likewise, the minimums in this summary are the minimum daily discharges.

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

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

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

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

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

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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

Discharge at some stations, as indicated by the monthly mean, may vary widely from natural runoff, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a

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reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur when relatively large negative adjustments are made or when evaporation is large in comparison with the observed discharge.

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

PUBLICATIONS

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

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

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

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

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

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

Early records of the flow of streams in the United States are published in the reports listed on page 10. In many of these reports records for years earlier than those indicated have been included for some streams.

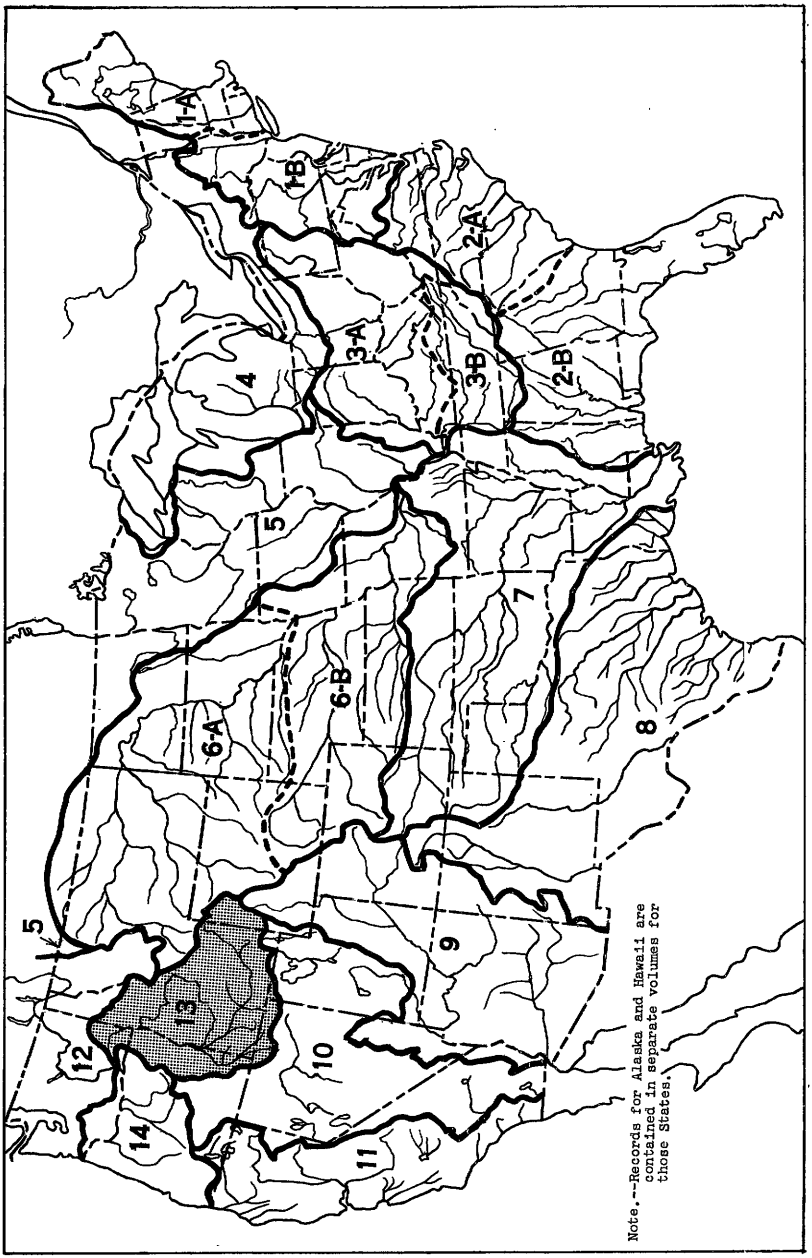

Figure 1.--Map of conterminous United States showing areas covered by 18 of the 20 volumes on surface water supply. The area covered by this report is shaded.

Streamflow data for the years 1844-1901, in reports of the Geological Survey

(A = Annual Report; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to September 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884-92.
14th A, pt. 2	Monthly discharge.....	1888-93.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
WSP 11.....	Gage heights.....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge...	1895-96.
WSP 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
WSP 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge....	1897.
WSP 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
WSP 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge.....	1898
WSP 35 to 39.	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
WSP 47 to 52.	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
WSP 65, 66...	Descriptions, measurements, gage heights, and ratings.....	1901.
WSP 75.....	Monthly discharge.....	1901.

Note.--Records for all stations in Oregon are contained in WSP 370, superseding all reports in this table for these stations.

Reports on surface-water supply containing records from 1899 to date for drainage basins in this report are listed below. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained.

Numbers of water-supply papers containing results of stream measurements in Snake River basin, 1899-1959

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	38	1912	332-B	1925	613	1937	833	1949	1153
1900	51	1913	362-B	1926	633	1938	863	1950	1183
1901	66, 75	1914	393	1927	653	1939	883	1951	1217
1902	85	1915	413	1928	673	1940	903	1952	1247
1903	100	1916	443	1929	693	1941	933	1953	1287
1904	135	1917	463	1930	708	1942	963	1954	1347
1905	178	1918	483	1931	723	1943	983	1955	1397
1906	214	1919-20	513	1932	738	1944	1013	1956	1447
1907-8	252	1921	533	1933	753	1945	1043	1957	1517
1909	272	1922	553	1934	768	1946	1063	1958	1567
1910	292	1923	573	1935	793	1947	1093	1959	1637
1911	312	1924	593	1936	813	1948	1123		

Note.--Records for all stations in Oregon through September 1910 are contained in WSP 370, superseding all earlier reports for these stations.

A compilation of records for the area covered by this report through September 1950 has been published as Water-Supply Paper 1317. That report contains a summary of monthly and annual discharges for all previously published records as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. 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 list on the following page gives the numbers and titles of these reports:

Report

WSP 771: Floods in the United States, magnitude and frequency.
WSP 847: Maximum discharges at stream-measurement stations through September 1938.
WSP 1080: Floods of May-June 1948 in Columbia River basin.
WSP 1260-F: Summary of floods in the United States during 1952.
WSP 1370-C: Summary of floods in the United States during 1954.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table below contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the water year October 1958 to September 1959 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
American Falls Reservoir, inflow to.	Near American Falls, Idaho.....	1927-28, 1932-59	Idaho Water District 36.
Malheur River.....	SW¼ sec.32, T.20 S., R.41 E., near Namorf, Oreg.	1931-59†	Oregon State engineer.
Snake River tributaries...	Near Irwin, Idaho.....	1940-59‡	Idaho Water District 36.
Teton basin tributaries...	Near Driggs, Idaho.....	1934-59‡	Do.

† Records for some earlier years published in water-supply papers of the Geological Survey.
‡ Fragmentary.
Note.--Of the records for the stations operated by the Oregon State engineer, those for 1931-36 are published in Bulletin 9 of the State engineer and those for 1937-41 in Bulletin 10; those for 1942-59 have not been published. Records for some canals, not listed above, have been collected by the Oregon State engineer and the Bureau of Reclamation in connection with water supply for irrigation and other projects.

HYDROLOGIC CONDITIONS

Runoff for the water year was generally excessive in the northern part of the basin, near median in the central part, and deficient in the southern part. Delayed snowmelt and above average temperatures caused excessive runoff during June in most of the basin. Runoff for September, caused by unseasonal rains, exceeded previous flows of record for the month in several tributaries and was near the maximum of record in others. Cloudbursts in the hills north and northeast of Boise on August 20 caused floods in several small tributaries. Discharges per square mile at the crest of the floods were by far the highest ever measured in that part of Snake River basin. Drought conditions again returned to the southern tributaries of Snake River. Annual runoff of the Owyhee River near Gold Creek, Nevada, was the lowest in 31 years of record and only 24 percent of median.

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

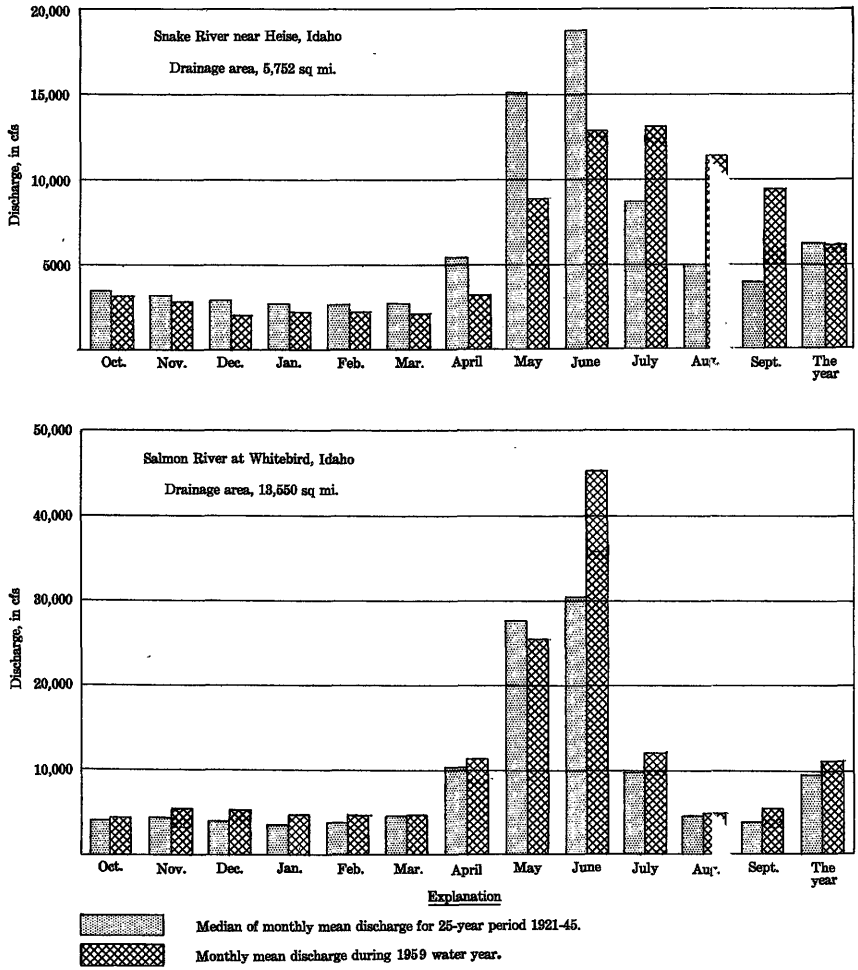

Figure 2. Comparison of discharge at two key gaging stations during 1959 water year with median discharge for 25-year period.

SNAKE RIVER MAIN STEM

105. Jackson Lake at Moran, Wyo.

Location.--Lat 43°51', long 110°35', in sec.18, T.45 N., R.114 W., near left end of spillway over dam on Snake River at Moran.

Drainage area.--824 sq mi.

Records available.--July 1908 to September 1959 (1908-10 fragmentary).

Gage.--Electric tape gage read once daily. Datum of gage is 2.19 ft above mean sea level, unadjusted. Prior to June 1, 1941, staff gage at site 300 ft upstream at same datum.

Extremes.--Maximum contents during year, 853,890 acre-ft June 27 (gage height, 6,769.27 ft); minimum, 464,680 acre-ft Nov. 6 (gage height, 6,753.18 ft).
1908-59: Maximum contents, 857,220 acre-ft June 23, 1937 (gage height, 6,769.40 ft); no usable contents several days during period August to October 1919.

Remarks.--Reservoir was formed by log crib dam in 1906 with a usable capacity of 300,000 acre-ft. This dam washed out in July 1910 and was replaced by an earth dam, forming a reservoir with a usable capacity of 380,000 acre-ft. The earth dam was raised in 1916, increasing the usable capacity to 790,000 acre-ft. In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-ft between gage heights 6,730 (top of baffles to sluices) and 6,769 ft (top of spillway gates). Water is used for irrigation in Snake River Valley, Idaho. Figures given herein represent usable contents.

Cooperation.--Reservoir gage heights and capacity table furnished by Bureau of Reclamation.

Revisions.--WSP 1217: Drainage area.

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

6,750.0	392,900
6,755.0	506,550
6,760.0	624,360
6,765.0	746,280
6,770.0	872,600

Contents, in acre-feet, at 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	495,700	465,600	471,550	470,870	470,640	481,410	485,080	498,470	623,400	850,820	775,700	637,580
2	495,010	465,140	471,550	470,870	470,870	481,640	485,320	500,780	628,200	849,530	771,180	633,010
3	493,860	464,910	471,320	470,640	471,100	481,860	485,320	503,320	630,130	848,250	767,700	628,920
4	493,160	465,140	471,320	470,640	471,780	481,860	485,550	506,090	635,420	847,740	765,210	624,360
5	491,780	464,910	471,320	470,410	472,240	482,100	485,550	508,870	642,630	846,720	760,230	619,820
6	490,390	464,680	471,320	470,410	472,470	482,100	485,780	511,200	653,000	845,190	755,000	615,520
7	489,470	466,970	471,550	470,180	472,700	482,100	485,780	513,060	664,630	843,150	748,280	611,460
8	488,550	466,970	472,240	470,180	473,160	482,320	485,780	514,680	675,790	841,120	743,320	606,920
9	489,240	467,200	472,240	469,950	473,390	482,320	485,780	517,700	684,810	838,830	736,870	602,380
10	488,320	468,350	472,010	469,950	473,620	482,320	485,550	521,660	695,050	836,280	733,920	598,340
11	487,160	468,800	472,930	469,720	473,840	482,550	485,550	524,210	704,370	833,740	729,220	594,060
12	486,010	468,580	472,930	469,720	474,300	482,550	485,780	526,770	713,460	831,190	724,030	590,030
13	484,850	468,580	472,930	469,490	474,530	482,780	485,780	530,730	724,530	828,400	720,330	585,760
14	483,700	469,720	472,930	469,260	474,530	482,780	486,010	536,340	737,140	825,850	715,420	581,970
15	483,010	471,320	472,930	469,260	474,760	482,780	486,010	543,830	750,520	823,050	710,510	578,650
16	482,100	471,320	472,700	469,030	475,220	482,780	485,780	553,190	765,960	820,260	703,630	574,390
17	480,950	471,550	472,700	468,800	476,140	482,780	485,780	561,910	775,200	816,720	700,930	570,150
18	479,800	471,320	472,470	468,800	476,600	482,780	485,780	568,030	787,240	813,690	697,000	566,150
19	478,660	471,320	472,240	468,580	477,280	483,240	486,240	572,740	798,280	810,660	692,620	561,910
20	478,890	472,930	472,010	468,580	477,510	483,240	486,470	576,990	800,560	809,650	689,440	559,080
21	477,740	472,930	471,780	468,580	477,740	483,240	486,470	580,310	817,990	809,900	685,060	556,020
22	476,370	472,930	471,780	468,580	478,200	483,240	486,700	585,530	826,610	809,650	680,420	553,900
23	474,990	472,930	471,550	468,350	478,430	483,240	486,700	588,370	834,760	809,900	676,760	552,960
24	473,840	472,930	471,550	468,580	478,890	483,240	486,700	590,510	842,140	808,390	672,620	552,250
25	472,700	472,930	471,320	468,800	479,340	483,010	488,090	592,640	848,250	805,110	668,020	551,320
26	471,780	472,700	471,320	468,800	480,030	483,010	490,860	596,670	852,350	801,320	664,140	551,790
27	470,870	472,470	471,100	469,030	480,490	483,010	492,930	602,380	853,890	797,780	659,540	551,790
28	469,720	472,240	471,100	469,720	480,950	483,010	494,090	607,400	853,120	793,510	655,190	552,720
29	468,580	472,010	471,100	470,180	-	482,780	495,470	612,410	851,840	789,240	650,830	552,250
30	467,430	471,780	470,870	470,410	-------	483,010	496,620	616,950	851,580	785,480	646,240	551,320
31	466,280	-------	470,870	470,640	-------	484,850	-------	620,060	-------	780,460	641,670	-------
(†)	6,753.25	6,753.49	6,753.45	6,753.44	6,753.89	6,754.06	6,754.57	6,759.82	6,769.18	6,766.37	6,760.72	6,756.92
(‡)	-31,040	+5,500	-910	-230	+10,310	+3,900	+11,770	+123,440	+231,520	-71,120	-138,790	-90,350

Calendar year 1958..... ‡ -138,910
Water year 1958-59..... ‡ +54,000

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

110. Snake River at Moran, Wyo.

Location.--Lat 43°51', long 110°35', in sec.18, T.45 N., R.114 W., on left bank at Moran, 1,000 ft downstream from Jackson Lake Dam.

Drainage area.--824 sq mi.

Records available.--September 1903 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Prior to October 1910, published as South Fork Snake River at Moran.

Gage.--Water-stage recorder. Datum of gage is 6,727.84 ft above mean sea level, unadjusted. Prior to July 26, 1915, staff gage at datum 4.00 ft lower; July 26, 1915, to June 13, 1917, staff gage at datum 5.00 ft lower; and June 14, 1917, to May 20, 1940, water-stage recorder at datum 5.00 ft lower; all at site 1½ miles downstream.

Average discharge.--56 years, 1,429 cfs (1,035,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,810 cfs June 27 (gage height, 8.26 ft); minimum, 386 cfs Jan. 29 to Feb. 4 (gage height, 2.56 ft).
1903-59: Maximum discharge, 15,100 cfs June 12, 1918 (gage height, 10.41 ft, site and datum then in use); minimum daily, 2 cfs Nov. 21, 1944, to Apr. 14, 1945.
Flood in early June 1894 probably was considerably higher than that of June 12, 1918.

Remarks.--Records excellent. Flow regulated by Jackson Lake (see preceding page).

Cooperation.--Gage-height record furnished by Bureau of Reclamation.

Revisions (water years).--WSP 1217: 1944(m), drainage area. WSP 1347: 1906-10.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 19 to Aug. 6)

2.5	345	5.0	2,110
3.0	580	6.0	3,250
3.5	860	7.0	4,670
4.0	1,210	8.0	6,300

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	806	435	412	412	386	412	422	466	895	3,380	3,170	2,740
2	806	435	412	412	386	412	422	466	1,860	3,370	3,160	2,720
3	806	435	412	412	386	412	430	458	2,280	3,380	3,150	2,710
4	806	435	412	412	386	412	430	466	2,280	3,300	3,110	2,710
5	806	435	412	412	390	412	422	466	2,290	3,300	3,080	2,710
6	806	435	408	417	394	412	422	444	2,290	3,290	3,080	2,710
7	800	435	408	417	394	422	426	440	2,310	3,290	3,050	2,700
8	806	430	408	417	394	422	430	440	2,300	3,280	3,040	2,690
9	800	430	408	417	394	422	430	440	2,310	3,260	3,010	2,690
10	800	426	408	417	394	422	430	435	*2,310	3,250	3,000	2,680
11	794	426	408	417	394	422	430	430	2,330	3,260	2,990	2,660
12	794	426	408	417	394	422	440	435	2,340	3,260	2,980	2,650
13	794	426	408	417	394	422	440	430	2,350	3,260	2,980	2,640
14	789	426	408	417	404	422	444	426	2,380	3,250	*2,980	2,640
15	789	430	408	417	404	422	444	426	2,410	3,240	2,960	2,640
16	789	430	408	*422	404	422	440	430	2,440	3,280	2,930	2,630
17	789	430	408	422	404	422	440	430	2,250	3,330	2,900	2,620
18	789	430	408	422	404	422	440	430	1,500	3,290	2,880	2,620
19	784	430	408	422	404	422	440	426	1,790	2,220	2,870	2,610
20	784	430	408	390	404	417	440	426	1,560	958	2,840	2,610
21	784	422	408	390	404	417	440	426	1,590	951	2,820	2,070
22	784	417	408	390	404	417	440	426	1,800	985	2,810	1,200
23	784	417	408	390	404	417	440	422	1,620	1,300	2,810	784
24	784	417	408	390	412	417	444	422	1,900	2,530	2,800	740
25	784	417	408	390	412	417	444	422	2,690	3,010	2,800	745
26	784	417	408	390	412	426	453	417	3,950	2,990	2,800	750
27	784	417	408	390	412	426	453	422	5,650	2,940	2,780	750
28	778	412	408	390	412	426	453	426	4,900	2,890	2,770	750
29	778	412	408	386	-	426	453	426	3,860	*2,860	2,760	750
30	778	412	408	386	-------	426	462	430	3,390	3,070	2,760	750
31	671	-------	408	386	-------	426	-------	430	-------	3,200	2,750	-------
Total	24,430	12,775	12,668	12,586	11,186	13,016	13,144	13,479	73,625	89,154	90,820	62,669
Mean	788	426	409	406	400	420	438	435	2,454	2,876	2,930	2,089
Ac-ft	48,460	25,340	25,130	24,960	22,190	25,820	26,070	26,740	146,000	176,800	180,100	124,300

Calendar year 1958: Max 4,380 Min 174 Mean 1,268 Ac-ft 917,800
Water year 1958-59: Max 5,650 Min 386 Mean 1,177 Ac-ft 851,900

* Discharge measurement made on this day.
Note.--Discharge computed from staff-gage readings Nov. 1 to June 1.

115. Pacific Creek near Moran, Wyo.

Location.--Lat 43°51'00", long 110°31'20", in sec.23, T.45 N., R.114 W., on left bank 50 ft downstream from bridge on U. S. Highway 287, half a mile upstream from mouth, and 3 miles southeast of Moran.

Drainage area.--160 sq mi.

Records available.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,720 ft (from topographic map). July 31 to Nov. 11, 1906, staff gage at site 0.4 mile downstream at different datum. July 20, 1917, to Sept. 30, 1918, staff gage at site 0.1 mile downstream at different datum.

Average discharge.--15 years (1944-59), 271 cfs (196,200 acre-ft per year).

Extremes.--Maximum discharge during year, 3,070 cfs June 7 (gage height, 4.65 ft in gage well); minimum recorded, 26 cfs Nov. 20 (gage height, 1.54 ft), but may have been less during period of ice effect.

1917-18, 1944-59: Maximum discharge, 3,470 cfs May 21, 1954; maximum gage height, 5.00 ft in gage well, 5.60 ft from outside gage May 28, 1951; minimum daily discharge, 24 cfs Nov. 29, 1952, Jan. 21, 1954, Feb. 20-23, 1955.

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

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	31	33	33	35	*42	55	254	767	645	118	80
2	45	31	35	33	35	41	62	316	1,050	585	125	82
3	45	32	36	33	37	41	62	325	1,400	599	146	80
4	45	36	*37	33	39	41	75	334	1,680	524	120	78
5	43	35	37	35	39	41	83	290	2,060	461	108	78
6	43	36	37	37	40	41	90	273	2,480	433	104	78
7	43	45	37	37	40	41	80	261	2,320	400	98	78
8	48	40	37	35	40	41	75	303	2,130	349	94	78
9	50	42	37	35	38	41	72	400	1,930	*316	91	78
10	49	48	37	35	37	41	70	427	*2,100	294	87	78
11	49	49	37	38	37	41	*70	358	1,720	273	85	77
12	48	43	37	42	37	41	70	428	1,840	254	84	77
13	48	43	36	44	37	41	77	607	2,060	239	84	77
14	46	39	33	44	37	41	82	890	2,080	214	82	78
15	45	38	33	42	37	41	84	994	2,100	204	80	82
16	44	37	35	*40	39	41	104	*1,320	1,820	197	77	84
17	44	31	35	40	41	43	114	950	1,700	185	75	85
18	43	26	35	40	41	43	115	767	1,500	170	80	87
19	44	26	35	40	41	41	114	683	1,340	162	87	84
20	48	27	35	38	40	41	98	578	1,290	159	*102	91
21	44	37	35	34	40	41	91	511	1,310	154	94	94
22	42	40	35	34	41	44	98	492	1,290	149	84	89
23	40	43	33	38	41	47	106	480	1,220	141	80	84
24	42	42	33	40	41	50	110	558	1,160	136	78	82
25	39	41	33	40	41	48	136	675	1,040	132	75	80
26	38	38	33	38	41	48	164	841	1,130	130	75	84
27	38	33	33	38	41	48	164	880	1,130	127	75	82
28	37	27	33	38	41	48	159	767	983	118	74	80
29	*36	27	33	38	-	48	164	683	804	*116	74	70
30	33	30	33	38	------	48	200	645	786	110	75	67
31	32	------	33	38	------	48	------	645	------	112	78	------
Total	1,336	1,093	1,081	1,168	1,094	1,343	3,044	17,935	46,220	8,088	2,789	2,422
Mean	43.1	36.4	34.9	37.7	39.1	43.3	101	579	1,541	261	90.0	80.7
Cfsm	0.269	0.228	0.218	0.236	0.244	0.271	0.631	3.62	9.63	1.63	0.562	0.504
In.	0.31	0.25	0.25	0.27	0.25	0.31	0.71	4.17	10.74	1.88	0.65	0.56
Ac-ft	2,650	2,170	2,140	2,320	2,170	2,660	6,040	35,570	91,680	16,040	5,530	4,800

Calendar year 1958: Max 1,880 Min 27 Mean 165 Cfsm 1.03 In. 14.01 Ac-ft 119,600
Water year 1958-59: Max 2,480 Min 27 Mean 240 Cfsm 1.50 In. 20.35 Ac-ft 173,800

Peak discharge (base, 1,300 cfs).--May 16 (6:30 a.m.) 1,550 cfs (3.99 ft); June 7 (1 a.m.) 3,070 cfs (4.65 ft); June 14 (1 p.m.) 2,610 cfs (4.49 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice most of time Nov. 16-19, Nov. 25 to Apr. 11 (no gage-height record Jan. 9-15, Feb. 3-28, Mar. 17 to Apr. 10, Apr. 18-20; discharge estimated on basis of weather records, 4 discharge measurements, and records for nearby stations).

120. Buffalo Fork near Moran, Wyo.

Location.--Lat 43°50'10", long 110°30'30", in sec.26, T.45 N., R.114 W., on right bank 0.2 mile above bridge crossing, half a mile upstream from mouth, 2½ miles downstream from Lava Creek, and 4 miles southeast of Moran. Prior to June 22, 1959, at site 0.2 mile upstream.

Drainage area.--378 sq mi.

Records available.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,720 ft (from topographic map). July 31 to Nov. 20, 1906, staff gage 300 ft upstream from mouth at different datum. July 9, 1917, to Sept. 30, 1918, staff gages at sites within 500 ft upstream from present site at different datums. June 1, 1958, to June 21, 1959, water-stage recorder 0.2 mile upstream at different datum.

Average discharge.--15 years (1944-59), 606 cfs (438,700 acre-ft per year).

Extremes.--Maximum discharge during year, 4,700 cfs June 16 (gage height, 5.93 ft); minimum daily, 100 cfs (estimated) Nov. 27, 28, but may have been less during period of ice effect.

1917-18, 1944-59: Maximum discharge, 5,960 cfs June 27, 1954 (gage height, 6.71 ft); minimum, 78 cfs Nov. 20, 1953 (gage height, 0.88 ft), but may have been less during periods of ice effect.

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

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(*Shifting-control method used June 5-21*)

Oct. 1 to June 21				June 22 to Sept. 30			
0.7	113	2.5	863	3.6	280	5.0	1,820
.8	133	3.0	1,280	4.0	580	6.0	3,250
1.0	181	3.5	1,800	4.5	1,130	6.6	4,150
1.5	345	4.0	2,390				
2.0	565	4.5	3,020				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	140	120	110	110	*130	160	430	775	1,550	607	350
2	171	131	130	110	110	130	175	500	1,040	1,440	661	343
3	168	138	140	110	110	120	190	500	1,450	1,750	625	343
4	168	140	*140	110	110	120	200	500	1,870	2,030	572	350
5	166	151	120	110	120	120	210	480	2,230	1,750	560	357
6	164	147	130	110	120	120	210	460	2,520	1,890	530	357
7	161	184	135	120	120	120	190	480	2,790	2,090	510	357
8	174	158	135	120	120	120	170	530	2,770	1,710	490	364
9	200	171	130	110	110	120	160	600	2,800	*1,600	470	329
10	184	186	120	110	110	120	155	700	*2,970	1,610	460	329
11	184	189	130	120	110	120	*153	620	2,460	1,510	450	336
12	189	138	130	120	110	120	160	720	2,900	1,720	440	357
13	186	147	120	120	110	120	170	1,000	3,370	1,670	430	378
14	178	168	110	120	110	120	180	1,100	3,760	1,690	420	385
15	176	174	110	110	110	120	190	1,130	4,140	1,650	406	406
16	174	147	110	110	120	130	210	*1,700	4,360	1,550	392	436
17	166	130	120	*120	120	140	240	1,220	4,200	1,390	378	460
18	164	120	120	120	120	140	250	964	4,100	1,300	378	470
19	166	120	120	120	130	130	250	801	4,200	1,180	428	460
20	178	150	120	120	130	130	230	677	4,300	1,090	*436	490
21	161	160	120	110	130	130	210	611	4,200	1,010	420	500
22	164	160	120	110	130	130	220	590	4,040	940	392	480
23	164	149	110	120	130	140	235	560	4,060	892	371	460
24	174	140	110	120	130	150	250	638	3,940	847	364	450
25	171	149	110	120	130	150	270	706	3,860	836	364	430
26	164	120	110	110	130	150	290	835	3,560	803	357	450
27	168	100	110	110	130	150	290	894	3,000	750	364	430
28	161	100	110	110	130	150	280	822	2,340	710	343	410
29	*147	105	110	110	-	150	290	749	1,900	*652	343	380
30	140	110	110	110	------	150	340	712	1,860	616	343	350
31	135	------	110	110	------	150	------	695	------	616	343	------
Total	5,234	4,322	3,720	3,540	3,350	4,090	6,528	22,924	91,765	40,842	13,647	11,997
Mean	169	144	120	114	120	132	218	739	3,059	1,317	440	400
Cfsm	0.447	0.381	0.317	0.302	0.317	0.349	0.577	1.96	8.09	3.48	1.16	1.06
In.	0.51	0.43	0.37	0.35	0.33	0.40	0.64	2.26	9.03	4.02	1.34	1.18
Ac-ft	10,380	8,570	7,380	7,020	6,640	8,110	12,950	45,470	182,000	81,010	27,070	23,800

Calendar year 1958: Max 3,840 Min 100 Mean 461 Cfsm 1.22 In. 16.54 Ac-ft 333,600
Water year 1958-59: Max 4,360 Min 100 Mean 581 Cfsm 1.54 In. 20.86 Ac-ft 420,400

Peak discharge (base, 3,100 cfs).--June 16 (9 a.m.) 4,700 cfs (5.93 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice most of time Nov. 17-22, Nov. 26 to Mar. 31 (no gage-height record Nov. 26, 27, Nov. 29 to May 14, June 17-21, Aug. 5-13, Sept. 18-30); discharge estimated on basis of 4 discharge measurements, weather records, and records for nearby stations.

225. Snake River above reservoir, near Alpine, Wyo.

Location.--Lat 43°11'50", long 110°53'10", on right bank a quarter of a mile downstream from Wolf Creek, 7 miles upstream from Greys River, and 9 miles upstream from Alpine, Lincoln County.

Drainage area.--3,465 sq mi.

Records available.--March 1937 to March 1939 (published as "above Greys River near Alpine"), July 1953 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,683.90 ft above mean sea level, unadjusted. Mar. 16, 1937, to Mar. 31, 1939, at site 6½ miles downstream at different datum.

Average discharge.--7 years (1937-38, 1953-59), 4,511 cfs (3,266,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,100 cfs June 16 (gage height, 9.46 ft); minimum, 1,060 cfs Jan. 3 (gage height, 2.60 ft).
1937-39, 1953-59: Maximum discharge, 26,800 cfs June 28, 1954 (gage height, 11.68 ft); minimum, 740 cfs Nov. 16, 1955 (gage height, 2.19 ft).

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow partly regulated by Jackson Lake (see p. 13). Some diversions from tributaries above station.

Cooperation.--Water-stage-recorder graph furnished by Bureau of Reclamation.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 16 to June 2)

Oct. 1 to June 2				June 3 to Sept. 30			
2.8	1,340	5.0	5,000	2.8	1,340	6.0	7,540
3.2	1,760	6.0	7,620	3.2	1,760	7.0	10,400
3.6	2,260	7.0	10,800	3.6	2,260	8.0	13,400
4.0	2,920			4.0	2,920	9.5	18,300
				5.0	5,000		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,260	1,950	b1,530	b1,500	b1,250	1,410	1,620	3,780	4,660	10,100	6,000	4,280
2	2,250	1,760	b1,550	b1,450	b1,200	1,430	1,890	4,050	5,840	9,410	6,200	4,260
3	2,250	1,730	*1,600	b1,420	b1,250	1,410	2,150	4,000	8,680	9,290	6,140	4,240
4	2,230	1,820	1,640	b1,450	b1,300	1,370	2,290	3,820	10,400	9,660	5,970	4,190
5	2,220	1,830	1,530	b1,470	b1,400	1,370	2,660	3,600	11,800	9,350	5,820	4,130
6	2,200	1,790	1,580	b1,500	1,510	1,410	2,810	3,320	13,400	9,130	5,650	4,110
7	*2,180	2,090	1,630	b1,500	1,490	1,420	2,790	3,190	14,700	9,070	5,550	4,090
8	2,230	2,000	1,660	b1,450	1,490	1,410	2,620	3,320	14,500	8,820	5,460	4,030
9	2,340	1,880	1,620	b1,430	1,410	1,410	2,400	3,660	*14,100	8,290	5,340	3,980
10	2,250	1,920	1,600	b1,430	1,380	1,440	2,190	3,940	14,100	8,150	5,260	3,960
11	2,220	1,970	1,700	b1,500	1,400	1,410	2,110	3,700	13,600	8,030	5,170	3,940
12	2,200	1,860	1,800	1,560	1,430	1,400	2,070	*3,760	13,400	8,010	5,100	3,920
13	2,190	1,800	1,660	*1,550	b1,350	*1,450	2,160	4,470	14,400	8,010	4,980	3,920
14	2,180	1,890	1,570	1,470	b1,340	1,420	2,260	5,600	15,400	8,010	4,910	3,920
15	2,160	1,840	b1,550	b1,400	b1,370	1,380	2,300	6,070	16,600	7,980	4,860	3,940
16	2,150	1,760	b1,540	b1,430	1,430	1,410	2,250	7,870	17,900	7,870	4,750	3,960
17	2,130	1,750	b1,530	1,470	1,440	1,440	2,180	7,710	17,800	7,730	4,630	4,000
18	2,130	1,670	1,530	1,470	*1,420	1,500	2,150	6,350	16,600	7,510	4,700	4,030
19	2,130	1,690	1,560	1,470	1,420	1,500	2,120	5,480	15,900	7,240	4,820	4,050
20	2,190	1,770	1,520	1,400	1,390	1,460	*2,060	4,910	15,200	5,970	4,930	4,170
21	2,180	1,780	1,500	b1,350	1,380	1,450	2,020	4,360	15,200	4,880	4,840	4,170
22	2,120	1,760	1,530	b1,400	1,390	1,470	2,090	4,110	14,900	4,660	4,750	3,680
23	2,120	1,730	1,550	1,460	1,410	1,540	2,250	3,960	14,300	4,430	4,660	2,980
24	2,110	1,700	1,540	1,460	1,390	1,570	2,410	4,110	13,800	4,660	*4,610	2,590
25	2,090	1,690	1,520	1,450	1,380	1,570	2,980	4,430	13,800	5,820	4,590	2,550
26	2,090	1,600	1,520	1,400	1,420	1,610	3,640	4,820	14,200	6,020	4,590	2,690
27	2,090	b1,580	1,490	1,420	1,400	1,620	3,520	5,220	15,000	5,940	4,560	2,900
28	2,090	b1,550	b1,480	1,470	1,390	1,600	3,090	5,070	13,900	*5,800	4,470	2,810
29	2,080	b1,530	b1,480	1,440	-	1,620	3,000	4,820	*12,600	5,700	4,390	2,740
30	2,060	b1,530	b1,470	1,390	-------	1,650	3,300	4,660	11,100	5,600	4,340	2,640
31	*2,030	-------	b1,470	b1,350	-------	1,630	-------	4,430	-------	5,840	4,300	-------
Total	67,150	53,220	48,450	44,910	38,830	45,780	73,380	142,590	407,780	226,980	156,340	110,870
Mean	2,166	1,774	1,563	1,449	1,387	1,477	2,446	4,600	13,590	7,322	5,043	3,696
Ac-ft	133,200	105,600	96,100	89,080	77,020	90,800	145,500	282,800	808,800	450,200	310,100	219,900

Calendar year 1958: Max 17,600 Min 1,470 Mean 3,776 Ac-ft 2,734,000
Water year 1958-59: Max 17,900 Min 1,200 Mean 3,880 Ac-ft 2,809,000

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

230. Greys River above reservoir, near Alpine, Wyo.

Location.--Lat 43°08'50", long 110°59'20", in SW¼ sec.33, T.37 N., R.118 W., on left bank 2½ miles upstream from mouth and 3½ miles southeast of Alpine.

Drainage area.--451 sq mi.

Records available.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to September 1959. Published as Greys River near Alpine, Idaho, 1917-18 and as Greys River near Alpine, Wyo., 1937-39.

Gage.--Water-stage recorder. Datum of gage is 5,620.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, staff gage and Mar. 17, 1937, to Mar. 31, 1939, water-stage recorder, at site three-quarters of a mile downstream at different datum.

Average discharge.--7 years (1937-38, 1953-59), 641 cfs (464,100 acre-ft per year).

Extremes.--Maximum discharge during year, 2,920 cfs June 16 (gage height, 6.15 ft); maximum gage height, 7.37 ft Feb. 1 (ice jam); minimum discharge, 132 cfs Jan. 31 (gage height, 2.58 ft).
1917-18, 1937-39, 1953-59: Maximum discharge observed, 5,200 cfs June 14, 1918 (gage height, 4.85 ft, former site and datum); minimum, 118 cfs Dec. 15, 1955 (gage height, 2.62 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Less than 500 acres irrigated by diversions from Greys River and tributaries above station.

Cooperation.--Water-stage-recorder graph and 11 discharge measurements furnished by Bureau of Reclamation.

Note.--The supplemental peak discharges for water year 1958, not previously published, are given herewith:
Peak discharge (base, 2,000 cfs).-- May 10 (11 p.m.) 2,160 cfs (5.89 ft); May 28 (4 a.m.) 3,720 cfs (6.57 ft).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 9-19)

2.7	150	4.0	710
3.0	230	5.0	1,630
3.5	420	6.0	2,850

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	287	224	230		155	190	209	1,340	*1,260	*1,040	485	324
2	287	227	243		165	*192	262	1,520	1,500	1,010	510	320
3	287	236	*256		175	185	305	1,340	1,770	1,030	*490	320
4	284	243	262		185	185	402	*1,170	1,930	1,000	465	313
5	280	243	236		190	185	550	1,020	2,200	932	455	309
6	280	243	236	190	190	185	*658	948	2,500	900	440	309
7	276	313	246		190	185	645	940	2,620	876	430	305
8	280	289	240		190	185	568	1,120	2,410	852	416	298
9	284	266	236		190	185	475	1,310	*2,410	820	411	294
10	276	287	236		190	185	402	1,260	2,470	780	402	294
11	273	280	256		*190	185	371	1,120	2,210	759	402	294
12	269	*252	273		190	185	367	1,340	2,220	731	406	291
13	*266	246	227		185	185	411	1,720	2,330	710	402	291
14	259	266	218		180	185	450	1,860	2,290	704	388	291
15	259	249	200		182	185	460	1,680	2,400	717	380	298
16	256	218	236	195	190	185	435	2,310	2,600	717	367	298
17	252	203	236		190	185	406	1,810	2,420	664	359	305
18	252	209	227		190	185	398	1,560	2,360	638	367	302
19	252	227	233		190	185	380	1,400	2,290	619	398	305
20	266	252	233		190	182	351	1,230	2,230	612	440	305
21	249	246	227		190	185	347	1,120	2,230	593	398	305
22	249	236	240		190	190	393	1,100	2,190	586	371	298
23	249	240	236	190	190	203	490	1,090	2,080	562	363	294
24	256	246	233		190	198	574	1,190	1,960	544	355	298
25	249	236	218		190	198	900	1,350	1,840	544	347	324
26	246	209	215	185	190	200	1,260	1,400	1,740	526	351	375
27	246	243	200	185	190	212	1,040	1,410	1,510	532	355	398
28	243	215	200	182	190	200	844	1,250	1,310	510	339	339
29	233	218	195	172	-	212	804	1,170	1,220	490	331	320
30	230	224	195	158	------	209	991	1,160	1,130	480	328	309
31	227	------	200	155	------	206	------	1,150	------	470	*324	------
Total	8,102	7,266	7,119	5,837	5,217	5,922	16,148	41,388	61,630	21,948	12,275	9,326
Mean	261	242	230	188	186	191	538	1,335	2,054	708	396	311
Cfsm	0.579	0.537	0.510	0.417	0.412	0.424	1.19	2.96	4.55	1.57	0.878	0.690
In.	0.67	0.60	0.59	0.48	0.43	0.49	1.33	3.41	5.08	1.81	1.01	0.77
Ac-ft	16,070	14,410	14,120	11,580	10,350	11,750	32,030	82,090	122,200	43,530	24,350	18,500

Calendar year 1958: Max 3,540 Min 185 Mean 608 Cfsm 1.35 In. 18.31 Ac-ft 440,200
Water year 1958-59: Max 2,620 Min 155 Mean 554 Cfsm 1.23 In. 16.67 Ac-ft 401,000

Peak discharge (base, 2,000 cfs).--May 16 (4:30 a.m.) 2,630 cfs (5.81 ft); June 7 (2 a.m.) 2,780 cfs (6.02 ft); June 16 (3 a.m.) 2,920 cfs (6.15 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 28, Dec. 31 to Jan. 27, Jan. 31, Feb. 1. No gage-height record Feb. 2-13, Feb. 16 to Mar. 1. Discharge estimated on basis of 2 discharge measurements, weather records, and records for Salt River above reservoir, near Etna.

250. Swift Creek near Afton, Wyo.

Location.--Lat 42°43'30", long 110°54'00", in SE¼ sec. 29, T.32 N., R.118 W., on right bank 1 mile upstream from mouth of canyon, 1½ miles east of Afton, and 4½ miles upstream from mouth.

Drainage area.--27.4 sq mi.

Records available.--October 1942 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,420 ft (from topographic map).

Average discharge.--17 years, 89.6 cfs (64,870 acre-ft per year).

Extremes.--Maximum discharge during year, 584 cfs June 16 (gage height, 3.47 ft); minimum daily, 20 cfs Dec. 30.
1942-59: Maximum discharge, 775 cfs June 30, 1957 (gage height, 3.52 ft); minimum daily, that of Dec. 30, 1958.

Remarks.--Records good. Pipeline (adjudication, 2.5 cfs) diverts water above station for town of Afton. Diurnal fluctuation caused by small powerplant and reservoir (adjudication, 48.45 acre-ft per year) a quarter of a mile upstream. No diversion for irrigation above station.

Rating table, water year, 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 12-26, Aug. 3-26)

1.7	20	2.2	91
1.8	24	2.5	183
1.9	34	3.0	428
2.0	49	3.5	735

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	49	40	31	22	30	32	48	65	232	104	65
2	43	49	40	30	22	32	33	53	73	250	106	59
3	43	49	42	23	24	32	34	48	98	278	96	55
4	44	51	43	21	28	30	37	48	128	278	96	48
5	44	51	43	31	28	28	38	46	199	264	89	51
6	44	51	42	29	28	31	40	46	278	264	87	57
7	43	*51	42	24	28	28	*40	46	329	254	87	53
8	44	51	42	24	28	29	40	46	*298	*232	82	48
9	46	49	42	22	27	23	38	49	308	215	*78	43
10	*48	49	42	25	23	24	38	55	362	215	73	48
11	9	48	42	27	23	27	38	53	329	223	73	59
12	49	48	42	29	28	28	38	53	340	219	73	57
13	49	46	40	30	*29	30	38	*73	390	207	71	*59
14	49	48	40	30	22	28	40	84	412	211	69	59
15	49	46	40	28	21	22	40	80	440	211	67	59
16	49	42	40	29	32	22	40	101	524	203	63	55
17	49	42	40	28	32	30	40	87	506	179	57	51
18	49	40	*40	29	31	30	40	76	*470	176	63	49
19	51	42	40	29	32	*31	40	71	464	165	67	49
20	53	42	40	30	31	31	38	67	476	151	73	46
21	53	43	38	28	31	31	38	65	494	141	69	44
22	53	43	38	29	30	33	38	61	428	135	63	42
23	53	43	38	29	31	33	38	61	452	135	55	43
24	53	43	33	29	31	33	38	59	417	125	53	51
25	53	43	31	29	26	33	40	61	373	125	53	57
26	53	43	30	28	30	33	46	61	351	116	57	53
27	53	43	33	29	26	33	46	63	298	116	63	59
28	51	42	33	29	31	32	44	63	273	116	53	55
29	51	42	22	28	-	32	43	61	259	111	53	53
30	51	40	20	25	-------	32	44	63	250	101	61	53
31	51	-------	29	24	-------	28	-------	65	-------	101	57	-------
Total	1,513	1,369	1,167	856	775	919	1,177	1,913	10,084	5,749	2,213	1,580
Mean	48.8	45.6	37.6	27.6	27.7	29.6	39.2	61.7	336	185	71.4	52.7
Ac-ft	3,000	2,720	2,310	1,700	1,540	1,820	2,330	3,790	20,000	11,400	4,390	3,130

Calendar year 1958: Max 464 Min 20 Mean 87.8 Ac-ft 63,560
Water year 1958-59: Max 524 Min 20 Mean 80.3 Ac-ft 58,130

Peak discharge (base, 390 cfs).--June 16 (7 p.m.) 584 cfs (3.47 ft).

* Discharge measurement made on this day.

275. Salt River above reservoir, near Etna, Wyo.

Location.--Lat 43°04'50", long 111°02'15", in NE¼ sec.28, T.36 N., R.119 W., on right bank 3½ miles northwest of Etna and 8 miles upstream from mouth.

Drainage area.--829 sq mi.

Records available.--July to September 1917, June to September 1918, October 1953 to September 1959. Published as Salt River near Alpine, Idaho 1917-18.

Gage.--Water-stage recorder. Datum of gage is 5,675.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. July 1 to Sept. 30, 1917, and June 5 to Sept. 30, 1918, staff gage at site 5 miles downstream at different datum.

Average discharge.--6 years (1953-59), 706 cfs (511,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,230 cfs May 2 (gage height, 3.28 ft); minimum, 368 cfs Feb. 2 (gage height, 2.04 ft).
1917-18, 1953-59: Maximum discharge, 2,420 cfs Apr. 24, 1956 (gage height, 4.68 ft); minimum, 281 cfs Feb. 4, 1956 (gage height, 1.81 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for power developments, industry, municipal supply, and irrigation of about 66,000 acres (for details on adjudication of diversions, see Remarks for this station in WSP 1347).

Cooperation.--Water-stage-recorder graph and 11 discharge measurements furnished by Bureau of Reclamation.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 24 to July 2)

2.1	380
2.5	610
3.0	995
4.0	1,820

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	625	584	535	b495	436	405	480	1,110	*851	625	533	*552
2	625	584	535	b490	415	*410	571	1,180	812	610	539	558
3	625	590	*545	480	415	410	760	1,080	790	618	*545	564
4	625	597	552	b470	430	405	835	*1,020	790	648	552	564
5	640	597	545	b465	415	410	939	979	798	640	545	564
6	632	604	539	468	*430	405	*1,070	939	812	618	539	564
7	632	618	545	474	436	410	1,050	907	820	597	545	558
8	632	618	558	458	425	410	955	955	812	578	539	552
9	625	618	558	430	415	405	820	1,030	745	578	533	545
10	618	632	558	452	415	410	730	1,030	678	597	533	545
11	610	640	604	452	410	405	708	955	648	590	533	552
12	610	*616	708	*446	415	405	745	963	610	590	545	552
13	604	604	662	446	415	415	805	1,020	662	590	545	545
14	*597	632	597	446	395	410	835	1,080	678	590	539	539
15	590	610	558	436	410	405	812	1,060	625	584	533	545
16	590	584	552	b445	415	405	752	1,130	678	655	533	558
17	590	550	545	441	420	410	700	1,090	685	662	533	564
18	590	540	545	436	420	410	685	1,050	648	597	539	564
19	590	540	539	446	415	415	685	1,030	625	564	558	590
20	590	550	539	446	410	415	655	995	640	552	564	640
21	590	560	539	436	410	415	655	963	625	545	571	640
22	584	570	539	441	405	415	662	923	632	545	564	632
23	584	580	539	441	410	430	708	883	625	539	564	625
24	597	580	539	446	410	446	730	859	618	539	564	625
25	610	580	533	446	405	452	883	867	610	545	564	640
26	618	575	527	441	410	463	1,100	899	618	539	564	685
27	610	560	515	446	405	468	1,110	971	618	545	564	715
28	604	550	515	452	405	463	955	1,000	625	539	564	678
29	597	540	515	452	-	458	891	963	*625	533	558	662
30	590	535	485	446	-------	463	939	963	640	533	552	648
31	584	-------	b490	425	-------	463	-------	939	-------	527	552	-------
Total	18,808	17,540	17,055	13,994	11,617	13,111	24,225	30,833	20,643	18,012	17,006	17,765
Mean	607	585	550	451	415	423	808	995	688	581	549	592
Ac-ft	37,310	34,790	33,830	27,760	23,040	26,010	48,050	61,160	40,940	35,730	33,730	35,240

Calendar year 1958: Max 2,230 Min 458 Mean 749 Ac-ft 542,300
Water year 1958-59: Max 1,180 Min 395 Mean 604 Ac-ft 437,600

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 17 to Dec. 2; discharge estimated on basis of weather records and records for station on Greys River above reservoir, near Alpine.

295. McCoy Creek above reservoir, near Alpine, Idaho

Location.--Lat 43°10'50", long 111°06'55", in SW¼ sec.6, T.3 S., R.46 E., on left bank 1½ miles upstream from mouth and 3½ miles west of Alpine.

Drainage area.--108 sq mi.

Records available.--July to September 1917, June to September 1918, May to July 1934, September 1953 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as McCoy Creek near Alpine, Idaho 1917-18 and as McCoy Creek near Alpine, Wyo. 1934.

Gage.--Water-stage recorder. Datum of gage is 5,635.4 ft above mean sea level, datum of 1929, supplementary adjustment of 1947 (levels partly by Bureau of Reclamation). July 15 to Sept. 30, 1917, staff gage, June 25 to Sept. 30, 1918, water-stage recorder, and May 1 to July 31, 1934, staff gage, at sites about 1 mile downstream at different datum.

Average discharge.--6 years (1953-59), 90.4 cfs (65,450 acre-ft per year).

Extremes.--Maximum discharge during year, 639 cfs Apr. 30 (gage height, 4.57 ft); minimum, 7.6 cfs Mar. 22 (gage height, 1.32 ft).
1917-18, 1934, 1953-59: Maximum discharge, 1,130 cfs Apr. 21, 1956 (gage height, 5.72 ft); minimum, 1 cfs many days in 1934.

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

Cooperation.--Water-stage-recorder graph and 11 discharge measurements furnished by Bureau of Reclamation.

Note.--The supplemental peak discharge for water year 1958, not previously published, is given herewith:
Peak discharge (base, 650 cfs).--May 4 (10 p.m.) 1,020 cfs (5.47 ft).

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 11 to June 7)

Oct. 1-12		Oct. 13 to Sept. 30					
1.5	13	1.4	9.5	2.0	37	3.5	305
1.6	15	1.6	15	2.5	90	4.0	467
		1.8	24	3.0	175	4.5	646

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	15	b13	15	b12	13	27	536	254	*98	37	*19
2	15	14	*b13	b14	b11	b12	81	504	259	93	36	19
3	15	15	b14	b14	b11	12	95	387	*276	89	36	19
4	15	15	b15	b14	b11	b11	139	355	288	85	*33	18
5	14	16	b16	*b15	b12	b12	207	*320	293	80	31	18
6	14	17	16	b15	b12	*b13	245	308	299	78	31	18
7	14	25	16	15	b12	13	211	308	290	75	29	18
8	14	23	17	b14	13	b14	171	346	265	72	29	17
9	14	25	16	b13	13	b14	121	378	251	69	28	17
10	14	30	16	14	13	14	98	352	240	65	26	18
11	14	29	b16	14	13	b14	91	296	221	64	26	17
12	14	*21	b16	14	12	b14	116	320	214	62	27	17
13	*14	20	b15	14	b11	14	171	378	211	60	25	18
14	14	22	b15	b13	b10	b13	204	394	211	58	25	18
15	14	19	b14	b12	b12	b12	195	371	221	58	25	22
16	14	b18	b14	b13	13	b13	*139	400	211	57	23	22
17	14	b17	b15	14	13	b14	112	339	199	53	23	22
18	14	16	b15	14	14	15	104	305	*184	50	25	22
19	14	17	b15	13	14	b14	96	268	175	48	29	23
20	14	18	16	b12	13	b13	87	256	163	46	36	24
21	14	18	b16	b11	12	15	91	237	157	47	30	24
22	14	17	b16	b12	b11	17	123	219	151	47	26	22
23	14	17	b16	b13	b13	20	169	224	141	44	25	22
24	14	17	16	14	b12	21	237	234	130	43	24	21
25	14	16	b16	14	b12	22	403	237	125	41	24	26
26	14	b15	b16	b13	13	24	543	248	132	41	24	36
27	14	b14	b16	14	13	27	447	265	125	44	23	52
28	14	b14	b15	14	13	25	324	265	120	40	21	34
29	14	b13	b15	13	-	28	339	273	112	38	20	29
30	14	b13	b15	b13	------	25	443	296	114	36	20	26
31	14	------	b15	b12	------	24	------	265	------	37	19	------
Total	438	546	475	419	344	512	5,809	9,884	6,032	1,818	836	678
Mean	14.1	18.2	15.3	13.5	12.3	16.5	194	319	201	58.6	27.0	22.6
Cfsm	0.131	0.169	0.142	0.125	0.114	0.153	1.80	2.95	1.86	0.543	0.250	0.209
In.	0.15	0.19	0.16	0.14	0.12	0.18	2.01	3.40	2.08	0.63	0.29	0.23
Ac-ft	869	1,080	942	831	682	1,020	11,520	19,600	11,960	3,610	1,660	1,340

Calendar year 1958: Max 868 Min 13 Mean 96.3 Cfsm 0.892 In. 12.09 Ac-ft 69,680
Water year 1958-59: Max 543 Min 10 Mean 76.1 Cfsm 0.705 In. 9.58 Ac-ft 55,110

Peak discharge (base, 650 cfs).--No peak above base.

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

300. Indian Creek above reservoir, near Alpine, Idaho

Location.--Lat 43°15'35", long 111°04'00", near center of sec.9, T.2 S., R.46 E., on right bank a quarter of a mile downstream from forks of creek, 3 miles upstream from mouth, and 5½ miles north of Alpine.

Drainage area.--36.8 sq mi.

Records available.--July to September 1917, June to September 1918, August 1953 to September 1959. Published as Indian Creek near Blowout 1917-18.

Gage.--Water-stage recorder. Altitude of gage is 5,820 ft (from topographic map). July 14 to Sept. 30, 1917, and June 4 to Sept. 21, 1918, staff gage at site 3 miles downstream at different datum.

Average discharge.--6 years (1953-59), 14.6 cfs (10,570 acre-ft per year).

Extremes.--Maximum discharge during year, 210 cfs June 17 (gage height, 3.49 ft); no flow for many days.
1917-18, 1953-59: Maximum discharge observed, 350 cfs June 14, 1918; no flow for many days.

Remarks.--Records good. One small diversion from North Fork for irrigation.

Cooperation.--Water-stage-recorder graph and four discharge measurements furnished by Bureau of Reclamation.

Note.--The supplemental peak discharges for water year 1958, not previously published, are given herewith:
Peak discharge (base, 100 cfs).--May 28 (11 p.m.) 184 cfs (3.37 ft); June 7 (7 p.m.) 176 cfs (3.27 ft); June 18 (8:30 p.m.) 116 cfs (2.79 ft).

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

Oct. 1 to June 4				June 5 to Sept. 30			
1.0	0	1.5	6	1.2	3	2.0	43
1.2	1	1.7	13	1.3	5	2.5	89
1.3	2	2.0	28	1.5	12	3.0	147
				1.7	23	3.5	211

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	1	58	11	7
2								0	2	54	19	7
3								0	*10	52	*16	7
4								0	22	49	15	6
5								0	57	45	14	6
6								0	100	42	13	6
7								0	111	40	12	6
8								0	94	37	12	6
9								0	107	35	12	6
10								0	121	32	12	6
11								0	107	29	12	5
12								1	123	27	11	5
13								7	149	25	11	5
14								*14	177	23	11	5
15								14	176	21	10	5
16								17	184	19	10	5
17								12	206	18	10	5
18								10	*201	17	10	5
19								8	178	16	10	5
20								3	166	16	12	5
21								0	169	15	10	5
22								0	158	14	10	4
23								0	146	13	9	4
24								1	146	13	9	4
25								2	129	12	8	5
26								3	115	12	8	5
27								4	89	12	8	5
28								2	79	11	8	4
29					-			2	*72	11	7	4
30					-------			1	64	10	7	4
31		-------			-------		-------	1	-------	10	*7	-------
Total	0	0	0	0	0	0	0	102	3,459	788	334	157
Mean	0	0	0	0	0	0	0	3.3	115	25.4	10.8	5.2
Ac-ft	0	0	0	0	0	0	0	202	6,860	1,560	662	311

Calendar year 1958: Max 170 Min 0 Mean 14.0 Ac-ft 10,150
Water year 1958-59: Max 206 Min 0 Mean 13.3 Ac-ft 9,600

Peak discharge (base, 100 cfs).--June 14 (6:30 p.m.) 201 cfs (3.45 ft); June 17 (3:30 a.m.) 210 cfs (3.49 ft).

* Discharge measurement made on this day.

305. Elk Creek above reservoir, near Irwin, Idaho

Location.--Lat 43°19'25", long 111°06'40", in NW¼ sec.19, T.1 S., R.46 E., on right bank 2½ miles upstream from mouth and 11 miles southeast of Irwin.

Drainage area.--59.2 sq mi.

Records available.--July to September 1917, June to September 1918, April to July 1934, September 1953 to September 1959. Published as Big Elk Creek near Blowout 1917-18 and as Elk Creek near Irwin 1934.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map). July 1917 to September 1918, April to July 1934, staff gage at site 2½ miles downstream at different datum. September 1953 to August 1957, water-stage recorder at datum 0.41 ft higher.

Average discharge.--6 years (1953-59), 73.7 cfs (53,360 acre-ft per year).

Extremes.--Maximum discharge during year, 408 cfs June 15 (gage height, 3.65 ft); maximum gage height, 3.72 ft Dec. 3 (ice jam); minimum discharge recorded, 13 cfs Mar. 12, Apr. 5.

1917-18, 1934, 1953-59: Maximum discharge observed, 870 cfs June 15, 1918; minimum, 5 cfs Dec. 15, 1953.

Revisions.--The figure and date of maximum discharge for the water year 1956 have been revised to 640 cfs May 31, 1956 (gage height, 4.82 ft), superseding those published in WSP 1447.

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

Cooperation.--Water-stage-recorder graph and 10 discharge measurements furnished by Bureau of Reclamation.

Note.--The supplemental peak discharge for water year 1958, not previously published, is given herewith:

Peak discharge (base, 300 cfs).--May 27 (9 p.m.) 565 cfs (4.32 ft).

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

1.1	19	1.7	63	3.0	266
1.2	23	2.0	99	3.5	372
1.4	36	2.5	173	4.0	495

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	30	29	26	21	20	21	92	133	132	76	45
2	37	30	*30	25	20	20	25	107	163	127	78	44
3	37	30	30	25	19	*20	27	96	197	126	68	43
4	36	31	31	26	20	19	32	94	235	119	*65	42
5	36	31	31	26	*20	19	38	*85	276	115	63	42
6	37	32	31	26	20	20	47	81	324	111	61	41
7	36	40	31	26	20	20	*48	87	330	107	60	41
8	37	35	30	26	20	20	48	111	284	102	58	42
9	36	36	30	26	20	19	43	127	305	*98	57	42
10	35	*41	30	26	20	20	35	118	330	96	57	42
11	35	35	32	27	20	20	34	111	309	94	55	42
12	35	33	31	*27	20	20	36	136	328	92	55	43
13	35	33	28	27	19	20	42	175	359	91	54	43
14	34	33	28	27	18	19	42	188	370	89	54	43
15	35	32	27	26	19	18	42	188	390	86	53	45
16	35	24	27	26	20	19	38	206	361	84	51	43
17	35	24	27	26	20	20	35	166	343	84	51	45
18	34	25	28	25	20	20	35	145	*315	81	51	45
19	35	27	28	25	20	19	32	132	268	80	54	47
20	35	30	28	24	20	19	31	119	250	79	60	48
21	34	32	28	23	20	19	31	112	246	78	54	47
22	33	32	28	23	19	20	35	112	238	76	51	44
23	33	32	28	23	19	20	38	116	238	75	49	42
24	34	31	27	24	19	20	42	130	248	75	48	42
25	33	30	27	24	19	20	53	146	227	73	48	47
26	33	30	27	24	20	20	66	159	212	73	51	48
27	33	30	27	24	20	20	63	156	185	72	53	48
28	32	29	27	25	20	20	53	142	164	71	51	45
29	32	29	27	24	-	21	53	*133	150	70	50	43
30	31	29	26	23	------	21	70	126	140	68	48	43
31	30	------	26	22	------	20	------	125	------	67	*47	------
Total	1,071	936	885	777	552	612	1,235	4,021	7,918	2,791	1,735	1,317
Mean	34.5	31.2	28.5	25.1	19.7	19.7	41.2	130	264	90.0	56.0	43.9
Cfsm	0.583	0.527	0.481	0.424	0.333	0.333	0.696	2.20	4.46	1.52	0.946	0.742
In.	0.67	0.59	0.55	0.49	0.35	0.38	0.78	2.54	4.98	1.75	1.09	0.83
Ac-ft	2,120	1,860	1,760	1,540	1,090	1,210	2,450	7,980	15,710	5,540	3,440	2,610

Calendar year 1958: Max 511 Min 23 Mean 73.1 Cfsm 1.23 In. 16.78 Ac-ft 52,930
Water year 1958-59: Max 390 Min 18 Mean 65.3 Cfsm 1.10 In. 15.00 Ac-ft 47,310

Peak discharge (base, 300 cfs).--June 6 (8:30 to 9:30 p.m.) 379 cfs (3.53 ft); June 15 (3 a.m.) 408 cfs (3.65 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 17-20, Nov. 26 to Dec. 3, Dec. 14-18, Dec. 29 to Jan. 11, Jan. 15-17, 20-24, Jan. 30 to Mar. 2, Mar. 4, 5, 14-16, 20 (no gage-height record Feb. 17 to Mar. 2); discharge estimated on basis of 4 discharge measurements, weather records, and records for nearby stations.

320. Bear Creek above reservoir, near Irwin, Idaho

Location.--Lat 43°16'45", long 111°13'15", in SE¼ sec.31, T.1 S., R.45 E., on left bank a quarter of a mile downstream from Elk Creek, 4 miles upstream from mouth, and 9 miles southeast of Irwin.

Drainage area.--77.1 sq mi.

Records available.--July to September 1917, June to September 1918, May to July 1934, April to October 1935, April to October 1936, August 1953 to September 1959. Published as Bear Creek near Irwin 1917-18, 1934-36.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map). Prior to Nov. 1, 1936, staff gage at site 4 miles downstream at different datum.

Average discharge.--6 years (1953-59), 75.8 cfs (54,880 acre-ft per year).

Extremes.--Maximum discharge during year, 332 cfs May 1 (gage height, 4.16 ft); minimum daily, 13 cfs Mar. 4, 15.
1917-18, 1934-36, 1953-59: Maximum discharge observed, 784 cfs May 5, 1936; minimum, about 1.0 cfs Jan. 20, 1954 (gage height, 1.08 ft), result of freezeup.

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

Cooperation.--Water-stage-recorder graph and 10 discharge measurements furnished by Bureau of Reclamation.

Note.--The supplemental peak discharge for water year 1958, not previously published, is given herewith:
Peak discharge (base, 350 cfs).--May 10 (11:45 p.m.) 606 cfs (4.95 ft).

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

2.6	14	3.3	99
2.8	28	3.6	165
3.0	50	4.0	284

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	24	b22	22	b17	18	28	264	173	90	51	*33
2	28	24	*b22	b21	b17	18	43	277	181	*86	50	33
3	28	24	22	b20	b18	18	57	211	191	86	48	33
4	28	24	23	b20	b18	b13	81	200	203	81	46	32
5	28	25	23	b21	b19	b14	107	191	214	79	44	32
6	28	25	23	b22	20	*b14	127	*188	226	78	44	32
7	27	29	23	b23	20	17	125	191	223	76	42	32
8	27	28	23	b21	20	17	110	208	197	76	42	31
9	27	27	23	b20	20	16	94	229	191	72	40	31
10	27	*32	b23	23	19	17	83	217	186	71	40	31
11	26	30	b23	22	19	16	79	197	170	69	40	31
12	26	26	b23	19	19	16	88	203	170	69	40	31
13	26	26	b22	*19	18	17	110	236	173	69	39	31
14	26	27	b22	19	b16	b15	122	248	173	67	39	31
15	26	26	b22	b18	b17	b13	120	232	170	69	37	33
16	26	b25	b22	b20	18	b15	105	251	158	67	37	34
17	26	b25	b22	22	19	18	*92	220	148	66	36	34
18	26	b25	b22	21	18	19	88	200	*140	64	38	34
19	26	b25	22	21	18	19	83	186	138	63	40	34
20	26	b25	22	b20	17	18	74	186	131	61	45	35
21	25	25	21	b18	17	19	74	178	127	61	40	36
22	24	25	21	b19	17	21	83	175	120	60	38	33
23	24	24	21	b21	18	23	95	173	114	58	37	32
24	25	24	22	22	17	24	116	173	110	58	37	32
25	25	24	22	20	18	26	168	173	105	57	36	33
26	25	b23	22	20	18	29	211	178	110	56	35	37
27	25	b22	b22	19	18	29	197	181	103	57	35	40
28	25	b22	22	19	18	28	165	175	101	54	34	35
29	25	b22	b21	19	-	29	173	*178	99	53	33	33
30	24	b22	b20	b18	------	29	220	181	97	*49	33	32
31	24	------	b20	b18	------	26	------	173	------	49	33	------
Total	807	755	683	627	508	611	3,318	6,273	4,642	2,071	1,229	991
Mean	26.0	25.2	22.0	20.2	18.1	19.7	111	202	155	66.8	39.6	33.0
Cfsm	0.337	0.327	0.285	0.262	0.235	0.256	1.44	2.62	2.01	0.866	0.514	0.428
In.	0.39	0.36	0.33	0.30	0.24	0.30	1.61	3.02	2.24	1.00	0.59	0.48
Ac-ft	1,600	1,500	1,350	1,240	1,010	1,210	6,580	21,440	9,210	4,110	2,440	1,970

Calendar year 1958: Max 561 Min 19 Mean 80.0 Cfsm 1.04 In. 14.08 Ac-ft 57,910
Water year 1958-59: Max 277 Min 13 Mean 61.7 Cfsm 0.800 In. 10.86 Ac-ft 44,660

Peak discharge (base, 350 cfs).--No peak above base.

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

324.5 (revised). Palisades Reservoir near Irwin, Idaho

Location.--Lat 43°20', long 111°12', in NE¼ sec.17, T.1 S., R.45 E., on Snake River 3½ miles upstream from Palisades Creek and 6 miles southeast of Irwin.

Drainage area.--5,208 sq mi.

Records available.--October 1955 to September 1959.

Gage.--Pressure gage in powerhouse. Outside staff gages attached to concrete headwalls upstream from power and outlet tunnels. Datum of gage is at mean sea level (Bureau of Reclamation datum) which is 0.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum contents during year, 1,406,000 acre-ft July 6, 7 (elevation, 5,620.3 ft); minimum, 629,000 acre-ft Sept. 20, 21 (elevation, 5,557.9 ft).
1955-59: Maximum contents, that of July 6, 7, 1959; minimum after first filling of reservoir in June 1958, that of Sept. 20, 21, 1959.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam. Capacity, 1,400,000 acre-ft between elevations 5,372 (river level at original outlet tunnels) and 5,620 ft. Dead storage, 44,100 acre-ft at elevation 5,452.43 ft, elevation of completed outlet tunnels. Inactive storage for minimum power head, 199,600 acre-ft at elevation 5,497.5 ft. Water is used for irrigation in Snake River Valley.

Cooperation.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

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

5,557	621,000	5,590	972,000
5,560	649,000	5,600	1,101,000
5,570	748,000	5,610	1,246,000
5,580	855,000	5,620	1,402,000

Contents, in thousands of acre-feet, at 1 p.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	736	765	789	845	875	896	924	1,031	1,040	1,379	1,157	880
2	737	765	791	847	875	896	926	1,033	1,041	1,386	1,148	865
3	738	764	792	848	875	897	931	1,036	1,039	1,390	1,136	852
4	740	764	794	850	875	897	934	1,037	1,039	1,397	1,125	837
5	741	764	796	850	876	897	940	1,039	1,040	1,402	1,114	823
6	742	764	797	850	877	897	947	1,040	1,046	1,406	1,101	808
7	744	765	798	851	877	898	955	1,040	1,056	1,406	1,089	793
8	746	765	801	852	880	898	961	1,036	1,069	1,403	1,077	777
9	746	766	804	853	880	899	967	1,032	1,080	1,398	1,066	762
10	748	767	805	854	881	899	970	1,027	1,092	1,394	1,054	747
11	749	768	807	855	881	900	974	1,022	1,101	1,386	1,044	732
12	750	769	810	856	882	900	977	1,017	1,111	1,378	1,035	717
13	751	770	812	857	883	901	981	1,010	1,122	1,371	1,027	701
14	753	771	815	858	884	901	984	1,005	1,136	1,363	1,019	686
15	754	772	816	860	884	901	989	1,001	1,155	1,357	1,012	671
16	755	773	817	861	885	903	993	1,001	1,178	1,350	1,004	660
17	756	773	819	862	887	903	996	1,009	1,202	1,341	998	648
18	759	773	820	863	888	903	999	1,013	1,228	1,335	989	641
19	760	773	822	864	889	904	1,004	1,017	1,246	1,325	981	634
20	761	774	824	865	890	904	1,005	1,018	1,261	1,313	975	629
21	761	776	827	865	890	905	1,005	1,018	1,274	1,299	969	629
22	761	777	829	866	891	905	1,006	1,019	1,287	1,285	962	631
23	762	779	831	866	891	907	1,008	1,018	1,300	1,271	955	634
24	762	782	833	867	892	910	1,010	1,017	1,313	1,256	947	636
25	762	784	835	868	892	911	1,013	1,017	1,324	1,242	941	638
26	762	785	836	870	893	912	1,017	1,017	1,335	1,230	938	640
27	763	785	839	870	893	914	1,022	1,019	1,347	1,219	932	642
28	763	786	841	872	895	914	1,024	1,024	1,360	1,207	928	645
29	764	787	842	873	-	917	1,024	1,028	1,368	1,194	918	647
30	764	789	843	874	-------	921	1,027	1,032	1,374	1,182	905	649
31	764	-------	844	874	-------	924	-------	1,036	-------	1,169	892	-------
(†)	5,571.5	5,573.9	5,579.0	5,581.7	5,583.5	5,586.0	5,594.4	5,595.1	5,618.3	5,604.8	5,583.3	5,560.0
(‡)	+29	+25	+55	+30	+21	+29	+103	+9	+338	-205	-277	-243

Calendar year 1958..... ‡ +105
Water year 1958-59..... ‡ -86

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

325. Snake River near Irwin, Idaho

Location.--Lat 43°21', long 111°13', in NE¼ sec.7, T.1 S., R.45 E., on right bank at Bureau of Reclamation headquarters, 1½ miles downstream from Palisades dam, 2 miles upstream from Palisades Creek, and 5 miles southeast of Irwin.

Drainage area.--5,225 sq mi.

Records available.--April to August 1934, March to November 1935, April to October 1936, March 1939 to September 1941, May 1949 to September 1959. Published as "at Calamity Point, near Irwin" 1934, 1939-41.

Average discharge.--10 years (1949-59), 6,640 cfs (4,807,000 acre-ft per year).

Gage.--Water-stage recorder. Datum of gage is 5,353.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Apr. 21 to Aug. 4, 1934, and Mar. 30, 1939, to Sept. 20, 1941, water-stage recorder at site 2½ miles upstream at different datum. Mar. 30, 1935, to Oct. 31, 1936, water-stage recorder at site 3½ miles downstream at different datum. May 1, 1949, to Mar. 22, 1950, staff gage at site 1,100 ft downstream at datum 1.3 ft higher.

Extremes.--Maximum discharge during year, 13,700 cfs for several days in July; minimum, 1,080 cfs Mar. 31 (gage height, 4.56 ft).

1934-36, 1939-41, 1949-59: Maximum discharge, 31,800 cfs June 4-6, 1956; maximum gage height, 13.31 ft June 4, 1956; minimum discharge, 19 cfs Nov. 8, 1956 (gage height, 3.43 ft).

Flood in early June 1894 probably was much higher than that of June 4-6, 1956.

Remarks.--Records excellent. Flow partly regulated by Jackson Lake (see p. 13) and Palisades Reservoir (see preseding page). About 93,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station.

Cooperation.--Gage-height record furnished by Bureau of Reclamation.

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 22 to Feb. 25, May 5 to Sept. 21)

4.5	1,080	8.0	8,870
5.0	1,650	9.0	12,400
6.0	3,350	10.0	16,500
7.0	5,760		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,820	2,870	1,790	1,750	1,780	1,890	1,480	4,860	5,790	9,240	13,400	12,100
2	2,820	2,870	1,780	1,750	1,770	1,880	1,480	6,720	9,070	8,640	13,500	12,100
3	2,580	2,870	*1,780	1,810	1,780	1,880	1,510	6,750	12,400	8,610	13,500	12,400
4	2,600	2,760	1,780	1,790	1,790	1,860	1,530	6,750	13,100	8,640	13,500	12,800
5	2,600	2,760	1,820	1,790	1,790	1,860	1,530	4,910	12,800	8,570	*13,300	13,000
6	2,630	2,740	1,820	1,810	1,810	1,880	1,480	6,270	13,000	9,440	12,900	13,000
7	2,580	2,780	1,810	1,790	1,790	1,920	1,510	7,000	13,500	11,600	12,900	13,000
8	2,580	2,780	1,810	1,790	1,790	1,920	1,530	8,480	12,900	12,700	12,900	13,000
9	2,580	2,780	1,810	1,810	1,790	1,940	1,690	9,690	12,300	*12,700	12,800	13,000
10	2,510	2,780	1,810	1,820	1,790	1,940	1,750	10,100	12,500	13,100	12,700	13,000
11	2,510	2,530	1,810	1,820	1,790	1,940	1,740	9,830	12,600	13,600	11,800	13,000
12	2,530	2,490	1,810	1,820	1,790	1,940	1,750	*9,860	12,600	13,700	11,100	13,000
13	2,530	2,490	1,810	*1,810	1,790	*1,950	1,750	10,900	12,600	13,600	10,700	13,000
14	2,530	2,490	1,810	1,790	1,790	2,000	1,770	12,200	12,600	13,600	10,400	12,900
15	2,540	2,490	1,640	1,790	1,790	1,950	2,130	11,700	*12,400	13,600	9,970	12,000
16	2,540	2,490	1,560	1,790	1,790	1,950	2,100	10,700	11,600	13,500	9,830	11,000
17	2,510	2,490	1,560	1,770	1,810	1,910	2,150	9,070	11,500	13,400	9,800	10,400
18	2,510	2,490	1,560	1,770	*1,790	1,940	2,150	8,480	11,800	13,500	9,660	9,130
19	2,450	2,510	1,560	1,790	1,790	1,850	2,100	7,870	12,200	13,800	9,900	8,670
20	2,530	1,910	1,560	1,810	1,790	1,880	*3,050	7,930	12,600	13,600	9,900	5,380
21	3,010	1,890	1,560	1,810	1,790	1,840	3,030	7,090	12,600	13,600	9,720	5,380
22	2,990	1,890	1,560	1,790	1,810	1,600	3,050	7,060	12,200	13,600	9,440	5,070
23	3,010	1,910	1,480	1,780	1,810	1,550	3,030	7,740	11,800	13,600	9,200	5,050
24	3,010	2,000	1,480	1,780	1,820	1,510	3,090	7,470	11,800	13,700	9,040	5,070
25	2,860	1,960	1,480	1,770	1,890	1,480	4,090	7,530	11,700	13,700	*8,510	5,050
26	2,870	1,790	1,480	1,770	1,850	1,480	4,990	7,060	11,700	13,600	8,120	5,070
27	2,870	1,790	1,480	1,770	1,860	1,500	4,940	7,090	11,700	13,700	8,160	5,070
28	2,870	1,790	1,500	1,770	1,880	1,500	4,880	*6,780	11,600	*13,700	8,770	5,070
29	2,870	1,810	1,500	1,780	-	1,500	4,880	5,790	11,600	13,400	11,700	*5,050
30	2,870	1,790	1,500	1,780	-------	1,480	4,860	5,790	10,500	13,400	12,100	5,050
31	*2,870	-------	1,470	1,790	-------	1,480	-------	5,760	-------	13,500	12,100	-------
Total	83,580	70,990	51,180	55,460	50,500	55,200	76,980	245,230	356,860	388,440	341,520	268,810
Mean	2,696	2,366	1,651	1,789	1,804	1,781	2,566	7,911	11,900	12,530	11,020	8,960
Ac-ft	165,800	140,800	101,500	110,000	100,200	109,500	152,700	486,400	707,800	770,500	677,400	533,200

Calendar year 1958: Max 17,500 Min 1,370 Mean 5,406 Ac-ft 3,914,000
Water year 1958-59: Max 13,700 Min 1,470 Mean 5,602 Ac-ft 4,056,000

* Discharge measurement made on this day.

375. Snake River near Heise, Idaho

Location.--Lat 43°36'45", long 111°39'05", in SW¼ sec.5, T.3 N., R.41 E., on left bank 500 ft upstream from Anderson canal headgate, 3 miles upstream from Heise, 6 miles east of Ririe, and 23 miles upstream from Henrys Fork.

Drainage area.--5,752 sq mi.

Records available.--September 1910 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as South Fork of Snake River near Heise.

Gage.--Water-stage recorder. Datum of gage is 5,015.3 ft above mean sea level, datum of 1929. Prior to July 9, 1913, staff gage and July 9, 1913, to Sept. 29, 1922, water-stage recorder, at datum 2.65 ft higher. Sept. 30, 1922, to Oct. 5, 1933, water-stage recorder at datum 2.0 ft higher.

Average discharge.--49 years, 6,845 cfs (4,956,000 acre-ft per year).

Extremes.--Maximum discharge during year, 14,800 cfs June 7 (gage height, 5.62 ft); minimum, 1,500 cfs Mar. 31 (gage height, 1.26 ft).

1910-59: Maximum discharge, about 60,000 cfs May 19, 1927, result of washing out of landslide on Gros Ventre River (gage height, about 16.0 ft, present datum); minimum, 460 cfs Nov. 10, 12, 1956 (gage height, -0.18 ft).

Flood in early June 1894 was probably as great as flood of May 19, 1927.

Remarks.--Records excellent except those for period of ice effect, which are good. Flow partly regulated by Jackson Lake (see p. 13) and Palisades Reservoir (see p. 25). Station is above all irrigation diversions from main river except Riley ditch (6,170 acre-ft diverted during year) which diverts 1½ miles upstream from station. About 107,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 1217: Drainage area. WSP 1347: 1912.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,260	3,300	2,150	2,070	2,230	2,310	1,990	5,950	6,670	10,600	13,700	12,400
2	3,260	3,330	2,140	2,150	2,230	2,310	2,410	7,160	8,340	9,710	13,900	12,400
3	3,040	3,350	2,150	b2,150	2,210	2,290	2,210	7,680	12,900	9,640	13,800	12,600
4	3,040	3,280	2,140	b2,160	2,230	2,250	2,270	7,680	14,000	9,600	13,800	13,000
5	3,070	3,240	2,170	b2,170	2,210	2,250	2,230	6,490	14,200	9,540	*13,800	13,200
6	3,040	3,240	2,220	2,190	2,210	2,270	2,190	6,790	13,900	9,990	13,400	13,200
7	3,020	3,280	2,210	2,170	2,230	2,230	2,100	7,450	14,700	11,800	13,400	13,200
8	3,000	3,280	2,190	2,170	2,250	2,230	2,160	9,150	14,300	13,200	13,300	13,200
9	*2,960	3,260	2,190	2,150	2,230	2,230	2,160	10,300	13,500	*13,200	12,900	13,200
10	2,980	3,350	2,190	2,190	2,230	2,250	2,190	11,100	13,500	13,300	12,900	13,200
11	2,960	3,150	2,190	2,210	2,230	2,230	2,230	10,800	*13,700	14,000	12,100	13,200
12	2,960	3,000	2,210	2,220	2,210	2,210	2,230	10,700	13,700	14,000	11,400	13,300
13	2,960	2,980	2,150	2,260	2,210	2,210	2,270	11,500	13,800	14,000	10,900	13,300
14	2,960	2,940	2,170	2,210	2,210	2,250	2,270	13,000	13,800	14,000	10,800	13,300
15	2,980	2,900	2,040	2,170	2,210	2,230	2,410	12,900	13,600	13,900	10,300	13,000
16	2,980	2,880	1,950	2,220	2,230	2,250	2,580	12,300	12,700	14,000	10,100	11,400
17	2,960	2,860	1,960	2,220	2,270	2,250	2,550	10,700	12,700	14,100	10,100	11,200
18	2,940	2,840	1,930	2,220	2,230	2,370	2,530	9,710	12,600	14,100	10,200	10,100
19	2,940	2,840	1,930	2,210	2,230	2,250	2,550	9,120	12,900	14,200	10,400	9,220
20	2,980	2,540	1,950	2,210	2,210	2,160	3,030	8,950	13,500	14,200	10,400	7,160
21	3,440	2,310	1,910	2,210	2,230	2,180	3,430	8,300	13,500	14,200	10,300	6,280
22	3,420	2,310	1,930	2,210	2,230	2,100	3,480	*8,040	13,300	14,200	9,960	4,460
23	3,440	2,330	1,910	2,210	2,230	2,060	3,480	8,440	12,700	14,200	9,820	3,550
24	3,440	2,410	1,900	2,210	*2,230	2,030	3,520	8,500	12,700	14,200	9,820	3,520
25	3,420	2,390	1,910	2,220	2,290	2,030	4,410	8,470	12,700	14,200	*9,430	3,520
26	3,350	*2,260	1,880	2,220	2,270	1,970	5,540	8,240	12,800	14,200	8,780	3,520
27	3,350	2,150	1,900	2,220	2,270	*1,920	*5,860	8,110	12,600	14,200	8,740	3,520
28	3,330	2,150	1,900	*2,230	2,270	1,940	5,740	7,880	12,600	14,200	8,740	3,520
29	*3,330	2,150	*1,870	2,210	-	1,940	5,710	7,130	12,500	13,800	11,500	*3,480
30	3,300	2,140	1,880	2,210	-------	1,920	5,770	6,790	11,900	13,800	12,400	3,480
31	3,300	-------	1,910	2,230	-------	1,880	-------	6,760	-------	13,800	12,400	-------
Total	97,410	84,440	63,130	68,100	62,520	67,000	93,500	276,090	386,310	406,080	353,490	283,630
Mean	3,142	2,815	2,036	2,197	2,233	2,161	3,117	8,906	12,880	13,100	11,400	9,454
Ac-ft	193,200	167,500	125,200	135,100	124,000	132,900	185,500	547,600	766,200	805,400	701,100	562,600

Calendar year 1958: Max 18,800 Min 1,870 Mean 5,967 Ac-ft 4,320,000
Water year 1958-59: Max 14,700 Min 1,870 Mean 6,142 Ac-ft 4,446,000

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

395. Henrys Fork near Lake, Idaho

Location.--Lat 44°36', long 111°21', in SW¼ sec.26, T.15 N., R.43 E., on left bank a quarter of a mile downstream from Henrys Lake Dam and 4 miles south of former Lake Post Office.

Drainage area.--98 sq mi, approximately, including 6 sq mi of Dry Creek basin.

Records available.--May 1920 to September 1959 (prior to October 1929, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 6,450.62 ft above mean sea level, levels by Bureau of Reclamation (Corps of Engineers bench mark). Prior to September 1922, staff gage at site 3 miles downstream below mouth of Dry Creek at different datum.

Average discharge.--30 years (1929-59), 46.4 cfs (33,590 acre-ft per year).

Extremes.--Maximum discharge during year, 445 cfs Aug. 25 (gage height, 3.96 ft); minimum, 4 cfs Sept. 4, 5, 12-30.
1920-59: Maximum discharge, 907 cfs June 13, 1926 (gage height, 5.40 ft); no flow for part of each day Sept. 17, 18, 1952.
Outflow from Henrys Lake was reported to have ceased entirely late in summer of 1889.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Henrys Lake (see p. 39). Since 1923, floodwaters of Dry (Tyghee) Creek have been diverted at times into Henrys Lake (some diverted during 1959).

Revisions.--WSP 1217: Drainage area.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	13	14					23	22	31	136	101
2	12	13	14					23	23	33	136	47
3	13	13	14					23	22	47	136	23
4	13	13	14					23	22	47	180	**4
5	13	13	14					23	*22	47	215	4
6	*13	13	14					23	23	47	213	6
7	13	13	14				(*)	*23	23	47	210	6
8	12	13	14					22	23	45	210	6
9	12	13	14					21	23	40	208	6
10	13	13	14					21	23	44	*210	6
11	12	13	14					20	23	92	206	*5
12	13	13	14					20	23	144	206	4
13	13	*13	15					19	23	144	206	4
14	13	13	15					18	24	144	204	4
15	13	13	15					18	25	144	202	4
16	13	13	15	17	19	21	22	18	26	144	202	4
17	13	13	15					20	29	142	202	4
18	13	14	15					20	29	140	200	4
19	13	14	16					20	30	140	*197	4
20	13	14	16					20	31	140	197	4
21	13	14	16					20	32	140	197	4
22	13	14	16					20	32	140	195	4
23	13	14	*16					20	*32	*144	195	4
24	13	14	16					20	32	144	195	4
25	13	14	16					20	32	144	146	4
26	13	14	16		(*)			21	33	144	103	4
27	13	14	16					21	33	142	103	4
28	13	14	16					22	32	142	103	4
29	13	14	16		-			22	32	138	103	4
30	13	14	16		-------			22	32	138	103	4
31	13	-------	16		-------		-------	22	-------	136	103	-------
Total	398	403	466	527	532	651	660	648	811	3,354	5,422	290
Mean	12.8	13.4	15.0	17	19	21	22	20.9	27.0	108	175	9.7
Ac-ft	789	799	924	1,050	1,060	1,290	1,310	1,290	1,610	6,650	10,750	575

Calendar year 1958: Max 400 Min 12 Mean 76.7 Ac-ft 55,570
Water year 1958-59: Max 215 Min 4 Mean 38.8 Ac-ft 28,100

* Discharge measurement made on this day.
** Field estimate made on this day.
Note.--No gage-height record Dec. 13 to May 6, Aug. 18; discharge estimated on basis of 4 discharge measurements. Only monthly figures estimated January through April.

420. Island Park Reservoir near Island Park, Idaho

Location.--Lat 44°25'11", long 111°23'52", a quarter of a mile south of quarter corner between secs. 28 and 29, T.13 N., R.43 E., in gatehouse shaft at dam on Henrys Fork, three-eighths of a mile upstream from Buffalo River and 2 miles west of Island Park Post Office.

Drainage area.--481 sq mi.

Records available.--November 1938 to September 1959.

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

Extremes.--Maximum contents during year, 137,395 acre-ft May 3 (elevation, 6,303.27 ft); minimum, 16,790 acre-ft Oct. 13 (elevation, 6,274.17 ft).
1938-59: Maximum contents, 140,515 acre-ft May 13, 1957 (elevation, 6,303.65 ft); minimum after first filling of reservoir in May 1939, that of Oct. 13, 1958.

Remarks.--Reservoir is formed by earth-fill rock-faced dam. Storage began Nov. 15, 1938. Capacity, 127,265 acre-ft between elevations 6,239 (normal low-water level with outlet gates open) and 6,302 ft (crest of spillway). Natural flow passing through reservoir when outlet gates are open limits withdrawal of storage to elevation 6,230 ft (sill of lower outlet). Dead storage negligible. Water is used for irrigation of lands in Fremont-Madison irrigation district between Ashton and Rexburg. Figures given herein represent usable contents.

Cooperation.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

Revisions.--WSP 1217: Drainage area.

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

6,274.0	16,580	6,290.0	54,800
6,276.0	19,250	6,295.0	79,615
6,280.0	25,840	6,300.0	112,240
6,285.0	37,560	6,304.0	143,430

Contents, in acre-feet, at 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,180	33,635	56,055	73,590	98,475	115,300	127,265	135,855	135,855	134,555	73,750	37,815
2	17,155	34,450	56,860	74,410	99,145	115,670	127,890	137,150	135,690	134,395	71,485	36,945
3	17,130	35,290	57,595	75,075	99,745	115,965	128,675	137,395	135,530	134,475	69,180	36,065
4	17,115	36,450	58,430	75,630	100,555	116,335	129,460	137,230	135,365	134,315	67,390	35,050
5	17,115	36,945	59,185	76,245	101,370	116,705	130,170	136,580	135,285	134,155	65,405	33,840
6	17,105	37,875	60,035	77,145	102,050	117,150	130,720	136,260	135,450	134,475	63,565	32,230
7	17,075	38,850	60,810	78,460	102,730	117,520	131,115	135,015	135,530	134,315	62,055	30,815
8	17,065	39,645	61,685	79,150	103,490	117,890	131,435	135,770	135,770	133,510	60,265	29,325
9	17,050	40,405	62,430	79,905	104,180	118,265	131,750	135,530	136,015	132,710	58,560	27,875
10	17,040	41,265	63,235	80,605	105,010	118,635	131,990	135,450	135,530	131,195	56,905	26,405
11	16,895	41,950	64,045	81,370	106,125	119,085	132,150	135,205	135,530	128,360	55,215	24,920
12	16,855	42,270	65,110	82,080	107,315	119,460	132,310	134,960	134,800	124,935	53,855	23,490
13	16,790	42,590	65,800	82,850	108,305	119,835	132,470	134,640	134,720	121,195	52,050	22,105
14	17,585	43,075	66,590	83,990	108,730	120,140	132,550	134,640	134,640	118,935	50,270	20,770
15	18,590	43,400	67,040	84,780	109,230	120,515	132,630	134,880	134,475	116,410	48,840	19,860
16	19,250	44,160	67,390	85,565	109,725	120,895	132,790	135,125	134,880	113,185	47,455	19,480
17	20,230	44,905	67,745	86,360	110,230	121,270	132,950	135,365	134,800	111,090	46,110	19,440
18	21,140	45,660	68,105	87,100	110,945	121,650	132,950	135,690	134,720	108,375	44,905	19,440
19	22,105	46,460	68,460	87,905	111,305	122,030	132,950	136,580	134,475	106,125	44,265	19,480
20	23,035	47,275	68,715	88,715	111,880	122,490	132,950	136,420	134,475	103,625	43,895	19,625
21	23,945	48,180	69,025	89,530	112,240	122,790	133,030	136,260	134,395	101,100	43,795	19,830
22	24,865	48,950	69,545	90,415	112,600	123,095	133,190	135,285	134,555	98,475	43,500	19,975
23	25,785	49,775	70,010	91,240	112,965	123,475	133,350	135,610	134,395	95,825	43,140	20,005
24	26,715	50,575	70,270	92,000	113,330	123,860	133,510	135,610	134,155	93,160	42,815	19,975
25	27,605	51,425	70,585	92,900	113,695	124,240	133,590	135,365	133,990	90,540	42,460	19,960
26	28,505	52,205	70,955	93,675	114,280	124,625	133,670	135,205	134,155	88,155	42,175	19,890
27	29,325	52,965	71,380	94,455	114,715	125,010	133,750	135,530	134,235	85,625	41,635	19,890
28	30,260	53,730	71,805	95,500	115,080	125,320	133,750	135,855	134,315	83,150	41,205	19,890
29	31,110	54,550	72,180	96,290	-	125,865	133,910	135,690	134,075	80,780	40,405	19,845
30	31,940	55,255	72,500	97,080	-------	126,330	134,475	136,015	134,720	78,345	39,495	19,785
31	32,735	-------	72,825	97,740	-------	126,875	-------	135,935	-------	76,080	38,620	-------
(†)	6,283.17	6,290.11	6,293.79	6,297.91	6,300.39	6,301.95	6,302.91	6,303.09	6,302.94	6,294.38	6,285.37	6,276.37
(‡)	+15,515	+22,520	+17,570	+24,915	+17,340	+11,795	+7,600	+1,460	-1,215	-58,640	-37,460	-18,835

Calendar year 1958..... ‡ -26,655
Water year 1958-59..... ‡ +2,565

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

425. Henrys Fork near Island Park, Idaho

Location.--Lat 44°24'59", long 111°23'41", in SW¼ sec.28, T.13 N., R.43 E., on left bank an eighth of a mile downstream from Island Park Dam, a quarter of a mile upstream from Buffalo River, and 1 mile west of Island Park Post Office.

Drainage area.--481 sq mi.

Records available.--January 1933 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,225 ft (from river-profile map). Prior to May 15, 1935, staff gage at site about three-quarters of a mile upstream at different datum. May 15 to Nov. 30, 1935, water-stage recorder at site 1,000 ft downstream at different datum.

Average discharge.--26 years, 550 cfs (396,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,230 cfs July 11 (gage height, 5.38 ft); minimum daily, 6 cfs for many days.
1933-59: Maximum discharge, 2,770 cfs Apr. 26, 1946 (gage height, 6.15 ft); minimum daily, 1 cfs Nov. 16 to Dec. 7, 1938.

Remarks.--Records good. Flow regulated by Henrys Lake (see p. 39) and Island Park Reservoir (see preceding page). About 14,000 acres irrigated by diversions above station, a considerable portion of which consists of partly sub-irrigated meadows.

Cooperation.--Gage-height record and three discharge measurements furnished by Bureau of Reclamation.

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-15, Nov. 10-15, Aug. 14 to Sept. 30)

1.3	2	2.5	338
1.4	7	3.0	584
1.5	20	4.0	1,160
1.7	60	5.0	1,890
2.0	145	5.5	2,290

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	526	6	7	10	11	166	132	756	728	626	1,820	1,130
2	526	6	7	10	*11	166	6	938	706	*605	1,810	1,130
3	526	6	7	10	11	166	22	938	690	637	1,720	1,130
4	526	6	7	10	11	166	95	896	679	669	1,600	1,200
5	526	6	7	10	11	166	142	830	*669	653	1,590	1,400
6	*521	6	7	10	11	166	162	789	685	642	1,590	1,390
7	521	6	7	10	11	166	*201	*745	701	610	1,580	1,370
8	521	8	7	10	11	170	222	706	728	816	1,580	1,360
9	521	8	7	10	11	170	237	690	745	1,210	1,570	1,340
10	521	178	7	10	11	170	251	648	718	2,030	1,560	1,330
11	521	272	7	10	11	170	263	610	690	2,180	1,540	1,320
12	521	272	7	*10	11	170	276	584	690	2,210	1,530	1,310
13	221	272	7	10	71	170	288	563	690	2,090	1,560	1,290
14	6	*255	75	10	121	170	301	568	685	2,050	1,490	1,180
15	156	90	240	10	138	170	310	568	685	2,020	1,440	930
16	6	8	240	10	166	170	324	605	685	1,880	1,420	685
17	6	8	240	10	166	170	338	637	679	1,800	1,350	*642
18	6	*7	240	10	166	173	343	701	658	1,840	1,180	637
19	6	7	240	10	166	173	343	762	637	1,880	*1,090	637
20	6	7	240	11	166	173	347	767	637	1,930	1,030	648
21	6	7	240	11	166	173	352	734	626	1,970	992	653
22	6	7	*240	11	166	173	371	690	621	1,980	992	653
23	6	7	240	11	166	173	385	701	610	1,970	992	658
24	6	7	240	11	166	173	404	690	595	*1,970	992	658
25	6	7	240	11	166	173	584	669	568	1,930	986	653
26	6	7	240	11	*166	173	706	658	600	1,860	980	653
27	6	7	240	11	166	173	728	685	616	1,850	980	653
28	6	7	240	11	166	176	728	723	595	1,840	1,030	653
29	6	7	240	11	-	180	552	728	610	1,840	1,150	648
30	6	7	240	11	-------	180	563	750	642	1,820	1,150	626
31	6	-------	172	11	-------	180	-------	745	-------	1,820	1,140	-------
Total	6,756	1,504	4,178	322	2,620	5,308	9,976	22,074	19,868	49,228	41,434	28,567
Mean	218	50.1	135	10.4	93.6	171	333	712	662	1,588	1,337	952
Ac-ft	13,400	2,980	8,290	639	5,200	10,530	19,790	43,780	39,410	97,640	82,180	56,660

Calendar year 1958: Max 1,820 Min 6 Mean 622 Ac-ft 450,400
Water year 1958-59: Max 2,210 Min 6 Mean 526 Ac-ft 380,500

* Discharge measurement made on this day.
Note.--Discharge computed from once-daily staff-gage readings Oct. 14 to Apr. 6.

460. Henrys Fork near Ashton, Idaho

Location.--Lat 44°05', long 111°30', in sec.28, T.9 N., R.42 E., on right bank ε quarter of a mile downstream from powerplant and 3 miles west of Ashton.

Drainage area.--1,040 sq mi.

Records available.--April 1890 to June 1891, August 1902 to June 1909, April 1920 to September 1959 (seasonal records only 1920-26). Monthly discharge only for some periods, published in WSP 1317. Published as Henry Fork in canyon, above Fall River 1890-91, and as North Fork of Snake River near Ora 1902-9.

Gage.--Water-stage recorder. Altitude of gage is 5,035 ft (from river-profile map). April 1890 to June 1891, staff gage at site 6 miles downstream at different datum. August 1902 to Apr. 15, 1921, staff gage and Apr. 16, 1921, to May 3, 1930, water-stage recorder, at site 1½ miles downstream at different datum.

Average discharge.--39 years (1902-8, 1926-59), 1,359 cfs (983,900 acre-ft per year).

Extremes.--Maximum discharge during year, 3,300 cfs July 11; maximum gage height, 8.34 ft Sept. 8; minimum discharge, 86 cfs Nov. 24 (gage height, 5.19 ft); minimum daily, 260 cfs Nov. 26.
1890-91, 1902-9, 1920-59: Maximum discharge, 6,220 cfs May 7, 1925 (gage height, 8.11 ft, site and datum then in use); minimum, 65 cfs Oct. 16, 1935 (gage height, 4.59 ft); minimum daily, that of Nov. 26, 1958.

Remarks.--Records good. Diurnal fluctuation caused by powerplant above station. Flow regulated by Henrys Lake (see p. 39) and Island Park Reservoir (see p. 29). About 18,000 acres irrigated by diversions above station.

Cooperation.--Gage-height record during nonirrigation season furnished by Utah Power and Light Co.

Revisions (water years).--WSP 1217: Drainage area. WSP 1347: 1890-91.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,170	570	598	770	627	847	847	2,120	1,720	1,470	2,660	*1,920
2	1,270	580	636	502	598	803	928	2,630	1,660	1,340	2,610	1,920
3	1,260	618	696	429	608	825	858	2,260	1,660	1,270	2,570	1,900
4	1,240	656	696	544	656	781	964	2,200	1,610	1,340	2,280	1,940
5	1,230	570	598	646	618	814	1,120	2,140	1,610	1,240	2,240	2,160
6	1,080	665	636	738	676	825	1,190	2,100	1,610	1,240	2,240	2,440
7	1,230	676	696	728	656	825	1,140	2,040	1,610	1,210	2,280	2,300
8	836	665	686	718	686	836	1,080	1,940	1,660	1,130	2,140	2,380
9	562	646	*627	718	665	803	1,040	2,000	1,680	1,530	2,160	2,360
10	*1,270	781	656	686	636	847	1,050	2,000	1,650	1,980	2,200	2,340
11	1,360	892	686	728	*646	*814	1,100	1,810	1,600	2,800	2,180	2,360
12	1,330	928	696	707	636	792	1,170	1,790	*1,560	2,910	2,140	2,360
13	847	928	618	718	665	847	1,230	1,790	1,610	*2,950	*2,140	2,380
14	792	*916	618	*738	696	814	*1,200	*1,750	1,610	2,680	2,140	2,340
15	375	904	646	580	880	781	1,200	1,840	1,650	2,780	2,040	2,060
16	646	598	976	636	825	847	1,230	2,000	1,680	2,660	1,940	1,830
17	485	398	892	696	892	847	1,170	2,060	1,630	2,470	2,080	*1,420
18	390	627	869	738	858	858	1,170	2,040	1,580	2,440	2,080	1,400
19	375	636	880	676	858	858	1,260	2,080	1,530	2,610	1,880	1,480
20	536	580	825	646	858	858	1,200	2,080	1,500	2,630	1,830	1,500
21	1,010	686	880	519	836	803	1,270	1,960	1,480	2,680	1,770	1,700
22	749	646	880	598	825	858	1,360	1,790	1,420	2,740	1,700	1,520
23	608	618	869	728	836	880	1,390	1,750	1,450	2,780	1,700	1,520
24	580	485	858	707	847	858	1,450	1,730	1,420	2,700	1,700	1,520
25	589	281	858	665	836	928	1,530	1,720	1,340	2,680	1,700	1,520
26	544	260	847	656	803	916	1,980	1,660	1,530	2,630	1,720	1,560
27	536	375	836	656	825	928	2,060	1,730	1,600	2,660	1,720	1,630
28	580	589	847	665	836	904	2,100	1,860	1,440	2,660	1,730	1,550
29	502	553	825	598	-	928	1,940	1,860	1,390	2,660	1,860	1,530
30	544	676	792	627	-------	892	1,700	1,840	1,550	2,570	1,960	1,500
31	562	-------	825	636	-------	880	-------	1,860	-------	2,590	1,900	-------
Total	25,088	19,003	23,548	20,397	20,884	26,297	38,927	60,430	47,040	70,030	63,290	56,340
Mean	809	633	760	658	746	848	1,298	1,949	1,568	2,259	2,042	1,878
Ac-ft	49,760	37,690	46,710	40,460	41,420	52,160	77,210	119,900	93,300	138,900	125,500	111,700

Calendar year 1958: Max 3,150 Min 260 Mean 1,394 Ac-ft 1,009,000
Water year 1958-59: Max 2,950 Min 260 Mean 1,291 Ac-ft 934,700

* Discharge measurement made on this day.

470. Diversions from Fall River above gaging station, near Squirrel, Idaho

Above Squirrel gaging station, two canals divert water from Fall River for irrigation. Records available for part of each irrigation season from 1919 to 1959. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in cubic feet persecond, May to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	136	184	285	115
2								0	136	144	277	115
3								0	136	144	277	121
4								0	136	146	277	129
5								0	136	146	273	128
6								0	145	151	264	128
7								0	160	157	256	128
8								0	175	162	252	109
9								0	190	173	252	110
10								0	200	193	252	110
11								0	200	191	252	110
12								0	181	210	13	110
13								0	213	228	14	91
14								0	226	261	247	88
15								0	226	265	244	88
16								0	233	265	243	89
17								0	239	267	240	89
18								0	246	275	241	89
19								0	266	273	226	69
20								105	272	271	212	72
21								98	277	276	212	69
22								93	277	269	199	43
23								100	277	286	169	44
24								107	282	286	122	44
25								107	277	290	122	44
26								107	280	290	138	44
27								112	269	297	138	45
28								112	240	294	138	45
29					-			112	224	296	140	45
30					-------			112	215	296	143	44
31		-------			-------		-------	128	-------	296	136	-------
Total								1,293	6,470	7,282	6,254	2,555
Mean								41.7	216	235	202	85.2
Ac-ft								2,560	12,830	14,440	12,400	5,070

Calendar year : Max Min Mean Ac-ft
The period: Max - Min - Mean - Ac-ft 47,300

475. Fall River near Squirrel, Idaho

Location.--Lat 44°04'15", long 111°14'25", in NE¼ sec.34, T.9 N., R.44 E., on right bank a quarter of a mile upstream from road bridge, half a mile downstream from headgates of Marysville Canal, 4 miles northeast of Squirrel, and 10 miles upstream from Conant Creek.

Drainage area.--351 sq mi.

Records available.--August 1902 to June 1909 (gage heights only prior to October 1904), May 1918 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as "at Wilson's Mill, near Marysville" 1902, as "near Marysville" 1903, and as "at Fremont" 1904-9.

Gage.--Water-stage recorder. Datum of gage is 5,589 ft above mean sea level, datum of 1929. Prior to Jan. 1, 1904, staff gage at site 3 miles upstream at different datum. Jan. 1, 1904, to Nov. 6, 1937, staff gage at site 200 ft upstream at different datum. Nov. 7, 1937, to Oct. 7, 1948, staff gage at site 100 ft downstream at datum 0.29 ft lower.

Average discharge.--45 years (1904-8, 1918-59), 754 cfs (545,900 acre-ft per year).

Extremes.--Maximum discharge during year, 3,830 cfs June 15 (gage height, 4.56 ft); minimum, 254 cfs Jan. 21 (gage height, 0.68 ft).
1904-9, 1918-59: Maximum discharge observed, 6,440 cfs June 27, 1927; minimum observed, 72 cfs Feb. 9, 1930.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow since October 1939 partly regulated by Grassy Lake (see p. 39). About 16,000 acres irrigated from two diversions above station.

Revisions (water years).--WSP 1317: Drainage area. WSP 1347: 1905.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 3-29, Aug. 4-27)

0.9	325	2.5	1,490
1.2	450	3.0	2,010
1.6	700	4.0	3,150
2.0	1,020	4.3	3,510

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	428	418	b432	b415	b400	361	361	1,350	1,090	1,110	478	446
2	428	414	b434	b410	b395	357	385	1,640	1,260	1,030	472	441
3	423	418	436	401	b390	353	410	1,300	1,520	1,130	466	441
4	418	423	436	b405	b385	353	423	1,380	1,670	1,030	456	432
5	418	423	432	b405	b380	349	466	1,290	1,930	900	456	436
6	*418	428	436	b410	b385	353	565	1,240	2,180	892	456	436
7	418	523	441	b415	b390	349	547	1,270	2,520	876	450	446
8	423	461	436	b415	b385	349	529	1,430	2,260	740	436	446
9	432	456	*436	b415	b380	349	488	1,570	2,200	658	428	441
10	423	693	441	418	b385	353	494	1,470	2,470	610	428	446
11	418	604	446	418	*b390	*349	478	1,230	2,240	578	517	446
12	418	517	446	418	b385	349	517	1,340	*2,370	553	604	450
13	418	*505	428	432	b385	349	*565	1,590	2,640	*559	547	461
14	418	505	436	*423	b390	349	572	*1,880	2,850	547	414	466
15	418	483	432	410	401	345	541	1,980	3,510	535	397	*472
16	418	441	436	423	405	349	523	2,260	3,320	529	393	472
17	418	b420	428	418	389	349	500	1,900	2,960	529	*389	472
18	418	b420	423	423	377	357	494	1,690	3,020	553	397	483
19	423	466	423	418	369	353	488	1,460	2,930	547	414	517
20	428	466	428	418	365	349	478	1,240	2,440	535	436	547
21	423	466	428	381	357	349	494	1,090	2,410	529	414	610
22	418	466	436	b410	357	349	572	1,050	2,110	529	414	565
23	418	468	428	423	361	353	604	1,000	1,900	523	428	529
24	418	461	432	428	361	353	598	1,060	1,880	517	446	511
25	418	446	428	418	361	353	724	1,100	1,860	517	441	517
26	418	432	428	410	361	353	908	1,240	2,120	505	428	547
27	418	436	428	423	361	357	980	1,470	2,360	505	428	572
28	418	432	428	428	357	357	876	1,440	1,710	494	428	553
29	418	b430	423	414	-	373	876	1,260	1,340	488	423	535
30	418	b430	423	b410	-------	377	964	1,160	1,340	483	428	511
31	418	-------	b420	b405	-------	373	-------	1,110	-------	500	436	-------
Total	13,027	13,949	13,388	12,860	10,607	10,971	17,420	43,490	66,410	20,031	13,748	14,647
Mean	420	465	432	415	379	354	581	1,403	2,214	646	443	488
Ac-ft	25,840	27,670	26,550	25,510	21,040	21,760	34,550	86,260	131,700	39,730	27,270	29,050

Calendar year 1958: Max 3,470 Min 389 Mean 686 Ac-ft 496,800
Water year 1958-59: Max 3,510 Min 345 Mean 686 Ac-ft 496,900

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

490. Diversions from Fall River between Squirrel and Chester gaging stations, Idaho

Between Squirrel and Chester gaging stations, nine canals divert water from Fall River for irrigation. Records available for part of each irrigation season from 1919 to 1959. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in cubic feet per second, 1959

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	190	623	615	560	409	16	560	906	561	451	437
2	192	679	602	548	409	17	547	881	554	446	424
3	196	744	614	438	423	18	524	953	582	430	431
4	195	775	584	425	424	19	538	989	578	428	436
5	206	815	535	509	425	20	525	951	588	434	423
6	207	841	552	555	427	21	528	922	571	427	419
7	245	863	599	559	429	22	517	909	583	414	391
8	252	834	621	538	431	23	523	913	576	424	357
9	284	794	608	522	423	24	533	969	562	414	351
10	346	884	604	525	382	25	546	959	564	426	323
11	358	877	613	522	396	26	611	947	559	426	296
12	408	906	593	541	413	27	637	966	538	402	309
13	569	931	601	512	415	28	646	816	555	408	323
14	600	963	570	473	447	29	633	740	538	410	315
15	494	964	565	436	436	30	637	697	531	410	307
						31	622	-	540	409	-
Total							13,869	26,011	17,876	14,422	11,829
Mean							447	867	577	465	394
Runoff in acre-feet							27,510	51,590	35,460	28,610	23,460

The period: Ac-ft 166,600

495. Fall River near Chester, Idaho

Location.--Lat 44°01', long 111°34', in sec.13, T.8 N., R.41 E., on right bank 1,000 ft upstream from highway bridge, half a mile upstream from mouth, and 1¼ miles north of Chester.

Drainage area.--520 sq mi, approximately.

Records available.--April 1920 to September 1959 (irrigation seasons only).

Gage.--Water-stage recorder. Datum of gage is 5,051.9 ft above mean sea level, datum of 1929. Prior to Aug. 9, 1920, staff gage at site 200 ft downstream at same datum. Aug. 9, 1920 to Apr. 28, 1921, staff gage at present site and datum.

Extremes.--Maximum discharge during period, 3,250 cfs June 15 (gage height, 4.80 ft); minimum, 15 cfs July 16 (gage height, 0.97 ft).

1920-59: Maximum discharge recorded, 6,380 cfs June 27, 1927 (gage height, 6.60 ft); minimum recorded, 9 cfs Aug. 7, 1933 (gage height, 1.01 ft).

Remarks.--Records excellent. Flow since October 1939 partly regulated by Grassy Lake (see p. 39). About 42,000 acres of land irrigated by diversions above station. Station is below all diversions from Fall River.

Revisions.--WSP 1217: Drainage area.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1,290	682	794	34	138
2								1,760	770	682	43	124
3								1,350	972	746	89	117
4								1,400	1,130	722	62	100
5								1,300	1,350	601	48	96
6								1,220	1,560	541	35	98
7								1,210	1,860	460	28	100
8								1,350	1,810	301	24	110
9								1,480	1,730	181	23	168
10								1,540	1,820	107	25	162
11								1,380	1,640	72	70	149
12								1,250	1,690	52	229	147
13								1,350	1,870	46	225	138
14								1,520	2,100	36	74	130
15								1,610	2,740	27	60	138
16								1,900	2,830	18	52	155
17								1,660	2,410	33	43	152
18								1,470	2,350	37	57	162
19								1,180	2,300	38	110	185
20								936	1,890	27	144	245
21								762	1,760	23	*138	355
22								682	*1,540	23	124	*355
23								615	1,300	21	130	324
24								558	1,210	26	144	342
25								*682	1,200	34	144	337
26								778	1,320	26	138	360
27								954	1,860	*33	144	380
28								1,010	1,380	32	135	375
29					-			909	954	24	127	350
30					-------		*936	746	1,000	23	124	337
31		-------			-------		-------	730	-------	30	130	-------
Total							-	36,682	49,028	5,796	2,953	6,329
Mean							-	1,183	1,634	187	95.3	211
Ac-ft							-	72,760	97,250	11,500	5,860	12,550

The period May to September: Max - Min - Mean - Ac-ft - Max - Min - Mean - Ac-ft 199,900

* Discharge measurement made on this day.

500. Diversions from Henrys Fork between Ashton and St. Anthony gaging stations, Idaho

Between Ashton and St. Anthony gaging stations, seven canals divert water from Henrys Fork for irrigation. Records available each irrigation season from 1919 to 1959. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in cubic feet per second, 1959

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	912	1,230	719	1,530	714	16	1,580	1,270	1,500	1,200	1,060
2	962	1,340	732	1,430	748	17	1,530	1,100	1,520	1,210	940
3	843	1,410	756	1,440	844	18	1,470	1,160	1,480	1,090	859
4	869	1,430	800	1,450	830	19	1,430	1,260	1,600	1,090	855
5	841	1,550	862	1,310	766	20	1,340	1,280	1,580	991	827
6	923	1,540	931	1,450	826	21	1,300	1,250	1,610	890	799
7	1,050	1,590	1,050	1,480	814	22	1,320	1,220	1,610	862	743
8	1,200	1,600	1,080	1,470	880	23	1,310	1,200	1,620	817	653
9	1,290	1,570	1,240	1,420	945	24	1,280	1,210	1,570	821	645
10	1,290	1,460	1,420	1,410	975	25	1,280	1,200	1,550	821	620
11	1,300	1,450	1,680	1,400	1,090	26	1,300	1,210	1,530	794	593
12	1,390	1,450	1,780	1,360	1,070	27	1,340	1,050	1,530	713	508
13	1,450	1,460	1,750	1,260	1,080	28	1,240	986	1,520	726	507
14	1,510	1,400	1,650	1,270	1,090	29	1,180	955	1,500	748	503
15	1,570	1,360	1,590	1,240	1,100	30	1,190	776	1,540	736	497
						31	1,210	-	1,520	724	-
Total							38,700	38,967	42,820	25,153	24,381
Mean							1,248	1,299	1,381	1,134	813
Runoff in acre-feet							76,760	77,290	84,930	69,720	48,360

The period: Ac-ft 357,100

505. Henrys Fork at St. Anthony, Idaho

Location.--Lat 43°58'00", long 111°40'20", in NW¼ sec.6, T.7 N., R.41 E., on right bank half a mile upstream from bridge on main street of St. Anthony and 6 miles downstream from Fall River.

Drainage area.--1,770 sq mi, approximately.

Records available.--March 1919 to September 1959 (irrigation seasons only).

Gage.--Water-stage recorder. Datum of gage is 4,950.7 ft above mean sea level, datum of 1929. March 1919 to May 7, 1923, staff gages and May 8, 1922, to Aug. 14, 1931, water-stage recorder, at site 150 ft downstream at datum 0.08 ft lower.

Extremes.--Maximum discharge during period, 3,770 cfs June 15 (gage height, 4.95 ft); minimum, 483 cfs July 10 (gage height, 3.82 ft).

1919-59: Maximum discharge recorded, 9,030 cfs May 8, 1925 (gage height, 6.78 ft, present datum); minimum daily recorded, 413 cfs July 22, 1931.

Remarks.--Records excellent. Diversions above station for irrigation. Flow regulated by powerplant 17 miles above station and by Henrys Lake (see p. 39), Island Park Reservoir (see p. 29), and Grassy Lake Reservoir (see p. 29).

Revisions.--WSP 1217: Drainage area.

Rating table, Apr. 28 to Sept. 30, 1959 (gage height, in feet, and discharge, in cubic feet per second)

3.1	660
3.5	1,040
4.0	1,760
5.0	3,870

Discharge, in cubic feet per second, 1959

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	2,250	1,470	1,830	1,160	1,460	16	-	2,250	3,440	1,380	1,030	1,040
2	-	3,490	1,320	*1,550	1,220	1,400	17	-	2,310	3,050	1,210	1,100	880
3	-	2,810	1,470	1,500	1,320	1,300	18	-	2,040	2,880	1,150	1,200	880
4	-	2,690	1,550	1,540	1,170	1,300	19	-	1,900	2,730	1,160	1,140	930
5	-	2,390	1,600	1,240	1,240	1,400	20	-	1,780	2,350	1,190	1,190	1,030
6	-	2,330	1,730	1,090	1,080	1,660	21	-	1,540	2,110	1,190	*1,320	1,280
7	-	*1,910	2,040	941	1,010	1,540	22	-	1,280	1,930	1,200	1,220	1,250
8	-	1,980	*2,130	708	910	1,440	23	-	1,190	1,660	1,250	1,250	1,220
9	-	2,130	2,110	716	963	1,460	24	-	1,240	1,490	1,250	1,280	1,210
10	-	2,090	2,210	860	1,010	1,360	25	-	1,240	1,420	1,190	1,300	1,220
11	-	1,550	2,040	1,360	1,080	1,340	26	-	1,260	1,730	1,190	1,290	1,300
12	-	1,460	1,950	1,420	1,210	1,300	27	-	1,520	2,690	*1,170	1,360	1,500
13	-	1,520	2,170	1,490	1,240	1,300	28	2,040	1,830	2,170	1,170	1,350	1,490
14	-	1,650	2,420	1,250	1,190	1,280	29	1,910	1,830	1,710	1,150	1,380	1,440
15	-	1,860	3,140	1,350	1,100	*1,140	30	1,630	1,630	2,000	1,080	1,460	1,410
							31	-	1,540	-	1,110	1,460	-
Total							-	58,490	62,710	37,885	37,213	38,740	
Mean							-	1,887	2,090	1,222	1,200	1,291	
Runoff in acre-feet							-	116,000	124,400	75,140	73,810	76,840	

The period May to September: Ac-ft 466,200

* Discharge measurement made on this day.

550. Teton River near St. Anthony, Idaho

Location.--Lat 43°55'40", long 111°36'55", in SW¼ sec.15, T.7 N., R.41 E., on right bank half a mile upstream from railroad bridge and 4 miles southeast of St. Anthony.

Drainage area.--890 sq mi, approximately.

Records available.--January 1890 to September 1893, April 1903 to June 1909, April 1920 to September 1959 (irrigation seasons only 1920-21, 1923-33). Monthly discharge only for some periods, published in WSP 1317. Published as "near Wilford" or "at Chases Ranch" 1890-93.

Gage.--Water-stage recorder. Datum of gage is 4,971.8 ft above mean sea level, datum of 1929. Apr. 5, 1890, to Sept. 30, 1893, staff gage at site 1 mile downstream at different datum. Apr. 23, 1903, to June 30, 1909, staff gage at site three-quarters of a mile upstream at different datum. Apr. 19, 1920, to May 1, 1921, staff gage and May 2, 1921, to Nov. 5, 1933, water-stage recorder, at site 400 ft downstream at different datum.

Average discharge.--26 years (1933-59), 761 cfs (550,900 acre-ft per year).

Extremes.--Maximum discharge during year, 3,790 cfs Apr. 3 (gage height, 6.28 ft); minimum, 230 cfs Jan. 3 (gage height, 1.89 ft).
1890-93, 1903-9, 1920-59: Maximum discharge observed, 5,830 cfs June 13, 1893 (gage height, 6.90 ft, site and datum then in use); minimum, 214 cfs Dec. 15, 1955 (gage height, 1.62 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. About 40,000 acres of land irrigated from diversions above station. Water is diverted at times (since 1939) during irrigation season from Henrys Fork through Cross Cut Canal to Teton River three-quarters of a mile above station (41,600 acre-ft diverted into river during 1959 irrigation season).

Revisions (water years).--WSP 1217: Drainage area. WSP 1347: 1903-6, 1908-9.

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

Oct. 1 to Apr. 1		Apr. 2 to Sept. 30	
2.1	272	2.4	430
2.3	345	2.7	635
2.6	498	3.0	875
3.0	770	4.0	1,750
3.5	1,200	5.0	2,810

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	475	a450	420	b390	b340	400	730	695	893	1,370	920	539
2	492	a450	420	b360	b338	415	2,140	858	920	1,240	974	553
3	486	a450	430	303	b335	400	2,120	858	1,120	1,250	999	590
4	475	a450	*420	363	b335	354	1,900	782	1,290	1,260	990	582
5	475	a450	400	b380	b335	363	1,710	718	1,500	1,190	824	575
6	481	a470	410	b390	b340	363	1,210	665	1,700	1,140	798	598
7	486	a520	435	b395	b345	363	807	658	2,070	1,060	841	612
8	486	a490	430	b400	350	358	635	742	2,040	990	850	650
9	481	a480	430	b405	341	345	539	850	1,790	965	841	665
10	*481	a650	420	b410	337	354	504	938	1,850	956	841	718
11	469	a610	425	b420	*337	*350	490	893	1,690	1,070	832	750
12	463	a550	b425	430	318	350	490	841	*1,570	1,160	832	782
13	463	*510	b410	430	b320	363	511	990	1,820	*1,200	816	807
14	463	510	b400	*430	b325	345	*525	1,360	2,100	1,180	798	824
15	457	a480	b395	386	350	326	525	*1,460	2,360	1,180	766	832
16	457	a450	b395	372	354	368	504	1,690	2,410	1,150	750	832
17	452	a430	b395	363	372	405	484	1,580	2,280	1,100	*718	798
18	457	a440	395	b365	376	481	490	1,350	2,170	1,060	688	790
19	463	463	405	368	358	410	497	1,170	2,070	1,030	695	774
20	469	475	400	368	358	386	511	1,010	2,040	1,040	710	798
21	469	540	405	b360	350	405	497	920	1,970	1,050	742	841
22	457	534	415	345	354	463	478	858	1,890	1,040	702	*766
23	457	498	420	b370	354	683	490	816	1,810	1,020	672	672
24	469	498	415	b380	354	818	472	832	1,690	1,010	695	635
25	486	486	410	b380	354	818	504	858	1,630	990	672	635
26	486	415	390	381	358	868	650	920	1,750	982	635	650
27	481	b400	381	381	358	802	742	1,030	2,060	965	605	642
28	475	b400	b370	372	363	683	790	1,080	1,790	947	582	680
29	469	b400	345	350	-	690	680	1,020	1,510	929	575	628
30	463	420	341	b348	-------	498	635	947	1,510	920	553	605
31	452	-------	b370	345	-------	475	-------	938	-------	920	546	-------
Total	14,595	14,369	12,522	11,740	9,709	14,702	23,260	30,327	53,293	33,364	23,462	20,823
Mean	471	479	404	379	347	474	775	978	1,776	1,076	757	694
Ac-ft	28,950	28,500	24,840	23,290	19,260	29,160	46,140	60,150	105,700	66,180	46,540	41,300

Calendar year 1958: Max 3,580 Min 341 Mean 743 Ac-ft 537,500
Water year 1958-59: Max 2,410 Min 303 Mean 718 Ac-ft 520,000

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

555. Diversions from Teton River between St. Anthony gaging station and mouth, Idaho

Between St. Anthony gaging station and mouth, 19 canals divert water from Teton River for irrigation of 30,000 acres of land. Records available for part of each irrigation season from 1919 to 1959. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in cubic feet per second, 1959

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	655	826	812	953	590	16	1,160	1,400	1,150	705	688
2	747	855	810	931	576	17	1,130	1,400	1,090	704	605
3	770	990	696	917	603	18	1,070	1,420	1,080	692	560
4	741	1,130	747	885	595	19	1,060	1,370	1,060	694	537
5	690	1,250	769	874	572	20	980	1,370	1,000	697	519
6	657	1,440	836	787	627	21	918	1,360	1,050	639	553
7	626	1,410	853	811	617	22	886	1,350	1,070	641	458
8	712	1,350	896	896	618	23	870	1,380	1,030	587	436
9	747	1,330	953	866	635	24	876	1,350	1,050	589	415
10	815	1,310	933	852	670	25	902	1,320	1,040	527	404
11	884	1,310	1,050	855	665	26	937	1,300	960	556	393
12	883	1,260	1,080	845	704	27	881	1,180	958	558	394
13	938	1,410	1,160	791	716	28	878	981	939	559	397
14	1,090	1,410	1,200	771	737	29	881	888	919	562	397
15	1,190	1,420	1,150	729	722	30	869	836	895	541	397
						31	840	-	914	539	-
Total							27,283	37,606	30,150	22,553	16,800
Mean							880	1,254	973	728	560
Runoff in acre-feet							54,120	74,590	59,800	44,730	33,320

The period: Ac-ft 266,600

560. Diversions from Henrys Fork between St. Anthony and Rexburg gaging stations, Idaho

Between St. Anthony and Rexburg gaging stations, four canals divert water from Henrys Fork for irrigation. Records available for part of each irrigation season from 1919 to 1959. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in cubic feet per second, 1959

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	1,160	962	433	905	677	16	1,240	858	880	777	484
2	1,160	1,070	513	823	663	17	1,180	825	940	758	320
3	1,160	1,110	626	723	666	18	1,110	936	950	809	319
4	1,200	1,180	652	750	677	19	1,070	926	942	794	319
5	1,160	1,210	632	863	688	20	1,050	940	931	607	335
6	1,130	1,220	805	874	675	21	1,020	919	918	532	322
7	1,160	1,180	822	827	700	22	1,000	898	775	565	309
8	1,150	1,160	692	803	645	23	998	915	810	517	315
9	1,170	1,050	641	829	633	24	990	882	903	572	318
10	1,160	1,010	787	868	665	25	984	846	927	556	298
11	1,160	987	993	857	664	26	1,010	812	911	576	278
12	1,150	987	1,020	885	631	27	1,030	711	899	578	284
13	1,180	1,010	933	860	601	28	999	680	913	583	292
14	1,200	1,000	909	813	522	29	1,000	646	869	582	280
15	1,250	1,000	874	780	522	30	991	517	880	598	268
						31	975	-	891	661	-
Total							34,177	28,447	25,671	22,525	14,370
Mean							1,102	948	828	727	479
Runoff in acre-feet							67,790	56,420	50,920	44,680	28,500

The period: Ac-ft 248,300

565. Henrys Fork near Rexburg, Idaho

Location.--Lat 43°49'34", long 111°54'15", in NE¼ sec.30, T.6 N., R.39 E., on right bank 200 ft downstream from highway bridge and 6 miles west of Rexburg.

Drainage area.--2,920 sq mi, approximately.

Records available.--April 1909 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as North Fork of Snake River near Rexburg.

Gage.--Water-stage recorder. Datum of gage is 4,807.7 ft above mean sea level, datum of 1929. Apr. 13, 1909, to Sept. 28, 1912, staff gage at datum 0.67 ft higher. Sept. 29, 1912, to Apr. 4, 1913, staff gage at present datum.

Average discharge.--50 years, 1,910 cfs (1,383,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,070 cfs June 28 (gage height, 7.28 ft); minimum, 500 cfs Jan. 3 (gage height, 2.59 ft).
1909-59: Maximum daily discharge, 9,490 cfs June 29, 1927; maximum gage height, 9.97 ft May 19, 1927; minimum discharge, 183 cfs Mar. 24-28, 1934 (gage height, 1.45 ft).

Remarks.--Records good except those for period of ice effect, which are fair. Flow regulated by operation of powerplant near Ashton and by Henrys Lake (see following page), Island Park Reservoir (see p. 29), and Grassy Lake (see following page). Diversions for irrigation of about 172,000 acres above station. Station is downstream from all tributaries except inflow from ground water and irrigation waste. Part of ground-water flow escapes westward beneath the Snake River plains above gaging station.

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 18 to June 7, Aug. 21, 22)

2.9	670	6.0	2,920
3.4	950	7.0	3,850
4.0	1,340	8.0	5,000
5.0	2,080		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,600	986	1,400	1,550	1,270	1,520	1,350	896	1,630	3,710	1,000	1,380
2	1,630	962	1,350	1,390	1,250	1,660	1,840	1,680	1,280	3,260	1,210	1,350
3	1,720	*926	1,390	630	1,230	1,570	*2,880	2,340	1,190	2,740	1,460	1,260
4	1,700	932	*1,440	753	1,250	1,470	2,910	1,960	1,220	2,590	1,390	1,220
5	1,680	956	1,390	1,000	1,100	*1,350	3,030	1,820	1,220	2,380	1,170	1,230
6	1,640	956	1,280	1,250	*1,130	1,380	3,060	1,610	1,360	1,940	1,120	1,360
7	1,560	1,020	1,360	1,470	1,300	1,400	2,730	1,480	1,630	1,540	968	1,450
8	1,700	1,140	1,380	*1,470	1,380	1,380	2,020	1,280	2,240	1,260	908	1,340
9	*1,530	1,170	1,350	1,450	1,360	1,360	1,630	1,190	2,340	896	836	1,370
10	1,350	1,140	1,340	1,400	1,340	1,340	1,440	1,280	2,270	726	908	1,350
11	1,700	1,580	1,380	1,400	1,320	1,340	1,320	1,200	2,390	710	932	1,260
12	1,750	1,660	1,440	1,370	1,300	1,280	1,270	808	2,100	1,090	1,080	1,260
13	1,700	1,610	1,470	1,400	1,310	1,290	1,330	736	2,160	1,240	1,190	1,280
14	1,370	1,580	1,310	1,400	1,370	1,300	1,390	780	2,450	1,190	1,240	1,310
15	1,260	1,580	1,290	1,400	1,490	1,240	1,260	1,140	2,860	1,090	1,180	1,340
16	1,060	1,570	1,370	1,250	1,540	1,240	1,190	1,470	3,610	1,230	1,120	1,250
17	1,110	1,280	1,600	1,300	1,640	1,340	1,130	2,210	4,000	1,110	1,050	1,320
18	950	1,260	1,540	1,350	1,720	1,410	1,020	2,260	3,740	962	1,140	1,220
19	1,020	1,500	1,530	1,400	1,720	1,400	956	2,140	3,500	926	1,180	1,270
20	1,060	1,550	1,540	1,350	1,660	1,320	926	1,990	3,340	998	1,280	1,430
21	1,290	1,560	1,530	1,300	1,630	1,260	854	1,780	2,960	998	*1,660	1,610
22	1,560	1,660	1,580	1,200	1,570	1,280	836	1,480	*2,960	1,090	1,660	*1,880
23	1,420	1,580	1,610	1,300	1,580	1,390	890	1,270	2,570	1,230	1,630	1,780
24	1,300	1,550	1,560	1,400	1,540	1,680	878	1,180	2,240	1,160	1,610	1,740
25	1,270	1,390	1,560	1,370	1,530	1,730	786	*1,190	2,020	1,110	1,600	1,700
26	1,260	1,140	1,560	1,360	1,500	1,810	808	1,160	2,060	1,090	1,560	1,720
27	1,260	1,020	1,540	1,350	1,440	1,870	1,300	1,190	3,110	*1,070	1,550	1,940
28	1,190	1,160	1,540	1,350	1,470	1,740	*1,390	1,570	3,990	1,060	1,520	2,060
29	1,120	1,300	1,540	1,330	-	1,660	1,260	1,900	3,700	1,060	1,450	2,100
30	1,030	1,340	1,430	1,280	-------	1,590		1,820	3,510	1,050	1,480	2,080
31	992	-------	1,470	1,280	-------	1,420	-------	1,720	-------	962	1,500	-------
Total	42,782	39,058	45,070	40,503	39,940	45,020	44,658	46,530	75,650	43,468	39,582	44,860
Mean	1,380	1,302	1,454	1,307	1,426	1,452	1,489	1,501	2,522	1,402	1,277	1,495
Ac-ft	84,860	77,470	89,400	80,340	79,220	89,300	88,580	92,290	150,000	86,220	78,510	88,980

Calendar year 1958: Max 5,180 Min 808 Mean 1,749 Ac-ft 1,266,000
Water year 1958-59: Max 4,000 Min 630 Mean 1,499 Ac-ft 1,085,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Jan. 5 to Feb. 12; discharge estimated on basis of 2 discharge measurements, weather records, and records for station at Henrys Fork near Ashton, Teton River near St. Anthony, and Fall River near Squirrel.

Smaller Reservoirs in Henrys Fork basin

390. Henrys Lake.--Lat 44°36', long 111°21', in NW¼ sec.26, T.15 N., R.43 E., at dam on Henrys Fork, 4 miles south of former Lake, Idaho, Post Office. Drainage area, 98 sq mi, approximately, including 6 sq mi of Dry Creek basin. Records available, June 1923 to September 1959 (fragmentary). Staff gage. Datum of gage is 6,457.16 ft above mean sea level (levels by Bureau of Reclamation). Maximum contents observed during year, 74,200 acre-ft July 2, 11; maximum gage height, 14.19 ft July 2; minimum observed, 54,800 acre-ft Oct. 6. Maximum contents observed during period 1923-59, 85,100 acre-ft June 4, 1957, May 29, 1958 (gage height, 15.90 ft); minimum observed, 140 acre-ft Nov. 8, 1934 (gage height, 0.03 ft).

Reservoir is formed on natural lake by concrete dam; storage began Sept. 21, 1922; dam completed July 1923. Capacity, 79,351 acre-ft between gage heights 0.0 (low-water level of Henrys Lake prior to construction of dam) and 15.0 ft (top of 5-foot flashboards on spillway). Floodwaters of Dry Creek are diverted into Henrys Lake at times (some diverted during water year 1959). Water used for irrigation near St. Anthony. Gage read occasionally. Records given herein represent usable contents, except an allowance is usually made of 3,000 acre-ft for loss and dead storage from maximum contents. Capacity table furnished by North Fork Reservoir Co.

465. Grassy Lake.--Lat 44°08', long 110°49', approximately in sec.7, T.48 N., R.116 W. (unsurveyed), in gatehouse at dam on Grassy Creek, half a mile upstream from mouth and 24 miles northwest of Moran, Wyo. Drainage area, 12 sq mi, approximately, including basin of Cascade Creek, from which water is diverted into Grassy Lake. Records available, October 1939 to September 1959. Mercury pressure gage. Datum of gage is mean sea level (levels by Bureau of Reclamation). Maximum contents observed during year, 15,260 acre-ft June 5, 12, 17 (elevation, 7,210.25 ft); minimum contents observed, 6,320 acre-ft Sept. 11 (elevation, 7,176.95 ft). Maximum contents observed during period 1939-59, 15,446 acre-ft July 2, 1943 (elevation, 7,210.85 ft); no contents Oct. 2-5, 1940.

Reservoir is formed by earth-fill, rock-faced dam; storage began Oct. 18, 1939. Capacity, 15,182 acre-ft between elevations 7,135.0 (sill of trashrack) and 7,210.0 ft (crest of spillway). Water is used for irrigation of lands in Fremont-Madison irrigation district, Idaho. Gage read about twice monthly. Records given herein represent usable contents. Gage-height record and capacity table furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1958 to September 1959

Date	Gage Height (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	Henrys Lake			Grassy Lake		
Sept.30	-	a54,700	-	-	a9,290	-
Oct. 31	-	a56,000	+1,300	7,190.40	9,570	+280
Nov. 30	-	a57,500	+1,500	-	a10,190	+620
Dec. 31	-	a59,200	+1,700	-	a10,670	+480
Calendar year 1958	-	-	-15,800	-	-	-1,690
Jan. 31	-	a61,000	+1,800	-	a11,070	+400
Feb. 28	-	a62,800	+1,800	7,197.70	11,540	+470
Mar. 31	-	a63,100	+300	-	a11,870	+330
Apr. 30	-	a65,900	+2,800	-	a12,370	+500
May 31	-	a68,800	+2,900	-	a14,780	+2,410
June 30	-	a73,900	+5,100	7,210.10	15,210	+430
July 31	-	a67,600	-6,300	-	a11,140	-4,070
Aug. 31	-	a60,000	-7,600	-	a6,330	-4,810
Sept.30	-	a63,100	+3,100	-	a6,370	+40
Water year 1958-59	-	-	+8,400	-	-	-2,920

a No gage-height record; contents interpolated.

595. Diversions from Snake River between Heise and Shelley gaging stations, Idaho

Between Heise and Shelley gaging stations, 47 canals divert water from Snake River for irrigation; of these 36 divert above mouth of Henrys Fork. Records available during each irrigation season from 1919 to 1959. Two of the canals are equipped with water-stage recorders, the others with staff gages, which are read once daily. Discharge combined to show total diverted flow. Records include Riley ditch which diverts 1½ miles above Heise gaging station. Records good.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								4,830	6,110	5,580	9,230	7,730
2								4,790	7,210	5,990	8,980	7,620
3								4,970	8,220	5,930	9,590	8,050
4								5,390	8,700	6,030	9,670	8,050
5								5,650	9,280	6,480	9,630	7,660
6								5,840	9,610	7,380	9,620	7,250
7								6,370	10,100	8,660	9,510	7,660
8								6,930	10,300	9,200	9,290	8,100
9								6,920	10,400	9,710	8,880	8,320
10								6,790	10,500	9,900	8,860	8,360
11								7,320	10,500	10,100	8,610	8,360
12								7,580	10,500	10,100	8,450	8,050
13								8,310	10,400	10,300	8,090	7,740
14								8,470	10,300	10,200	7,620	7,800
15								8,230	10,000	10,400	7,190	7,540
16								7,780	10,000	10,400	6,940	7,050
17								7,300	10,100	10,600	7,770	6,910
18								6,940	10,100	10,400	7,950	6,620
19								6,680	10,400	10,300	7,870	4,750
20								6,390	10,500	10,500	7,610	4,390
21								6,300	10,200	10,600	7,100	4,430
22								6,300	10,100	10,600	6,940	4,930
23								6,200	10,000	10,600	6,380	4,670
24								6,180	9,800	10,400	6,770	4,510
25								6,170	9,690	10,100	6,880	4,400
26								5,910	9,060	9,820	6,940	4,230
27								5,900	8,480	10,100	6,960	4,180
28								5,560	8,000	10,100	7,320	3,970
29								5,400	7,270	10,100	7,500	3,790
30					-------			5,440	6,050	9,810	7,280	3,710
31		-------			-------		-------	5,470	------	9,360	7,570	------
Total								198,310	281,880	289,750	249,000	190,830
Mean								6,397	9,396	9,347	8,032	6,361
Ac-ft								393,300	559,100	574,700	493,900	378,500

Calendar year : Max Min Mean Ac-ft
The period : Max - Min - Mean - Ac-ft 2,400,000

600. Snake River near Shelley, Idaho

Location.--Lat 43°24'50", long 112°08'05", in SW¼ sec.17, T.1 N., R.37 E., on right bank a quarter of a mile southeast of Woodville and 2½ miles north of Shelley.

Drainage area.--9,790 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--March 1915 to September 1959 (prior to October 1931, irrigation seasons only).

Gage.--Water-stage recorder. Datum of gage is 4,599.0 ft above mean sea level, datum of 1929.

Average discharge.--28 years (1931-59), 5,233 cfs (3,789,000 acre-ft per year).

Extremes.--Maximum discharge during year, 12,000 cfs June 30 (gage height, 8.61 ft); minimum, 1,050 cfs Oct. 20 (gage height, 4.23 ft).
1915-59: Maximum discharge, 47,200 cfs June 17, 1918 (gage height, 16.97 ft); minimum, 288 cfs Nov. 5, 1934 (gage height, 2.22 ft).
Maximum discharge known, 75,000 cfs (estimated) June 6, 1894, at former station at Eagle Rock (now Idaho Falls), 7 miles upstream from present site.

Remarks.--Records excellent except those for periods of ice effect, which are good. Some regulation by Jackson Lake (see p. 13), Palisades Reservoir (see p. 25), Island Park Reservoir (see p. 29), Henrys and Grassy Lakes (see preceding page). Many diversions above station for irrigation.

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

4.3	1,140	6.0	3,540
4.9	1,700	7.0	6,370
5.2	2,060	8.0	9,790
5.5	2,540	9.0	13,400

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,780	1,880	3,190	b3,070	b3,100	3,320	2,850	2,390	3,820	*11,000	6,500	7,160
2	1,930	1,920	3,300	b3,100	b3,050	3,410	2,850	2,520	2,670	9,750	6,900	7,030
3	1,980	2,060	3,300	b2,800	2,890	3,560	3,700	4,440	2,290	8,730	*6,770	6,860
4	2,030	2,020	3,300	2,180	b2,800	3,410	4,470	5,150	5,190	8,210	6,630	7,030
5	2,030	2,150	3,390	2,310	b2,950	3,320	4,550	4,600	6,050	7,800	6,500	7,600
6	2,060	2,120	3,340	2,610	b3,150	3,280	4,710	3,320	5,570	6,370	6,370	8,180
7	1,970	2,200	3,240	b3,000	3,320	3,280	4,680	2,870	5,280	5,090	6,240	8,240
8	1,860	2,440	3,340	b3,200	3,680	3,240	4,290	2,870	6,310	5,570	6,310	7,770
9	2,010	2,740	3,320	b3,400	b3,500	3,260	3,680	3,720	5,950	5,670	6,500	*7,360
10	1,980	2,910	3,300	b3,500	b3,300	3,260	3,360	5,090	5,410	5,000	6,400	7,390
11	1,890	3,090	3,280	b3,550	b3,250	3,090	3,240	5,570	5,570	4,790	6,340	7,390
12	2,020	3,340	*3,410	b3,600	b3,200	3,070	3,010	4,740	5,830	5,220	5,630	7,560
13	2,030	3,240	3,410	b3,650	b3,250	3,010	2,970	3,940	5,730	5,630	5,380	7,970
14	1,930	3,260	3,410	b3,600	b3,200	3,090	3,050	4,290	6,020	5,630	5,700	8,210
15	1,700	3,500	3,260	b3,500	b3,100	3,090	2,950	5,890	6,500	5,570	5,630	8,380
16	1,600	3,520	3,110	3,450	3,260	3,010	3,070	6,400	6,700	5,440	5,540	8,070
17	1,430	b3,620	3,150	3,260	3,340	*3,070	3,010	6,770	6,630	5,470	4,970	7,230
18	1,410	b3,780	3,300	b3,300	3,470	3,240	2,850	6,540	6,600	5,540	4,660	7,060
19	1,330	b3,900	3,280	b3,400	3,560	3,410	2,740	5,890	6,110	5,570	4,820	6,670
20	1,220	b3,960	3,260	b3,300	3,540	3,360	2,580	5,700	6,270	5,730	5,410	7,030
21	1,400	3,940	3,240	b3,200	3,500	3,070	2,780	5,730	7,000	5,570	6,240	5,380
22	1,720	3,770	3,240	b2,950	3,450	2,990	*2,800	*4,970	7,200	5,630	6,570	4,790
23	2,140	3,770	3,280	*b3,000	3,430	2,890	2,490	4,660	6,800	5,700	6,540	3,590
24	2,090	3,630	3,260	3,340	3,410	3,050	2,180	4,940	6,110	5,920	6,240	2,850
25	2,140	3,630	3,190	b3,550	3,360	3,240	2,090	4,910	*5,920	6,150	5,700	2,610
26	2,200	3,470	3,220	b3,550	3,390	3,240	2,370	4,820	6,370	6,470	5,060	2,320
27	2,210	3,150	3,150	3,340	3,360	3,300	3,320	4,600	7,670	6,540	4,630	2,520
28	*2,140	2,890	b3,120	3,300	3,320	3,300	3,680	4,850	9,430	6,180	4,240	2,970
29	2,050	b2,850	b3,100	3,260	-	3,130	3,610	5,120	10,700	6,180	4,240	3,170
30	2,030	b3,000	b3,090	3,190	-------	3,150	2,950	4,740	11,600	5,950	6,770	3,320
31	1,960	-------	3,070	3,130	-------	3,010	-------	4,440	-------	6,270	7,330	-------
Total	58,270	91,750	100,850	99,590	92,130	99,150	96,880	146,480	189,300	194,340	182,760	183,710
Mean	1,880	3,058	3,253	3,213	3,290	3,198	3,229	4,725	6,310	6,269	5,895	6,124
Ac-ft	115,600	182,000	200,000	197,500	182,700	196,700	192,200	290,500	375,500	385,500	362,500	364,400

Calendar year 1958: Max 15,500 Min 1,220 Mean 4,551 Ac-ft 3,295,000
Water year 1958-59: Max 11,600 Min 1,220 Mean 4,206 Ac-ft 3,045,000

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

685. Blackfoot River near Blackfoot, Idaho

Location.--Lat 43°07'50", long 112°28'35", at east quarter corner of sec.28, T.3 S., R.34 E., on left bank 125 ft downstream from highway bridge, 2 miles upstream from mouth, and 8 miles southwest of Blackfoot.

Drainage area.--1,295 sq mi, including that of Sand Creek whose flow is diverted to Blackfoot River through the Idaho canal.

Records available.--July 1913 to September 1959 (prior to October 1931, summer months only). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 4,420 ft (from river-profile survey). Prior to May 8, 1926, staff gages and May 8, 1926, to June 25, 1937, water-stage recorder, at site half a mile upstream at different datum.

Average discharge.--28 years (1931-59), 153 cfs (110,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,010 cfs Apr. 4 (gage height, 6.22 ft); no flow June 10-13, July 28-30.
1913-59: Maximum discharge, 1,040 cfs May 26, 1957 (gage height, 7.04 ft); no flow for many days. At time of peak flow about 1,300 cfs was being lost above station to canal diversions and percolation.

Remarks.--Records good except those for periods of ice effect, which are poor, and those for periods of no gage-height record and discharges below 20 cfs, which are fair. Flow regulated by Blackfoot-Marsh Reservoir (capacity at spillway crest, 312,000 acre-ft, and maximum capacity with flashboards, 413,000 acre-ft). Many diversions above station for irrigation. Most of flow during nonirrigation season and part of that during irrigation season is supplied by waste from Snake River canals.

Cooperation.--Gage-height record furnished by Office of Indian Affairs.

Revisions.--WSP 1317: Drainage area.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-19, July 8 to Sept. 30)

0.8	0	3.0	229
1.0	2	4.0	420
1.2	11	5.0	655
1.5	32	6.0	938
2.0	86	6.2	998

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	254	190	70	70	115	128	18	*112	64	5	13
2	41	429	*180	65	58	150	*154	6	64	*55	7	4
3	*58	197	136	60	60	160	196	29	*7	64	15	2
4	62	288	126	55	*68	*139	815	*49	5	63	5	4
5	57	302	107	55	70	112	971	27	5	41	10	5
6	58	357	106	*60	74	94	905	34	5	25	26	7
7	46	408	117	70	85	92	804	18	8	10	*21	13
8	41	812	116	80	62	89	717	8	15	2	8	5
9	42	529	112	90	63	80	557	7	8	1	20	2
10	57	433	16	100	60	74	330	20	0	2	18	8
11	99	431	15	100	56	78	265	8	0	2	6	7
12	115	182	16	105	68	73	215	20	0	6	6	6
13	112	242	16	90	55	72	139	8	0	6	16	10
14	107	315	18	75	55	72	45	7	4	4	13	20
15	72	283	599	60	55	61	8	14	9	1	14	12
16	61	295	115	50	65	56	7	25	26	2	19	25
17	69	222	40	55	75	50	17	60	18	2	46	21
18	73	212	258	60	90	91	145	82	9	2	*26	35
19	85	207	*153	60	100	154	185	73	2	4	16	41
20	131	178	133	50	105	136	152	64	*32	*4	52	74
21	190	45	121	45	104	103	107	64	51	4	30	98
22	208	286	116	40	102	84	99	34	70	2	60	111
23	207	153	116	50	100	109	92	30	46	6	42	100
24	200	73	112	65	95	156	106	64	23	23	61	66
25	143	197	108	70	95	178	211	78	21	34	22	58
26	91	180	84	75	95	190	135	70	31	39	16	80
27	49	161	76	75	92	191	87	72	46	1	16	112
28	30	188	75	75	90	179	166	109	87	0	4	*153
29	33	188	75	70	-	161	224	157	117	0	2	276
30	50	199	74	65	-------	147	84	163	100	0	2	320
31	73	-------	75	65	-------	133	-------	139	-------	2	2	-------
Total	2,691	8,226	3,601	2,105	2,167	3,579	8,066	1,557	921	471	606	1,688
Mean	86.8	274	116	67.9	77.4	115	269	50.2	30.7	15.2	19.6	56.3
Ac-ft	5,340	16,320	7,140	4,180	4,300	7,100	16,000	3,090	1,830	934	1,200	3,350

Calendar year 1958: Max 1,010 Min 4 Mean 142 Ac-ft 102,700
Water year 1958-59: Max 971 Min 0 Mean 97.7 Ac-ft 70,780

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 28, 29, Jan. 1 to Feb. 5. No gage-height record Feb. 14 to Mar. 3, Apr. 15, 16, May 8, 9, 11, 13, 14, June 4-7, 9, 14, July 10, 17, 28-30, Sept. 4; discharge estimated on basis of weather records.

690. Diversions from Snake River between Shelley and Blackfoot gaging stations, Idaho

Between Shelley and Blackfoot gaging stations, 13 canals divert water from Snake River for irrigation of 158,000 acres of land. Records available during each irrigation season from 1919 to 1959. The two largest canals are equipped with recorders, the others with staff gages which are read once daily. Discharge combined to show total diverted flow. Records good.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								2,160	3,040	3,000	3,880	3,170
2								2,220	2,860	3,070	3,740	3,190
3								2,570	2,090	3,020	3,550	3,230
4								2,710	3,170	3,210	3,590	3,210
5								2,890	3,780	3,380	3,600	3,330
6								2,910	4,050	3,580	3,540	3,270
7								2,750	4,210	3,900	3,580	3,150
8								2,780	4,390	4,030	3,530	3,050
9								2,950	4,350	4,120	3,380	2,980
10								3,250	4,270	4,040	3,200	2,880
11								3,420	4,320	3,880	3,250	2,920
12								3,520	4,390	4,030	3,250	2,880
13								3,580	4,210	4,090	3,240	2,830
14								3,680	4,220	4,110	3,280	2,740
15								3,840	4,220	3,970	3,240	2,520
16								3,700	4,230	4,070	3,230	2,420
17								3,570	4,190	4,130	3,210	2,180
18								3,330	4,190	4,130	3,140	2,200
19								3,320	4,180	4,130	3,060	2,050
20								3,270	4,120	4,100	2,850	1,930
21								3,180	4,080	4,050	2,700	1,740
22								3,100	3,980	4,080	2,720	1,550
23								2,990	4,030	4,100	2,670	1,660
24								2,840	4,010	4,120	2,640	1,680
25								2,820	3,980	4,070	2,720	1,610
26								2,840	3,750	4,030	2,820	1,400
27								2,900	3,560	4,020	2,870	1,300
28								2,740	3,340	4,040	3,000	1,310
29								2,630	3,020	4,040	3,020	1,260
30					-------			2,600	2,890	3,980	3,040	1,220
31		-------			-------		-------	2,810	-------	3,970	3,150	-------
Total								93,870	115,120	120,490	98,690	70,860
Mean								3,028	3,837	3,887	3,184	2,362
Ac-ft								186,200	228,300	239,000	195,700	140,500

Calendar year : Max Min Mean Ac-ft
The period : Max - Min - Mean - Ac-ft 989,700

695. Snake River near Blackfoot, Idaho

Location.--Lat 43°07'35", long 112°31'25", in SE¼ sec.30, T.3 S., R.34 E., on right bank 1,000 ft downstream from highway bridge, half a mile downstream from Blackfoot River, and 10 miles southwest of Blackfoot.

Drainage area.--11,310 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--June 1910 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as "at Clough Ranch, near Blackfoot" 1924-45.

Gage.--Water-stage recorder. Datum of gage is 4,400.83 ft above mean sea level, datum of 1929 (preliminary adjustment). Prior to July 6, 1913, staff gages at practically same site and datum.

Average discharge.--33 years (1926-59), 4,006 cfs (2,900,000 acre-ft per year).

Extremes.--Maximum discharge during year, 8,860 cfs June 30 and July 1 (gage height, 6.05 ft); minimum daily, 150 cfs May 9.

1910-59: Maximum discharge, 46,200 cfs June 18, 1918 (gage height, 14.80 ft); minimum, 111 cfs Nov. 10, 1934 (gage height, 0.80 ft).

Late in summer of 1905 there was no flow in Snake River for a distance of 10 miles in vicinity of Blackfoot. On Aug. 9, 1905, discharge of Snake River just below mouth of Blackfoot River was 39 cfs, supplied by ground-water inflow a short distance upstream.

Remarks.--Records excellent except those below 300 cfs, which are fair. Flow regulated by Jackson Lake (see p. 13), Palisades Reservoir (see p. 25), Henrys and Grassy Lakes (see p. 39), Island Park Reservoir (see p. 29), and Blackfoot-Marsh Reservoir, having a combined capacity of 2,883,000 acre-ft. About 694,000 acres of land irrigated by diversions above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 1, May 27 to June 26)

0	140	3.0	2,700
.5	310	4.0	4,360
1.0	600	5.0	6,230
1.5	970	6.1	8,810
2.0	1,440		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	398	1,900	3,200	2,970	3,080	3,190	2,940	365	*1,570	*8,620	2,390	4,010
2	414	2,230	*3,350	3,030	2,920	3,300	*2,800	a270	548	*7,240	2,860	3,810
3	*594	2,110	3,330	2,170	2,670	3,570	3,050	458	*188	6,030	3,230	3,700
4	688	2,270	3,330	1,500	*2,550	*3,500	4,650	*2,610	259	5,620	3,020	3,500
5	756	*2,340	3,330	1,620	2,790	3,360	5,100	2,130	1,650	4,790	2,920	3,840
6	780	2,380	3,350	*1,750	2,900	3,210	5,210	1,360	1,500	3,990	2,820	4,560
7	820	2,470	3,310	2,540	3,130	3,190	5,300	380	866	1,840	*2,700	5,040
8	725	2,960	3,330	2,780	3,470	3,190	5,040	176	1,360	1,190	2,670	4,740
9	748	2,940	3,350	3,030	3,380	3,180	4,340	a150	1,850	1,570	2,960	4,500
10	1,000	3,120	3,240	3,300	3,140	3,140	3,740	692	1,320	1,170	3,190	4,290
11	1,070	3,180	3,230	3,330	3,110	3,110	3,450	1,940	1,130	834	3,300	4,380
12	980	3,180	3,280	3,470	3,060	2,980	3,180	1,560	1,440	922	2,780	4,470
13	1,070	3,350	3,310	3,620	3,130	2,940	2,980	747	1,500	1,380	2,220	4,810
14	1,030	3,430	3,300	3,470	2,980	2,960	2,850	395	1,530	1,460	2,180	5,260
15	988	3,500	3,640	3,310	2,970	2,960	2,850	464	2,070	1,550	2,320	5,620
16	980	3,660	3,260	3,310	3,210	2,900	2,430	2,080	2,320	1,390	2,200	5,990
17	932	3,710	2,940	3,160	3,360	2,860	2,340	2,850	2,400	1,210	2,110	5,280
18	732	3,890	3,400	3,160	3,670	3,060	2,270	3,360	2,440	1,310	*1,660	5,150
19	695	3,970	3,260	3,230	3,820	3,230	2,270	2,940	2,130	1,360	1,570	4,940
20	680	4,160	3,180	3,140	3,720	3,400	2,120	2,680	*1,950	*1,550	2,160	5,040
21	868	4,070	3,180	3,000	3,550	3,130	1,830	2,780	2,640	1,500	3,300	5,130
22	1,140	3,980	3,160	2,610	3,470	2,920	1,850	2,660	3,310	1,390	3,840	4,080
23	1,760	3,840	3,180	2,740	3,420	2,940	1,380	2,060	3,260	1,450	3,990	3,470
24	2,000	3,750	3,180	3,140	3,420	2,960	970	2,300	2,540	1,510	3,910	1,990
25	1,920	3,750	3,130	3,450	3,330	3,180	1,180	2,560	2,160	1,820	3,310	1,650
26	1,860	3,660	3,080	3,470	3,300	3,280	874	2,330	2,220	2,060	2,670	1,510
27	1,830	3,470	3,060	3,420	3,280	3,330	1,080	2,170	3,570	2,210	2,010	1,690
28	1,860	3,090	3,030	3,360	3,190	3,360	1,830	2,230	4,970	2,060	1,500	*2,080
29	1,770	2,980	3,030	3,280	-	3,300	1,960	2,730	6,990	1,940	1,060	2,660
30	1,730	3,120	3,050	3,210	-------	3,190	1,020	2,790	8,490	1,900	1,990	2,910
31	1,770	-------	2,970	3,100	-------	3,110	-------	2,250	-------	2,090	4,010	-------
Total	34,588	96,460	99,970	92,670	90,020	97,930	82,884	54,467	70,171	74,956	82,850	120,100
Mean	1,116	3,215	3,225	2,989	3,215	3,159	2,763	1,757	2,339	2,418	2,673	4,003
Ac-ft	68,600	191,300	198,300	183,800	178,600	194,200	164,400	108,000	139,200	148,700	164,300	238,200

Calendar year 1958: Max 12,700 Min 337 Mean 3,308 Ac-ft 2,395,000
Water year 1958-59: Max 8,620 Min 150 Mean 2,732 Ac-ft 1,978,000

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

730. Portneuf River at Topaz, Idaho

Location.--Lat 42°37', long 112°05', in sec.23, T.9 S., R.37 E., on right bank 200 ft upstream from Bob Smith Creek, 800 ft downstream from Topaz siding, 1½ miles upstream from diversion dam of Portneuf-Marsh Valley Canal Co., and 4 miles west of Lava Hot Springs.

Drainage area.--570 sq mi, approximately (includes that of Bob Smith Creek).

Records available.--January 1913 to September 1915, July 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,918.00 ft above mean sea level, preliminary, unadjusted. Prior to July 20, 1919, staff gage at site three-eighths of a mile downstream at datum 3.0 ft lower. July 20, 1919, to June 22, 1954, staff gage at site a third of a mile downstream at datum 2.00 ft lower than present datum.

Average discharge.--42 years, 194 cfs (140,500 acre-ft per year).

Extremes.--Maximum discharge during year, 276 cfs Mar. 23 (gage height, 3.02 ft); minimum, 81 cfs Aug. 16 (gage height, 2.18 ft).
1913-15,1919-59: Maximum discharge, 1,040 cfs Feb. 25, 1957 (gage height, 5.71 ft); minimum observed, 65 cfs Oct. 9, 1934 (gage height, 0.81 ft, site and datum then in use).

Remarks.--Records good. Flow regulated by Portneuf-Marsh Valley Reservoir (capacity, 23,695 acre-ft) and Chesterfield Reservoir on Twenty Four Mile Creek (capacity, 685 acre-ft). Diversions above station for irrigation of about 22,000 acres.

Revisions (water years).--WSP 1347: 1920-22, 1924-25(M). WSP 1567: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 15, June 18 to Sept.30)

2.0	70
2.3	127
2.6	186
3.0	268

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	114	140	144	138	154	206	202	164	206	97	93
2	106	114	142	140	133	162	214	208	150	198	100	95
3	104	114	142	133	138	162	212	206	148	200	97	95
4	104	116	144	131	142	154	208	198	156	194	93	91
5	108	123	142	140	135	156	210	194	158	190	91	89
6	110	127	146	144	138	152	214	194	152	188	89	89
7	112	129	146	142	140	158	206	188	210	188	89	89
8	112	133	150	136	140	156	198	184	222	192	*91	89
9	112	131	*150	138	138	154	192	184	218	196	89	*89
10	106	135	152	142	140	156	188	186	212	198	87	89
11	106	133	174	142	140	156	186	184	210	196	89	91
12	102	129	206	142	140	156	186	174	206	194	89	89
13	102	129	176	146	138	162	188	182	202	194	87	93
14	104	144	158	*142	133	160	190	245	210	198	85	93
15	104	142	154	140	140	160	192	251	224	190	85	102
16	106	140	154	146	144	160	190	258	228	206	85	97
17	104	138	150	144	164	168	186	245	224	196	85	97
18	102	138	148	144	166	202	184	241	216	176	89	95
19	102	142	148	144	*158	214	180	216	210	156	97	98
20	108	146	146	142	156	198	176	220	210	135	100	97
21	110	146	146	136	156	204	174	208	208	108	100	97
22	110	146	148	140	*156	222	172	218	204	100	95	95
23	112	146	148	140	*154	253	172	222	*200	100	97	95
24	112	150	148	142	152	247	178	220	196	108	95	97
25	112	146	148	152	146	239	184	*218	194	100	93	114
26	112	144	142	150	150	234	210	222	206	98	95	131
27	110	144	146	146	148	*226	222	222	218	100	97	133
28	*110	138	146	150	150	214	202	200	208	100	97	127
29	110	140	140	144	-	210	194	186	204	98	95	119
30	110	140	142	138	-------	206	*194	180	208	98	93	116
31	110	-------	144	138	-------	204	-------	172	-------	96	93	-------
Total	3,338	4,057	4,666	4,400	4,073	5,759	5,808	6,428	5,976	4,896	2,864	2,984
Mean	108	135	151	142	145	186	194	207	199	158	92.4	99.5
Ac-ft	6,620	8,050	9,250	8,730	8,080	11,420	11,520	12,750	11,850	9,710	5,680	5,920

Calendar year 1958: Max 331 Min 102 Mean 182 Ac-ft 131,800
Water year 1958-59: Max 258 Min 85 Mean 151 Ac-ft 109,600

* Discharge measurement made on this day.

750. Marsh Creek near McCammon, Idaho

Location.--Lat 42°3'50", long 112°13'30", in NE¼ sec.22, T.9 S., R.36 E., near center of downstream side of abandoned highway bridge, 80 ft upstream from highway crossing and 2 miles southwest of McCammon

Drainage area.--355 sq mi.

Records available.--September 1954 to September 1959.

Gage.--Wire-weight gage read once or twice daily. Altitude of gage is 4,610 ft (by barometer).

Average discharge.--5 years, 72.8 cfs (52,710 acre-ft per year).

Extremes.--Maximum discharge observed during year, 167 cfs Feb. 21 (gage height, 4.60 ft); minimum observed, 34 cfs June 19 (gage height, 2.88 ft).
1954-59: Maximum discharge observed, 342 cfs Feb. 25, 1958 (gage height, 6.72 ft); minimum observed, 23 cfs Feb. 3, July 24, 1955; minimum gage height observed, 2.00 ft Feb. 3, 1955 (result of ice jam upstream).

Remarks.--Records fair. Diversions above station for irrigation. Part of Birch Creek (tributary to Marsh Creek) diverted into Devil Creek in Bear River basin.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-5, Apr. 21-25, Apr. 30 to June 5, July 15 to Sept. 30)

2.9	34
3.3	54
3.9	99
4.6	170

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	85	81	73	73	115	85	61	65	59	43	55
2	88	87	81	71	63	113	86	56	62	63	42	55
3	84	87	81	70	63	105	84	56	57	64	43	54
4	79	88	82	67	61	85	84	55	53	64	42	55
5	79	87	82	68	59	75	82	55	51	62	42	55
6	80	86	82	70	63	75	79	48	52	59	42	55
7	79	84	81	71	66	74	73	49	50	58	41	55
8	78	90	80	67	66	74	68	49	49	56	*41	56
9	78	94	*85	66	67	74	67	55	46	55	41	*58
10	80	97	104	66	66	76	66	51	46	53	40	58
11	80	99	140	70	64	74	66	50	45	52	40	54
12	81	96	154	84	60	75	68	49	41	48	39	54
13	83	105	148	94	56	76	71	48	38	46	38	59
14	81	107	134	*86	56	76	70	45	38	45	39	63
15	82	118	128	71	58	78	70	45	36	44	39	70
16	81	116	125	74	73	79	70	46	36	44	38	71
17	84	108	108	75	115	82	71	49	36	44	38	71
18	84	106	104	73	158	84	72	55	35	46	37	73
19	84	98	95	72	*151	80	69	55	34	48	39	73
20	85	94	87	67	162	76	67	55	36	50	48	69
21	87	93	86	64	167	76	66	57	36	53	49	64
22	88	93	84	64	159	82	64	56	36	48	46	61
23	90	92	86	66	134	84	64	56	*36	46	46	69
24	91	90	84	69	113	84	63	59	36	44	48	93
25	90	88	80	72	107	84	60	*61	38	45	49	114
26	87	87	79	76	105	84	64	61	44	45	53	123
27	87	83	79	89	103	*83	71	70	47	46	53	144
28	*87	77	75	92	102	83	74	85	50	45	53	139
29	86	78	72	81	-	84	68	80	54	44	53	132
30	86	80	70	80	-------	83	*65	72	55	43	54	105
31	85	-------	72	77	-------	84	-------	89	-------	43	55	-------
Total	2,598	2,795	2,929	2,285	2,590	2,557	2,127	1,759	1,338	1,582	1,371	2,257
Mean	83.8	93.2	94.5	73.7	92.5	82.5	70.9	56.7	44.6	50.4	44.2	75.2
Ac-ft	5,150	5,540	5,810	4,530	5,140	5,070	4,220	3,490	2,650	3,100	2,720	4,480

Calendar year 1958: Max 338 Min 39 Mean 86.5 Ac-ft 62,610
Water year 1958-59: Max 167 Min 34 Mean 71.7 Ac-ft 51,900

* Discharge measurement made on this day.

755. Portneuf River at Pocatello, Idaho

Location.--Lat 42°51'40", long 112°27'25", in NE¼NE¼ sec.34, T.6 S., R.34 E., on right bank 30 ft upstream from Fremont Street Bridge at Pocatello and 2.5 miles upstream from Pocatello Creek.

Drainage area.--1,250 sq mi, approximately.

Records available.--May to September 1897, March 1898 to October 1899, August 1911 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,430 ft (from topographic map). May 18, 1897, to Oct. 14, 1899, staff gage at site 0.6 mile upstream at different datum. Aug. 31, 1911, to May 13, 1927, and Oct. 13, 1927, to June 13, 1928, staff gages near Carson Street Bridge 0.8 mile downstream at different datum. May 14 to Oct. 12, 1927, water-stage recorder at site 1.1 miles downstream at different datum. June 14, 1928, to Sept. 28, 1950, water-stage recorder near Carson Street Bridge 0.8 mile downstream at same datum as former staff gages at this site.

Average discharge.--46 years (1912-16, 1917-59), 254 cfs (183,900 acre-ft per year).

Extremes.--Maximum discharge during year, 512 cfs Apr. 5 (gage height, 5.59 ft); minimum, 9 cfs July 14 (gage height, 3.46 ft).
1897-99, 1911-59: Maximum discharge, more than 2,000 cfs sometime during period May 13 to June 14, 1917; minimum, 5 cfs July 30, 1942, from rating curve extended below 40 cfs.

Remarks.--Records excellent. Flow regulated by Portneuf-Marsh Valley Reservoir formed by earth dam completed in 1912 and raised 7 ft in 1950 (capacity, 23,695 acre-ft; 16,410 acre-ft prior to 1950) and Chesterfield Reservoir (capacity, 685 acre-ft). Diversions above station for irrigation of about 33,000 acres (1948 determination).

Revisions.--WSP 1567: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 28 to Dec. 16)

3.4	8	4.4	112
3.6	17	4.9	245
3.8	30	5.7	570
4.1	62		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	172	245	294	298	339	379	*284	*148	91	35	48
2	104	177	248	284	287	359	399	301	134	84	36	47
3	104	197	248	221	280	379	448	298	99	79	39	55
4	91	197	256	245	287	359	471	323	68	78	40	55
5	81	197	256	319	276	327	498	359	79	83	49	52
6	101	230	252	335	280	319	502	347	52	56	52	52
7	104	256	252	304	280	319	494	339	58	26	34	52
8	106	242	259	294	280	319	453	245	72	58	*45	52
9	108	239	*266	290	280	319	431	112	65	51	38	*50
10	106	259	262	276	276	319	407	101	62	44	43	62
11	106	266	308	276	280	312	391	90	63	21	41	70
12	108	270	440	287	276	301	383	69	62	22	35	70
13	112	266	444	298	276	308	379	48	63	15	39	65
14	108	273	419	312	259	315	383	50	40	11	24	65
15	110	304	327	*304	256	308	387	51	60	11	23	81
16	106	287	308	301	273	304	387	54	65	29	38	93
17	106	259	308	312	301	308	383	56	72	31	22	91
18	88	256	298	304	359	331	363	54	75	28	26	101
19	112	259	301	301	*399	411	359	79	62	29	39	110
20	112	273	304	308	403	419	347	106	58	29	54	106
21	106	280	301	298	423	391	331	108	62	20	30	119
22	116	290	298	294	423	395	319	97	63	19	34	114
23	148	287	304	298	419	411	290	97	*57	28	30	110
24	156	287	312	304	391	453	259	101	54	26	27	110
25	161	284	315	315	363	453	270	97	46	29	55	123
26	163	273	308	339	343	448	294	*97	49	35	50	144
27	163	273	308	343	339	*444	343	102	65	21	50	191
28	163	259	301	343	331	423	351	136	72	17	37	209
29	*161	248	290	347	-	407	301	156	76	32	44	197
30	161	248	276	327	-------	395	284	151	84	41	47	180
31	158	-------	280	315	-------	395	-------	151	-------	39	44	-------
Total	3,733	7,605	9,294	9,388	8,938	11,290	11,286	4,659	2,085	1,183	1,200	2,874
Mean	120	254	300	303	319	364	376	150	69.5	38.2	38.7	95.8
Ac-ft	7,400	15,080	18,430	18,620	17,730	22,390	22,390	9,240	4,140	2,350	2,380	5,700

Calendar year 1958: Max 751 Min 15 Mean 258 Ac-ft 186,800
Water year 1958-59: Max 502 Min 11 Mean 201 Ac-ft 145,800

* Discharge measurement made on this day.

764. Michaud Canal at American Falls, Idaho

Location.--Lat 42°46'45", long 112°52'20", in SE¼SE¼ sec.30, T.7 S., R.31 E., 800 ft downstream from dam at American Falls.

Records available.--October 1957 to September 1959.

Gage.--Sparling meter in pipeline at pumping plant.

Extremes.--Maximum discharge during year, 89 cfs July 16, 17; no flow Oct. 16 to Apr. 12.
1957-59: Maximum discharge, that of July 16, 17, 1959; no flow for many days.

Remarks.--Records good. Flow controlled by pumping plant which lifts water from American Falls reservoir to point in NE¼ sec.32. Completed project will irrigate 6,600 acres from this canal and 5,600 acres by pumping from ground water.

Cooperation.--Record of pump operation furnished by Bureau of Reclamation.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16						0	17	26	72	64	40
2	16						0	17	27	*76	64	40
3	16						0	17	31	79	60	43
4	6						0	17	*39	79	57	45
5	0						0	17	47	79	56	*46
6	10						0	17	52	79	56	46
7	16						0	17	57	*78	56	42
8	16						0	17	61	77	54	41
9	16						0	17	66	77	52	41
10	16						0	17	67	75	49	42
11	16						0	17	71	78	50	42
12	16						0	23	73	79	51	40
13	16						10	30	73	77	51	40
14	16						10	35	73	79	51	43
15	9						3	36	73	73	46	40
16	0						9	37	73	89	45	38
17	0						14	37	79	89	46	30
18	0						13	37	82	86	*46	25
19	0						13	37	82	84	46	*25
20	0						13	37	40	80	46	25
21	0						13	37	62	79	46	26
22	0						13	37	81	83	41	24
23	0						13	36	81	84	39	23
24	0						16	35	80	78	39	23
25	0						17	33	80	75	38	22
26	0						17	33	80	75	37	19
27	0						17	33	80	75	37	14
28	0						17	33	79	71	37	14
29	0				-		17	29	79	65	37	14
30	0				-------		17	26	73	66	37	17
31	0	-------			-------		-------	26	-------	65	40	-------
Total	201	0	0	0	0	0	242	854	1,967	2,401	1,474	970
Mean	6.5	0	0	0	0	0	8.1	27.5	65.6	77.5	47.5	32.3
Ac-ft	399	0	0	0	0	0	480	1,690	3,900	4,760	2,920	1,920

Calendar year 1958: Max 42 Min 0 Mean 12.8 Ac-ft 9,240
Water year 1958-59: Max 89 Min 0 Mean 22.2 Ac-ft 16,070

* Discharge measurement made on this day.

765. American Falls Reservoir at American Falls, Idaho

Location.--Lat 42°46'45", long 112°52'45", in sec.30, T.7 S., R.31 E., near right end of dam at outlet gates of reservoir on Snake River at American Falls.

Drainage area.--13,580 sq mi, excluding nontributary area on Snake River plains.

Records available.--March 1926 to September 1959.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum contents during year, 1,706,000 acre-ft Apr. 14, 15 (elevation, 4,354.60 ft); minimum, 56,000 acre-ft Sept. 13-16 (minimum elevation, 4,304.18 ft Sept. 15).
1926-59: Maximum contents, 1,729,000 acre-ft June 26, 1951 (elevation, 4,355.02 ft); minimum since full capacity was attained July 13, 1927, 17,200 acre-ft Oct. 22, 1931 (elevation, 4,299.72 ft).

Remarks.--Reservoir is formed by concrete gravity dam with earth dikes at each end; partial storage began in 1926, full storage in 1927. Capacity, 1,700,000 acre-ft between elevations 4,295.66 (bottom of outlet gate) and 4,354.50 ft (top of spillway radial gates). Small amount of dead storage. Water is used for irrigation by canals diverting from Snake River at Minidoka and Milner Dams. Contents given herein are computed from mean daily elevations; all available for release.

Cooperation.--Reservoir elevations and capacity table furnished by Bureau of Reclamation.

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

4,304.0	54	4,335.0	787
4,310.0	136	4,340.0	984
4,315.0	229	4,345.0	1,209
4,320.0	341	4,350.0	1,457
4,325.0	469	4,355.0	1,728
4,330.0	616		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	350	583	878	1,163	1,404	1,613	1,598	1,301	924	471	102
2	254	351	593	885	1,172	1,414	1,619	1,586	1,293	921	454	97
3	252	352	602	894	1,180	1,422	1,627	1,576	1,283	917	440	92
4	250	350	609	901	1,186	1,432	1,634	1,566	1,270	912	427	86
5	249	349	618	908	1,196	1,439	1,645	1,556	1,256	907	413	80
6	252	350	626	915	1,204	1,446	1,654	1,550	1,241	901	402	75
7	252	350	635	922	1,211	1,452	1,671	1,544	1,224	892	395	71
8	248	352	646	930	1,218	1,458	1,681	1,536	1,210	879	383	68
9	246	361	659	939	1,227	1,467	1,687	1,523	1,194	863	370	66
10	245	371	669	948	1,236	1,473	1,690	1,509	1,178	845	358	65
11	244	380	679	958	1,244	1,480	1,697	1,498	1,163	826	347	62
12	247	390	689	969	1,252	1,488	1,702	1,491	1,148	808	336	60
13	252	398	700	979	1,262	1,493	1,705	1,484	1,132	788	324	58
14	255	408	711	989	1,271	1,500	1,706	1,474	1,117	770	312	56
15	259	415	723	1,000	1,278	1,507	1,704	1,459	1,102	752	297	56
16	266	428	733	1,010	1,286	1,513	1,702	1,441	1,089	735	282	56
17	274	438	744	1,020	1,295	1,520	1,702	1,427	1,076	717	268	58
18	282	448	753	1,029	1,304	1,521	1,700	1,414	1,064	699	253	59
19	288	457	762	1,037	1,315	1,523	1,697	1,402	1,053	682	238	60
20	293	467	771	1,047	1,326	1,527	1,694	1,393	1,043	665	223	61
21	302	478	780	1,056	1,337	1,534	1,692	1,385	1,031	648	209	61
22	308	487	788	1,066	1,345	1,539	1,688	1,377	1,020	632	197	61
23	313	497	798	1,074	1,353	1,546	1,683	1,368	1,009	616	189	62
24	311	509	807	1,083	1,362	1,554	1,675	1,360	998	597	181	62
25	312	521	815	1,092	1,371	1,562	1,665	1,352	986	583	174	64
26	319	533	824	1,102	1,378	1,569	1,655	1,344	971	567	166	68
27	326	544	835	1,112	1,386	1,575	1,638	1,336	956	551	157	71
28	333	555	844	1,122	1,396	1,582	1,624	1,329	944	533	146	77
29	340	564	855	1,133	-	1,588	1,615	1,322	935	518	134	83
30	347	573	864	1,144	-------	1,597	1,607	1,315	928	502	122	90
31	350	-------	874	1,153	-------	1,605	-------	1,309	-------	486	110	-------
(†)	4,320.37	4,328.60	4,337.29	4,343.82	4,348.82	4,352.78	4,352.82	4,347.07	4,338.65	4,325.62	4,308.35	4,307.01
(‡)	+94	+223	+301	+279	+243	+209	+2	-298	-381	-442	-376	-20

Calendar year 1958..... ‡ -247
Water year 1958-59..... ‡ -166

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

770. Snake River at Neeley, Idaho

Location.--Lat 42°46'20", long 112°52'45", in SW¼ sec.31, T.7 S., R.31 E., on right bank 400 ft upstream from fish hatchery buildings and 0.9 mile downstream from American Falls Dam. Records computed to show flow at former site in sec.11, T.8 S., R.30 E., half a mile north of Neeley and 2½ miles downstream from present site, by adding inflow between sites.

Drainage area.--13,600 sq mi, approximately, excluding nontributar, area on Snake River plains.

Records available.--March 1906 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,241.6 ft above mean sea level (levels by Bureau of Reclamation). Prior to Aug. 8, 1910, staff gages and Aug. 8, 1910, to June 6, 1930, water-stage recorder, at site 2½ miles downstream at different datum. June 7, 1930, to Mar. 19, 1945, water-stage recorder at site 0.4 mile upstream at datum 0.4 ft higher.

Average discharge.--33 years (1926-59), 6,754 cfs (4,890,000 acre-ft per year).

Extremes.--Maximum discharge during year, 13,300 cfs July 29; maximum gage height, 6.90 ft July 7; minimum discharge, 62 cfs Oct. 17-20 (gage height, 0.91 ft).
1906-59: Maximum daily discharge, 48,400 cfs June 20, 1918 (gage height, 13.5 ft, site and datum then in use); minimum, 50 cfs Oct. 22, 23, Nov. 14-16, 1941.

Remarks.--Records excellent. Flow regulated by American Falls Reservoir (see preceding page) and other reservoirs, having a combined usable capacity of 4,600,000 acre-ft. About 740,000 acres of land irrigated by water diverted from river and tributaries upstream from station.

Cooperation.--Gage-height record and capacity table furnished by Bureau of Reclamation.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 2 to July 24)

0.9	58	3.0	840
1.3	102	3.5	1,320
1.7	160	4.0	2,040
2.0	235	5.0	5,010
2.3	310	6.0	9,180
2.6	560	7.0	14,200

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,670	4,230	1,120	2,520	1,140	1,700	2,010	9,000	9,090	10,900	12,600	9,280
2	4,480	3,990	1,230	2,080	1,150	1,700	2,010	8,320	9,280	*10,800	12,400	9,090
3	4,560	6,240	1,250	1,100	1,160	1,710	1,990	8,180	9,710	10,600	12,400	8,950
4	4,250	4,990	2,310	1,110	1,160	1,870	1,990	8,140	*10,300	10,400	12,100	8,720
5	126	4,980	2,330	1,080	1,170	2,020	2,170	8,040	11,200	10,400	11,900	*8,590
6	3,620	4,980	1,280	1,050	2,660	2,020	2,740	8,220	11,600	11,000	11,700	8,500
7	5,750	4,940	128	1,040	1,580	2,010	3,090	8,360	11,700	12,300	*11,600	8,400
8	5,140	1,180	1,280	1,040	1,610	2,020	3,040	8,320	11,900	12,900	11,400	8,320
9	4,550	1,180	1,290	1,080	1,600	2,020	2,950	8,270	12,000	12,800	11,300	8,180
10	4,880	2,240	1,280	1,080	1,600	2,040	2,950	8,180	12,100	12,700	11,200	8,180
11	2,620	1,970	1,290	1,100	1,600	2,040	3,400	8,450	12,000	12,700	11,000	8,090
12	1,140	2,030	1,300	1,100	1,580	2,060	4,060	8,900	11,500	12,600	11,100	7,960
13	2,720	2,060	1,300	1,110	1,600	2,060	5,050	9,710	11,300	12,600	11,100	7,860
14	*2,620	2,060	136	1,120	1,630	2,060	5,430	11,000	11,300	12,500	11,100	7,820
15	100	2,040	1,280	1,110	1,610	2,060	5,820	11,500	11,200	12,500	11,500	7,780
16	85	106	1,270	1,340	1,630	2,500	6,210	11,500	10,900	12,400	11,600	7,820
17	62	2,030	1,240	1,530	1,630	4,290	6,600	11,400	10,700	12,300	*11,700	7,860
18	62	2,030	1,040	1,530	1,630	*4,290	6,600	11,300	10,600	12,300	11,900	7,910
19	62	2,020	1,260	1,400	1,640	4,290	6,600	11,100	*10,500	12,300	11,900	*7,910
20	641	2,010	1,360	1,110	1,650	3,150	6,600	11,000	10,300	*12,300	11,700	7,910
21	1,120	2,010	1,810	1,110	1,650	2,060	7,170	10,800	10,600	12,200	11,300	7,910
22	1,360	2,030	*1,820	1,120	1,670	2,040	8,040	9,900	11,000	12,200	10,500	7,960
23	5,600	128	1,820	*1,120	1,670	2,040	*8,770	9,000	11,300	12,300	10,200	4,140
24	4,880	855	1,370	1,120	1,670	2,040	9,370	8,770	11,500	12,400	10,000	3,090
25	1,140	1,540	1,160	1,110	*1,680	2,040	9,710	*9,090	11,700	12,700	10,000	3,270
26	1,140	642	1,170	1,120	1,680	2,040	9,860	9,230	11,900	12,700	10,200	3,310
27	1,770	983	1,170	1,130	1,680	2,040	9,710	9,180	11,900	12,700	10,300	3,340
28	1,430	*1,790	1,160	1,130	1,680	2,020	9,520	9,130	11,700	12,900	10,200	3,060
29	1,420	1,240	1,150	1,120	-	2,040	9,320	9,230	11,300	13,100	9,950	2,500
30	2,650	126	1,140	1,130	-------	2,040	9,320	9,280	11,000	13,100	9,610	2,250
31	*4,980	-------	1,990	1,130	-------	2,020	-------	9,040	-------	12,900	9,370	-------
Total	79,408	68,650	40,754	37,970	44,410	70,330	172,100	291,540	333,080	378,500	344,830	205,960
Mean	2,562	2,288	1,315	1,225	1,586	2,269	5,737	9,405	11,100	12,210	11,120	6,865
Ac-ft	157,500	136,200	80,830	75,310	88,090	139,500	341,400	578,300	660,700	750,700	684,000	408,500

Calendar year 1958: Max 15,800 Min 62 Mean 6,378 Ac-ft 4,617,000
Water year 1958-59: Max 13,100 Min 62 Mean 5,664 Ac-ft 4,101,000

* Discharge measurement made on this day.

775. Rock Creek near Rockland, Idaho

Location.--Lat 42°31'40", long 112°51'40", in NE¼NW¼ sec.29, T.10 S., R.21 E., on right bank 10 ft upstream from culvert on private road, 3 miles south of Rockland, and 3½ miles upstream from East Fork.

Drainage area.--122 sq mi.

Records available.--May 1955 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,720 ft (from topographic map).

Extremes.--Maximum discharge during year, 63 cfs Feb. 17 (gage height, 3.60 ft); no flow for long periods.
1955-59: Maximum discharge, 244 cfs Feb. 23, 1957 (gage height, 6.1 ft, from flood-marks), from rating curve extended above 60 cfs on basis of slope-area measurement of peak flow; no flow for long periods each year.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Practically entire flow diverted for irrigation above station during growing season. Discharge measurements of East Fork made about once a month to supplement this record (see p. 259).

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

1.0[illegible]	0	1.5	3.0
1.1	.2	1.7	5.8
1.2	.6	2.0	13
1.3	1.2	2.5	27
1.4	2.0	3.0	43

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		[illegible]	3.6	3.8	7.4	14	7.8	*0	0.1	0	0	0
2		[illegible]	3.6	3.5	7.2	13	8.5	0	0	0	0	0
3		[illegible]	3.6	3.3	7.0	10	7.6	.1	0	0	0	0
4		[illegible]	3.6	3.3	6.6	9.2	7.4	0	0	0	0	0
5		[illegible]	3.6	3.5	6.6	9.1	7.2	0	0	0	0	0
6		[illegible]	3.6	4.6	6.6	9.0	6.8	0	0	0	0	0
7		[illegible]	3.8	4.7	b7.0	8.9	6.4	0	0	0	0	0
8		[illegible]	3.8	4.7	b7.0	9.4	6.0	0	.1	0	*0	0
9		[illegible]	*3.8	4.9	b7.0	9.6	5.6	0	0	0	0	*0
10			2.9	4.9	b5.3	8.6	5.2	0	0	0	0	0
11		[illegible]	3.1	4.9	b5.5	8.5	4.8	0	0	0	0	0
12		[illegible]	3.6	5.0	4.9	8.4	4.5	0	0	0	0	0
13		.2	3.2	5.1	b4.7	12	4.1	0	0	0	0	0
14		.1	3.2	4.9	b4.7	8.5	4.1	0	0	0	0	.1
15		[illegible]	3.4	*5.4	b4.7	8.1	3.7	0	0	.2	0	0
16		b.2	3.4	5.2	9.4	9.0	3.5	.1	0	.3	0	0
17		b.2	3.4	6.2	30	16	3.2	0	0	0	0	0
18		b.3	3.4	6.2	33	24	3.0	0	0	0	0	0
19		.4	3.4	5.8	27	15	3.0	0	0	0	0	0
20		.6	3.5	5.8	*23	9.0	2.9	0	.1	0	0	0
21		.4	3.5	5.6	23	8.3	2.8	0	0	0	.1	0
22		.4	3.6	5.8	26	8.4	2.6	0	0	0	0	0
23		.5	3.8	6.0	20	9.0	2.3	0	*0	0	0	0
24		.5	3.8	6.4	13	9.1	2.0	0	0	0	0	0
25		b.5	3.8	9.0	11	9.2	1.5	0	0	0	0	0
26		.7	3.6	8.5	10	9.5	2.0	*0	0	0	0	0
27		1.0	3.6	8.2	9.9	8.0	1.8	0	0	.1	0	0
28		1.3	3.6	15	9.6	*7.0	1.0	0	0	0	0	0
29	(*)	b1.8	3.6	13	-	7.0	*0	0	0	0	0	0
30		b2.1	3.6	8.3	-------	7.6	*0	.1	0	0	0	0
31		-------	3.6	7.6	-------	7.0	-------	0	-------	0	0	-------
Total	0	11.1	100.8	188.5	337.1	309.4	121.3	0.3	0.3	0.6	0.1	0.1
Mean	0	0.37	3.25	6.08	12.0	9.98	4.04	0.01	0.01	0.02	0.003	0.003
Ac-ft	0	22	200	374	669	614	241	0.6	0.6	1.2	0.2	0.2

Calendar year 1958: Max 73 Min 0 Mean 4.42 Ac-ft 3,200
Water year 1958-59: Max 33 Min 0 Mean 2.93 Ac-ft 2,120

* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 26-28, Jan. 2-13, Jan. 21 to Feb. 6, Mar. 2-27, Apr. 6-28; discharge estimated on basis of weather records and records for Clover Creek near Bliss.

780. Raft River at Peterson Ranch, near Bridge, Idaho

Location.--Lat 42°04', long 113°27', in sec.5, T.16 S., R.26 E., on left bank 100 ft upstream from One Mile Creek, 400 ft downstream from road bridge, 7½ miles southwest of Bridge Post Office, and 16 miles south of Malta.

Drainage area.--412 sq mi.

Records available.--September 1946 to December 1953, May 1955 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,980 ft (by barometer).

Average discharge.--11 years, 20.0 cfs (14,480 acre-ft per year).

Extremes.--Maximum discharge during year, 30 cfs Apr. 4 (gage height, 1.64 ft); minimum, 1.8 cfs Jan. 21 (gage height, 0.98 ft).
1946-53, 1955-59: Maximum discharge, 1,090 cfs Feb. 5, 1951 (gage height, 4.52 ft), from rating curve extended above 200 cfs on basis of slope-area measurement of peak flow; minimum, 1.2 cfs Jan. 13, 1950 (gage height, 0.90 ft), caused by ice jam upstream.

Remarks.--Records good. Diversions above station for irrigation.

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

1.0	2.2	1.3	8.9
1.1	3.6	1.4	14
1.2	5.8	1.6	28

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	6.7	7.7	13	13	12	15	14	11	6.7	4.0	3.8
2	6.4	7.0	9.4	11	12	13	23	16	9.9	6.4	4.5	3.8
3	6.4	6.1	11	8.0	10	13	25	13	8.9	6.1	3.8	3.8
4	6.7	5.8	13	7.7	14	10	28	12	8.9	5.8	4.3	3.8
5	6.1	7.0	9.9	8.0	13	9.4	28	12	8.6	6.1	4.0	3.8
6	6.1	*7.4	10	7.7	12	9.9	27	13	8.3	6.1	*4.0	4.0
7	5.8	7.4	12	7.7	13	11	26	12	8.6	5.8	3.6	4.3
8	5.6	7.4	12	8.0	13	11	25	12	8.6	5.8	3.6	*4.3
9	5.4	7.4	12	8.6	12	11	23	12	8.9	5.6	3.6	4.5
10	5.4	7.7	12	9.9	12	10	23	11	8.6	5.8	3.6	4.5
11	5.4	7.7	12	11	15	9.4	23	9.9	8.6	5.4	3.8	4.7
12	5.4	7.4	13	13	13	9.9	23	10	8.0	5.8	4.5	4.7
13	5.6	7.7	12	*15	12	8.3	22	10	8.0	5.4	3.6	4.7
14	5.8	9.4	11	13	11	7.4	22	11	8.0	4.9	3.6	5.1
15	6.1	8.6	9.4	12	13	7.4	21	11	8.3	4.9	3.8	6.1
16	6.4	7.7	9.9	14	16	8.3	21	13	8.3	4.5	3.8	6.1
17	7.4	7.4	11	16	*18	8.6	21	11	8.0	4.0	3.8	5.6
18	7.0	7.4	11	16	19	9.4	22	11	8.0	3.8	3.8	5.4
19	6.4	7.4	13	15	20	9.4	26	11	*8.0	3.5	4.5	5.8
20	6.4	8.0	13	13	17	8.9	22	11	7.0	3.6	4.9	5.8
21	6.4	8.0	13	8.9	16	10	22	11	7.0	3.6	4.5	5.8
22	6.4	8.0	13	12	15	9.9	21	10	6.7	3.5	3.8	5.8
23	6.7	8.3	14	14	13	10	20	12	6.4	3.6	3.6	6.1
24	*6.4	8.0	14	16	13	11	20	*12	6.4	3.6	3.5	5.8
25	6.7	8.0	13	16	13	11	20	11	6.4	3.5	3.6	5.6
26	7.0	8.0	11	18	13	*11	20	11	7.0	3.5	3.8	6.1
27	6.4	8.0	11	17	13	11	19	12	7.4	3.6	4.5	6.4
28	6.4	7.7	11	18	13	11	*18	11	7.0	3.5	3.6	6.1
29	6.1	7.4	10	14	-	12	16	10	7.4	3.5	3.8	6.1
30	6.1	7.7	10	13	-------	13	14	11	7.4	3.5	3.6	6.1
31	5.8	-------	11	13	-------	16	-------	11	-------	3.6	3.8	-------
Total	192.6	227.7	355.3	387.5	387	323.2	656	357.9	239.6	145.0	121.2	154.5
Mean	6.21	7.59	11.5	12.5	13.8	10.4	21.9	11.5	7.99	4.68	3.91	5.15
Ac-ft	382	452	705	769	768	641	1,300	710	475	288	240	306

Calendar year 1958: Max 115 Min 4.9 Mean 17.9 Ac-ft 12,950
Water year 1958-59: Max 28 Min 3.5 Mean 9.72 Ac-ft 7,040

* Discharge measurement made on this day.

790. Clear Creek near Naf, Idaho

Location (revised).--Lat 41°58'00", long 113°17'05", in NW¼SW¼ sec.1, T.14 N., R.13 W., Salt Lake meridian, on right bank 2 miles south of Utah-Idaho State line, 3 miles south of Naf, and 20 miles upstream from mouth.

Drainage area.--19 sq mi, approximately.

Records available.--January 1910 to June 1911, June to December 1912 (gage heights only), October 1944 to September 1959. Monthly discharge only for October and November 1944, published in WSP 1317.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,840 ft (by barometer). Prior to Dec. 31, 1912, staff gage at site 30 ft upstream at different datum. Nov. 23, 1944, to Mar. 28, 1950, water-stage recorder at site 600 ft upstream at different datum, above one small diversion.

Average discharge.--15 years (1944-59), 9.38 cfs (6,790 acre-ft per year).

Extremes.--Maximum discharge during year, 61 cfs June 7 (gage height, 1.65 ft); minimum, 0.1 cfs Aug. 16.
1910-11, 1944-59: Maximum discharge, 220 cfs May 25, 1958 (gage height, 2.12 ft); minimum, 0.1 cfs several times in summers of 1952-54, 1956, 1959.

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

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

1.0	0.2	1.4	18
1.1	.7	1.5	30
1.2	3.4	1.6	47
1.3	8.4	1.7	72

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	2.0	1.8				*2.3	8.4	25	11	4.3	1.3
2	1.5	2.0	1.8				3.4	12	26	11	5.1	.9
3	1.5	2.0	1.8				3.7	11	34	12	5.6	.7
4	1.5	1.8	1.8				3.7	9.1	39	11	4.2	.7
5	1.5	2.6	1.5			(*)	4.2	8.4	45	9.1	3.7	.7
6	1.5	2.3	1.8		(*)		4.6	8.4	49	6.6	3.0	.6
7	1.5	1.8	1.8				4.2	6.0	56	4.6	3.0	.6
8	1.5	1.8	1.8				3.7	3.0	45	7.2	1.2	.6
9	1.5	1.8	1.8				3.0	4.6	*41	9.8	2.2	.6
10	1.5	2.3	1.8				2.6	11	38	11	2.6	.6
11	1.5	2.0	2.0			1.7	3.0	13	34	8.4	2.3	.4
12	1.3	1.5	1.8				3.0	*15	34	8.4	2.3	.4
13	1.3	2.0	1.8				3.7	21	41	9.1	2.0	.4
14	1.3	2.6	1.8				4.2	29	41	9.1	2.0	.9
15	1.3	1.8	1.5	(*)			4.2	33	41	1.8	1.8	3.4
16	1.3	1.8	2.0	1.6	1.6		3.7	*31	36	.7	.7	*2.0
17	1.3	1.8	*2.0				3.4	27	29	.4	.3	2.0
18	1.3	1.8	1.8				3.4	24	27	.3	*1.3	2.0
19	1.3	2.0	1.8				3.4	21	24	4.6	3.4	2.3
20	1.3	*2.0	1.8				3.4	18	22	5.6	3.0	2.3
21	1.3	1.8	1.8			1.8	*3.0	14	22	5.6	2.0	2.3
22	1.1	1.8	1.8			2.0	3.4	15	22	4.6	1.8	2.0
23	*1.3	1.8	1.8			2.0	3.7	19	*22	*1.9	1.8	2.0
24	1.5	1.8	1.5			2.0	4.2	15	21	3.7	1.5	1.8
25	1.3	1.8				2.0	5.6	13	20	5.6	1.8	1.8
26	1.3	1.8				2.0	6.1	*15	22	5.1	2.3	3.4
27	1.3	1.5				2.0	6.1	18	20	4.6	1.8	3.4
28	1.5	1.6	1.6			1.8	5.6	22	19	4.6	1.5	2.7
29	1.5	1.7			-	2.0	5.6	24	19	4.2	1.3	2.3
30	1.8	1.8			-------	2.0	6.6	24	14	3.7	1.3	2.3
31	2.0	-------			-------	2.0	-------	24	-------	4.2	1.1	-------
Total	44.1	57.1	54.1	49.6	44.8	55.6	120.7	516.9	928	189.5	72.2	47.4
Mean	1.42	1.90	1.75	1.6	1.6	1.79	4.02	16.7	30.9	6.11	2.33	1.58
Ac-ft	87	113	107	98	89	110	239	1,030	1,840	376	143	94

Calendar year 1958: Max 201 Min 0.7 Mean 12.1 Ac-ft 8,760
Water year 1958-59: Max 56 Min 0.3 Mean 5.97 Ac-ft 4,330

Peak discharge (base, 70 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 28, 29, Dec. 12, Dec. 25 to Mar. 20 (no gage-height record Jan. 5 to Feb. 23); discharge estimated on basis of 4 discharge measurements and weather records.

792. Cassia Creek near Elba, Idaho

Location.--Lat 42°17', long 113°31', in SE¼ sec.22, T.13 S., R.25 E., on left bank 200 ft downstream from bridge on State Highway 77, 3 miles northeast of Elba, and 7¾ miles southwest of Malta.

Drainage area.--84 sq mi, approximately.

Records available.--November 1956 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,910 ft (by barometer).

Extremes.--Maximum discharge during year, 80 cfs May 14 (gage height, 2.85 ft); minimum, 3.1 cfs Aug. 29, Sept. 5 (gage height, 1.45 ft).
1956-59: Maximum discharge, 233 cfs May 14, 1957 (gage height, 4.61 ft); minimum, that of Aug. 29, Sept. 5, 1959.

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

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

1.3	2.3	1.9	18
1.5	5.4	2.1	30
1.7	10	2.4	48

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	6.9	8.2	10	9.0	16	21	26	34	22	5.8	3.7
2	6.4	6.9	8.5	7.3	9.0	17	25	35	32	21	5.1	3.7
3	6.7	6.9	9.0	8.2	12	16	25	32	31	20	4.7	3.6
4	6.7	6.4	9.5	11	12	13	26	31	31	20	4.7	3.6
5	6.7	7.1	8.0	11	12	14	27	28	30	20	4.6	3.6
6	6.4	7.3	*8.5	12	12	14	26	27	31	20	*4.6	3.7
7	6.2	7.5	9.8	12	12	14	24	25	37	19	4.4	3.9
8	6.4	7.1	12	11	11	12	21	22	41	16	4.2	*3.6
9	6.2	7.1	11	9.8	11	13	19	21	39	15	4.2	3.4
10	6.0	7.1	11	10	11	12	20	21	41	10	4.2	3.4
11	6.0	7.3	24	11	10	13	19	21	37	9.5	4.2	3.4
12	5.8	7.1	30	11	12	14	18	20	36	9.0	4.2	3.7
13	5.6	6.7	13	*15	12	20	18	22	37	9.0	3.9	3.9
14	5.2	9.5	11	11	12	14	19	35	41	8.2	3.7	4.2
15	4.7	8.5	11	9.5	11	14	17	35	48	8.2	3.6	4.9
16	4.7	8.0	11	15	12	15	16	31	43	8.2	3.6	4.2
17	4.7	7.5	11	16	*15	20	16	32	40	6.9	3.7	4.2
18	5.1	9.0	*11	14	14	23	16	33	36	6.2	3.9	4.2
19	5.4	9.8	11	8.8	15	21	17	31	*36	5.6	3.9	4.6
20	5.6	12	10	10	14	16	20	31	34	6.0	3.9	4.6
21	5.8	10	10	13	14	18	20	28	30	6.0	3.7	4.7
22	6.2	9.8	11	12	14	19	18	26	30	5.8	4.0	4.6
23	6.4	9.2	11	12	14	21	18	38	27	5.8	4.0	4.9
24	*6.9	9.2	11	14	14	20	18	*31	25	6.0	4.0	5.2
25	6.4	8.5	9.8	15	13	19	19	30	21	5.8	3.7	5.8
26	6.7	8.0	8.8	15	13	*19	19	36	25	5.8	3.7	8.5
27	6.7	7.5	10	14	12	18	29	46	26	5.8	3.6	8.0
28	6.7	7.1	9.8	12	14	16	*25	41	27	5.4	3.6	7.1
29	6.7	7.8	9.2	8.5	-	18	24	39	29	4.9	3.4	6.7
30	7.1	8.0	9.5	9.0	-------	22	24	37	26	4.9	3.6	6.2
31	7.3	-------	10	9.0	-------	22	-------	34	-------	5.2	3.6	-------
Total	189.8	240.8	348.6	357.1	346.0	523	624	945	1,001	321.2	126.0	139.8
Mean	6.12	8.03	11.2	11.5	12.4	16.9	20.8	30.5	33.4	10.4	4.06	4.66
Ac-ft	376	478	691	708	686	1,040	1,240	1,870	1,990	637	250	277

Calendar year 1958: Max 143 Min 4.7 Mean 30.3 Ac-ft 21,960
Water year 1958-59: Max 48 Min 3.4 Mean 14.1 Ac-ft 10,240

* Discharge measurement made on this day.

800. North Side Minidoka Canal near Minidoka, Idaho

Location.--Lat 42°40', long 113°29', in sec.1, T.9 S., R.25 E., on left bank 600 ft downstream from headgates at Minidoka Dam and 6 miles south of Minidoka.

Records available.--April 1908 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,180.33 ft above mean sea level (Bureau of Reclamation bench mark). April to November 1910 at datum 0.08 ft higher.

Average discharge.--18 years (1941-59), 616 cfs (446,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,790 cfs June 7 (gage height, 10.12 ft); no flow Oct. 20 to Apr. 5.
1908-59: Maximum discharge, 1,810 cfs July 9, 1953 (gage height, 10.19 ft); no flow in winters.

Remarks.--Records excellent. Flow controlled by headgates. Canal diverts water from Lake Walcott at right end of Minidoka Dam for irrigation of 64,000 acres under North Side Minidoka project. Diversion began in June 1907.

Cooperation.--Gage-height record furnished by Bureau of Reclamation.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	730						0	1,140	1,140	*1,510	1,570	1,230
2	742						0	957	*1,320	1,640	1,530	1,230
3	718						0	860	1,480	1,630	1,480	1,220
4	708						0	794	1,570	1,610	1,420	1,250
5	696						0	740	1,670	1,600	1,410	1,230
6	682						113	698	1,750	1,660	1,410	1,190
7	724						295	676	1,750	1,720	1,440	*1,130
8	734						336	690	*1,750	*1,740	1,460	1,080
9	702						418	722	1,750	1,750	1,450	1,020
10	656						*511	799	1,760	1,760	1,440	1,010
11	644						536	874	1,770	1,760	1,440	990
12	640						532	1,050	1,730	1,760	1,460	979
13	*754						726	1,300	1,670	1,760	1,470	968
14	797						958	1,410	1,650	1,760	1,500	913
15	772						1,020	1,590	*1,590	1,760	1,550	744
16	700						1,020	1,600	1,500	*1,770	1,570	554
17	523						1,090	1,550	1,470	1,770	*1,570	496
18	340						947	1,470	1,460	1,760	1,600	512
19	191						867	1,380	1,420	1,760	1,630	525
20	0						935	1,410	1,390	1,730	1,600	537
21	0						970	1,520	1,410	1,700	1,510	510
22	0						1,000	1,500	*1,560	1,690	1,360	452
23	0						1,170	1,330	1,640	1,680	1,300	389
24	0						1,220	1,310	1,640	1,650	1,290	366
25	0						*1,200	1,300	1,700	1,650	*1,320	366
26	0						1,210	*1,230	1,710	1,670	1,360	328
27	0						1,170	1,120	1,600	*1,660	1,380	310
28	0						1,120	1,080	1,510	1,620	1,340	313
29	0				-		1,100	1,070	1,310	1,600	1,310	315
30	0				-------		1,140	1,000	1,310	1,600	1,300	315
31	0	-------			-------		-------	998	-------	1,600	1,240	-------
Total	12,453	0	0	0	0	0	21,604	35,168	46,980	52,330	44,710	22,452
Mean	402	0	0	0	0	0	720	1,134	1,566	1,688	1,442	748
Ac-ft	24,700	0	0	0	0	0	42,850	69,750	93,180	103,800	88,680	44,530

Calendar year 1958: Max 1,780 Min 0 Mean 647 Ac-ft 468,200
Water year 1958-59: Max 1,770 Min 0 Mean 646 Ac-ft 467,500

* Discharge measurement made on this day.

805. South Side Minidoka Canal near Minidoka, Idaho

Location.--Lat 42°40', long 113°29', in sec.12, T.9 S., R.25 E., on right bank 900 ft downstream from headgates at Minidoka Dam and 6 miles south of Minidoka.

Records available.--April 1908 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,184 ft above mean sea level (Bureau of Reclamation bench mark). Prior to 1910 at site 600 ft upstream at same datum.

Average discharge.--18 years (1941-59), 484 cfs (350,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,430 cfs July 7; maximum gage height, 6.12 ft July 14; no flow Oct. 16 to Apr. 2.
1908-59: Maximum discharge, that of July 7, 1959; maximum gage height, 6.12 ft July 8, 1958, July 14, 1959 (backwater from aquatic growth); no flow for long periods in nonirrigation seasons.

Remarks.--Records good. Flow controlled by headgates. Canal diverts water from Lake Walcott at left end of Minidoka Dam for irrigation of 54,000 acres under South Side Minidoka project. Diversion began in April 1908.

Cooperation.--Gage-height record furnished by Bureau of Reclamation.

Revisions (water years).--WSP 1347: 1910.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	686						0	895	862	*1,120	1,190	1,160
2	718						0	744	*1,060	1,220	1,110	1,140
3	725						144	679	1,230	1,260	1,070	1,110
4	733						288	671	1,260	1,310	1,080	1,100
5	692						376	637	1,260	1,350	1,130	*1,070
6	574						427	584	1,280	1,380	*1,150	1,030
7	592						341	535	1,280	1,410	1,160	1,000
8	660						301	460	*1,290	*1,140	1,160	1,010
9	697						273	503	1,300	1,290	1,160	1,050
10	742						294	527	1,310	1,300	1,160	1,030
11	747						*303	627	1,320	1,330	1,170	1,010
12	715						394	712	1,300	1,340	1,190	995
13	*705						513	883	1,280	1,320	1,200	983
14	705						637	1,080	1,270	1,320	1,210	916
15	317						747	1,060	*1,240	1,280	*1,220	750
16	0						785	1,050	1,230	*1,270	1,250	*586
17	0						728	1,060	1,230	1,270	1,230	527
18	0						663	1,060	1,230	1,270	1,250	532
19	0						640	1,010	1,240	1,260	1,260	425
20	0						640	925	1,250	1,260	1,240	243
21	0						640	931	1,240	*1,250	1,100	254
22	0						637	907	*1,260	1,280	992	265
23	0						632	877	1,250	1,290	983	275
24	0						666	777	1,250	1,290	977	284
25	0						*799	822	1,250	1,310	*998	290
26	0						802	*862	1,250	1,320	1,020	288
27	0						802	865	1,190	*1,330	1,080	292
28	0						802	822	1,150	1,320	1,160	290
29	0				-		802	785	1,110	1,310	1,170	339
30	0				-------		871	731	1,090	1,300	1,150	275
31	0	-------			-------		-------	755	-------	1,260	1,140	-------
Total	10,008	0	0	0	0	0	15,947	24,836	36,742	38,960	35,360	20,519
Mean	323	0	0	0	0	0	532	801	1,225	1,289	1,141	684
Ac-ft	19,850	0	0	0	0	0	31,630	49,260	72,880	76,260	70,140	40,700

Calendar year 1958: Max 1,350 Min 0 Mean 505 Ac-ft 365,400
Water year 1958-59: Max 1,410 Min 0 Mean 502 Ac-ft 363,700

* Discharge measurement made on this day.

810. Lake Walcott near Minidoka, Idaho

Location.--Lat 42°40', long 113°29', in sec.1, T.9 S., R.25 E., on south wall in powerhouse at Minidoka Dam on Snake River, 6 miles southeast of Minidoka.

Drainage area.--15,700 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--April 1909 to September 1959.

Gage.--Staff gage and glass tubes connected to lake through pipes read at 8 a.m. and 4 p.m. Datum of gage is 4,200 ft above datum of Bureau of Reclamation, which is 49.52 ft below mean sea level. Prior to Feb. 1, 1941, hook gages at approximately same site and datum.

Extremes.--Maximum contents during year, 100,010 acre-ft July 2 (gage height, 45.40 ft); minimum, -19,350 acre-ft Oct. 20 (gage height, 33.78 ft).
1909-59: Maximum contents, 110,740 acre-ft Aug. 8, 1922 (gage height, 46.28 ft); minimum, -101,410 acre-ft Nov. 17, 1941 (gage height, 15.19 ft).

Remarks.--Reservoir is formed by rock-fill dam with concrete core; storage begar in 1906. Capacity, 107,240 acre-ft between gage heights 36.00 (sill of powerhouse penstock) and 46.00 ft (top of flashboards). Dead storage below gage height 36.00 ft, about 115,000 acre-ft. Water used for power development and irrigation on Minidoka project of Bureau of Reclamation. Contents given herein are above gage height 36.0 ft. Figures of daily contents computed from mean of twice daily readings.

Cooperation.--Gage-height record and capacity table furnished by Bureau of Reclamation.

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

4,233.8	-19,190	4,240.0	39,960
4,235.0	-9,050	4,242.0	61,280
4,236.0	0	4,244.0	83,540
4,238.0	19,440	4,246.0	107,240

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21,880	14,390	61,280	59,990	65,450	66,770	94,490	94,720	94,490	99,760	92,390	80,160
2	22,690	17,460	60,850	64,800	65,450	67,210	92,390	93,550	93,790	99,880	93,550	77,680
3	23,910	26,140	60,200	64,580	65,340	65,010	94,600	94,020	91,920	97,590	94,950	75,530
4	24,310	30,940	60,740	64,360	63,920	66,880	94,720	92,860	90,640	97,590	95,910	71,720
5	22,280	40,170	62,490	64,140	65,450	67,210	94,950	92,970	90,290	96,030	96,390	69,410
6	14,690	47,780	64,360	63,700	65,890	68,310	92,620	92,860	90,530	93,320	96,990	66,330
7	14,690	53,970	64,900	63,590	67,870	67,870	93,440	93,440	92,160	91,230	96,990	64,250
8	18,850	59,670	62,490	63,150	67,430	69,080	91,460	94,250	93,090	93,200	96,630	59,560
9	20,460	59,130	62,930	62,710	67,870	70,290	90,760	91,920	92,390	94,250	95,910	59,340
10	22,280	58,160	62,820	62,270	67,650	70,290	89,360	93,440	93,440	95,430	95,180	57,190
11	23,910	59,990	62,600	62,160	67,100	71,390	87,850	94,490	94,950	96,870	93,790	55,040
12	23,400	61,390	61,500	61,720	66,990	72,050	87,270	93,320	95,180	97,330	91,920	53,540
13	20,250	62,490	62,820	61,500	66,550	71,280	86,100	92,620	94,950	97,590	91,230	52,030
14	20,150	64,800	63,150	61,280	66,110	72,050	87,730	90,990	95,070	98,080	90,640	50,310
15	15,280	65,670	60,850	61,170	65,890	73,500	84,470	90,410	95,670	98,320	89,600	49,680
16	5,150	66,770	60,530	61,280	66,000	74,290	86,450	90,990	96,150	98,320	89,830	51,170
17	-5,850	64,030	60,420	62,160	66,330	77,680	87,620	91,570	96,030	98,560	89,830	54,070
18	-14,730	65,670	60,100	62,600	66,440	81,960	86,100	92,970	96,390	98,320	90,060	59,340
19	-18,050	66,550	59,560	63,920	66,440	85,050	90,990	93,900	96,630	97,960	90,410	64,580
20	-19,030	67,760	59,340	64,360	66,550	91,340	92,160	98,150	95,910	97,960	90,990	69,520
21	-18,050	68,090	59,670	63,360	66,880	92,390	92,040	97,840	95,070	97,330	92,040	74,970
22	-18,460	68,090	60,630	64,140	66,440	91,690	92,160	98,560	94,020	96,630	91,920	82,640
23	-17,060	67,980	61,500	64,360	66,550	92,390	91,690	97,110	92,740	96,150	92,160	89,130
24	-4,770	65,450	62,380	64,360	66,440	91,690	92,160	96,270	92,160	94,020	91,690	90,640
25	-2,310	64,800	61,720	64,580	66,770	92,270	92,620	95,070	91,920	93,900	91,920	88,080
26	-3,040	65,010	61,500	64,470	65,670	92,510	92,160	94,020	91,460	92,860	91,230	90,290
27	-3,320	62,820	60,850	64,470	66,880	92,160	92,270	93,670	92,620	92,390	90,760	90,760
28	-2,400	63,040	60,200	64,800	67,210	92,860	93,200	93,320	94,950	89,830	89,130	94,490
29	-1,850	63,480	59,990	65,230	-	91,460	94,720	93,090	96,150	90,760	87,500	95,180
30	-1,110	63,480	59,340	65,560	-------	93,790	94,950	93,320	98,800	91,230	85,400	95,180
31	3,620	-------	59,130	65,450	-------	93,320	-------	94,490	-------	92,160	81,510	-------
(†)	36.38	42.20	41.80	42.38	42.54	44.84	44.98	44.94	45.30	44.74	43.82	45.00
(‡)	-17,650	+59,860	-4,350	+6,320	+1,760	+26,110	+1,630	-460	+4,310	-6,640	-10,650	+13,670

Calendar year 1958..... ‡ -1,720
Water year 1958-59..... ‡ +73,910

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

815. Snake River near Minidoka, Idaho

Location.--Lat 42°40', long 113°30', in sec.2, T.9 S., R.25 E., on right bank 1 mile downstream from Minidoka Dam and 6 miles south of Minidoka.

Drainage area.--15,700 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--August 1895 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as "below Minidoka dam, at Howell's Ferry" in 1911. Records for August 1895 to Apr. 20, 1910, at site 6 miles downstream "at Montgomery Ferry."

Gage.--Water-stage recorder. Datum of gage is 4,132.2 ft above mean sea level (river-profile survey). Prior to Apr. 21, 1910, staff gage at site 6 miles downstream at different datum. Apr. 21, 1910, to Aug. 28, 1911, staff gage at present site and datum.

Average discharge.--33 years (1926-59), 5,720 cfs (4,141,000 acre-ft per year).

Extremes.--Maximum discharge during year, 10,600 cfs July 7; maximum gage height, 8.56 ft July 28; minimum discharge, 200 cfs Dec. 3 (gage height, 2.09 ft).
1895-1959: Maximum discharge, 47,500 cfs May 29, 30, 1897 (gage height, 12.6 ft, former site and datum); minimum, 58 cfs Dec. 2, 1951 (gage height, 1.93 ft).

Remarks.--Records good. Flow regulated by American Falls Reservoir (see p. 49), Lake Walcott (see p. 57), and other reservoirs, having a combined usable capacity of about 4,700,000 acre-ft; many diversions above station for irrigation.

Cooperation.--Gage-height record furnished by Bureau of Reclamation.

Revisions (water years).--WSP 1347: 1911.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-10, Apr. 7-21, June 24 to Sept. 30)

Oct. 1 to Dec. 31

3.6	1,060	5.0	2,820
3.8	1,240	6.0	4,880
4.0	1,440	7.0	7,480
4.5	2,020		

Jan. 1 to Sept. 30

3.5	950	6.0	4,880
4.0	1,410	7.0	7,480
4.5	2,100	8.0	10,500
5.0	2,890		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,140	1,330	1,390	b1,350	1,200	1,850	1,810	7,260	7,430	*8,070	8,840	8,320
2	3,110	1,200	1,350	b1,300	1,200	1,810	1,910	6,910	*7,560	8,290	8,900	8,120
3	3,090	1,190	1,310	b1,250	1,310	1,950	1,730	6,640	7,840	8,640	8,900	7,900
4	3,020	1,380	1,390	b1,250	1,330	1,770	1,750	6,830	8,070	8,610	8,780	7,960
5	3,040	1,310	1,410	b1,250	1,170	1,760	2,240	6,990	8,010	8,990	8,700	7,820
6	3,070	1,360	1,420	1,280	1,590	1,790	2,820	6,970	8,210	9,200	*8,670	7,790
7	3,160	1,500	1,410	b1,300	1,720	1,890	3,000	*6,780	8,260	9,800	8,730	*7,620
8	3,240	1,500	1,400	b1,350	1,690	1,810	*2,850	6,620	*8,320	*9,610	8,730	7,540
9	3,240	1,480	1,380	1,410	1,660	1,810	2,970	7,020	8,580	9,450	8,780	7,400
10	2,680	1,420	1,380	1,390	1,790	1,850	3,100	6,970	8,580	9,260	8,730	7,180
11	1,660	1,320	1,390	1,330	1,780	1,810	*3,510	7,340	8,460	9,230	8,730	7,100
12	1,650	*1,270	1,410	1,320	1,890	1,810	3,490	7,620	8,410	9,290	8,810	7,020
13	*1,670	1,240	*1,380	1,360	1,710	1,900	3,590	7,700	8,290	9,290	8,730	7,050
14	1,570	1,260	1,390	1,300	1,780	1,820	3,580	8,100	8,210	9,320	8,610	6,970
15	4,490	b1,300	1,380	1,320	1,780	1,800	4,760	8,580	*8,210	9,290	*8,580	6,540
16	4,490	b1,320	1,380	1,210	1,730	1,850	4,510	8,410	7,840	*9,200	8,520	*5,840
17	5,100	1,320	1,390	*1,220	*1,800	1,840	4,440	8,100	8,040	9,170	8,520	5,240
18	3,250	1,440	1,390	1,310	1,710	1,940	4,440	8,290	8,010	9,170	8,550	4,030
19	1,090	1,420	1,380	1,320	1,720	2,100	4,200	8,070	8,010	9,230	8,520	4,510
20	1,150	1,790	1,400	1,300	1,720	1,970	4,740	7,790	7,900	9,290	8,550	4,420
21	1,460	2,030	1,400	1,160	1,730	1,940	5,410	7,680	8,150	*9,390	8,490	3,890
22	1,580	1,810	1,390	1,220	1,800	1,920	6,180	7,680	8,490	9,480	8,150	3,750
23	1,590	1,700	1,390	1,200	1,820	*1,920	6,830	7,320	*8,670	9,450	7,900	3,770
24	1,550	1,360	1,390	1,220	1,790	1,930	*7,290	7,020	8,700	9,570	7,730	2,820
25	1,400	1,280	1,410	1,240	1,800	1,840	7,510	7,210	8,700	9,480	*7,560	3,030
26	1,390	1,340	1,410	1,200	1,840	1,860	7,650	*7,340	8,930	9,570	8,120	2,860
27	1,390	1,350	1,410	1,200	1,850	1,850	7,580	7,340	8,670	*9,570	8,040	2,120
28	1,390	1,360	1,420	1,270	*1,800	1,850	7,160	7,340	8,350	9,930	8,290	1,800
29	1,360	1,400	1,390	1,240	-	1,850	7,080	7,320	8,150	9,640	8,410	1,850
30	1,360	1,360	1,380	*1,170	-------	1,850	7,240	7,400	7,980	9,480	8,380	1,830
31	1,310	-------	*1,380	1,170	-------	1,820	-------	7,080	-------	9,290	8,320	-------
Total	72,690	42,340	43,100	39,410	46,710	57,760	135,350	229,720	247,030	287,250	263,270	164,090
Mean	2,345	1,411	1,390	1,271	1,668	1,863	4,512	7,410	8,234	9,266	8,493	5,470
Ac-ft	144,200	83,980	85,490	78,170	92,650	114,600	268,500	455,600	490,000	569,800	522,200	325,500

Calendar year 1958: Max 12,500 Min 1,090 Mean 5,324 Ac-ft 3,854,000
Water year 1958-59: Max 9,930 Min 1,090 Mean 4,462 Ac-ft 3,231,000

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

825. Goose Creek above Trapper Creek, near Oakley, Idaho

Location.--Lat 42°07'10", long 113°56'20", in sec.13, T.15 S., R.21 E., on right bank a quarter of a mile upstream from maximum flowline of Oakley Reservoir, 5 miles upstream from Trapper Creek, 6 miles upstream from Oakley Dam, and 9 miles southwest of Oakley.

Drainage area.--633 sq mi.

Records available.--April 1911 to September 1916, March 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 4,770 ft (by barometer). Prior to Aug. 29, 1912, at site 200 ft downstream at different datum.

Average discharge.--45 years, 45.2 cfs (32,720 acre-ft per year).

Extremes.--Maximum discharge during year, 89 cfs Apr. 7 (gage height, 2.58 ft); minimum, 0.9 cfs Aug. 17 (gage height, 1.07 ft).
1911-16, 1919-59: Maximum discharge, 1,670 cfs Jan. 23 or Feb. 24, 1943 (gage height, 7.6 ft, from floodmark), from rating curve extended above 600 cfs by logarithmic plotting; no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940, Sept. 14, 1947.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Decreed water rights are reported to apply to about 2,700 acres above station. Diversions for irrigation are made as flow permits to a major part of this acreage. Flow of artesian well, completed in 1935, enters below station. Practically entire flow passing station is stored in Oakley Reservoir (see p. 61).

Revisions.--WSP 1567: Drainage area.

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

1.0	0.4	1.5	7.6
1.1	1.0	1.7	16
1.2	1.9	2.0	36
1.3	3.2	2.3	63
1.4	5.1	2.6	93

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	19	b18	26	26	39	46	42	38	18	3.9	5.1
2	12	19	b22	25	28	43	46	42	37	17	8.6	4.9
3	14	19	b24	b18	24	46	52	46	34	14	7.9	5.1
4	14	20	b22	b10	25	36	64	52	20	15	7.1	4.7
5	14	22	b30	13	30	29	71	47	22	14	*6.1	4.7
6	14	22	*24	18	28	30	80	45	22	12	4.7	4.7
7	15	22	24	19	27	31	85	44	18	11	3.9	*4.7
8	14	22	28	22	b26	31	81	41	16	9.3	3.3	4.3
9	14	22	27	24	b25	30	75	35	16	10	3.0	4.1
10	14	22	27	27	24	30	68	32	15	8.6	2.9	4.1
11	14	23	28	27	b25	28	65	24	16	7.4	2.6	4.1
12	14	22	30	*27	b26	28	61	22	15	6.6	2.5	4.3
13	14	22	34	31	27	34	60	20	12	7.1	1.9	4.1
14	14	27	33	33	b24	37	62	22	11	7.4	1.7	4.1
15	14	b23	b31	34	19	31	65	27	12	7.6	1.7	4.7
16	14	b20	b30	26	24	30	65	27	12	7.9	1.6	7.4
17	14	b17	30	29	*30	40	64	25	10	7.1	1.0	8.6
18	14	17	30	34	30	48	64	25	* 9.0	6.4	1.1	9.0
19	14	18	30	36	40	45	60	27	8.3	5.8	1.4	10
20	15	22	30	34	51	40	54	32	8.3	5.1	3.7	13
21	16	33	28	28	56	36	52	35	14	4.9	10	15
22	16	27	26	20	60	38	50	31	18	4.5	9.0	13
23	17	27	26	30	55	39	48	*32	16	4.5	6.6	12
24	*18	30	27	34	47	38	47	39	14	4.1	5.6	14
25	18	b25	26	30	37	37	46	36	11	5.4	5.1	14
26	18	b25	22	39	34	*36	40	33	13	3.7	4.9	15
27	19	b24	25	40	34	38	46	34	14	3.5	4.5	18
28	19	b22	b24	38	34	39	*50	34	13	3.3	4.3	20
29	19	21	b23	28	-	40	47	40	12	3.2	4.3	22
30	18	21	b23	27	-------	42	45	40	17	3.3	4.3	20
31	18	-------	25	26	-------	45	-------	40	-------	2.6	4.7	-------
Total	475	675	827	853	914	1,134	1,759	1,073	493.6	240.3	133.9	278.7
Mean	15.3	22.5	26.7	27.5	32.6	36.6	58.6	34.6	16.5	7.75	4.32	9.29
Ac-ft	942	1,340	1,640	1,690	1,810	2,250	3,490	2,130	979	477	266	553

Calendar year 1958: Max 339 Min 5.8 Mean 57.9 Ac-ft 41,910
Water year 1958-59: Max 85 Min 1.0 Mean 24.3 Ac-ft 17,570

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

830. Trapper Creek near Oakley, Idaho

Location.--Lat 42°10', long 113°59', in sec.34, T.14 S., R.21 E., on left bank 4 miles upstream from Oakley Dam and 7 miles southwest of Oakley.

Drainage area.--53.7 sq mi.

Records available.--May 1911 to September 1916, March 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,820 ft (by barometer). Prior to Sept. 1, 1912, water-stage recorder at approximately present site at different datum. Sept. 1-30, 1912, staff gage at site three-quarters of a mile downstream at different datum. Apr. 8, 1913, to Sept. 30, 1916, and Mar. 28, 1919, to Aug. 15, 1931, water-stage recorder at site 1 mile upstream from present site at different datum.

Average discharge.--45 years, 14.7 cfs (10,640 acre-ft per year).

Extremes.--Maximum discharge during year, 24 cfs Feb. 13 (gage height, 5.02 ft); minimum, 3.6 cfs Nov. 17 (gage height, 4.64 ft).
1911-16, 1919-59: Maximum discharge recorded, 270 cfs Aug. 17, 1941 (gage height, 6.99 ft), from rating curve extended above 100 cfs on basis of velocity-area studies and peak flow over weir (a higher flow may have occurred Aug. 15, 1931); minimum recorded, 2.3 cfs Feb. 22, 1949, result of freezeup.

Remarks.--Records good except those for period of no gage-height record, which are fair. A few small diversions above station. Flow of artesian well, completed in 1936, enters above. Practically entire flow passing station is stored in Oakley Reservoir.

Cooperation.--Water-stage recorder inspected occasionally by employees of Oakley Canal Co.

Revisions (water years).--WSP 1063: 1941, 1943. WSP 1567: Drainage area.

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

4.7	4.8
4.8	8.3
4.9	14
5.0	20

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	11	10	11	11	12	12	17	15	11	9.3	8.3
2	10	11	10	9.9	10	12	16	18	14	10	9.3	8.3
3	10	12	10	7.2	11	11	15	18	14	10	8.8	8.3
4	10	12	10	7.2	11	10	15	16	14	10	8.8	8.0
5	10	13	11	11	11	11	16	16	14	10	*8.3	8.3
6	10	12	*11	14	11	11	16	17	14	9.9	8.3	8.3
7	11	14	11	13	11	12	14	16	14	9.9	8.0	*8.3
8	11	13	12	11	11	11	14	16	14	9.9	8.0	8.3
9	11	12	12	12	11	11	14	15	13	9.3	8.0	8.8
10	11	12	12	12	11	11	13	15	12	9.3	8.0	8.8
11	10	13	12	12	12	11	13	16	12	9.3	8.0	9.3
12	9.9	12	14	*12	12	11	13	15	12	9.3	8.0	9.3
13	9.3	12	12	12	12	13	14	16	12	9.3	8.0	9.9
14	9.3	13	12	12	11	12	14	16	11	9.3	8.0	11
15	8.8	11	12	11	11	11	a14	18	12	9.3	8.3	12
16	8.8	11	12	12	12	12	a14	17	11	8.8	8.0	11
17	8.8	9.3	12	12	*11	13	a14	18	11	8.8	8.0	11
18	9.3	11	11	12	11	14	a15	18	*11	8.3	8.3	10
19	11	11	11	12	12	13	a15	18	11	8.3	9.3	11
20	11	11	11	11	12	11	a15	17	11	8.3	11	10
21	11	11	11	11	12	11	a15	16	10	8.3	8.8	9.9
22	11	11	11	12	12	11	a16	16	9.9	8.0	8.3	9.9
23	11	11	11	12	12	12	a16	*17	9.3	8.0	8.3	9.9
24	*11	11	11	12	11	12	a16	16	9.3	9.3	8.3	9.3
25	11	11	11	12	11	12	a16	16	9.3	9.3	8.8	9.9
26	11	11	11	12	11	*12	a17	17	11	9.3	8.8	12
27	11	10	11	12	11	12	a17	18	11	9.3	8.3	12
28	11	9.3	11	12	11	12	*16	16	11	8.8	8.3	11
29	11	10	11	12	-	12	16	16	12	8.8	8.3	11
30	11	10	11	12	-------	12	16	16	11	8.8	8.3	11
31	11	-------	11	11	-------	12	-------	15	-------	8.8	8.3	-------
Total	321.2	341.6	349	356.3	3.6	363	447	512	355.8	285.0	262.5	294.1
Mean	10.4	11.4	11.3	11.5	11.3	11.7	14.9	16.5	11.9	9.19	8.47	9.80
Ac-ft	637	678	692	707	627	720	887	1,020	706	565	521	583

Calendar year 1958: Max 44 Min 8.3 Mean 14.8 Ac-ft 10,740
Water year 1958-59: Max 18 Min 7.2 Mean 11.5 Ac-ft 8,340

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage and records for Goose Creek above Trapper Creek, near Oakley.

835. Oakley Reservoir near Oakley, Idaho

Location.--Lat 42°12', long 113°55', in sec.19, T.14 S., R.22 E., just upstream from right abutment of dam on Goose Creek, 4 miles southwest of Oakley.

Drainage area.--729 sq mi.

Records available.--October 1912 to September 1959.

Gage.--Staff gage below 54.5 ft and wire-weight gage above, read about once a week. Altitude of gage is 4,630 ft (by barometer). Prior to Apr. 15, 1954, staff gage only.

Extremes.--Maximum contents observed during year, 20,700 acre-ft Apr. 28, 30, May 4; maximum gage height observed, 72.5 ft; no usable contents Oct. 30.
1912-59: Maximum contents observed, 74,600 acre-ft June 15, 1921 (gage height, 136.2 ft); reservoir drained at close of seasons in 1915, 1919-20, 1926, 1933, 1950, 1959.

Remarks.--Reservoir is formed by earth dam constructed in 1911-13; storage began in 1911. Capacity, 74,350 acre-ft between gage heights 0.0 (bottom of diversion tunnel) and 136.0 ft (crest of spillway). Dead storage negligible. Water is used for irrigation of lands along Goose Creek in Oakley Canal Co. project. Figures given hereir represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Oakley Canal Co.

Revisions.--WSP 1567: Drainage area.

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

0	0	20.0	1,430	50.0	9,900
5.0	185	25.0	2,320	60.0	14,100
10.0	450	30.0	3,450	70.0	19,300
15.0	860	40.0	6,320	80.0	25,200

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	6,940	8,670	10,700	-	-	-	-	17,300	11,700	5,490	2,680
2	-	-	-	-	13,200	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	20,700	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	4,920	
6	-	-	8,860	11,200	-	-	-	-	-	11,800	4,920	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	16,200	-	4,550	-
9	-	-	-	-	-	-	-	-	-	-	-	2,200
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	20,600	15,600	-	-	-
12	-	-	-	11,600	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	19,800	-	-	9,940	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	6,060	7,650	9,750	11,800	14,000	16,500	19,900	19,500	15,000	-	3,940	1,870
16	-	-	-	-	-	16,600	-	-	-	-	3,820	-
17	-	-	-	-	14,100	-	-	-	-	-	-	1,640
18	-	-	-	-	-	-	-	19,200	14,200	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	7,010	-	-
22	-	-	-	-	-	-	-	18,600	13,300	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	6,470	-	-	-	-	-	20,600	-	-	-	3,280	-
25	-	-	-	-	-	17,400	-	18,100	-	-	-	-
26	-	-	-	-	-	17,500	-	-	12,500	7,110	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	15,200	-	20,700	-	-	-	-	944
29	-	-	-	-	-	17,700	-	-	12,000	-	-	-
30	-	a8,610	-	-	-------	-	20,700	-	11,800	-	-	0
31	a6,880	-------	a10,600	13,100	-------	a18,000	-------	17,400	-------	5,400	2,760	-------
(†)	-	-	-	57.7	-	-	72.41	-	-	37.05	-	-
(‡)	+1,460	+1,730	+1,990	+2,500	+2,100	+2,800	+2,700	-3,300	-5,600	-6,400	-2,640	-2,760

Calendar year 1958..... ‡ +3,100
Water year 1958-59..... ‡ -5,420

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents interpolated.

855. Minidoka North Side Pump Canal near Burley, Idaho

Location.--Lat 42°32', long 113°57', in SW¼SW¼ sec.24, T.10 S., R.21 E., at head of canal, 3 miles east of Milner Dam and 7 miles west of Burley.

Records available.--October 1956 to September 1959.

Gage.--Sparling meter at pumping plant.

Extremes.--Maximum daily discharge during year, 245 cfs July 22-26; no flow Oct. 16 to Apr. 12.
1956-59: Maximum daily discharge, 267 cfs June 26 to July 25, 1958; no flow for many days in nonirrigation season.

Remarks.--Records good. Flow controlled by pumping plant which lifts water from Snake River for irrigation of 13,600 acres of land in Minidoka North Side project.

Cooperation.--Record of pump operation and 26 discharge measurements furnished by Bureau of Reclamation.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67						0	86	*141	213	226	173
2	67						0	70	156	*213	224	163
3	67						0	70	*166	213	220	163
4	67						0	70	176	213	211	*152
5	67						0	70	*190	213	211	152
6	57						0	63	202	223	211	152
7	57						0	63	202	228	*210	148
8	57						0	*63	202	228	204	149
9	57						0	63	202	228	204	144
10	57						0	63	*207	*232	204	134
11	57						0	74	207	236	204	*125
12	57						0	84	202	236	204	113
13	57						20	84	207	237	204	113
14	57						22	91	207	237	*208	113
15	14						35	*100	207	238	207	103
16	0						40	122	207	238	207	86
17	0						*48	122	212	*238	*211	76
18	0						48	137	212	238	211	*71
19	0						48	132	217	238	208	66
20	0						48	132	217	238	208	63
21	0						48	*137	217	*238	*199	56
22	0						48	137	*230	*245	188	*36
23	0						*48	148	230	245	178	12
24	0						55	148	230	245	178	0
25	0						*55	148	235	245	173	0
26	0						55	148	*235	245	173	0
27	0						61	148	235	231	173	0
28	0						61	*144	236	231	*173	0
29	0				-		76	134	*236	231	173	0
30	0				-------		*86	135	228	231	173	0
31	0	-------			-------		-------	136	-------	231	173	-------
Total	862	0	0	0	0	0	902	3,322	6,251	7,196	6,151	2,563
Mean	27.8	0	0	0	0	0	30.1	107	208	232	198	85.4
Ac-ft	1,710	0	0	0	0	0	1,790	6,590	12,400	14,270	12,200	5,080

Calendar year 1958: Max 267 Min 0 Mean 82.1 Ac-ft 59,410
Water year 1958-59: Max 245 Min 0 Mean 74.6 Ac-ft 54,040

* Discharge measurement made on this day.

858. P. A. lateral near Milner, Idaho

Location.--Lat 42°32', long 114°01', in sec.22, T.10 S., R.21 E., on left bank 600 ft downstream from pumping station and 2½ miles northeast of Milner.

Records available.--October 1915 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Staff gage read twice daily. Altitude of gage is 4,196 ft (river survey).

Average discharge.--11 years (1948-59), 26.0 cfs (18,820 acre-ft per year).

Extremes.--Maximum daily discharge during year, 73 cfs July 23 to Aug. 6; no flow for many days.
1915-59: Maximum daily discharge, 75 cfs several days in 1953, 1956; no flow for many days in nonirrigation season.

Remarks.--Records excellent. Flow regulated by pumping plant which lifts water 65.3 ft from Snake River for irrigation on North Side Twin Falls tract.

Cooperation.--Gage-height record and three discharge measurements furnished by North Side Canal Co.

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

0.7	12	1.0	28
.8	16	1.2	44
.9	22	1.5	75

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	58	*60	54	73	48
2							0	58	60	65	73	48
3							0	58	59	65	73	49
4							0	*58	55	65	73	48
5							0	58	*68	37	73	58
6							0	58	68	66	73	59
7							0	60	66	*64	72	59
8							0	60	66	63	72	54
9							0	60	66	61	72	54
10							0	60	66	56	72	*54
11							0	60	66	60	72	54
12							0	60	66	50	71	54
13							0	60	65	67	*70	54
14							0	60	66	66	70	51
15							0	60	66	68	68	51
16							0	62	64	71	68	45
17							0	60	64	64	67	45
18							0	61	64	71	66	45
19							0	61	64	72	64	33
20							0	*61	62	72	64	33
21							0	61	62	71	*61	33
22							0	61	62	70	61	34
23							0	60	62	70	60	34
24							0	60	66	*71	59	33
25							*15	60	66	70	59	0
26							15	60	*66	71	59	0
27							31	59	66	68	50	0
28							32	59	66	72	49	0
29					-		48	59	66	73	49	0
30					-------		47	58	66	73	49	0
31		-------			-------		-------	60	-------	73	47	-------
Total	0	0	0	0	0	0	188	1,850	1,929	2,039	2,009	1,130
Mean	0	0	0	0	0	0	6.3	59.7	64.3	65.8	64.8	37.7
Ac-ft	0	0	0	0	0	0	373	3,670	3,830	4,040	3,980	2,240

Calendar year 1958: Max 72 Min 0 Mean 25.4 Ac-ft 18,400
Water year 1958-59: Max 73 Min 0 Mean 25.1 Ac-ft 18,130

* Discharge measurement made on this day.

860. Milner low-lift canal near Milner, Idaho

Location.--Lat 42°31', long 114°01', in sec.32, T.10 S., R.21 E., at head of canal, 1 mile south of Milner.

Records available.--October 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Prior to October 1922, published as Murtaugh Canal near Milner.

Gage.--Rated pumps. Prior to May 1, 1945, water-stage recorder at site 600 ft downstream.

Average discharge.--15 years (1944-59), 78.4 cfs (56,760 acre-ft per year).

Extremes.--1919-59: Maximum daily discharge, 264 cfs July 14-28, 1958, July 21-25, 1959; no flow for many days.

Remarks.--Records excellent. Flow controlled by pumping plant which lifts water from Snake River above Milner Dam for irrigation of 12,340 acres of land in Milner low-lift irrigation district. Pumps rated by current-meter measurements.

Cooperation.--Records of pump operation furnished by Milner low-lift irrigation district.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	168	171	214	232	210
2							0	168	194	214	232	204
3							0	168	*196	216	228	200
4							0	168	198	216	*217	200
5							0	168	207	235	232	200
6							0	160	220	251	235	200
7							0	154	220	255	238	200
8							0	149	224	255	238	200
9							0	146	237	*255	238	194
10							0	146	*235	255	238	*180
11							0	146	235	255	238	174
12							0	150	235	259	234	174
13							0	173	223	261	*231	168
14							0	190	212	259	230	161
15							50	186	211	*252	230	146
16							50	186	201	249	233	137
17							56	186	204	249	240	124
18							0	186	206	249	240	109
19							0	186	206	249	240	94
20							45	186	206	260	240	90
21							78	186	213	264	*240	90
22							89	186	218	264	234	90
23							115	186	*218	*264	230	90
24							144	179	*218	264	230	90
25							154	171	228	264	230	90
26							154	171	222	259	230	72
27							154	*171	220	256	230	28
28							*154	171	216	256	230	0
29							154	171	212	256	*223	0
30					-------		158	171	212	256	215	0
31		-------			-------		-------	171	-------	240	215	-------
Total	0	0	0	0	0	0	1,555	5,304	6,418	7,751	7,191	3,915
Mean	0	0	0	0	0	0	51.8	171	214	250	232	130
Ac-ft	0	0	0	0	0	0	3,080	10,520	12,730	15,370	14,260	7,770

Calendar year 1958: Max 264 Min 0 Mean 88.5 Ac-ft 64,050
Water year 1958-59: Max 264 Min 0 Mean 88.0 Ac-ft 63,730

* Discharge measurement made on this day.

865. Gooding Canal at Milner, Idaho

Location.--Headgates of canal, lat 42°31', long 114°01', in sec.28, T.10 S., R.21 E., at Milner Dam.

Records available.--October 1929 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder on Milner-Gooding Canal at site 3 miles downstream from headgates. Staff gage on A lateral 1½ miles downstream from headgates and differential recorder on control gates of diversion 3 miles downstream from headgates.

Average discharge.--24 years (1935-59), total 996 cfs (721,100 acre-ft per year); Milner-Gooding project, 572 cfs; North Side Canal Co. project, 424 cfs.

Extremes.--Maximum daily discharge during year, 2,530 cfs July 14; no flow for many days. 1930-59: Maximum daily discharge, 2,740 cfs Aug. 2, 1953; no flow for many days.

Remarks.--Records good. Gooding Canal diverts water from Snake River for Milner-Gooding project of Bureau of Reclamation and in part for project of North Side Canal Co. The latter project also receives water through the North Side Twin Falls Canal and P. A. lateral. Discharge of canal is computed by combining the discharge of Milner-Gooding diversion and that of North Side Canal Co. diversions below their division point and adding 35 cfs to that sum for loss between headgates and division point.

Cooperation.--Gage-height record furnished by North Side Canal Co. and American Falls Reservoir District No. 2.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	750	760					0	1,990	2,070	2,060	2,400	2,140
2	740	780					0	2,030	2,100	2,030	2,410	2,160
3	250	780					0	2,030	2,110	2,130	2,430	2,140
4	0	740					0	2,010	*2,180	2,210	*2,440	2,100
5	0	760					0	2,020	2,190	2,300	2,360	2,120
6	0	730					0	2,020	2,140	2,320	2,310	2,120
7	0	700					0	2,040	2,140	2,310	2,290	*2,110
8	0	630					0	2,000	2,160	2,400	2,280	2,020
9	0	590					0	1,900	2,140	2,420	2,270	2,090
10	0	580					0	1,900	2,160	*2,400	2,230	2,100
11	0	590					0	1,960	2,190	2,430	2,180	2,080
12	0	600					0	2,010	*2,210	2,500	2,180	2,080
13	0	600					240	2,020	2,220	2,480	2,200	2,070
14	0	640					600	1,990	2,230	2,530	*2,210	2,110
15	0	630					860	2,010	2,260	2,520	2,150	2,130
16	0	650					940	2,130	2,280	2,510	2,140	2,130
17	0	640					970	2,190	2,250	*2,490	2,150	2,080
18	0	640					1,250	2,140	*2,260	2,470	2,160	1,990
19	0	640					1,440	2,120	2,250	2,460	2,170	1,980
20	0	210					1,420	*2,140	2,250	2,460	*2,180	2,050
21	0	0					*1,370	2,120	2,220	2,470	2,200	*2,040
22	0	0					1,350	2,020	2,200	*2,490	2,170	1,950
23	420	0					1,500	2,010	2,190	2,490	2,150	1,850
24	720	0					1,590	1,970	2,190	2,470	2,140	1,780
25	710	0					1,700	1,920	2,180	2,490	2,070	1,660
26	740	0					1,860	1,930	2,160	2,480	2,030	1,640
27	820	0					1,920	1,950	2,160	2,480	2,070	1,570
28	930	0					1,910	1,930	2,110	2,440	*2,090	1,580
29	900	0			-		1,930	1,950	*2,070	*2,500	2,120	1,040
30	760	0			------		1,960	2,030	2,080	2,490	2,130	0
31	730	------			------		------	2,090	------	2,440	2,100	------
Total	8,470	12,890	0	0	0	0	24,810	62,570	65,350	74,670	68,410	56,910
Mean	273	430	0	0	0	0	827	2,018	2,178	2,409	2,207	1,897
Ac ft	16,800	25,570	0	0	0	0	49,210	124,100	129,600	148,100	135,700	112,900
(†)	0	0	0	0	0	0	26,720	77,990	81,880	93,320	84,810	67,540
(‡)	16,800	25,570	0	0	0	0	22,490	46,120	47,740	54,780	50,900	45,340

Calendar year 1958: Max 2,590 Min 0 Mean 1,086 Ac-ft 786,500
Water year 1958-59: Max 2,530 Min 0 Mean 1,025 Ac-ft 742,000

* Discharge measurement made on this day.
† To Milner-Gooding project, in acre-feet; total for water year, 432,300 acre-ft.
‡ To North Side Canal Co. project, in acre-feet; total for water year, 309,700 acre-ft.

870. North Side Twin Falls Canal at Milner, Idaho

Location.--Lat 42°32', long 114°01', in sec.20, T.10 S., R.21 E., on right bank half a mile north of Milner and three-quarters of a mile downstream from headgates at Milner Dam.

Records available.--May 1909 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,123.4 ft above mean sea level, datum of 1929. Prior to Apr. 1, 1916, staff gages at two sites within half a mile of present site at slightly different datum.

Average discharge.--24 years (1935-59), 1,261 cfs (912,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,990 cfs July 31 (gage height, 8.52 ft); no flow for several days.
1909-59: Maximum daily discharge, 3,200 cfs for several days in 1921, 1928-29; no flow at times when headgates were closed.

Remarks.--Records excellent. Flow controlled by headgates. Water diverted by this canal and by P. A. lateral and part of that diverted by Gooding Canal, all at Milner, is used for irrigation of 163,000 acres of land under the North Side Canal Co. system. Diversions began in April 1908.

Cooperation.--Gage-height record and two discharge measurements furnished by North Side Canal Co.

Revisions (water years).--WSP 1347: 1912, 1917.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 25 to June 8, Aug. 27 to Sept. 2)

0.5	20	3.0	580
.7	41	4.0	927
1.0	80	5.0	1,320
1.5	165	7.0	2,210
2.0	282	8.6	2,990

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,290	0	484	463	436	409	0	1,840	2,200	2,640	2,940	2,510
2	1,300	0	484	463	433	412	0	1,700	2,290	2,650	2,930	2,450
3	1,680	0	481	469	421	418	484	1,710	*2,360	2,700	*2,930	2,430
4	1,860	0	478	478	427	442	992	1,710	2,360	2,740	2,880	2,430
5	1,870	0	487	484	448	382	1,510	1,710	*2,330	2,720	2,820	2,440
6	1,810	0	475	433	433	374	1,500	1,830	2,290	2,730	2,810	2,450
7	1,730	0	475	403	442	362	1,610	1,970	2,310	2,720	2,800	2,440
8	1,710	0	475	406	445	397	1,270	1,930	2,410	2,810	2,810	2,360
9	1,680	0	508	365	442	403	1,100	1,860	2,580	*2,890	2,810	*2,290
10	1,680	0	523	342	442	382	1,110	1,910	*2,660	2,880	2,820	2,220
11	560	0	520	342	448	412	1,160	2,090	2,570	2,880	2,820	2,150
12	0	0	499	342	445	409	1,160	*2,360	2,520	2,880	2,790	2,140
13	0	0	529	342	439	388	1,160	2,460	2,530	2,880	*2,800	2,120
14	0	0	530	339	439	397	1,060	2,450	2,510	2,870	2,800	1,890
15	0	0	520	339	436	409	1,010	2,450	2,540	*2,880	2,720	1,760
16	0	0	493	336	433	418	1,030	2,410	2,540	2,880	2,700	1,750
17	0	0	478	333	433	433	1,020	2,340	*2,540	2,880	2,700	1,740
18	0	0	*481	327	433	433	983	2,310	2,540	2,880	2,720	1,460
19	0	0	484	365	436	388	979	2,320	2,510	2,880	2,720	1,030
20	0	*431	484	385	439	359	*1,260	2,310	2,490	2,900	2,720	897
21	0	681	484	380	439	342	1,530	2,290	2,480	2,890	*2,720	908
22	0	655	484	382	436	336	1,960	2,300	2,590	2,880	2,700	879
23	0	635	484	384	433	333	2,330	2,290	*2,640	*2,890	2,670	883
24	0	558	481	385	*439	348	2,640	2,210	2,640	2,880	2,650	814
25	0	536	484	385	421	*219	2,530	2,180	2,620	2,900	2,580	712
26	0	526	484	385	415	167	2,280	2,190	2,660	2,910	2,570	503
27	0	529	481	397	418	167	2,100	*2,180	2,680	2,920	2,600	382
28	0	542	481	397	418	100	2,050	2,190	2,660	2,890	*2,570	307
29	0	529	484	406	-	0	2,050	2,200	2,660	2,940	2,580	382
30	0	466	484	409	-------	0	2,050	2,190	*2,650	2,950	2,570	628
31	0	-------	478	*421	-------	0	-------	2,180	-------	2,950	2,520	-------
Total	17,170	6,088	15,187	12,088	12,169	10,039	41,918	66,070	75,360	88,290	84,770	47,355
Mean	554	203	490	390	435	324	1,398	2,131	2,512	2,848	2,735	1,578
Ac-ft	34,060	12,080	30,120	23,980	24,140	19,910	83,140	131,000	149,500	175,100	168,100	93,930

Calendar year 1958: Max 3,000 Min 0 Mean 1,329 Ac-ft 961,900
Water year 1958-59: Max 2,950 Min 0 Mean 1,305 Ac-ft 945,100

* Discharge measurement made on this day.

875. South Side Twin Falls Canal at Milner, Idaho

Location.--Lat 42°31', long 114°01', in sec.29, T.10 S., R.21 E., on left bank 50 ft upstream from highway bridge and 700 ft downstream from headgates at Milner Dam.

Records available.--May 1909 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,121.5 ft above mean sea level, datum of 1929. Prior to May 13, 1913, staff gage and May 13, 1913, to Apr. 24, 1914, water-stage recorder, at highway bridge 50 ft downstream at present datum.

Average discharge.--33 years (1926-59), 1,754 cfs (1,270,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,690 cfs July 28, 29 (gage height, 10.49 ft); minimum, 22 cfs Nov. 2-5 (gage height, 0.76 ft).
1909-59: Maximum daily discharge, 4,600 cfs Aug. 12, 1918, including about 1,200 cfs wasted through spillway below station and returned to river; maximum discharge for irrigation use, 3,810 cfs July 21, 1952, July 24, 1953, and July 27, 1955; no flow Sept. 20, 1920, Oct. 14-17, 1956.

Remarks.--Records excellent except those for period of ice effect, which are fair. Flow controlled by headgates. Diversions began in March 1905 when 30,000 acres were reported as irrigated. By 1912 this had increased to 147,000 acres and during recent years the irrigated area has been reported as 202,000 acres.

Cooperation.--Gage-height record furnished by Twin Falls Canal Co.

Revisions (water years).--WSP 1347: 1910-16.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 1-5, 19-23)

0.8	22	5.0	907
1.3	37	7.0	1,730
1.6	59	9.0	2,800
2.0	117	10.5	3,760
3.0	338		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,540	60	480	433	410	399	57	2,990	2,970	3,300	3,570	3,170
2	1,540	22	478	431	410	399	299	2,730	3,030	3,420	3,550	3,130
3	1,550	22	475	b430	415	415	561	2,690	*3,080	3,560	*3,570	3,110
4	1,540	22	470	b430	418	415	815	2,760	3,120	3,630	3,530	3,120
5	1,540	22	472	b430	410	394	1,140	2,820	3,140	3,630	3,520	3,070
6	1,540	502	459	b430	410	389	1,250	2,870	3,200	3,600	3,540	3,000
7	1,540	914	462	b430	410	389	1,420	2,850	3,250	3,590	3,540	2,980
8	1,550	920	459	b435	415	399	1,540	2,870	3,290	3,610	3,540	2,970
9	1,570	927	462	b435	420	402	1,590	2,910	*3,240	*3,600	3,540	*3,000
10	1,390	806	467	438	415	407	1,520	2,980	3,230	3,600	3,540	2,930
11	*1,180	654	467	433	418	407	1,450	3,040	3,140	3,580	3,550	2,850
12	1,090	582	467	431	423	407	1,480	3,040	3,060	3,580	3,550	2,810
13	1,010	556	467	436	425	407	1,650	3,110	3,060	3,580	3,540	2,820
14	981	545	467	433	423	407	1,880	3,140	3,060	3,610	*3,530	2,780
15	978	529	464	433	420	407	2,190	3,210	3,090	*3,660	3,510	2,500
16	960	524	462	431	412	412	2,320	3,250	3,090	3,650	3,540	2,320
17	1,290	532	454	428	402	423	2,300	3,220	*3,040	3,610	3,510	*2,290
18	1,440	518	*454	433	402	472	2,230	3,220	3,040	3,610	3,490	1,820
19	1,410	518	454	428	399	472	2,230	3,230	3,030	3,650	3,500	1,570
20	1,390	*508	451	418	399	483	*2,230	3,180	3,070	3,650	*3,480	1,620
21	1,360	513	451	412	399	526	2,550	3,150	3,140	3,650	3,450	1,380
22	1,120	516	444	418	399	551	2,740	3,140	3,230	3,670	3,430	1,250
23	1,010	510	433	420	397	579	2,820	3,080	3,270	*3,660	3,360	1,180
24	914	510	433	412	*394	593	2,990	3,060	3,380	3,640	3,310	1,140
25	865	499	436	407	399	*554	3,100	3,060	3,480	3,650	3,280	1,110
26	859	526	433	405	405	470	3,010	3,070	3,480	3,640	3,300	1,060
27	856	521	436	407	402	420	2,990	*3,040	3,450	3,650	3,300	1,050
28	837	513	433	420	402	157	2,990	2,970	3,410	3,640	3,300	930
29	683	505	433	*415	-	57	2,970	2,910	3,370	3,690	3,290	812
30	510	497	433	410	-------	57	3,060	2,870	*3,300	3,650	3,320	784
31	228	-------	433	410	-------	57	-------	2,930	-------	3,620	3,220	-------
Total	36,271	14,793	14,089	13,162	11,453	12,326	59,372	93,390	95,740	111,880	107,200	64,556
Mean	1,170	493	454	425	409	398	1,979	3,013	3,191	3,609	3,458	2,152
Ac-ft	71,940	29,340	27,950	26,110	21,720	24,450	117,800	185,200	189,900	221,900	212,600	128,000

Calendar year 1958: Max 3,750 Min 22 Mean 1,753 Ac-ft 1,269,000
Water year 1958-59: Max 3,690 Min 22 Mean 1,738 Ac-ft 1,257,000

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

880. Snake River at Milner, Idaho

Location.--Lat 42°32', long 114°01', in sec.29, T.10 S., R.21 E., on left bank 200 ft downstream from highway bridge at Milner and a third of a mile downstream from Milner Dam.

Drainage area.--17,180 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--May 1909 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,062.9 ft above mean sea level, datum of 1929. Prior to May 28, 1919, staff gages at slightly different sites and datums.

Average discharge.--33 years (1926-59), 2,034 cfs (1,473,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,190 cfs Oct. 15 (gage height, 8.73 ft); minimum, 8 cfs Sept. 19 (gage height, 1.55 ft).
1909-59: Maximum discharge, 40,000 cfs June 21, 1918 (gage height, 19.9 ft, site and datum then in use); minimum, 2 cfs Mar. 17-28, 1936 (gage height, 1.18 ft).

Remarks.--Records good. Flow regulated by American Falls Reservoir (see p. 49), Lake Walcott (see p. 57), and other reservoirs having a combined usable capacity of about 4,700,000 acre-ft. About 1,340,000 acres of land irrigated by diversion from river and its tributaries above station, from which the return flow in large part enters Snake River between Milner and King Hill stations. Flow includes some stored water released for use downstream by Idaho Power Co.

Cooperation.--Gage-height record furnished by Twin Falls Canal Co. and North Side Canal Co.

Revisions (water years).--WSP 1347: 1909-12, 1915-16, 1942-44, 1946-48.

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

1.5	8	3.5	223
1.7	12	4.0	360
2.0	25	5.0	726
2.3	47	6.0	1,400
2.6	75	7.0	2,320
3.0	128	9.0	4,520

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	438	536	718	630	1,150	1,960	271	*14	15	30	282
2	198	682	543	642	626	1,150	1,880	274	13	11	21	285
3	198	912	547	588	611	1,770	1,750	277	13	9	20	293
4	198	912	543	599	577	2,210	548	277	13	9	17	298
5	198	954	562	611	615	2,200	113	274	13	9	16	304
6	198	528	565	615	623	1,460	52	285	12	9	15	304
7	194	271	573	619	638	1,100	52	282	12	9	14	304
8	192	290	584	678	798	1,100	53	269	13	12	13	304
9	196	290	592	780	967	1,120	54	102	12	20	13	301
10	198	288	599	834	967	1,080	*55	47	12	20	13	310
11	*223	438	599	834	974	1,160	55	47	13	17	14	307
12	424	525	565	828	1,150	1,160	56	48	16	18	13	307
13	702	521	607	822	1,230	1,110	58	55	13	16	*13	307
14	870	528	607	828	1,230	1,140	62	54	12	18	13	313
15	3,260	521	*607	828	1,220	1,180	63	51	15	15	13	316
16	4,100	539	615	822	1,220	674	60	54	26	16	13	321
17	4,070	562	615	816	1,220	558	67	52	13	15	14	*268
18	2,420	607	698	786	1,200	592	67	49	*12	16	14	10
19	488	780	748	769	1,160	603	67	26	11	16	15	8
20	282	912	758	702	1,150	682	71	24	12	16	13	17
21	906	988	748	607	1,160	714	71	30	10	15	13	45
22	1,540	988	748	584	1,140	737	72	49	9	15	14	488
23	1,400	988	748	666	1,020	571	72	42	10	15	15	466
24	1,260	974	753	674	995	301	72	17	12	15	14	181
25	1,130	936	748	670	1,020	*310	68	10	12	16	13	11
26	974	906	758	670	988	316	67	10	11	16	98	11
27	459	584	753	646	1,020	327	109	11	14	*16	282	10
28	184	506	753	619	*1,110	1,280	279	11	30	15	277	10
29	243	514	753	630	-	1,970	274	12	30	18	*293	10
30	266	525	753	638	-------	1,980	271	13	24	19	288	369
31	279	-------	753	*634	-------	1,960	-------	16	-------	28	279	-------
Total	27,450	19,407	20,331	21,757	27,259	33,665	8,498	3,039	432	474	1,893	6,760
Mean	885	647	656	702	974	1,086	283	98.0	14.4	15.3	61.1	225
Ac-ft	54,450	38,490	40,330	43,150	54,070	66,770	16,860	6,030	857	940	3,750	13,410

Calendar year 1958: Max 6,320 Min 98 Mean 1,266 Ac-ft 916,400
Water year 1958-59: Max 4,100 Min 8 Mean 468 Ac-ft 339,100

* Discharge measurement made on this day.

895. Devils Washbowl Spring near Kimberly, Idaho

Location.--Lat 42°35', long 114°21', in NE¼ sec.4, T.10 S., R.18 E., 400 ft downstream from Devils Washbowl Spring, half a mile upstream from mouth which is half a mile upstream from Twin Falls of Snake River, and 3½ miles north of Kimberly.

Records available.--April 1950 to September 1959 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 3,540 ft (from river-profile map). Prior to May 16, 1953, at datum 0.83 ft lower.

Average discharge.--9 years, 22.1 cfs (16,000 acre-ft per year).

Extremes.--1950-59: Maximum daily discharge, 27.5 cfs Oct. 3, 4, 1951; minimum daily, 17.5 cfs May 3-5, 11, May 25 to June 2, June 5-8, 1958.

Remarks.--Records excellent. No regulation or diversion above station. Discharge affected by variable surface waste from irrigation and occasional runoff from snowmelt which flows over rimrocks to enter springs above station. Waste inflow estimated on Aug. 4 (1.0 cfs); no waste flow reported Oct. 23, Feb. 12, Mar. 24, Apr. 27, June 17. Records given herein are from principal outlet only; a measurement of total spring flow of 20.4 cfs (adjusted for surface inflow) was made on Apr. 9.

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

1.1	17.0
1.2	21.0
1.3	26.0

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25.5	23	22	21.5	20.5	20.5	21	21.5	19.5	19	19.5	20
2	25.5	23	22	21.5	20.5	20.5	21	21.5	19.5	19	20	20
3	25	23	22	21.5	20.5	20.5	20.5	21.5	19.5	19	20.5	20
4	25	23	22	21.5	20.5	20	21	21.5	19.5	19	*21	20
5	25.5	23	*21.5	21.5	20.5	20	20.5	21.5	20	19	21	20.5
6	25.5	23	22	21.5	21	20	20.5	21.5	19.5	19.5	21	*20.5
7	25.5	23	21.5	21.5	21	20	20.5	21.5	19.5	20	20.5	21
8	25.5	23	22	21	21	20	20.5	21.5	19.5	19.5	21	21.5
9	25.5	23	22	21	20.5	20	20.5	20.5	19.5	20	20.5	21.5
10	25	23.5	21.5	*21	20.5	20	21.5	20.5	19.5	19.5	20	23
11	25	23.5	21.5	21	20.5	20	21.5	20.5	19.5	19	20	23
12	25.5	23	21.5	21	*20.5	20	21	20.5	19.5	19	20.5	22
13	25	23	21.5	21	20.5	20	21	20.5	19.5	19	21	22
14	25	23.5	21.5	21	20.5	20.5	21	20.5	19	19	21	23
15	25	23.5	21.5	21.5	20.5	20.5	21.5	20.5	19	19	21	23.5
16	24.5	23.5	21.5	21.5	20.5	20	21.5	20	19.5	19	21	23
17	24.5	23.5	21.5	21.5	20.5	20	21.5	20	*19.5	19	21.5	22
18	25	23	21.5	21.5	20.5	19.5	21.5	20	19.5	19	21	23.5
19	25	23	21.5	21	20	19.5	21.5	19.5	19.5	19.5	21	23.5
20	25	23	21.5	21	20	19.5	21.5	19.5	19.5	19.5	21	24
21	24.5	23	21.5	21	20	19.5	21.5	19.5	19.5	19.5	20	23.5
22	24.5	23	21.5	21	20	19.5	21.5	19.5	19.5	19.5	20	23.5
23	*24	23	21.5	21	20.5	19.5	21.5	19.5	19.5	19.5	20	23.5
24	23.5	23	21.5	21	20.5	*20	21.5	19	19.5	19.5	20.5	23
25	23.5	23	21.5	21	20.5	20.5	21.5	19	19.5	19.5	21.5	22
26	23.5	23	21.5	21	20.5	20.5	21.5	*19	19	19.5	21.5	23
27	23	22	21.5	21	20.5	21	*21.5	20	19	19.5	21	23.5
28	23	21.5	21.5	21	20.5	21.5	21.5	20.5	19	19.5	20.5	22
29	23.5	22	21.5	21	-	21.5	21.5	20.5	19	19.5	20	22
30	23	23	21.5	21	-------	21.5	21.5	19.5	19	19.5	20.5	22
31	23	-------	21.5	20.5	-------	21.5	-------	19.5	-------	19.5	21.0	-------
Total	762.0	689.5	670.0	656.0	573.5	627.5	636.0	630.0	582.0	599.0	640.5	665.5
Mean	24.6	23.0	21.6	21.2	20.5	20.2	21.2	20.3	19.4	19.3	20.7	22.2
Ac-ft	1,510	1,370	1,330	1,300	1,140	1,240	1,260	1,250	1,150	1,190	1,270	1,320

Calendar year 1958: Max 27 Min 17.5 Mean 21.8 Ac-ft 15,790
Water year 1958-59: Max 25.5 Min 19 Mean 21.2 Ac-ft 15,330

* Discharge measurement made on this day.

900. Snake River near Kimberly, Idaho

Location.--Lat 42°36', long 114°22', in NW¼ sec.4, T.10 S., R.18 E., on left bank 1,200 ft downstream from Twin Falls powerplant, 2¼ miles upstream from Shoshone Falls, and 4 miles north of Kimberly.

Records available.--July 1923 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,362.67 ft above mean sea level (levels by Idaho Power Co.). Prior to Aug. 31, 1938, at site 2,000 ft downstream at different datum.

Average discharge.--36 years, 2,536 cfs (1,836,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,720 cfs Oct. 16 (gage height, 11.18 ft); minimum, 26 cfs June 18 (gage height, 1.54 ft); minimum daily, 110 cfs Apr. 6.
1923-59: Maximum discharge, 27,200 cfs July 4, 1927 (gage height, 14.76 ft, site and datum then in use), from rating curve extended above 20,000 cfs; minimum recorded, 10 cfs May 17, 1944 (gage height, 1.15 ft); minimum daily recorded, that of Apr. 6, 1959.

Remarks.--Records good. Flow regulated by Twin Falls powerplant and several reservoirs above station. At times practically entire flow is diverted at Milner during irrigation season; no diversion between Milner and Kimberly.

Revisions (water years).--WSP 1347: 1924-26, 1928-30, 1942-44, 1946-48.

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

2.6	110	7.0	1,350
3.0	159	9.0	2,520
4.0	332	11.0	4,500
5.0	580		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	683	729	981	1,210	1,040	1,500	2,350	608	372	384	440	722
2	683	915	1,000	1,140	1,040	1,480	2,290	698	392	374	426	698
3	724	1,300	1,000	1,020	1,030	1,740	2,260	716	376	376	438	705
4	678	1,440	1,000	989	1,020	2,420	1,580	655	383	373	*434	740
5	744	1,440	*1,000	1,030	1,000	2,440	1,000	702	352	366	440	719
6	700	1,370	1,010	1,050	985	2,110	110	733	352	370	399	758
7	726	973	1,030	1,040	1,020	1,410	440	579	348	373	428	758
8	694	715	1,040	1,050	1,070	1,400	383	610	378	355	415	726
9	683	731	1,050	1,150	1,350	1,490	394	640	368	388	431	789
10	691	794	1,050	*1,290	1,370	1,440	394	565	368	366	419	768
11	679	722	1,050	1,300	1,380	1,480	389	414	368	360	445	740
12	764	822	1,050	1,300	*1,430	1,540	413	306	366	388	385	740
13	818	997	1,020	1,300	1,600	1,600	470	420	349	373	400	726
14	1,300	997	1,060	1,280	1,600	1,440	488	412	383	378	420	772
15	2,200	997	1,060	1,290	1,590	1,520	428	384	349	378	434	764
16	4,390	997	1,060	1,280	1,600	1,390	433	389	380	376	434	768
17	4,320	997	1,060	1,270	1,580	1,000	430	388	374	378	419	772
18	3,760	1,010	1,080	1,260	1,570	790	387	407	372	386	430	761
19	1,500	1,180	1,210	1,240	1,550	949	451	411	372	386	428	576
20	1,000	1,310	1,220	1,200	1,500	965	476	398	357	361	445	544
21	749	1,460	1,220	1,080	1,500	1,050	412	443	352	388	456	519
22	2,010	1,460	1,220	1,010	1,500	1,070	416	354	330	366	419	726
23	*1,940	1,480	1,210	1,000	1,420	1,100	422	411	354	388	449	815
24	1,800	1,480	1,210	1,100	1,320	*869	416	417	334	403	468	985
25	1,700	1,410	1,220	1,110	1,340	651	420	413	366	377	417	667
26	1,570	1,400	1,210	1,110	1,340	588	420	393	362	418	426	568
27	1,380	1,280	1,220	1,100	1,330	684	412	399	389	405	563	533
28	918	1,000	1,220	1,060	1,400	839	555	366	349	395	596	411
29	666	957	1,220	1,020	-	2,310	606	381	378	415	709	543
30	728	917	1,210	1,040	-------	2,360	612	378	395	429	712	472
31	734	-------	1,220	1,040	-------	2,350	-------	386	-------	419	677	-------
Total	41,932	33,280	34,411	35,359	37,475	43,975	20,257	14,776	10,968	11,892	14,402	20,785
Mean	1,353	1,109	1,110	1,141	1,338	1,419	675	477	366	384	465	693
Ac-ft	83,170	66,010	68,250	70,130	74,330	87,220	40,180	29,310	21,750	23,590	28,570	41,230

Calendar year 1958: Max 6,740 Min 389 Mean 1,660 Ac-ft 1,202,000
Water year 1958-59: Max 4,390 Min 110 Mean 875 Ac-ft 633,700

* Discharge measurement made on this day.

910. Blue Lakes Spring near Twin Falls, Idaho

Location.--Lat 42°37', long 114°28', in N½SE¼ sec.28, T.9 S., R.17 E., on left bank at outlet of upper Blue Lake, 1.4 miles northwest of Perrine Memorial Bridge and 3½ miles north of Twin Falls.

Records available.--April 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,300 ft (from Snake River profile map).

Average discharge.--9 years, 229 cfs (165,800 acre-ft per year).

Extremes.--1950-59: Maximum daily discharge, 256 cfs Nov. 10, 11, 1951, Oct. 24 to Nov. 13, 1952, Sept. 29, 30, 1953, Oct. 23, 24, 1957; minimum daily, 202 cfs Mar. 17, 21, 22, 1959.

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

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

1.7	190
1.8	224
1.9	266

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	228	212	220	208	205	212	224	220	224	220	240
2	232	228	212	220	208	205	212	224	220	224	220	240
3	232	228	212	220	208	205	212	224	220	224	220	240
4	232	228	212	220	208	205	212	224	220	224	220	240
5	232	228	212	220	208	205	208	224	220	220	220	240
6	232	228	212	220	208	205	208	224	220	220	224	*240
7	232	228	212	*220	208	205	212	224	224	220	224	240
8	228	228	212	220	208	205	212	224	224	220	224	236
9	232	228	212	220	208	205	208	224	224	220	224	236
10	232	228	*212	216	208	205	208	224	224	220	224	236
11	232	228	212	216	*208	205	212	220	220	220	224	232
12	232	224	212	216	208	205	212	220	220	220	224	232
13	232	224	212	216	208	205	212	220	*220	220	224	236
14	232	224	212	216	208	205	216	220	224	220	224	236
15	228	224	212	216	208	205	216	220	224	216	224	232
16	228	224	216	216	208	205	216	220	224	216	224	232
17	228	224	216	216	208	202	216	220	224	216	224	232
18	228	224	216	212	205	205	220	220	224	216	228	228
19	228	224	216	212	205	205	220	220	224	216	236	228
20	232	224	216	212	205	205	220	220	224	220	236	228
21	*232	220	216	212	205	202	220	220	224	220	236	224
22	232	220	216	212	205	202	224	220	224	220	236	232
23	232	220	216	212	205	205	224	220	224	220	236	228
24	232	220	216	212	205	*205	*224	220	224	220	236	228
25	228	220	216	208	205	205	224	220	224	220	236	224
26	228	220	216	208	205	205	224	220	228	a220	236	224
27	232	216	216	208	205	205	224	220	228	a220	236	228
28	232	216	216	208	205	208	224	220	228	a220	236	224
29	232	216	216	208	--	208	224	*220	224	a220	236	224
30	228	212	216	208	-------	208	224	220	224	a220	240	224
31	228	-------	216	208	-------	212	-------	220	-------	*220	240	-------
Total	7,152	6,704	6,636	6,648	5,791	6,362	6,500	6,860	6,696	6,816	7,092	6,964
Mean	231	223	214	214	207	205	217	221	223	220	229	232
Ac-ft	14,190	13,300	13,160	13,190	11,490	12,620	12,890	13,610	13,280	13,520	14,070	13,810

Calendar year 1958: Max 240 Min 208 Mean 222 Ac-ft 160,800
Water year 1958-59: Max 240 Min 202 Mean 220 Ac-ft 159,100

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated.

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920. Rock Creek near Rock Creek, Idaho

Location.--Lat 42°22', long 114°18', in sec.25, T.12 S., R.18 E., on right bank 0.1 mile downstream from road bridge, three-quarters of a mile downstream from West Fork Rock Creek, 5 miles south of Rock Creek settlement, and 12 miles south of Hansen.

Drainage area.--80 sq mi, approximately.

Records available.--November 1909 to August 1913, November 1938 to July 1939, November 1943 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,340 ft (by barometer). Nov. 28, 1909, to Aug. 16, 1913, staff gage at site 2 miles downstream at different datum. Nov. 23, 1938, to July 21, 1939, staff gage at present site at datum 1.25 ft higher.

Average discharge.--17 years (1910-12, 1944-59), 34.3 cfs (24,830 acre-ft per year).

Extremes.--Maximum discharge during year, 70 cfs May 1 (gage height, 0.95 ft); minimum, 4.2 cfs Aug. 16, 17 (gage height, -0.19 ft).
1909-13, 1938-39, 1943-59: Maximum discharge observed, 429 cfs May 21, 1912 (gage height, 10.4 ft, site and datum then in use); minimum observed, 3.6 cfs Aug. 7-12, 1910 (gage height, 0.3 ft, site and datum then in use).

Remarks.--Records excellent except those for periods of ice effect, which are good. Small ranch diversions above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 15-23)

-0.2	4.0	0.5	34
0.0	9.2	1.0	74
.2	17		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	9.6	10	11	12	12	21	55	39	14	6.1	5.2
2	7.8	9.9	10	9.2	10	13	26	65	38	13	6.1	5.2
3	7.8	9.9	10	b7.0	11	13	33	62	37	12	*5.2	4.9
4	7.5	9.9	11	b9.0	12	12	38	59	36	12	5.2	4.9
5	7.5	11	*10	b10	11	13	44	56	35	12	4.9	5.2
6	7.5	11	9.9	14	11	12	48	56	34	11	4.9	5.4
7	7.8	12	9.6	*12	11	12	46	53	35	11	4.9	*5.4
8	7.8	11	10	12	11	12	43	51	33	11	4.7	5.2
9	7.8	11	12	11	9.9	12	39	52	31	10	4.7	5.4
10	7.8	13	10	12	10	12	37	50	30	9.6	4.7	5.2
11	7.8	11	11	12	11	12	35	48	28	8.9	4.7	4.9
12	7.8	11	16	12	*10	12	35	47	26	9.2	4.7	5.2
13	7.8	12	12	14	9.9	14	39	46	25	8.9	4.9	5.6
14	7.8	14	9.9	13	10	13	40	46	24	9.2	4.9	6.3
15	7.8	11	11	12	11	13	42	46	24	9.2	4.7	7.8
16	8.3	b9.6	10	12	12	14	40	45	24	8.0	4.5	7.5
17	8.3	b8.0	10	13	12	14	38	45	*21	7.8	4.5	7.8
18	8.3	b9.5	10	12	12	15	38	46	20	7.5	4.9	7.2
19	9.2	11	10	12	12	*15	35	43	19	6.6	6.3	7.5
20	10	12	10	11	12	14	33	41	18	6.6	6.6	8.6
21	9.9	11	10	9.9	12	14	32	39	17	6.3	6.1	8.9
22	9.9	11	11	12	13	14	31	*38	16	6.1	5.8	8.0
23	*9.9	11	11	11	13	14	33	39	15	5.8	5.6	8.3
24	9.9	10	11	11	13	14	37	38	15	5.8	5.2	7.8
25	9.9	10	11	12	13	14	41	35	15	5.8	5.2	9.2
26	9.9	9.9	10	12	12	15	45	38	17	5.6	5.4	12
27	9.6	9.6	11	12	12	16	*48	42	17	5.8	5.2	14
28	9.6	8.6	11	13	12	15	45	41	16	5.6	4.9	11
29	9.6	10	10	12	-	16	43	40	17	5.6	4.9	11
30	9.6	10	10	12	-------	19	46	40	16	5.6	4.9	9.9
31	9.6	-------	11	12	-------	20	-------	40	-------	5.6	4.9	-------
Total	267.3	318.5	329.4	359.1	320.8	430	1,151	1,442	738	261.1	160.2	220.5
Mean	8.62	10.6	10.6	11.6	11.5	13.9	38.4	46.5	24.6	8.42	5.17	7.35
Ac-ft	530	632	653	712	636	853	2,280	2,860	1,460	518	318	437

Calendar year 1958: Max 283 Min 6.8 Mean 33.5 Ac-ft 24,230
Water year 1958-59: Max 65 Min 4.5 Mean 16.4 Ac-ft 11,890

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

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

937. Niagara Springs near Buhl, Idaho

Location.--Lat 42°39'48", long 114°40'25" in NE¼NE¼ sec.10, T.9 S., R.15 E., in spring outlet channel 300 ft upstream from mouth, 700 ft downstream from source, and 6 miles northeast of Buhl.

Records available.--October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage 3,005 ft (from topographic map).

Extremes.--Maximum daily discharge, 355 cfs (estimated) Oct. 1-10; minimum, 249 cfs May 12 (gage height, 1.61 ft).

Remarks.--Records excellent except those for period of no gage-height record, which are good. Figures of daily discharge do not include the four diversions between springs and gage.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	355	341	322	315	299	293	286	258	271	268	293	302
2	355	340	325	315	299	293	286	258	271	271	293	302
3	355	340	325	315	299	293	286	258	271	271	293	*299
4	355	339	325	312	299	293	286	258	274	274	286	299
5	355	338	325	315	299	293	280	255	274	274	289	299
6	355	338	329	315	299	293	274	258	271	271	289	299
7	355	337	329	315	299	293	274	258	271	271	289	302
8	355	336	325	315	299	289	*274	258	271	274	289	302
9	355	336	329	315	299	289	271	258	271	274	289	305
10	355	335	*329	312	296	289	271	252	274	274	293	305
11	354	334	325	309	*296	289	268	255	274	274	293	305
12	354	334	325	309	299	289	264	252	274	271	293	305
13	353	333	325	309	299	286	264	252	274	271	293	305
14	352	332	325	309	299	286	264	252	274	274	293	309
15	352	332	325	305	296	286	264	252	271	274	293	312
16	351	331	325	*305	296	286	264	252	268	274	289	312
17	351	330	325	305	296	286	264	255	268	277	293	312
18	350	330	322	305	296	286	264	255	264	277	293	315
19	350	330	322	305	296	289	261	255	264	277	296	315
20	350	*329	318	305	296	289	261	255	264	286	296	315
21	349	329	318	305	296	286	261	258	264	289	296	315
22	349	329	318	305	296	286	261	258	264	289	296	315
23	348	325	315	305	296	*286	*261	258	268	293	296	322
24	348	325	315	305	293	289	264	258	*268	289	296	325
25	347	325	315	305	293	289	264	258	268	289	299	329
26	346	325	315	302	293	289	264	261	268	289	299	332
27	346	322	315	302	293	289	264	264	268	293	299	332
28	345	322	315	302	293	289	261	264	268	293	299	332
29	344	325	315	302	-	289	261	264	268	293	302	332
30	343	322	315	302	-------	289	255	264	271	*293	302	332
31	342	-------	315	299	-------	289	-------	271	-------	293	302	-------
Total	10,874	9,944	9,971	9,544	8,309	8,960	8,042	7,984	8,089	8,680	9,121	9,385
Mean	351	331	322	308	297	289	268	258	270	280	294	313
Ac-ft	21,570	19,720	19,780	18,930	16,480	17,770	15,950	15,840	16,040	17,220	18,090	18,610

Adjusted for diversions between springs and gage

Mean Cfsm	369	350	342	329	315	306	298	301	310	321	337	350
In.												
Ac-ft	22,680	20,830	21,010	20,200	17,490	18,830	17,760	18,480	18,440	19,710	20,710	20,800

Observed

Calendar year 1958 :	Max -	Min -	Mean -	Ac-ft -		
Water year 1958-59 :	Max 355	Min 252	Mean 298	Ac-ft 216,000		

Adjusted

Calendar year 1958 :	Mean -	Cfsm	In.	Ac-ft -
Water year 1958-59 :	Mean 327	Cfsm	In.	Ac-ft 236,900

Note.--No gage-height record Oct. 1 to Nov. 19; discharge estimated on basis of records for Box Canyon Springs. Diversions above gage estimated on basis of 11 discharge measurements and sudden changes in flow past gage as noted on the recorder chart for this station.

940. Snake River near Buhl, Idaho

Location.--Lat 42°40', long 114°43', in NW¼ sec.9, T.9 S., R.15 E., on left bank 2 miles downstream from Niagara Springs, 3¾ miles upstream from outlet of Clear Lakes, and 6 miles northeast of Buhl.

Records available.--December 1946 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,952.9 ft above mean sea level (stadia levels). Prior to Jan. 17, 1947, staff gage at same site and datum.

Average discharge.--12 years (1947-59), 4,793 cfs (3,470,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,450 cfs Oct. 16 (gage height, 4.00 ft); minimum, 1,780 cfs Apr. 8 (gage height, 0.16 ft).
1946-59: Maximum discharge, 23,100 cfs June 13, 1947 (gage height, 10.34 ft); minimum, that of Apr. 8, 1959.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Flow regulated by Twin Falls and Shoshone Falls powerplants and several reservoirs above station. No diversion except by small ranch ditches between this station and station at Milner, where at times practically entire flow is diverted during irrigation seasons.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 6 to Apr. 3)

0.3	1,840	3.0	4,750
1.0	2,400	4.0	6,450
2.0	3,450	5.0	8,550

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,850	2,650	2,680	2,920	2,700	3,100	3,850	2,520	2,280	2,260	2,500	2,760
2	2,820	2,700	2,740	2,860	2,700	3,100	3,820	3,130	2,240	2,210	2,490	2,800
3	2,790	2,920	2,750	2,720	2,700	3,350	3,710	2,770	2,200	2,200	2,500	*2,810
4	2,780	3,210	2,750	2,600	2,700	3,820	3,430	2,680	2,200	2,200	2,490	2,870
5	2,820	3,240	2,720	2,600	2,700	4,020	2,730	2,660	2,200	2,340	2,460	2,880
6	2,850	3,240	2,740	2,790	2,700	4,040	2,570	2,730	2,170	2,300	2,430	2,870
7	2,850	3,040	2,740	2,840	2,700	3,290	2,030	2,620	2,210	2,250	2,360	2,920
8	2,860	2,700	2,760	2,800	2,800	2,960	1,880	2,540	2,230	2,240	2,340	2,920
9	2,810	2,610	2,770	2,820	2,900	3,000	2,030	2,440	2,210	2,230	2,340	2,950
10	2,800	2,650	2,750	2,950	3,000	3,040	2,050	2,450	2,250	2,270	2,370	2,940
11	2,790	2,670	*2,760	3,060	*3,010	2,990	2,080	2,440	2,260	2,220	2,360	2,920
12	2,760	2,660	2,790	3,070	3,080	3,060	2,030	2,250	2,230	2,190	2,350	2,920
13	2,780	2,710	2,740	3,090	3,160	3,070	2,050	1,990	2,200	2,210	2,330	2,930
14	3,040	2,890	2,710	3,020	3,200	2,980	2,040	2,060	2,250	2,200	2,360	3,080
15	3,500	2,870	2,720	2,990	3,200	2,980	2,050	2,050	2,280	2,220	2,370	3,250
16	6,300	2,850	2,750	*3,010	3,200	3,040	2,130	2,110	2,230	2,230	2,370	3,400
17	6,370	2,790	2,770	3,010	3,200	*2,750	2,310	2,160	2,320	2,200	2,390	3,500
18	6,260	2,780	2,760	3,000	3,200	2,480	2,360	2,240	2,300	2,210	2,380	3,400
19	4,100	2,880	2,810	3,000	3,200	2,400	2,350	2,220	2,280	2,220	2,390	3,200
20	3,400	3,150	2,900	2,900	3,110	2,540	2,360	2,250	2,240	2,250	2,440	2,800
21	*3,150	3,230	2,900	2,800	3,100	2,560	2,200	2,200	2,220	2,260	2,510	2,700
22	3,470	3,300	2,920	2,700	3,100	2,630	2,130	2,170	2,240	2,260	2,500	2,700
23	4,120	3,300	2,950	2,700	3,000	2,660	2,190	2,210	2,210	2,250	2,480	3,100
24	3,950	3,270	2,940	2,800	2,900	2,630	2,160	2,300	*2,200	2,260	2,490	3,200
25	3,790	3,240	2,950	2,800	2,900	2,450	2,130	2,280	2,240	2,280	2,470	3,000
26	3,700	3,180	2,930	2,800	2,900	2,290	2,200	2,270	2,340	2,300	2,460	2,700
27	3,570	3,140	2,950	2,800	2,900	2,180	2,260	2,370	2,380	2,360	2,500	2,700
28	3,260	2,950	2,940	2,800	3,000	2,230	2,210	2,390	2,430	2,340	2,540	2,600
29	2,790	2,840	2,890	2,700	-	2,930	2,360	2,370	2,320	2,390	2,620	2,700
30	2,700	2,740	2,890	2,700	-------	3,940	2,260	*2,300	2,360	*2,440	2,740	2,700
31	2,680	-------	2,930	2,700	-------	3,940	-------	2,280	-------	2,470	2,790	-------
Total	108,710	88,400	87,300	88,350	82,960	92,450	71,960	73,450	67,720	70,260	76,120	88,220
Mean	3,442	2,947	2,816	2,850	2,963	2,982	2,399	2,369	2,257	2,266	2,455	2,941
Ac-ft	211,700	175,300	173,200	175,200	164,600	183,400	142,700	145,700	134,300	139,400	151,000	175,000

Calendar year 1958: Max 8,900 Min 2,110 Mean 3,557 Ac-ft 2,575,000
Water year 1958-59: Max 6,370 Min 1,880 Mean 2,723 Ac-ft 1,972,000

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 18 to Feb. 10, Feb. 14-19, Feb. 21 to Mar. 3, Sept. 15-30; discharge estimated on basis of records for stations near Kimberly and below Lower Salmon Falls, near Hagerman.

955. Box Canyon Springs near Wendell, Idaho

Location.--Lat 42°42'30", long 114°48'45", in NE¼ sec.28, T.8 S., R.14 E., on left bank 150 ft downstream from waterfall, half a mile upstream from mouth, three-quarters of a mile downstream from source, and 7½ miles southwest of Wendell.

Records available.--April 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,950 ft (from topographic map).

Average discharge.--9 years, 418 cfs (302,600 acre-ft per year).

Extremes.--1950-59: Maximum daily discharge, 480 cfs Sept. 29, 1950; minimum daily, 372 cfs Apr. 12, 1951, Mar. 23-27, 1956.

Remarks.--Records excellent. No regulation or surface diversion above station. Discharge affected by variable surface waste from irrigation which flows over rimrocks to enter springs above station. Waste flow estimated Mar. 23 (2 cfs); Apr. 23 (1.5 cfs); July 29 (0.7 cfs); no waste flow Oct. 21, Dec. 2, Jan. 16, Feb. 11.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 11 to Dec. 28, Mar. 29 to Apr. 28)

1.5	377
1.7	427
1.9	480

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	453	437	404	394	402	407	400	394	384	404	414	424
2	453	435	*402	394	402	407	400	400	384	404	414	427
3	453	437	404	394	404	410	402	397	387	404	417	427
4	453	435	404	394	404	407	400	397	387	404	414	427
5	456	432	407	394	404	407	397	397	387	404	414	427
6	453	432	407	392	407	407	394	394	387	404	414	427
7	453	432	407	394	407	407	394	394	387	400	412	427
8	456	432	404	394	407	407	397	394	387	404	414	430
9	453	435	404	394	410	404	400	397	390	404	417	427
10	453	432	400	394	407	407	400	397	390	404	420	*427
11	456	427	402	394	*412	404	400	394	390	404	420	427
12	453	424	402	394	410	404	400	394	394	407	420	427
13	450	424	402	392	410	407	400	392	394	410	422	430
14	448	424	402	392	410	404	400	392	394	410	422	432
15	450	422	402	390	410	404	400	392	397	410	422	432
16	448	422	402	*392	410	402	402	392	400	410	422	432
17	448	422	402	392	410	404	400	392	400	410	422	435
18	445	417	402	394	410	404	404	394	400	410	424	435
19	448	417	402	394	410	404	402	392	400	410	424	435
20	445	417	402	394	410	404	402	390	402	410	424	435
21	*445	417	402	392	410	404	400	390	400	412	422	435
22	445	417	402	394	410	404	400	392	400	412	420	435
23	445	417	400	397	407	*402	*402	390	400	412	420	435
24	445	417	394	397	407	400	400	392	402	412	422	435
25	445	414	394	400	407	400	400	390	402	412	420	437
26	443	417	392	397	407	400	400	390	404	412	420	440
27	443	410	392	400	407	400	400	392	407	414	420	440
28	437	410	390	400	404	400	397	390	407	414	422	437
29	437	404	392	400	-	402	394	390	404	*414	424	435
30	437	404	394	402	-------	402	394	*384	404	414	427	435
31	437	-------	392	402	-------	400	-------	384	-------	414	427	-------
Total	13,886	12,682	12,407	12,247	11,415	12,525	11,981	12,169	11,871	12,669	13,016	12,954
Mean	448	423	400	395	408	404	399	393	396	409	420	432
Ac-ft	27,540	25,150	24,610	24,290	22,640	24,840	23,760	24,140	23,550	25,130	25,820	25,690

Calendar year 1958: Max 456 Min 380 Mean 413 Ac-ft 299,200
Water year 1958-59: Max 456 Min 384 Mean 410 Ac-ft 297,200

* Discharge measurement made on this day.

960. Salmon Falls Creek above upper Vineyard ditch, near Contact, Nev.

Location.--Lat 41°44', long 114°53', near northwest corner sec.5, T.44 N., R.63 E., on left bank three-quarters of a mile upstream from former diversion point for upper Vineyard ditch, 1¼ miles upstream from present diversion dam, and 6 miles southwest of Contact.

Drainage area.--461 sq mi, approximately.

Records available.--May 1914 to July 1915, October 1948 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,570 ft (by barometer). May 17, 1914, to July 25, 1915, at site three-quarters of a mile downstream at different datum.

Average discharge.--11 years (1948-59), 89.9 cfs (65,080 acre-ft per year).

Extremes.--Maximum discharge during year, 224 cfs June 7 (gage height, 2.60 ft); minimum, 15 cfs July 31, Sept. 5-10, but may have been less during period of ice effect; minimum gage height, 1.08 ft Sept. 7-9.
1914-15, 1948-59: Maximum discharge, 1,170 cfs May 4, 1952 (gage height, 4.82 ft); minimum, 6.8 cfs Dec. 26, 1954 (gage height, 0.93 ft).

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

Revisions.--WSP 1567: Drainage area.

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

1.1	15	2.1	112
1.2	19	2.5	192
1.4	32	3.0	325
1.7	62		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	28	31	32	33	50	52	86	117	58	18	18
2	23	29	31	b25	30	63	65	144	112	49	18	18
3	23	29	31	b16	30	54	106	133	117	45	*18	18
4	24	29	*33	b21	33	44	146	119	127	41	18	18
5	24	29	33	b27	32	42	158	95	135	38	18	*16
6	23	29	34	b29	32	43	167	95	146	35	18	15
7	23	29	33	30	33	46	148	86	187	32	17	15
8	23	29	35	*29	33	43	127	80	199	30	17	15
9	20	29	35	30	29	42	104	74	154	30	18	15
10	19	32	35	31	31	42	92	75	138	26	18	15
11	19	33	35	32	32	38	78	79	126	25	17	16
12	20	31	39	32	29	40	79	84	112	31	17	16
13	20	31	38	35	*b28	47	83	97	105	30	17	17
14	20	38	32	35	b25	45	88	115	106	29	17	22
15	21	37	32	32	32	40	88	148	105	30	18	25
16	22	31	34	33	33	46	83	163	*112	29	17	22
17	22	b28	33	44	34	50	81	140	93	26	17	23
18	23	b30	33	49	33	58	83	135	84	25	18	21
19	23	32	34	42	35	*58	79	124	79	24	19	23
20	23	34	35	32	34	51	75	114	71	22	19	23
21	25	33	34	32	35	50	72	*104	72	21	19	22
22	*26	33	36	35	38	53	70	131	69	20	19	22
23	26	34	35	36	38	56	66	156	56	19	19	22
24	25	34	34	37	36	58	68	127	52	19	19	22
25	26	34	32	38	34	55	*71	126	44	19	19	22
26	27	32	30	41	35	55	80	131	59	20	19	24
27	29	32	32	38	37	56	89	169	64	23	18	26
28	29	29	32	39	42	54	89	144	63	20	18	26
29	28	30	30	33	-	52	83	133	74	19	18	29
30	27	30	31	34	-------	54	73	138	71	18	18	28
31	27	-------	32	34	-------	55	-------	126	-------	16	18	-------
Total	733	938	1,034	1,033	926	1,540	2,743	3,671	3,049	869	558	614
Mean	23.6	31.3	33.4	33.3	33.1	49.7	91.4	118	102	28.0	18.0	20.5
Ac-ft	1,450	1,860	2,050	2,050	1,840	3,050	5,440	7,280	6,050	1,720	1,110	1,220

Calendar year 1958: Max 652 Min 19 Mean 93.3 Ac-ft 67,550
Water year 1958-59: Max 199 Min 15 Mean 48.5 Ac-ft 35,120

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

1050. Salmon Falls Creek near San Jacinto, Nev.

Location.--Lat 41°57', long 114°42', in sec.23, T.47 N., R.64 E., on right bank in canyon, 600 ft downstream from bridge on U. S. Highway 93, 750 ft downstream from Shoshone Creek, and 5 miles north of San Jacinto.

Drainage area.--1,450 sq mi, approximately.

Records available.--September 1909 to June 1910 (gage heights only), June 1910 to September 1916, October 1918 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,120 ft (by barometer). Prior to June 30, 1910, staff gage at nearby site at different datum.

Average discharge.--47 years (1910-16, 1918-59), 133 cfs (96,290 acre-ft per year).

Extremes.--Maximum discharge during year, 305 cfs Apr. 6, 7; maximum gage height, 5.34 ft Apr. 6; minimum discharge, 7.4 cfs Aug. 17, 20 (gage height, 2.94 ft).
1909-16, 1918-59: Maximum discharge, between 2,060 and 2,420 cfs Feb. 24, 1943 (gage height exceeded range of recorder, 10.20 ft, but was not more than 1.2 ft higher), from rating curve extended above 1,400 cfs; minimum, 2.8 cfs Nov. 13, 1947, during channel improvement work upstream.

Remarks.--Records good except those for period of sluggish intake action, which are fair. Many diversions above station for irrigation. Salmon Dam of Salmon River Canal Co., 15 miles below station, forms a reservoir having a capacity of 182,650 acre-ft (see following page).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 3 to June 11, July 10 to Aug. 15)

3.0	6.0	4.5	126
3.2	16	5.0	210
3.6	40	5.5	315
4.0	72		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	45	50	60	67	98	111	118	152	65	24	14
2	38	46	53	52	64	150	127	148	142	52	24	14
3	38	48	54	25	59	137	183	185	133	46	*23	16
4	38	49	*55	34	65	104	244	170	130	41	23	16
5	38	50	55	45	64	89	280	154	136	36	22	*21
6	39	50	54	54	64	84	290	143	137	34	21	23
7	39	49	55	54	66	81	288	142	157	31	20	22
8	39	49	56	*55	65	84	258	129	188	29	17	23
9	39	49	59	56	57	80	226	115	169	28	15	23
10	37	51	58	56	58	88	190	106	137	26	13	22
11	36	52	58	60	62	77	162	105	127	25	12	23
12	36	52	60	63	58	73	137	103	118	26	12	24
13	36	51	62	67	*55	101	134	106	106	30	11	25
14	37	60	58	64	48	108	139	115	98	32	11	30
15	37	62	54	64	64	93	140	130	96	31	10	34
16	38	53	58	63	71	85	140	162	*99	30	10	34
17	38	35	58	102	73	110	140	174	93	26	8.2	34
18	39	39	57	95	69	133	148	164	79	30	9.2	35
19	40	62	56	84	68	*125	143	160	71	30	8.7	38
20	40	60	57	61	68	118	139	146	69	28	9.2	43
21	41	57	57	66	72	101	130	*142	66	26	9.2	42
22	*43	56	60	72	92	101	124	152	64	26	10	40
23	43	54	62	71	86	102	120	194	56	25	10	40
24	44	55	60	68	79	107	113	190	49	25	10	39
25	44	54	59	72	72	108	*113	160	45	26	10	40
26	44	53	58	79	71	105	118	165	46	26	10	42
27	44	55	56	75	73	112	132	186	56	27	11	45
28	45	47	57	74	79	109	142	212	64	26	10	46
29	45	47	55	71	-	106	132	185	68	25	10	46
30	44	50	56	67	-------	107	124	177	73	25	12	49
31	45	-------	57	64	-------	110	-------	169	-------	25	12	-------
Total	1,241	1,540	1,764	1,993	1,889	3,186	4,867	4,707	3,024	958	417.5	943
Mean	40.0	51.3	56.9	64.3	67.5	103	162	152	101	30.9	13.5	31.4
Ac-ft	2,460	3,050	3,500	3,950	3,750	6,320	9,650	9,340	6,000	1,900	828	1,870

Calendar year 1958: Max 851 Min 12 Mean 147 Ac-ft 106,400
Water year 1958-59: Max 290 Min 8.2 Mean 72.7 Ac-ft 52,620

* Discharge measurement made on this day.
Note.--Sluggish intake action Feb. 16 to Mar. 19; discharge computed from gage heights corrected for estimated lag.

1060. Salmon River Canal Co. canal near Rogerson, Idaho

Location.--Lat 42°15', long 114°45', in sec.7, T.14 S., R.15 E., on left bank half a mile downstream from Salmon River Canal Co. reservoir and 7 miles west of Rogerson.

Records available.--April 1937 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,940 ft (by barometer). Oct. 1, 1953, to Sept. 30, 1954, staff gage at same site and datum.

Extremes.--1937-59: Maximum daily discharge, 660 cfs July 21-24, 1944; no flow for long periods each year.

Remarks.--Records excellent. Canal diverts from Salmon River Canal Co. reservoir for irrigation of land in Salmon River Canal Co. project.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							0	290	321	225	
2	0							0	324	313	*227	
3	0		(*)					0	391	369	230	
4	0							0	409	371	229	
5	0							0	434	399	169	(*)
6	0							0	427	420	0	
7	0							0	422	417	0	
8	0							0	415	388	0	
9	0			(*)				0	377	361	206	
10	0							0	266	345	266	
11	0							0	0	340	272	
12	41							0	0	348	276	
13	135							0	0	367	191	
14	144							0	0	360	0	
15	95							0	*0	343	0	
16	0				(*)			0	278	244	0	
17	0							154	361	0	170	
18	0							226	374	0	217	
19	0							230	407	0	208	
20	0							*228	411	201	194	
21	0							250	418	279	133	
22	*0							262	407	278	0	
23	0							204	382	313	0	
24	0					(*)	(*)	0	288	314	0	
25	0							0	0	304	0	
26	0							0	0	225	0	
27	0							0	0	0	0	
28	0							0	0	0	0	
29	0				-			0	0	0	0	
30	0				-------			0	244	199	0	
31	0	-------			-------		-------	198	-------	228	0	-------
Total	415	0	0	0	0	0	0	1,752	7,325	8,047	3,213	0
Mean	13.4	0	0	0	0	0	0	56.5	244	260	104	0
Ac-ft	823	0	0	0	0	0	0	3,480	14,530	15,960	6,370	0

Calendar year 1958: Max 556 Min 0 Mean 122 Ac-ft 88,340
Water year 1958-59: Max 434 Min 0 Mean 56.9 Ac-ft 41,160

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

1065. Salmon River Canal Co. reservoir near Rogerson, Idaho

Location.--Lat 42°13', long 114°44', in NE¼ sec. 18, T.14 S., R.15 E., at dam on Salmon Falls Creek, 7½ miles west of Rogerson.

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

Records available.--January 1922 to September 1959.

Gage.--Wire-weight gage read once daily. Datum of gage is 4,945.8 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Jan. 5, 1955, staff gage at same datum.

Extremes.--Maximum contents observed during year, 40,800 acre-ft May 31 (gage height, 25.90 ft); minimum observed, 6,080 acre-ft Sept. 7-14 (gage height, 4.65 ft).
1922-59: Maximum contents observed, 123,700 acre-ft May 30, 31, 1922 (gage height, 61.1 ft); minimum observed, 125 acre-ft Sept. 21 to Oct. 5, 1934 (gage height, 0.1 ft).

Remarks.--Reservoir is formed by gravity-section concrete-arch dam completed in 1911; storage began in 1910. Capacity, 182,650 acre-ft between gage heights 0.0 (bottom of outlet tunnel) and 80.0 ft (maximum operating level). Dead storage unknown. Water is used for irrigation of lands in Salmon River Canal Co. project. Figures given herein represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Salmon River Canal Co.

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

4.0	5,200	20.0	30,000
7.0	9,460	25.0	39,100
10.0	13,800	30.0	48,800
15.0	21,500		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,800	14,600	16,600	19,100	22,000	24,600	29,500	37,000	40,500	30,200	13,800	6,350
2	14,800	14,700	16,700	19,100	22,100	24,700	29,700	37,200	40,000	29,600	13,300	6,280
3	14,800	14,800	16,700	19,200	22,200	25,000	29,800	37,300	39,700	29,000	12,800	6,280
4	14,800	14,800	16,800	19,200	22,300	25,200	30,100	37,600	39,100	28,200	12,300	6,210
5	14,800	14,800	16,900	19,200	22,400	25,400	30,400	37,900	38,500	27,500	11,900	6,140
6	14,800	14,900	17,000	19,200	22,400	25,500	30,800	38,200	37,900	26,800	11,600	6,140
7	14,800	15,000	17,000	19,300	22,500	25,700	31,300	38,500	37,200	25,900	11,600	6,080
8	14,800	15,100	17,100	19,300	22,600	25,800	31,700	38,600	36,700	25,000	11,600	6,080
9	14,800	15,200	17,200	19,400	22,700	25,900	32,300	38,800	36,100	24,200	11,600	6,080
10	14,800	15,200	17,300	19,500	22,800	26,000	32,600	38,900	35,700	23,500	11,100	6,080
11	14,800	15,300	17,400	19,600	22,900	26,200	32,900	39,000	35,500	22,800	10,500	6,080
12	14,800	15,400	17,500	19,700	22,900	26,300	33,200	39,200	35,800	22,000	9,900	6,080
13	14,600	15,400	17,600	19,700	23,000	26,500	33,500	39,300	36,000	21,300	9,240	6,080
14	14,400	15,500	17,600	19,800	23,000	26,600	33,600	39,500	36,100	20,500	8,950	6,080
15	14,200	15,700	17,700	20,000	23,100	26,700	33,800	39,600	36,200	19,800	8,950	6,420
16	14,200	15,800	17,800	20,100	23,200	26,800	34,000	39,700	36,400	19,100	8,950	6,480
17	14,200	15,800	17,800	20,200	23,300	26,900	34,200	40,000	35,800	18,800	8,950	6,480
18	14,200	15,800	17,900	20,400	23,400	27,100	34,500	39,800	35,200	18,800	8,370	6,480
19	14,200	15,800	18,000	20,500	23,500	27,300	34,800	39,600	34,600	18,800	7,720	6,550
20	14,200	15,800	18,100	20,700	23,600	27,400	35,000	39,400	33,800	18,800	7,280	6,620
21	14,200	15,900	18,200	20,800	23,700	27,700	35,200	39,200	33,100	18,200	6,840	6,700
22	14,300	16,000	18,200	20,900	23,800	27,900	35,400	38,900	32,300	17,600	6,620	6,770
23	14,300	16,200	18,200	20,900	24,000	28,000	35,600	38,600	31,500	17,000	6,620	6,840
24	14,300	16,300	18,400	21,100	24,000	28,100	35,800	38,700	30,800	16,400	6,620	6,840
25	14,400	16,400	18,500	21,300	24,200	28,300	36,000	39,000	30,500	15,800	6,550	6,920
26	14,400	16,400	18,500	21,300	24,300	28,500	36,000	39,300	30,500	15,200	6,550	7,000
27	14,500	16,400	18,600	21,500	24,500	28,600	36,200	39,600	30,600	14,800	6,550	7,000
28	14,500	16,500	18,700	21,600	24,600	28,800	36,300	39,800	30,600	14,800	6,480	7,070
29	14,600	16,500	18,800	21,800	-	29,000	36,600	40,100	30,700	14,800	6,420	7,140
30	14,600	16,600	18,900	21,800	-------	29,200	36,800	40,400	30,800	14,800	6,420	7,140
31	14,600	-------	19,000	21,900	-------	29,300	-------	40,800	-------	14,200	6,350	-------
(†)	10.55	11.85	13.45	15.25	16.80	19.60	23.75	25.90	20.45	10.30	4.85	5.40
(‡)	0	+2,000	+2,400	+2,900	+2,700	+4,700	+7,500	+4,000	-10,000	-16,000	-7,850	+790

Calendar year 1958..... ‡ 0
Water year 1958-59..... ‡ -7,460

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

1067. Cedar Creek Reservoir near Roseworth, Idaho

Location.--Lat 42°13', long 114°53', near center of sec.12, T.14 S., R.13 E., just upstream from right end of dam on Cedar Creek, and 10¼ miles south of Roseworth.

Drainage area.--128 sq mi.

Records available.--April 1957 to September 1959.

Gage.--Wire-weight gage read intermittently. Altitude of gage is 5,160 ft (by barometer).

Extremes.--Maximum contents observed during year, 16,520 acre-ft Apr. 27 (gage height, 55.36 ft); minimum observed, 2,820 acre-ft Sept. 17 (gage height, 25.00 ft).
1957-59: Maximum contents observed, 20,120 acre-ft May 15, 1958; minimum observed, that of Sept. 17, 1959.

Remarks.--Reservoir is formed by earth-fill dam constructed in 1920; storage began in 1921. Total capacity, 29,930 acre-ft at 72.0 ft gage height (crest of spillway). Dead storage not known. Water is used for irrigation of lands in Roseworth tract. Since 1920 water has been diverted from Deadwood Creek (tributary of East Fork Bruneau River) and Devil Creek to House Creek which enters Cedar Creek Reservoir.

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

25.0	2,820	45.0	10,550
30.0	4,320	50.0	13,300
35.0	5,980	55.0	16,300
40.0	8,020	60.0	19,760

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-			-	-	-	-	16,410	-	-	6,670	3,680
2	-			-	-	-	-	16,380	-	-	6,510	-
3	-			-	-	14,950	15,700	-	13,770	10,450	-	-
4	-			-	-	-	-	16,300	-	-	6,320	3,490
5	-			-	-	-	-	-	13,570	-	-	-
6	-			-	-	-	-	16,170	-	10,520	6,060	-
7	-			13,300	-	-	-	-	-	-	-	-
8	-			-	-	-	-	-	13,360	10,230	-	-
9	-			13,300	-	-	-	-	-	-	-	-
10	-			-	14,420	-	-	-	-	-	-	-
11	-			-	-	-	-	-	-	9,780	5,520	-
12	-			-	-	-	-	15,600	-	-	-	-
13	10,550			-	-	-	-	-	-	-	-	-
14	-			-	-	15,210	16,290	-	-	-	-	-
15	-			-	-	-	-	15,390	12,630	9,140	5,110	-
16	-			-	-	-	16,320	-	-	-	-	-
17	-			-	-	15,300	-	15,130	-	-	-	2,820
18	-			-	-	-	-	-	-	-	-	-
19	-			-	-	-	-	-	12,200	-	4,710	-
20	-			-	-	15,280	-	14,930	-	8,380	-	-
21	-			-	-	-	-	-	-	-	-	-
22	10,790			-	-	-	-	-	11,880	-	4,420	-
23	-			13,770	-	15,340	-	-	-	-	-	-
24	-			-	-	-	16,490	-	-	7,730	-	-
25	-			-	-	15,380	-	14,450	11,470	-	4,110	-
26	-		12,990	-	-	-	-	-	-	7,490	-	-
27	-			-	14,840	-	16,520	14,290	-	7,240	-	-
28	-			-	-	-	-	-	-	-	3,960	-
29	-			-	-	-	-	14,110	-	-	-	-
30	-			-	-	-	-	-	10,810	-	3,820	-
31	-			-	-	-		-		-	-	

1070. Cedar Creek near Roseworth, Idaho

Location.--Lat 42°15', long 114°52', in SW¼ sec.31, T.13 S., R.14 E., on right bank 21 ft upstream from stock bridge, 1.7 miles downstream from Cedar Creek Dam, and 8¾ miles south of Roseworth.

Drainage area.--130 sq mi, approximately.

Records available.--May 1909 to December 1914, February to June 1916, May 1957 to September 1959.

Gage.--Water-stage recorder and artificial control. Altitude of gage is 5,050 ft (by barometer). Prior to May 1957, staff gage at site 1.8 miles upstream at different datum.

Extremes.--Maximum discharge during year, 93 cfs July 31 (gage height, 2.65 ft); no flow for long periods.
1909-16, 1957-59: Maximum daily discharge, 200 cfs (estimated) Mar. 1, 1910 (gage submerged); no flow for long periods during nonirrigation seasons.

Remarks.--Records good except those for periods of doubtful or no gage-height record and those below 5 cfs, which are poor. Flow completely regulated by Cedar Creek Reservoir (see preceding page). Several diversions for irrigation above station. Since 1920 water has been diverted from Deadwood Creek (tributary of East Fork Bruneau River) and Devil Creek to House Creek which enters Cedar Creek Reservoir.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 12 to July 2)

0.74	0	1.4	15
.8	.5	1.7	30
.9	1.9	2.0	48
1.0	3.6	2.5	80
1.2	8.5	2.6	87

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	0	0.8	0		0	0	47	55	51	70	37
2	7.4	0	.8	0		0	0	49	55	49	*39	32
3	7.4	0	.8	0		*0	0	50	50	26	71	30
4	7.4	0	.8	0		0	0	53	49	.2	69	*29
5	7.2	0	.6	0		0	0	53	49	.0	64	28
6	7.4	0	.6	0		0	0	59	50	14	61	28
7	7.4	0	.5	13		0	0	60	50	75	61	28
8	7.4	0	.2	21		0	0	61	52	78	60	28
9	7.7	0	0	12		0	0	61	55	79	59	28
10	7.7	0	0	0		0	0	61	56	78	59	28
11	7.7	0	0	0		0	0	61	56	80	58	28
12	7.7	0	0	0		0	0	61	55	80	58	28
13	4.0	0	0	0		0	0	63	55	79	57	28
14	0	.5	0	0		0	2.2	63	55	79	56	28
15	0	0	0	0		0	4.5	65	64	79	56	28
16	0	0	0	0		0	5.5	66	*63	78	58	28
17	0	0	0	0		0	9.1	66	62	77	58	16
18	0	0	0	0		8.0	9.1	67	61	76	58	3.8
19	0	0	0	0		14	9.1	67	57	76	58	3.8
20	0	9.2	0	0		18	9.1	*65	55	75	58	4.0
21	0	28	0	0		1.3	9.1	65	54	75	54	3.8
22	*0	28	0	0		.9	9.1	65	55	74	52	3.8
23	0	12	0	0		.9	9.1	65	55	73	50	4.0
24	0	0	0	0		.3	*9.1	65	59	72	48	4.0
25	0	0	0	0		*0	9.1	64	61	71	47	4.0
26	0	.5	0	0		0	9.1	64	62	69	45	4.3
27	0	0	0	0		0	9.1	62	58	67	44	4.3
28	0	.4	0	0		0	36	60	58	66	43	4.5
29	0	1.1	0	0	-	0	39	59	57	65	41	4.3
30	0	.9	0	0	-------	0	40	56	56	65	40	4.3
31	0	-------	0	0	-------	0	-------	55	-------	70	40	-------
Total	93.8	80.6	5.1	46	0	43.4	227.3	1,878	1,679	1,996.7	1,722	532.9
Mean	3.03	2.69	0.16	1.5	0	1.40	7.58	60.6	56.0	64.4	55.5	17.8
Ac-ft	186	160	10	91	0	86	451	3,720	3,330	3,960	3,420	1,060

Calendar year 1958: Max 81 Min 0 Mean 24.1 Ac-ft 17,440
Water year 1958-59: Max 80 Min 0 Mean 22.8 Ac-ft 16,470

* Discharge measurement or observation of no flow made on this day.
Note.--Doubtful or no gage-height record Oct. 14-20, Nov. 15-17, Dec. 9-19, Jan. 2 to Mar. 2; discharge estimated on basis of 3 observations of no flow and regulation at Cedar Creek Dam 1.7 miles upstream.

1120. Camas Creek at Camas, Idaho

Location.--Lat 44°00', long 112°13', in E½SE¼ sec.21, T.8 N., R.36 E., on left bank 150 ft upstream from Oregon Short Line Railroad bridge at Camas and half a mile upstream from Beaver Creek.

Drainage area.--404 sq mi, approximately.

Records available.--April 1925 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,780 ft (by barometer). Prior to Aug. 21, 1925, staff gage at site 0.1 mile downstream at different datum. Aug. 21, 1925, to Mar. 25, 1927, staff gage and Mar. 26, 1927, to Sept. 14, 1938, water-stage recorder, at site 250 ft upstream at datum 2.01 ft higher.

Average discharge.--33 years (1926-59), 28.4 cfs (20,560 acre-ft per year).

Extremes.--Maximum discharge during year, 230 cfs May 3 (gage height, 3.99 ft); no flow July 27-30, Aug. 1 to Sept. 14.
1925-59: Maximum discharge, 1,220 cfs May 2 or 3, 1952 (gage height, 6.53 ft), from rating curve extended above 510 cfs by logarithmic plotting; no flow at times in many years.

Remarks.--Records good except those below 5 cfs and those for periods of ice effect or no gage-height record, which are poor. Diversions above and below station for irrigation and stock water.

Cooperation.--Water-stage recorder inspected and two discharge measurements furnished by employees of Water District No. 66.

Revisions (water years).--WSP 813: 1935. WSP 1123: 1947. WSP 1567: Drainage area.

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

1.5	0	2.0	7.3
1.6	.2	2.1	11
1.7	.8	2.5	35
1.8	1.9	3.0	81
1.9	4.2	4.0	230

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	8.8	6.5	3.0	2.5	7.5	16	60	78	34		0
2	2.4	8.1	6.5	2.4	2.5	7.5	21	96	53	35		0
3	2.9	8.1	6.5	1.6	2.6	7.5	30	210	32	27		0
4	2.9	10	6.0	1.6	2.6	7.5	40	171	19	24		0
5	5.9	9.2	*6.0	2.1	2.7	7.5	40	115	20	24		0
6	8.1	10	6.0	2.2	2.7	7.5	35	83	25	18		0
7	8.1	10	5.5	2.3	2.8	7.5	*25	56	34	15		0
8	7.7	12	5.5	2.5	2.8	7.5	27	34	48	14		0
9	6.6	12	5.5	2.5	2.9	7.5	31	27	67	18		0
10	9.2	14	5.5	2.5	2.9	7.5	36	24	*61	*17		0
11	10	16	5.5	2.9	3.0	7.5	30	26	46	9.2		0
12	10	17	6.5	3.1	3.0	7.5	32	27	51	6.2		0
13	11	18	6.5	3.1	3.1	7.5	38	24	49	5.3		0
14	11	15	6.5	2.7	3.1	7.5	47	*23	37	4.7		0
15	11	14	6.0	2.3	3.2	7.5	73	25	30	3.7		.4
16	11	13	5.5	2.4	3.2	8.0	78	30	25	3.4		1.0
17	9.6	12	5.5	2.4	3.3	8.5	61	45	23	1.9		1.2
18	9.2	9.7	5.5	*2.4	3.4	8.5	52	70	14	.2		*2.1
19	9.2	9.0	5.5	2.2	3.7	8.5	85	116	3.7	.4	(*)	2.7
20	8.4	8.5	5.5	2.2	4.1	8.5	72	122	2.1	.4		3.2
21	8.4	8.5	5.5	2.2	4.5	9.0	80	114	1.8	.2		3.4
22	8.8	9.0	5.5	2.2	4.9	9.0	105	94	1.6	.1		3.9
23	9.2	9.5	5.5	2.2	5.4	10	133	78	.8	.1		4.7
24	9.2	9.5	5.0	2.5	6.0	10	142	68	.6	.2		5.0
25	8.8	9.0	5.0	2.5	6.7	11	139	66	.9	.3		3.4
26	9.2	8.0	4.5	2.5	*7.3	11	152	62	1.5	.1		2.9
27	9.2	7.0	4.0	2.5	7.5	11	152	57	*1.3	0		2.7
28	9.6	6.5	4.0	2.5	7.5	12	129	59	17	0		3.2
29	9.6	6.5	3.5	2.5	-	12	103	76	43	0		2.7
30	9.6	6.0	3.0	2.5	-------	12	68	87	39	0		2.4
31	*9.4	-------	3.0	2.5	-------	13	-------	91	-------	.1		-------
Total	258.6	313.9	166.5	75.0	109.9	274.5	2,052	2,236	825.3	262.5	0	44.9
Mean	8.34	10.5	5.37	2.42	3.92	8.85	68.4	72.1	27.5	8.47	0	1.50
Ac-ft	513	623	330	149	218	544	4,070	4,440	1,640	521	0	89

Calendar year 1958 : Max 550 Min 1.5 Mean 42.1 Ac-ft 30,460
Water year 1958-59 : Max 210 Min 0 Mean 18.1 Ac-ft 13,140

*Discharge measurement or observation of no flow made on this day.
Note.--Stage-discharge relation affected by ice Oct. 31 to Nov. 2, Nov. 15-17, Nov. 19 to Apr. 7 (no gage-height record Nov. 28 to Dec. 4, Dec. 6 to Feb. 25, Feb. 27 to Apr. 7; discharge estimated on basis of weather records, 3 discharge measurements, and records for Beaver Creek at Dubois and other nearby stations).

1135. Beaver Creek at Dubois, Idaho

Location.--Lat 44°11', long 112°14', in NW¼ sec.21, T.10 N., R.36 E., on left bank half a mile north of Dubois.

Drainage area.--220 sq mi, approximately.

Records available.--April 1921 to September 1959 (no winter records 1925-28, 1930).

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to May 8, 1927, staff gage at site 175 ft downstream at datum 2.08 ft lower.

Average discharge.--32 years (1921-24, 1928-29, 1931-59), 17.1 cfs (12,380 acre-ft per year).

Extremes.--Maximum daily discharge during year, 130 cfs Apr. 5, 6; no flow for long periods.

1921-59: Maximum discharge, 858 cfs Apr. 7, 1930 (gage height, 4.77 ft); no flow for long periods each year.

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

Cooperation.--Water-stage recorder inspected and one discharge measurement furnished by employees of Water District No. 66.

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

0	0	0.7	4.7
.1	.1	.8	8.2
.2	.2	1.0	18
.3	.4	1.3	38
.4	.9	1.8	82
.5	1.6	2.5	163
.6	2.7		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	8.2	5.0	1.6	1.5	9.0	30	29	32	26		*0
2	8.2	12	5.0	1.0	1.5	9.0	50	76	24	15		0
3	8.2	12	5.0	.5	1.6	9.0	70	74	21	10		0
4	8.2	12	5.0	.5	1.6	9.0	100	67	20	17		0
5	7.8	12	*4.5	.7	1.7	9.0	130	46	18	14		0
6	7.5	11	4.4	.7	1.7	9.0	130	34	18	8.7		0
7	7.5	11	4.3	1.0	1.8	9.0	*119	30	18	6.1		0
8	7.8	12	4.3	1.4	1.8	9.0	80	23	37	4.7		0
9	8.2	11	4.2	1.8	1.9	9.0	55	21	26	5.0		0
10	8.7	12	4.2	1.8	1.9	9.0	40	20	*20	4.3		0
11	8.2	12	4.1	2.2	2.0	9.0	36	18	17	*3.3		0
12	8.7	9.1	4.1	2.2	2.0	9.0	*50	16	15	2.5		0
13	8.2	13	4.0	2.2	2.1	9.0	69	15	12	2.2		0
14	8.7	11	4.0	2.0	2.2	9.0	76	*14	10	2.4		0
15	8.7	10	4.0	1.2	2.3	9.0	69	15	8.7	2.1		0
16	8.2	9.0	4.0	1.4	2.4	10	44	18	9.1	1.8		0
17	8.2	9.0	4.0	1.4	2.5	10	30	33	7.8	1.3		0
18	8.2	8.0	4.0	*1.4	2.9	10	33	41	6.1	0.9		*0
19	8.2	7.5	4.0	1.2	3.4	10	34	40	5.0	0.2	(*)	0
20	9.1	7.5	4.0	1.0	3.9	10	26	48	*5.0	0		0
21	10	7.5	4.0	.8	4.5	11	31	52	5.0	0		2.2
22	9.6	8.0	4.0	1.0	5.0	11	35	37	7.5	0		2.2
23	9.6	8.0	4.0	1.2	5.8	12	34	28	8.7	0		.1
24	10	8.0	3.7	1.4	6.6	12	31	28	6.1	0		0
25	10	7.5	3.5	1.4	8.0	13	32	24	4.5	0		0
26	10	7.0	3.2	1.5	*8.0	13	31	23	8.2	0		0
27	10	6.0	2.8	1.5	8.0	14	30	29	52	0		0
28	10	5.5	2.7	1.5	8.0	14	25	54	32	0		0
29	9.6	5.5	2.4	1.5	-	15	20	53	21	0		0
30	9.6	5.0	2.0	1.5	-------	15	20	43	33	0		0
31	*8.7	-------	1.8	1.5	-------	20	-------	40	-------	0		-------
Total	271.4	277.3	120.2	42.0	96.6	335.0	1,560	1,089	507.7	127.5	0	4.5
Mean	8.75	9.24	3.88	1.35	3.45	10.8	52.0	35.1	16.9	4.11	0	0.15
Ac-ft	538	550	238	83	192	664	3,090	2,160	1,010	253	0	8.9

Calendar year 1958 : Max 305 Min 0 Mean 30.4 Ac-ft 22,020
Water year 1958-59 : Max 130 Min 0 Mean 12.1 Ac-ft 8,790

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

Note.--Stage-discharge relation affected by ice Nov. 15 to Apr. 10. No gage-height record Nov. 16-20, Nov. 26 to Dec. 4, Dec. 14, 15, 29-31, Jan. 2-13, 17, Jan. 22 to Feb. 25, Feb. 27 to Mar. 28, Mar. 30 to Apr. 2, Apr. 4-6; discharge estimated on basis of weather records, 4 discharge measurements, and records for station at Camas and other nearby stations.

1140. Beaver Creek at Camas, Idaho

Location.--Lat 44°01', long 112°14', in NE¼ sec.21, T.8 N., R.36 E., on right bank a quarter of a mile northwest of Oregon Short Line Railroad station at Camas and three-eighths of a mile upstream from mouth.

Drainage area.--510 sq mi, approximately.

Records available.--April 1921 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer). Prior to Dec. 22, 1949, staff gages at nearby sites at present datum.

Average discharge.--38 years, 4.11 cfs (2,980 acre-ft per year).

Extremes.--Maximum discharge during year, 80 cfs Apr. 8 (gage height, 2.39 ft); no flow for most of year.
1912-59: Maximum discharge, 186 cfs Apr. 28, 1952 (gage height, 3.48 ft); no flow for long periods in each year; no flow for entire water years 1929, 1931-37, 1940.

Remarks.--Records good except those below 10 cfs, which are fair. Flow affected by irrigation diversions above Dubois, 14 miles upstream, and by heavy channel losses below Dubois.

Cooperation.--Occasional inspections of recorder furnished by employees of Water District No. 66.

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

0.86	0	1.4	9.5
.9	.3	1.6	18
1.0	1.2	1.8	28
1.1	2.4	2.0	42
1.2	4.0	2.5	85
1.3	6.2		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	0				(*)
2							0	0				
3		(*)					*0	28	(*)			
4							0	24				
5			(*)				*0	18				
6							11	5.2				
7							*55	0				
8							56	0				
9							31	0				
10							30	0	(*)	(*)		
11							24	0				
12							*26	0				
13							34	0				
14			(*)				46	*0				
15							45	0				
16						(*)	28	0				
17							24	0				
18				(*)			15	0				(*)
19							16	*0			(*)	
20							13	0				
21							6.0	0				
22							3.8	0				
23							5.5	0				
24							.9	0				
25							0	0				
26					(*)		0	0				
27							0	0				
28							0	0				
29					-	(*)	0	0				
30		(*)			-------		*0	0				
31	(*)	-------			-------		-------	0	-------			-------
Total	0	0	0	0	0	0	470.2	75.2	0	0	0	0
Mean	0	0	0	0	0	0	15.7	2.43	0	0	0	0
Ac-ft	0	0	0	0	0	0	933	149	0	0	0	0

Calendar year 1958: Max 130 Min 0 Mean 11.5 Ac-ft 8,310
Water year 1958-59: Max 56 Min 0 Mean 1.49 Ac-ft 1,080

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

1150. Mud Lake near Terreton, Idaho

Location.--Lat 43°54', long 112°21', in NE¼SE¼ sec.32, T.7 N., R.35 E., 670 ft north of mouth of Camas Creek, 4.4 miles northeast of First Owsley pumphouse, and 5½ miles northeast of Terreton.

Drainage area.--1,130 sq mi, approximately, not including Medicine Lodge Creek.

Records available.--April 1921 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,774.99 ft above mean sea level, unadjusted. Prior to Oct. 31, 1931, staff gages at or near pumphouse (now used as supplementary gage) at same datum. Oct. 31, 1931, to Sept. 30, 1954, water-stage recorder at site 2.7 miles southwest and 2 miles north of First Owsley pumphouse at same datum.

Extremes.--Maximum contents during year, 22,900 acre-ft Apr. 23, 24, 26; maximum gage height, 5.64 ft Apr. 22, 24 (affected by wind); minimum contents, 3,500 acre-ft Aug. 13 (gage height, 0.05 ft).

1921-59: Maximum contents observed, 61,660 acre-ft May 5, 1923 (gage height, 9.20 ft); practically no contents Oct. 1 to Nov. 15, 1937, due to bypassing Camas Creek (see Remarks).

Remarks.--Mud Lake is a perched body of water confined by earth dikes and fed by ground water and surface tributaries augmented by well flows and surface inflow from North Lake. For complete description of Mud Lake region, see WSP 818. Water for irrigation is diverted for lake by pumping. During low-lake stages, inflow from Camas Creek may be bypassed through Camas Creek diversion canal directly to lake outlet channel leading to First Owsley pumping plant. Bypass was not used during 1959. Other irrigation diversions are made by various means from adjacent lakes and wells and Camas Creek above lake. Area of Mud Lake is varied from time to time by changes in dikes. Figures given herein represent contents above gage height -4.0 ft. Capacity table prepared from surveys made by Geological Survey and adjusted for changes in dikes. High winds are frequent, and stage at recorder during wind does not usually represent the mean for the lake.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 63 and supplemental staff-gage readings furnished by Owsley Canal Co.

Revisions.--WSP 1567: Drainage area.

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

0	3,410	4.0	15,800
1.0	5,460	5.0	20,500
2.0	8,150	6.0	25,700
3.0	11,600		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,000	5,700	7,550	11,300	15,100	18,200	f21,000	f22,800	18,300	7,260	4,190	4,330
2	7,840	a5,700	7,640	11,400	15,200	18,200	21,100	22,700	18,300	7,290	4,150	4,410
3	7,720	a5,700	7,720	11,600	15,300	18,300	21,200	22,700	18,200	7,320	4,130	4,520
4	7,580	a5,700	7,840	f11,700	15,500	18,400	21,200	22,700	17,900	7,400	4,130	f4,600
5	7,460	5,700	7,970	a11,800	15,500	18,500	21,300	22,400	17,500	7,430	4,070	4,680
6	7,400	5,700	8,060	a12,000	15,600	18,600	21,300	22,200	17,000	7,520	4,010	4,730
7	7,320	f5,770	8,210	a12,100	15,800	18,700	21,300	22,100	16,600	7,460	3,950	4,770
8	7,180	5,850	8,340	a12,300	15,900	18,800	21,400	21,900	16,100	7,400	3,880	4,680
9	7,120	5,850	8,470	a12,400	16,000	18,900	21,600	21,500	15,500	7,290	3,760	4,770
10	6,980	5,870	8,600	a12,600	16,200	19,000	21,600	21,100	15,000	7,120	3,670	4,770
11	6,850	f5,920	8,730	a12,800	16,300	19,000	21,800	20,700	14,400	6,960	3,590	4,770
12	6,710	5,950	8,860	a13,000	16,400	19,200	21,900	20,100	13,900	6,770	3,550	4,790
13	6,560	6,000	8,990	a13,100	16,500	19,300	21,900	19,500	13,300	6,580	3,500	4,830
14	6,430	f6,020	9,120	a13,100	16,700	19,400	22,000	19,000	12,800	6,460	3,540	4,860
15	6,330	a6,020	9,250	a13,100	16,800	19,400	22,100	18,500	12,300	6,200	3,540	4,920
16	6,200	6,020	9,350	a13,200	17,000	19,500	22,100	18,000	11,900	6,000	3,590	4,920
17	6,070	6,070	9,480	a13,300	17,100	19,700	22,300	17,700	11,400	5,800	3,590	4,940
18	6,070	6,200	9,620	13,500	17,200	19,700	22,300	17,400	10,800	5,600	3,590	4,940
19	f5,950	6,300	9,760	13,600	17,300	19,800	22,400	17,300	10,500	5,510	3,700	4,970
20	5,820	6,400	9,900	13,700	17,400	19,800	22,500	17,400	10,100	5,340	3,800	f4,990
21	5,770	6,480	10,000	13,900	17,400	20,000	22,700	17,100	9,660	5,230	3,830	f4,990
22	5,770	6,580	10,100	14,000	17,500	20,100	22,600	17,300	9,280	5,100	3,840	5,010
23	5,770	6,710	10,300	14,100	17,600	20,100	22,900	17,400	8,860	4,990	3,860	5,030
24	5,770	6,790	10,400	14,200	17,700	20,300	22,800	17,500	8,470	4,810	3,910	5,080
25	5,750	6,880	10,500	14,200	17,800	20,300	22,800	f17,600	8,180	4,680	3,970	5,140
26	5,770	6,980	10,600	14,400	17,900	20,500	f22,900	17,500	7,900	4,580	4,050	f5,160
27	5,770	7,090	10,700	14,500	18,000	20,500	22,800	17,700	7,720	4,520	4,050	5,190
28	5,750	a7,200	10,800	14,600	18,100	20,600	22,800	17,700	7,520	4,410	4,090	5,190
29	5,750	a7,320	10,900	14,700	*	f20,700	f22,800	17,900	7,380	4,330	4,130	5,280
30	5,750	7,430	11,000	14,800	-------	20,900	22,600	18,000	7,260	4,270	4,210	f5,340
31	5,700	-------	11,100	14,900	-------	21,000	-------	18,200	-------	4,190	4,290	-------
(†)	1.10	1.76	2.87	3.80	4.50	5.09	5.42	4.52	1.70	0.41	0.46	0.95
(‡)	-2,420	+1,730	+3,670	+3,800	+3,200	+2,900	+1,600	-4,400	-10,940	-3,070	+100	+1,050

Calendar year 1958..... ‡ +800
Water year 1958-59..... ‡ -2,780

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents estimated on basis of supplemental staff-gage readings.
f Computed from partly estimated gage height.

1160. Medicine Lodge Creek at Ellis Ranch, near Argora, Idaho

Location.--Lat 44°17', long 122°30', in sec.7, T.11 N., R.34 E., on left bank 4 miles upstream from Middle Creek, 6½ miles southeast of Argora, and 17 miles northwest of Dubois.

Drainage area.--165 sq mi.

Records available.--October 1940 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,710 ft (from topographic map of dam sites). Prior to Nov. 16, 1940, staff gage at site 0.2 mile upstream at different datum. Nov. 16, 1940, to May 30, 1950, at site 50 ft downstream at present datum.

Average discharge.--18 years (1941-59), 42.5 cfs (30,770 acre-ft per year).

Extremes.--Maximum discharge during year, 71 cfs Mar. 15 (gage height, 2.35 ft); minimum, 10 cfs Apr. 21 (gage height, 1.40 ft).
1940-59: Maximum discharge, 229 cfs June 9, 1944 (gage height, 4.23 ft), from rating curve extended above 120 cfs by logarithmic plotting; minimum, 4.0 cfs Feb. 15, 1953, Nov. 28, 1954 (gage height, 1.24 ft).

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

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

1.4	10	2.0	44
1.6	18	2.2	59
1.8	30		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	40	33	36	36	40	41	30	47	49	38	37
2	52	41	44	19	27	41	49	41	45	48	41	37
3	52	41	44	16	39	41	47	44	47	47	38	36
4	51	41	44	16	37	38	41	41	47	44	37	36
5	51	41	*36	16	30	42	38	44	47	43	36	36
6	50	42	43	16	40	42	35	56	47	42	36	36
7	50	44	44	18	43	41	32	55	50	42	36	36
8	50	43	43	22	40	40	*30	53	47	43	35	35
9	50	43	43	28	36	39	27	52	45	42	35	35
10	50	43	42	32	40	40	25	52	*45	42	34	36
11	50	41	44	37	36	37	21	50	46	*41	34	34
12	49	41	44	50	38	40	18	50	46	41	35	34
13	49	42	41	47	30	40	17	*48	46	42	35	34
14	48	43	33	46	40	36	14	50	47	41	36	36
15	48	40	44	43	40	39	13	50	47	37	35	38
16	47	21	45	48	44	41	13	54	47	37	34	36
17	47	17	44	47	40	40	12	54	47	36	34	36
18	47	19	44	*47	39	40	11	55	47	36	36	36
19	47	21	44	45	39	39	11	56	48	36	*37	36
20	44	29	44	38	39	38	11	54	50	36	43	36
21	43	46	44	22	39	39	10	50	51	34	39	38
22	42	44	44	35	39	40	11	49	50	34	38	37
23	41	44	41	38	39	40	11	50	47	35	38	37
24	41	44	44	47	39	41	11	52	46	36	38	36
25	39	41	44	44	39	42	11	51	45	36	38	36
26	39	39	44	42	*39	43	11	51	54	36	38	36
27	40	30	44	43	40	43	11	52	54	36	37	37
28	41	29	42	42	40	40	11	51	50	36	36	37
29	41	28	30	41	-	37	12	50	52	36	36	37
30	41	26	36	42	-------	36	24	50	54	36	36	38
31	*40	-------	37	41	-------	37	-------	48	-------	37	36	-------
Total	1,432	1,104	1,293	1,104	1,067	1,232	629	1,543	1,441	1,217	1,135	1,085
Mean	46.2	36.8	41.7	35.6	38.1	39.7	21.0	49.8	48.0	39.3	36.6	36.2
Ac-ft	2,840	2,190	2,560	2,190	2,120	2,440	1,250	3,060	2,860	2,410	2,250	2,150

Calendar year 1958: Max 119 Min 17 Mean 53.7 Ac-ft 38,860
Water year 1958-59: Max 56 Min 10 Mean 39.1 Ac-ft 28,320

* Discharge measurement made on this day.

1170. Birch Creek near Reno, Idaho

Location.--Lat 44°12', long 112°57', in sec.13, T.10 N., R.29 E., on left bank 200 ft west of State Highway 28, 2.6 miles south of the Lemhi-Clark County line, 5 miles southeast of former Reno Post Office, and 35 miles west of Dubois.

Drainage area.--320 sq mi, approximately.

Records available.--September 1910 to June 1912 (published as "near Kaufman"), April 1921 to January 1923, October 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (by barometer). Prior to Oct. 1, 1950, staff gage at site half a mile downstream at different datum.

Average discharge.--11 years (1910-11, 1921-22, 1950-59), 78.9 cfs (57,120 acre-ft per year).

Extremes.--Maximum discharge during year, 93 cfs Aug. 2 (gage height, 1.66 ft); maximum gage height, 2.15 ft Nov. 17 (backwater from ice); minimum discharge, 70 cfs Mar. 22,23 (gage height, 1.47 ft), but may have been less during periods of ice effect.
1910-12, 1921-23, 1950-59: Maximum discharge, 111 cfs Mar. 24, 1956 (gage height, 1.96 ft); maximum gage height observed, 2.76 ft Jan. 19, 1957 (backwater from ice); minimum discharge recorded, 61 cfs Jan. 29, 1951; minimum gage height, 1.47 ft Jan. 30, 1956, Mar. 22, 23, 1959.

Remarks.--Records good. Small diversions for stock ranches and hay meadows above station.

Revisions (water years).--WSP 1447: 1911-12.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 26 to Sept. 30)

1.5	66
1.6	75
1.7	85
1.8	95

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	*78	80	78	79	75	75	84	81	83	81	86
2	76	78	80	b78	b79	75	77	83	81	83	82	86
3	75	78	80	b78	79	74	79	82	79	81	80	86
4	75	77	80	b78	79	74	80	81	79	80	79	86
5	75	77	*80	b79	b78	75	80	81	79	80	79	86
6	75	77	80	b80	78	75	81	81	79	81	78	86
7	75	78	80	80	78	75	80	81	82	80	78	86
8	75	77	80	79	77	74	*80	81	80	80	78	85
9	75	78	80	79	76	74	80	81	80	80	78	86
10	76	78	79	79	78	74	79	81	*80	80	78	85
11	76	78	80	80	78	b74	79	81	80	*80	77	86
12	76	77	80	80	78	74	79	81	79	80	78	86
13	76	77	80	80	b77	73	79	*81	79	80	78	87
14	76	77	b80	80	77	b73	79	80	79	79	80	88
15	76	77	b80	b80	77	73	79	81	79	79	80	87
16	77	77	80	81	77	73	79	81	79	77	80	86
17	77	b77	80	80	77	73	78	82	79	77	80	86
18	77	78	80	80	77	72	78	84	79	78	*84	86
19	78	78	80	*79	77	72	79	83	79	78	85	86
20	77	79	80	78	76	72	79	83	79	78	88	86
21	77	79	80	b79	76	72	79	83	80	78	85	86
22	77	79	80	80	76	71	79	83	79	78	85	86
23	77	79	b80	80	77	71	79	83	79	79	86	87
24	77	80	79	79	77	72	79	83	79	80	86	87
25	77	80	79	79	*77	72	80	83	79	79	86	87
26	78	80	79	79	77	73	80	83	84	79	86	88
27	78	b80	80	79	76	73	79	83	82	80	86	87
28	78	79	79	79	75	74	80	83	82	80	86	87
29	78	79	79	79	-	73	80	82	85	80	86	87
30	78	79	79	80	-------	74	81	82	84	80	86	88
31	78	-------	79	79	-------	75	-------	81	-------	81	86	-------
Total	2,372	2,345	2,472	2,458	2,163	2,274	2,375	2,542	2,404	2,468	2,545	2,592
Mean	76.5	78.2	79.7	79.3	77.2	73.4	79.2	82.0	80.1	79.6	82.1	86.4
Ac-ft	4,700	4,650	4,900	4,880	4,290	4,510	4,710	5,040	4,770	4,900	5,050	5,140

Calendar year 1958: Max 89 Min 71 Mean 77.0 Ac-ft 55,720
Water year 1958-59: Max 88 Min 71 Mean 79.5 Ac-ft 57,540

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

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1187. Little Lost River below Wet Creek, near Howe, Idaho

Location.--Lat 44°08'20", long 113°14'40", in NW¼SE¼ sec.4, T.9 N., R.27 E., on right bank at Clyde school, a quarter of a mile downstream from Wet Creek and 27 miles northwest of Howe.

Drainage area.--440 sq mi, approximately.

Records available.--January 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,880 ft (from topographic map).

Extremes.--1958: Maximum discharge recorded during period January to September, 432 cfs May 26 (gage height, 3.72 ft); minimum, 18 cfs Feb. 2 (gage height, 1.94 ft).
1958-59: Maximum discharge during water year not determined; mirimum, 15 cfs Feb. 2 (gage height, 1.82 ft).

Remarks.--Records good except those for periods of ice effect or doubtful or no gage-height record, which are poor. Diversions above station for irrigation.

Rating table, Jan. 26, 1958, to Sept. 30, 1959, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 26 to Mar. 18, 1958)

1.8	15	2.8	140
2.0	30	3.2	224
2.4	78	3.7	421

Discharge, in cubic feet per second, January to September 1958

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					29	38	47	90	300	130	68	47
2					b28	36	48	94	280	140	67	46
3					b28	36	47	100	270	130	65	50
4					28	38	47	110	290	120	64	50
5					28	41	41	125	260	110	62	49
6					28	42	46	160	250	105	59	48
7					28	45	47	190	250	*100	59	47
8				28	28	45	*49	180	280	95	59	47
9					27	39	52	175	270	89	59	52
10					27	37	54	200	250	88	60	52
11					27	36	55	230	230	83	58	52
12					27	45	58	*260	220	82	56	55
13					27	45	63	222	230	82	55	73
14					28	48	69	200	210	80	56	65
15					29	46	75	195	200	78	54	*62
16					29	41	78	190	190	73	54	59
17					33	42	83	205	210	72	54	58
18					36	43	95	225	230	71	59	56
19					35	45	92	260	245	72	62	54
20					37	41	100	284	240	69	59	54
21				30	37	48	110	322	250	71	*64	54
22					39	50	106	376	230	63	60	53
23					45	55	100	381	220	64	60	54
24					47	59	94	391	220	67	54	58
25					*58	54	89	406	230	68	53	56
26					*34	43	49	87	411	215	64	53	55
27					29	37	46	85	396	190	62	50	55
28					29	37	47	80	*400	170	58	48	55
29					30	-	49	82	370	160	59	48	54
30					29	-------	53	86	350	150	76	50	53
31		-------			28	-------	41	-------	320	-------	75	48	-------
Total					899	930	1,380	2,165	7,818	6,940	2,596	1,777	1,623
Mean					29.0	33.2	44.5	72.2	252	231	83.7	57.3	54.1
Ac-ft					1,780	1,840	2,740	4,290	15,510	13,770	5,150	3,520	3,220

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

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Doubtful or no gage-height record Jan. 1-25, Apr. 18 to May 12, May 17-19, May 28 to July 7; discharge estimated on basis of weather records, 3 discharge measurements, and records for station near Howe and stations on upper Big Lost River.

1187. Little Lost River below Wet Creek, near Howe, Idaho--Continued

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	*49	25	b23	b24	39	54	62	83	95	52	52
2	50	49	26	b23	b24	38	64	65	86	90	54	52
3	49	56	27	b21	b24	40	68	62	98	88	52	*49
4	49	56	28	b21	25	39	68	62	109	85	50	46
5	48	56	b26	b24	b25	40	71	60	117	80	49	48
6	47	55	*25	b24	b25	42	75	59	126	78	48	47
7	47	60	27	b24	26	45	60	58	149	72	48	45
8	45	58	28	b24	26	43	58	58	145	75	48	43
9	46	58	28	b24	b25	41	52	60	*138	70	48	43
10	46	56	27	b24	b25	43	56	60	137	67	48	45
11	46	49	27	b24	27	42	58	60	128	64	50	45
12	46	45	28	b25	b26	45	58	*62	130	*60	50	45
13	47	55	b27	b26	b26	45	*58	60	145	62	50	45
14	48	59	b25	b25	b26	41	55	63	160	60	50	55
15	48	38	b25	b24	b27	43	52	78	175	59	49	72
16	47	b30	b26	b25	28	49	47	94	165	60	49	54
17	48	b27	27	b24	28	49	53	100	155	63	49	47
18	48	b26	29	b25	28	49	49	95	150	63	50	*47
19	48	b26	25	*b25	28	49	50	95	150	63	52	50
20	49	b27	25	b24	28	48	49	91	160	60	62	53
21	47	28	25	b23	28	47	50	86	150	62	55	53
22	49	29	25	b23	30	47	52	83	140	59	54	53
23	49	33	b24	b24	30	48	53	85	130	56	53	53
24	52	37	b24	24	31	48	53	85	125	62	53	52
25	52	34	25	23	*33	49	54	80	125	63	54	50
26	52	b30	b24	b23	34	49	54	80	135	62	58	53
27	52	b27	24	24	35	50	55	85	130	60	55	56
28	49	b24	25	24	36	52	53	92	120	55	55	55
29	49	b25	b24	b24	-	52	53	88	115	53	54	53
30	47	b25	b24	b24	-------	52	54	88	105	52	52	54
31	45	-------	b24	b24	-------	52	-------	83	-------	50	52	-------
Total	1,497	1,227	799	739	778	1,416	1,686	2,339	3,981	2,048	1,603	1,513
Mean	48.3	40.9	25.8	23.8	27.8	45.7	56.2	75.5	133	66.1	f1.7	50.4
Ac-ft	2,970	2,430	1,580	1,470	1,540	2,810	3,340	4,640	7,900	4,060	3,180	3,000

Calendar year 1958: Max 411 Min 24 Mean 81.2 Ac-ft 58,800
Water year 1958-59: Max 175 Min 21 Mean 53.8 Ac-ft 38,920

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Doubtful or no gage-height record June 13 to July 11; discharge estimated on basis of records for station near Howe and stations on upper Big Lost River.

1190. Little Lost River near Howe, Idaho

Location.--Lat 43°53', long 113°06', in sec.3, T.6 N., R.28 E., on left bank a quarter of a mile upstream from diversion dam of Blaine County Investment Co. and 7 miles northwest of Howe.

Drainage area.--703 sq mi (revised).

Records available.--April 1921 to September 1959 (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,020 ft (by barometer). Prior to Sept. 2, 1938, staff gage at site 120 ft downstream at datum 1.39 ft higher.

Average discharge.--19 years (1940-59), 70.0 cfs (50,680 acre-ft per year).

Extremes.--Maximum discharge during year, 169 cfs June 20 (gage height, 3.66 ft); maximum gage height recorded, 4.50 ft Jan. 8 (ice jam); minimum daily discharge, 29 cfs Jan. 3; minimum gage height, 2.55 ft Jan. 21, Feb. 2.
1921-59: Maximum discharge, about 450 cfs Aug. 11, 1936 (gage height, 3.1 ft, datum then in use, from floodmark), from rating curve extended above 320 cfs; maximum gage height recorded, 6.63 ft Jan. 23, 1957 (ice jam); minimum discharge observed, 4.1 cfs Dec. 12, 1940.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above and below station for irrigation of about 11,900 acres.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 9.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 13-30)

2.5	26	3.6	148
2.8	52	4.0	206
3.2	96		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	*74	39	37	b37	44	72	91	104	111	71	71
2	81	77	40	b32	b37	45	74	98	108	103	77	*70
3	80	82	40	b29	b38	47	90	95	114	100	75	71
4	78	78	41	b30	38	46	106	94	118	98	74	71
5	76	75	b40	b33	b38	47	104	92	121	97	73	73
6	75	75	*42	b36	b37	48	104	91	124	92	69	73
7	75	80	40	b36	40	51	97	89	137	90	66	71
8	73	80	41	a36	40	53	94	89	145	92	65	70
9	74	80	40	a36	b40	53	88	89	*142	91	66	71
10	74	78	41	a36	40	55	92	91	141	88	66	77
11	74	75	41	a37	41	57	91	92	140	84	66	77
12	70	70	42	a39	b38	64	91	*90	140	80	66	75
13	71	74	b41	a40	b39	69	*91	90	142	*82	66	78
14	72	80	b41	a37	b39	65	90	92	152	81	69	83
15	73	69	b41	a36	b39	66	88	101	155	77	72	89
16	72	48	b42	a36	39	78	86	111	152	76	71	89
17	73	b38	40	a36	40	80	91	122	147	77	69	80
18	73	b35	b40	a36	39	72	91	121	142	77	69	74
19	72	b31	39	*36	39	71	89	121	141	75	74	75
20	75	39	39	b35	39	68	89	118	147	73	81	76
21	73	41	40	b35	39	72	88	114	140	73	81	74
22	74	40	40	b35	39	74	88	111	133	73	76	74
23	77	41	40	b36	40	74	89	112	125	72	72	74
24	81	46	41	36	39	73	89	113	120	71	72	75
25	78	44	40	36	*40	72	89	111	117	74	72	74
26	78	b42	b40	36	41	72	86	108	126	72	74	76
27	77	b37	41	36	41	71	88	112	129	74	74	81
28	76	b34	b39	36	42	73	86	114	124	73	71	82
29	75	b36	b40	36	-	73	88	114	125	73	72	83
30	73	b37	42	b36	-------	74	85	112	124	70	71	84
31	73	-------	40	37	-------	72	-------	109	-------	69	72	-------
Total	2,324	1,736	1,253	1,104	1,098	1,979	2,694	3,207	3,975	2,538	2,212	2,291
Mean	75.0	57.9	40.4	35.6	39.2	63.8	89.8	103	132	81.9	71.4	76.4
Ac-ft	4,610	3,440	2,490	2,190	2,180	3,930	5,340	6,360	7,880	5,030	4,390	4,540

Calendar year 1958: Max 227 Min 28 Mean 84.3 Ac-ft 61,010
Water year 1958-59: Max 155 Min 29 Mean 72.4 Ac-ft 52,380

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

1195. Blaine County Investment Co.'s canal near Howe, Idaho

Location.--Lat 43°53', long 113°05', in NW¼NW¼ sec.11, T.6 N., R.28 E., on left end of weir, 900 ft downstream from headgates and 7 miles northwest of Howe.

Records available.--April 1924 to September 1959 (prior to 1939, irrigation seasons only).

Gage.--Staff gage and Cippoletti weir; gage read once daily. Prior to June 25, 1927, staff gage at site 700 ft upstream at different datum. June 26, 1927, to May 6, 1945, staff gage at site 180 ft upstream at present datum.

Extremes.--1924-59: Maximum daily discharge, 102 cfs June 9, 1958; no flow for long periods each year.

Remarks.--Records good. Canal diverts from Little Lost River in sec.2, T.6 N., R.28 E., for irrigation of lands in project of Blaine County Investment Co.

Cooperation.--Gage readings furnished by Water District No. 9.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	*4.8				0	22	8.9	34	25	5.0	7.9
2	0	0				0	25	9.3	31	20	5.4	*7.6
3	4.9	0				0	32	9.3	34	18	3.8	7.6
4	7.9	0				0	44	9.3	37	16	0	7.6
5	7.9	0				0	52	9.3	38	15	0	7.9
6	7.9	0	(*)			0	53	9.3	40	13	0	7.9
7	7.9	0				0	53	8.9	44	12	0	7.9
8	7.9	0				0	48	8.9	53	10	0	7.9
9	7.9	0				0	50	8.9	*54	10	0	7.9
10	7.3	0				0	54	8.9	53	8.9	.7	7.9
11	6.9	0				0	52	9.3	54	7.9	6.9	8.2
12	6.9	0				0	47	*9.3	53	7.2	6.9	2.7
13	6.9	0				0	*45	9.3	51	*7.2	6.9	0
14	6.9	0				0	45	9.3	53	7.2	6.9	0
15	6.9	0				0	40	12	57	7.2	6.9	0
16	6.9	0				0	38	16	57	7.2	7.2	0
17	7.5	0				0	34	26	55	7.2	7.2	0
18	7.9	0				0	32	33	56	6.9	7.2	0
19	7.9	0		(*)		0	31	36	51	6.2	7.2	0
20	7.9	0				0	24	38	49	5.9	7.2	6.4
21	8.2	0				0	14	32	48	5.9	7.2	9.3
22	9.5	0				0	10	32	44	5.6	7.2	9.3
23	10	0				0	9.7	35	39	5.6	7.2	10
24	10	0				0	9.3	35	31	5.6	2.4	10
25	10	0			(*)	0	9.3	34	26	5.6	0	11
26	10	0				0	9.3	34	28	5.6	0	11
27	10	0				0	9.3	34	31	4.5	0	13
28	10	0				0	8.9	36	29	3.9	0	13
29	10	0			-	0	8.9	39	28	4.2	0	14
30	10	0			-------	0	8.9	37	28	4.4	0	15
31	10	-------			-------	13	-------	37	-------	4.7	2.6	-------
Total	239.9	4.8	0	0	0	13	918.6	674.2	1,286	273.6	112.0	211.0
Mean	7.74	0.16	0	0	0	0.42	30.6	21.7	42.9	8.83	3.61	7.03
Ac-ft	476	9.5	0	0	0	26	1,820	1,340	2,550	543	222	419

Calendar year 1958: Max 102 Min 0 Mean 18.9 Ac-ft 13,670
Water year 1958-59: Max 57 Min 0 Mean 10.2 Ac-ft 7,410

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

1200. Big Lost River at Wild Horse, near Chilly, Idaho

Location.--Lat 43°56', long 114°07', in sec.17, T.7 N., R.20 E., on right bank a quarter of a mile upstream from East Fork Big Lost River, 2 miles downstream from Wild Horse damsite, and 16 miles southwest of Chilly.

Drainage area.--114 sq mi.

Records available.--March 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,820 ft (from topographic map).

Average discharge.--15 years, 102 cfs (73,840 acre-ft per year).

Extremes.--Maximum discharge during year, 462 cfs June 14 (gage height, 3.85 ft); minimum, 9.6 cfs Mar. 15 (gage height, 1.15 ft).
1944-59: Maximum discharge, 1,270 cfs May 24, 1956 (gage height, 6.18 ft); minimum, 7.1 cfs Mar. 2, 1957 (gage height, 1.08 ft).

Remarks.--Records good.

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

1.3	14	3.0	210
1.5	26	3.5	350
2.0	63	4.0	510
2.5	119		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	*27	25	21	20	18	19	98	95	147	64	36
2	33	28	25	18	18	18	25	92	128	142	64	36
3	33	29	25	16	21	19	31	78	188	142	57	35
4	33	31	24	17	21	19	38	73	255	136	52	34
5	32	30	21	19	19	18	44	69	300	128	49	34
6	32	30	*25	18	20	18	47	66	382	130	46	34
7	32	31	25	19	21	19	*41	65	404	125	45	34
8	32	30	24	b20	19	18	38	69	331	111	44	32
9	32	32	24	21	18	18	34	81	*297	103	42	32
10	32	34	24	22	b19	18	34	86	268	103	41	32
11	32	30	25	22	b20	18	36	84	255	103	40	31
12	31	28	25	21	b19	19	39	92	328	104	39	31
13	31	31	19	21	b19	19	42	125	408	105	39	32
14	30	30	19	18	21	18	44	174	436	*106	39	43
15	30	26	22	18	b20	17	44	182	414	103	37	146
16	30	24	b23	21	b20	19	42	203	366	98	36	89
17	30	22	b24	20	b20	19	41	170	363	90	34	71
18	30	24	24	21	b19	18	40	144	353	85	*36	67
19	31	26	24	*18	b19	18	39	125	353	83	36	77
20	31	27	24	20	19	17	38	*111	334	77	49	76
21	30	27	24	17	18	18	38	99	350	75	50	72
22	28	27	22	21	19	18	39	92	347	72	45	67
23	28	27	19	21	19	18	41	85	315	69	42	63
24	29	27	21	21	19	18	45	84	291	68	40	60
25	29	23	22	20	19	18	54	85	271	68	40	57
26	29	22	20	19	19	18	56	86	288	66	41	57
27	30	21	21	21	18	18	54	93	224	65	39	57
28	29	21	20	21	*19	18	52	93	184	62	36	55
29	28	23	19	19	-	18	53	88	176	57	36	53
30	27	24	23	18	------	18	65	86	163	53	36	52
31	27	------	23	21	------	18	------	85	------	53	36	------
Total	944	812	705	610	542	563	1,253	3,163	8,867	2,929	1,330	1,595
Mean	30.5	27.1	22.7	19.7	19.4	18.2	41.8	102	296	94.5	42.9	53.2
Cfsm	0.267	0.238	0.199	0.173	0.170	0.160	0.367	0.895	2.60	0.829	0.376	0.467
In.	0.31	0.26	0.23	0.20	0.18	0.18	0.41	1.03	2.89	0.96	0.43	0.52
Ac-ft	1,870	1,610	1,400	1,210	1,080	1,120	2,490	6,270	17,590	5,810	2,640	3,160

Calendar year 1958: Max 1,100 Min 18 Mean 120 Cfsm 1.05 In. 14.33 Ac-ft 87,190
Water year 1958-59: Max 436 Min 16 Mean 63.9 Cfsm 0.561 In. 7.60 Ac-ft 46,250

Peak discharge (base, 300 cfs).--June 7 (7 a.m.) 424 cfs (3.71 ft); June 14 (2:30 a.m.) 462 cfs (3.85 ft).

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

1205. Big Lost River at Howell Ranch, near Chilly, Idaho

Location.--Lat 44°00', long 114°02', in sec.30, T.8 N., R.21 E., on left bank at Howell Ranch, 1¼ miles downstream from Burnt Creek, 6 miles downstream from East Fork, 9 miles southwest of Chilly, and 21 miles northwest of Mackay.

Drainage area.--450 sq mi.

Records available.--April 1904 to November 1914, May 1920 to September 1959 (no winter records 1904, 1906-14, 1920-48).

Gage.--Water-stage recorder. Datum of gage is 6,621.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Apr. 20, 1906, staff gage at site 1¼ miles downstream at different datum. Apr. 20, 1906, to June 6, 1912, staff gage at site 100 ft downstream at different datum. June 7, 1912, to Nov. 14, 1914, staff gage at present site at datum 2.07 ft lower. May 11 to June 16, 1920, staff gage at present site and datum.

Average discharge.--12 years (1904-5, 1948-59), 304 cfs (220,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,670 cfs June 14 (gage height, 3.77 ft); minimum not determined.
1904-14, 1920-59: Maximum discharge, 3,960 cfs June 26, 1954 (gage height, 6.00 ft), caused by cloudburst on Wild Horse Creek; minimum observed, 19 cfs (discharge measurement) Dec. 12, 1939.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are poor. No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 cfs) diverts a quarter of mile downstream.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Revisions.--WSP 1287: Drainage area.

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

Oct. 1 to Dec. 31		Jan. 1 to Sept. 30			
1.3	92	1.1	61	2.5	555
1.5	132	1.4	115	3.0	900
		1.7	193	3.5	1,370
		2.0	300	4.0	1,940

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	92					68	280	254	440	148	97
2	121	95					84	261	357	420	159	93
3	121	103					100	229	525	420	148	91
4	119	105					120	199	701	395	131	86
5	117	103		64			130	184	876	352	122	86
6	114	101	(*)				140	176	1,170	366	117	88
7	114	105					*124	167	1,350	348	113	88
8	114	103	76		66		120	173	1,020	296	111	86
9	114	106					103	196	*860	277	107	82
10	114	119					105	212	813	284	105	81
11	114	105					105	209	771	292	103	79
12	114	95					113	225	1,030	296	101	82
13	114	106					133	309	1,450	296	99	86
14	112	105					138	484	1,510	*292	99	126
15	110	90				65	129	507	1,380	284	95	468
16	110						115	585	1,090	269	93	277
17	110						109	473	1,140	250	90	212
18	108						107	400	1,020	239	*91	190
19	110			(*)			107	348	1,020	236	95	215
20	110			68			103	*317	948	215	151	225
21	105						107	280	1,010	199	176	212
22	100				64		115	257	980	193	138	193
23	105	88	73				117	247	876	184	122	181
24	106						129	239	792	178	113	176
25	105						161	236	757	184	111	173
26	105						167	236	876	170	111	170
27	105						154	243	660	170	107	167
28	105				(*)		143	254	555	161	101	164
29	100				-		143	243	507	148	99	161
30	95				-------		176	236	490	138	97	159
31	*90	-------	-------	-------	-------	-------	232	-------	-------	131	99	-------
Total	3,402	2,853	2,308	2,068	1,822	2,015	3,665	8,637	26,788	8,123	3,552	4,594
Mean	110	95.1	74.5	66.7	65.1	65	122	279	893	262	115	153
Ac-ft	6,750	5,660	4,580	4,100	3,610	4,000	7,270	17,130	53,130	16,110	7,050	9,110

Calendar year 1958: Max 3,120 Min - Mean 392 Ac-ft 283,500
Water year 1958-59: Max 1,510 Min - Mean 191 Ac-ft 138,500

Peak discharge (base, 900 cfs).--June 7 (6 a.m.) 1,470 cfs (3.59 ft); June 14 (4 a.m.) 1,670 cfs (3.77 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Oct. 21, 22, Oct. 29 to Nov. 2, Nov. 11, 12, Nov. 15 to about Mar. 15. No gage-height record Dec. 7 to Apr. 6; discharge estimated on basis of 5 discharge measurements, weather records, and records for station at Wild Horse and other nearby streams.

1235. Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho

Location.--Lat 43°58'20", long 113°43'50", in NW¼ sec.4, T.7 N., R.23 E., on right bank above maximum flow line of reservoir, 3 miles upstream from Mackay Dam and 7½ miles northwest of Mackay.

Records available.--May 1919 to November 1959 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 6,061.80 ft above mean sea level, unadjusted. Prior to Sept. 22, 1934, at site 550 ft upstream at different datum (datum raised 1 ft Apr. 20, 1920). Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--40 years, 72.1 cfs (52,200 acre-ft per year).

Extremes.--1958-59: Maximum discharge during water year, 604 cfs June 14 (gage height, 4.92 ft); no flow for many days.
1959: Maximum daily discharge during period October to November, 8 cfs Oct. 19-24; no flow Oct. 9-12.
1919-59: Maximum discharge, 1,360 cfs June 7, 8, 1952; maximum gage height, 5.97 ft July 2, 1957 (backwater from Mackay Reservoir); no flow for long periods in many years.

Remarks.--Records good prior to December 1958, fair thereafter. Diversions above station for irrigation. See page 98 for total surface inflow to Mackay Reservoir. Zollinger ditch, on left bank, sometimes carries water past station but flow was negligible for current year.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Revisions (water years).--WSP 1287: 1919-21.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	14	10	5		2.2		1.6	0	55	6.6	0
2	22	14	10	3		*2.2		1.8	0	73	7.1	0
3	22	16	10	2				1.6	0	66	6.8	0
4	22	14	10	2				1.6	0	61	6.3	0
5	22	14	10		2.5		2.2	1.5	0	54	6.1	0
6	22	14	10					1.4	103	49	5.8	0
7	22	14	10					1.1	291	44	5.6	0
8	22	14	*10				*2.2	1.1	*264	33	5.4	0
9	22	13					2.4	1.1	258	26	5	0
10	22	13					2.2	.6	*247	23	5	0
11	22	12		2.5			2.2	.2	231	21	4.5	0
12	22	12			2.0		2.2	0	303	19	4	0
13	22	12					2.0	0	443	*19	3	0
14	20	12					2.2	0	525	15	1	0
15	22	12	10				2.4	0	551	14	.5	5
16	24	12					2.6	0	443	13	.3	25
17	24	12		*2.6		2.2	2.9	0	426	12	0	15
18	24	11					2.9	0	426	11	*0	10
19	24	11					3.2	*0	405	10	0	8
20	22	11					2.9	0	351	9.8	1.3	8
21	22	11					2.9	0	365	9.2	1.0	7
22	20	11	9		2.2		3.2	0	365	8.6	0	7
23	20	11	8				2.9	0	303	7.9	0	6
24	20	11					2.9	0	240	7.6	0	6
25	18	11		2.5			2.4	0	208	7.3	0	5
26	18	11					1.8	0	240	7.3	0	5
27	18	11	7				1.5	0	213	7.3	0	4
28	16	11					1.2	0	185	6.8	0	3.8
29	16	10					1.2	0	138	6.8	0	3.0
30	16	10			-------		1.4	0	118	6.6	0	2.8
31	*16	-------			-------		-------	0	-------	6.3	0	-------
Total	646	365	283	79.6	62.6	68.2	69.1	13.6	7,622	746.5	75.3	120.6
Mean	20.8	12.2	9.13	2.57	2.24	2.20	2.30	0.44	254	24.1	2.43	4.02
Ac-ft	1,280	724	561	158	124	135	137	27	15,120	1,480	149	239

Calendar year 1958: Max 952 Min 0 Mean 115 Ac-ft 83,020
Water year 1958-59: Max 551 Min 0 Mean 27.8 Ac-ft 20,130

* Discharge measurement or observation of no flow made on this day.
Note.--No gage-height record Nov. 27-29, Dec. 1-6, 9-13, Dec. 15 to Jan. 16, Jan. 18 to Mar. 1, Mar. 3 to Apr. 7, Aug. 10-16, Aug. 30 to Sept. 26; discharge estimated on basis of observer's notes, 4 discharge measurements, 1 observation of no flow, records for nearby and upstream stations, weather records, and recorded range in stage.

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	3.0	7.6	7	2.6	7.6	13	2	7.3	19	8	-	25	7.9	-
2	2.6	7.3	8	1.4	7.6	14	4	7.3	20	8	-	26	7.6	-
3	.4	7.3	9	0	7.6	15	6	7.3	21	8	-	27	7.6	-
4	.7	7.3	10	0	7.6	16	6	-	22	8	-	28	7.6	-
5	*.1	7.3	11	0	7.6	17	7.5	-	23	8	-	29	7.6	-
6	.9	7.6	12	0	7.3	18	7.9	-	24	8	-	30	7.6	-
												31	7.6	-
Total													146.6	-
Mean													4.73	-
Runoff in acre-feet													291	-

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 12-17, 19-24, 27-31, Nov. 3-7, 9-14; discharge estimated or interpolated on basis of weather records and records for nearby stations.

1240. Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho

Location.--Lat 43°58'10", long 113°44'00", in NW¼ sec.4, T.7 N., R.23 E., on left bank 3 miles upstream from Mackay Dam and 7½ miles northwest of Mackay.
Records available.--May 1919 to November 1959 (discontinued).
Gage.--Water-stage recorder. Datum of gage is 6,062.38 ft above mean sea level, unadjusted. Prior to May 14, 1938, water-stage recorder at site 200 ft upstream at different datums. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from Mackay Reservoir.
Average discharge.--40 years, 58.5 cfs (42,350 acre-ft per year).
Extremes.--1958-59: Maximum discharge during water year, 230 cfs June 14 (gage height, 3.35 ft); minimum, 8.5 cfs May 31, June 1 (gage height, 2.10 ft).
1959: Maximum discharge during period October to November, 26 cfs Oct. 9 (gage height, 2.33 ft); minimum, 20 cfs Nov. 5-16; minimum gage height, 2.27 ft Nov. 6-16.
1919-59: Maximum discharge, 1,200 cfs (estimated) about June 12, 1921 (gage height, 4.45 ft, from floodmark, site and datum then in use); maximum gage height, 5.61 ft July 2, 1957 (backwater from Mackay Reservoir); minimum discharge, 3.8 cfs Mar. 9, 1956 (gage height, 1.73 ft).
Remarks.--Records good. Diversions above station for irrigation. See page 99 for sum of surface inflow to Mackay Reservoir.
Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Rating tables, Oct. 1, 1958, to Nov. 16, 1959 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Oct. 31, 1958

2.2	17
2.3	24
2.4	34

Nov. 1, 1958, to Nov. 16, 1959

2.1	8.5	2.6	63
2.2	13	3.0	145
2.3	20	3.4	242
2.4	31		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	26	18	17	14	12	11	12	9.4	78	18	17
2	24	26	19	16	13	*12	12	12	9.8	69	18	17
3	24	27	19	16	13	12	11	12	9.4	72	18	17
4	23	26	19	16	13	12	11	11	9.0	69	18	17
5	23	26	19	16	13	12	11	11	10	61	18	17
6	23	26	19	16	14	12	11	11	24	54	18	17
7	23	26	19	15	14	12	11	11	72	44	20	16
8	24	26	*19	15	13	12	*11	11	130	46	18	16
9	24	26	19	15	13	11	11	10	119	51	18	16
10	25	25	19	15	13	11	11	10	*115	38	18	16
11	26	24	20	15	14	11	11	10	108	28	18	16
12	27	24	20	a15	13	11	11	9.8	115	24	18	17
13	27	24	19	a15	13	11	11	9.8	163	*24	18	18
14	27	24	18	a15	13	11	11	9.8	212	22	19	20
15	26	24	18	a15	13	11	11	9.8	217	20	18	23
16	26	23	18	a15	13	11	11	10	182	19	18	24
17	27	23	18	*15	13	11	11	10	178	18	19	23
18	26	23	18	15	13	11	11	10	187	18	*18	22
19	27	22	18	15	13	11	11	*10	180	18	19	20
20	27	20	18	15	13	11	11	10	166	17	20	22
21	27	20	18	14	13	11	11	10	161	17	19	20
22	27	20	18	14	13	11	11	9.8	159	16	18	20
23	27	20	18	14	12	11	11	9.8	143	17	18	20
24	27	20	18	14	12	11	11	10	127	17	17	20
25	27	20	18	14	12	11	11	10	121	17	17	20
26	26	20	18	14	12	11	11	10	132	17	17	22
27	27	20	18	14	12	11	11	10	130	18	16	22
28	26	20	17	14	12	11	11	11	112	16	16	23
29	26	19	17	14	-	11	11	9.4	96	16	16	23
30	25	19	17	14	-------	11	11	10	88	16	16	22
31	*25	-------	17	14	-------	11	-------	9.8	-------	16	17	-------
Total	793	689	568	461	362	349	331	320.0	3,484.6	973	554	583
Mean	25.6	23.0	18.3	14.9	12.9	11.3	11.0	10.3	116	31.4	17.9	19.4
Ac-ft	1,570	1,370	1,130	914	718	692	657	635	6,910	1,930	1,100	1,160

Calendar year 1958: Max 880 Min 9.9 Mean 87.3 Ac-ft 63,180
Water year 1958-59: Max 217 Min 9.0 Mean 25.9 Ac-ft 18,790

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated.

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	22	22	7	24	20	13	24	20	19	23	-	25	22	-
2	22	22	8	23	20	14	24	20	20	23	-	26	22	-
3	22	22	9	23	20	15	24	20	21	23	-	27	22	-
4	20	22	10	23	20	16	23	20	22	23	-	28	22	-
5	*22	20	11	23	20	17	23	-	23	23	-	29	22	-
6	23	20	12	24	20	18	23	-	24	23	-	30	22	-
												31	22	-
Total													704	-
Mean													22.7	-
Runoff in acre-feet													1,400	-

* Discharge measurement made on this day.

1245. Warm Spring Creek (east channel) near Mackay, Idaho

Location.--Lat 43°58'10", long 113°44'30", in NW¼ sec.4, T.7 N., R.23 E., on left bank 700 ft upstream from confluence with west channel and 7½ miles northwest of Mackay.

Records available.--May 1919 to November 1959 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 6,064.60 ft above mean sea level, unadjusted. Prior to May 3, 1920, staff gage at site 100 ft downstream at different datum. May 3, 1920, to Dec. 2, 1938, staff gage at site 200 ft downstream at datum 0.26 ft lower. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--40 years, 32.2 cfs (23,310 acre-ft per year).

Extremes.--1958-59: Maximum discharge during water year, 103 cfs June 14 (gage height, 2.56 ft); minimum, 30 cfs July 19, 23, Sept. 10,11; minimum gage height, 1.61 ft Sept. 10, 11.
1959: Maximum discharge during period October to November, 39 cfs Oct. 9 (gage height, 1.78 ft); minimum, 32 cfs Oct. 28, 29, 30, 31 (gage height, 1.67 ft).
1919-59: Maximum discharge, 285 cfs May 24, 1958; maximum gage height, 4.38 ft June 27, 1954; minimum discharge, 5.2 cfs Apr. 16, 1955 (gage height, 1.35 ft).

Remarks.--Records good. Major portion of flow is return from irrigation, seepage from river channel upstream, and discharge of large spring. See page 99 for sum of surface inflow to Mackay Reservoir.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	40	a40	43	40	38	38	35	37	51	32	32
2	37	39	a40	43	40	*38	38	36	37	48	32	32
3	37	39	a40	42	40	39	38	34	36	51	32	32
4	38	40	a41	42	40	39	38	34	36	49	32	32
5	38	40	a41	42	40	39	39	34	39	47	32	32
6	38	40	a41	42	40	39	38	34	51	45	32	32
7	38	42	41	42	39	39	38	34	67	43	32	32
8	38	41	*41	42	39	38	*38	34	80	45	32	32
9	38	41	41	42	39	38	37	34	78	45	32	31
10	38	42	41	42	39	38	37	34	*76	40	32	31
11	37	42	42	42	39	37	37	34	75	36	32	31
12	37	42	42	42	39	38	36	33	75	32	32	32
13	37	42	41	42	39	38	35	32	90	*32	32	32
14	37	42	41	42	39	38	34	32	99	32	36	34
15	37	42	42	42	39	37	34	33	98	32	35	34
16	38	42	44	42	39	37	34	33	88	32	34	35
17	39	42	44	*42	38	37	34	34	83	32	35	34
18	39	42	45	42	39	37	34	34	84	32	*35	34
19	40	42	45	42	39	37	34	*34	83	31	36	34
20	41	42	45	42	38	37	34	33	80	31	37	34
21	41	42	45	41	38	39	34	34	80	32	36	34
22	42	42	44	40	38	39	34	34	79	32	34	34
23	42	42	43	40	38	39	34	34	75	32	34	34
24	42	42	43	41	38	38	34	34	70	32	34	34
25	42	41	44	41	38	38	34	34	67	32	34	34
26	41	40	44	41	38	38	34	34	71	35	34	34
27	42	40	43	41	38	38	34	35	69	36	33	37
28	41	40	44	40	38	37	34	36	63	34	32	37
29	40	40	43	40	-	38	33	34	58	34	32	36
30	40	40	43	40	-------	38	33	37	55	34	33	36
31	*40	-------	43	40	-------	37	-------	36	-------	32	33	-------
Total	1,214	1,233	1,317	1,287	1,088	1,177	1,063	1,057	2,079	1,151	1,033	1,002
Mean	39.2	41.1	42.5	41.5	38.9	38.0	35.4	34.1	69.3	37.1	33.3	33.4
Ac-ft	2,410	2,450	2,610	2,550	2,160	2,330	2,110	2,100	4,120	2,280	2,050	1,990

Calendar year 1958: Max 278 Min 37 Mean 61.4 Ac-ft 44,480
Water year 1958-59: Max 99 Min 31 Mean 40.3 Ac-ft 29,160

* Discharge measurement made on this day.

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	36	33	7	37	-	13	36	-	19	36	-	25	34	-
2	36	34	8	37	-	14	36	-	20	36	-	26	33	-
3	36	34	9	37	-	15	36	-	21	36	-	27	33	-
4	36	33	10	36	-	16	34	-	22	35	-	28	33	-
5	*37	34	11	36	-	17	34	-	23	35	-	29	33	-
6	37	34	12	36	-	18	35	-	24	34	-	30	32	-
												31	32	-
Total													1,090	-
Mean													35.2	-
Runoff in acre-feet													2,160	-

* Discharge measurement made on this day.

1250. Warm Spring Creek (west channel) near Mackay, Idaho

Location.--Lat 43°58'00", long 113°44'30", in NW¼ sec.4, T.7 N., R.23 E., on right bank 500 ft upstream from confluence with east channel and 7½ miles northwest of Mackay.

Records available.--May 1919 to November 1959 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 6,064.46 ft above mean sea level, unadjusted. Prior to May 4, 1920, at datum 0.54 ft lower. May 4, 1920, to Dec. 2, 1938, at datum 0.46 ft higher. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--40 years, 96.6 cfs (69,940 acre-ft per year).

Extremes.--1958-59: Maximum discharge during water year, 191 cfs June 14 (gage height, 2.34 ft); minimum, 70 cfs May 26 (gage height, 1.46 ft).
1959: Maximum discharge during period October to November, 134 cfs Oct. 9 (gage height, 1.92 ft); minimum, 116 cfs Oct. 31 (gage height, 1.77 ft).
1919-59: Maximum discharge, 600 cfs (estimated) Aug. 11, 1936 (gage height, 4.88 ft, present datum, from floodmark); minimum, 49 cfs Apr. 27, 1935 (gage height, 1.08 ft, present datum).

Remarks.--Records excellent except those for period of no gage-height record, which are good. Major portion of flow is return flow from irrigation, seepage from river channel upstream, and discharge of large spring. See following page for sum of surface inflow to Mackay Reservoir.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	113	108	106	102	100	98	a78	75	124	92	94
2	101	114	110	106	102	*100	98	a78	74	119	92	94
3	101	114	110	106	104	100	98	77	74	122	90	93
4	101	113	110	105	104	100	98	76	74	119	89	93
5	102	112	110	106	102	100	98	75	83	118	89	94
6	102	111	110	106	102	100	95	75	110	114	89	93
7	102	112	110	106	102	100	95	75	136	114	89	93
8	102	112	*110	105	102	100	*95	75	155	125	88	92
9	106	113	111	105	101	100	93	75	149	122	88	92
10	104	112	111	105	101	100	93	75	*150	113	88	92
11	100	111	112	105	105	99	90	75	152	102	88	94
12	101	111	111	105	105	99	87	73	150	93	88	95
13	101	111	110	105	105	99	82	73	168	92	93	98
14	101	112	110	105	105	99	82	73	182	*90	104	104
15	101	111	108	105	105	99	81	73	178	89	104	105
16	104	110	106	105	104	99	81	74	166	87	102	112
17	106	111	106	*104	102	99	80	74	163	88	101	111
18	106	111	106	105	102	99	78	74	164	88	*104	110
19	110	110	106	106	101	99	77	*74	161	87	104	111
20	116	110	105	106	101	99	80	73	159	88	106	113
21	116	110	106	106	101	98	76	73	159	87	101	113
22	118	110	105	106	101	98	76	73	159	87	98	112
23	118	110	105	105	100	98	76	73	155	86	94	111
24	117	110	105	105	100	98	76	73	148	87	94	111
25	117	110	105	104	100	98	77	73	147	88	95	111
26	117	108	104	104	100	98	77	73	149	104	95	113
27	117	108	105	104	100	98	77	73	147	105	94	122
28	114	110	106	104	100	98	a77	73	140	101	93	122
29	114	110	106	104	-	98	a77	73	134	100	93	122
30	114	110	106	104	-------	98	a77	74	129	98	94	125
31	*114	-------	106	104	-------	98	-------	74	-------	89	94	-------
Total	3,344	3,330	3,339	3,257	2,859	3,068	2,545	2,300	4,190	3,126	2,933	3,145
Mean	108	111	108	105	102	99.0	84.8	74.2	140	101	94.6	105
Ac-ft	6,630	6,600	6,620	6,460	5,670	6,090	5,050	4,560	8,310	6,200	5,820	6,240

Calendar year 1958: Max 357 Min 86 Mean 119 Ac-ft 86,150
Water year 1958-59: Max 182 Min 73 Mean 103 Ac-ft 74,250

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of adjacent records, weather records, and records for stations above Mackay Reservoir.

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	126	118	7	131	-	13	126	-	19	124	-	25	119	-
2	125	119	8	131	-	14	126	-	20	123	-	26	118	-
3	126	119	9	131	-	15	125	-	21	123	-	27	119	-
4	128	117	10	130	-	16	124	-	22	124	-	28	119	-
5	*131	118	11	129	-	17	124	-	23	123	-	29	118	-
6	131	122	12	126	-	18	124	-	24	122	-	30	117	-
												31	117	-
Total													3,860	-
Mean													125	-
Runoff in acre-feet													7,660	-

* Discharge measurement made on this day.

1255. Surface inflow to Mackay Reservoir, near Mackay, Idaho

Drainage area.--766 sq mi.

Records available.--May 1919 to November 1959 (discontinued). Prior to October 1952, published with records of Big Lost River (west channel) above Mackay Reservoir, near Mackay.

Average discharge.--40 years, 260 cfs (188,200 acre-ft per year).

Extremes.--1919-59: Maximum daily discharge, 2,760 cfs June 12, 1921; minimum daily, 75 cfs May 10-12, 1935.

Remarks.--Records good. Records are the sum of discharges obtained at gaging stations on Big Lost River (east and west channels) and Warm Spring Creek (east and west channels) above Mackay Reservoir, near Mackay. Channels are interconnected above respective gaging stations and combined flow represents practically the entire surface flow which enters Mackay Reservoir.

Revisions (water years).--WSP 1287: 1919-21.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	193	176	171	158	152	149	127	121	348	149	143
2	184	193	179	168	158	152	150	128	121	309	149	143
3	184	194	179	166	160	153	149	125	119	311	147	142
4	184	193	180	165	160	153	149	123	119	298	145	142
5	185	192	180	166	158	153	150	122	132	280	145	143
6	185	191	180	166	158	153	146	121	288	262	145	142
7	185	194	180	166	158	153	146	121	566	245	147	141
8	186	193	180	164	156	152	146	121	629	249	143	140
9	190	193	181	164	155	151	143	120	604	244	143	139
10	189	192	181	164	155	151	143	120	588	214	143	139
11	185	189	184	164	160	149	140	119	566	187	142	141
12	187	189	183	164	159	150	136	116	643	168	142	144
13	187	189	180	164	159	150	130	115	864	164	146	148
14	185	190	179	164	159	150	129	115	1,020	159	160	158
15	186	189	178	164	159	149	128	116	1,040	155	158	167
16	192	187	178	164	158	149	129	117	879	151	154	196
17	196	188	178	164	155	149	128	118	850	150	155	183
18	195	189	179	164	156	149	126	118	861	149	157	176
19	201	185	179	166	155	149	125	118	829	146	159	173
20	206	183	178	166	154	149	128	116	756	146	164	177
21	206	183	179	164	154	150	124	117	765	145	157	174
22	207	183	176	162	154	150	124	117	762	144	150	173
23	207	183	174	162	152	150	124	117	676	143	146	171
24	206	183	173	162	152	149	124	117	585	144	145	171
25	204	182	174	162	152	149	124	117	543	144	146	170
26	202	179	173	162	152	149	124	117	592	163	146	174
27	204	179	173	162	152	149	124	118	559	166	143	185
28	197	181	174	160	152	148	123	120	480	158	141	186
29	196	179	173	160	-	149	122	116	426	157	141	184
30	195	179	173	160	-------	149	122	121	390	155	143	186
31	195	-------	173	160	-------	148	-------	120	-------	143	144	-------
Total	5,997	5,617	5,507	5,080	4,370	4,656	4,005	3,693	17,373	5,997	4,595	4,851
Mean	193	187	178	164	156	150	134	119	579	193	148	162
Ac-ft	11,890	11,140	10,920	10,080	8,670	9,240	7,940	7,320	34,460	11,890	9,110	9,620

Calendar year 1958: Max 2,450 Min 136 Mean 382 Ac-ft 276,800
Water year 1958-59: Max 1,040 Min 115 Mean 197 Ac-ft 142,300

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	187	181	7	195	-	13	188	-	19	191	-	25	183	-
2	186	182	8	192	-	14	190	-	20	190	-	26	181	-
3	184	182	9	191	-	15	191	-	21	190	-	27	182	-
4	185	179	10	189	-	16	187	-	22	190	-	28	182	-
5	190	179	11	188	-	17	188	-	23	189	-	29	181	-
6	192	184	12	186	-	18	190	-	24	187	-	30	179	-
												31	179	-
Total													5,803	-
Mean													187	-
Runoff in acre-feet													11,510	-

1260. Mackay Reservoir near Mackay, Idaho

Location.--Lat 43°57', long 113°40', in sec.12, T.7 N., R.23 E., on headgate tower of dam on Big Lost River, 4 miles northwest of Mackay.

Drainage area.--788 sq mi.

Records available.--January 1919 to September 1959.

Gage.--Staff gage read once daily. Datum of gage is 6,000 ft above mean sea level, Utah Construction Co. datum, or about 6,001.2 ft above mean sea level, unadjusted.

Extremes.--Maximum contents observed during year, 35,530 acre-ft Apr. 20 (gage height, 59.70 ft); minimum observed, 232 acre-ft Sept. 13, 14 (gage height, 8.35 ft).
1919-59: Maximum contents observed, 44,710 acre-ft June 28, 1957 (gage height, 66.75 ft); no available contents during periods in 1919-20, 1924, 1926, 1929, 1931-35; minimum gage height observed, 6.3 ft Aug. 5, 1934.

Remarks.--Reservoir is formed by earth- and rock-fill dam, which was reconstructed in 1917-18; storage impounded by original dam not recorded. Crest of spillway was raised 5 ft in September 1956. Capacity is 44,370 acre-ft between gage heights 7.0 and 66.5 ft (crest of spillway). Dead storage reported to be about 125 acre-ft. Water is used for irrigation of about 33,000 acres in Big Lost River irrigation district. About 9,000 acres irrigated from Big Lost River and tributaries above reservoir. Considerable seepage around dam because of its porous foundation, but the greater part of this water returns to Big Lost River between reservoir and station below reservoir, near Mackay. Figures given herein represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Water District No. 27.

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

8.0	167	25.0	5,990	45.0	19,940
10.0	580	30.0	8,730	50.0	24,680
13.0	1,350	35.0	12,020	55.0	30,020
16.0	2,250	40.0	15,760	60.0	35,900
20.0	3,740				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,800	6,490	15,760	22,810	27,820	31,330	34,260	34,180	20,660	17,080	3,990	384
2	6,390	6,800	16,030	23,000	27,920	31,410	34,380	34,060	20,300	17,450	3,500	363
3	5,940	7,120	16,270	23,200	28,050	31,500	34,440	33,950	19,940	17,700	3,140	342
4	5,990	7,450	16,550	23,340	28,200	31,610	34,500	33,850	19,410	17,860	2,770	322
5	6,040	7,780	16,790	23,490	28,310	31,730	34,560	33,720	18,710	17,990	2,390	302
6	5,610	8,010	17,040	23,740	28,470	31,840	34,680	33,510	18,030	18,030	2,090	282
7	5,000	8,370	17,320	23,880	28,520	31,960	34,740	33,210	17,860	18,080	1,780	262
8	4,420	8,670	17,570	24,080	28,740	32,080	34,780	32,770	17,780	17,860	1,520	242
9	3,990	9,220	17,780	24,230	28,850	32,140	34,800	32,200	17,700	17,700	1,290	242
10	3,340	9,600	18,030	24,380	28,960	32,250	34,860	31,680	17,530	17,450	1,080	242
11	2,810	9,860	18,290	24,530	29,130	32,310	34,920	31,280	17,040	16,960	974	242
12	2,250	10,250	18,580	24,680	29,350	32,430	34,990	30,800	16,710	16,390	845	242
13	1,750	10,510	18,800	24,890	29,440	32,540	35,050	30,170	16,310	15,830	820	232
14	1,180	10,910	18,890	25,040	29,570	32,600	35,120	29,350	16,230	15,290	820	232
15	580	11,180	19,280	25,190	29,630	32,780	35,170	28,470	15,910	14,750	795	405
16	a363	11,460	19,500	25,350	29,800	32,840	35,230	27,600	15,760	14,290	721	405
17	960	11,740	19,720	25,550	29,960	32,890	35,290	26,860	15,440	13,920	709	405
18	1,460	12,090	19,980	25,710	30,080	33,010	35,350	26,120	15,130	13,430	709	405
19	1,780	12,310	20,210	25,890	30,190	33,110	35,470	25,300	14,820	13,030	697	405
20	2,090	12,740	20,430	26,020	30,300	33,190	35,530	24,990	14,670	12,240	974	405
21	2,390	13,070	20,610	26,120	30,470	33,270	35,520	24,680	14,290	11,640	948	403
22	2,830	13,290	20,840	26,330	30,530	33,370	35,450	24,280	14,410	10,910	922	403
23	3,140	13,620	21,070	26,430	30,700	33,480	35,380	24,080	14,480	10,280	896	403
24	3,580	13,900	21,250	26,590	30,760	33,580	35,240	23,490	14,540	9,470	870	403
25	3,910	14,200	21,440	26,750	30,870	33,660	35,050	23,290	14,690	9,100	858	405
26	4,340	14,500	21,620	26,960	30,980	33,720	34,850	22,910	14,820	7,890	845	405
27	4,730	14,750	21,860	27,070	31,150	33,780	34,680	22,520	15,290	7,120	832	448
28	5,100	14,980	22,050	27,230	31,210	33,900	34,520	22,140	15,640	6,490	820	448
29	5,420	15,290	22,240	27,390	-	34,020	34,400	21,580	16,150	5,800	795	437
30	5,820	15,520	22,430	27,470	-------	34,080	34,300	21,210	16,710	5,140	448	437
31	6,190	-------	22,620	27,620	-------	34,200	-------	21,020	-------	4,600	405	-------
(*)	25.77	39.88	48.02	52.92	56.11	58.63	58.64	45.95	41.49	21.14	9.14	9.38
(†)	6,380	15,660	22,730	27,730	31,280	34,240	34,250	20,790	16,950	4,220	392	444
(‡)	-590	+9,280	+7,070	+5,000	+3,550	+2,960	+10	-13,460	-3,840	-12,730	-3,828	+52

Calendar year 1958..... ‡ -6,760
Water year 1958-59..... ‡ -6,526

* Gage height, in feet, interpolated to midnight, at end of month.
† Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents estimated on basis of inflow-outflow study.
Note.--Daily contents as given are computed from once-daily staff-gage readings usually made between 8 and 11 a.m. Observed gage heights doubtful Oct. 20, Nov. 24-26, Apr. 21 to May 13; contents estimated on basis of inflow-outflow study.

1265. Sharp ditch near Mackay, Idaho

Location.--Lat 43°57', long 113°39', in sec.7, T.7 N., R.24 E., on left bank 1,600 ft downstream from head of ditch, three-quarters of a mile downstream from Mackay Reservoir, and 3½ miles northwest of Mackay.

Records available.--June 1912 to October 1914, March 1919 to September 1959 (seasonal records only 1912-14, 1919-20, 1923-26, 1930, 1937).

Gage.--Water-stage recorder and broad-crested weir. Datum of gage is 5,989.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1936, and June 24, 1938, to Apr. 24, 1939, staff gage and Oct. 1, 1936, to June 23, 1938, water-stage recorder, at several sites 1,300 to 1,600 ft upstream at various datums.

Extremes.--1912-14, 1919-59: Maximum daily discharge, 46 cfs May 30, 1951; no flow at times in most years.

Remarks.--Records excellent except those below 2 cfs, which are poor. Sharp ditch diverts from east side of Big Lost River in SE¼ sec.12, T.7 N., R.23 E., half a mile below Mackay Reservoir and 1 mile above station on Big Lost River below Mackay Reservoir, near Mackay. Water used for irrigation northwest of Mackay and above Streeter ditch. Hintze ditch, which diverts from Sharp ditch above station, was reported by watermaster to have carried 65 acre-ft during year (16 in June, 25 in July, 24 in August).

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	*0.4	0.2				0	14	8.5	23	20	18
2	9.0	.2	.2				0	14	12	20	23	16
3	8.2	.2	.2				0	14	15	17	22	12
4	8.0	.2	.2				0	14	16	17	20	9.9
5	7.7	.2	.2				4.9	15	16	13	22	9.9
6	9.0	.2	**.2				9.6	17	17	19	23	9.9
7	9.0	.2	.2				*9.9	15	16	8.8	21	11
8	8.8	.2	.2				9.9	9.9	19	7.4	19	12
9	8.2	.2	.2				10	8.8	*20	10	16	15
10	8.0	.2	.2				10	8.0	24	13	14	17
11	7.7	.2	.1				10	7.7	30	14	12	15
12	7.7	.2	.1				11	7.7	32	16	18	10
13	7.7	.2	.1				11	7.4	33	18	22	2.9
14	7.7	.2	.1				10	7.2	32	*18	22	2.3
15	6.2	.2	.1				10	4.4	32	16	22	3.0
16	2.0	.2	.1	(*)			9.9	1.1	29	13	22	3.1
17	.5	.2	.1				9.9	1.2	26	12	*16	3.1
18	1.8	.2	.1				9.9	4.0	28	13	10	3.1
19	1.7	.2	.1				9.9	*5.0	29	16	8.8	3.1
20	1.0	.2	.1				9.9	4.8	27	18	8.8	3.1
21	1.0	.2	.1				11	6.0	25	22	9.9	2.1
22	1.1	.2	.1				12	8.0	20	27	9.6	1.1
23	.8	.2	.1				13	8.8	15	31	8.8	1.0
24	0	.2	.1				17	8.8	14	32	12	1.0
25	.3	.2	.1				18	9.0	13	32	15	2.7
26	1.1	.2	.1				18	10	14	33	18	4.6
27	1.2	.2	.1				17	12	14	31	17	5.0
28	1.4	.2	.1		(*)		16	12	14	23	15	5.0
29	1.0	.2	.1		-		15	12	13	19	16	5.0
30	.6	.2	.1		-------		14	10	18	18	17	5.0
31	.6	-------	.1		-------		-------	8.2	-------	17	18	-------
Total	138.0	6.2	4.1	0	0	0	306.8	285.0	621.5	578.2	517.9	211.9
Mean	4.45	0.21	0.13	0	0	0	10.2	9.19	20.7	18.7	16.7	7.06
Ac-ft	274	12.3	8.1	0	0	0	609	565	1,230	1,150	1,030	420

Calendar year 1958: Max 43 Min 0 Mean 7.94 Ac-ft 5,740
Water year 1958-59: Max 33 Min 0 Mean 7.31 Ac-ft 5,300

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
Note.--No gage-height record Nov. 2 to Apr. 4; discharge interpolated or estimated on basis of 1 field estimate, 2 observations of no flow, weather records, and discharge for adjacent periods.

1270. Big Lost River below Mackay Reservoir, near Mackay, Idaho

Location.--Lat 43°56', long 113°38', in sec.18, T.7 N., R.24 E., on left bank 450 ft downstream from Oleson Suspension Bridge, 1 mile downstream from head of Sharp ditch, 1½ miles downstream from Mackay Reservoir, and 2½ miles northwest of Mackay.

Drainage area.--813 sq mi.

Records available.--December 1903 to August 1906 and May 1912 to March 1915 (published as "near Mackay"), January 1919 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,946.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to May 12, 1912, and June 5, 1912, to Apr. 28, 1913, staff gages at sites within 1 mile upstream at different datums. May 12 to June 4, 1912, staff gages at site 1½ miles upstream (above Sharp ditch) at different datums. Apr. 29, 1913, to Mar. 15, 1915, staff gage at site 1 mile downstream (below Streeter ditch) at different datum.

Average discharge.--43 years (1904-5, 1912-14, 1919-59), 282 cfs (204,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,110 cfs June 14 (gage height, 3.70 ft); minimum, 37 cfs Oct. 17 (gage height, 1.38 ft).
1903-6, 1912-15, 1919-59: Maximum discharge, 2,990 cfs June 10, 1921 (gage height, 5.79 ft); minimum, 18 cfs Nov. 1, 1934; minimum gage height, 1.23 ft Nov. 5-8, 1926.

Remarks.--Records excellent. Sharp ditch (see preceding page) is only diversion between station and reservoir; about 9,000 acres of land are irrigated by diversions from river and tributaries above reservoir. Flow regulated by Mackay Reservoir (see p. 99).

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Revisions (water years).--WSP 1347: 1904-6.

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

Oct. 1-31				Nov. 1 to Sept. 30			
1.4	33	2.3	266	1.4	40	2.5	380
1.5	44	2.9	555	1.7	93	3.0	660
1.8	100			2.0	174	3.7	1,110

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	425	55	69	95	112	122	120	200	312	222	430	174
2	440	55	71	95	112	122	120	204	350	233	405	171
3	321	54	73	98	112	122	120	190	410	237	375	174
4	204	50	73	98	112	122	120	187	441	240	355	174
5	303	50	73	98	112	122	120	200	463	303	335	174
6	516	49	73	100	112	125	120	237	480	326	316	174
7	494	44	75	100	112	125	120	285	534	330	298	171
8	484	43	*77	103	112	125	120	355	690	375	273	168
9	489	43	77	103	112	125	*120	425	*759	415	256	162
10	494	43	79	103	112	125	120	400	766	441	240	159
11	494	43	81	103	115	125	120	335	772	480	226	162
12	478	44	81	103	112	125	120	375	818	485	207	171
13	472	44	81	105	112	125	120	452	915	*463	194	181
14	445	44	83	105	112	125	120	534	1,030	441	190	190
15	346	52	83	105	115	125	117	594	1,080	410	190	200
16	142	60	83	105	115	125	117	564	1,010	370	190	204
17	60	64	83	*105	115	125	117	512	934	385	*190	204
18	104	55	83	105	117	125	117	*490	934	400	197	204
19	76	57	87	105	117	128	117	468	928	446	181	204
20	82	60	87	105	117	125	117	370	902	507	171	207
21	85	60	89	107	117	125	147	303	804	507	200	207
22	87	62	89	107	117	125	174	290	772	507	207	207
23	75	64	89	107	117	125	171	321	690	524	204	204
24	42	64	89	107	117	125	204	340	612	512	207	200
25	43	64	91	107	120	125	233	350	558	540	207	200
26	43	64	91	110	120	125	233	355	485	564	194	200
27	44	66	93	110	120	125	218	355	405	546	187	204
28	46	68	93	110	*120	128	211	355	390	529	181	207
29	49	69	93	110	-	126	197	350	281	518	187	211
30	50	69	93	110	-------	128	184	321	218	496	194	214
31	*52	-------	93	110	-------	122	-------	294	-------	474	181	-------
Total	7,485	1,659	2,575	3,234	3,215	3,869	4,354	11,011	19,743	13,226	7,368	5,682
Mean	241	55.3	83.1	104	115	125	145	355	658	427	238	189
Ac-ft	14,850	3,290	5,110	6,410	6,380	7,670	8,640	21,840	39,160	26,230	14,610	11,270

Calendar year 1958: Max 2,490 Min 42 Mean 414 Ac-ft 299,500
Water year 1958-59: Max 1,080 Min 42 Mean 229 Ac-ft 165,500

* Discharge measurement made on this day.

1325. Big Lost River near Arco, Idaho

Location.--Lat 43°35', long 113°16', near line between secs. 17 and 20, T.3 N., R.27 E., on right bank a quarter of a mile downstream from head of box canyon, 0.4 mile downstream from slough entering from left bank, and 4 miles southeast of Arco.

Drainage area.--1,410 sq mi, approximately.

Records available.--August 1946 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,240 ft (by barometer). Prior to Oct. 14, 1952, at site 800 ft upstream at datum 3.08 ft higher.

Average discharge.--13 years, 73.0 cfs (52,850 acre-ft per year).

Extremes.--Maximum discharge during year, 366 cfs Oct. 14 (gage height, 4.92 ft); minimum, 0.9 cfs Aug. 17 (gage height, 2.10 ft).
1946-59: Maximum discharge, 1,190 cfs June 1, 1958 (gage height, 6.59 ft); minimum, 0.4 cfs June 1, 2, 1955 (gage height, 2.10 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Station is below all large diversions for irrigation in Big Lost River Valley. Flow regulated by Mackay Reservoir (see p. 99). About 42,000 acres of land irrigated by diversions from river and tributaries above station.

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

2.1	1.0	2.7	17	4.0	153
2.2	2.3	3.0	34	4.5	258
2.3	4.1	3.3	57	5.0	415
2.5	9.3	3.6	89		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	244	106	114	106	b92	91	72	4.1	20	14	5.0	3.7
2	244	*103	114	b104	b92	89	62	7.6	23	12	5.0	3.4
3	251	106	115	b100	b94	91	50	7.0	24	11	4.8	3.0
4	249	108	118	a95	b100	87	40	7.0	20	10	4.1	3.0
5	198	112	114	a100	b100	92	38	7.0	19	9.3	3.2	3.2
6	190	112	*116	a105	b98	92	35	10	17	8.7	3.2	3.6
7	258	112	114	a105	100	93	33	9.6	16	7.8	3.0	2.7
8	290	112	114	a100	98	92	28	11	15	8.7	2.5	1.9
9	310	110	114	a96	b96	92	35	15	13	10	2.2	1.9
10	332	109	114	a102	b94	92	33	17	13	9.3	2.3	2.2
11	345	106	114	a104	b90	91	23	26	14	9.6	2.2	2.8
12	352	104	115	a104	b88	93	22	20	*14	*9.6	2.0	2.7
13	356	104	114	a104	b86	93	*20	16	18	9.3	2.0	2.5
14	362	104	112	a100	b85	88	20	15	18	11	1.6	2.8
15	348	104	b109	a95	b94	89	19	20	15	11	1.4	3.0
16	307	b93	112	a100	99	91	19	14	12	10	1.1	3.0
17	253	b91	110	a98	104	92	18	*12	9.6	8.7	1.3	3.4
18	188	92	109	a94	100	93	18	11	8.4	8.1	*1.0	3.9
19	161	104	108	b90	99	92	18	14	8.7	8.1	1.4	4.6
20	161	112	108	*b90	96	91	17	18	9.6	7.8	1.8	4.8
21	155	115	108	b86	95	92	17	16	9.0	8.1	1.5	4.8
22	149	118	106	b92	93	92	15	13	10	7.3	1.4	4.8
23	149	116	106	b98	93	92	15	16	9.3	7.6	1.8	4.8
24	146	120	109	104	92	88	15	18	11	8.7	2.3	4.6
25	140	118	109	100	*92	86	14	15	11	9.6	2.5	4.8
26	133	118	108	98	92	85	14	12	13	7.8	2.5	5.0
27	125	b114	109	102	89	83	10	12	13	5.5	2.8	5.5
28	116	b110	104	102	89	79	3.0	12	12	4.1	2.7	5.7
29	109	112	b104	b98	-	79	2.5	13	14	3.9	2.8	5.9
30	106	114	b104	b94	-------	79	2.5	17	15	4.6	3.7	*6.2
31	109	-------	106	b92	-------	76	-------	20	-------	4.3	3.7	-------
Total	6,836	3,259	3,431	3,058	2,640	2,755	728.0	425.3	424.6	265.5	78.8	114.2
Mean	221	109	111	98.6	94.3	88.9	24.3	13.7	14.2	8.56	2.54	3.81
Ac-ft	13,560	6,460	6,810	6,070	5,240	5,460	1,440	844	842	527	156	227

Calendar year 1958: Max 1,170 Min 39 Mean 196 Ac-ft 142,100
Water year 1958-59: Max 362 Min 1.0 Mean 65.8 Ac-ft 47,640

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for station below Mackay Reservoir.
b Stage-discharge relation affected by ice.

1335. Brailsford ditch near Hagerman, Idaho

Location.--Lat 42°46'00", long 114°51'50", in N½NW¼ sec.6, T.8 S., R.14 E., on left bank 250 ft upstream from road bridge, 0.5 mile downstream from point of diversion at Lewis Spring, and 4.2 miles southeast of Hagerman.

Records available.--June 1951 to December 1959 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 3,000 ft (from topographic map).

Average discharge.--8 years, 8.16 cfs (5,920 acre-ft per year).

Extremes.--1951-59: Maximum daily discharge, 16 cfs June 23-26, July 19-26, 30, Aug. 19, 20, 1951; no flow at times in March, April, September, and October 1952.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Brailsford ditch diverts from Lewis Spring for irrigation.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	9.8	*8.4	7.5	8.8	2.3	3.4	10	12	14	13	12
2	9.5	10	8.5	7.8	8.5	2.2	3.5	10	12	14	13	*12
3	9.5	10	8.5	7.8	8.5	2.3	5.6	11	11	14	13	12
4	9.5	11	8.5	7.8	9.1	2.5	9.8	11	11	14	13	12
5	9.5	10	8.5	7.8	9.1	2.5	9.8	11	11	14	13	12
6	9.5	10	8.5	7.8	8.8	2.5	10	11	11	14	9.8	12
7	9.5	10	8.5	7.8	9.1	2.5	10	11	11	14	13	12
8	9.5	10	8.5	7.8	9.1	2.5	10	11	11	14	12	12
9	9.5	10	8.5	7.8	8.5	2.5	10	11	12	14	12	12
10	9.5	10	8.5	7.8	8.3	2.5	9.8	11	12	14	12	12
11	10	10	8.3	7.8	8.0	2.5	9.4	11	11	14	12	12
12	10	9.4	8.5	7.8	8.0	2.5	9.4	11	11	14	12	12
13	10	9.1	8.5	7.8	8.0	2.5	9.4	11	10	13	12	12
14	10	8.8	8.3	7.8	*8.0	2.5	11	11	10	13	12	12
15	10	8.8	8.3	7.8	8.0	2.5	11	10	9.8	13	12	12
16	10	9.1	8.8	7.8	8.0	2.4	11	9.4	9.8	13	12	12
17	10	9.1	8.3	*7.8	8.0	2.4	12	9.8	9.4	14	12	12
18	10	9.1	8.8	7.8	8.0	2.5	12	10	11	14	11	12
19	10	8.5	8.8	9.1	8.0	2.4	12	10	12	14	11	12
20	10	8.8	8.8	10	7.8	2.4	12	10	12	13	11	11
21	*10	8.8	9.1	10	7.8	2.5	*12	9.4	12	14	11	11
22	10	8.8	8.5	10	7.5	2.6	11	9.8	11	13	11	11
23	10	8.8	8.0	10	7.5	*2.4	10	10	12	13	11	11
24	10	8.3	8.0	9.8	7.5	2.6	10	10	13	14	11	11
25	10	8.3	8.0	9.4	4.9	2.8	10	8.1	*12	14	11	11
26	9.8	8.3	7.8	9.4	2.5	3.1	11	6.2	13	14	12	11
27	9.8	8.3	7.8	9.4	2.4	*3.2	10	12	13	14	12	11
28	9.8	8.3	7.8	9.4	2.4	3.2	10	13	13	14	11	11
29	10	8.5	7.8	9.8	-	3.4	10	13	13	*14	11	11
30	10	8.5	7.8	9.8	-------	3.4	10	13	14	13	11	11
31	9.8	-------	7.8	9.1	-------	3.4	-------	*13	-------	13	11	-------
Total	304.2	276.4	258.7	265.3	210.1	81.5	295.1	328.7	346.0	425	364.8	349
Mean	9.81	9.21	8.35	8.56	7.50	2.63	9.84	10.6	11.5	13.7	11.8	11.6
Ac-ft	603	548	513	526	417	162	585	652	686	843	724	692

Calendar year 1958: Max 15 Min 2.9 Mean 9.43 Ac-ft 6,820
Water year 1958-59: Max 14 Min 2.2 Mean 9.60 Ac-ft 6,950

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 1-20, Jan. 14-16, Sept. 3; discharge estimated on basis of recorded range in stage, flow for adjacent periods, and records for Riley Creek.

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1	11	1.3	2.4	9	3.2	2.2	2.4	17	2.9	2.3	*2.3	25	3.1	2.8	2
2	11	*1.4	2.4	10	3.1	2.2	2.4	18	2.9	2.3	2	26	2.9	2.8	2
3	11	1.4	2.5	11	2.9	2.3	2.3	19	2.9	2.3	2	27	2.9	2.6	2
4	11	1.6	2.5	12	2.9	2.3	2.3	20	2.9	2.3	2	28	2.9	2.6	2
5	11	1.9	2.4	13	2.9	2.4	2.3	21	2.9	2.4	2	29	2.9	2.6	2
6	*7.	2.0	2.4	14	2.9	2.4	2.3	22	2.9	2.8	2	30	2.4	2.5	2
7	3.2	1.9	2.4	15	2.8	2.4	2.3	23	2.9	2.8	2	31	1.3	-	2
8	3.2	2.0	2.4	16	2.9	2.4	2.3	24	3.1	2.8	2				
Total													132.8	68.0	68.3
Mean													4.28	2.27	2.20
Runoff in acre-feet													263	135	135

The season: Max 14 Min 1.3 Mean 8.03 Ac-ft 5,820

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 6, Dec. 6-8, 16, 18-31; discharge estimated on basis of recorded range in stage and records for Riley Creek.

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1340. Riley Creek below Lewis Spring, near Hagerman, Idaho

Location.--Lat 42°45'50", long 114°51'30", in SE¼NW¼ sec.6, T.8 S., R.14 E., on left bank 560 ft downstream from confluence of Riley Creek springs and Lewis Spring, an eighth of a mile downstream from U. S. Fish Hatchery, and 4 miles southeast of Hagerman.

Records available.--June 1951 to December 1959 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 2,955 ft (from topographic map). Prior to June 17, 1955, at site 1,200 ft downstream at different datum.

Average discharge.--8 years, 62.2 cfs (45,030 acre-ft per year), excluding diversion from Bickel Spring.

Extremes.--1951-59: Maximum daily discharge, 78 cfs Nov. 14, 15, 20-23, 1953; minimum daily, 49 cfs July 28, 1959.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow at this station plus flow of Brailsford ditch (see preceding page) gives total flow from Riley and Lewis Springs plus small intervening inflow. Flow diverted from Lewis Spring to Brailsford ditch for irrigation. Slight regulation by ponds at fish hatchery. Beginning about Aug. 30, 1957, water was diverted from Bickel Spring to Riley Creek above station.

Correction.--Monthly and yearly figures for water year 1957-58 adjusted for diversion in Brailsford ditch should read adjusted for inflow from Bickel Spring.

Rating table, Oct. 1, 1958, to Dec. 31, 1959 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 18 to Aug. 29)

1.4	46
1.5	54
1.6	61
1.7	69
1.8	77

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	62	*64	58	56	61	63	60	60	58	50	56
2	66	63	65	58	57	61	63	60	60	57	50	*57
3	66	63	65	58	56	61	61	60	60	57	50	58
4	66	63	66	58	56	62	58	59	60	56	50	59
5	65	63	67	58	56	62	58	58	60	56	50	59
6	64	63	66	57	56	63	59	59	61	55	55	59
7	64	63	67	57	56	62	58	60	62	55	52	59
8	64	63	65	57	56	62	58	60	62	54	54	60
9	64	63	66	57	56	62	58	60	63	54	54	60
10	64	63	66	57	56	62	58	60	63	53	54	60
11	63	63	65	57	56	63	58	62	63	53	54	60
12	63	64	65	56	57	63	58	62	62	52	55	60
13	63	64	63	a56	56	63	58	62	61	54	56	60
14	63	64	63	a56	*56	63	57	61	61	53	57	61
15	63	64	63	a56	56	63	57	61	61	54	57	60
16	62	64	63	a56	56	63	58	60	61	53	57	61
17	62	64	60	*56	56	63	58	60	62	53	57	61
18	62	64	62	57	56	63	58	60	61	52	58	61
19	62	64	62	57	56	63	58	60	60	51	58	61
20	*62	65	61	57	57	63	58	60	60	51	58	62
21	63	65	61	56	57	63	58	60	60	51	57	63
22	62	64	61	56	57	63	*58	60	61	51	57	63
23	62	64	61	56	56	*61	58	60	61	51	57	63
24	62	64	60	56	56	61	58	61	60	50	57	62
25	62	64	60	56	59	61	58	64	*60	51	56	63
26	62	64	60	56	61	61	59	64	60	50	56	63
27	61	64	59	56	62	61	59	61	60	50	56	63
28	62	65	59	56	61	62	59	61	59	49	56	62
29	62	64	60	56	-	63	60	61	59	*50	56	62
30	62	63	59	57	-------	63	60	58	51	57	57	62
31	62	-------	59	56	-------	63	-------	*60	-------	52	57	-------
Total	1,956	1,910	1,943	1,756	1,592	1,930	1,759	1,876	1,821	1,637	1,708	1,820
Mean	63.1	63.7	62.7	56.6	56.9	62.3	58.6	60.5	60.7	52.8	55.1	60.7
Ac-ft	3,880	3,790	3,850	3,480	3,160	3,830	3,490	3,720	3,610	3,250	3,390	3,610

Adjusted for inflow from Bickel Spring

Mean Cfsm	60.7	61.3	60.3	54.2	54.5	59.9	55.0	56.6	56.9	48.8	52.0	56.9
In.												
Ac-ft	3,730	3,650	3,710	3,330	3,030	3,680	3,270	3,480	3,390	3,000	3,200	3,390

Observed

Calendar year 1958:	Max	75	Min	53	Mean	64.0	Ac-ft	46,380
Water year 1958-59:	Max	67	Min	49	Mean	59.5	Ac-ft	43,080

Adjusted

Calendar year 1958:	Mean	60.2	Cfsm	In.	Ac-ft	43,570
Water year 1958-59:	Mean	56.4	Cfsm	In.	Ac-ft	40,860

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated or estimated on basis of other Snake River springs.

1340. Riley Creek below Lewis Spring, near Hagerman, Idaho--Continued

Discharge, in cubic feet per second, October to December 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	71	75									
2	63	*71	75									
3	63	71	75									
4	63	71	75									
5	63	71	75									
6	*67	71	75									
7	71	71	75									
8	71	71	76									
9	71	72	76									
10	71	72	76									
11	71	72	76									
12	71	72	76									
13	71	72	76									
14	71	72	76									
15	71	72	76									
16	71	74	76									
17	70	74	*76									
18	70	74	76									
19	70	74	76									
20	70	74	76									
21	70	75	76									
22	70	75	76									
23	70	75	76									
24	71	75	76									
25	70	75	76									
26	69	75	76									
27	68	75	76									
28	67	75	76									
29	68	75	76									
30	70	75	76									
31	71		76									
Total	2,135	2,192	2,349									
Mean	68.9	73.1	75.8									
Ac-ft	4,230	4,350	4,660									

Adjusted for inflow from Bickel Spring

Mean Cfsm	64.8	64.8	67.5									
In.												
Ac-ft	3,980	3,860	4,150									

Observed

Calendar year 1959: Max 76 Min 49 Mean 61.8 Ac-ft 44,780
Water year 1959-60: Max - Min - Mean - Ac-ft -

Adjusted

Calendar year 1959: Mean 57.7 Cfsm In. Ac-ft 41,760
Water year 1959-60: Mean - Cfsm In. Ac-ft -

* Discharge measurement made on this day.

1350. Snake River below Lower Salmon Falls, near Hagerman, Idaho

Location.--Lat 42°50'55", long 114°54'02" (revised), in lot 3, sec.2, T.7 S., R.13 E., on right bank half a mile downstream from Lower Salmon Falls powerplant, 1 mile upstream from Malad River, and 2¼ miles north of Hagerman.

Records available.--October 1937 to September 1959. Monthly discharge only for October 1937, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,727.7 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, by stadia levels. Prior to Jan. 3, 1950, at site 340 ft upstream at same datum.

Extremes.--Maximum discharge during year, 18,100 cfs Jan. 10 (gage height, 11.48 ft); minimum, 529 cfs Nov. 26 (gage height, 2.47 ft); minimum daily, 5,560 cfs June 9.
1937-59: Maximum discharge, 29,800 cfs June 27, 1950 (gage height, 15.60 ft); minimum, probably less than 100 cfs Jan. 10, 11, 1950, when river was below intake pipes; minimum daily, 3,970 cfs July 8, 1951.

Remarks.--Records excellent. Flow regulated by Lower Salmon Falls powerplant and many reservoirs above station. At times, practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 21 to Aug. 15)

6.0	4,970
7.0	6,920
8.0	9,130
9.0	11,500

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,480	7,800	8,600	7,560	7,080	6,980	7,760	6,200	6,320	6,210	6,940	7,070
2	7,920	7,570	7,400	7,100	7,140	7,120	8,130	7,640	6,250	6,030	6,210	*7,080
3	7,020	7,400	6,020	7,230	6,820	7,140	6,820	6,560	5,860	6,220	6,660	7,100
4	7,660	7,580	7,300	5,980	6,840	8,040	7,560	6,720	5,910	5,900	6,700	7,220
5	7,500	7,840	8,000	6,760	7,140	8,080	6,900	6,740	6,010	5,980	6,600	7,220
6	7,460	7,520	6,950	6,900	6,980	8,270	5,900	6,750	5,900	6,140	6,500	7,120
7	7,220	7,860	7,340	7,220	7,040	7,640	6,390	7,140	6,060	5,960	6,430	7,120
8	7,560	7,430	7,250	7,220	6,780	6,820	6,150	6,500	6,640	6,140	6,360	7,380
9	7,200	6,740	7,140	6,960	6,980	7,000	5,720	6,490	5,560	6,090	6,440	7,200
10	7,760	7,680	7,340	7,050	7,100	7,450	6,500	6,360	5,800	6,100	6,380	7,400
11	7,720	7,500	*7,400	7,260	7,220	7,120	6,040	6,200	6,300	5,990	6,340	7,520
12	7,000	7,460	7,570	7,370	7,360	7,040	6,440	6,270	6,120	6,160	6,520	7,330
13	7,910	7,740	7,020	7,320	7,170	7,260	5,740	5,680	6,020	5,970	6,100	7,490
14	7,380	7,490	7,300	7,440	7,430	6,950	6,120	5,940	6,160	6,010	6,270	7,640
15	8,040	7,560	7,420	7,340	7,300	7,090	5,820	5,860	6,160	6,100	6,580	8,630
16	9,840	7,740	7,300	7,250	*7,620	7,040	6,030	5,990	6,150	5,990	6,420	8,440
17	9,260	7,360	6,360	*7,220	7,520	*6,860	6,370	6,040	6,260	6,050	6,380	8,250
18	11,100	6,780	7,240	7,080	7,380	6,520	6,300	6,120	6,160	6,240	6,740	8,610
19	9,520	7,490	7,240	7,260	7,300	6,420	6,500	6,240	6,160	5,980	6,520	8,500
20	*8,660	7,380	7,650	7,120	7,210	6,720	6,600	6,150	6,240	5,920	6,540	8,600
21	7,860	8,240	6,680	6,850	7,500	6,920	*6,120	6,470	6,120	6,360	6,500	7,660
22	8,390	8,380	7,850	7,020	6,960	6,760	6,110	6,100	6,120	6,080	6,570	7,610
23	8,180	7,100	7,380	7,140	7,240	6,880	5,810	6,130	6,130	6,380	6,680	8,460
24	9,040	8,340	7,340	7,380	7,180	7,020	6,220	6,220	5,960	5,740	6,760	8,420
25	9,340	7,980	7,230	7,160	7,160	7,240	6,110	6,120	*6,150	6,140	6,670	8,290
26	8,050	8,790	6,720	7,060	7,260	5,720	5,980	6,220	6,160	5,960	6,800	8,360
27	8,260	6,360	7,950	6,960	6,580	6,140	6,200	6,390	6,460	6,320	6,800	7,950
28	8,040	8,340	6,360	6,920	7,090	6,520	6,120	6,480	6,300	*5,580	6,700	8,080
29	7,750	6,980	8,100	7,380	-	6,640	6,160	6,340	6,440	6,240	7,480	7,600
30	8,540	6,920	7,280	6,880	-------	8,000	6,280	6,590	6,140	6,510	6,650	8,000
31	6,220	-------	7,360	7,090	-------	8,020	-------	*5,900	-------	6,260	6,770	-------
Total	250,880	227,350	226,090	220,480	200,380	219,420	190,900	196,550	184,020	188,750	204,010	233,350
Mean	8,093	7,578	7,293	7,112	7,158	7,078	6,363	6,340	6,134	6,089	6,581	7,778
Ac-ft	497,600	450,900	448,400	437,300	397,400	435,200	378,600	389,900	365,000	374,400	404,600	462,800

Calendar year 1958: Max 12,800 Min 5,740 Mean 7,818 Ac-ft 5,660,000
Water year 1958-59: Max 11,100 Min 5,560 Mean 6,965 Ac-ft 5,042,000

* Discharge measurement made on this day.

1355. Big Wood River near Ketchum, Idaho

Location.--Lat 43°48', long 114°26', in sec.4, T.5 N., R.17 E., on left bank half a mile upstream from North Fork and 8 miles northwest of Ketchum.

Drainage area.--137 sq mi.

Records available.--May 1948 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map). Prior to Nov. 7, 1950, staff gage at site 560 ft upstream at different datum.

Average discharge.--11 years, 171 cfs (123,800 acre-ft per year).

Extremes.--Maximum discharge during year, 647 cfs June 14 (gage height, 4.36 ft); minimum, 16 cfs Jan. 3 (gage height, 2.02 ft).
1948-59: Maximum discharge, 1,620 cfs May 24, 1956 (gage height, 6.44 ft); minimum recorded, 14 cfs sometime during period Jan. 1-22, 1951 (gage height, 1.52 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair. Minor diversions for nonconsumptive uses on Boulder Creek. About 97 acre-ft of storage in ponds on Prairie Creek.

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

2.0	15	3.0	150
2.2	27	3.5	300
2.4	47	4.0	490
2.6	73	4.4	665

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	70	69	54	40	59	51	325	179	225	94	63
2	73	72	75	44	36	54	65	283	219	219	96	63
3	73	72	84	b20	45	55	76	234	290	210	86	62
4	73	83	70	b18	60	*46	91	210	347	198	83	60
5	73	76	53	b34	47	45	113	196	423	190	78	63
6	72	76	70	47	55	53	129	187	530	187	76	63
7	72	91	66	59	55	57	113	184	588	182	75	63
8	75	83	62	58	45	49	105	198	*502	166	75	60
9	76	86	*59	58	37	46	93	225	450	158	73	60
10	75	86	58	60	47	52	89	222	419	153	72	59
11	75	75	66	65	45	44	94	219	400	150	72	59
12	75	70	73	63	45	51	113	231	470	148	72	59
13	75	76	39	58	45	53	132	290	588	145	70	68
14	75	75	45	43	47	46	*141	369	629	141	70	135
15	72	57	58	38	53	43	138	384	598	134	66	199
16	73	65	70	60	58	52	123	392	530	129	65	113
17	72	52	67	58	58	49	115	336	539	123	65	96
18	72	72	59	55	58	49	109	293	530	*119	63	100
19	75	78	59	46	58	48	105	253	534	117	69	115
20	79	84	58	42	51	44	103	228	510	111	79	109
21	*75	79	58	*35	55	46	115	204	526	109	73	102
22	75	75	57	49	53	49	132	193	526	105	69	93
23	76	73	45	62	54	48	141	187	478	103	67	89
24	75	75	60	59	52	46	179	184	442	102	*66	84
25	75	57	57	51	54	47	228	184	427	98	67	83
26	75	46	47	42	58	48	240	184	400	96	66	91
27	75	58	59	57	52	45	213	*196	332	96	65	91
28	73	57	39	55	55	49	190	184	290	91	63	84
29	72	65	38	46	--	49	204	173	276	89	63	81
30	70	69	58	37	------	49	244	166	247	87	62	81
31	69	------	55	47	------	48	------	163	------	87	62	------
Total	2,290	2,153	1,833	1,520	1,418	1,519	3,984	7,277	13,219	4,268	2,222	2,546
Mean	73.9	71.8	59.1	49.0	50.6	49.0	133	235	441	138	71.7	84.9
Cfsm	0.539	0.524	0.431	0.358	0.369	0.358	0.971	1.72	3.22	1.01	0.523	0.620
In.	0.62	0.58	0.50	0.41	0.38	0.41	1.08	1.98	3.59	1.16	0.60	0.69
Ac-ft	4,540	4,270	3,640	3,010	2,810	3,010	7,900	14,430	26,220	8,470	4,410	5,050

Calendar year 1958: Max 1,440 Min 38 Mean 210 Cfsm 1.53 In. 20.78 Ac-ft 152,000
Water year 1958-59: Max 629 Min 18 Mean 121 Cfsm 0.883 In. 12.00 Ac-ft 87,760

Peak discharge (base, 400 cfs).--May 16 (12:30 a.m.) 415 cfs (3.82 ft); June 7 (6 a.m.) 629 cfs (4.32 ft); June 14 (4 a.m.) 647 cfs (4.36 ft).

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

1365. Warm Springs Creek at Guyer Hot Springs, near Ketchum, Idaho

Location.--Lat 43°41', long 114°25', in NE¼ sec.15, T.4 N., R.17 E., on left bank at Guyer Hot Springs, 2.1 miles upstream from mouth and 2.2 miles west of Ketchum.

Drainage area.--96 sq mi, approximately.

Records available.--November 1940 to April 1959 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 5,901.7 ft above mean sea level (river-profile survey). Prior to Mar. 7, 1942, staff gage at same site and datum.

Average discharge.--17 years (1941-58), 87.4 cfs (63,270 acre-ft per year).

Extremes.--Maximum discharge during period October to April, 129 cfs Apr. 5 (gage height, 0.80 ft); minimum, 20 cfs Mar. 15; minimum gage height, -0.13 ft Jan 3.
1940-59: Maximum discharge, 961 cfs May 21, 1958 (gage height, 4.18 ft); minimum, 6 cfs Feb. 29, 1944 (gage height, 0.55 ft), result of ice jam upstream; minimum gage height, that of Jan. 3, 1959; minimum daily discharge, 17 cfs Dec. 17, 1946.

Remarks.--Records good except those for periods of fragmentary gage height record, which are fair. Diversions above station for irrigation of about 200 acres (1950 determination). Small diversion from Guyer Hot Springs for recreational purposes bypasses station.

Rating table, Oct. 1, 1958, to Apr. 14, 1959 (gage height, in feet, and discharge, in cubic feet per second)

-0.1	26
.1	41
.5	89
1.0	177

Discharge, in cubic feet per second, October 1958 to April 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	38	39	38	33	32	36					
2	41	38	39	37	35	32	44					
3	41	38	41	28	38	33	58					
4	41	43	42	31	33	30	65					
5	41	40	38	38	37	*31	94					
6	40	39	40	39	40	33	106					
7	40	47	40	38	39	33	90					
8	41	43	40	38	40	31	82					
9	42	43	*39	38	40	32	72					
10	42	44	39	38	45	31	67					
11	41	40	40	38	41	30	71					
12	41	38	45	38	f38	33	86					
13	41	41	38	38	f33	32	98					
14	40	41	37	f33	f35	30	*102					
15	38	f35	39	33	38	28	-					
16	38	38	41	38	36	31	-					
17	38	32	41	38	35	32	-					
18	39	37	39	38	34	32	-					
19	41	40	38	f33	35	32	-					
20	42	41	38	32	33	31	-					
21	*39	42	38	*30	37	32	-					
22	39	41	38	34	36	34	-					
23	40	40	37	35	36	33	-					
24	40	41	38	35	35	32	-					
25	39	38	38	f33	31	33	-					
26	39	35	36	34	32	35	-					
27	38	37	38	35	32	35	-					
28	39	38	34	34	32	35	-					
29	39	38	35	34	-	35	-					
30	38	38	38	32	-------	35	-					
31	38	-------	38	34	-------	34	-------		-------			-------
Total	1,237	1,184	1,201	1,092	1,009	1,001	-					
Mean	39.9	39.5	38.7	35.2	36.0	32.3	-					
Ac-ft	2,450	2,350	2,380	2,170	2,000	1,990	-					

Calendar year 1958: Max 874 Min 25 Mean 108 Ac-ft 77,860
Water year 1958-59: Max - Min - Mean - Ac-ft -

Peak discharge (base, 300 cfs).--No peak above base.

* Discharge measurement made on this day.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

1390. Big Wood Slough at Hailey, Idaho

Location.--Lat 43°31'00", long 114°19'30", in sec.9, T.2 N., R.18 E., on left bank 40 ft upstream from bridge on State Highway 22, an eighth of a mile northeast of Big Wood River, and an eighth of a mile southwest of Hailey.

Drainage area.--See Big Wood River at Hailey on following page.

Records available.--June 1915 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,301.17 ft above mean sea level, unadjusted. Prior to Apr. 12, 1936, staff gages at or near highway bridge, at same datum.

Extremes.--Maximum discharge during year, 60 cfs Apr. 18 (gage height, 2.78 ft); maximum gage height, 2.87 ft Jan. 4 (ice jam); minimum discharge, 3.1 cfs Oct. 3; minimum gage height, 1.63 ft Apr. 16.
1915-59: Maximum discharge observed, 419 cfs June 6, 1921, from rating curve extended above 280 cfs; maximum gage height, 5.55 ft (top of ice in well) Jan. 20-23, 1937; no flow at times in several years.

Remarks.--Records good. Flow controlled at inoperative powerplant half a mile upstream to meet the requirements of irrigation diversion and sewage dilution. Big Wood Slough is a natural channel of Big Wood River and its discharge plus the discharge of Big Wood River at Hailey (see following page) is total discharge of river at this point.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 7 AB.

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

1.6	2.9	2.1	18
1.7	5.1	2.4	33
1.9	11	2.7	53

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	26	22	19	16	18	20	45	19	11	22	20
2	3.3	26	22	18	b15	18	22	44	22	10	22	20
3	3.3	26	22	b17	b16	*18	26	40	22	9.8	21	20
4	3.3	26	24	b16	16	18	31	39	24	9.8	20	20
5	3.3	27	22	b15	16	18	21	37	31	9.2	19	20
6	8.8	26	22	16	16	18	6.1	37	34	9.8	18	21
7	16	28	22	17	16	19	5.4	35	33	9.2	17	21
8	16	26	22	18	16	18	5.1	35	*30	8.3	17	21
9	16	26	22	18	b14	18	4.9	37	26	7.7	17	20
10	17	26	*22	18	16	18	4.4	35	23	6.7	16	20
11	17	26	22	19	b16	18	4.2	35	21	9.2	16	20
12	16	25	24	20	b15	18	4.0	34	26	16	16	19
13	16	26	22	20	b17	19	4.2	34	32	16	16	20
14	15	28	18	18	b18	18	4.0	35	31	16	16	26
15	15	26	20	b16	18	17	3.8	34	32	15	16	32
16	15	24	21	18	19	18	*16	33	28	13	15	28
17	15	21	22	18	18	19	38	32	26	14	15	26
18	16	22	21	18	19	18	37	31	26	*16	18	24
19	18	24	21	18	19	18	35	30	28	17	22	26
20	20	24	20	16	18	18	35	28	27	17	24	27
21	*21	25	21	*b16	19	18	35	28	27	17	23	26
22	20	24	21	16	19	19	38	17	28	16	20	22
23	21	24	20	17	19	19	39	11	26	15	20	22
24	22	25	20	18	18	18	40	11	24	14	*18	22
25	22	23	21	18	18	18	42	11	20	14	19	22
26	20	22	19	16	19	19	42	9.8	20	13	20	22
27	20	21	21	18	18	19	41	*10	17	13	19	22
28	20	20	18	18	18	20	39	11	16	12	19	22
29	24	20	b17	16	-	20	39	13	14	11	19	22
30	26	21	18	16	-------	20	42	16	13	12	18	22
31	26	-------	18	16	-------	19	-------	17	-------	22	18	-------
Total	495.6	734	647	538	482	571	724.1	864.8	746	399.7	576	675
Mean	16.0	24.5	20.9	17.4	17.2	18.4	24.1	27.9	24.9	12.9	18.6	22.5
Ac-ft	983	1,460	1,280	1,070	956	1,130	1,440	1,720	1,480	793	1,140	1,340

Calendar year 1958: Max 185 Min 3.3 Mean 21.8 Ac-ft 15,760
Water year 1958-59: Max 45 Min 3.3 Mean 20.4 Ac-ft 14,790

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

1395. Big Wood River at Hailey, Idaho

Location.--Lat 43°31', long 114°20', in SW¼ sec.9, T.2 N., R.18 E., or left bank 35 ft downstream from bridge on State Highway 22, a quarter of a mile southwest of Hailey, and three-eighths of a mile upstream from Croy Creek.

Drainage area.--640 sq mi, approximately (total area above river and slough stations).

Records available.--July to December 1889, June 1915 to September 1959. Published as Wood River at Hailey in 1889.

Gage.--Water-stage recorder. Datum of gage is 5,298.00 ft above mean sea level, unadjusted. July to December 1889 staff gage at nearby site at different datum. June 11, 1915, to Nov. 15, 1934, staff gages at bridge 35 ft upstream at different datum.

Average discharge.--Average combined discharge of Big Wood River and Big Wood Slough, 44 years, 429 cfs (310,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,540 cfs June 14 (gage height, 3.02 ft); minimum, 109 cfs Jan. 4 (gage height, 0.11 ft).
1915-59 (river only): Maximum discharge, 4,640 cfs May 24, 1956 (gage height, 6.62 ft, and May 28, 1958 (gage height, 6.45 ft); maximum gage height, 8.66 ft June 12, 1921, present datum; no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.
1915-59 (combined): Maximum daily discharge, 4,520 cfs May 25, 1958; minimum daily, 15 cfs Dec. 27, 1921.

Remarks.--Records good. Water diverted around station through Big Wood Slough (see preceding page). Total flow of river at Hailey (combined flow of Big Wood River and Big Wood Slough) is given on following page. Diversions for irrigation of about 10,300 acres (1950 determination) above station. Flow bypasses station for irrigation of about 1,800 acres. Storage above station is negligible.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 7 AB.

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

0.2	112	1.5	526
.4	133	2.0	845
.7	190	3.0	1,530
1.0	281		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	219	183	167	158	139	152	152	663	390	485	174	120
2	219	185	169	158	129	150	172	676	452	480	176	119
3	216	185	176	131	129	*146	203	575	556	468	165	117
4	211	193	185	115	152	144	250	514	656	452	154	116
5	206	195	161	115	144	140	347	485	792	430	148	118
6	190	193	169	126	150	148	457	463	1,050	425	144	120
7	176	206	172	139	154	152	430	446	1,230	414	139	120
8	178	206	172	144	150	144	399	457	*1,040	390	134	118
9	185	200	167	150	132	142	356	503	919	370	133	117
10	185	203	*165	152	146	140	339	526	865	365	129	116
11	188	195	167	158	152	140	339	526	819	356	131	113
12	185	188	181	159	142	144	370	514	980	334	132	112
13	181	195	165	163	135	150	419	600	1,300	321	131	116
14	176	200	144	152	140	139	452	792	1,420	313	131	154
15	176	185	154	133	150	133	446	819	1,350	301	129	519
16	174	183	159	154	158	142	*394	858	1,150	289	127	347
17	174	163	165	163	156	148	347	779	1,180	285	125	289
18	174	159	163	163	158	146	325	682	1,130	*278	126	260
19	178	193	163	152	158	145	313	600	1,160	270	129	321
20	193	193	163	154	152	138	301	526	1,080	260	145	317
21	195	193	163	*134	154	142	305	452	1,120	243	148	293
22	*193	188	165	136	152	150	330	404	1,130	234	134	264
23	195	185	158	154	150	148	352	375	1,040	225	128	250
24	206	188	159	163	148	145	385	361	980	216	*123	237
25	203	176	165	161	146	146	485	347	919	211	122	231
26	198	152	152	148	152	150	526	343	926	208	125	243
27	195	158	165	158	146	148	509	*356	760	211	123	253
28	190	146	152	159	146	152	452	370	631	195	123	240
29	190	152	134	148	--	152	446	365	569	188	122	234
30	188	163	152	144	-------	154	520	375	532	176	121	231
31	185	-------	152	142	-------	150	-------	375	-------	161	120	-------
Total	5,922	5,504	5,044	4,586	4,120	4,520	11,121	16,127	28,126	9,554	4,191	6,205
Mean	191	183	163	148	147	146	371	520	938	308	135	207
Ac-ft	11,750	10,920	10,000	9,100	8,170	8,970	22,060	31,990	55,790	18,950	8,310	12,310

Calendar year 1958: Max 4,340 Min 120 Mean 622 Ac-ft 450,600
Water year 1958-59: Max 1,420 Min 112 Mean 288 Ac-ft 208,300

* Discharge measurement made on this day.

1395. Big Wood River at Hailey, Idaho--Continued

Combined discharge, in cubic feet per second, of Big Wood River and Big Wood Slough at Hailey, Idaho, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	223	209	189	177	155	170	172	708	409	496	196	140
2	222	211	191	176	144	168	194	720	474	490	196	139
3	219	211	198	148	145	164	229	615	578	478	186	137
4	214	219	209	131	168	162	281	553	680	462	174	136
5	209	222	183	130	160	158	368	522	823	439	167	138
6	199	219	191	142	166	166	463	500	1,080	435	162	141
7	192	234	194	156	170	171	435	481	1,260	423	156	141
8	194	232	194	162	166	162	404	492	1,070	398	151	139
9	201	226	189	168	146	160	361	540	945	378	150	137
10	202	229	187	170	162	158	343	561	888	372	145	136
11	205	221	189	177	168	158	343	561	840	365	147	133
12	201	213	205	179	157	162	374	548	1,010	350	148	131
13	197	221	187	183	152	169	423	634	1,330	337	147	136
14	191	228	162	170	158	157	456	827	1,450	329	147	180
15	191	211	174	149	168	150	450	853	1,380	316	145	561
16	189	207	180	172	177	160	410	891	1,180	302	142	375
17	189	184	187	181	174	167	385	811	1,210	299	140	315
18	190	181	184	181	177	164	362	713	1,160	294	144	284
19	196	217	184	170	177	163	348	630	1,190	287	151	347
20	213	217	183	170	170	156	336	554	1,110	277	169	344
21	216	218	184	150	173	160	340	480	1,150	260	171	319
22	213	212	186	152	171	169	368	421	1,160	250	154	286
23	216	209	178	171	169	167	391	386	1,070	240	148	272
24	228	213	179	181	166	163	425	372	1,000	230	141	259
25	225	199	186	179	164	164	527	358	939	225	141	253
26	218	174	171	164	171	169	568	353	946	221	145	265
27	215	179	186	176	164	167	550	366	777	224	142	275
28	210	166	170	177	164	172	491	381	647	207	142	262
29	214	172	151	164	-	172	485	378	583	199	141	256
30	214	184	170	160	-------	174	562	391	545	188	137	253
31	211	-------	170	158	-------	169	-------	392	-------	183	133	-------
Total	6,417	6,238	5,691	5,124	4,602	5,091	11,844	16,992	28,884	9,954	4,767	6,880
Mean	207	208	184	165	164	164	395	548	963	321	154	229
Ac-ft	12,730	12,370	11,290	10,160	9,130	10,100	23,490	33,700	57,290	19,740	9,460	13,650

Calendar year 1958: Max 4,520 Min 139 Mean 644 Ac-ft 466,200
Water year 1958-59: Max 1,450 Min 130 Mean 308 Ac-ft 223,100

1410. Big Wood River near Bellevue, Idaho

Location.--Lat 43°19'30", long 114°19'30", in SE¼NW¼ sec.21, T.1 S., R.18 E., on right bank 2½ miles upstream from flow line of Magic Reservoir, 3¾ miles upstream from Camas Creek, and 10 miles southwest of Bellevue.

Drainage area.--823 sq mi.

Records available.--July 1911 to September 1959 (no winter records prior to 1943 except 1916, 1921-22, 1940-41).

Gage.--Water-stage recorder. Altitude of gage is 4,820 ft (by barometer). Prior to July 8, 1921, at site 1.1 miles downstream at different datum. July 8, 1921, to Oct. 5, 1954, at site three-quarters of a mile downstream at different datum.

Average discharge.--21 years (1915-16, 1921-22, 1939-41, 1942-59), 293 cfs (211,400 acre-ft per year).

Extremes.--Maximum discharge during year, 650 cfs June 15 (gage height, 4.58 ft); minimum, 37 cfs Sept. 8, 9, 11, 12, 13 (gage height, 3.31 ft).
1911-59: Maximum discharge, 4,130 cfs May 25, 1956; maximum gage height, 6.43 ft May 12, 1958; minimum discharge recorded, 7 cfs Apr. 14, 1932 (gage height, 1.10 ft, site and datum then in use).

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are poor. Diversions for irrigation of about 36,400 acres (1950 determination) above station. Storage above station is negligible.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 7 AB.

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

3.3	33	3.9	183
3.4	46	4.3	391
3.6	87	4.8	840

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	85	107	107	85		110	300	76	150	90	59
2	90	85	113	107	78	95	120	350	80	130	90	55
3	87	82	116	87		130	325	90	120	85	50	
4	87	85	125	80		(*)	130	250	80	110	85	45
5	82	82	125	80		87	130	200	62	100	85	42
6	80	87	122		86	87	140	175	73	100	80	42
7	78	90	128			87	150	150	200	90	80	45
8	78	87	128	90		90	175	125	*412	90	80	40
9	78	87	132			87	175	100	326	90	80	40
10	78	87	*132			87	150	70	251	90	80	40
11	80	85	135			87	150	70	222	85	75	38
12	90	85	141			87	190	60	217	85	75	38
13	87	90	141	95		87	210	50	355	85	75	37
14	93	102	128			90	250	50	532	80	75	43
15	87	104	116			85	*309	100	585	80	75	120
16	87	104	116		90	82	287	150	*516	80	75	100
17	82	104	119			87	266	150	461	80	75	99
18	82	90	122	90		96	256	135	450	*78	75	116
19	82	85	122			99	251	110	425	76	75	138
20	85	85	122			96	226	100	450	73	75	165
21	82	96	122	90		96	209	90	450	69	76	154
22	*85	107	122	*87		102	200	90	425	69	76	128
23	87	116	119	87		110	213	90	425	66	73	119
24	87	122	116	93		122	222	90	450	59	*71	107
25	85	128	119	96	95	122	266	80	450	69	71	90
26	82	122	119	93		125	337	77	400	73	66	87
27	82	110	116	90		122	343	*75	250	85	62	93
28	80	107	116	96		116	300	73	200	85	64	90
29	85	102	107	90	-	107	300	71	225	100	64	80
30	85	102	107	87	-------	102	300	71	175	110	60	76
31	85	-------	107	90	-------	100	-------	76	-------	100	57	-------
Total	2,614	2,903	3,760	2,835	2,511	3,025	6,495	3,903	9,313	2,757	2,325	2,376
Mean	84.3	96.8	121	91.5	89.7	97.6	216	126	310	88.9	75.0	79.2
Ac-ft	5,180	5,760	7,460	5,620	4,980	6,000	12,880	7,740	18,470	5,470	4,610	4,710

Calendar year 1958: Max 3,540 Min 51 Mean 420 Ac-ft 304,200
Water year 1958-59: Max 585 Min 37 Mean 123 Ac-ft 88,880

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 4-21; doubtful gage-height record Feb. 3 to Mar. 4, Mar. 31 to Apr. 14, Apr. 28 to May 27, June 7, June 18 to July 17, July 27 to Aug. 20, Sept. 15, 16; discharge estimated on basis of recorded range in stage, inflow-outflow record for Magic Reservoir, recorder record, and weather records.

1415. Camas Creek near Blaine, Idaho

Location.--Lat 43°20', long 114°33', in sec.15, T.1 S., R.16 E., on left bank a quarter of a mile north of Macon siding on Hill City branch of Oregon Short Line Railroad, three-eighths of a mile downstream from Willow Creek, 2¼ miles upstream from backwater of Magic Reservoir, and 4 miles southeast of Blaine.

Drainage area.--648 sq mi.

Records available.--May 1912 to September 1921 and April 1923 to October 1925 (fragmentary), March 1926 to September 1944 (no winter records), October 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,870 ft (by barometer).

Average discharge.--15 years (1944-59), 182 cfs (131,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,150 cfs Apr. 7 (gage height, 6.56 ft); minimum, 1.2 cfs Aug. 11, 12 (gage height, 1.31 ft).
1912-59: Maximum discharge recorded, 9,780 cfs Apr. 8, 1943; maximum gage height, 15.48 ft about Apr. 18, 1938, from floodmark; minimum discharge recorded, that of Aug. 11, 12, 1959.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are poor. Water diverted for irrigation of about 9,300 acres (1950 determination) above station. Flow regulated by Twin Lakes Reservoir on Lake Creek (capacity, 31,240 acre-ft) and three minor reservoirs (combined capacity, 580 acre-ft).

Cooperation.--Occasional inspections of recorder furnished by employees of Water District No. 7 AB.

Revisions.--WSP 1217: Drainage area.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 5-18)

Oct. 1 to Mar. 18		Mar. 19 to Sept. 30			
1.2	6.8	1.3	1.2	2.5	75
1.4	13	1.4	2.8	3.0	145
1.7	26	1.5	5.2	4.0	355
2.0	46	1.7	12	5.0	626
2.5	96	2.0	30	6.5	1,130

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	11	16	25	28	33	290	219	44	12	2.5	4.2
2	9.2	11	16	21	21	35	400	270	41	12	3.5	4.2
3	9.2	10	18	12	24	34	600	288	37	11	7.4	4.2
4	9.2	11	22	13	30	32	700	261	30	10	4.7	4.2
5	9.2	11	20	15	23	30	800	232	26	9.6	4.0	4.2
6	9.0	11	22	*16	26	28	*961	219	23	8.8	3.3	4.5
7	8.7	12	24	17	26	32	1080	199	20	7.8	2.6	5.0
8	9.0	12	26	16	24	31	1090	176	17	6.8	1.8	4.7
9	9.0	12	26	17	21	33	950	162	19	5.5	1.7	4.2
10	9.5	12	*25	18	*24	28	796	154	24	4.5	1.5	4.2
11	9.8	12	30	18	23	29	712	*148	22	4.0	1.4	4.5
12	9.8	11	39	20	23	30	703	137	21	3.8	1.4	4.5
13	9.8	12	38	34	19	39	652	128	22	3.3	1.4	4.7
14	10	13	38	31	20	30	632	123	16	*3.4	1.4	96
15	9.8	12	32	23	24	36	655	101	19	3.3	1.7	33
16	9.8	12	30	26	28	36	600	128	*21	3.0	1.7	10
17	10	9.5	30	25	31	51	533	131	24	3.3	1.7	8.4
18	10	11	27	23	32	*75	388	126	22	3.0	1.8	7.1
19	11	14	30	21	36	77	323	116	18	2.8	2.2	9.2
20	11	16	30	18	35	80	313	106	15	2.8	2.5	12
21	11	16	31	15	33	86	255	106	15	2.8	2.5	9.6
22	*11	16	33	20	33	90	225	94	15	2.6	4.0	7.8
23	11	16	33	21	33	140	215	91	12	2.6	4.5	7.4
24	11	16	32	37	33	160	219	92	11	2.6	*4.2	6.8
25	11	18	31	41	31	190	221	83	11	2.5	4.7	6.8
26	11	17	27	38	31	235	230	76	12	2.5	4.5	12
27	11	18	27	35	30	225	223	70	12	2.6	4.5	11
28	11	17	24	37	30	230	209	65	11	2.5	4.5	8.8
29	11	17	22	34	-	235	195	58	11	2.5	4.2	*8.8
30	11	16	25	29	-------	250	188	53	12	2.3	4.2	9.6
31	11	-------	24	31	-------	265	-------	50	-------	2.3	4.2	-------
Total	312.7	402.5	848	747	772	2,905	15,358	4,262	603	148.5	96.2	321.6
Mean	10.1	13.4	27.4	24.1	27.6	93.7	512	137	20.1	4.79	3.10	10.7
Ac-ft	620	798	1,680	1,480	1,530	5,760	30,460	8,450	1,200	295	191	638

Calendar year 1958: Max 3,340 Min 3.9 Mean 225 Ac-ft 162,800
Water year 1958-59: Max 1,090 Min 1.4 Mean 73.4 Ac-ft 53,100

Peak discharge (base, 500 cfs).--Apr. 7 (5 a.m.) 1,150 cfs (6.56 ft).

* Discharge measurement made on this day.

Note.--Doubtful or no gage-height record Dec. 29 to Feb. 9, Feb. 11 to Mar. 4, Mar. 19 to Apr. 5; discharge estimated on basis of 3 discharge measurements, weather records, and records for Moore Creek above Robie Creek, near Arrowrock, and other nearby streams.

1420. Magic Reservoir near Richfield, Idaho

Location.--Lat 43°15', long 114°22', in NE¼SE¼ sec.18, T.2 S., R.18 E., at dam on Big Wood River, 18 miles northwest of Richfield.

Drainage area.--1,600 sq mi, approximately.

Records available.--February to April 1909 (gage heights only), April 1909 to September 1959.

Gage.--Staff gage read once or twice daily. Datum of gage is 4,800 ft above datum of Idaho Irrigation Co., which is reported to be about 137 ft below mean sea level. Prior to Apr. 1, 1937, tape or staff gages at dam. Datum of gages prior to Oct. 1, 1942, was 4,800 ft lower.

Extremes.--Maximum contents observed during year, 176,300 acre-ft Apr. 27-30, May 3, 4 (gage height, 131.0 ft); minimum observed, 19,840 acre-ft Sept. 28-30 (gage height, 61.3 ft).
1909-59: Maximum contents observed, 194,200 acre-ft Apr. 30, 1951 (gage height, 135.7 ft); no storage for several days in 1909, 1919-20, 1924, 1923, 1935.

Remarks.--Reservoir is formed by earth- and rock-fill dam, completed in 1909, and raised 5 ft in 1917. Capacity, 191,500 acre-ft between gage heights 21.4 (2.9 ft above bottom of outlet pipe) and 135.0 ft (top of 5-foot flashboards). Dead storage unknown. Water is used for irrigation of lands in Carey Act project of Big Wood Canal Co. Figures given herein represent usable contents including bank storage. Gage read in morning except during irrigation season when it was read morning and evening; contents computed from morning reading.

Cooperation.--Gage readings and capacity table furnished by Water District 7 AB.

Revisions.--WSP 1217: Drainage area.

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

60.0	18,380	110.0	111,900
70.0	31,230	120.0	139,500
80.0	47,700	130.0	172,600
90.0	66,790	135.0	191,500
100.0	87,730		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92,520	98,170	102,300	112,400	120,300	127,400	141,300	175,900	152,000	124,100	80,940	41,730
2	92,750	98,410	102,500	112,600	120,300	127,700	142,500	175,900	151,000	123,000	79,880	40,710
3	93,220	98,650	-	112,600	120,600	128,000	143,800	176,300	149,700	121,900	78,190	39,710
4	93,450	98,890	102,800	112,900	120,600	128,300	144,700	176,300	148,500	120,600	76,730	38,550
5	93,450	99,130	103,000	113,200	120,900	128,500	146,900	175,900	147,200	119,000	75,280	37,400
6	93,680	99,130	103,500	113,200	121,100	128,800	148,800	157,500	145,900	116,800	73,840	35,800
7	93,920	99,370	104,000	113,400	121,400	129,100	151,000	175,200	145,000	115,500	72,420	35,020
8	94,150	99,620	104,500	113,700	121,700	129,900	153,600	174,800	143,800	115,000	71,200	33,940
9	94,150	99,860	104,800	113,900	121,900	130,200	156,300	174,100	142,800	114,200	69,790	32,720
10	94,380	100,300	105,000	114,200	122,200	130,200	158,600	173,300	141,900	113,200	68,180	31,380
11	94,380	100,300	105,500	114,500	122,500	130,500	160,600	172,600	140,700	111,900	66,990	30,510
12	94,620	100,800	105,800	114,700	123,000	130,800	162,400	171,900	139,800	110,600	65,200	29,220
13	94,850	100,800	106,000	115,000	123,300	131,100	164,100	170,800	138,300	108,300	63,820	28,230
14	95,090	101,100	106,500	115,300	123,600	131,100	165,800	169,700	137,100	107,300	62,640	27,400
15	95,320	101,100	107,000	115,500	123,800	131,400	167,600	169,000	136,500	106,300	61,460	26,190
16	95,320	101,300	107,500	115,800	124,100	131,600	169,000	168,300	136,500	104,800	60,290	25,520
17	95,560	101,100	108,000	116,000	124,700	131,900	170,800	166,900	136,200	103,300	59,130	24,480
18	95,800	100,800	108,000	116,600	124,900	132,500	172,600	166,200	135,400	-	57,390	23,460
19	96,030	100,300	108,300	116,800	125,200	132,800	173,700	165,500	134,500	100,600	56,240	22,470
20	96,030	99,620	108,500	116,800	125,500	133,300	174,800	164,400	133,900	98,890	54,720	21,850
21	96,270	99,620	108,800	117,100	125,500	133,900	175,500	163,400	133,300	97,220	53,590	-
22	96,270	99,860	109,000	117,400	125,800	134,200	175,900	162,400	132,500	95,560	52,660	21,490
23	96,500	100,100	109,600	117,900	126,000	134,800	175,500	161,700	131,600	94,150	50,990	-
24	96,500	100,300	109,800	118,200	126,300	135,400	175,500	160,600	131,100	92,980	49,700	21,730
25	96,740	100,600	110,300	118,400	126,600	136,200	175,900	159,600	130,500	91,370	48,240	21,040
26	96,980	100,800	110,800	118,700	126,600	136,800	175,900	158,600	129,700	89,770	47,340	20,080
27	97,220	101,100	111,100	119,000	126,900	138,000	176,300	157,600	128,300	88,640	46,090	-
28	97,460	101,300	111,400	119,200	127,200	138,900	176,300	156,600	127,400	86,840	44,670	19,840
29	97,460	101,800	111,600	119,500	-	139,500	176,300	155,300	126,300	85,290	43,280	19,840
30	97,690	102,000	111,900	119,800	-------	140,100	176,300	154,300	125,200	83,530	42,410	19,840
31	97,930	-------	112,400	120,000	-------	140,700	-------	153,300	-------	82,450	42,070	-------
(†)	104.4	106.1	110.2	113.1	115.7	120.4	131.0	124.4	115.0	97.6	76.8	61.3
(‡)	+5,870	+4,070	+10,400	+7,600	+7,200	+13,500	+35,600	-23,000	-28,100	-42,750	-40,380	-22,230

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

1425. Big Wood River below Magic Dam, near Richfield, Idaho

Location.--Lat 43°14', long 114°22', in sec.18, T.2 S., R.18 E., on right bank half a mile downstream from Magic Dam and 18 miles northwest of Richfield.

Drainage area.--1,600 sq mi, approximately.

Records available.--April 1911 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,665 ft (by barometer).

Average discharge.--47 years (1912-59), 434 cfs (314,200 acre-ft per year).

Extremes.--Maximum discharge during year, 913 cfs July 17 (gage height, 4.59 ft); minimum, 6.8 cfs Nov. 7; minimum gage height, 1.89 ft Sept. 30.
1911-59: Maximum discharge, 10,000 cfs Apr. 26, 1952 (gage height, 15.68 ft, from floodmark); no flow Feb. 3, 1915.

Remarks.--Records excellent except those below 20 cfs, which are good, and those for periods of no gage-height record, which are fair. Water diverted for irrigation of about 47,000 acres (1950 determination) above station. Flow regulated by Magic Reservoir (see preceding page), Twin Lakes Reservoir on tributary of Camas Creek (capacity, 31,240 acre-ft), and smaller reservoirs having combined capacity of about 680 acre-ft.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 7 AB.

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

1.9	4.0	3.0	156
2.0	11	3.5	326
2.3	41	4.0	571
2.7	95	5.0	1,280

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.6	8.2	9.5	10	11	12	588	700	744	802	600
2	10	9.6	8.2	9.5	10	11	12	594	719	731	815	611
3	11	9.6	8.2	9.5	10	11	12	594	770	731	836	622
4	11	8.9	8.2	9.5	10	11	12	594	789	731	836	628
5	11	8.9	8.9	9.5	10	*11	13	566	782	713	843	634
6	11	8.2	8.2	9.5	10	11	13	577	782	700	843	640
7	11	8.2	8.2	9.5	10	11	13	594	815	700	847	634
8	11	8.2	8.9	9.5	10	11	13	594	829	713	829	640
9	11	8.9	8.9	9.5	10	11	13	594	829	756	796	646
10	11	8.2	8.9	9.5	10	11	13	622	829	770	776	646
11	12	8.9	*8.9	10	10	11	14	640	829	782	763	664
12	12	8.2	9.0	10	11	11	14	640	829	815	756	*652
13	12	8.2	9.0	10	11	11	14	640	836	829	756	628
14	12	8.2	9.0	10	11	11	14	664	836	*850	744	605
15	12	9.2	9.0	10	11	11	*14	676	857	878	750	600
16	11	21	9.0	10	11	11	15	700	*878	885	756	571
17	11	512	9.0	10	11	11	15	713	878	892	744	544
18	11	421	9.0	10	11	11	17	713	878	906	731	507
19	9.6	421	9.0	10	11	11	19	713	878	899	725	465
20	8.9	185	9.0	10	11	11	214	713	878	892	707	465
21	9.6	8.2	9.0	10	11	12	330	713	878	885	688	460
22	9.6	8.2	9.0	*10	11	12	344	713	878	878	670	436
23	*9.6	8.2	9.5	10	11	12	344	713	878	878	652	370
24	9.6	8.2	9.5	10	11	12	370	707	857	885	646	352
25	9.6	8.2	9.5	10	11	12	416	707	857	878	*646	326
26	9.6	8.2	9.5	10	11	12	436	707	850	864	640	285
27	9.6	8.9	9.5	10	11	12	450	707	829	857	623	262
28	9.6	8.2	9.5	10	11	12	455	*707	808	857	617	262
29	9.6	8.2	9.5	10	-	12	496	707	802	857	617	*262
30	9.6	8.2	9.5	10	-------	12	566	707	776	850	611	108
31	9.6	-------	9.5	10	-------	12	-------	707	-------	843	603	-------
Total	326.1	1,772.7	278.2	305.0	297	352	4,683	20,524	24,834	25,449	22,671	15,125
Mean	10.5	59.1	8.97	9.84	10.6	11.4	156	662	828	821	731	504
Ac-ft	647	3,520	552	605	589	698	9,290	40,710	49,260	50,480	44,970	30,000

Calendar year 1958 : Max 4,400 Min 6.8 Mean 695 Ac-ft 502,900
Water year 1958-59 : Max 906 Min 8.2 Mean 319 Ac-ft 231,300

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 12 to Jan. 21, Jan. 28 to Mar. 4, Mar. 8 to Apr. 14; discharge estimated on basis of records for adjacent periods and records for Magic Reservoir.

1479. Little Wood River above High Five Creek, near Carey, Idaho

Location.--Lat 43°29'30", long 114°03'15", about center of sec.22, T.2 N., R.20 E., on left bank above maximum flow line of Little Wood Reservoir, 0.4 mile downstream from Copper Creek, 0.6 miles upstream from High Five Creek, and 13.5 miles northwest of Carey.

Drainage area.--248 sq mi.

Records available.--October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,320 ft (by barometer).

Extremes.--Maximum discharge during year, 508 cfs Apr. 5 (gage height, 3.76 ft); minimum, 21 cfs Aug. 15, 16 (gage height, 1.50 ft), but may have been less during period of ice effect.

Remarks.--Records excellent except those for period of no gage-height record, which are good and those for periods of ice effect, which are fair. Diversions above station for irrigation of about 5,250 acres (1950 determination).

Cooperation.--Water-stage recorder inspected by employees of Little Wood Reservoir Co. and Idaho Water District No. 11 C.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second (Shifting-control method used June 12)

Nov. 2 to June 12				June 13 to Sept. 30			
1.9	33	2.7	144	1.5	21	2.4	115
2.1	54	3.0	213	1.7	34	2.8	196
2.4	93	3.4	340	2.0	63	3.4	390

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	58	*55	b45	b48	48	69	172	120	102	36	27
2	53	58	58	b40	b47	48	110	186	138	100	36	28
3	54	*58	58	b35	b48	48	154	146	167	100	33	28
4	55	60	58	b35	b51	47	221	131	198	94	32	27
5	55	58	b51	b40	b50	b46	319	122	232	89	31	27
6	54	58	58	b53	b51	b48	336	123	291	88	30	28
7	58	62	56	53	51	48	229	116	334	*82	29	28
8	56	60	55	b53	50	47	174	111	246	73	29	27
9	57	59	53	52	b50	b47	123	120	213	69	28	27
10	60	60	52	52	b48	b47	134	125	198	69	27	27
11	57	58	55	54	47	b47	136	122	193	68	26	26
12	60	56	58	54	b44	b51	148	*125	261	69	25	27
13	60	59	b46	*56	b44	48	163	144	354	68	24	31
14	58	60	b42	51	b49	47	*163	181	343	65	23	55
15	55	56	50	b50	55	b47	163	188	*298	63	22	114
16	55	52	54	53	55	b52	131	208	244	59	22	75
17	54	b42	53	52	53	50	125	181	250	55	*23	65
18	53	b45	53	52	52	52	122	157	219	54	23	62
19	55	62	51	51	51	51	120	148	217	51	26	89
20	*58	64	53	b50	b50	52	111	138	199	48	35	84
21	56	61	53	b48	48	53	99	131	214	46	36	78
22	57	60	54	b50	b47	53	96	120	206	43	33	73
23	58	58	50	52	b47	54	98	120	179	40	31	69
24	60	58	52	54	*46	54	105	122	163	37	30	64
25	60	56	52	53	b47	56	122	118	150	36	29	63
26	60	b49	46	b52	b47	59	125	116	165	36	30	63
27	60	b45	53	52	b47	56	118	122	142	*36	29	65
28	60	48	b44	51	b48	59	108	125	121	33	28	70
29	60	52	b44	b46	-	59	105	120	115	33	28	71
30	60	55	46	b47	-------	60	115	120	109	36	27	*69
31	58	-------	46	b47	-------	59	-------	116	-------	35	27	-------
Total	1,769	1,687	1,609	1,533	1,371	1,593	4,342	4,274	6,279	1,877	888	1,587
Mean	57.1	56.2	51.9	49.5	49.0	51.4	145	138	209	60.5	28.6	52.9
Ac-ft	3,510	3,350	3,190	3,040	2,720	3,160	8,610	8,480	12,450	3,720	1,760	3,150

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 354 Min 22 Mean 78.9 Ac-ft 57,140

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 1 to Nov. 1; discharge estimated on basis of records for station at Campbell Ranch, near Carey.

1482. Little Wood Reservoir near Carey, Idaho

Location.--Lat 45°25'30", long 114°01'30", in NW¼NW¼ sec.13, T.1 N., R.20 E., at gate-control structure near right end of dam on Little Wood River, 8½ miles northwest of Carey.

Drainage area.--279 sq mi.

Records available.--October 1955 to September 1959.

Gage.--Staff gage read once daily, usually about 10 a.m. Datum of gage is 5,100 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum contents observed during year, 12,360 acre-ft May 13 (gage height, 97.90 ft); minimum observed, 66 acre-ft Aug. 17 (gage height, 30.22 ft), but may have been less during period Aug. 14 to Sept. 13.
1955-59: Maximum contents, 12,810 acre-ft May 19, 1957 (gage height, 99.2 ft, from spillway rating and discharge record below reservoir); minimum observed, that of Aug. 17, 1959, but may have been less during period Aug. 14 to Sept. 13, 1959.

Remarks.--Reservoir is formed by earth- and rock-fill dam constructed in 1939. Capacity of reservoir is 12,180 acre-ft between gage heights 27.4 (bottom of outlet gates) and 97.4 ft (top of stop logs in spillway). Water is used for irrigation of land near Carey.

Cooperation.--Gage readings furnished by Little Wood Reservoir Co. and Water District No. 11 C. Capacity curve furnished by Bureau of Reclamation.

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

30.0	60	60.0	2,660
32.0	116	70.0	4,440
35.0	226	80.0	6,760
40.0	490	90.0	9,660
45.0	869	100.0	13,090
50.0	1,340		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-		81	3,664	6,892	9,874	-	-	-	-	2,216	
2	-		242	3,756	6,983	9,984	-	-	11,120	-	1,941	
3	-		396	3,831	7,064	10,090	-	-	11,090	-	-	
4	-		503	3,878	7,179	10,180	-	-	11,090	9,680	1,455	
5	-		577	3,926	7,280	10,290	-	-	11,060	9,629	1,223	
6	-		759	4,015	7,386	10,400	-	-	11,090	9,587	1,051	
7	-		886	4,113	7,511	10,520	-	-	11,190	9,482	921	
8	-		999	4,223	7,620	10,630	-	-	11,140	9,330	-	
9	-		1,120	4,336	7,712	10,720	-	-	-	-	727	
10	-		1,228	4,456	7,822	10,830	-	-	-	9,066	563	
11	-		1,351	4,580	7,968	10,920	-	-	10,620	-	424	
12	-		1,467	4,712	8,067	11,000	-	12,320	10,460	-	251	
13	-		1,602	4,842	8,155	11,130	-	12,360	10,450	8,366	-	
14	-		1,694	4,971	8,243	11,230	12,310	-	-	8,073	-	
15	-		1,780	5,080	8,331	11,320	-	12,320	10,660	-	-	
16	-		1,894	5,176	8,478	11,140	-	-	10,620	7,477	-	
17	-		2,022	5,301	8,632	11,540	-	-	-	7,119	66	
18	-		2,136	5,426	8,757	11,630	-	12,290	10,610	7,053	-	
19	-		2,252	5,542	8,876	11,720	-	12,240	-	6,576	-	
20	79		2,374	5,631	8,977	11,790	-	12,180	10,560	-	-	
21	-		2,491	5,711	9,084	11,850	-	-	-	5,570	-	
22	-		2,600	5,795	9,180	11,890	-	11,930	-	-	-	
23	-		2,721	5,893	9,276	12,020	-	-	10,480	4,776	-	
24	-		2,833	6,028	9,396	12,080	-	11,630	-	4,448	-	
25	-		2,977	6,162	9,476	12,180	-	-	10,250	4,117	-	
26	-		3,079	6,273	9,580	12,240	-	-	10,180	3,817	-	
27	-		3,194	6,376	9,660	12,260	-	-	-	-	-	
28	-		3,311	6,501	9,765	12,270	-	11,260	9,944	3,205	-	
29	-		3,378	6,606	-	12,270	-	11,220	9,842	2,871	-	
30	-	a70	3,471	6,703		12,280	a12,000	-	9,790	-	-	78
31	a1,090		3,561	6,807		12,270		11,130		2,418	a67	
(†)	-	-	65.30	80.18	90.34	97.64	-	94.36	90.42	58.32	-	30.66
(‡)	+1,000	-1,020	+3,491	+3,246	+2,958	+2,505	-270	-870	-1,340	-7,372	-2,351	+11

Calendar year 1958..... ‡ +1,965
Water year 1958-59..... ‡ -12

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents estimated on basis of inflow-outflow study.

1485. Little Wood River near Carey, Idaho

Location.--Lat 43°23', long 114°00', in E½ sec.30, T.1 N., R.21 E., on right bank a third of a mile upstream from West Canal, 1 1/3 miles upstream from East Canal, 2 miles downstream from Little Fish Creek, 3 miles downstream from Little Wood Reservoir, and 6 miles northwest of Carey.

Drainage area.--312 sq mi.

Records available.--April 1904 to May 1905 (gage heights only), September 1926 to November 1942, April 1943 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Records for February 1920 to September 1926 at site 6 miles upstream not equivalent owing to diversion and inflow.

Gage.--Water-stage recorder. Datum of gage is 4,990.59 ft above mean sea level, unadjusted. Apr. 28, 1904, to May 31, 1905, staff gage, Sept. 20, 1926, to Apr. 22, 1938, water-stage recorder, and Apr. 23 to Aug. 17, 1938, staff gage, all at datum 0.74 ft higher.

Average discharge.--32 years (1926-42, 1943-59), 136 cfs (98,460 acre-ft per year).

Extremes.--Maximum discharge during year, 425 cfs Apr. 6 (gage height, 3.95 ft); minimum, 1.9 cfs Dec. 15, 19 (gage height, 1.46 ft).
1904-5, 1926-59: Maximum discharge, 6,000 cfs (due to failure of reservoirs on Little Fish Creek) Apr. 20, 1938 (gage height, 12.81 ft, present datum, from floodmark), from rating curve extended above 1,800 cfs by logarithmic plotting; minimum, 1 cfs Jan. 26, 1945, Jan. 20, 1948.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversions above station for irrigation of about 6,450 acres (1950 determination). Storage in Little Wood Reservoir (capacity, 12,180 acre-ft) began Feb. 12, 1941. Flow is also affected by Campbell, Cameron, and Howard Reservoirs (combined capacity, 690 acre-ft) on South Fork Muldoon and Little Fish Creeks.

Cooperation.--Water-stage recorder inspected by employees of Little Wood Reservoir Co. and Water District No. 11 C.

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

1.4	1.6	1.8	8.3	3.0	176
1.5	2.4	2.0	16	3.5	272
1.6	3.6	2.3	36	4.0	448
1.7	5.6	2.6	69		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	47	*26	3.0	b3.0	4.4	79	154	124	118	149	29
2	59	328	4.0	b3.0	b3.1	4.6	136	205	138	118	156	30
3	61	136	3.8	b2.8	b3.2	4.6	189	163	168	116	145	30
4	62	5.2	3.5	b2.6	3.2	b4.6	232	138	203	114	140	29
5	62	3.8	b3.4	b2.8	b3.0	b4.8	307	126	235	109	130	28
6	61	3.2	3.0	b3.5	2.9	b4.8	345	122	253	118	118	30
7	61	3.2	2.9	4.4	3.0	4.8	275	120	291	*143	112	30
8	63	3.0	3.0	3.5	3.0	4.8	203	112	318	143	107	28
9	62	280	2.9	3.5	b3.0	b4.8	154	116	321	143	100	27
10	63	311	2.9	3.2	3.1	b4.8	138	120	318	160	90	27
11	63	89	2.9	3.2	3.1	b5.0	138	120	307	186	87	27
12	62	31	2.9	3.2	b3.2	b5.0	147	*120	304	186	77	27
13	64	5.0	2.9	*3.0	b3.5	5.0	158	138	288	194	61	30
14	63	4.2	b2.9	b2.8	4.2	5.0	*166	166	278	205	33	45
15	59	3.8	b2.7	b2.6	4.4	b5.0	158	189	*278	203	26	105
16	57	3.6	2.6	2.4	3.8	5.4	143	189	266	203	24	90
17	56	b3.4	2.6	2.3	3.6	5.6	132	183	253	200	*26	72
18	57	3.2	2.6	2.5	3.6	8.3	128	170	247	226	21	66
19	57	3.0	2.6	b2.5	3.6	20	128	166	232	269	24	83
20	*59	3.2	2.6	b2.4	b3.7	26	120	168	232	282	36	86
21	59	3.1	2.6	b2.6	3.8	32	105	186	232	269	40	82
22	45	3.1	2.9	3.1	3.8	24	96	186	232	241	37	76
23	5.6	3.1	2.9	3.0	b3.8	17	96	186	232	238	36	72
24	4.0	3.1	2.9	3.4	*3.8	18	100	178	232	223	35	67
25	3.4	3.1	3.0	3.5	b4.0	22	114	163	226	205	34	64
26	3.1	b113	b3.0	b3.2	4.0	54	130	163	205	205	34	64
27	3.0	314	3.0	3.0	b4.0	62	120	156	205	176	33	63
28	2.8	338	b3.0	3.0	b4.2	64	114	145	189	173	32	68
29	2.6	143	b3.0	b3.0	-	66	107	147	163	168	30	72
30	2.5	62	3.0	b3.0	-------	71	109	143	134	163	30	*72
31	2.5	-------	3.0	b3.0	-------	67	-------	132	-------	156	30	-------
Total	1,342.5	2,255.3	115.0	93.0	98.6	634.3	4,567	4,770	7,104	5,653	2,033	1,619
Mean	43.3	75.2	3.71	3.00	3.52	20.5	152	154	237	182	65.6	54.0
Ac-ft	2,660	4,470	288	184	196	1,260	9,060	9,460	14,090	11,210	4,030	3,210

Calendar year 1958: Max 1,620 Min 2.5 Mean 215 Ac-ft 155,900
Water year 1958-59: Max 345 Min 2.3 Mean 83.0 Ac-ft 60,060

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

1505. Silver Creek near Picabo, Idaho

Location.--Lat 43°17', long 114°01', in sec.1, T.2 S., R.20 E., on left bank 1½ miles downstream from drain ditch of Blaine County Drainage District No. 1 and 3 miles southeast of Picabo.

Drainage area.--88 sq mi, approximately.

Records available.--May 1920 to September 1959 (1923-35, irrigation seasons only).

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer).

Average discharge.--26 years (1920-22, 1935-59), 154 cfs (111,500 acre-ft per year).

Extremes.--Maximum discharge during year, 250 cfs Nov. 18 (gage height, 2.79 ft); maximum gage height, 3.12 ft between Jan. 4-7 (ice jam); minimum discharge, 85 cfs sometime during period Aug. 6-23, while clock was stopped (gage height, 1.23 ft).
1920-59: Maximum discharge recorded, 357 cfs Dec. 24, 1955 (gage height, 3.70 ft); maximum gage height recorded, 4.57 ft Jan. 22, 1950 (ice jam); minimum discharge, 26 cfs June 2, 1920 (gage height, 0.48 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of about 9,000 acres (1950 determination) above station. Two small canals bypass station. Records of discharge do not include water bypassed around station at times by slough on right bank from which there is some diversion for irrigation. Silver Creek receives considerable return flow resulting from Big Wood River irrigation.

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

1.2	84
1.5	114
2.0	166
2.5	221

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	206	190	173	157	160	195	101	109	115	102	96
2	199	206	190	b160	b157	167	194	116	103	114	103	96
3	197	207	191	b154	b156	*165	184	108	97	116	105	96
4	196	209	196	150	156	161	175	111	94	117	102	94
5	198	209	194	155	153	161	168	98	91	120	103	93
6	201	208	191	168	153	161	163	96	93	117	104	98
7	201	207	191	180	153	162	158	98	94	116	104	100
8	201	209	192	190	152	166	156	99	90	115	106	104
9	202	210	*191	205	150	167	154	99	89	116	108	101
10	201	210	190	195	154	164	152	99	89	118	110	98
11	202	210	191	180	157	163	149	101	94	121	105	94
12	204	208	199	170	152	164	147	94	95	118	105	94
13	204	209	203	165	150	174	144	94	94	*117	107	99
14	203	216	194	158	152	175	143	93	95	111	106	111
15	202	221	188	157	153	170	142	92	*95	113	104	132
16	202	218	184	155	154	168	*138	93	97	114	101	138
17	202	213	182	155	157	177	137	*94	98	116	96	134
18	203	216	181	154	154	192	135	97	96	113	95	132
19	204	209	180	154	155	203	137	97	94	112	95	133
20	207	212	179	*155	154	199	132	99	99	112	101	140
21	*208	211	179	b145	154	195	128	100	101	113	105	147
22	207	211	180	b150	154	194	125	100	100	110	109	153
23	207	213	181	157	154	196	123	104	96	108	106	147
24	207	213	180	161	153	203	117	110	97	105	*105	146
25	207	212	181	169	150	203	112	110	101	104	109	146
26	207	206	179	162	153	201	111	103	104	105	104	147
27	207	199	178	161	154	196	108	105	105	104	100	153
28	207	195	177	166	154	188	96	107	108	102	99	150
29	207	192	174	160	-	190	96	106	110	100	96	150
30	207	191	172	159	-------	191	95	112	114	96	96	*153
31	206	-------	170	158	-------	196	-------	111	-------	99	94	-------
Total	6,306	6,256	5,748	5,081	4,305	5,572	4,214	3,147	2,942	3,457	3,185	3,675
Mean	203	209	185	164	154	180	140	102	98.1	112	103	122
Ac-ft	12,510	12,410	11,400	10,080	8,540	11,050	8,360	6,240	5,840	6,860	6,320	7,290

Calendar year 1958: Max 262 Min 62 Mean 170 Ac-ft 123,100
Water year 1958-59: Max 221 Min 89 Mean 148 Ac-ft 106,900

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 4-20, June 18-30, Aug. 6-23; discharge estimated on basis of records for Little Wood River at Shoshone and near Richfield. Flow in bypass channel, which carries water around gage, measured as 12.4 cfs Oct. 21; 15.7 cfs Dec. 9; 9.48 cfs Jan. 20; 9.54 cfs Mar. 3; 8.37 cfs Apr. 16; 2.35 cfs May 17; 0.75 cfs June 15; 2.29 cfs July 13; 0.25 cfs Aug. 24; 3.37 cfs Sept. 30.

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1510. Little Wood River near Richfield, Idaho

Location.--Lat 43°03', long 114°08', in sec.30, T.4 S., R.20 E., on right bank half a mile upstream from Byrns Slough and heading of Dietrich Canal, 1 mile east of railroad station at Richfield, and 14 miles downstream from Silver Creek.

Drainage area.--570 sq mi, approximately.

Records available.--January 1911 to September 1959 (irrigation seasons only prior to 1955 except 1913, 1921).

Gage.--Water-stage recorder. Altitude of gage is 4,270 ft (by barometer). Prior to Sept. 5, 1918, staff gage at site 500 ft downstream at datum 0.92 ft lower. Sept. 5, 1918, to Apr. 13, 1920, staff gage and Apr. 14, 1920, to May 20, 1954, water-stage recorder, at site 500 ft downstream at datum 0.08 ft higher than present datum.

Average discharge.--7 years (1912-13, 1920-21, 1954-59), 155 cfs (112,200 acre-ft per year).

Extremes.--Maximum discharge during year, 304 cfs Nov. 11 (gage height, 3.65 ft); maximum gage height, 3.94 ft Jan. 8 (ice jam); minimum discharge, 56 cfs June 10; minimum gage height, 2.16 ft Aug. 18.
1911-59: Maximum discharge recorded, 868 cfs May 3, 1938 (gage height, 3.97 ft, site and datum then in use); maximum gage height recorded, 8.60 ft Feb. 21, 1956 (ice jam); minimum discharge recorded, 7.6 cfs June 24, 25, 1920 (gage height, 0.52 ft, site and datum then in use).

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation of about 38,300 acres (1950 determination) above station. Flow partly regulated by Little Wood Reservoir (capacity, 12,180 acre-ft), Fish Creek Reservoir (capacity, 13,700 acre-ft), and three small reservoirs on tributaries (combined capacity, 690 acre-ft). River above Silver Creek is dry a large part of the time because of channel losses and irrigation diversions above Carey.

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

2.1	56	3.1	187
2.3	72	3.4	247
2.5	94	3.8	341
2.8	136		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	176	191	166	139	144	171	70	77	76	66	75
2	149	176	183	b155	139	150	169	78	74	76	68	75
3	155	220	180	b140	144	150	166	84	67	77	68	74
4	159	214	180	b125	154	147	159	80	62	76	69	74
5	157	180	183	b135	157	144	155	84	60	78	68	71
6	160	182	*180	b150	138	144	193	69	59	79	67	68
7	160	182	180	b165	136	146	222	63	60	78	67	71
8	160	183	178	b180	136	149	204	65	60	80	69	76
9	162	183	178	b200	136	150	178	68	58	77	71	77
10	164	239	178	b188	136	149	160	62	57	78	70	79
11	166	292	182	b175	139	147	152	*64	59	78	67	77
12	169	214	183	b165	139	144	147	66	62	80	67	75
13	167	195	187	b155	134	152	146	63	60	*76	68	72
14	166	191	183	150	134	157	*149	66	61	76	70	78
15	164	193	182	147	142	155	147	66	*60	73	66	93
16	166	195	176	146	141	154	142	62	60	69	66	110
17	166	174	174	144	144	154	130	63	62	73	68	110
18	169	182	173	144	141	164	120	65	62	72	62	108
19	171	193	171	144	142	174	122	64	61	69	63	108
20	173	202	171	*144	141	178	126	64	63	72	70	110
21	180	191	171	b135	139	173	113	66	64	69	73	115
22	183	191	173	b140	141	171	108	68	65	71	75	121
23	*185	191	173	146	139	173	104	69	63	68	76	124
24	180	191	171	146	*138	174	93	78	62	66	*73	124
25	176	191	173	147	139	176	80	82	63	65	70	124
26	176	191	171	146	142	178	77	78	66	65	74	127
27	176	191	169	144	139	174	80	75	68	64	73	127
28	174	251	171	150	139	171	75	78	68	66	74	127
29	174	265	167	147	-	169	68	78	69	67	72	*128
30	174	247	166	144	-------	171	67	81	75	66	73	128
31	174	-------	164	141	-------	171	-------	82	-------	64	75	-------
Total	5,204	6,066	5,462	4,704	3,928	4,953	4,023	2,201	1,907	2,244	2,158	2,926
Mean	168	202	176	152	140	160	134	71.0	63.6	72.4	69.6	97.5
Ac-ft	10,320	12,030	10,830	9,330	7,790	9,820	7,980	4,370	3,780	4,450	4,280	5,800

Calendar year 1958: Max 608 Min 99 Mean 189 Ac-ft 136,900
Water year 1958-59: Max 292 Min 57 Mean 125 Ac-ft 90,780

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

1515. Little Wood River at Shoshone, Idaho

Location.--Lat 42°56', long 114°24', in sec.2, T.6 S., R.17 E., on left bank just upstream from dam used prior to 1955 for diversion of town water supply, 400 ft upstream from highway bridge in Shoshone.

Drainage area.--620 sq mi, approximately.

Records available.--April 1922 to September 1959 (irrigation seasons only prior to 1955).

Gage.--Water-stage recorder. Datum of gage is 3,956.99 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 18, 1954, at datum 1.98 ft higher.

Extremes.--Maximum discharge during year, 535 cfs May 18 (gage height, 3.73 ft); minimum daily, 30 cfs Oct. 6-8.
1922-59: Maximum discharge recorded, 697 cfs May 13, 1958 (gage height, 4.78 ft); maximum gage height, 9.42 ft Feb. 27, 1957 (ice jam); no flow July 29, 1931, Oct. 3, 1938.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversions for irrigation of about 52,200 acres (1950 determination) above station. Flow affected by operation of Milner-Gooding canal, which diverts from Snake River and crosses Little Wood River above station, by operation of five reservoirs above Carey (see Remarks for station near Richfield), and by Big Wood River water deliveries through Byrns Slough to Dietrich Canal which diverts from left bank of Little Wood River at Richfield.

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

0.8	20	2.5	210
1.1	43	3.0	321
1.5	81	4.0	587
2.0	138		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	65	198	b135	144	150	134	437	427	469	510	446
2	108	66	161	b135	160	175	156	478	478	459	505	440
3	69	71	154	b125	148	190	153	481	405	446	515	443
4	31	113	149	b100	142	169	149	472	434	484	520	440
5	31	77	144	b105	138	114	140	481	453	493	518	437
6	30	72	154	b110	148	80	145	490	443	499	507	434
7	30	80	*146	b*120	144	78	190	472	434	490	515	437
8	30	77	144	b140	140	76	200	466	456	484	520	421
9	31	79	144	b150	148	78	176	440	456	502	525	405
10	35	81	144	b160	*134	80	156	434	450	502	520	418
11	38	158	145	b160	134	79	142	*446	453	490	515	424
12	40	154	150	b155	136	73	133	475	462	493	462	414
13	43	107	149	b150	142	71	127	487	453	*493	472	414
14	43	101	149	b150	131	77	114	469	443	499	487	424
15	41	98	144	b150	132	84	171	466	*437	493	490	450
16	35	95	155	151	139	88	285	487	453	490	453	446
17	36	129	149	149	145	*80	288	518	459	496	453	462
18	38	b135	140	149	151	85	285	530	462	502	459	450
19	41	211	145	150	148	94	288	507	462	499	450	430
20	48	250	149	139	158	99	285	502	459	502	453	427
21	56	244	145	119	151	101	288	496	453	507	469	434
22	73	198	145	123	155	96	311	493	456	507	478	450
23	*73	168	145	174	169	98	303	450	462	505	481	450
24	73	160	145	149	200	98	329	453	462	505	*453	421
25	69	155	145	158	168	99	343	430	462	507	443	450
26	67	154	143	159	159	99	377	424	466	505	434	481
27	88	b140	144	151	150	98	408	424	475	507	430	478
28	65	185	148	153	151	99	383	414	484	507	437	456
29	64	210	140	144	-	100	362	402	472	512	440	*475
30	65	250	b135	151	-------	103	398	402	472	523	443	378
31	65	-------	b135	155	-------	103	-------	427	-------	520	443	-------
Total	1,644	4,081	4,583	4,419	4,165	3,114	7,217	14,353	13,573	15,390	14,800	13,135
Mean	53.0	136	148	143	149	100	241	463	452	496	477	438
Ac-ft	3,260	8,090	9,090	8,760	8,260	6,180	14,310	28,470	26,920	30,530	29,360	26,050

Calendar year 1958: Max 687 Min 30 Mean 307 Ac-ft 222,300
Water year 1958-59: Max 530 Min 30 Mean 275 Ac-ft 199,300

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

1525. Malad River near Gooding, Idaho

Location.--Lat 42°53'10", long 114°48'10", NE¼SW¼, sec.21, T.6 S., R.14 E., on right bank at Hudson Ranch, 2 miles downstream from bridge on Bliss-Gooding highway, 3½ miles downstream from confluence of Big Wood and Little Wood Rivers, 5 miles upstream from diversion dam for King Hill project, and 6 miles southwest of Gooding.

Drainage area.--2,990 sq mi, approximately.

Records available.--March 1916 to September 1959 (fragmentary October 1923 to September 1926; no winter records for water years 1923, 1936-37, 1942; irrigation seasons only for water years 1927-35). Prior to October 1950, published as Big Wood River near Gooding.

Gage.--Water-stage recorder. Altitude of gage is 3,345 ft (from topographic map). Prior to Apr. 13, 1921, staff gage at same site and datum.

Average discharge.--27 years (1916-22, 1937-41, 1942-59), 239 cfs (173,000 acre-ft per year).

Extremes.--Maximum discharge during year, 752 cfs Sept. 26 (gage height, 4.98 ft); minimum, 0.3 cfs Oct. 19 (gage height, 0.08 ft)
1916-59: Maximum discharge, 6,500 cfs Apr. 27, 1952 (gage height, 10.67 ft); no flow at times in many years.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of about 155,000 acres (1950 determination) above station. Flow regulated by Magic Reservoir (see p. 114) and by several smaller reservoirs on tributaries and affected by deliveries from canals diverting from Snake River at Milner.

Revisions (water years).--WSP 1347: 1934.

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

0.0	0.2	0.9	11	2.4	165
.1	.4	1.1	20	3.0	258
.3	.9	1.4	41	4.0	450
.5	2.0	1.8	83	5.0	752
.7	5.0				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	172	87	250	165	192	210	155	71	108	73	105	57
2	112	90	202	b110	172	210	170	317	81	62	100	71
3	106	87	200	b60	189	229	151	224	57	39	100	88
4	92	91	171	b40	231	239	117	228	38	23	116	95
5	83	119	171	*b40	180	228	87	218	46	76	124	88
6	56	109	189	b60	192	180	143	275	63	96	124	88
7	30	100	180	b90	206	157	282	272	69	78	116	96
8	25	93	*171	140	186	155	270	247	62	35	117	97
9	23	108	172	119	*182	157	349	215	78	22	124	81
10	25	97	170	151	224	158	301	176	101	35	130	72
11	27	102	166	159	228	162	272	136	126	36	122	70
12	30	158	166	172	201	170	247	130	136	27	92	70
13	9.9	159	168	174	207	165	213	180	116	27	62	71
14	7.2	140	166	176	228	159	164	183	92	*26	66	108
15	5.5	141	154	180	261	168	81	152	87	34	79	226
16	1.9	126	176	174	255	176	87	161	90	37	78	242
17	.8	b96	171	158	231	182	421	198	97	35	57	272
18	.4	126	166	161	234	*176	338	240	95	31	46	382
19	.4	164	159	148	234	174	265	202	84	31	49	378
20	.9	284	164	150	229	178	202	183	77	31	49	427
21	1.6	296	161	b150	231	188	*127	183	63	32	64	394
22	3.4	247	152	200	218	186	81	178	50	35	82	530
23	3.6	194	151	190	231	180	90	198	25	44	90	611
24	*12	172	151	198	242	180	64	170	27	50	91	620
25	13	176	154	177	253	182	96	170	39	47	*57	642
26	14	182	151	194	228	182	21	123	*67	57	43	692
27	60	171	152	201	221	180	67	115	86	60	35	*711
28	54	143	155	206	212	192	92	127	97	60	32	565
29	116	204	151	204	-	194	42	136	90	71	39	614
30	117	220	151	190	-------	161	17	110	82	93	47	672
31	136	-------	170	221	-------	145	-------	109	-------	115	59	-------
Total	1,338.6	4,482	5,231	4,758	6,098	5,603	5,012	5,627	2,327	1,518	2,495	9,130
Mean	43.2	149	169	153	217	181	167	182	77.6	49.0	80.5	304
Ac-ft	2,660	8,890	10,380	9,440	12,100	11,110	9,940	11,160	4,620	3,010	4,950	18,110

Calendar year 1958: Max 2,910 Min 0.4 Mean 390 Ac-ft 282,300
Water year 1958-59: Max 711 Min 0.4 Mean 147 Ac-ft 106,400

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

1530. King Hill Canal near Hagerman, Idaho

Location.--Lat 42°52', long 114°55', in SW¼ sec.27, T.6 S., R.13 E., on left bank above entrance to inverted siphon crossing Snake River, half a mile west of highway bridge over Malad River and 3½ miles north of Hagerman.

Records available.--March 1930 to September 1959 (irrigation seasons only 1930-37, 1940-46).

Gage.--Water-stage recorder. Altitude of gage is 2,850 ft (by barometer). Prior to Apr. 1, 1948, staff gage at site 400 ft upstream at datum 1.95 ft higher. Apr. 1, 1948, to May 22, 1951, staff gages at present site at different datum prior to Apr. 12, 1949; at present datum thereafter. Supplementary gage 500 ft downstream from siphon efflux, used June 1, 1949, to May 22, 1951.

Extremes.--1930-59: Maximum daily discharge, 348 cfs July 2, 1956; no flow or minor leakage at headgate during nonirrigation seasons and other periods when gates are closed.

Remarks.--Records excellent. This canal, which is operated by King Hill Irrigation District to provide water for irrigation of about 10,000 acres, diverts from Idaho Power Co.'s canal, which diverts from Malad River (Malad Springs water).

Cooperation.--Water-stage-recorder graph for supplementary gage furnished by King Hill Irrigation District.

Revisions (water years).--WSP 723: 1930.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321					0	269	328	*330	315	302	a327
2	321					0	269	315	330	315	300	a327
3	321					0	269	331	330	315	298	a329
4	322					0	269	331	320	315	300	a329
5	321					0	269	331	321	312	297	a329
6	322					0	269	331	324	314	290	a330
7	322					0	270	331	325	314	281	a329
8	322					0	271	331	326	312	280	a329
9	323					0	271	331	326	314	0	a328
10	164					0	271	330	325	314	0	*327
11	1		(*)			0	271	330	320	315	40	328
12	0					0	270	330	318	315	322	328
13	0					0	270	331	313	315	326	329
14	0				(*)	0	270	331	312	315	326	329
15	0					0	288	331	304	315	327	326
16	0					0	297	331	297	314	327	323
17	0			(*)		0	326	331	43	314	329	324
18	0					0	329	331	0	314	329	324
19	0					0	329	331	0	314	329	322
20	*0					0	328	331	a300	312	330	322
21	0					0	328	331	a316	310	332	322
22	0					0	*328	331	a316	310	332	322
23	0					*0	328	331	a316	312	328	322
24	0					*0	328	331	a312	312	329	321
25	0					122	330	331	*a310	313	326	320
26	0					220	331	331	310	312	326	321
27	0					257	331	330	312	312	330	322
28	0					273	333	330	315	*307	328	320
29	0					271	332	330	316	309	a326	320
30	0				-------	270	332	330	317	307	a326	321
31	0	-------			-------	269	-------	331	-------	301	a326	-------
Total	3,060	0	0	0	0	1,682	8,976	10,235	8,604	9,688	8,942	9,750
Mean	98.7	0	0	0	0	54.3	299	330	287	313	288	325
Ac-ft	6,070	0	0	0	0	3,340	17,800	20,300	17,070	19,220	17,740	19,340

Calendar year 1958: Max 331 Min 0 Mean 158 Ac-ft 114,600
Water year 1958-59: Max 333 Min 0 Mean 167 Ac-ft 120,900

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of gage heights at supplementary gage.

1540. Clover Creek near Bliss, Idaho

Location.--Lat 43°01'30", long 115°00'20", in NE¼ sec.3, T.5 S., R.12 E., just downstream from Calf Creek and 6½ miles northwest of Bliss.

Drainage area.--140 sq mi.

Records available.--April 1938 to October 1943, August 1957 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,119.97 ft, datum of 1929 (levels by Bureau of Reclamation). April 1938 to October 1943 at site 3 miles downstream at different datum.

Average discharge.--7 years, 30.7 cfs (22,230 acre-ft per year).

Extremes.--Maximum discharge during year, 705 cfs Mar. 31 (gage height, 5.21 ft); minimum, 0.04 cfs Aug. 3.
1938-43, 1957-59: Maximum discharge observed, 1,560 cfs Dec. 31, 1942 (gage height, 6.68 ft, site and datum then in use); no flow for many days in 1938-40, 1942.
Flood in December 1955 reached a stage of 10.2 ft, site and datum then in use, from floodmarks.

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

Rating table, water year 1958-59 (gage height, in feet, an discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-28, Apr. 3 to July 6, Aug. 13 to Sept. 11)

0.4	0	1.0	10
.5	.4	1.2	21
.6	1.2	1.5	46
.7	2.4	2.0	106
.8	4.3	3.0	253

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	3.3	4.1	5.4	9.1	41	152	2.5	1.5	1.0	0.2	0.6
2	1.5	3.3	4.1	5.4	8.0	39	106	3.3	*1.7	.9	.2	.6
3	1.5	3.5	4.1	4.0	7.7	28	84	2.5	1.5	.9	.1	.6
4	1.7	3.5	4.3	3.5	7.7	16	64	2.4	1.7	.9	.1	.6
5	2.1	3.5	4.3	*4.6	7.4	12	51	2.5	1.8	1.0	.1	.8
6	2.1	3.5	4.3	7.7	7.7	11	44	2.7	1.8	*1.0	.1	1.1
7	2.2	3.7	4.3	6.5	7.7	12	37	2.4	1.5	1.0	.1	1.4
8	2.4	3.7	*4.6	6.2	7.4	14	32	2.0	1.4	1.0	.2	.4
9	2.4	3.7	4.6	6.5	*7.0	15	27	2.0	1.4	1.0	.4	.4
10	2.7	3.7	4.3	6.5	7.0	11	24	1.9	1.4	1.0	.5	.6
11	2.7	3.7	4.6	6.2	7.0	9.8	22	1.8	1.4	.8	.5	.6
12	2.4	3.7	5.1	6.2	6.7	9.1	19	1.7	1.3	.9	.6	.8
13	2.4	3.9	4.6	7.0	6.5	22	17	1.7	1.3	.9	1.0	.9
14	2.4	4.3	4.2	9.4	6.2	12	16	1.5	1.3	.9	1.1	1.4
15	2.4	4.1	4.7	7.7	5.9	10	15	2.1	1.4	.9	1.1	1.5
16	2.4	3.9	5.1	7.0	8.8	*15	14	2.2	1.3	.8	1.0	1.0
17	2.4	3.9	4.8	7.0	62	28	12	2.4	1.3	.7	1.0	1.0
18	2.5	3.7	4.8	7.0	79	31	10	2.2	1.3	.7	1.0	1.0
19	2.5	3.9	4.8	7.4	126	26	9.8	2.0	1.3	.6	.9	1.2
20	2.7	4.3	5.1	7.0	56	16	*9.4	2.0	1.2	.6	.9	1.4
21	2.5	3.9	5.1	7.0	52	11	8.8	1.9	1.2	.6	1.0	2.2
22	2.7	3.7	5.1	6.7	51	13	8.0	1.9	1.1	.5	1.0	2.2
23	2.9	3.7	5.1	6.7	43	18	6.5	2.0	1.0	.4	1.0	1.5
24	*2.9	3.5	5.1	7.0	24	26	5.1	2.1	1.0	.4	1.0	1.4
25	2.9	3.7	5.6	12	18	20	3.1	1.9	1.0	.4	*.7	1.7
26	2.7	3.7	5.4	10	20	22	3.7	1.7	1.1	.4	.6	2.7
27	2.7	3.7	5.1	9.1	19	18	3.3	1.7	1.1	.4	.6	3.3
28	3.1	3.9	5.4	27	23	16	2.7	1.5	1.2	.3	.5	*2.7
29	3.3	4.1	5.1	24	-	17	1.9	1.5	1.2	.4	.4	2.5
30	3.1	4.1	5.1	15	-------	42	1.3	1.5	1.2	.3	.5	2.7
31	3.3	-------	5.1	10	-------	245	-------	1.5	-------	.3	.5	-------
Total	76.8	112.8	148.0	262.7	690.8	825.9	810.2	63.0	39.9	21.9	18.9	40.8
Mean	2.48	3.76	4.77	8.47	24.7	26.6	27.0	2.03	1.33	0.71	0.61	1.36
Ac-ft	152	224	294	521	1,370	1,640	1,610	125	79	43	37	81

Calendar year 1958: Max 513 Min 0.6 Mean 28.3 Ac-ft 20,510
Water year 1958-59: Max 245 Min 0.1 Mean 8.53 Ac-ft 6,180

* Discharge measurement made on this day.

1545. Snake River at King Hill, Idaho

Location.--Lat 43°00'10", long 115°12'05" (revised), in SW¼ sec.7, T.5 S., R.11 E., on right bank 300 ft east of railroad station at King Hill and 20 miles downstream from Malad River.

Drainage area.--35,800 sq mi, approximately.

Records available.--May 1909 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,492.3 ft above mean sea level, by stadia levels. May 13, 1909, to Mar. 1, 1910, staff gage on left bank at present site at datum 2.20 ft higher. Mar. 7 to Aug. 16, 1910, staff gage three-quarters of a mile upstream at different datum. Aug. 17, 1910, to Oct. 7, 1928, staff gage at present site and datum.

Extremes.--Maximum discharge during year, 16,400 cfs Oct. 16 (gage height, 8.96 ft); minimum, 1,990 cfs Dec. 3 (gage height, 2.60 ft); minimum daily, 6,700 cfs Dec. 3. 1909-59; Maximum discharge observed, 47,200 cfs June 22, 1918 (gage height, 16.3 ft), from rating curve extended above 30,000 cfs; minimum observed, 1,250 cfs Jan. 10, 1950 (gage height, 1.75 ft); minimum daily, 4,760 cfs July 7-9, Aug. 15, 16, 1910.

Remarks.--Records excellent. Flow regulated by powerplants at Lower Salmon Falls and near Bliss and by many reservoirs above station. Practically entire flow at Milner diverted at times during some irrigation seasons; flow at King Hill is then derived largely from springs and seepage entering below Milner. About 1,590,000 acres irrigated by diversion from river and its tributaries above station. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 1 to Apr. 24)

5.0	5,730
6.0	7,840
7.0	10,300
8.0	13,200

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,920	9,560	10,700	9,890	8,590	8,660	9,750	7,620	7,720	7,840	8,740	7,950
2	9,550	9,540	11,300	8,980	8,860	8,460	9,750	9,490	*7,800	7,560	7,640	8,800
3	8,310	9,160	6,700	9,080	8,750	9,110	9,070	7,890	7,560	7,690	8,500	8,340
4	8,980	9,680	9,520	7,620	8,420	9,800	8,970	8,500	7,400	7,380	7,840	8,840
5	9,200	9,580	9,940	8,760	8,560	9,420	8,500	8,190	7,380	7,450	8,600	8,620
6	8,980	9,560	8,530	8,470	8,660	10,300	7,320	8,220	7,410	*7,480	8,160	8,520
7	9,080	9,820	9,720	8,680	8,750	9,150	7,990	8,830	7,490	7,640	8,500	8,750
8	8,920	9,480	9,650	8,600	8,410	8,560	8,190	8,110	8,010	7,500	8,090	9,060
9	9,280	8,320	9,260	9,000	8,900	8,420	7,370	8,120	7,370	7,650	8,210	8,700
10	9,120	a10,500	8,920	8,880	8,520	8,880	7,710	7,640	7,090	7,540	8,360	*9,040
11	8,980	a9,000	*9,680	8,920	8,900	8,230	7,930	7,810	7,650	7,500	8,270	8,880
12	9,440	a9,300	9,000	8,880	8,900	8,480	8,030	7,550	7,720	7,640	8,100	8,770
13	10,100	a9,900	9,340	8,940	8,860	8,930	7,560	7,390	7,510	7,430	7,400	8,620
14	9,180	a9,400	8,480	9,320	8,430	9,600	7,530	7,210	7,400	7,440	7,720	9,440
15	9,400	a10,200	10,600	9,040	8,930	9,070	7,480	7,520	7,770	7,590	8,140	9,690
16	11,400	a10,000	8,980	9,080	*9,050	*8,170	7,370	7,250	7,570	7,540	7,760	9,910
17	11,200	a9,000	8,000	8,700	9,170	8,910	7,580	7,490	8,060	7,580	7,850	9,820
18	13,000	a9,000	9,510	9,210	9,270	8,600	8,320	7,480	7,910	7,640	8,140	10,700
19	11,300	a8,800	9,260	*9,230	8,930	8,740	8,060	7,810	7,950	7,380	7,880	10,000
20	10,900	a9,600	9,240	8,540	8,760	8,030	*7,560	7,370	7,910	7,560	8,240	10,400
21	9,610	10,400	8,500	8,810	9,540	8,890	7,430	8,020	7,440	7,700	8,000	8,920
22	10,400	10,400	9,960	8,640	8,800	8,240	7,940	7,640	7,580	7,940	8,120	10,100
23	9,590	9,360	9,290	8,690	8,880	8,760	6,910	7,530	7,610	7,540	7,740	9,940
24	11,100	10,800	9,270	9,120	8,900	8,490	7,360	7,760	7,380	7,370	8,580	11,400
25	11,300	9,700	9,560	8,820	8,520	9,430	7,560	7,780	7,720	7,570	8,040	9,800
26	*9,820	10,700	9,090	8,760	9,290	7,490	7,190	7,650	7,550	7,700	8,300	11,400
27	10,200	8,800	9,450	8,620	8,500	8,010	7,440	7,700	7,860	*7,900	8,080	9,730
28	9,430	10,300	8,670	8,870	8,520	8,070	7,680	7,940	7,840	7,760	8,150	10,700
29	10,300	8,600	9,550	9,000	-	8,470	7,300	8,000	8,860	7,740	9,100	9,590
30	10,800	9,300	9,070	8,600	-------	9,750	7,770	7,820	7,720	7,900	8,200	10,000
31	8,270	-------	8,880	8,700	-------	9,950	-------	7,900	-------	7,820	8,560	-------
Total	306,060	287,760	287,620	274,450	246,570	273,070	236,620	243,230	230,240	235,970	253,010	284,430
Mean	9,873	9,592	9,278	8,853	8,806	8,809	7,887	7,846	7,675	7,612	8,162	9,481
Ac-ft	607,100	570,800	570,500	544,400	489,100	541,600	469,300	482,400	456,700	468,000	501,800	564,200

Calendar year 1958: Max 14,100 Min 6,700 Mean 9,743 Ac-ft 7,053,000
Water year 1958-59: Max 13,000 Min 6,700 Mean 8,655 Ac-ft 6,266,000

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station near Murphy.

1605. Mountain Home feeder canal near Mountain Home, Idaho

Location.--Lat 43°13', long 115°42', in sec.36, T.2 S., R.6 E., on right bank 40 ft downstream from point of diversion from Canyon Creek and 5 miles north of Mountain Home.

Records available.--April 1924 to September 1929, April 1931 to September 1959 (irrigation seasons only 1924-29, 1931-35, 1938-45).

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,330 ft (by barometer). Prior to May 4, 1924, staff gage and May 4, 1924, to Sept. 30, 1929, water-stage recorder, at site 30 ft downstream at datum 0.07 ft lower.

Extremes.--1924-29, 1931-59: Maximum daily discharge, 182 cfs Jan. 1, 1943; no flow at times in most years.

Remarks.--Records good. Canal diverts from Canyon Creek in sec.36, T.2 S., R.6 E., and delivers water to Mountain Home cooperative canal, which heads in Mountain Home feeder canal half a mile below station, for irrigation of about 5,000 acres in Mountain Home Irrigation District. During nonirrigation season and at times when there is a surplus of water for irrigation, canal feeds directly into Mountain Home Reservoir. No diversion from canal above station. Flow regulated by headgates in Canyon Creek and by Long Tom and Little Camas Reservoirs.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	12	0	6.2	19	25	28	64	48	74	50	29
2	32	12	2.4	b6.0	b17	30	46	59	62	74	50	29
3	32	12	3.8	b5.5	b16	30	54	50	74	74	50	29
4	30	12	3.8	b6.0	16	28	53	49	74	72	51	29
5	30	8.8	*3.8	b6.5	16	27	49	38	76	72	54	29
6	26	0	3.3	*b7.5	16	26	45	38	72	72	53	26
7	20	0	3.3	b7.5	15	25	39	38	74	70	53	25
8	20	0	3.3	b7.5	15	24	32	37	72	67	51	25
9	20	0	3.3	7.6	b15	23	29	38	*72	64	53	25
10	19	0	b3.3	7.1	15	22	27	44	72	62	51	24
11	19	0	3.8	6.6	14	20	25	45	67	65	51	25
12	19	0	4.7	6.6	14	20	24	45	56	65	51	24
13	18	0	b4.7	7.6	b14	19	23	46	51	67	50	24
14	18	0	b5.2	8.0	b14	18	22	48	45	67	49	23
15	18	0	b5.2	b8.5	14	18	20	64	44	68	49	23
16	*18	0	5.0	8.9	15	17	21	62	44	67	49	22
17	17	0	5.3	8.9	17	17	18	62	44	67	49	21
18	17	0	5.3	9.4	18	17	18	64	41	70	54	22
19	16	0	5.3	10	*24	18	18	64	41	72	*56	22
20	16	0	5.3	b11	29	18	18	65	42	72	46	21
21	16	0	5.8	b11	29	18	26	67	59	70	45	20
22	15	0	6.2	10	27	18	36	65	70	68	36	20
23	15	0	5.3	9.4	27	18	36	67	76	*56	34	19
24	15	0	5.8	10	26	18	37	65	76	56	34	19
25	14	0	6.2	12	25	*18	46	67	76	56	35	19
26	14	0	5.8	12	24	18	62	67	76	56	32	21
27	14	0	6.2	14	24	18	62	*65	74	54	32	19
28	12	0	5.8	18	24	18	*62	57	74	51	30	19
29	12	0	b5.8	18	-	18	62	48	74	53	29	18
30	12	0	5.8	19	-------	20	60	48	76	51	28	18
31	12	-------	5.8	20	-------	20	-------	45	-------	51	28	-------
Total	588	56.8	144.6	306.3	539	644	1,098	1,681	1,902	2,003	1,383	689
Mean	19.0	1.89	4.66	9.88	19.2	20.8	36.6	54.2	63.4	64.6	44.6	23.0
Ac-ft	1,170	113	287	608	1,070	1,280	2,180	3,330	3,770	3,970	2,740	1,370

Calendar year 1958: Max 136 Min 0 Mean 42.7 Ac-ft 30,930
Water year 1958-59: Max 76 Min 0 Mean 30.2 Ac-ft 21,890

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

1625. East Fork Jarbidge River near Three Creek, Idaho

Location.--Lat 42°02', long 115°22', in SE¼SE¼ sec.14, T.16 S., R.9 E., on left bank a quarter of a mile downstream from Murphy Hot Springs, 2 miles upstream from mouth, and 11 miles southwest of Three Creek.

Drainage area.--89 sq mi, approximately.

Records available.--October 1928 to March 1933, September 1953 to September 1959. Monthly discharge only for October 1928, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to Sept. 23, 1953, at same site at datum about 1.6 ft higher.

Average discharge.--10 years (1928-32, 1953-59), 50.2 cfs (36,340 acre-ft).

Extremes.--Maximum discharge during year, 324 cfs June 7 (gage height, 4.12 ft); minimum, 2.0 cfs Feb. 9 (gage height, 2.34 ft).
1928-33, 1953-59: Maximum discharge, 614 cfs June 5, 1957 (gage height, 5.11 ft); minimum, 1.4 cfs Dec. 31, 1957 (gage height, 1.95 ft).

Remarks.--Records fair. No diversion or regulation above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 24 to July 10, Sept. 26, 27)

2.4	3.1	3.1	78
2.5	6.6	3.5	170
2.7	18	4.0	288
2.9	40	4.1	312

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	8.1	9.0	9.0	10	12	17	136	103	60	*20	8.1
2	9.5	9.1	9.5	5.9	5.9	14	31	138	131	58	18	8.1
3	9.5	9.5	*9.0	4.8	10	*17	51	103	179	58	18	7.6
4	9.0	9.5	12	5.6	10	15	72	88	218	56	17	*7.6
5	9.0	10	10	9.5	8.1	14	83	78	240	56	16	7.1
6	8.6	10	11	10	8.1	14	92	74	286	52	16	7.6
7	8.6	10	11	9.0	8.6	14	70	64	307	51	15	7.1
8	8.6	11	12	8.6	7.1	12	52	64	266	47	14	7.1
9	8.6	10	13	*9.0	5.3	13	42	74	274	44	14	7.1
10	8.6	14	12	9.5	9.5	13	35	88	269	40	13	7.1
11	8.6	12	19	9.5	8.6	10	35	96	252	39	12	6.6
12	8.6	8.1	45	10	7.0	13	42	122	269	39	12	7.6
13	8.1	10	19	12	8.0	15	52	177	*305	38	12	8.1
14	8.1	15	13	12	9.0	12	54	221	302	38	12	11
15	8.1	10	16	8.6	9.0	11	52	216	298	37	11	16
16	8.1	7.1	16	13	9.5	13	44	168	262	34	11	13
17	8.1	6.2	13	16	9.0	15	39	147	250	31	10	14
18	8.1	11	12	13	8.6	16	35	136	235	30	11	13
19	8.6	12	11	10	9.0	16	31	*119	233	30	11	15
20	9.5	12	10	9.0	8.6	14	30	108	216	27	12	16
21	9.1	11	10	10	9.0	16	30	101	207	26	12	17
22	*9.1	10	10	13	9.5	16	33	106	193	26	12	16
23	9.5	10	8.1	11	9.0	18	37	117	175	25	11	16
24	9.5	12	7.1	10	9.0	16	*56	124	145	23	10	14
25	9.5	10	9.5	11	7.6	*16	76	131	122	22	10	17
26	9.5	8.6	7.6	11	9.5	17	81	136	117	22	10	43
27	9.5	8.6	11	10	9.5	17	72	138	99	20	9.0	49
28	9.5	6.2	9.0	10	9.5	16	62	133	85	19	8.6	33
29	9.1	10	7.6	8.6	-	16	64	124	78	19	8.1	27
30	8.6	8.6	10	10	-------	16	88	115	68	19	8.1	26
31	7.6	-------	9.5	8.6	-------	16	-------	106	-------	18	7.6	-------
Total	273.9	299.6	379.9	307.2	241.5	455	1,558	3,748	6,184	1,104	381.4	452.8
Mean	8.84	9.99	12.3	9.91	8.62	14.7	51.9	121	206	35.6	12.3	15.1
Ac-ft	543	594	754	609	479	902	3,090	7,430	12,270	2,190	756	898

Calendar year 1958: Max 391 Min 6.2 Mean 49.1 Ac-ft 35,560
Water year 1958-59: Max 307 Min 4.8 Mean 42.2 Ac-ft 30,520

Peak discharge (base, 200 cfs).--May 15 (4:15 a.m.) 242 cfs (3.77 ft); June 7 (8:30 a.m.) 324 cfs (4.12 ft).

* Discharge measurement made on this day.

1670. East Fork Bruneau River below Three Creek, near Three Creek, Idaho

Location.--Lat 42°10', long 115°13', in NE¼ sec.31, T.14 S., R.11 E., on left bank 1 mile downstream from Three Creek and 7 miles northwest of Three Creek Post Office.

Drainage area.--210 sq mi, approximately.

Records available.--May to September 1953, November 1953 to November 1954, January 1955, March 1955 to September 1959 (fragmentary May, August, November 1953, June to November 1954, January, March, June to August 1955).

Gage.--Water-stage recorder. Altitude of gage, 5,150 ft (by barometer). Prior to Aug. 30, 1955, staff gage at Salls Ranch 3 miles downstream at different datum.

Extremes.--Maximum discharge during year, 89 cfs May 28 (gage height, 4.04 ft); minimum, 3.0 cfs Sept. 3 (gage height, 2.75 ft).
1953-59: Maximum discharge recorded, 451 cfs May 19, 1957 (gage height, 7.43 ft); minimum recorded, 1.1 cfs Sept. 11, 12, 13, 1955 (gage height, 2.32 ft).

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation from main stem and tributaries above and below station. Water diverted from Deadwood Creek, tributary of the East Fork, to Cedar Creek Reservoir in Salmon Falls Creek basin for irrigation.

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

2.7	2.0	3.1	16
2.8	4.0	3.5	43
2.9	7.0	4.0	86

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	8.3	9.5	10	11	11	12	41	67	18	*4.0	3.8
2	7.0	8.3	9.1	8.3	9.9	11	13	50	61	14	4.3	3.4
3	7.4	8.7	*9.1	b7.2	b10	*10	15	46	54	12	4.6	3.4
4	7.4	9.1	8.7	b6.5	b10	8.7	19	44	50	11	4.6	*3.2
5	7.4	9.1	8.3	b7.5	10	9.1	26	41	50	10	4.3	3.2
6	7.4	8.7	8.7	b9.0	10	9.5	32	46	49	9.5	5.5	3.2
7	7.4	9.1	8.7	b10	10	9.9	32	37	68	8.7	7.8	3.4
8	7.8	9.1	8.7	b10	9.9	9.5	30	32	82	8.7	7.0	3.8
9	7.8	9.1	10	*b10	b8.0	9.9	28	29	50	8.3	6.7	3.8
10	7.8	11	9.9	b10	b8.5	9.9	26	27	43	7.4	6.7	3.8
11	8.3	11	9.9	11	b9.0	9.1	25	25	40	6.7	6.4	3.8
12	8.3	9.1	13	12	b8.0	10	25	25	33	6.7	6.1	4.0
13	8.3	10	9.9	15	b7.0	10	26	28	28	6.7	6.1	4.0
14	8.3	16	b9.0	12	b9.0	9.5	27	32	26	7.0	6.1	3.8
15	9.1	12	b9.0	10	b11	10	27	42	*25	8.7	5.8	4.6
16	9.1	b11	9.1	11	10	11	23	51	26	8.3	5.5	3.6
17	9.1	b11	8.7	12	13	10	21	51	22	7.4	5.8	3.8
18	8.7	b13	8.7	12	13	9.9	25	68	20	7.0	5.8	3.8
19	8.7	18	8.7	10	12	9.9	26	73	18	6.4	5.8	3.6
20	9.1	17	8.7	b10	12	9.9	23	54	16	5.8	6.1	3.8
21	8.7	12	9.1	b10	12	11	18	50	16	5.8	6.1	4.3
22	*8.7	11	9.9	11	11	10	18	54	14	5.2	5.5	3.8
23	8.7	9.9	9.5	11	11	11	19	62	13	5.2	4.3	4.0
24	8.7	9.9	9.1	12	11	11	19	57	12	5.2	3.6	4.3
25	9.1	9.5	9.1	11	11	*12	*26	55	12	4.6	3.6	5.5
26	9.1	b8.4	9.1	13	11	12	31	62	22	4.3	4.0	6.4
27	9.1	b8.0	9.5	12	11	12	36	80	29	4.6	4.0	6.4
28	9.1	b9.5	8.3	12	11	12	36	84	26	4.3	3.8	6.1
29	9.1	b9.4	b8.8	b11	-	12	31	76	24	4.3	3.8	6.4
30	8.3	9.1	9.5	b10	-------	13	31	76	22	4.6	3.8	7.8
31	8.7	-------	9.9	b10	-------	13	-------	70	-------	4.6	3.6	-------
Total	259.1	315.3	287.2	326.5	290.3	326.8	746	1,568	998	231.0	161.1	128.8
Mean	8.36	10.5	9.26	10.5	10.4	10.5	24.9	50.6	33.3	7.45	5.20	4.29
Ac-ft	514	625	570	648	576	648	1,480	3,110	1,980	458	320	255

Calendar year 1958: Max 127 Min 4.3 Mean 22.0 Ac-ft 15,930
Water year 1958-59: Max 84 Min 3.2 Mean 15.4 Ac-ft 11,180

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

1675. East Fork Bruneau River near Hot Spring, Idaho

Location.--Lat 42°33'25", long 115°30'35", in SW¼NW¼ sec.15, T.10 S., R.8 E., on right bank at Winter Camp Ranch, 10 miles upstream from mouth and 20 miles southeast of Hot Spring.

Drainage area.--620 sq mi, approximately.

Records available.--August 1910 to November 1914, February to April 1915, December 1948 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,864.7 ft, datum of 1929, supplementary adjustment of 1947. Prior to Dec. 10, 1948, staff gage at approximately present site at different datum.

Average discharge.--14 years (1910-14, 1949-59), 30.8 cfs (22,300 acre-ft per year).

Extremes.--Maximum discharge during year, 81 cfs May 29 (gage height, 3.26 ft); no flow for several days in July, August, and September.
1910-15, 1948-59: Maximum discharge recorded, 463 cfs May 20, 1957 (gage height, 7.12 ft), but may have been more during period of ice effect Mar. 7, 8, 1911; maximum gage height observed, 10.8 ft Mar. 8, 1911, datum then in use (ice jam); no flow for long periods during irrigation seasons in 1954, 1955, and shorter periods in 1959.
Maximum stage known, 16.9 ft, from floodmark, datum then in use, during spring of 1910.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation from main stem and tributaries above station. Water diverted from Deadwood Creek, tributary of the East Fork, to Cedar Creek Reservoir in Salmon Falls Creek basin for irrigation.

Revisions (water years).--WSP 1397: 1949.

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

Oct. 1 to Feb. 20		Feb. 21 to Sept. 30			
1.6	2.5	1.06	0	1.8	6.8
1.7	3.9	1.2	.1	2.0	14
1.8	5.9	1.3	.4	2.4	32
2.0	12	1.4	1.0	2.8	53
2.1	16	1.5	1.8	3.2	77
		1.6	3.0		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	6.4	7.4	8.0	8.0	11	13	28	64	21	0.1	0
2	4.3	6.4	7.2	6.0	6.0	11	13	31	60	19	.3	0
3	4.1	6.4	7.6	3.5	6.5	11	12	43	55	15	.2	.1
4	4.3	6.7	7.4	3.0	7.0	10	11	40	51	11	0	.1
5	4.5	6.7	*7.2	5.0	6.5	9.0	13	30	*45	9.3	0	.6
6	4.5	7.0	9.0	6.0	7.0	8.0	19	37	44	8.7	0	.6
7	4.5	7.0	10	7.0	7.0	9.0	25	38	44	6.8	0	.6
8	4.5	7.0	11	8.0	6.0	8.7	28	35	56	5.5	0	.5
9	4.1	7.2	11	9.5	5.2	8.4	27	29	56	4.8	0	.3
10	4.7	8.1	11	11	6.0	8.4	26	26	46	4.3	0	.3
11	4.9	8.3	11	13	7.0	8.0	24	25	41	4.1	0	.4
12	4.9	8.0	12	*15	5.5	8.7	23	22	37	3.8	0	.6
13	4.9	9.3	11	14	5.0	9.9	22	21	32	3.5	.2	.5
14	4.7	10	9.0	12	5.5	11	22	21	27	3.0	.5	1.2
15	4.7	10	9.0	10	8.0	8.4	23	23	25	2.0	.3	2.4
16	*5.3	7.0	9.5	11	10	9.3	23	26	21	1.9	.2	2.4
17	5.7	6.0	10	12	*11	12	23	38	21	1.4	.2	2.0
18	5.5	6.5	10	13	12	11	22	*42	21	1.9	.6	2.4
19	5.7	7.5	10	10	13	10	22	51	17	1.3	*.6	1.9
20	5.7	10	10	8.0	12	9.6	23	61	16	1.5	.3	2.2
21	5.5	10	10	7.0	11	9.6	22	48	16	*1.2	.6	2.3
22	5.7	10	9.6	8.0	12	9.6	18	42	14	.9	1.0	2.2
23	5.9	10	9.9	10	12	11	16	45	12	.8	1.3	1.8
24	6.2	10	9.9	10	11	11	15	52	11	.6	1.1	2.0
25	5.9	8.0	9.6	10	11	*11	17	50	9.6	.5	.9	2.2
26	5.9	7.0	8.5	11	11	11	18	48	9.9	.4	.9	2.3
27	6.2	6.5	6.0	12	10	12	*25	54	11	.2	.5	3.0
28	6.4	6.0	5.0	11	11	12	28	73	20	0	.2	3.3
29	6.4	6.8	4.8	10	-	12	30	77	24	0	.1	3.8
30	6.4	7.6	7.0	9.0	------	13	28	70	22	.1	.1	4.4
31	6.4	-------	8.0	8.5	-------	13	-------	68	-------	.1	-------	-------
Total	162.7	233.4	278.6	291.5	243.2	317.6	631	1,303	928.5	134.6	10.2	46.4
Mean	5.25	7.78	8.99	9.40	8.69	10.2	21.0	42.0	31.0	4.34	0.33	1.55
Ac-ft	323	463	553	578	482	630	1,250	2,580	1,840	267	20	92

Calendar year 1958: Max 121 Min 1.4 Mean 20.4 Ac-ft 14,800
Water year 1958-59: Max 77 Min 0 Mean 12.5 Ac-ft 9,080

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 12, Nov. 15 to Dec. 8, Dec. 14-20, Dec. 26 to Feb. 16, Mar. 4-11.

1685. Bruneau River near Hot Spring, Idaho

Location.--Lat 42°46'17", long 115°43'10", in SE¼ sec.34, T.7 S., R.6 E., on right bank at Dunham Ranch, 1 mile downstream from Hot Creek, 1½ miles south of Hot Spring Post Office, 9 miles southeast of Bruneau, and 19 miles downstream from East Fork.

Drainage area.--2,630 sq mi, approximately.

Records available.--July 1909 to March 1915, October 1943 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,598.5 ft above mean sea level, datum of 1929. Prior to Mar. 12, 1910, staff gage at site a quarter of a mile upstream at different datum. Mar. 12, 1910, to Mar. 15, 1915, staff gage at present site and datum.

Average discharge.--21 years (1909-14, 1943-59), 396 cfs (286,700 acre-ft per year).

Extremes.--Maximum discharge during year, 924 cfs June 7 (gage height, 5.71 ft); minimum, 32 cfs Jan. 4 (gage height, 3.30 ft).
1909-15, 1943-59: Maximum discharge observed, 6,500 cfs Mar. 1, 1910 (gage height, 13.0 ft, from floodmark, present site and datum), from rating curve extended above 1,200 cfs; minimum observed, that of Jan. 4, 1959.

Remarks.--Records excellent. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 8,500 acres. Records of chemical analyses for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 1063: 1913. WSP 1517: 1910(M). WSP 1567. Drainage area.

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

3.4	48	4.6	352
3.6	80	5.0	520
3.9	145	5.5	785
4.2	224	6.0	1,080

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	86	107	111	113	113	170	331	435	268	73	52
2	70	86	102	104	113	113	175	419	423	244	72	52
3	72	88	118	73	96	124	221	453	466	233	70	51
4	72	90	120	36	100	134	345	402	545	221	65	52
5	72	90	*113	45	129	136	406	363	*625	213	62	52
6	72	92	109	82	111	136	453	338	724	196	62	51
7	72	92	111	107	107	131	462	317	840	186	60	51
8	72	94	113	109	111	129	398	304	870	173	58	52
9	70	98	118	109	90	131	348	291	774	162	57	54
10	70	104	122	115	80	131	304	304	752	152	56	52
11	72	118	124	124	96	129	278	317	702	143	54	52
12	73	118	129	*120	109	122	265	334	670	136	54	52
13	73	115	170	124	88	120	275	394	714	134	54	52
14	72	120	160	124	75	129	284	493	730	131	54	62
15	72	124	118	127	94	138	287	590	702	129	54	66
16	*72	134	107	124	131	143	284	600	648	129	54	73
17	72	98	136	124	*124	155	278	530	585	122	54	78
18	73	86	129	129	120	155	272	*493	550	113	54	73
19	75	109	124	129	118	170	253	471	502	107	*54	75
20	77	136	120	124	118	186	244	453	475	107	58	78
21	78	131	120	98	115	175	230	427	449	*100	60	82
22	78	129	120	94	111	160	224	390	427	98	60	82
23	82	131	118	122	111	165	221	394	402	94	62	78
24	82	124	118	127	113	175	218	410	375	90	60	75
25	84	118	111	122	115	*180	247	419	342	88	58	75
26	84	115	104	129	111	170	291	423	324	86	57	82
27	86	102	102	129	104	168	*300	462	334	84	57	107
28	86	75	104	131	111	170	304	516	304	82	57	152
29	86	77	107	127	-	170	287	560	294	77	56	120
30	86	75	92	113	-------	165	287	525	284	75	54	115
31	86	-------	102	109	-------	165	-------	466	-------	75	52	-------
Total	2,363	3,155	3,648	3,441	3,014	4,588	8,611	13,189	16,267	4,248	1,812	2,148
Mean	76.2	105	118	111	108	148	287	425	542	137	58.5	71.6
Ac-ft	4,690	6,260	7,240	6,380	5,980	9,100	17,080	26,160	32,270	8,430	3,590	4,260

Calendar year 1958: Max 2,080 Min 63 Mean 367 Ac-ft 265,800
Water year 1958-59: Max 870 Min 36 Mean 182 Ac-ft 131,900

* Discharge measurement made on this day.

1715. C. J. Strike Reservoir near Grand View, Idaho

Lat 42°56'45", long 115°58'35", in SW¼ sec.34, T.5 S., R.4 E., at dam on Snake River, 1 mile downstream from Bruneau River and 7 miles southeast of Grand View. Records available, March 1952 to September 1959. Remote registering water-stage recorder in channel leading to Grand View Irrigation District canal. Datum of gage is at mean sea level (levels of Idaho Power Co.).

Reservoir is formed by earth-fill and rock-faced dam. Storage began in February 1952. Total capacity, 250,000 acre-ft at elevation 2,455 ft (top of spillway gates), of which about 50,000 acre-ft will be controlled storage. Reservoir is used for power generation in plant of Idaho Power Co. Elevations and area-elevation curve furnished by Idaho Power Co.

Month-end elevation and total contents at 12 p.m., October 1958 to September 1959

Date	Elevation (feet)	Contents (acre-feet)
Oct. 31, 1958	2,454.42	245,700
Nov. 30	2,454.68	247,600
Dec. 31	2,454.84	248,800
Jan. 31, 1959	2,454.65	247,400
Feb. 28	2,454.73	248,000
Mar. 31	2,454.80	248,500
Apr. 30	2,454.48	246,100
May 31	2,454.33	245,000
June 30	2,454.45	245,900
July 31	2,454.60	247,000
Aug. 31	2,453.42	238,400
Sept.30	2,454.77	248,300

1725. Snake River near Murphy, Idaho

Location (revised).--Lat 43°17'30", long 116°25'12", in SE¼ sec.35, T.1 S., R.1 W., on right bank 4½ miles downstream from Swan Falls powerplant and 7½ miles northeast of Murphy.

Drainage area.--41,900 sq mi, approximately.

Records available.--August to October 1912, August 1913 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,271.17 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 7, 1914, staff gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder, at site 3½ miles upstream at datum 9.79 ft higher.

Extremes.--Maximum discharge during year, 15,300 cfs May 5 (gage height, 6.40 ft); minimum, 6,560 cfs Aug. 20 (gage height, 3.42 ft); minimum daily, 6,940 cfs May 11, 12.

1912-59: Maximum discharge, 47,300 cfs June 22, 1918 (gage height, 13.95 ft, site and datum then in use); minimum recorded, 3,900 cfs July 9, 1949 (gage height, 2.53 ft); minimum daily, 5,440 cfs Aug. 4, 1914.

Revisions.--The maximum discharge for the water year 1933 has been revised to 16,300 cfs May 10, 1933 (gage height, 5.35 ft), superseding figure published in WSP 753 and 1317.

Remarks.--Records excellent except those for period about Mar. 10 to Apr. 30, which are good. Flow regulated by many reservoirs upstream. Between this station and station at King Hill, flow is regulated at Swan Falls and C. J. Strike Reservoir (see above) and by gravity and pumping diversions. Diversions for irrigation of about 1,630,000 acres above station.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*9,630	8,580	9,330	10,000	9,240	9,180	10,400	7,130	8,440	7,130	7,790	7,100
2	10,500	10,300	10,300	10,100	9,270	9,240	10,600	7,080	7,860	7,410	7,470	7,130
3	9,510	9,150	11,900	8,940	9,240	9,810	10,700	8,440	8,090	9,180	7,720	7,130
4	8,910	8,820	8,410	10,100	9,420	9,090	10,500	9,030	7,860	7,080	7,440	7,100
5	8,000	10,400	8,350	9,120	8,670	10,400	9,720	10,600	7,520	7,050	7,720	7,470
6	8,610	9,900	9,930	8,970	*9,180	10,400	9,120	7,750	7,170	7,160	7,520	8,270
7	10,700	9,510	9,240	7,800	9,750	10,700	9,000	7,020	7,750	7,130	8,090	8,320
8	8,500	10,900	10,500	9,090	9,300	11,000	9,450	7,720	8,090	7,130	7,720	8,380
9	7,410	9,390	10,300	9,480	9,420	9,480	*9,360	8,700	8,150	7,160	7,360	*8,470
10	8,280	8,640	8,910	9,720	9,030	8,760	8,300	7,980	7,830	7,100	7,500	8,560
11	8,880	10,900	8,610	9,510	8,970	8,940	7,950	6,940	8,270	7,100	8,030	8,850
12	9,450	9,330	9,630	9,600	9,690	9,570	8,240	6,940	8,730	7,160	7,520	8,790
13	9,840	9,690	9,810	9,060	9,180	9,690	8,580	*7,380	8,350	7,100	7,680	8,380
14	9,930	10,300	9,810	8,610	10,100	8,940	8,020	7,950	7,970	7,100	7,680	8,380
15	9,630	9,780	9,990	9,660	9,300	10,100	8,440	7,780	7,800	7,100	7,580	10,300
16	10,700	10,500	11,200	10,200	9,600	8,970	8,030	7,300	8,090	7,100	7,470	9,510
17	10,000	10,400	8,970	9,180	9,510	9,240	7,190	7,520	8,580	7,130	7,380	9,090
18	11,400	9,300	7,330	9,210	9,810	9,090	7,380	7,580	7,830	7,130	7,410	10,600
19	12,600	9,390	9,150	9,150	9,720	9,390	7,440	8,120	*8,580	7,100	7,360	10,900
20	11,600	9,120	10,300	9,210	9,870	*9,540	8,120	7,300	8,300	7,100	7,580	10,300
21	10,300	9,900	9,570	9,150	9,870	9,420	8,410	7,780	7,610	7,080	7,330	10,500
22	11,000	11,100	8,730	9,210	9,690	8,970	7,660	8,700	8,090	7,130	7,660	9,090
23	9,720	10,400	9,540	9,240	9,780	9,510	7,410	8,380	7,190	7,550	7,790	9,870
24	10,600	*9,330	10,400	8,760	9,090	9,120	7,950	8,030	7,160	7,080	7,780	10,700
25	11,100	10,800	9,030	10,400	9,330	9,600	7,220	8,000	8,530	7,080	7,830	11,200
26	11,200	10,200	9,840	9,510	9,300	9,510	7,010	8,120	9,540	7,050	7,890	10,600
27	10,500	10,900	8,730	8,850	10,200	8,850	7,220	7,890	7,800	7,050	7,640	10,600
28	9,840	9,900	9,930	9,030	9,000	8,670	7,160	8,290	7,130	*7,020	8,120	10,200
29	10,100	10,400	8,380	9,930	-	8,530	8,090	8,030	7,130	7,050	8,820	11,100
30	10,500	8,730	*9,240	8,940	-------	9,090	7,440	7,830	7,100	7,220	14,100	10,200
31	11,300	-------	9,630	9,210	-------	9,690	-------	8,320	-------	7,610	7,320	-------
Total	311,140	295,960	294,990	288,940	264,530	292,490	252,110	245,630	238,540	223,570	244,300	277,090
Mean	10,040	9,865	9,516	9,321	9,448	9,435	8,404	7,924	7,951	7,212	7,881	9,236
Ac-ft	617,100	587,000	585,100	573,100	524,700	580,100	500,100	487,200	473,100	443,400	484,600	549,600

Calendar year 1958: Max 15,700 Min 6,990 Mean 10,090 Ac-ft 7,306,000
Water year 1958-59: Max 14,100 Min 6,940 Mean 8,847 Ac-ft 6,405,000

* Discharge measurement made on this day.

1740. Wild Horse Reservoir near Gold Creek, Nev.

Location.--Lat 41°41'10", long 115°51'20", in NE¼NW¼ sec.25, T.44 N., R.54 E., at Wild Horse Dam on Owyhee River, 8 miles west of Gold Creek and 12 miles southeast of Mountain City.

Drainage area.--209 sq mi.

Records available.--March 1938 to September 1959. Month-end contents for some periods, published in WSP 1317.

Gage.--Gage readings obtained about twice a month, more frequently during irrigation season, from reference point on dam. Datum of gage is 6,109.18 ft above mean sea level (levels by Office of Indian Affairs).

Extremes.--Maximum contents observed during year, 25,850 acre-ft Apr. 24 (gage height, 76.0 ft); minimum observed, 8,900 acre-ft Sept. 10.
1938-59: Maximum contents observed, 35,630 acre-ft Apr. 29, 1952 (gage height, 81.56 ft); no contents at times each year 1938-41.

Remarks.--Reservoir is formed by concrete-arch dam; storage began Mar. 18, 1938. Capacity, 32,690 acre-ft between gage height 20.0 (sill of outlet gate) and 80.0 ft (spillway crest). No dead storage. Water is used for irrigation on Duck Valley project.

Cooperation.--Most of gage-height record and base data for capacity table furnished by Office of Indian Affairs.

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

61.0	8,520	70.0	17,370
63.0	10,100	72.0	19,960
65.0	11,890	74.0	22,790
67.0	13,910	76.0	25,850

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	15,240	-	-
3	21,070	-	-	-	-	-	-	-	-	-	12,480	-
4	-	-	20,100	-	-	-	-	24,600	-	-	-	9,280
5	-	-	20,100	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	22,210	25,070	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	b20,840	-	-	-	-	-	-	-	-
10	20,800	-	-	-	-	-	-	-	-	-	-	8,900
11	-	-	-	-	-	-	25,380	-	-	-	-	-
12	-	-	20,240	-	-	22,650	-	-	-	-	-	-
13	-	-	-	20,930	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	22,790	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	20,660	19,960	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	b20,390	-	-	-	-	-	-	-	-	-
20	-	-	-	-	21,930	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	19,960	-	-	-	-	25,850	-	-	-	-	-
25	-	-	-	-	-	-	-	-	16,280	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	a22,090	-	-	20,520	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	a20,040	b20,630	-	-------	-	a25,100	-	a15,540	-	-	a8,550
31	a20,340	-------	a20,650	a21,400	-------	a24,490	-------	a20,070	-------	a12,740	a9,680	-------
(‡)	-850	-300	+610	+750	+690	+2,400	+610	-5,030	-4,530	-2,800	-3,060	-1,130

Calendar year 1958..... ‡ +3,400
Water year 1958-59..... ‡ -12,640

‡ Change in contents, in acre-feet.
a No gage reading; contents interpolated.
b Contents computed from gage readings corrected for ice cover.

1745. Owyhee River near Gold Creek, Nev.

Location.--Lat 41°41'10", long 115°51'30", in NW¼NW¼ sec.25, T.44 N., R.54 E., on right bank 500 ft downstream from Wild Horse Dam, 8 miles west of Gold Creek, and 12 miles southeast of Mountain City.

Drainage area.--209 sq mi.

Records available.--March to November 1916, April 1917 to September 1925, October 1936 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,130 ft (from topographic map). Prior to Oct. 1, 1936, at site a quarter of a mile upstream at different datum.

Average discharge.--31 years (1917-25, 1936-59), 43.1 cfs (31,200 acre-ft per year), unadjusted.

Extremes.--Maximum daily discharge during year, 111 cfs May 5, 6, 9, 13-26; no flow Nov. 20 to Apr. 23.
1916-25, 1936-59: Maximum discharge, 1,810 cfs May 5, 1922 (gage height, 10.11 ft, site and datum then in use), from rating curve extended above 400 cfs; no flow at times when reservoir gates were closed.

Remarks.--Records good. Small diversions for irrigation above station. Flow regulated by Wild Horse Reservoir (see preceding page) beginning Mar. 18, 1938.

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

0.4	0	1.5	5.8
.5	.1	1.7	9.7
.7	.3	1.9	16
.9	.9	2.2	31
1.1	2.0	2.6	66
1.3	3.5	3.0	123

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	16					0	109	41	83	40	41
2	15	16					0	109	41	59	40	42
3	*15	16					0	109	59	25	*40	42
4	15	16	(*)				0	*109	91	25	40	42
5	15	15					0	111	91	24	40	42
6	15	15					0	111	91	24	40	42
7	15	15					0	109	91	24	40	42
8	15	15					0	109	91	24	41	32
9	16	15					0	111	91	24	41	16
10	16	15					0	109	91	24	41	*16
11	16	15					*0	109	91	24	41	16
12	16	15					0	109	91	24	41	16
13	16	15					0	111	91	24	42	16
14	15	15					0	111	91	24	42	16
15	15	15					0	111	91	24	41	16
16	15	15					0	111	91	30	41	16
17	15	*15					0	111	91	41	41	16
18	15	6.3					0	111	91	41	41	16
19	15	.2					0	111	90	41	41	16
20	15	0					0	111	90	41	41	16
21	15	0					0	111	88	41	41	16
22	15	0					0	111	87	41	42	16
23	15	0					0	111	87	41	42	16
24	15	0					24	111	87	41	42	12
25	15	0					42	111	*87	41	42	9.3
26	15	0					141	111	86	41	42	9.3
27	15	0					65	87	86	41	41	9.3
28	15	0					83	*50	86	41	41	9.3
29	15	0			-		83	48	83	41	41	9.3
30	16	0			-------		98	43	83	41	41	9.3
31	16	-------			-------		-------	43	-------	41	41	-------
Total	472	265.5	0	0	0	0	436	3,139	2,546	1,101	1,271	632.8
Mean	15.2	8.85	0	0	0	0	14.5	101	84.9	35.5	41.0	21.1
Ac-ft	936	527	0	0	0	0	865	6,230	5,050	2,180	2,520	1,260

Calendar year 1958: Max 531 Min 0 Mean 52.3 Ac-ft 37,860
Water year 1958-59: Max 111 Min 0 Mean 27.0 Ac-ft 19,570

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

1760. Owyhee River above China diversion dam, near Owyhee, Nev.

Location.--Lat 41°55'20", long 116°04'10", in NW¼ sec.6, T.46 N., R.53 E., on right bank 1,000 ft downstream from Skull Creek, 1 mile upstream from China diversion dam, and 2 miles southeast of Owyhee.

Drainage area.--458 sq mi.

Records available.--March 1939 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,425 ft above mean sea level, unadjusted. Prior to Oct. 1, 1939, at datum 1.48 ft higher.

Average discharge.--20 years, 144 cfs (104,300 acre-ft per year).

Extremes.--Maximum discharge during year, 235 cfs May 27, 28 (gage height, 4.10 ft); minimum, 10 cfs Nov. 27, result of freezeup, but may have been less during periods of ice effect.

1939-59: Maximum discharge, 2,710 cfs May 3 or 4, 1952 (gage height, 10.07 ft); minimum daily, 2 cfs Sept. 15-18, 1940.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Numerous diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 132).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 28-30)

1.1	13	3.0	140
1.5	32	4.0	232
2.0	63		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	34	25	23	28	34	55	155	104	97	48	44
2	27	34	25	b22	b25	47	75	163	95	91	47	44
3	*27	35	24	b21	b26	42	98	160	88	66	*47	44
4	26	35	*23	b21	b27	34	123	*156	113	42	47	46
5	30	36	21	29	b27	31	129	150	125	38	44	47
6	30	36	24	32	b27	*30	131	162	123	35	44	42
7	32	37	19	34	28	32	105	156	155	26	41	44
8	30	37	24	35	b27	28	89	149	147	25	36	44
9	31	36	26	35	b27	29	79	146	130	23	38	40
10	31	41	25	34	b28	29	74	136	121	21	38	*25
11	31	41	23	35	b28	25	*73	135	118	21	38	22
12	31	37	30	35	b26	28	74	135	116	21	39	21
13	31	b37	26	*b38	b25	45	75	132	112	23	38	22
14	30	b35	25	b37	b28	41	75	132	111	24	39	23
15	30	b33	28	b35	34	33	69	138	108	25	41	27
16	31	a32	28	32	35	32	61	151	105	26	34	23
17	32	*a30	26	31	36	39	56	153	103	32	38	25
18	31	b31	25	32	30	45	55	163	101	42	35	23
19	33	b33	18	26	26	45	55	173	98	42	34	24
20	35	35	23	b28	*28	36	51	166	a96	44	39	25
21	34	30	22	b29	27	35	49	157	a95	47	38	25
22	34	28	22	b30	27	39	48	153	a94	44	37	23
23	34	26	22	28	27	42	50	162	92	45	40	23
24	35	24	19	26	23	43	53	161	89	48	42	23
25	35	23	b18	27	24	39	77	153	*92	47	45	26
26	35	22	b16	30	27	40	86	159	102	45	47	23
27	36	23	b16	27	27	41	92	220	105	45	47	23
28	35	24	b16	26	29	38	121	*180	105	47	45	21
29	35	25	b20	b26	-	39	125	144	106	48	45	21
30	34	25	b23	b28	-------	44	123	123	100	49	46	21
31	34	-------	27	30	-------	53	-------	110	-------	50	42	-------
Total	985	955	709	922	777	1,158	2,426	4,733	3,249	1,279	1,279	884
Mean	31.8	31.8	22.9	29.7	27.8	37.4	80.9	153	108	41.3	41.3	29.5
Ac-ft	1,950	1,890	1,410	1,830	1,540	2,300	4,810	9,390	6,440	2,540	2,540	1,750

Calendar year 1958: Max 1,250 Min 0 Mean 180 Ac-ft 130,140
Water year 1958-59: Max 220 Min 16 Mean 53.0 Ac-ft 38,390

1778. South Fork Owyhee River near Whiterock, Nev.

Location.--Lat 41°48', long 116°29', in NE¼ sec.16, T.45 N., R.49 E., on left bank 500 ft downstream from Rye Grass Creek, 1¾ miles upstream from Chimney Creek, and 17 miles northwest of Whiterock.

Drainage area.--1,080 sq mi, approximately.

Records available.--October 1955 to September 1959.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge recorded during year, 84 cfs Feb. 20 (gage height, 2.40 ft), but may have been more during period of ice effect; maximum gage height, 3.80 ft Feb. 10 (backwater from ice); minimum discharge, 0.8 cfs Aug. 15, 16.
1955-59: Maximum discharge, 3,420 cfs May 20, 1957 (gage height, 7.17 ft); no flow Oct. 1-12, 1955.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation above station. Flow partly regulated by four small reservoirs (total capacity, about 16,100 acre-ft).

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

1.6	0.6	2.0	16
1.7	2.2	2.1	26
1.8	4.8	2.2	41
1.9	8.8	2.4	80

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	35	b46	b50	b57	68	58	17	30	7.4	4.2	14
2	30	36	b48	b46	b53	68	54	17	28	6.6	*2.6	10
3	30	36	b48	b43	b50	68	58	17	28	9.9	6.6	12
4	*32	36	b46	b40	b55	62	60	18	26	10	7.4	12
5	33	38	*b45	b45	b58	*60	60	*16	24	8.8	3.6	12
6	38	38	51	b55	b61	62	66	25	24	8.3	2.6	7.8
7	36	38	49	b60	64	64	64	25	47	7.4	2.4	*7.0
8	28	38	49	b70	b60	62	40	20	56	7.0	2.0	7.4
9	25	38	51	b72	b54	60	20	19	40	5.8	4.2	6.6
10	25	45	51	b70	b56	60	*14	22	25	5.8	5.1	6.6
11	30	51	53	b70	b50	54	10	24	19	6.2	3.0	4.5
12	30	49	53	*b72	b45	58	9.3	22	16	6.2	1.4	4.8
13	30	49	b49	76	b48	58	9.8	20	12	6.2	1.8	4.5
14	30	60	b45	76	b55	56	9.3	19	7.8	5.4	3.6	4.8
15	30	72	b45	64	b60	51	8.3	25	5.8	7.0	1.2	4.8
16	30	64	b48	60	b65	53	11	30	4.2	9.3	1.0	3.0
17	30	b62	b48	60	66	54	10	30	4.5	6.2	1.2	5.1
18	30	*b64	b49	58	74	54	12	35	2.8	5.1	2.2	7.4
19	30	b66	b48	b57	74	54	10	45	2.0	5.1	2.8	5.1
20	33	68	b48	b52	66	54	10	41	2.8	5.1	7.4	4.2
21	33	64	49	b50	*70	54	12	33	2.8	5.4	3.6	3.3
22	33	60	51	b54	70	54	11	28	7.0	4.5	6.6	3.0
23	35	58	54	62	70	53	12	28	7.0	7.8	3.6	3.0
24	33	56	b49	60	68	54	13	30	7.0	14	4.8	2.8
25	35	54	51	60	64	53	16	12	6.6	14	7.0	4.2
26	35	b53	45	64	68	53	15	21	*8.3	14	3.9	3.6
27	35	b50	51	64	70	54	15	23	19	12	2.8	3.9
28	35	b46	49	66	68	53	16	24	12	8.3	2.4	4.5
29	35	b45	b46	b60	-	54	15	*35	9.8	5.4	2.6	3.6
30	35	b45	45	56	-------	58	16	38	8.3	5.7	2.4	4.2
31	35	-------	54	58	-------	60	-------	35	-------	5.2	4.2	-------
Total	988	1,514	1,514	1,850	1,719	1,780	734.7	794	492.7	235.1	110.2	179.7
Mean	31.9	50.5	48.8	59.7	61.4	57.4	24.5	25.6	16.4	7.58	3.55	5.99
Ac-ft	1,960	3,000	3,000	3,670	3,410	3,530	1,460	1,570	977	466	219	356

Calendar year 1958: Max 1,630 Min 15 Mean 230 Ac-ft 166,400
Water year 1958-59: Max 76 Min 1.0 Mean 32.6 Ac-ft 23,620

Peak discharge (base, 600 cfs).--No peak above base.

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

564834 O - 60 - 10

1780. Jordan Creek above Lone Tree Creek, near Jordan Valley, Oreg.

Location.--Lat 42°52', long 116°57', in SE¼NE¼ sec.29, T.6 S., R.5 W., on right bank half a mile downstream from proposed damsite, 0.6 mile upstream from Morgan Ranch house, 1 mile downstream from Williams Creek, 4 miles upstream from Lone Tree Creek, 4 miles east of the Idaho-Oregon State line, and 9 miles southeast of Jordan Valley.

Drainage area.--440 sq mi, approximately.

Records available.--April 1955 to September 1959. October 1945 to January 1953 at site 2 miles downstream; records equivalent except during late summer months when considerable difference may result from irrigation and return flow between sites.

Gage.--Water-stage recorder. Datum of gage is 4,501.98 ft above mean sea level (levels by Bureau of Reclamation). Prior to June 14, 1952, water-stage recorder, and June 14, 1952, to Jan. 31, 1953, staff gage, at site 2 miles downstream at datum 30.45 ft lower.

Average discharge.--11 years (1945-52, 1955-59), 204 cfs (147,700 acre-ft per year).

Extremes.--Maximum discharge during year, 901 cfs Apr. 6 (gage height, 4.73 ft); minimum daily, 0.9 cfs Sept. 6-9, 18, 24.
1945-53, 1955-59: Maximum discharge, 3,250 cfs Apr. 14, 1952 (gage height, 5.57 ft, site and datum then in use); no flow part of each day Oct. 4, 5, 1948.

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

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 3-5, June 28 to Sept. 30)

Oct. 1 to Apr. 5				Apr. 6 to Sept. 30			
1.1	2.1	2.3	54	0.9	0.9	2.2	67
1.2	3.0	2.6	92	1.0	1.7	2.6	121
1.3	4.5	3.0	179	1.1	2.9	3.0	205
1.4	6.6	3.5	324	1.2	4.7	3.5	350
1.6	13	4.0	494	1.4	10	4.0	545
1.8	21	4.5	689	1.6	19	4.5	785
2.0	32			1.9	38		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	12	18	29	52	105	223	238	127	19	2.2	a1.1
2	2.7	13	17	b19	b31	102	462	235	118	12	2.2	a1.1
3	2.7	13	18	b12	b43	70	546	210	115	13	2.2	a1.0
4	2.8	14	18	b14	58	72	596	194	105	14	2.2	a1.0
5	2.9	14	14	b20	37	70	648	171	92	15	2.2	a1.0
6	3.0	14	21	24	43	78	705	189	91	14	*2.1	a.9
7	2.9	14	19	27	48	71	*525	152	101	14	1.8	a.9
8	2.6	14	*19	28	b34	66	441	144	95	13	1.8	*a.9
9	2.8	14	22	30	b30	66	382	142	90	12	1.9	a.9
10	2.8	16	22	33	43	57	343	142	82	11	1.8	a1.8
11	2.8	20	24	35	43	65	336	*140	72	7.3	1.9	1.6
12	2.9	16	115	38	b32	78	350	132	66	5.5	1.9	a1.3
13	3.0	19	54	*50	*b36	61	360	134	61	6.3	1.9	a1.0
14	2.9	30	32	45	b47	58	329	171	58	5.5	1.7	1.2
15	2.9	24	31	35	43	66	312	240	56	5.0	a1.6	1.4
16	3.0	b16	38	45	46	74	270	235	54	4.2	a1.6	a1.2
17	*2.9	b13	33	62	49	85	252	238	50	3.8	a1.6	a1.0
18	2.7	b14	29	60	49	98	238	273	*46	3.8	a1.5	a.9
19	3.2	22	29	52	53	98	218	232	42	3.6	a1.5	2.9
20	4.2	26	27	b35	52	*78	196	198	39	3.4	a1.5	a1.5
21	8.6	27	27	b37	51	90	187	180	36	3.4	a1.4	a1.3
22	12	24	28	48	54	96	194	169	34	3.3	a1.4	a1.1
23	13	23	20	46	51	110	218	160	33	3.1	a1.4	a1.0
24	13	21	24	47	49	107	235	191	30	3.1	a1.3	a.9
25	13	17	27	58	54	103	261	171	28	2.9	a1.3	a1.5
26	13	15	18	58	54	123	276	167	31	2.9	a1.3	a3.5
27	13	b13	30	56	59	129	276	182	31	2.9	a1.2	69
28	12	15	27	60	85	123	228	191	27	2.8	a1.2	38
29	12	17	19	43	-	133	208	169	25	2.7	a1.2	31
30	12	17	28	60	-------	174	212	162	22	2.4	a1.2	28
31	12	-------	28	56	-------	206	-------	140	-------	2.3	a1.1	-------
Total	192.0	527	876	1,262	1,326	2,912	10,027	5,692	1,857	217.2	51.1	199.9
Mean	6.19	17.6	28.3	40.7	47.4	93.9	334	184	61.9	7.01	1.65	6.66
Ac-ft	381	1,050	1,740	2,500	2,630	5,780	19,890	11,290	3,680	431	101	396

Calendar year 1958: Max 1,770 Min 2.5 Mean 223 Ac-ft 161,800
Water year 1958-59: Max 705 Min 0.9 Mean 68.9 Ac-ft 49,870

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

1810. Owyhee River near Rome, Oreg.

Location.--Lat 42°52', long 117°38', in NE¼ sec.14, T.31 S., R.41 E., on right bank half a mile downstream from Jordan Creek and 2½ miles north of Rome.

Drainage area.--About 8,000 sq mi.

Records available.--October 1949 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,343.96 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--10 years, 936 cfs (677,600 acre-ft per year).

Extremes.--Maximum discharge during year, 2,110 cfs Apr. 2 (gage height, 4.67 ft); minimum, 58 cfs Aug. 8 (gage height, 0.61 ft).
1949-59: Maximum discharge, 27,800 cfs Apr. 14, 1952 (gage height, 15.60 ft); minimum, 42 cfs Aug. 12, 1954.
Flood of Apr. 14, 1952, reported by local resident as highest in 70 years.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Flow regulated by Antelope Reservoir (capacity, 36,600 acre-ft), Wild Horse Reservoir (see p. 132), and numerous small reservoirs. Diversions above station for irrigation.

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

0.6	56	2.0	410
.8	88	3.0	860
1.0	127	4.0	1,540
1.5	250	5.0	2,470

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	166	178	198	215	232	1,510	180	301	115	72	66
2	*140	168	172	188	205	247	1,730	175	271	98	72	62
3	140	168	b180	b170	192	280	1,710	175	250	88	72	67
4	140	168	b170	140	192	*268	1,350	185	220	94	70	*69
5	140	168	b160	150	178	259	1,170	226	205	96	67	67
6	140	170	188	160	180	277	1,010	212	190	92	66	66
7	140	172	202	180	180	274	928	210	188	86	59	66
8	138	175	195	200	195	259	825	208	185	80	59	62
9	138	175	195	220	182	241	678	202	172	74	61	66
10	138	182	198	210	180	235	*584	178	168	69	62	74
11	142	180	198	230	192	235	494	172	166	67	61	77
12	146	172	198	220	200	232	418	182	*198	74	*62	77
13	144	*172	220	200	180	244	364	178	190	77	64	80
14	144	190	215	190	159	238	357	168	170	74	62	83
15	142	198	b190	200	168	218	313	163	157	85	64	88
16	144	195	208	210	180	277	292	175	144	83	64	88
17	148	b170	200	220	188	259	271	238	135	78	64	92
18	150	b175	200	210	182	253	256	277	133	74	61	103
19	155	178	200	190	195	262	238	277	127	70	64	113
20	155	208	200	200	210	322	223	238	119	72	77	113
21	*155	200	208	180	218	389	215	223	117	69	80	115
22	155	198	205	190	241	422	212	223	111	66	82	113
23	155	b190	202	210	238	396	205	226	107	69	83	111
24	155	b200	212	220	238	466	198	229	103	*64	82	107
25	159	b190	212	220	238	552	198	*229	98	64	82	109
26	159	b170	212	225	235	616	200	232	105	64	75	117
27	161	b150	*210	230	235	715	198	238	109	66	74	123
28	161	b150	212	225	232	750	198	253	109	66	74	188
29	163	b155	205	220	-	638	192	322	109	62	74	150
30	166	b160	205	212	-------	566	185	319	111	66	74	135
31	166	-------	202	220	-------	629	-------	313	-------	67	70	-------
Total	4,621	5,313	6,152	6,238	5,628	11,251	16,702	6,826	4,768	2,369	2,153	2,847
Mean	149	177	198	201	201	363	557	220	159	76.4	69.5	94.9
Ac-ft	9,170	10,540	12,200	12,370	11,160	22,320	33,130	13,540	9,460	4,700	4,270	5,650

Calendar year 1958: Max 10,500 Min 111 Mean 1,312 Ac-ft 949,700
Water year 1958-59: Max 1,730 Min 59 Mean 205 Ac-ft 148,500

Peak discharge (base, 5,400 cfs, revised).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 4-28; discharge estimated on basis of weather records and records for Malheur River near Drewsey.
b Stage-discharge relation affected by ice.

1825. Lake Owyhee near Nyssa, Oreg.
(Formerly published as Owyhee Reservoir at Owyhee Dam, near Nyssa)

Location.--Lat 43°38'30", long 117°14'40", in sec.20, T.22 S., R.45 E., near left abutment on Owyhee Dam, 21 miles southwest of Nyssa.

Drainage area.--11,160 sq mi, approximately.

Records available.--October 1932 to September 1959. Prior to October 1958, published as Owyhee Reservoir at Owyhee Dam, near Nyssa.

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

Extremes.--Maximum contents observed during year, 939,400 acre-ft Apr. 6-8 (elevation, 2,654.70 ft); minimum observed, 572,400 acre-ft Sept. 19 (elevation, 2,614.95 ft).
1932-59: Maximum contents observed, 1,140,000 acre-ft Apr. 15, 1952 (elevation, 2,671.40 ft); minimum observed since full capacity was attained on May 7, 1936, 462,700 acre-ft Oct. 10, 1955 (elevation, 2,599.44 ft).

Remarks.--Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,122,000 acre-ft between elevations 2,367.5 (bottom of sluice gates) and 2,670.0 ft (top of spillway gate), 715,000 acre-ft between elevations 2,590.2 (diversion tunnel) and 2,670.0 ft. Dead storage below elevation 2,367.5 ft negligible. Figures given herein are of contents above elevation 2,367.5 ft. The reservoir will generally not be drawn below elevation 2,590.2 ft. Water is released through diversion tunnel to South Canal for irrigation of lands west of Snake River in vicinity of Homedale, Idaho, and to North Canal for irrigation of lands north and west of Owyhee River, and through sluice gates to river for Owyhee Canal, which diverts about 18 miles downstream.

Cooperation.--Record of elevations furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1958 to September 1959

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,646.42	851,000	-
Oct. 31	2,645.41	840,700	-10,300
Nov. 30	2,646.80	854,900	+14,200
Dec. 31	2,648.62	873,800	+18,900
Calendar year 1958	-	-	+22,000
Jan. 31	2,650.30	891,600	+17,800
Feb. 28	2,651.86	908,300	+16,700
Mar. 31	2,653.85	930,000	+21,700
Apr. 30	2,650.56	894,300	-35,700
May 31	2,645.10	837,600	-56,700
June 30	2,637.41	762,800	-74,800
July 31	2,627.60	675,000	-87,800
Aug. 31	2,618.58	600,700	-74,300
Sept.30	2,615.50	576,600	-24,100
Water year 1958-59	-	-	-274,400

1830. Owyhee River below Owyhee Dam, Oreg.

Location.--Lat 43°39'10", long 117°15'00", in SW¼ sec.17, T.22 S., R.45 E., on left bank 0.8 mile downstream from Owyhee Dam and 20 miles southwest of Nyssa.

Drainage area.--11,160 sq mi, approximately.

Records available.--February 1929 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,343.67 ft above mean sea level (levels by Bureau of Reclamation).

Average discharge.--27 years (1932-59), 365 cfs (264,200 acre-ft per year).

Extremes.--Maximum discharge during year, 214 cfs Apr. 17 (gage height, 1.43 ft); minimum daily determined, 3 cfs Sept. 16-30.
1929-59: Maximum discharge, 22,900 cfs Apr. 15, 1952 (gage height, 15.7 ft); no flow for part of Aug. 8, 9, 1932, when temporary diversion tunnel at Owyhee Dam was closed.

Remarks.--Records good above 10 cfs and poor below. Flow regulated by Lake Owyhee since October 1932 (see preceding page), by Wild Horse Reservoir since March 1938 (see p. 132), and by many smaller reservoirs. About 450,000 acre-ft diverted annually from Lake Owyhee for irrigation of lands below station and outside the basin. Many smaller diversions for irrigation above station.

Cooperation.--Water-stage recorder inspected by employees of Bureau of Reclamation.

Revisions (water years).--WSP 983: 1941-42. WSP 1397: 1930, 1933, 1946.

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

-1.1	3	-0.2	24
-1.0	4	0.0	34
-.8	7	.5	74
-.6	10	1.0	136
-.4	16	1.5	230

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	4					4	72	81	96	46	58
2	76	4					4	72	80	98	52	59
3	76	4					4	72	98	102	53	59
4	76	4					4	72	110	108	51	*59
5	76	4					75	73	110	108	52	58
6	76	4					132	73	110	93	60	58
7	76	4					132	73	110	85	60	60
8	76	**4					133	73	110	85	60	60
9	76						133	73	112	84	60	61
10	76						142	73	113	84	62	61
11	76						151	73	*113	84	62	62
12	76						151	73	113	84	62	62
13	76						151	73	114	84	*62	62
14	76						151	78	114	81	61	63
15	34		4	4	4	4	151	67	88	80	57	30
16	4						151	60	65	80	50	3
17	4						163	61	68	80	54	3
18	4						148	62	69	80	56	3
19	4						148	62	69	80	57	3
20	4	4					148	63	74	80	58	3
21	4						117	63	78	80	49	3
22	*4						96	63	78	80	39	3
23	4						108	63	78	69	41	3
24	4						129	63	96	61	44	3
25	4						122	63	107	62	48	3
26	4						113	63	96	62	50	3
27	4						113	71	91	63	49	3
28	4						109	73	93	53	50	3
29	4				-		101	68	96	46	49	3
30	4				-------		78	70	97	46	50	3
31	4	-------			-------		-------	74	-------	46	51	-------
Total	1,168	120	124	124	112	124	3,362	2,132	2,831	2,424	1,655	917
Mean	37.7	4	4	4	4	4	112	68.8	94.4	78.2	53.4	30.6
Ac-ft	2,320	238	246	246	222	246	6,670	4,230	5,620	4,810	3,280	1,820

Calendar year 1958: Max 7,160 Min - Mean 668 Ac-ft 484,000
Water year 1958-59: Max 163 Min - Mean 41.4 Ac-ft 29,950

* Discharge measurement made on this day.
** Field estimate made on this day.
Note.--No gage-height record Oct. 16-21, Oct. 23 to Nov. 7, Nov. 9 to Apr. 4, Aug. 30, Sept. 16-30; discharge interpolated.

1850. Boise River near Twin Springs, Idaho

Location.--Lat 43°40', long 115°44', in sec.27, T.4 N., R.6 E., on right bank a quarter of a mile upstream from Birch Creek, 1½ miles upstream from maximum flow line of Arrowrock Reservoir, 4 miles downstream from Twin Springs, and 13 miles upstream from Arrowrock.

Drainage area.--830 sq mi, approximately.

Records available.--March 1911 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,251.08 ft above mean sea level, unadjusted. Prior to Apr. 4, 1915, staff gage at same site and datum.

Average discharge.--48 years, 1,183 cfs (856,500 acre-ft per year).

Extremes.--Maximum discharge during year, 5,160 cfs June 14 (gage height, 5.71 ft); minimum, 220 cfs Jan. 4 (gage height, 1.70 ft).
1911-59: Maximum discharge, 11,200 cfs May 24, 1956 (gage height, 8.76 ft); maximum gage height, 9.59 ft Feb. 3, 1956 (ice jam); minimum discharge, 109 cfs Dec. 10, 1944; minimum gage height, 1.56 ft Dec. 15, 16, 1935.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

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

1.7	245	3.0	1,210
1.9	330	3.5	1,810
2.1	435	4.0	2,460
2.4	635	5.0	3,940
2.7	900	6.0	5,660

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	340	345	459	441	465	534	751	*3,230	2,210	1,540	508	360
2	340	355	483	424	391	*590	1,180	3,470	2,610	1,560	521	*360
3	340	360	477	321	435	598	1,770	2,990	3,200	1,590	477	355
4	340	402	547	257	*528	554	2,030	2,630	3,410	1,500	459	350
5	335	453	459	b400	459	547	2,370	2,400	3,830	1,380	447	370
6	335	435	471	489	459	554	2,890	2,200	4,650	1,350	441	413
7	335	885	502	508	465	560	2,560	2,140	4,740	1,310	430	380
8	345	675	534	471	441	534	2,260	2,260	4,000	1,210	424	360
9	413	733	483	471	418	502	1,950	2,470	*3,640	1,100	418	350
10	375	699	471	477	430	508	1,780	2,320	3,240	1,060	402	345
11	365	605	896	453	453	471	1,800	2,190	3,020	1,050	396	340
12	355	534	1,890	502	435	489	2,030	2,250	3,440	1,050	402	335
13	350	560	1,160	862	402	495	2,300	2,680	4,550	1,030	396	345
14	345	575	814	751	396	453	2,360	3,730	4,820	990	391	430
15	340	471	760	605	430	418	2,320	4,500	4,430	930	386	824
16	340	380	b751	612	471	465	2,020	4,100	3,750	881	375	528
17	335	350	667	568	495	508	1,810	3,500	3,780	832	370	447
18	335	*355	605	528	495	547	1,630	3,180	3,620	787	370	430
19	350	605	575	489	514	568	1,480	2,800	3,800	742	396	699
20	386	651	547	465	502	528	1,420	2,490	3,680	707	514	769
21	360	635	547	380	489	568	1,440	2,280	3,780	675	508	683
22	355	590	554	459	502	620	1,600	2,190	3,800	653	441	582
23	355	575	508	483	521	659	1,690	2,160	3,400	*620	418	540
24	360	547	502	547	495	635	1,850	2,120	3,060	605	402	502
25	360	508	502	733	483	651	2,360	2,160	2,820	582	396	521
26	360	400	b459	628	508	733	2,750	2,190	2,870	568	396	635
27	360	380	495	598	489	742	2,710	2,160	2,370	547	391	824
28	355	365	471	575	489	724	2,360	2,160	2,030	528	375	707
29	355	413	402	534	-	742	2,180	*2,060	1,840	521	375	643
30	350	440	459	489	-------	751	2,420	1,990	1,680	508	370	605
31	345	-------	*b447	489	-------	*724	-------	2,020	-------	489	365	-------
Total	10,914	15,281	18,897	16,009	13,060	17,972	60,071	81,010	102,070	28,895	12,960	15,032
Mean	352	493	610	516	466	580	2,002	2,613	3,402	932	418	501
Ac-ft	21,650	30,310	37,480	31,750	25,900	35,650	119,100	160,700	202,500	57,300	25,700	29,800

Calendar year 1958: Max 9,980 Min 280 Mean 1,474 Ac-ft 1,067,000
Water year 1958-59: Max 4,820 Min 257 Mean 1,074 Ac-ft 777,800

Peak discharge (base,3,700 cfs).--May 2 (12:30 a.m.) 3,810 cfs (5.01 ft); May 15 (8 to 9 a.m.) 4,570 cfs (5.43 ft); June 7 (4:30 a.m.) 5,030 cfs (5.64 ft); June 14 (4:30 a.m.) 5,160 cfs (5.71 ft).

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

1860. South Fork Boise River near Featherville, Idaho

Location.--Lat 43°29'40", long 115°18'20", in lot 6, NE¼ sec.19, T.2 N., R.10 E., on right bank 2½ miles upstream from Deer Creek and 8 miles southwest of Featherville.

Drainage area.--635 sq mi.

Records available.--April 1945 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,220 ft (from topographic map of Bureau of Reclamation).

Average discharge.--14 years, 821 cfs (594,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,130 cfs June 7 (gage height, 5.22 ft); minimum, 133 cfs Nov. 18 (gage height, 0.84 ft).
1945-59: Maximum discharge, 7,580 cfs May 24, 1956 (gage height, 8.62 ft); minimum, 30 cfs Feb. 10, 1949 (gage height, 0.60 ft), result of snowslide upstream.

Remarks.--Records good except those for periods of no gage-height record or shifting control, which are fair. No regulation. Small ranch diversions above station.

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

0.9	151	3.0	1,180
1.1	205	4.0	2,240
1.5	335	5.0	3,440
2.0	550		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	222	227	243	259	230	255	355	2,230	1,270	766	324	*185
2	222	227	249	246	194	265	536	2,080	1,490	738	335	185
3	222	230	286	194	202	265	838	1,760	1,870	727	296	180
4	222	*272	*314	151	265	249	999	1,540	2,120	700	276	177
5	222	276	243	185	246	252	1,270	1,400	2,350	656	262	183
6	219	272	268	276	233	*262	1,540	1,280	2,860	630	249	191
7	216	446	290	371	252	282	1,380	1,250	2,960	620	243	191
8	225	367	296	282	227	259	1,220	1,330	*2,480	a600	230	185
9	246	383	272	*272	205	252	1,040	1,460	2,280	a580	230	177
10	233	328	276	272	219	252	964	1,420	2,070	a570	222	174
11	230	290	446	276	239	243	*999	1,380	1,920	a570	213	172
12	227	272	630	286	236	252	1,170	1,460	2,130	a560	213	169
13	225	286	383	307	227	268	1,390	1,880	2,680	a530	211	177
14	225	304	286	268	219	243	1,470	2,610	2,950	a500	211	236
15	227	230	310	233	233	227	1,380	2,960	2,680	a470	205	575
16	227	225	387	255	259	252	1,200	2,680	2,320	a450	202	359
17	227	185	351	282	252	279	1,120	2,310	2,350	a430	197	286
18	225	194	304	265	252	286	1,010	1,990	2,200	a410	199	279
19	233	272	304	252	252	293	957	1,700	2,240	a390	205	496
20	249	304	296	233	230	282	943	1,510	2,100	a370	227	464
21	246	304	314	208	227	296	992	1,370	2,200	a350	239	383
22	236	286	304	230	233	310	1,090	1,280	2,120	*335	230	339
23	236	272	279	265	236	314	1,170	1,230	1,850	324	219	318
24	236	272	282	286	225	310	1,390	1,220	1,620	314	211	300
25	236	252	282	296	230	321	1,750	1,180	1,480	310	205	300
26	233	208	249	255	236	355	1,860	*1,210	1,400	300	202	379
27	233	194	286	262	222	355	1,700	1,220	1,150	296	197	424
28	230	199	249	268	233	367	1,450	1,190	971	286	188	367
29	230	233	202	249	-	367	1,420	1,110	908	282	188	339
30	227	239	259	233	------	371	1,680	1,080	850	276	185	321
31	225	------	246	213	------	355	------	1,180	------	265	183	------
Total	7,112	8,049	9,386	7,930	6,514	8,939	36,283	49,500	59,869	14,605	6,997	8,511
Mean	229	268	303	256	233	288	1,209	1,597	1,996	471	226	284
Cfsm	0.361	0.422	0.477	0.403	0.367	0.454	1.90	2.51	3.14	0.742	0.356	0.447
In.	0.42	0.47	0.55	0.46	0.38	0.52	2.12	2.90	3.51	0.86	0.41	0.50
Ac-ft	14,110	15,960	18,620	15,730	12,920	17,730	71,970	98,180	118,700	28,970	13,880	16,880

Calendar year 1958: Max 7,230 Min 156 Mean 956 Cfsm 1.51 In. 20.45 Ac-ft 692,300
Water year 1958-59: Max 2,960 Min 151 Mean 613 Cfsm 0.965 In. 13.10 Ac-ft 443,600

Peak discharge (base, 2,000 cfs).--May 1 (11:30 a.m.) 2,400 cfs (4.11 ft); May 15 (4 a.m.) 3,000 cfs (4.62 ft); June 7 (5 a.m.) 3,130 cfs (5.22 ft); June 14 (5 a.m.) 3,120 cfs (5.21 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Boise River near Twin Springs.

1890. Little Camas Canal at heading, near Bennett, Idaho

Location.--Lat 43°21'30", long 115°23'00", in sec.9, T.1 S., R.9 E., on right bank 400 ft downstream from Little Camas Reservoir, 4 miles northeast of Bennett, and 22 miles northeast of Mountain Home.

Records available.--June to November 1917, October 1923 to September 1959.

Gage.--Staff gage read once daily. Datum of gage is 4,926 ft above mean sea level (datum of Mountain Home Irrigation District). June 1 to Nov. 29, 1917, water-stage recorder and Apr. 16 to May 11, 1924, staff gage, at datum 6.00 ft lower. May 12, 1924, to Sept. 30, 1929, water-stage recorder at present datum.

Extremes.--1917, 1924-59: Maximum daily discharge, 77 cfs Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.--Records excellent. Canal diverts from Little Camas Reservoir (South Fork Boise River drainage) in sec.9, T.1 S., R.9 E., and discharges into Long Tom Creek basin, where water is stored in Long Tom Reservoir for irrigation of 5,000 acres of land near Mountain Home. No diversion above station. Flow regulated by Little Camas Reservoir.

Cooperation.--Gage readings furnished by Mountain Home Irrigation District.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	65	63	63	62	
2							0	60	62	63	63	
3							0	53	63	62	63	
4							0	a53	63	62	63	
5							0	a53	63	62	63	
6							0	55	63	62	63	
7							0	61	63	62	62	
8							0	a61	63	15	61	
9							0	a61	64	0	62	
10							9.0	61	63	13	62	
11							23	a61	63	56	62	
12							a26	a61	63	65	62	
13							32	61	63	63	61	
14							41	a61	63	63	61	
15							50	a61	63	63	60	
16							53	a61	63	63	61	
17							54	61	63	63	62	
18							56	61	63	63	62	
19							a58	61	*63	63	61	
20							60	a61	63	63	61	
21							63	a61	63	63	60	
22							64	61	63	*63	59	
23							65	a61	63	63	56	
24							65	61	63	63	a54	
25							65	61	63	63	a54	
26							65	*61	63	63	54	
27							65	61	63	62	54	
28							65	61	63	62	54	
29							65	61	63	62	53	
30							65	62	63	62	53	
31								62		61	22	
Total	0	0	0	0	0	0	1,109.0	1,866	1,890	1,776	1,810	0
Mean	0	0	0	0	0	0	37.0	60.2	63.0	57.3	58.4	0
Ac-ft	0	0	0	0	0	0	2,200	3,700	3,750	3,520	3,590	0

Calendar year 1958: Max 64 Min 0 Mean 19.4 Ac-ft 14,060
Water year 1958-59: Max 65 Min 0 Mean 23.2 Ac-ft 16,760

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge interpolated.

1900. Anderson Ranch Reservoir at Anderson Ranch Dam, Idaho

Location.--Lat 43°21'30", long 115°27'10", in SE¼ sec.1, T.1 S., R.8 E., on inlet structure of outlet works of dam on South Fork Boise River, 1½ miles downstream from Camas Creek and 3 miles northwest of Bennett (Dixie Store).

Drainage area.--980 sq mi, approximately.

Records available.--December 1945 to September 1959.

Gage.--Staff gage or supplementary pressure gage in powerhouse read once daily. Datum of gage is at mean sea level (surveys by Bureau of Reclamation).

Extremes.--Maximum contents observed during year, 465,100 acre-ft June 26 (elevation, 4,196.20 ft); minimum observed, 307,300 acre-ft Oct. 3 (elevation, 4,158.04 ft).
1945-59: Maximum contents observed, 472,800 acre-ft June 1, 1956 (elevation, 4,197.81 ft); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 145,000 acre-ft Mar. 23, 1956 (elevation, 4,103.22 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft between elevations 3,992 and 4,196 ft (top of spillway gates). Elevation of spillway crest, 4,174 ft, and of top of dam, 4,206 ft. Dead storage below 3,992 ft is 28,980 acre-ft. Figures given herein represent usable contents. Water is used for irrigation in Boise Valley and for power production.

Cooperation.--Gage readings and capacity table furnished by Bureau of Reclamation.

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

4,155.0	296,500	4,180.0	392,400
4,160.0	314,400	4,185.0	413,900
4,165.0	332,800	4,190.0	436,300
4,170.0	352,000	4,198.0	473,700
4,175.0	371,800		

Contents, in acre-feet, at about 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310,700	322,600	337,000	335,600	334,300	343,900	331,200	376,100	454,100	461,800	404,700	383,300
2	308,400	322,800	336,200	336,100	334,700	344,200	330,600	381,500	454,100	460,800	405,200	382,800
3	307,300	323,300	335,600	336,300	335,000	344,800	330,600	386,000	454,300	459,600	405,400	382,200
4	307,400	324,100	334,900	336,500	335,600	345,400	333,900	389,900	455,600	458,500	403,800	382,000
5	307,800	324,800	334,000	336,500	336,000	346,000	337,100	392,400	457,400	457,200	402,200	381,500
6	308,200	325,400	333,200	335,500	336,400	345,000	341,100	394,400	459,300	455,900	400,600	381,700
7	308,700	326,500	332,100	335,700	336,800	344,200	343,800	396,400	461,800	454,600	399,700	382,000
8	309,500	327,600	331,700	336,400	337,300	343,200	345,800	398,500	464,200	452,900	399,000	382,100
9	309,700	328,700	331,000	336,800	337,700	343,900	347,200	401,800	463,800	451,500	399,300	381,600
10	310,400	329,600	330,000	337,400	338,000	343,000	348,700	405,200	462,500	449,900	399,600	381,300
11	310,900	330,500	329,700	337,800	338,600	342,100	350,000	408,500	461,700	448,300	398,000	381,500
12	311,700	331,100	330,100	338,400	339,000	341,300	351,400	411,600	461,600	446,600	396,800	381,600
13	312,100	331,700	330,300	339,100	339,300	340,300	353,100	414,800	462,000	444,800	395,800	381,800
14	312,500	332,500	330,200	339,800	339,700	339,300	356,100	418,800	462,600	442,900	394,800	382,000
15	313,200	333,700	329,100	340,100	340,300	338,200	359,200	424,500	461,300	440,800	393,300	383,200
16	313,700	334,200	328,500	340,800	340,800	338,700	361,400	430,800	464,100	439,200	392,000	384,100
17	314,200	334,300	328,500	341,400	341,500	337,700	363,000	436,300	464,200	437,200	392,400	384,600
18	314,400	335,100	329,100	341,600	342,100	336,600	363,400	441,200	464,100	435,100	391,100	384,900
19	315,100	335,700	329,800	342,000	342,700	336,200	363,600	445,200	464,500	432,800	389,800	386,100
20	315,700	336,600	330,200	342,500	342,600	335,300	363,700	448,600	464,200	430,800	388,500	387,300
21	316,200	337,500	331,000	342,900	342,300	334,500	363,600	448,800	464,100	428,600	387,600	387,900
22	316,800	338,300	331,700	342,200	342,100	333,900	364,000	451,000	464,200	426,500	386,800	388,500
23	317,300	339,000	332,200	341,600	342,600	333,700	365,100	451,800	463,800	424,300	387,200	388,400
24	317,900	339,700	332,600	341,100	342,300	332,900	365,500	451,900	463,800	422,200	387,300	388,200
25	318,600	340,400	333,200	340,700	342,100	332,900	366,500	453,300	464,200	420,000	387,000	387,900
26	319,100	341,000	333,800	340,300	342,500	332,400	367,800	454,900	465,100	417,400	386,900	388,200
27	319,500	341,000	334,300	338,900	343,000	332,100	369,800	454,700	464,500	415,200	387,000	388,300
28	320,000	340,000	334,900	338,100	343,400	331,900	371,400	454,300	463,700	413,400	387,300	388,300
29	320,600	338,800	335,200	337,100	-	331,200	372,600	453,800	463,000	410,800	387,400	388,100
30	321,400	338,100	335,500	335,900	-------	332,200	373,900	454,000	462,600	408,600	384,900	388,000
31	322,400	-------	335,400	334,700	-------	331,900	-------	454,100	-------	406,300	383,700	-------
(†)	4,162.20	4,166.38	4,165.68	4,165.50	4,167.78	4,164.74	4,175.52	4,193.85	4,195.66	4,183.25	4,177.90	4,178.95
(‡)	+9,100	+15,700	-2,700	-700	+8,700	-11,500	+42,000	+80,200	+8,500	-56,300	-22,600	+4,300

Calendar year 1958..... ‡ +31,800
Water year 1958-59..... ‡ +74,700

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

1905. South Fork Boise River at Anderson Ranch Dam, Idaho

Location.--Lat 43°20', long 115°29', in SW¼ sec.11, T.1 S., R.8 E., on right bank 600 ft upstream from Dixie Creek, 1½ miles downstream from Anderson Ranch Reservoir, and 2¼ miles northwest of Bennett (Dixie Store).

Drainage area.--982 sq mi.

Records available.--April 1943 to September 1959 (includes flow of Dixie Creek prior to October 1946 and excludes Dixie Creek thereafter).

Gage.--Water-stage recorder. Altitude of gage is 3,850 ft (from topographic map of Bureau of Reclamation).

Average discharge.--16 years, 997 cfs (721,800 acre-ft per year).

Extremes.--Maximum discharge during year, 3,820 cfs June 14, 15 (gage height, 6.75 ft); minimum, 0.7 cfs Nov. 26 (gage height, 1.07 ft).
1943-59: Maximum discharge, 9,850 cfs May 25, 1956 (gage height, 10.56 ft); minimum, 0.3 cfs Feb. 16, 1950 (gage height, 0.99 ft), but may have beer less during period of ice effect.

Remarks.--Records excellent. Flow of Little Camas Creek is stored in Little Camas Reservoir (no spill most years) and diverted out of basin through Little Camas Canal (see p. 142) for irrigation of about 5,000 acres of land in vicinity of Mountain Home. Flow regulated by Anderson Ranch Reservoir (see preceding page) beginning Dec. 15, 1945.

Cooperation.--Water-stage recorder inspected by employees of Bureau of Reclamation.

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

1.1	1.0	2.0	86	4.0	1,050
1.2	3.0	2.3	168	5.0	1,890
1.3	7.0	2.6	276	6.0	2,930
1.5	18	3.0	450	7.0	4,190
1.7	37	3.5	730		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,570	3.4	784	115	121	113	851	280	1,400	1,490	149	*418
2	872	3.0	790	124	124	113	855	129	1,610	1,500	126	423
3	310	3.8	790	149	113	110	118	124	1,450	1,500	987	426
4	157	*3.0	*790	113	115	110	118	672	1,460	1,510	1,230	428
5	198	3.0	790	952	113	841	118	779	1,550	1,520	1,090	115
6	28	3.4	790	*218	115	807	860	526	1,930	1,520	593	121
7	12	3.4	790	121	113	806	956	580	1,940	1,520	778	110
8	8.0	3.4	790	110	108	113	955	467	*2,670	1,520	146	410
9	7.5	3.0	790	113	150	739	856	25	3,090	1,500	118	400
10	7.0	3.0	790	113	113	776	905	25	2,770	1,500	1,020	96
11	7.0	3.0	748	115	110	774	*804	63	2,390	1,500	763	113
12	7.0	3.4	790	115	113	890	770	115	2,250	1,490	723	115
13	7.0	4.2	790	118	110	822	575	115	2,560	1,490	877	115
14	7.0	5.4	700	118	108	843	364	115	3,650	1,480	880	113
15	5.8	3.0	784	124	110	121	595	115	2,070	1,480	821	105
16	5.0	2.8	766	118	110	875	834	115	2,090	1,480	121	105
17	3.4	2.4	124	115	113	846	935	113	2,730	1,470	905	105
18	3.0	2.4	105	115	*113	824	1,300	115	2,170	1,470	877	105
19	6.2	3.4	105	110	517	826	1,360	76	2,310	1,460	877	105
20	4.2	3.0	105	113	452	799	1,330	1,020	2,470	1,470	878	100
21	3.0	2.8	105	573	449	824	1,370	946	2,170	1,460	596	108
22	2.8	2.6	110	653	115	118	1,030	902	2,270	*1,470	124	468
23	2.8	2.4	165	750	456	823	1,030	1,430	2,050	1,480	129	458
24	2.8	2.2	194	656	455	845	1,360	1,040	1,650	1,480	469	467
25	2.8	2.2	115	540	124	847	1,360	560	1,500	1,490	263	466
26	2.6	1.4	115	1,000	118	667	1,360	*1,210	1,610	1,500	126	478
27	2.6	695	118	1,050	*118	785	1,360	1,880	1,860	1,500	126	411
28	2.8	760	118	990	115	903	1,350	1,620	1,340	1,500	126	464
29	2.6	778	115	973	-	126	1,360	1,400	1,480	1,500	998	488
30	2.6	778	233	1,050	-------	852	1,030	1,290	1,480	1,500	1,200	370
31	2.8	-------	250	279	-------	854	-------	1,260	-------	1,430	457	-------
Total	3,255.3	3,090.0	14,549	11,803	4,991	19,792	28,069	19,107	61,970	46,180	18,573	8,206
Mean	105	103	469	380	178	638	936	616	2,066	1,490	5,999	274
Ac-ft	6,460	5,130	28,860	23,410	9,900	39,260	55,670	37,900	122,900	91,600	36,840	16,280

Calendar year 1958: Max 6,030 Min 1.4 Mean 1,213 Ac-ft 878,100
Water year 1958-59: Max 3,650 Min 1.4 Mean 656 Ac-ft 475,200

* Discharge measurement made on this day.

1940. Arrowrock Reservoir at Arrowrock, Idaho

Location.--Lat 43°36', long 115°55', in E½ sec.13, T.3 N., R.4 E., at dam on Boise River at Arrowrock, 14 miles east of Boise.

Drainage area.--2,210 sq mi, approximately.

Records available.--October 1917 to September 1959.

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

Extremes.--Maximum contents observed during year, 286,600 acre-ft June 24 (elevation, 3,216.0 ft); minimum observed, 1,250 acre-ft Sept. 18 (elevation, 3,001.0 ft).
1917-59: Maximum contents observed, 301,200 acre-ft May 29, 1948 (elevation, 3,219.1 ft); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

Remarks.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft in 1937; storage began in 1915. Capacity, 286,600 acre-ft between elevations 2,974 (9.5 ft above sluice gate sill) and 3,216 ft (highest position of movable crest of spillway). Silt deposition at dam has raised the lower storage level and decreased the capacity of the reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Beginning Oct. 1, 1952, contents applied from revised table, which is the original table reduced by amounts varying from 347 acre-ft at elevation 2,974 to 5,000 acre-ft at elevation 3,085 ft and above. Water is used for irrigation in Boise Valley.

Cooperation.--Gage readings and capacity table furnished by Bureau of Reclamation.

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

3,000.0	1,160	3,050.0	11,920	3,140.0	107,500
3,010.0	2,210	3,060.0	16,770	3,160.0	146,000
3,020.0	3,800	3,080.0	30,000	3,180.0	189,500
3,030.0	5,870	3,100.0	49,000	3,200.0	240,000
3,040.0	8,270	3,120.0	75,000	3,218.0	292,800

Contents, in acre-feet, at about 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57,600	62,800	106,300	182,800	249,800	273,000	275,400	280,200	254,900	276,300	111,500	7,490
2	61,500	63,580	109,500	184,400	251,200	273,000	275,700	280,200	255,400	268,500	104,700	9,510
3	64,100	64,490	112,700	185,400	252,600	273,000	276,900	279,600	256,600	263,200	97,640	11,700
4	65,400	65,530	115,100	186,300	254,000	273,000	276,900	279,000	257,800	256,900	90,340	13,790
5	65,570	66,310	118,400	187,000	255,700	273,000	277,200	278,700	259,200	250,400	84,260	15,360
6	67,610	67,220	121,200	190,200	257,500	273,900	278,100	278,700	261,200	243,600	78,450	11,920
7	68,560	68,700	123,700	191,900	258,900	274,500	279,600	278,100	263,200	237,100	71,080	9,580
8	67,600	71,780	126,200	193,300	260,400	274,500	279,600	278,100	264,700	230,100	64,490	4,320
9	49,600	73,460	129,800	196,000	261,800	273,900	279,300	277,500	265,000	222,800	57,600	3,420
10	42,500	74,440	132,400	196,900	263,200	274,200	278,700	277,500	264,700	214,300	48,780	3,290
11	43,100	76,050	135,200	197,900	264,700	274,500	278,100	276,900	263,200	209,800	43,100	3,120
12	43,830	77,250	140,000	199,100	266,200	274,500	278,100	271,500	260,700	205,800	36,520	3,070
13	45,040	78,600	144,600	201,300	267,600	274,500	278,400	266,800	259,800	201,500	29,220	3,070
14	46,140	80,100	149,400	203,500	268,500	274,500	278,400	263,600	261,200	197,200	23,470	3,070
15	46,910	81,750	152,500	205,500	270,000	274,500	278,100	262,700	264,400	192,900	20,540	2,470
16	47,790	82,660	155,200	207,500	270,900	273,600	278,100	262,700	265,000	188,800	16,190	2,210
17	48,670	83,620	158,800	209,500	272,100	274,200	278,100	261,800	267,300	184,700	13,500	1,740
18	49,600	84,580	160,700	211,000	272,400	274,500	278,100	259,800	271,200	180,300	13,180	1,250
19	50,560	85,540	162,200	213,000	272,700	274,500	278,100	256,600	273,600	176,000	12,320	2,760
20	51,520	86,980	163,600	214,300	273,300	274,500	278,100	254,600	276,900	171,200	12,320	4,600
21	52,720	88,740	165,300	215,600	272,700	274,500	278,100	255,200	279,900	166,400	11,750	7,800
22	53,560	90,840	167,000	217,600	272,400	274,500	278,100	254,600	282,600	162,000	10,500	9,760
23	54,040	92,710	169,000	220,500	271,800	274,200	277,800	254,000	285,400	157,300	9,110	12,580
24	55,260	93,730	170,300	223,400	273,600	274,500	278,100	254,300	286,600	152,300	8,380	14,760
25	56,300	94,920	172,100	226,500	273,600	275,100	278,700	253,700	286,300	146,800	8,090	17,310
26	57,470	95,940	173,600	229,300	273,300	275,100	279,600	252,300	286,000	142,400	7,490	19,690
27	58,510	96,790	175,400	233,000	273,000	275,100	280,500	252,900	285,400	137,800	6,840	22,860
28	59,290	98,660	176,700	237,100	273,000	275,100	280,200	254,000	284,400	132,600	6,290	25,720
29	60,070	101,000	178,200	240,300	-	275,400	279,900	254,900	281,700	126,800	5,830	28,600
30	60,980	103,600	179,200	244,200	-------	274,500	279,600	254,900	279,000	121,800	6,090	30,800
31	61,890	-------	180,800	247,300	-------	275,100	-------	254,900	-------	117,100	5,800	-------
(†)	3,110.3	3,137.7	3,176.2	3,202.6	3,211.5	3,212.2	3,213.7	3,205.3	3,213.5	3,145.3	3,029.7	3,081.0
(‡)	+8,690	+41,710	+77,200	+66,500	+25,700	+2,100	+4,500	-24,700	+24,100	-161,900	-111,300	+25,000

Calendar year 1958..... ‡ -11,600
Water year 1958-59..... ‡ -22,400

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

1965. Bannock Creek near Idaho City, Idaho

Location.--Lat 43°48'30", long 115°46'30", in SE¼SW¼ sec.32, T.6 N., R.6 E., on right bank three-quarters of a mile upstream from West Fork, 2¼ miles upstream from mouth, and 3 miles southeast of Idaho City.

Drainage area.--5.75 sq mi.

Records available.--January 1939 to November 1941, December 1950 to September 1959.

Gage.--Water-stage recorder and broad-crested wooden control with V-notch for low stages. Altitude of gage is 4,090 ft (from topographic map).

Average discharge.--10 years (1939-41, 1951-59), 2.32 cfs (1,680 acre-ft per year).

Extremes.--Maximum discharge during year, 6.2 cfs May 15, but may have been higher during period of no gage-height record (gage height, 0.95 ft); minimum, 0.2 cfs Aug. 9 (gage height, 0.24 ft).
1939-41, 1950-59: Maximum discharge, 34 cfs May 12, 1958; maximum gage height, 2.03 ft Feb. 6, 1952 (backwater from ice); minimum discharge, 0.07 cfs Aug. 23, 1940; minimum gage height, 0.06 ft Nov. 29, 1952 (result of siphon action at weir).

Remarks.--Records good except those for periods of ice effect and those below 1.0 cfs, which are fair. No regulation or diversion.

Revisions (water years).--WSP 1447: 1952. WSP 1567: Drainage area.

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

0.2	0.2	0.6	1.8
.3	.4	.8	3.9
.4	.7	1.0	6.6
.5	1.1		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.7	0.8	0.7	1.1	1.2	2.2	4.7	2.7	1.2	0.4	0.5
2	.6	.7	.8	.7	b1.0	1.2	3.6	5.4	2.7	1.2	.4	.5
3	.6	.7	.8	b.6	b1.0	1.2	4.5	5.2	2.8	1.1	.3	*.5
4	.6	.8	.7	b.7	1.1	1.1	4.6	5.0	2.8	1.1	.3	.5
5	.6	.8	.8	b.7	b1.0	1.3	4.9	4.7	2.7	1.1	.3	.6
6	.6	.8	.8	.8	1.0	1.3	5.4	4.5	2.7	1.0	.3	.6
7	.6	.9	.9	*.7	1.0	1.2	5.2	4.3	2.7	1.0	.3	.5
8	.7	.8	.8	.7	1.0	1.2	*5.1	4.3	2.8	1.0	.3	.5
9	.7	.8	.8	.7	b1.0	1.2	5.0	4.4	2.8	.9	.3	.5
10	.7	.8	.9	.7	1.0	1.2	4.8	4.2	2.6	.9	.3	.4
11	.6	.7	2.1	.7	1.1	b1.2	4.8	4.0	2.5	.8	.3	.4
12	.6	.7	*1.8	1.6	1.0	1.2	4.6	*4.0	2.4	.8	.3	.4
13	.6	1.1	1.1	1.4	b1.0	1.2	5.0	4.0	2.4	.7	.3	.5
14	.6	.9	1.0	1.1	1.0	b1.2	5.0	4.2	2.3	.7	.4	1.1
15	.6	.8	1.0	b.9	1.0	b1.2	4.7	5.0	2.1	.7	.4	1.1
16	.6	.7	.9	1.0	1.2	1.3	4.1	5.0	2.1	.7	.3	.7
17	.6	.8	.8	1.0	*1.2	1.3	3.8	5.0	2.0	.7	.3	.7
18	.6	1.0	.8	.9	1.2	1.5	3.6	5.0	*1.9	.6	.4	1.0
19	.7	1.4	.8	.9	1.2	1.4	3.3	4.6	1.9	.6	.5	1.7
20	*.6	1.1	.8	.9	1.1	1.4	3.1	4.4	1.8	.5	1.2	1.1
21	.6	1.0	1.0	b1.0	1.1	1.5	3.1	4.1	1.7	.5	.7	.9
22	.6	.9	.9	1.0	1.1	1.6	3.2	3.9	1.7	.5	.6	.8
23	.7	.9	.8	.9	1.1	1.6	3.3	3.7	1.5	.4	.5	.8
24	.7	.9	.8	2.4	1.1	1.6	3.6	3.5	1.5	.4	.5	.8
25	.7	.8	.8	1.3	1.1	1.6	4.3	3.3	1.8	.4	.5	.8
26	.7	.8	.7	1.3	1.1	*1.8	4.7	3.2	1.6	.4	.5	1.3
27	.7	.8	.8	1.3	1.1	1.8	4.5	3.1	1.5	.4	.5	1.0
28	.7	.8	.7	1.3	1.1	1.8	4.1	3.0	1.5	.4	.5	.9
29	.7	.8	.8	1.5	-	1.8	4.0	2.9	1.5	*.4	.5	.8
30	.7	.8	.8	1.1	------	1.8	4.1	2.8	1.3	.4	.5	.8
31	.7	------	.8	1.1	------	1.8	------	2.7	------	.4	.5	------
Total	19.9	25.5	28.1	31.6	30.0	43.7	126.2	128.1	64.3	21.9	13.4	22.7
Mean	0.64	0.85	0.91	1.02	1.07	1.41	4.21	4.13	2.14	0.71	0.43	0.76
Cfsm	0.111	0.148	0.158	0.177	0.186	0.245	0.732	0.718	0.372	0.123	0.075	0.132
In.	0.13	0.16	0.18	0.20	0.19	0.28	0.82	0.83	0.42	0.14	0.09	0.15
Ac-ft	39	51	56	63	60	87	250	254	128	43	27	45

Calendar year 1958: Max 29 Min 0.5 Mean 3.41 Cfsm 0.593 In. 8.06 Ac-ft 2,478
Water year 1958-59: Max 5.4 Min 0.3 Mean 1.52 Cfsm 0.264 In. 3.59 Ac-ft 1,100

Peak discharge (base, 4.5 cfs).--Apr. 5 or 6 (gage height not determined); May 15 (3 p.m.) 6.2 cfs (0.95 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Apr. 5-7, Apr. 13 to May 11, May 20 to June 2; discharge estimated on basis of records for nearby stations.

2000. Mores Creek above Robie Creek, near Arrowrock, Idaho
(Formerly published as Moore Creek above Robie Creek, near Arrowrock)

Location.--Lat 43°38'45", long 115°58'45", in SE¼ sec.28, T.4 N., R.4 E., on left bank at State roadside park, 1.7 miles upstream from Robie Creek, 5 miles northwest of Arrowrock, and 5.8 miles upstream from mouth.

Drainage area.--399 sq mi.

Records available.--October 1950 to September 1959. Prior to October 1958, published as Moore Creek above Robie Creek, near Arrowrock.

Gage.--Water-stage recorder. Altitude of gage is 3,120 ft (from topographic map).

Average discharge.--9 years, 336 cfs (243,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,210 cfs Apr. 6 (gage height, 4.98 ft); minimum, 22 cfs Aug. 16 (gage height, 1.74 ft).
1950-59: Maximum discharge, 5,440 cfs Dec. 23, 1955 (gage height, 9.55 ft); minimum, 16 cfs Sept. 2-11, 1955; minimum gage height, that of Aug. 16, 1959.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversions above station and from Robie Creek for irrigation of about 900 acres.

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

1.7	20	2.4	89	3.5	396
1.8	26	2.7	143	4.0	635
2.0	42	3.0	220	5.0	1,220
2.2	62				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	60	b100	109	157	209	462	701	364	128	32	36
2	46	60	101	90	113	232	712	800	372	118	32	*36
3	47	62	109	b36	128	232	944	674	388	108	29	36
4	48	68	b105	b10	171	214	980	587	384	102	*29	35
5	48	76	78	b60	124	209	1,050	537	396	96	28	38
6	48	80	100	b100	137	209	*1,120	494	448	94	28	43
7	47	135	95	*b120	139	214	1,030	462	475	90	27	43
8	49	115	108	101	126	203	848	462	405	92	27	39
9	53	111	100	109	109	200	728	475	384	89	26	36
10	53	98	98	113	128	200	657	448	352	82	25	36
11	53	89	283	111	128	179	646	426	329	73	24	34
12	53	82	*480	126	124	195	690	418	322	69	25	33
13	51	98	253	212	96	189	745	448	326	64	25	39
14	51	135	159	184	102	169	728	*527	322	62	24	57
15	51	98	152	145	120	157	690	740	314	61	24	111
16	50	76	157	161	148	176	603	728	286	58	23	88
17	51	b50	143	148	184	195	562	640	273	55	23	66
18	51	b80	130	139	*187	223	522	614	260	53	24	68
19	56	117	124	128	220	241	475	547	*244	49	24	150
20	*64	184	117	118	212	214	457	494	229	46	45	157
21	62	135	126	84	198	232	452	466	214	42	70	109
22	60	124	135	124	198	250	470	448	200	40	58	90
23	59	115	118	130	198	297	484	444	184	38	52	83
24	59	109	115	217	189	300	513	439	169	37	44	73
25	59	98	122	290	187	322	582	426	174	37	41	76
26	59	72	106	229	184	*360	668	418	200	36	41	122
27	59	66	120	217	182	341	657	400	171	34	40	139
28	59	63	113	223	182	348	572	413	148	33	38	115
29	60	b90	90	192	-	364	527	396	143	33	37	*101
30	60	b100	113	166	------	396	557	376	143	33	36	89
31	59	------	101	179	------	413	------	364	------	32	36	------
Total	1,670	2,846	4,251	4,401	4,371	7,683	20,131	15,812	8,619	1,984	1,037	2,178
Mean	53.9	94.9	137	142	156	248	671	510	287	64.0	33.5	72.6
Cfsm	0.135	0.238	0.343	0.356	0.391	0.622	1.68	1.28	0.719	0.160	0.094	0.182
In.	0.16	0.27	0.40	0.41	0.41	0.72	1.88	1.47	0.80	0.18	0.10	0.20
Ac-ft	3,310	5,640	8,430	8,730	8,670	15,240	39,930	31,360	17,100	3,940	2,060	4,320

Calendar year 1958: Max 2,130 Min 37 Mean 384 Cfsm 0.962 In. 13.09 Ac-ft 278,000
Water year 1958-59: Max 1,120 Min 23 Mean 205 Cfsm 0.514 In. 7.00 Ac-ft 148,700

Peak discharge (base, 800 cfs).--Apr. 6 (2 a.m.) 1,210 cfs (4.98 ft); May 1 (11 p.m.) 920 cfs (4.50 ft); May 15 (9:30 p.m.) 860 cfs (4.40 ft).

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

2005. Robie Creek near Arrowrock, Idaho

Location.--Lat 43°37'30", long 115°59'45", in N½ sec.5, T.3 N., R.4 E., on left bank 0.5 mile upstream from mouth and 5 miles northwest of Arrowrock.

Drainage area.--15.8 sq mi.

Records available.--October 1950 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,080 ft (from topographic map).

Average discharge.--9 years, 9.40 cfs (6,810 acre-ft per year).

Extremes.--Maximum discharge during year, 29 cfs Sept. 26; maximum gage height, 1.67 ft Apr. 3; minimum discharge, 0.1 cfs Aug. 2, 3 (gage height, 0.65 ft).
1950-59: Maximum discharge, 163 cfs Dec. 23, 1955 (gage height, 2.67 ft); minimum, 0.1 cfs several days in August and September 1955, Aug. 2, 3, 1959; minimum gage height, 0.58 ft Aug. 11, 30, 31, 1955.

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

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 18 to Aug. 18)

0.5	0.1	1.0	3.6
.6	.3	1.2	7.8
.7	.6	1.4	14
.8	1.2	1.6	24
.9	2.2		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.1	4.5	5.4	6.6	8.3	15	13	3.6	0.9	0.1	0.4
2	1.6	3.6	4.5	4.5	6.6	*9.2	21	11	3.0	.7	.1	*.4
3	1.7	3.3	4.8	b3.5	b6.1	9.2	24	9.5	3.0	.6	.1	.4
4	1.8	3.4	4.7	b3.0	6.1	8.9	24	8.6	2.9	.7	*.1	.4
5	2.0	3.6	4.1	b4.0	5.6	8.3	24	8.0	2.7	.7	.1	.5
6	2.0	3.9	4.5	b6.0	5.2	8.0	*24	7.8	3.3	.6	.2	.5
7	2.1	6.1	4.5	*b5.4	5.2	8.0	20	6.8	3.1	.5	.2	.5
8	2.4	5.0	4.7	5.4	5.0	7.8	18	6.1	2.9	.5	.2	.4
9	2.4	4.3	4.8	5.6	4.8	7.5	16	6.1	2.4	.5	.2	.5
10	2.3	4.1	5.2	5.6	4.8	7.3	15	5.6	2.2	.5	.2	.5
11	2.4	3.7	14	5.9	4.8	7.0	14	5.9	2.1	.5	.2	.5
12	2.6	3.7	*14	6.8	4.3	7.0	14	4.8	1.7	.4	.2	.5
13	2.6	8.3	8.3	7.8	b4.3	7.0	14	4.1	1.7	.4	.2	.6
14	2.3	8.6	7.0	7.0	4.3	7.0	14	*4.7	1.6	.3	.2	1.1
15	2.3	6.1	5.9	6.3	4.1	6.6	13	11	1.9	.3	.2	1.3
16	2.3	5.0	5.4	6.6	5.9	6.6	12	9.2	1.9	.2	.2	1.0
17	2.4	3.7	5.2	6.3	*6.6	7.3	11	9.2	1.6	.2	.2	.9
18	2.4	4.8	4.8	6.1	8.0	8.3	11	9.5	1.4	.2	.2	1.5
19	3.4	7.3	5.0	6.1	10	8.6	11	8.3	*1.2	.2	.3	5.2
20	*3.9	7.3	4.8	5.4	9.2	8.0	10	7.8	1.2	.2	1.4	3.0
21	3.4	6.3	5.4	b5.2	8.9	9.5	10	7.5	1.2	.2	.7	2.2
22	3.3	5.9	5.2	5.6	8.6	9.5	10	7.0	1.2	.2	.5	1.9
23	3.3	5.6	5.2	5.4	8.9	11	10	7.5	1.2	.2	.4	1.5
24	3.1	5.4	5.0	8.6	8.0	11	10	7.0	1.1	.2	.3	1.2
25	3.1	5.0	5.9	6.3	7.8	11	11	6.6	1.2	.2	.4	1.2
26	3.1	4.3	5.4	7.5	7.8	12	11	6.3	1.4	.2	.4	9.1
27	3.1	3.9	6.1	8.6	7.5	*12	11	5.9	1.3	.1	.4	4.7
28	3.1	4.1	5.6	10	7.5	11	9.8	6.4	1.1	.2	.4	3.6
29	3.3	4.5	5.2	6.9	-	12	9.5	5.4	1.1	.2	.3	*3.1
30	4.3	4.7	5.4	7.8	------	14	9.2	5.0	.9	.1	.3	2.9
31	4.3	------	5.4	7.3	------	14	------	4.3	------	.1	.4	------
Total	84.0	149.6	180.5	195.9	182.5	282.9	426.5	225.9	57.1	11.0	9.3	51.5
Mean	2.71	4.99	5.82	6.32	6.52	9.13	14.2	7.29	1.90	0.35	0.30	1.72
Cfsm	0.172	0.316	0.368	0.400	0.413	0.578	0.899	0.461	0.120	0.022	0.019	0.109
In.	0.20	0.35	0.42	0.46	0.43	0.67	1.00	0.53	0.13	0.03	0.02	0.12
Ac-ft	167	297	358	389	362	561	846	448	113	22	18	102

Calendar year 1958: Max 85 Min 0.7 Mean 14.0 Cfsm 0.886 In. 12.00 Ac-ft 10,110
Water year 1958-59: Max 24 Min 0.1 Mean 5.09 Cfsm 0.322 In. 4.36 Ac-ft 3,680

Peak discharge (base, 35 cfs).--No peak above base.

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

2015. Lucky Peak Reservoir near Boise, Idaho

Location.--Lat 43°32', long 116°04', in SW¼NW¼ sec.12, T.2 N., R.3 E., at outlet-control tower at dam on Boise River, 2 miles upstream from diversion dam for New York Canal, 7 miles downstream from Mores (formerly Moore) Creek, and 9 miles southeast of Boise.

Drainage area.--2,680 sq mi, approximately.

Records available.--October 1954 to September 1959.

Gage.--Remote registering water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 13, 1955, staff gage at same site and datum.

Extremes.--Maximum contents during year, 293,390 acre-ft Aug. 13 (elevation, 3,055.09 ft); minimum, 107,140 acre-ft Oct. 7 (elevation, 2,969.40 ft).
1954-59: Maximum contents, 305,130 acre-ft June 25, 1955 (elevation, 3,059.32 ft); minimum since near-full capacity was attained June 25, 1955, 29,250 acre-ft Oct. 15, 1955 (elevation, 2,905.69 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft between elevations 2,824.0 (floor of outlet tunnel) and 3,060.0 ft (spillway crest). Minimum proposed operating level, 2,905.0 ft (28,770 acre-ft), but all storage can be released. Water is stored for flood control and irrigation of lands in Boise valley.

Cooperation.--Elevation record and capacity table furnished by Corps of Engineers.

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

2,960.0	92,370	3,020.0	205,580
2,980.0	125,090	3,040.0	253,570
3,000.0	162,790	3,060.0	307,040

Contents, in acre-feet, at 12 p.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131,210	118,220	117,650	127,420	138,160	118,610	213,360	205,190	209,590	262,840	293,110	204,990
2	126,570	118,100	117,860	127,800	137,840	121,040	216,140	204,850	209,410	266,000	292,620	198,100
3	121,940	118,050	118,080	127,720	136,520	123,440	219,580	203,680	209,200	268,420	292,810	191,260
4	117,480	117,990	118,320	127,700	134,810	125,810	222,710	201,630	209,310	271,730	293,250	184,420
5	113,140	117,860	118,540	-	132,900	128,200	226,030	199,460	210,230	274,870	292,840	180,220
6	108,780	117,520	118,780	128,060	130,930	131,250	230,370	197,190	212,830	277,920	292,890	177,350
7	111,740	117,470	118,970	128,350	128,990	134,610	235,140	194,820	216,140	281,310	293,250	175,860
8	115,230	117,580	119,310	128,580	127,050	137,970	239,340	192,490	220,540	284,920	293,030	172,710
9	119,430	117,690	119,470	128,880	125,000	140,870	242,500	189,600	221,030	288,980	292,210	168,550
10	120,170	117,760	119,710	129,150	123,030	143,990	244,210	186,440	230,990	290,920	292,400	164,420
11	119,330	117,760	120,430	129,450	121,090	147,240	244,830	186,940	236,140	290,970	292,810	159,870
12	119,000	117,580	121,490	129,740	119,140	150,490	244,980	188,320	241,290	291,000	293,330	156,280
13	118,940	117,760	122,040	130,220	117,110	153,870	244,960	189,650	246,060	291,190	292,860	150,840
14	118,870	117,870	122,410	130,670	115,160	157,230	244,710	190,780	250,940	291,360	291,030	147,760
15	118,870	117,890	122,530	131,000	113,450	160,410	244,110	192,770	254,770	291,440	287,870	146,880
16	118,940	117,840	123,070	131,410	112,590	163,030	241,140	195,000	256,500	291,410	283,700	146,940
17	118,920	117,700	123,440	131,770	111,860	165,010	237,950	197,210	257,140	291,250	278,240	146,270
18	118,970	117,620	123,660	132,100	111,660	169,390	234,870	199,790	-	291,190	273,120	145,890
19	119,060	117,700	123,980	132,410	111,710	172,940	231,380	200,980	257,900	291,490	268,290	146,100
20	119,120	117,860	124,240	132,710	112,160	176,570	227,920	201,250	258,210	291,820	263,660	146,380
21	119,120	117,870	124,350	132,930	112,710	180,130	224,460	201,470	258,570	292,040	259,460	146,570
22	119,020	117,960	124,840	133,240	113,310	183,650	220,940	201,830	258,850	292,070	255,070	146,690
23	118,920	117,990	125,090	133,590	113,680	186,980	217,310	202,730	259,130	292,120	249,940	146,760
24	118,870	117,940	125,370	134,150	114,130	190,650	214,150	203,700	259,460	292,400	244,810	146,860
25	118,780	117,940	125,680	134,790	114,600	194,690	211,860	204,650	259,700	292,400	240,260	146,920
26	118,730	117,860	125,910	135,340	114,820	198,740	210,710	205,470	259,820	292,260	235,360	147,340
27	118,630	117,760	126,200	135,940	114,870	202,150	210,070	206,260	259,770	292,100	230,320	147,590
28	118,560	117,640	126,460	136,530	116,400	204,650	209,090	207,170	259,770	292,450	225,250	147,740
29	118,490	117,570	126,660	137,010	-	206,900	207,580	207,940	259,880	292,810	220,280	147,810
30	118,390	117,520	126,920	137,380	-------	208,860	205,900	208,700	259,880	292,970	217,210	147,950
31	118,280	-------	127,140	137,810	-------	211,130	-------	209,410	-------	293,080	211,980	-------
(†)	2,976.08	2,975.63	2,981.16	2,987.05	2,974.97	3,022.43	3,020.14	3,021.68	3,042.47	3,054.98	3,022.80	2,992.44
(‡)	-17,920	-760	+9,620	+10,670	-21,410	+94,730	-5,230	+3,510	+50,470	+33,200	-81,100	-64,030

Calendar year 1958..... ‡ +64,940
Water year 1958-59..... ‡ +11,750

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

2020. Boise River near Boise, Idaho

Location.--Lat 43°32', long 116°04', in NE¼ sec.11, T.2 N., R.3 E., at gate-control house at outlet works of Lucky Peak Reservoir, 1.8 miles upstream from diversion dam for New York Canal, 7½ miles downstream from mouth of Mores (formerly Moore) Creek, and 9 miles southeast of Boise.

Drainage area.--2,680 sq mi, approximately.

Records available.--January 1895 to September 1916 (no winter records 1904-5, 1907), October 1954 to September 1959. Published as "near Highland" 1905-15 and as "below Moore Creek, near Arrowrock" 1916.

Gage.--Remote recorder records of openings of six slide gates, one hollow-jet valve, and elevation of Lucky Peak Reservoir. Prior to Mar. 18, 1905, staff gages at sites about 1 mile downstream at different datums. Mar. 18, 1905, to Mar. 20, 1915, staff gages and Mar. 21, 1915, to Sept. 30, 1916, water-stage recorders at sites 5 to 7 miles upstream at different datums.

Average discharge.--22 years (1895-96, 1897-1903, 1905-6, 1907-16, 1954-59), 3,033 cfs (2,196,000 acre-ft per year).

Extremes.--Maximum discharge during year, 5,390 cfs Apr. 23, 26; no flow Dec. 2-31, Mar. 1-4, when gates were closed.
1895-1916, 1954-59: Maximum discharge observed, 35,500 cfs June 14, 1896; no flow Oct. 17, 1954, to Feb. 18, 1955, Feb. 20, 1955, during building of gate structure at Lucky Peak Dam, and Dec. 26-31, 1957, Feb. 19-28, Dec. 2-31, 1958, Mar. 1-4, 1959, when gates were closed.

Remarks.--Records excellent except those below 50 cfs, which are fair. Daily discharge computed from gate ratings. Flow regulated by Lucky Peak Reservoir (see preceding page), Arrowrock Reservoir (see p. 145), and Anderson Ranch Reservoir (see p. 143). Small diversions from tributaries upstream for irrigation.

Cooperation.--Records of gate operation, stage in Lucky Peak Reservoir, and gate rating curves furnished by Corps of Engineers.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,620	101	43	1	1	0	1,160	5,320	3,850	4,870	4,580	3,590
2	2,570	101	0	1	308	0	1,340	5,280	4,330	4,840	4,580	3,640
3	2,580	101	0	1	825	0	1,600	5,220	4,670	4,830	4,570	3,680
4	2,480	101	0	1	1,100	0	1,820	5,180	4,760	4,830	4,580	3,650
5	2,430	166	0	1	1,180	1	1,880	5,190	4,770	4,830	*4,580	3,590
6	2,430	*278	0	1	1,190	1	1,990	5,050	4,770	4,830	4,570	3,520
7	2,440	*187	0	1	1,190	1	2,170	4,880	4,770	4,830	4,560	3,400
8	*2,440	86	0	1	1,200	1	2,330	*4,740	4,740	4,830	4,550	3,210
9	2,430	86	0	1	1,200	1	2,550	4,870	4,700	4,780	4,550	3,130
10	1,130	*86	0	1	*1,200	1	2,960	4,870	4,670	4,770	4,540	3,070
11	480	114	0	1	1,200	1	3,340	4,830	4,630	4,830	4,520	3,010
12	237	*171	0	1	1,200	1	3,620	4,870	4,640	4,830	4,510	2,980
13	*107	124	0	1	1,200	1	3,970	4,900	4,750	4,770	4,500	2,960
14	105	104	0	1	1,190	1	3,910	4,970	4,770	4,730	4,480	2,670
15	69	109	0	1	1,200	1	4,140	4,910	4,770	4,720	4,430	1,810
16	49	109	0	1	1,200	1	5,270	4,710	4,770	4,710	4,370	1,360
17	*49	109	0	1	1,190	1	5,340	4,610	4,770	*4,700	4,360	1,200
18	49	109	0	1	1,190	1	5,380	4,460	4,770	4,700	4,360	558
19	49	109	0	1	1,200	1	5,380	4,300	4,780	4,700	4,320	100
20	58	109	0	1	1,200	1	5,380	4,200	4,850	4,710	4,290	50
21	85	109	0	1	1,200	1	*5,380	4,100	4,870	4,710	4,100	50
22	101	109	0	1	1,210	1	5,370	3,990	4,870	4,710	3,890	50
23	101	109	0	1	1,210	1	5,380	3,760	*4,880	4,710	3,790	50
24	101	109	0	1	1,210	1	5,380	3,650	4,880	4,700	3,700	50
25	101	109	0	1	1,210	1	5,380	3,650	4,880	4,690	3,610	50
26	101	109	0	1	1,200	1	5,390	3,580	4,880	4,690	3,600	50
27	101	109	0	1	1,200	324	5,380	3,550	4,880	4,690	3,570	50
28	101	109	0	1	400	809	5,380	*3,550	4,880	4,660	3,550	50
29	101	109	0	1	-	1,020	5,380	3,550	4,880	4,630	3,560	50
30	101	109	*0	1	-------	1,040	5,380	3,550	4,880	4,610	3,550	50
31	101	-------	0	1	-------	1,040	-------	3,540	-------	4,600	3,570	-------
Total	25,897	3,550	43	31	30,204	4,255	119,330	137,830	142,310	147,040	130,290	51,678
Mean	835	118	1.4	1.0	1,079	137	3,978	4,446	4,744	4,743	4,203	1,723
Ac-ft	51,370	7,040	85	61	59,910	8,440	236,700	273,400	282,300	291,600	258,400	102,500

Calendar year 1958: Max 10,000 Min 0 Mean 3,350 Ac-ft 2,425,000
Water year 1958-59: Max 5,390 Min 0 Mean 2,171 Ac-ft 1,572,000

* Discharge measurement made on this day.
Note.--Discharge Dec. 2-31, Mar. 1-4, when gates at dam were closed, estimated to be less than 0.5 cfs and is shown as no flow.

2035. Lake Lowell near Caldwell, Idaho

Location.--Lat 43°35', long 116°45', in SE¼ sec.19, T.3 N., R.3 W., on outlet structure at lower embankment, 5½ miles southwest of Caldwell, and lat 43°34', long 116°39', in NW¼ sec.36, T.3 N., R.3 W., on outlet structure at upper embankment, 5 miles west of Nampa.

Records available.--October 1917 to September 1959. Prior to October 1945, published as Deer Flat Reservoir near Caldwell.

Gage.--Staff gages read once daily. Datum of gages is 2,500.5 ft above mean sea level (surveys of Bureau of Reclamation).

Extremes.--Maximum contents observed during year, 177,600 acre-ft May 25 (gage height, 30.05 ft); minimum observed, 29,790 acre-ft Sept. 30 (gage height, 9.38 ft, upper pool; 9.12 ft, lower pool).

1917-59: Maximum contents observed, 178,900 acre-ft Apr. 27, 28, 1922, Apr. 24, 1932 (gage height, 30.18 ft); minimum observed, 5,390 acre-ft Oct. 22, 1924 (gage height, 3.27 ft, upper pool; 0.85 ft, lower pool).

Remarks.--Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-ft, between gage heights 0.0 (sill of outlet gates) and 30.0 ft (maximum operating level). Dead storage, about 13,000 acre-ft. Below gage height 12.0 ft, reservoir divides into two pools. In addition to water received from local drainage, reservoir receives water from Boise River through New York Canal of Boise project. Water is used for irrigation of lower project lands. Figures given herein represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Board of Control for Boise project.

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

9.0	28,640	18.0	79,110	26.0	140,500
10.0	33,180	20.0	93,040	28.0	158,200
12.0	43,080	22.0	107,900	30.0	177,200
14.0	54,060	24.0	123,700	30.1	178,100
16.0	66,110				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97,180	100,900	104,200	108,000	110,600	163,900	163,200	166,700	173,900	135,400	81,540	39,140
2	97,620	100,900	104,300	108,100	110,600	164,000	164,100	167,400	172,700	133,600	81,000	38,120
3	97,980	100,900	104,400	108,100	110,800	163,700	165,100	168,200	170,800	132,000	78,570	37,330
4	98,570	101,000	104,500	108,200	111,200	163,300	166,100	169,000	169,400	130,200	76,770	36,070
5	99,010	101,100	104,500	108,300	112,500	163,200	167,300	170,100	168,300	128,900	75,110	35,220
6	99,460	101,100	104,700	108,300	115,000	163,000	168,300	171,000	166,900	127,100	73,080	34,630
7	99,750	101,200	104,800	108,400	118,100	163,000	168,900	172,100	165,900	125,500	71,390	34,110
8	99,900	101,400	105,000	108,400	119,800	162,800	169,800	173,100	165,200	123,500	69,460	33,980
9	99,980	101,500	105,200	108,500	122,200	162,700	170,600	173,700	164,800	121,800	67,810	33,520
10	100,300	101,500	105,300	108,500	124,400	162,400	170,800	174,600	164,600	119,700	66,240	33,050
11	100,400	101,700	105,400	108,600	126,800	162,200	171,000	175,200	164,800	117,800	64,800	32,620
12	100,400	101,800	105,500	108,700	128,700	162,100	170,900	175,800	164,900	115,900	62,700	32,130
13	99,900	101,900	105,700	108,700	131,200	161,900	170,900	175,800	164,800	114,100	60,680	31,720
14	99,380	102,100	105,800	108,800	133,200	161,800	170,600	175,400	164,600	112,300	58,880	32,180
15	98,500	102,100	106,000	108,900	135,000	161,700	170,100	174,700	163,700	110,300	57,210	32,560
16	98,500	102,300	106,100	109,000	137,000	161,500	168,400	174,700	162,900	108,400	55,750	32,960
17	98,570	102,400	106,300	109,100	139,500	161,300	168,100	174,600	161,600	106,500	54,010	33,160
18	98,720	102,600	106,400	109,100	141,700	161,200	167,400	174,600	160,000	104,600	52,230	33,210
19	98,870	102,700	106,600	109,300	143,900	161,100	167,500	174,800	158,000	102,700	50,540	33,410
20	99,010	102,800	106,700	109,400	145,900	161,000	167,600	175,300	156,600	100,900	48,710	33,260
21	99,010	103,000	106,900	109,400	148,200	160,900	167,800	176,100	154,000	99,310	47,450	33,060
22	99,160	103,100	107,100	109,400	150,800	160,700	167,500	176,600	152,000	97,760	45,990	32,740
23	99,310	103,300	107,100	109,500	152,400	160,700	167,800	177,200	150,000	96,010	45,510	32,330
24	99,460	103,400	107,100	109,600	154,300	160,600	166,100	177,500	148,100	94,330	44,970	31,960
25	99,610	103,500	107,100	109,700	156,300	160,500	166,700	177,600	145,300	92,600	44,230	31,620
26	99,750	103,800	107,300	109,700	158,500	160,300	166,300	177,500	143,300	91,030	43,700	31,380
27	99,900	103,800	107,400	109,900	161,100	160,000	166,000	177,300	141,000	89,390	43,040	30,960
28	100,100	103,900	107,500	110,100	163,000	159,300	165,900	176,700	139,300	87,700	42,430	30,660
29	100,200	104,000	107,700	110,300	-	160,100	166,000	176,000	137,800	86,090	41,880	30,250
30	100,300	104,100	107,800	110,400	-------	161,000	166,000	175,000	136,500	84,570	41,430	29,790
31	100,600	-------	108,000	110,500	-------	162,400	-------	174,300	-------	83,050	40,140	-------
(†)	21.03	21.50	22.01	22.34	28.52	28.45	28.84	29.71	25.54	18.58	(a)	(b)
(‡)	+4,080	+3,500	+3,900	+2,500	+52,500	-600	+3,600	+8,300	-37,800	-53,450	-42,910	-10,350

Calendar year 1958..... ‡ +9,650
Water year 1958-59..... ‡ -66,730

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Upper pool, 11.50 ft; lower pool, 11.35 ft.
b Upper pool, 9.38 ft; lower pool, 9.12 ft.

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2045. Diversions from Boise River beween near Boise and at Boise gaging stations, Idaho

Between near Boise and at Boise gaging stations (prior to 1955 water year, published as between Dowling Ranch and Boise gaging stations), six principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during period April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-59, and daily flow of New York Canal February 1939 to October 1948 in reports of Geological Survey. Records of daily diversion for each canal from 1916 to 1959 on file in office of Idaho State Reclamation Engineer. No record of October and March diversion except for New York Canal. Diversion through New York Canal for period October to March as reported by Boise project, Board of Control was: October, 32,900 acre-ft; February, 56,230 acre-ft; March 6,910 acre-ft.

Records show summation of discharge for these diversions. Staff gages on canals read daily or several times weekly and discharge measurements made frequently. Field data obtained and records summarized under direction of E. B. Karn, watermaster for Boise River.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							1,040	3,730	2,580	3,510	3,390	2,780
2							1,170	3,660	2,900	3,510	3,410	2,780
3							1,300	3,710	3,230	3,410	3,400	2,760
4							1,400	3,620	3,380	3,520	3,420	2,750
5							1,620	3,630	3,380	3.500	3,420	2,730
6							1,640	3,630	3,430	3,480	3,360	2,740
7							1,800	3,560	3,460	3,480	3,360	2,660
8							2,010	3,580	3,450	3,480	3,350	2,520
9							2,140	3,610	3,450	3,490	3,360	2,360
10							2,280	3,600	3,460	3,500	3,360	2,440
11							2,460	3,600	3,460	3 490	3,320	2,320
12							2,630	3,580	3,480	3,500	3,350	2,330
13							2,780	3,590	3,490	3.500	3,340	2,290
14							3,140	3,610	3,480	3.450	3,310	2,270
15							1,870	3,700	3,480	3.440	3,320	2,040
16							3,260	3,520	3,470	3,430	3,280	1,090
17							3,420	3,410	3,470	3,420	3,280	1,080
18							3,530	3,290	3,480	3,410	3,270	914
19							3,530	3,200	3,480	3.420	3,270	6
20							3,550	3,080	3,480	3.410	3,150	0
21							3,600	3,070	3,500	3.410	3,120	0
22							3,690	2,990	3,490	3,410	3,000	0
23							3,700	2,880	3,480	3,410	2,820	0
24							3,720	2,700	3,480	3,420	2,830	2
25							3,720	2,700	3,510	3.410	2,780	2
26							3,730	2,650	3,520	3,410	2,730	2
27							3,710	2,540	3,520	3,410	2,780	2
28							3,730	2,560	3,520	3 410	2,780	2
29					-		3,730	2,560	3,520	3,410	2,790	2
30					-------		3,730	2,580	3,510	3,410	2,790	2
31		-------			-------		-------	2,570	-------	3,410	2,790	-------
Total							83,630	100,710	102,540	106,970	97,930	40,874
Mean							2,788	3,249	3,418	3,451	3,159	1,362
Ac-ft							165,900	199.800	203,400	212,200	194,200	81,070

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

2055. Boise River at Boise, Idaho

Location.--Lat 43°37', long 116°13', in SW¼ sec.10, T.3 N., R.2 E., on right bank at Capital Boulevard Bridge at Boise.

Drainage area.--2,760 sq mi, approximately.

Records available.--March 1938 to September 1939 (gage heights only), February 1940 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,675.46 ft above mean sea level (datum of Corps of Engineers, Boise River surveys). Prior to Apr. 30, 1943, at site 1 mile upstream at datum 13.69 ft higher. Apr. 30 to July 10, 1943, at site 400 ft downstream at present datum.

Extremes.--Maximum discharge during year, 1,830 cfs Apr. 16 (gage height, 4.65 ft); minimum 2.4 cfs Jan. 3 (gage height, 2.31 ft); minimum daily, 4.8 cfs Jan. 3.
1940-59: Maximum discharge, 21,000 cfs Apr. 20, 1943 (gage height, 10.00 ft, site and datum then in use); minimum, 1.3 cfs Feb. 3, 1955 (gage height, 2.21 ft); minimum daily, that of Jan. 3, 1959.

Remarks.--Records good except those below about 50 cfs, which are fair, and those below 10 cfs, which are poor. Flow regulated by Arrowrock Reservoir (see p. 145), Anderson Ranch Reservoir (see p. 143), and Lucky Peak Reservoir (see p. 149). New York, Ridenbaugh, and four smaller canals (see p. 152) divert between station near Boise and this station.

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

2.3	2	2.7	31	3.6	375
2.4	6	2.8	46	4.0	770
2.5	12	3.0	90	4.5	1,520
2.6	20	3.3	194	5.0	2,470

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	464	112	110	7.2	11	43	50	1,660	984	1,320	1,120	758
2	447	112	40	5.6	9.0	27	80	1,610	1,130	1,290	1,100	796
3	455	112	26	4.8	15	18	142	1,590	1,250	1,250	1,080	835
4	439	115	19	5.2	22	16	275	1,590	1,320	1,250	1,080	822
5	447	118	18	5.6	24	14	275	1,590	1,300	1,270	*1,100	783
6	439	257	16	6.6	26	14	257	1,520	1,270	1,250	1,100	747
7	423	245	14	6.6	27	13	275	1,350	1,250	1,240	1,080	758
8	439	132	14	6.6	27	13	275	1,190	1,250	1,240	1,100	736
9	447	101	14	6.0	27	13	299	1,270	1,190	1,210	1,100	*701
10	634	96	14	5.6	26	12	550	1,270	1,140	1,160	1,100	690
11	531	96	18	5.6	28	11	712	1,180	1,120	1,250	1,100	678
12	431	152	18	6.0	28	11	861	1,190	1,100	1,250	1,070	678
13	199	169	12	6.6	26	11	956	1,190	1,210	1,240	1,070	701
14	132	128	10	5.6	26	10	*1,120	1,220	1,240	1,210	1,060	678
15	*115	125	10	5.6	28	8.4	1,720	1,320	1,220	1,190	1,030	471
16	78	125	9.6	6.6	29	9.0	1,800	1,190	1,240	1,180	998	251
17	71	125	8.4	6.6	29	8.4	1,780	1,240	1,220	1,180	984	214
18	66	125	6.6	6.6	30	8.4	1,780	1,210	1,220	1,180	984	214
19	66	128	6.6	7.2	32	8.4	1,780	1,140	1,220	1,190	984	156
20	66	125	7.2	6.0	*31	8.4	1,740	1,100	1,250	1,190	1,080	104
21	78	125	6.0	5.2	31	7.8	1,660	1,060	1,290	1,210	970	*85
22	115	125	7.2	6.0	31	11	1,610	1,040	1,290	1,190	914	93
23	118	125	6.0	6.6	30	12	1,610	1,010	*1,270	1,190	874	85
24	121	*125	6.6	6.6	29	8.4	1,590	956	1,290	1,190	822	78
25	115	125	8.4	6.6	29	7.8	1,610	956	1,300	1,190	783	68
26	115	135	8.4	6.0	30	7.8	1,630	998	1,300	1,190	796	94
27	115	138	7.2	9.0	30	7.2	1,610	984	1,300	1,180	770	68
28	115	156	7.2	14	32	11	1,610	970	1,300	1,160	747	66
29	115	128	6.6	13	-	22	1,610	984	1,290	1,160	724	66
30	115	125	*7.2	12	-------	43	1,630	970	1,320	1,140	712	66
31	118	-------	7.2	11	-------	40	-------	956	-------	1,180	724	-------
Total	7,629	4,005	469.4	218.2	743.0	455.0	32,897	37,504	37,074	37,520	30,156	12,540
Mean	246	134	15.1	7.04	26.5	14.7	1,097	1,210	1,236	1,210	973	418
Ac-ft	15,130	7,940	931	433	1,470	902	65,250	74,390	73,540	74,420	59,810	24,870

Calendar year 1958: Max 6,320 Min 6.0 Mean 1,686 Ac-ft 1,221,000
Water year 1958-59: Max 1,800 Min 4.8 Mean 551 Ac-ft 399,100

* Discharge measurement made on this day.

2070. Spring Valley Creek near Eagle, Idaho

Location.--Lat 43°44'20", long 116°18'00", on right bank in SE¼ sec.26, T.5 N., R.1 E., half a mile upstream from mouth and 4 miles northeast of Eagle.

Drainage area.--20.9 sq mi.

Records available.--June 1954 to September 1959 (discontinued).

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,721.70 ft above mean sea level, unadjusted.

Average discharge.--5 years, 3.21 cfs (2,320 acre-ft per year).

Extremes.--Maximum discharge during year, 8.4 cfs Mar. 30 (gage height, 1.58 ft); no flow for long periods.
1954-59: Maximum discharge, 244 cfs Feb. 26, 1957 (gage height, 2.85 ft); no flow for long periods each year.

Remarks.--Records good except those below 1.0 cfs, which are fair. Diversions above station for irrigation.

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

1.0	0	1.3	1.3
1.1	.1	1.4	2.9
1.2	.6	1.5	5.3

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.1	0.4	1.6	2.6	2.1	0.6	*0.5			
2		0	b.1	b.9	1.2	2.4	2.1	.6	.3			
3		0	.1	b.8	1.3	2.6	2.1	.6	.2			
4		0	.1	b.9	1.6	2.4	1.9	*.6	.2			
5		0	b.1	b.9	1.2	2.4	1.8	.6	.2			
6		0	.1	1.1	1.3	2.4	1.6	.6	.2			
7		0	.2	1.0	1.3	2.6	1.6	.6	.2			
8		0	*.2	.9	1.3	2.4	*1.5	.6	.2			
9		0	.2	1.0	1.1	2.4	1.5	.6	.2			
10		0	.2	1.0	1.5	1.2	1.2	.6	.2			
11		0	.4	1.0	1.6	.3	.7	.2	.2			
12		0	.6	.9	1.5	.1	.4	.2	.2			
13		0	.3	.9	1.1	0	.4	.2	.1			
14		0	.2	1.0	1.5	0	.4	.2	.1			
15		0	.2	.8	1.5	0	.4	.3	.1			
16		0	.2	1.0	2.4	0	.4	.2	.2			
17		0	.2	1.0	3.9	*.1	.5	.3	.2			
18		0	.2	1.0	3.6	.1	.5	.2	.1			
19		.1	.2	.9	*4.8	.1	.4	.2	.1			
20		0	.2	.8	3.6	.2	.4	.2	.1			
21		0	b.2	.8	3.1	.2	.3	.2	.1			
22		0	.2	.9	3.1	.2	.5	.2	.1			
23		0	.2	1.0	2.9	.4	.6	.2	0			
24		.1	.2	1.0	2.7	.7	.5	1.6	.1			
25		b.1	.3	1.0	2.6	.7	.6	.8	.1			
26		b.1	.2	.9	2.6	.8	.6	.4	.1			
27		b.1	.3	1.9	2.4	.7	.5	.5	.1			
28		b.1	.3	3.6	2.4	.6	.4	.8	0			
29		.1	.3	2.6	-	.8	.4	.8	0			
30		b.2	*.3	*2.3	-------	3.0	.4	.7	*0			
31		-------	.3	1.8	-------	2.6	-------	.6	-------			-------
Total	0	0.9	6.9	36.0	60.7	35.0	26.7	15.0	4.4	0	0	0
Mean	0	0.03	0.22	1.16	2.17	1.13	0.89	0.48	0.15	0	0	0
Ac-ft	0	1.8	14	71	120	69	53	30	8.7	0	0	0

Calendar year 1958: Max 32 Min 0 Mean 4.50 Ac-ft 3,320
Water year 1958-59: Max 4.8 Min 0 Mean 0.51 Ac-ft 368

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

2075. Dry Creek near Eagle, Idaho

Location.--Lat 43°43'55", long 116°18'15", in NW¼ sec.35, T.5 N., R.1 E., on left bank 80 ft downstream from State Highway 15, 500 ft downstream from Spring Valley Creek, and 3.6 miles northeast of Eagle.

Drainage area.--59.4 sq mi.

Records available.--June 1954 to September 1959.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,692.80 ft above mean sea level, unadjusted.

Average discharge.--5 years, 11.2 cfs (8,110 acre-ft per year).

Extremes.--Maximum discharge during year, 19 cfs Feb. 19 (gage height, 1.78 ft); no flow at times in August and September.
1954-59: Maximum discharge, 339 cfs Feb. 26, 1957 (gage height, 4.70 ft); no flow at times in August and September 1959.

Remarks.--Records good except those for periods of ice effect or no gage-height record and those below 1.5 cfs, which are poor. Diversions upstream for irrigation.

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

1.0	0	1.4	4.2
1.1	.1	1.5	7.3
1.2	.7	1.6	11
1.3	2.0	1.8	23

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	1.2	2.3	3.7	7.0	8.5	10	1.0	*0.7	0.2	0.2	0
2	.1	1.2	2.3	b3.1	5.7	9.4	11	1.4	.4	.2	.2	0
3	.1	1.4	2.3	1.9	6.0	10	13	1.4	.2	.1	*.2	0
4	.1	1.3	2.5	1.9	7.7	8.5	13	*1.3	.2	.1	.2	0
5	.1	1.2	2.0	2.0	6.4	7.7	14	1.4	.2	.2	.3	0
6	.1	1.2	2.3	3.3	7.0	8.1	16	1.2	.2	.2	.5	0
7	.1	1.0	2.3	4.2	6.4	8.5	14	1.0	.2	.2	.2	0
8	.1	1.0	*2.3	3.9	6.0	8.5	*11	.9	.6	.2	.1	0
9	.7	1.0	2.5	4.5	4.8	8.1	7.3	.8	.4	.2	.1	0
10	.4	1.0	2.7	4.8	5.7	7.3	5.7	1.3	a.3	.2	.1	0
11	.2	.9	4.8	4.5	6.0	5.4	3.9	.6	a.2	.3	.1	0
12	.3	1.2	11	5.1	5.7	4.8	2.9	.6	a.2	.4	0	0
13	1.4	1.2	6.4	5.7	4.5	b5.1	2.5	.6	a.2	.4	0	.1
14	1.4	2.7	3.9	5.4	5.4	b4.7	2.5	.5	a.2	.4	.1	0
15	1.4	1.9	4.2	4.2	3.7	b4.5	2.7	.9	a.2	.2	0	.1
16	1.9	1.6	4.5	4.5	6.7	4.8	2.9	1.0	a.4	.2	0	.2
17	1.9	1.4	3.9	4.5	11	*5.4	3.1	.6	.7	.1	0	.2
18	1.9	1.4	3.7	4.2	11	5.7	3.1	.4	.8	.1	0	.2
19	1.6	2.3	3.9	4.2	*16	5.7	2.9	.2	.5	.1	0	.2
20	1.4	2.9	3.9	3.9	14	5.1	2.7	.2	.4	.1	*0	.1
21	1.4	2.5	4.2	2.5	12	6.0	2.7	.2	.2	.1	0	.1
22	1.6	2.5	4.5	4.8	12	6.4	2.0	.2	.3	.1	0	.2
23	1.6	2.0	3.7	5.4	11	7.0	2.0	.2	.2	.1	0	.2
24	*1.4	2.3	3.7	6.7	10	6.7	1.7	1.6	.2	.1	.1	.9
25	1.3	2.0	4.5	6.4	10	6.7	2.5	.8	.2	.1	.1	.9
26	1.3	1.6	4.2	5.7	10	7.0	2.9	.3	.2	.1	0	3.1
27	1.4	1.4	3.9	8.5	9.4	7.3	3.1	.4	.2	.1	0	2.3
28	1.3	1.3	3.7	12	8.5	7.3	2.9	.6	.2	.1	0	1.9
29	1.3	1.4	3.3	9.4	-	7.7	2.5	.6	.2	.2	0	1.7
30	1.3	1.7	*3.5	*8.1	-------	11	9	.6	*.2	.2	0	1.7
31	1.2	-------	3.5	8.1	-------	11	-------	.5	-------	.2	0	-------
Total	30.4	47.7	116.4	157.1	231.6	219.9	167.4	23.3	9.3	5.5	2.5	14.1
Mean	0.98	1.59	3.75	5.07	8.27	7.09	5.58	0.75	0.31	0.18	0.08	0.47
Ac-ft	60	95	231	312	459	436	332	46	18	11	5.0	28

Calendar year 1958: Max 105 Min 0.1 Mean 15.4 Ac-ft 11,160
Water year 1958-59: Max 16 Min 0 Mean 2.81 Ac-ft 2,030

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Spring Valley Creek near Eagle.
b Stage-discharge relation affected by ice.

2120. Diversions from Boise River between at Boise and Notus gaging stations, Idaho

Between at Boise and at Notus gaging stations, 21 principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversions during period April to September for each canal for years 1919-46 and combined daily diversions covering period April to September for years 1947-59 in reports of Geological Survey. Records of daily diversions for each canal from 1916 to 1959 on file in office of Idaho State Reclamation Engineer. Diversions usually made also during October and March; no record available.

Records show summation of discharge for these diversions. Staff gages on diversions read daily or several times weekly, and discharge measurements made frequently. Field data obtained and records summarized under direction of E. B. Karn, watermaster for Boise River.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							280	2,130	1,950	2,200	2,190	1,830
2							333	2,100	2,020	2,180	2,200	1,820
3							371	2,090	2,120	2,160	2,200	1,830
4							369	2,060	2,230	2,160	2,210	1,800
5							383	2,080	2,240	2,170	2,180	1,780
6							632	2,080	2,120	2,170	2,200	1,760
7							664	2,100	2,090	2,130	2,170	1,740
8							751	2,110	2,130	2,140	2,160	1,720
9							803	2,110	2,120	2,200	2,160	1,680
10							1,020	2,120	2,100	2,030	2,150	1,670
11							1,210	2,100	2,100	2,190	2,140	1,670
12							1,400	2,100	2,110	2,180	2,110	1,650
13							1,550	2,110	2,150	2,060	2,130	1,620
14							1,690	2,160	2,180	2,050	2,120	1,210
15							1,780	2,190	2,160	2,040	2,110	942
16							2,000	2,140	2,120	2,090	2,100	774
17							2,020	2,050	2,110	2,100	2,060	702
18							2,030	1,990	2,170	2,120	2,070	494
19							2,060	1,950	2,240	2,130	2,030	407
20							2,110	1,880	2,290	2,140	1,950	357
21							2,160	1,840	2,340	2,110	1,860	323
22							2,220	1,830	2,350	2,150	1,810	266
23							2,280	1,820	2,330	2,170	1,790	254
24							2,280	1,800	2,340	2,170	1,740	254
25							2,260	1,820	2,320	2,170	1,740	254
26							2,230	1,800	2,300	2,170	1,750	242
27							2,180	1,800	2,280	2,150	1,800	232
28							2,180	1,850	2,250	2,160	1,780	276
29							2,150	1,850	2,230	2,130	1,770	232
30							2,140	1,870	2,180	2,160	1,850	260
31								1,880		2,170	1,860	
Total							45,526	61,810	65,670	66,350	62,390	30,046
Mean							1,518	1,994	2,189	2,140	2,013	1,002
Ac-ft							90,300	122,600	130,300	131,600	123,700	59,600

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

2125. Boise River at Notus, Idaho

Location.--Lat 43°43', long 116°48', in SE¼ sec.34, T.5 N., R.4 W., on right bank 1,100 ft upstream from county road bridge, a quarter of a mile southeast of Notus, and 7 miles northwest of Caldwell.

Drainage area.--3,820 sq mi, approximately.

Records available.--April 1920 to September 1959 (irrigation season only 1923-24).

Gage.--Water-stage recorder. Datum of gage is 2,288.55 ft above mean sea level (datum of Corps of Engineers, Boise River surveys). Prior to Aug. 26, 1936, staff gage at site 1,100 ft downstream at same datum.

Extremes.--Maximum discharge during year, 2,900 cfs Sept. 15 (gage height, 5.21 ft); minimum, 56 cfs Apr. 10 (gage height, 1.23 ft); minimum daily, 66 cfs Apr. 12, 13.
1920-59: Maximum discharge, 20,500 cfs Apr. 20, 1943 (gage height, 10.43 ft); minimum observed, 10 cfs Aug. 18, 21, 1920.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Diversions above station for irrigation of about 309,300 acres (1946 determination). Diversions between station and mouth for irrigation of about 5,300 acres (1946 determination). Flow regulated by Arrowrock Reservoir (see p. 145), Anderson Ranch Reservoir (see p. 143), and Lucky Peak Reservoir (see p. 149). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 1347: 1930.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 27 to May 11, 16-30, June 7-11)

Oct. 1 to Apr. 25				Apr. 26 to Sept. 30			
1.3	66	2.5	605	1.4	85	3.0	706
1.5	106	3.0	990	1.8	185	4.0	1,400
1.8	196	4.0	1,910	2.4	421		
2.0	285						

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*549	910	778	556	521	507	229	808	301	210	460	351
2	591	894	762	556	514	514	164	1,020	179	220	460	347
3	612	886	702	500	500	507	152	979	130	220	450	417
4	612	886	672	500	514	493	164	1,100	176	210	430	475
5	612	878	650	549	514	486	204	1,050	247	200	410	545
6	605	886	642	570	514	479	164	1,060	301	170	400	617
7	591	1,040	635	549	521	472	88	894	444	140	380	593
8	628	990	635	535	514	465	91	578	578	140	360	*578
9	695	878	628	535	514	458	82	390	540	130	350	540
10	778	838	620	528	514	458	71	444	545	130	350	536
11	902	808	642	528	514	452	71	494	521	130	350	526
12	778	800	702	521	514	458	66	309	390	130	370	480
13	838	886	642	*521	500	458	66	198	250	120	360	517
14	732	910	612	514	500	452	204	170	258	380	360	602
15	688	838	605	507	500	446	346	240	277	400	370	2,600
16	770	822	598	521	514	439	479	894	314	410	380	1,610
17	740	808	598	521	521	439	540	924	262	250	400	1,180
18	762	815	598	514	521	439	570	1,250	*208	200	450	1,120
19	910	822	598	521	535	432	400	1,170	159	200	500	1,410
20	926	820	598	514	528	426	300	1,130	125	200	600	1,130
21	894	810	598	507	521	420	250	1,000	116	200	740	876
22	918	800	591	514	521	432	*225	*894	133	180	820	824
23	942	800	584	514	514	452	204	859	104	180	820	824
24	942	790	584	507	*514	432	189	1,010	94	250	*860	802
25	934	*780	591	507	514	420	182	900	100	300	791	774
26	918	778	577	507	514	426	254	796	110	350	696	769
27	910	792	577	521	514	370	489	671	130	440	602	780
28	902	785	570	563	507	285	602	559	150	*440	512	691
29	918	800	563	556	-	266	676	545	170	440	448	716
30	918	785	*556	542	-------	285	711	475	190	440	412	716
31	910	-------	556	535	-------	290	-------	412	-------	440	412	-------
Total	24,425	25,335	19,264	16,333	14,406	13,358	8,233	23,223	7,502	7,850	15,303	23,946
Mean	788	844	621	527	514	431	274	749	250	253	494	798
Ac-ft	48,450	50,250	38,210	32,400	28,570	26,500	16,330	46,060	14,880	15,570	30,350	47,500

Calendar year 1958: Max 6,650 Min 128 Mean 1,747 Ac-ft 1,265,000
Water year 1958-59: Max 2,600 Min 66 Mean 546 Ac-ft 395,100

* Discharge measurement made on this day.
Note.--No gage-height record Nov. 20-25, Apr. 17-22, June 24 to Aug. 24; discharge estimated on basis of recorded range in stage and records for nearby stations.

2140. Malheur River near Drewsey, Oreg.

Location.--Lat 43°47', long 118°20', in SE¼ sec.31, T.20 S., R.36 E., on left bank 300 ft downstream from highway bridge, half a mile downstream from Cottonwood Creek, and 3 miles southeast of Drewsey.

Drainage area.--910 sq mi, approximately.

Records available.--June 1920 to September 1921, November, December 1921, March, April 1922, April to September 1923, June 1926 to September 1959. Monthly discharge only for some periods, published in WSP 1317. March to September 1914 at site 13 miles upstream; records not equivalent owing to inflow from several creeks.

Gage.--Water-stage recorder. Datum of gage is 3,479.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Apr. 27, 1923, water-stage recorder or staff gage at site half a mile downstream at different datum. Apr. 27, 1923, to June 6, 1939, water-stage recorder at site 7 miles downstream at different datum.

Average discharge.--33 years (1926-59), 175 cfs (126,700 acre-ft per year).

Extremes.--Maximum discharge during year, 734 cfs Apr. 6 (gage height, 5.91 ft); minimum, 0.8 cfs Aug. 17, 18, 19.
1920-23, 1926-59: Maximum discharge, 10,700 cfs Feb. 24, 1957 (gage height, 13.20 ft), from rating curve extended above 3,500 cfs on basis of contracted-opening measurement of peak flow; no flow at times.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of about 13,000 acres above station.

Revisions (water years).--WSP 1093: 1927. WSP 1287: Drainage area. WSP 1397: 1921, 1927-31, 1937, drainage area (former site). WSP 1517: 1952.

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

2.3	0.5	3.5	84
2.4	2.0	4.0	153
2.6	7.0	4.5	250
2.8	17	5.0	390
3.0	31	6.0	730

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	60	b60	90	111	172	300	144	74	19	1.4	*3.4
2	40	60	72	79	94	192	318	210	70	14	1.6	3.4
3	42	60	78	b60	90	*147	459	162	65	14	1.6	3.4
4	40	61	b70	b40	113	120	529	138	61	14	1.1	3.2
5	38	62	b60	b30	105	107	560	127	59	14	1.1	3.2
6	37	68	72	34	98	110	627	130	59	14	1.2	3.2
7	36	69	80	59	100	107	*610	113	69	14	1.2	3.0
8	35	93	84	93	92	107	522	102	78	14	1.2	2.8
9	35	84	83	104	76	107	477	100	74	14	1.4	2.6
10	37	*84	82	107	b80	105	435	98	69	13	1.4	2.4
11	36	77	85	105	b85	100	417	90	62	13	*1.2	2.2
12	37	71	166	113	b80	97	414	89	54	14	1.4	2.2
13	36	66	146	b110	b75	109	408	*72	46	12	1.4	2.2
14	36	76	93	b100	b75	111	360	76	36	12	1.4	2.4
15	36	70	b75	b105	98	102	321	82	*35	10	1.2	3.0
16	35	46	b80	110	121	102	292	97	31	10	1.1	3.2
17	36	b40	b75	117	142	120	260	102	24	8.0	1.0	2.6
18	43	47	b75	117	131	135	232	110	29	6.7	1.0	3.2
19	47	71	b80	110	147	131	212	100	29	6.1	1.0	25
20	57	88	b75	98	131	117	196	104	29	6.4	1.1	56
21	61	100	b70	92	118	111	170	96	28	*6.4	1.2	40
22	59	89	b65	98	111	118	156	102	26	6.4	2.0	31
23	*60	82	*b60	104	114	121	153	94	22	6.4	1.8	31
24	60	80	b65	111	105	131	152	101	21	6.4	1.7	30
25	61	77	b70	120	98	138	150	117	20	19	1.7	27
26	61	b50	b65	120	104	147	163	92	22	7.5	1.8	29
27	60	b45	b70	*132	102	176	182	104	22	3.8	2.0	44
28	58	b45	b75	184	116	160	170	82	21	3.6	2.4	51
29	57	b50	b70	134	-	174	150	88	21	3.0	2.8	46
30	56	b55	88	124	-------	190	132	80	21	1.1	3.0	*50
31	56	-------	90	120	-------	333	-------	77	-------	1.1	3.0	-------
Total	1,421	2,026	2,479	3,120	2,912	4,197	9,527	3,279	1,277	306.9	48.4	511.6
Mean	45.8	67.5	80.0	101	104	135	318	106	42.6	9.90	1.56	17.1
Ac-ft	2,820	4,020	4,920	6,190	5,780	8,320	18,900	6,500	2,530	609	96	1,010

Calendar year 1958: Max 2,660 Min 5.8 Mean 378 Ac-ft 274,000
Water year 1958-59: Max 627 Min 1.0 Mean 85.2 Ac-ft 61,700

Peak discharge (base, 800 cfs).--No peak above base.

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

2150. Malheur River below Warmsprings Reservoir, near Riverside, Oreg.

Location.--Lat 43°34', long 118°12', in SW¼ sec.17, T.23 S., R.37 E., on left bank 1 mile downstream from Warmsprings Dam, 3 miles upstream from South Fork, and 4 miles northwest of Riverside.

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

Records available.--January 1906 to March 1907 and December 1908 (gage heights only), January 1909 to September 1910, December 1914 to July 1917, March 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Figures of discharge for January 1906 to March 1907, published in WSP 272 and 370, have been found to be unreliable and should not be used. Published as Middle Fork of Malheur River at Riverside 1906-7, as Middle Fork of Malheur River above South Fork, at Riverside 1909-10, as Malheur River above South Fork, at Riverside, in WSP 370, 1906-10, and as Malheur River at Warm Springs reservoir site, near Riverside 1914-17.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,305 ft (by barometer). Jan. 3, 1906, to May 25, 1910, staff or chain gages at several sites about 3 miles downstream, 200 ft upstream from South Fork, at various datums. Dec. 9, 1914, to July 24, 1917, water stage recorder and Mar. 18, 1919, to Apr. 27, 1920, staff gage, at sites about 1 mile upstream at different datums. Apr. 28, 1920, to Sept. 28, 1949, staff or hook gages at sites within 80 ft of present site at present datum.

Average discharge.--40 years (1919-59), 170 cfs (123,100 acre-ft per year).

Extremes.--Maximum discharge during year, 600 cfs June 18 (gage height, 5.02 ft); minimum not determined.
1909-10, 1915-17, 1919-59: Maximum discharge observed, 7,200 cfs Mar. 1, 1910 (gage height, 10.7 ft, site and datum then in use), from rating curve extended above 820 cfs by logarithmic plotting; no flow at times.

Remarks.--Records good above 10 cfs and poor below. Flow completely regulated since November 1919 by Warmsprings Reservoir (see p. 164). Diversions for irrigation of 13,000 acres above station.

Revisions (water years).--WSP 833: 1936. WSP 1063: 1942-45. WSP 1397: 1909-10, 1917. WSP 1447: 1955. See also Records available.

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

2.5	0	3.0	7.0	4.0	143
2.6	.2	3.2	16	4.5	340
2.7	.6	3.4	32	5.0	590
2.8	2.0	3.7	74		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94							415	264	590	490	331
2	94							410	282	585	485	340
3	94							390	318	580	485	326
4	94							370	336	575	485	304
5	94						1	365	336	570	490	304
6	96							345	336	560	485	295
7	96							336	326	555	485	295
8	96						91	336	318	550	485	282
9	96						261	331	313	550	505	272
10	96						318	331	*313	550	515	218
11	96						318	326	313	550	*515	188
12	96						318	322	313	550	520	192
13	35						313	*331	340	560	520	192
14	.4						*308	326	380	560	515	180
15	.4	0.5	0.6	0.7	0.8	0.9	360	318	395	550	515	140
16	.4						400	304	395	520	515	125
17	**.4						395	295	395	535	510	108
18	.4						385	277	455	535	510	99
19	.4						385	264	460	530	505	73
20	.4						380	264	460	535	500	47
21	.4						375	264	485	*540	495	29
22	.4						375	264	505	540	465	
23	.4						375	264	515	540	445	
24	.4						405	264	510	525	440	
25	.4						420	264	510	515	420	
26	.4						420	259	510	515	410	
27	.4						420	272	505	500	400	.1
28	.4						420	268	505	485	385	
29	.4				-		415	264	505	480	375	
30	.4				-------		415	259	550	485	365	
31	.4	-------	-------	-------	-------	-------	-------	264	-------	-------	360	-------
Total	1,184.2	15.0	18.6	21.7	22.4	27.9	8,279	9,562	12,148	16,700	14,595	4,340.9
Mean	38.2	0.5	0.6	0.7	0.8	0.9	276	308	405	539	471	145
Ac-ft	2,350	30	37	43	44	55	16,420	18,970	24,100	33,120	28,950	8,610

Calendar year 1958 : Max 2,580 Min - Mean 352 Ac-ft 254,700
Water year 1958-59 : Max 590 Min - Mean 183 Ac-ft 132,700

* Discharge measurement made on this day.
** Field estimate made on this day.
Note.--No gage-height record Oct. 14-16, Oct. 18 to Apr. 7, Sept. 22-30; discharge interpolated from available gage readings.

2165. North Fork Malheur River above Agency Valley Reservoir, near Beulah, Oreg.

Location.--Lat 43°57', long 118°10', in NE¼ sec.4, T.19 S., R.37 E., on left bank 500 ft upstream from Agency Valley Reservoir, 2½ miles upstream from Warm Springs Creek, and 3½ miles northwest of Beulah. Prior to Oct. 15, 1958, at site 0.5 miles upstream.

Drainage area.--355 sq mi.

Records available.--January to September 1914, June 1936 to September 1959. Published as "at Scott's Ranch, near Beulah" in 1914.

Gage.--Water-stage recorder. Datum of gage is 3,351 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, based on levels to high-water marks at Agency Valley Reservoir. Jan. 1 to Sept. 30, 1914, staff gage and June 10, 1936, to Oct. 14, 1958, water-stage recorder, at site 0.5 mile upstream at different datums.

Average discharge.--23 years (1936-59), 128 cfs (92,670 acre-ft per year).

Extremes.--Maximum discharge during year, 461 cfs Apr. 6 (gage height, 2.96 ft); maximum gage height, 3.70 ft Jan. 6 (ice jam); minimum discharge, 12 cfs Jan. 3.
1914, 1936-59: Maximum discharge, 1,600 cfs Feb. 24, 1957 (gage height, 3.50 ft, site and datum then in use), from rating curve extended above 620 cfs by logarithmic plotting; maximum gage height, 4.60 ft Mar. 26, 1940, site and datum then in use; minimum discharge determined, 12 cfs Jan. 27, 1948, Jan. 3, 1959.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of about 900 acres above station.

Revisions (water years).--WSP 883: 1938(M). WSP 1093: 1944(m). WSP 1397: 1914, 1937, 1941-42, 1944, 1950.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 15 to Dec. 27)

Oct. 1-14		Oct. 15 to Sept. 30			
0.1	43	1.4	19	2.2	145
.3	63	1.6	39	2.5	235
		1.8	68	3.0	485
		2.0	100		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	59	b60	62	72	86	182	214	116	64	38	*39
2	54	60	68	b50	b45	*92	259	221	118	60	36	39
3	54	62	70	b35	b60	85	275	194	122	60	36	37
4	53	62	b65	b25	b70	72	306	179	118	58	36	36
5	52	64	b55	b30	77	78	335	168	118	58	37	40
6	51	65	b60	b35	83	77	*370	160	128	58	37	39
7	52	72	70	b40	80	78	293	150	128	56	38	39
8	52	70	70	b50	76	77	247	142	125	58	38	38
9	52	66	66	b55	b50	77	235	150	120	56	38	37
10	52	65	66	b60	b60	76	224	142	*116	53	38	37
11	52	64	74	70	b65	68	228	140	112	50	38	37
12	52	59	93	71	b60	83	235	142	104	49	38	37
13	52	60	72	71	b55	85	243	*150	100	49	39	38
14	53	65	b60	66	b60	76	232	170	100	47	*39	43
15	54	b50	b50	60	b70	70	221	194	98	47	38	49
16	*56	b35	b60	62	76	86	207	188	97	46	37	46
17	56	b35	70	65	68	97	194	185	93	45	37	46
18	59	b45	62	65	71	98	179	182	88	45	37	53
19	64	b60	64	65	82	97	162	168	85	45	38	76
20	64	78	62	59	71	82	160	160	83	45	46	59
21	62	66	60	64	70	97	152	158	78	*45	53	53
22	59	60	*56	68	66	92	165	152	76	43	50	50
23	*59	58	b40	71	66	93	185	145	72	43	46	54
24	60	58	b45	88	52	98	200	148	71	43	43	47
25	60	50	b50	98	66	104	210	148	71	42	42	46
26	62	b45	50	*82	62	120	218	145	71	39	42	58
27	62	b40	b52	85	65	120	214	142	70	37	42	64
28	62	b40	56	102	70	116	194	138	68	37	42	56
29	62	b45	59	83	-	125	185	135	66	38	40	*53
30	60	b50	66	80	-------	178	188	128	65	38	40	52
31	58	-------	65	83	-------	185	-------	118	-------	38	39	-------
Total	1,754	1,708	1,916	2,000	1,868	2,968	6,698	4,956	2,877	1,490	1,238	1,394
Mean	56.6	56.9	61.8	64.5	66.7	95.7	223	160	95.9	48.1	39.9	46.5
Ac-ft	3,480	3,390	3,800	3,970	3,710	5,890	13,290	9,830	5,710	2,960	2,460	2,760

Calendar year 1958: Max 1,050 Min 35 Mean 201 Ac-ft 145,700
Water year 1958-59: Max 370 Min 25 Mean 84.6 Ac-ft 61,250

Peak discharge (base, 500 cfs).--No peak above base.

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

2175. North Fork Malheur River at Beulah, Oreg.

Location.--Lat 43°54', long 118°09', in NW¼NE¼ sec.22, T.19 S., R.37 E., on left bank at Beulah, a quarter of a mile downstream from Agency Valley Dam and 12 miles northwest of Juntura.

Drainage area.--440 sq mi, approximately.

Records available.--June 1926 to September 1959. Published as "near Beulah" June 1926 to September 1935.

Gage.--Water-stage recorder. Datum of gage is 3,262.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. June 26, 1926, to Apr. 24, 1936, water-stage recorder at site 1 mile downstream at different datum. Apr. 25, 1936, to Sept. 30, 1949, staff gage at site 20 ft downstream at present datum.

Average discharge.--24 years (1935-59), 137 cfs (99,180 acre-ft per year).

Extremes.--Maximum discharge during year, 366 cfs June 23, 24 (gage height, 2.42 ft); minimum, 0.1 cfs for many days.
1926-59: Maximum discharge, 7,000 cfs May 7, 1942 (gage height, 8.4 ft, from flood-mark), from computation of peak flow over dam, caused by failure of gates at Agency Valley Dam; no flow at times.

Remarks.--Records good except those below 10 cfs, which are fair. Flow regulated by Agency Valley Reservoir since December 1935 (see p. 164). Diversions for irrigation of 2,400 acres above station. Prior to Apr. 25, 1936, station was downstream from intake of diversions for irrigation of about 120 acres below station.

Revisions (water years).--WSP 1397: 1927-32, 1934, drainage area.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-13)

Oct. 1 to June 27				June 28 to Sept. 30			
-0.15	0	0.5	25	-0.1	1.1	0.7	47
-.1	.2	.7	45	0.0	2.0	1.0	85
0.0	1.1	1.0	84	.1	4.0	1.5	170
.1	3.0	1.5	162	.2	7.0	2.0	270
.2	6.0	2.0	260	.3	12	2.5	395
.3	11	2.5	390	.5	26		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	194	1.0	0.7	0.7	0.2	0.3	0.8	242	202	246	190	102
2	200	1.1	.7	.7	.2	*.2	.8	242	204	216	190	102
3	204	1.1	.5	.6	.2	.2	.9	242	206	194	200	102
4	208	1.0	.2	.6	.2	.3	.9	228	218	188	206	102
5	208	1.0	.2	.7	.2	.5	.9	220	228	186	204	98
6	208	1.0	.2	.7	.1	.5	.8	220	228	186	208	102
7	206	1.0	.2	.6	.1	.5	.6	222	228	186	224	108
8	206	1.0	.2	.6	.1	.6	.6	222	230	188	224	108
9	208	1.0	.2	.6	.1	.6	.6	222	214	188	216	108
10	204	.9	.2	.5	.1	.6	76	206	*204	188	198	154
11	176	.9	a.2	.5	.2	.6	108	200	204	188	180	180
12	166	.9	a.2	.5	.1	.6	105	*200	222	198	174	166
13	63	.9	a.3	.4	.1	.6	105	200	234	204	160	156
14	.9	.9	a.3	.4	.2	.5	*108	202	234	208	*158	172
15	.8	.9	a.3	.4	.2	.5	108	202	234	208	160	194
16	1.1	.8	a.4	.4	.2	.5	124	202	240	208	160	194
17	1.3	.8	a.4	.4	.2	.5	146	204	254	214	160	194
18	1.3	.8	a.4	.3	.2	.5	162	202	262	220	174	176
19	1.1	.8	a.5	.3	.2	.4	167	192	272	218	180	168
20	1.0	.7	a.5	.3	.2	.4	151	190	312	230	166	168
21	.9	.7	a.6	.3	.2	.5	143	190	332	*222	160	168
22	.9	.7	.6	.2	.2	.5	160	190	335	214	160	168
23	*.9	.8	.6	.2	.2	.5	178	210	355	212	122	123
24	.9	.8	.6	.2	.2	.5	200	218	366	210	102	84
25	.9	.8	.6	.3	.2	.7	234	222	363	198	102	53
26	.9	.7	.6	.3	.2	.9	248	222	360	194	102	16
27	.9	.7	.7	.4	.2	1.0	250	222	332	194	103	1.8
28	.9	.7	.6	.3	.3	1.0	232	220	320	192	104	1.7
29	.9	.7	.7	.2	-	.9	232	206	315	182	103	*1.7
30	1.0	.7	.7	.2	-------	.9	242	202	280	176	103	1.7
31	1.0	-------	.7	.2	-------	.9	-------	202	-------	186	*102	-------
Total	2,468.6	25.8	13.8	13.0	5.0	17.7	3,485.9	6,564	7,988	6,242	4,995	3,472.9
Mean	79.6	0.86	0.45	0.42	0.18	0.57	116	212	266	201	161	116
Ac-ft	4,900	51	27	26	9.9	35	6,910	13,020	15,840	12,380	9,910	6,890

Calendar year 1958: Max 1,520 Min 0.2 Mean 248 Ac-ft 179,800
Water year 1958-59: Max 366 Min 0.1 Mean 96.7 Ac-ft 70,000

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated.

2200. Malheur River at Little Valley, near Hope, Oreg.

Location.--Lat 43°54', long 117°30', in SE¼ sec.24, T.19 S., R.42 E., or right bank 500 ft downstream from bridge at Little Valley, 8 miles southwest of Hope, and 14 miles southwest of Vale.

Drainage area.--3,010 sq mi, approximately.

Records available.--April 1949 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,424.03 ft (revised) above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--10 years, 224 cfs (162,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,670 cfs Sept. 14 (gage height, 4.80 ft); minimum, 17 cfs for many days.
1949-59: Maximum discharge, 12,300 cfs Feb. 24, 1957 (gage height, 11.5 ft, from floodmark), from rating curve extended above 1,700 cfs on basis of slope-area measurement of peak flow; minimum, 12 cfs Oct. 27, 1955.
The two greatest floods known occurred in March 1894 and March 1910, on basis of records for former station near Namorf.

Remarks.--Records good except those for periods of ice effect, which are poor. Flow regulated by Warmsprings and Agency Valley Reservoirs (see p. 164). Vale-Oregon Canal diverts as much as 600 cfs on left bank at Namorf in sec.31, T.20 S., R.41 E., for irrigation of about 31,000 acres, largely below the station. Many small diversions for irrigation above station.

Revisions (water years).--WSP 1217: 1949-50(M). WSP 1397: 1950.

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

1.6	16	2.5	150
1.8	32	3.0	320
2.0	54	3.5	570
2.2	86		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	31	b40	47	54	44	22	202	99	236	190	125
2	72	31	41	b45	50	*54	33	199	90	244	175	121
3	72	32	46	b40	48	56	48	184	90	222	187	117
4	74	30	b42	b35	47	49	44	178	94	212	184	130
5	79	29	b40	b40	46	47	34	155	103	222	178	121
6	79	41	b40	b50	44	47	*27	152	109	205	175	111
7	74	53	43	b54	43	48	20	145	111	187	170	109
8	72	53	48	57	44	46	17	132	113	187	187	107
9	69	53	47	63	43	46	17	132	*119	190	187	101
10	71	*52	47	66	43	46	41	135	128	205	193	99
11	69	50	48	63	b40	44	152	125	125	226	184	99
12	69	48	52	62	b38	44	193	*125	125	216	168	96
13	76	49	49	57	b35	46	*193	125	123	199	168	139
14	96	52	b45	57	b38	37	175	130	132	196	158	451
15	64	52	b40	53	b40	34	165	132	*152	212	*160	214
16	50	b40	b42	56	50	35	187	132	155	199	165	148
17	46	b35	46	52	54	39	187	138	158	190	158	150
18	41	b45	48	52	50	40	178	135	168	202	150	160
19	40	49	49	52	50	38	170	132	199	212	190	205
20	38	50	48	50	52	34	175	121	199	*205	187	187
21	37	49	48	48	57	29	160	117	205	212	196	162
22	*37	47	*47	49	54	23	145	117	219	196	193	152
23	36	46	48	48	53	24	135	115	230	199	193	160
24	37	46	47	53	50	23	135	117	244	212	175	142
25	35	46	46	52	49	21	172	121	252	196	158	107
26	33	b40	47	*50	48	20	199	119	252	187	155	88
27	32	b35	48	50	47	17	202	119	256	175	152	72
28	32	b35	48	50	46	17	208	119	244	175	142	*64
29	32	b35	48	49	-	18	202	113	230	187	138	56
30	31	b38	48	48	-------	23	199	123	212	175	135	54
31	30	-------	48	52	-------	21	-------	113	-------	181	*128	-------
Total	1,697	1,292	1,424	1,600	1,313	1,110	3,835	4,202	4,936	6,262	5,279	4,047
Mean	54.7	43.1	45.9	51.6	46.9	35.8	128	136	165	202	170	135
Ac-ft	3,370	2,560	2,820	3,170	2,600	2,200	7,610	8,330	9,790	12,420	10,470	8,030

Calendar year 1958: Max 3,960 Min 29 Mean 474 Ac-ft 343,400
Water year 1958-59: Max 451 Min 17 Mean 101 Ac-ft 73,370

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

2270. Bully Creek near Vale, Oreg.

Location.--Lat 43°57'30", long 117°20'30", in SW¼ sec.33, T.18 S., R.44 E., on right bank 5 miles southwest of Vale and 7 miles upstream from mouth.

Drainage area.--570 sq mi, approximately.

Records available.--May 1933 to September 1934, November 1934, March 1935, March, April 1936, June 1937 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,313 ft (by levels to reference point furnished by Union Pacific Railroad). Prior to Mar. 15, 1937, water-stage recorder or staff gage at site 2 miles upstream at different datum. Mar. 15, 1937, to Jan. 1, 1940, water-stage recorder at present site at datum 0.38 ft higher.

Average discharge.--23 years (1933-34, 1937-59), 42.3 cfs (30,620 acre-ft per year).

Extremes.--Maximum discharge during year, 155 cfs Sept. 13 (gage height, 2.00 ft); minimum, 3.3 cfs Apr. 14.
1933-34, 1937-59: Maximum discharge, 8,980 cfs Feb. 24, 1957 (gage height, 10.5 ft, from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area measurement of peak flow; no flow at times.

Remarks.--Records good except those for periods of backwater from moss and debris, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Occasional fluctuations caused by releases from Vale-Oregon Canal which diverts water for irrigation of lands west of Vale; considerable return flow at times enters Bully Creek above station. Diversions for irrigation of about 7,000 acres above station. Records of suspended sediment loads and water temperatures for water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 1183: 1946-47. WSP 1397: 1948. WSP 1447: Drainage area.

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

0.9	6.0	1.3	35
1.0	10	1.5	60
1.1	16	1.8	110

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	14	11	14	b22	24	a8	6.8	15	19	14	11
2	22	14	11	11	b18	*27	a8.5	7.6	15	18	14	10
3	22	17	12	b10	b20	32	a9	8.0	15	18	15	9.2
4	22	16	11	a9	21	27	a9	9.6	15	19	14	9.2
5	21	17	b10	a10	b19	22	a9.5	12	15	19	14	9.2
6	20	18	b11	a11	20	17	*10	12	17	19	15	9.6
7	17	18	12	a13	20	15	11	11	16	20	15	10
8	16	19	12	a14	20	14	10	9.2	16	18	15	11
9	15	16	13	a15	b17	13	9.6	10	16	17	16	11
10	16	*18	14	a15	b18	12	7.6	10	15	16	16	12
11	18	18	14	a15	19	9.2	6.8	11	*15	15	16	15
12	19	17	14	a15	16	8.0	8.0	*11	14	15	16	14
13	19	17	13	a14	14	7.2	*6.8	11	14	14	16	44
14	19	16	b11	13	13	6.4	8.0	11	15	14	15	98
15	19	15	b9	12	17	6.0	8.8	12	16	12	*15	45
16	18	b13	b11	15	16	6.0	8.8	11	16	12	14	35
17	18	b12	b13	14	17	6.0	9.6	11	17	11	13	33
18	19	b14	15	14	17	6.0	9.2	12	18	11	12	35
19	21	17	16	13	17	6.0	6.8	12	16	10	13	66
20	25	15	15	12	17	6.0	7.2	11	17	*10	13	41
21	25	14	15	10	18	6.0	8.0	11	16	10	16	32
22	*24	14	*15	b12	18	6.4	6.8	11	16	10	15	27
23	18	13	14	13	18	6.4	6.8	12	15	10	15	24
24	20	12	15	13	20	6.8	6.4	12	16	12	14	23
25	20	12	16	23	20	6.8	7.2	13	18	12	12	22
26	20	11	15	*32	20	6.0	6.0	14	18	12	13	21
27	20	b10	15	28	20	a6	6.0	15	19	11	13	19
28	21	b9	15	26	21	a6.5	6.0	16	19	11	13	*19
29	21	b9	14	26	-	a7	7.6	15	19	12	12	19
30	20	b10	14	26	-------	a7.5	6.8	20	12	12	12	19
31	16	-------	14	24	-------	a8	-------	15	-------	12	*12	-------
Total	615	437	410	492	513	343.2	239.8	358.2	489	431	438	753.2
Mean	19.8	14.6	13.2	15.9	18.3	11.1	7.99	11.6	16.3	13.9	14.1	25.1
Ac-ft	1,220	867	813	976	1,020	681	476	710	970	855	869	1,490

Calendar year 1958: Max 1,440 Min 9 Mean 82.7 Ac-ft 59,900
Water year 1958-59: Max 98 Min 6.0 Mean 15.1 Ac-ft 10,950

Peak discharge (base, 180 cfs, revised).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for North Fork Malheur River above Agency Valley Reservoir and Malheur River near Drewsey.
b Stage-discharge relation affected by ice.

Reservoirs in Malheur River basin, Oreg.

2145. Warmsprings Reservoir.--Lat 43°35', long 118°12', in SE¼ sec.8, T.23 S., R.37 E., near right end of dam on Malheur River, 4 miles upstream from South Fork and 3 miles northwest of Riverside. Drainage area, 1,100 sq mi, approximately. Records available, January 1920 to October 1929, December 1929 to September 1959. Wire-weight gage read once daily with some exceptions April to September, and about once each week October to April. Datum of gage is 3,327.0 ft above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level. Maximum contents observed during year, 143,700 acre-ft Apr. 14, 15 (elevation, 3,395.05 ft); minimum observed, 15,560 acre-ft Sept. 21 (elevation, 3,349.04 ft). Maximum contents observed during period 1920-59, 196,100 acre-ft Apr. 16, May 13, 1958 (elevation, 3,407.10 ft); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935, Sept. 18 to Oct. 11, 1950.

Reservoir is formed by concrete-arch dam; capacity, 191,000 acre-ft between elevations 3,327.0 (bottom of outlet tunnel) and 3,406.0 ft (top of flashboards). Dead storage, 1,400 acre-ft below elevation 3,327.0 ft, not included in records. Storage began in 1919. Water used to irrigate lands on both sides of river between Namorf and Ontario. Data for computing capacity table furnished by Bureau of Reclamation.

2170. Agency Valley Reservoir.--Lat 43°55', long 118°09', in SE¼ sec.15, T.19 S., R.37 E., in control house at dam on North Fork Malheur River, a quarter of a mile northwest of Beulah. Drainage area, 440 sq mi, approximately. Records available, December 1935 to September 1959. Pressure gage with mercury column read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation); add 7.49 ft to obtain mean sea level elevation, datum of 1929, supplementary adjustment of 1947. Maximum contents observed during year, 42,030 acre-ft Apr. 25 (elevation, 3,329.68 ft); minimum observed, 6,100 acre-ft Sept. 26 (elevation, 3,295.02 ft). Maximum contents observed during period 1935-59, 62,770 acre-ft May 3, 1941 (elevation, 3,341.50 ft); no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Oct. 4, 1955.

Reservoir is formed by earth-fill, rock-faced dam. Storage began in December 1935. Capacity, 59,920 acre-ft between elevations 3,263.21 (bottom of outlet tunnel) and 3,340.0 ft (top of spillway gates); with gates open the capacity is 32,220 acre-ft. No dead storage. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation. Capacity table furnished by Bureau of Reclamation.

Revisions.--WSP 1397: Drainage area.

Other reservoirs.--There are several other reservoirs in the Malheur River basin, all with less than 3,500 acre-ft capacity except Willow Creek No. 3 Reservoir near Malheur, which has a capacity of 49,000 acre-ft, now limited to 14,000 acre-ft.

Month-end elevation and contents, water year October 1958 to September 1959

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	Warmsprings Reservoir			Agency Valley Reservoir		
Sept.30	3,383.70	102,600	-	3,304.80	12,360	-
Oct. 31	3,383.55	102,100	-500	3,303.53	11,390	-970
Nov. 30	3,384.85	106,500	+4,400	3,307.75	14,820	+3,430
Dec. 31	3,386.55	112,300	+5,800	3,312.24	19,230	+4,410
Calendar year 1958	-	-	+26,280	-	-	+1,330
Jan. 31	3,388.65	119,600	+7,300	3,316.47	23,940	+4,710
Feb. 28	-	a126,000	+6,400	3,320.00	28,250	+4,310
Mar. 31	3,392.53	133,800	+7,800	3,324.60	34,460	+6,210
Apr. 30	3,393.20	136,400	+2,600	3,329.46	41,700	+7,240
May 31	3,389.34	122,000	-14,400	3,327.63	38,900	-2,800
June 30	3,382.30	97,990	-24,010	3,320.10	28,380	-10,520
July 31	3,369.79	59,610	-38,380	3,311.48	18,440	-9,940
Aug. 31	3,355.15	25,380	-34,230	3,302.28	10,500	-7,940
Sept.30	-	a16,300	-9,080	3,296.05	6,630	-3,870
Water year 1958-59	-	-	-86,300	-	-	-5,730

a No gage-height record; contents interpolated.

2350. South Fork Payette River at Lowman, Idaho

Location.--Lat 44°05'00", long 115°37'30", in SW¼ sec.27, T.9 N., R.7 E., on right bank 1,200 ft upstream from Rock Creek, half a mile northwest of Lowman, and 4,10? ft downstream from Clear Creek.

Drainage area.--456 sq mi.

Records available.--May 1941 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,790 ft (from river-profile map). Prior to Dec. 18, 1941, staff gage at site 900 ft upstream at different datum.

Average discharge.--18 years, 896 cfs (648,700 acre-ft per year).

Extremes.--Maximum discharge during year, 3,800 cfs June 14 (gage height, 5.83 ft); minimum, 207 cfs Jan. 4 (gage height, 2.41 ft).
1941-59: Maximum discharge, 7,050 cfs May 24, 1956 (gage height, 7.45 ft); minimum, 148 cfs Dec. 9, 1944 (gage height, 2.40 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. No regulation. Several small diversions for irrigation and placer mining, the return flow from which enters river above station.

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

2.4	205	4.0	1,180
2.5	227	4.5	1,760
2.7	287	5.0	2,420
3.0	413	6.0	4,120
3.5	726		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	337	309	380	349	332	350	413	1,720	1,440	1,380	570	371
2	337	309	353	332	302	360	596	1,760	1,740	1,370	570	362
3	332	313	371	b245	353	360	795	1,530	2,100	1,410	545	*362
4	328	380	399	b210	385	350	900	1,380	2,280	1,360	520	353
5	324	366	353	b300	332	350	1,000	1,260	2,640	1,260	508	399
6	324	390	390	353	349	360	1,300	1,170	3,240	1,240	496	399
7	324	676	413	394	345	360	1,100	1,170	3,490	1,220	485	380
8	349	514	404	371	324	350	1,000	1,250	3,090	1,140	473	366
9	345	520	380	366	313	340	870	1,330	2,780	1,030	467	358
10	337	514	375	353	332	340	810	1,270	2,500	896	456	353
11	332	456	520	353	332	320	840	1,200	2,360	1,000	451	349
12	324	418	788	385	320	345	920	*1,270	2,660	1,020	445	345
13	320	440	576	485	309	340	990	1,540	3,400	1,020	445	358
14	317	429	473	404	306	310	1,000	2,040	3,740	1,020	435	451
15	317	375	*485	366	337	290	1,000	2,420	*3,560	971	429	602
16	313	b340	467	399	337	310	920	2,280	3,070	924	413	462
17	313	b270	424	371	349	320	860	2,010	3,010	879	408	418
18	313	b330	404	362	365	*345	800	1,820	2,960	845	408	408
19	332	440	394	358	370	353	740	1,600	3,060	811	435	532
20	337	485	385	349	360	332	750	1,460	3,040	772	485	551
21	*324	462	394	294	340	358	1,100	1,360	3,070	749	473	539
22	324	445	390	371	350	371	850	1,300	3,070	719	456	496
23	324	424	371	362	350	385	880	1,300	2,820	690	429	467
24	324	404	375	399	340	375	1,050	1,300	2,540	676	413	440
25	320	385	375	413	330	385	1,250	1,330	2,420	662	408	456
26	320	324	358	*375	340	424	1,400	1,390	2,480	642	408	526
27	320	317	371	371	340	413	1,350	1,360	2,110	622	394	570
28	317	320	358	371	340	429	1,200	1,360	1,810	609	390	526
29	309	366	332	358	-	424	*1,130	1,280	1,620	*602	385	496
30	313	399	362	324	------	429	1,310	1,250	1,470	589	375	479
31	309	------	349	362	------	408	------	1,270	------	570	375	------
Total	10,059	12,120	12,769	11,105	9,482	11,186	29,124	45,980	79,570	28,698	13,950	13,174
Mean	324	404	412	358	339	361	971	1,483	2,652	926	450	439
Cfsm	0.711	0.886	0.904	0.785	0.743	0.792	2.13	3.25	5.82	2.03	0.987	0.963
In.	0.82	0.99	1.04	0.91	0.77	0.91	2.38	3.75	6.49	2.34	1.14	1.07
Ac-ft	19,950	24,040	25,330	22,030	18,810	22,190	57,770	91,200	157,800	56,920	27,670	26,130

Calendar year 1958: Max 5,710 Min 260 Mean 941 Cfsm 2.06 In. 28.01 Ac-ft 681,500
Water year 1958-59: Max 3,740 Min 210 Mean 759 Cfsm 1.66 In. 22.61 Ac-ft 549,800

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Feb. 18 to Mar. 17, Apr. 4-29; discharge estimated on basis of weather records and records for station near Garden Valley.

2360. Deadwood Reservoir near Lowman, Idaho

Location.--Lat 44°18', long 115°39', in SE¼ sec.8, T.11 N., R.7 E., at dam on Deadwood River, 15 miles north of Lowman.

Drainage area.--112 sq mi.

Records available.--October 1935 to September 1959.

Gage.--Staff gage on face of dam read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Datum of Geological Survey levels (1952, preliminary) is 22.8 ft higher.

Extremes.--Maximum elevation observed during year, 5,335.59 ft June 23; minimum observed, 5,282.78 ft Oct. 20.
1935-59: Maximum elevation observed, 5,337.1 ft June 1, 2, 1943; minimum observed, 5,205.0 ft Sept. 18 to Oct. 11, 1951, when reservoir was drained for repairs.

Remarks.--Reservoir is formed by concrete-arch dam, completed in 1930; storage began Nov. 2, 1930. Reported capacity, 160,400 acre-ft between elevations 5,230.0 ft (minimum operating level because of fish protections, 27 ft above sill of emergency gate in front of needle valve) and 5,334.0 ft (crest of spillway). Storage below elevation 5,230 ft, about 1,500 acre-ft. Water is used to augment flow of Payette River at Black Canyon powerplant near Emmett and, since 1956, as supplemental irrigation supply for Emmett Irrigation district and other users. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir. Discharge of 2.05 cfs was measured in this canal July 30.

Cooperation.--Gage readings furnished by Bureau of Reclamation.

Revisions.--WSP 1567: Drainage area.

Elevation, in feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300.83	283.77	287.90	291.89	295.09	297.52	299.87	306.77	323.58	335.17	312.66	288.00
2	300.35	283.85	288.05	291.98	295.09	297.57	299.96	307.48	324.08	334.96	311.59	287.10
3	299.62	283.94	288.20	292.00	295.09	297.57	300.15	308.12	324.68	334.68	310.70	286.36
4	298.87	284.06	288.35	292.00	295.25	297.57	300.35	308.65	325.31	334.35	309.68	285.60
5	298.10	284.18	288.49	292.00	295.29	297.57	300.47	309.14	325.99	333.98	308.56	285.26
6	297.30	284.35	288.53	292.43	295.29	297.57	300.60	309.54	326.77	333.61	307.62	285.40
7	295.95	284.80	288.63	292.52	295.64	297.57	300.80	309.98	327.68	333.16	306.76	285.51
8	294.42	285.07	288.77	292.59	295.66	297.98	300.96	310.45	328.48	332.70	306.00	285.60
9	293.00	285.26	288.88	292.67	295.70	298.04	301.10	310.98	329.20	332.20	305.21	285.68
10	291.92	285.46	288.96	292.80	295.88	298.16	301.30	311.45	329.82	331.60	304.42	285.78
11	290.84	285.63	289.20	292.88	296.00	298.16	301.48	311.89	330.40	330.90	303.61	285.88
12	289.72	285.80	289.50	293.02	296.08	298.16	301.70	312.33	330.97	330.17	302.80	285.96
13	288.60	285.96	289.64	293.20	296.12	298.34	302.00	312.85	331.60	329.36	301.98	286.06
14	287.48	286.11	289.67	293.28	296.12	298.45	302.26	313.52	332.28	328.56	301.14	286.23
15	286.32	286.21	289.82	293.28	296.40	298.45	302.46	314.45	333.01	327.75	300.28	286.52
16	285.18	286.30	290.00	293.51	296.45	298.45	302.83	315.36	333.65	326.92	299.34	286.70
17	283.90	286.36	290.16	293.62	296.58	298.45	303.06	316.13	334.21	326.10	298.46	286.81
18	283.12	286.42	290.28	293.72	296.68	298.72	303.32	316.83	334.68	325.26	297.63	286.91
19	282.84	286.63	290.42	293.80	296.80	298.80	303.52	317.42	335.02	324.41	296.56	287.18
20	282.78	286.80	290.54	293.84	296.84	298.83	303.74	317.94	335.30	323.56	295.75	287.40
21	282.82	286.96	290.66	293.92	296.88	298.83	303.70	318.40	335.47	322.71	294.95	287.60
22	282.95	287.07	290.80	294.07	296.92	299.00	303.60	318.85	335.56	321.82	294.30	287.74
23	283.05	287.16	290.87	294.17	297.00	299.12	303.80	319.36	335.59	320.95	293.69	287.87
24	283.13	287.30	291.00	294.34	297.10	299.17	303.82	319.87	335.56	320.07	293.15	287.98
25	283.20	287.43	291.15	294.47	297.10	299.23	303.96	320.28	335.50	319.18	292.60	288.13
26	283.32	287.50	291.23	294.55	297.32	299.28	304.42	320.82	335.53	318.27	292.05	288.34
27	283.38	287.57	291.40	294.64	297.35	299.36	304.92	321.34	335.47	317.35	291.38	288.50
28	283.46	287.65	291.50	294.81	297.42	299.44	305.32	321.82	335.38	316.45	290.78	288.68
29	283.54	287.70	291.52	294.88	-	299.58	305.68	322.28	335.30	315.50	290.17	288.80
30	283.61	287.76	291.68	294.93	-------	299.68	306.16	322.71	335.24	314.57	289.60	288.94
31	283.70	-------	291.76	295.00	-------	299.78	-------	323.12	-------	313.61	288.84	-------

Note.--Add 5,000 ft to obtain elevation above mean sea level. Gage read at different times each day.

2365. Deadwood River below Deadwood Reservoir, near Lowman, Idaho

Location.--Lat 44°18', long 115°39' in NE¼ sec.17, T.11 N., R.7 E., on right bank 300 ft upstream from Wilson Creek, a quarter of a mile downstream from Deadwood Dam at lower end of Deadwood basin, 15 miles north of Lowman, and 18 miles upstream from mouth.

Drainage area.--112 sq mi.

Records available.--October 1926 to September 1959. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

Gage.--Water-stage recorder. Datum of gage is 5,180.52 ft above mean sea level (levels by Bureau of Reclamation). Datum of Geological Survey levels (1952, preliminary) is 22.8 ft higher. Prior to June 22, 1935, water-stage recorder at site 600 ft upstream at datum 5.85 ft higher. June 22 to Sept. 30, 1935, staff gage at site 20 ft upstream at datum 2.00 ft higher. Oct. 1, 1935, to Aug. 3, 1955, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--33 years, 225 cfs (162,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,850 cfs July 27 (gage height, 8.24 ft); minimum, 0.6 cfs Nov. 3 (gage height, 0.75 ft).
1926-59: Maximum discharge, 2,580 cfs July 14, 1953; maximum gage height, 8.93 ft June 7, 1956; no flow or small amount of leakage from reservoir for long periods during 1934-37 when gates in dam were closed.

Remarks.--Records excellent except those below 10 cfs, which are fair, and those for period of backwater from Wilson Creek, which are poor. Flow regulated by Deadwood Reservoir (see preceding page).

Revisions (water years).--WSP 1123: 1943. WSP 1517: 1956. WSP 1567: Drainage area.

Rating table, water year 1958-59, except periods of backwater from Wilson Creek (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-20		Oct. 21 to Sept. 30			
2.1	52	0.9	1.6	2.5	110
2.5	96	1.0	2.7	3.0	170
3.0	164	1.1	4.5	4.0	325
3.5	242	1.2	7.3	5.0	575
4.0	337	1.4	16	6.0	900
5.0	601	1.7	33	8.0	1,740
6.0	950	2.0	58		
8.0	1,810				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	574	2.6	2.5	2.6	2.6	2.7	3.0	4.3	4.3	543	1,300	728
2	755	2.5	2.5	2.7	2.7	2.7	3.0	4.3	4.3	808	1,290	725
3	877	2.0	2.5	2.9	2.6	2.7	3.0	4.3	4.3	804	1,290	611
4	873	2.3	2.5	2.9	2.6	2.7	3.0	4.3	4.3	860	1,290	548
5	869	2.5	2.5	3.1	2.6	2.7	3.0	4.3	16	880	1,290	5.6
6	1,240	2.7	2.5	3.1	2.6	2.9	3.0	4.3	5.3	928	1,150	4.8
7	1,530	2.5	2.6	2.9	2.7	2.7	3.0	4.3	5.3	980	964	4.5
8	1,510	2.5	2.7	2.9	2.9	2.7	3.0	4.3	5.3	1,040	948	4.5
9	1,190	2.4	2.7	2.7	2.9	2.7	3.0	4.3	5.3	1,100	948	4.3
10	1,080	2.3	2.6	2.7	2.6	2.9	3.0	4.3	3.2	1,300	960	4.3
11	1,080	2.4	2.7	2.7	2.7	2.7	3.0	4.3	22	1,330	960	4.3
12	1,070	2.4	2.7	2.9	2.7	2.7	3.0	4.3	2.0	1,430	948	4.3
13	1,060	2.4	2.7	2.9	2.6	2.7	3.0	4.3	2.2	1,450	952	4.5
14	1,050	2.4	2.6	2.9	2.6	2.7	3.0	4.3	2.0	1,420	964	4.3
15	1,050	2.5	2.5	2.9	2.7	2.9	3.0	4.3	2.0	1,420	964	3.8
16	1,060	2.3	2.5	2.7	2.7	2.7	3.0	4.3	6.4	1,410	964	3.4
17	884	2.4	2.6	2.7	2.9	2.7	3.0	4.3	*90	1,400	968	3.4
18	321	2.4	2.5	2.7	2.9	2.9	9.1	4.3	234	1,400	996	3.6
19	161	2.4	2.4	2.7	2.6	2.7	4.0	4.3	378	1,390	960	4.0
20	60	2.6	2.4	2.6	2.7	2.7	314	4.3	506	1,380	896	3.8
21	*4.0	2.7	2.6	2.7	2.6	2.5	345	4.3	604	1,380	742	3.6
22	3.1	2.9	2.5	2.7	2.9	2.5	4.0	4.3	655	1,370	649	3.4
23	2.4	2.7	2.5	2.9	2.7	2.5	255	4.3	661	1,370	592	3.6
24	2.4	2.4	2.6	3.4	2.6	2.6	202	4.3	640	1,370	558	3.4
25	2.4	2.4	2.6	2.9	2.6	2.9	88	4.3	619	1,370	553	3.8
26	2.4	2.5	2.6	2.9	2.5	2.9	4.3	4.3	628	1,360	631	4.0
27	2.5	2.5	2.5	2.9	2.6	3.0	4.3	4.3	590	1,270	*607	3.8
28	2.5	2.5	2.5	2.9	2.7	3.0	4.3	4.3	539	1,320	575	3.8
29	2.6	2.5	2.6	2.7	-	3.0	4.3	4.3	493	1,320	587	3.6
30	2.6	2.5	2.7	2.9	-------	3.0	4.3	4.3	456	*1,320	676	3.6
31	2.5	-------	2.5	2.6	-------	3.0	-------	4.3	-------	1,310	731	-------
Total	18,312.4	74.1	79.4	87.7	75.1	85.7	1,293.6	133.3	7,187.2	38,033	27,903	2,716.0
Mean	591	2.47	2.56	2.83	2.68	2.76	43.1	4.30	240	1,227	900	90.5
Ac-ft	36,320	147	157	174	149	170	2,570	264	14,260	75,440	55,340	5,390

Calendar year 1958: Max 1,620 Min 2.0 Mean 268 Ac-ft 194,100
Water year 1958-59: Max 1,530 Min 2.0 Mean 263 Ac-ft 190,400

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by backwater from Wilson Creek Mar. 27 to Apr. 17, Apr. 19, 22, Apr. 26 to June 4, June 6-9; discharge estimated on basis of appearance of recorder record and knowledge of gate settings at Deadwood Reservoir.

2375. South Fork Payette River near Garden Valley, Idaho

Location (revised).--Lat 44°03'40", long 115°55'10", in E½NE¼ sec.1, T.8 N., R.4 E., on right bank at Garden Valley ranger station, 300 ft upstream from Station Creek, 2.7 miles southeast of Garden Valley, and 5.9 miles upstream from Middle Fork.

Drainage area.--779 sq mi.

Records available.--May 1921 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,090 ft (from river-profile map). Prior to Aug. 3, 1926, staff gage at datum 0.98 ft higher. Aug. 3, 1926, to Dec. 5, 1933, staff gage at present datum.

Average discharge.--38 years, 1,309 cfs (947,700 acre-ft per year).

Extremes.--Maximum discharge during year, 4,820 cfs June 7 (gage height, 5.21 ft); minimum, 250 cfs Nov. 17, 18 (gage height, 1.61 ft).
1921-59: Maximum discharge observed, 10,600 cfs May 26, 1928 (gage height, 8.0 ft); minimum, 75 cfs Dec. 15, 1935, Jan. 26, 1936 (gage height, 0.70 ft), from rating curve extended below 280 cfs; minimum daily, 196 cfs Dec. 10, 1944.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Small diversions above station. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 166).

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

1.6	250	3.5	2,060
1.8	375	4.0	2,740
2.0	520	5.0	4,370
2.5	955	6.0	6,480
3.0	1,460		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	368	475	438	460	452	a550	2,730	2,150	2,220	2,000	1,270
2	1,080	375	438	410	375	475	a850	2,960	2,490	2,520	2,000	1,260
3	1,290	382	452	b300	382	475	a1,100	2,530	*2,980	2,530	1,970	*1,230
4	1,290	482	490	b320	512	460	1,360	2,240	3,250	2,530	1,960	1,160
5	1,280	490	424	b440	*438	460	a1,500	2,050	3,610	2,460	1,920	762
6	1,430	490	460	b550	460	468	a1,900	1,910	4,410	2,420	1,880	560
7	1,860	1,000	505	b580	460	468	a1,700	1,880	4,720	2,490	1,610	505
8	1,960	719	536	468	431	452	1,550	1,980	4,190	2,430	1,570	475
9	1,730	728	482	452	396	438	1,370	2,160	3,770	2,350	1,550	452
10	1,490	702	468	452	424	445	1,280	2,030	3,380	2,490	1,540	445
11	1,480	634	676	452	431	403	1,310	1,920	3,140	2,530	1,550	445
12	1,460	552	1,150	498	424	445	1,420	1,930	3,380	2,640	1,530	438
13	1,450	592	833	744	403	438	1,580	2,270	4,210	2,670	1,530	460
14	1,440	600	608	608	375	389	1,670	3,060	4,660	2,640	1,520	584
15	1,420	498	*617	505	424	362	1,630	3,760	*4,500	2,590	1,520	926
16	1,430	424	651	544	452	431	1,460	3,610	3,960	2,530	1,500	676
17	1,440	b300	592	505	490	445	1,340	3,210	3,870	2,490	1,490	576
18	908	349	544	490	468	*475	1,270	2,950	3,910	2,450	1,540	560
19	651	*560	528	468	475	482	1,180	2,610	4,150	2,400	1,570	806
20	634	685	490	438	468	438	1,190	2,360	4,240	2,360	1,580	824
21	452	634	512	349	445	468	1,760	2,200	4,370	2,320	1,500	779
22	417	584	520	431	452	498	1,310	2,120	4,430	2,280	1,290	685
23	403	552	468	482	460	528	1,380	2,100	4,120	2,240	1,230	634
24	403	528	468	600	445	520	1,620	2,100	3,760	2,220	1,150	592
25	396	475	475	694	438	a520	1,930	2,150	3,570	2,200	1,140	608
26	396	362	445	584	445	a565	2,110	2,230	3,720	2,180	1,170	710
27	389	356	475	576	431	a540	2,060	2,160	3,270	2,080	1,210	815
28	382	342	460	584	431	a570	1,850	2,160	2,860	2,110	1,120	736
29	382	410	417	528	-	a570	*1,740	2,060	2,570	2,070	1,150	685
30	375	460	452	460	-------	a580	2,020	1,970	2,360	2,050	1,170	651
31	368	-------	431	498	-------	a550	-------	1,970	-------	*2,020	1,270	-------
Total	31,106	15,633	16,542	15,448	12,295	14,810	44,990	73,370	110,000	73,510	46,730	21,309
Mean	1,003	521	534	498	439	478	1,500	2,367	3,667	2,371	1,507	710
Ac-ft	61,700	31,010	32,810	30,640	24,390	29,380	89,240	145,500	218,200	145,800	92,690	42,270

Calendar year 1958: Max 8,230 Min 300 Mean 1,565 Ac-ft 1,133,000
Water year 1958-59: Max 4,720 Min 300 Mean 1,303 Ac-ft 943,600

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

2380. South Fork Payette River near Banks, Idaho

Location.--Lat 44°05'30", long 116°06'00", in sec. 28, T.9 N., R.3 E., on right bank 1 mile upstream from confluence with North Fork Payette River and 1½ miles northeast of Banks.

Drainage area.--1,200 sq mi, approximately.

Records available.--August 1921 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,805 ft (from river-profile map). Prior to Sept. 12, 1922, staff gage at same site and datum.

Average discharge.--38 years, 1,768 cfs (1,280,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,110 cfs June 7 (gage height, 6.56 ft); minimum, 279 cfs Jan. 4 (gage height, 0.07 ft).
1921-59: Maximum discharge, 13,800 cfs May 17, 1927 (gage height, 10.6 ft, from floodmarks); minimum, 225 cfs Dec. 15, 1935, Jan. 26, 1936, Dec. 26, 1939.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Small diversions above station for irrigation. Flow regulated by Deadwood Reservoir (see p. 166).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 2-6)

0.1	292	5.0	4,230
1.0	705	7.0	6,800
3.0	2,170		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	540	735	666	765	813	1,150	4,080	2,700	2,640	2,190	1,360
2	1,140	540	666	644	644	858	1,560	4,850	3,300	2,870	2,200	1,350
3	1,400	550	688	450	628	844	2,180	4,060	*3,900	2,900	2,140	1,340
4	1,400	634	735	324	813	825	2,400	*3,570	4,240	2,900	2,150	*1,250
5	1,400	700	628	500	*717	807	2,700	3,210	4,690	2,810	2,110	974
6	1,480	678	672	789	735	819	3,300	2,960	5,620	2,750	2,070	735
7	1,970	1,270	723	819	741	819	2,980	2,860	6,000	2,810	1,760	666
8	2,080	981	789	741	694	795	2,660	2,900	*5,480	2,770	1,710	622
9	1,920	955	705	683	644	777	2,380	3,300	4,990	2,690	1,680	595
10	1,630	922	688	705	678	777	2,210	3,100	4,510	2,770	1,660	590
11	1,610	851	974	711	700	723	2,220	3,000	4,180	2,830	1,690	580
12	1,590	735	1,660	765	678	753	2,450	2,900	4,370	2,930	1,650	570
13	1,570	783	1,250	1,220	644	753	2,740	3,300	5,190	2,960	1,650	590
14	1,550	844	884	1,050	600	694	2,840	4,400	5,720	2,930	1,650	753
15	1,530	705	838	844	656	650	2,790	5,600	5,620	2,850	1,640	1,250
16	1,530	580	942	870	735	711	2,450	5,400	4,950	2,790	1,620	910
17	1,540	464	*877	825	801	765	2,240	4,700	4,770	2,730	1,610	753
18	1,100	464	801	789	783	807	2,100	4,300	4,760	2,670	1,630	729
19	832	*783	777	759	858	*832	1,950	3,700	4,960	2,630	1,680	1,120
20	801	1,000	741	717	838	777	1,910	3,400	5,050	2,570	1,780	1,130
21	634	974	771	590	795	813	2,540	3,200	5,090	2,510	1,730	1,020
22	580	870	813	672	795	877	2,230	3,100	5,110	2,480	1,450	890
23	580	807	729	753	819	974	2,330	3,000	4,810	2,430	1,380	819
24	575	771	723	1,010	801	981	2,620	3,000	4,430	2,400	1,280	777
25	570	711	741	1,290	795	988	3,090	3,100	4,180	2,390	1,260	783
26	565	565	711	1,020	789	1,080	3,430	3,100	4,420	2,360	1,270	922
27	560	500	747	974	771	1,080	3,530	3,000	3,870	2,250	1,310	1,070
28	555	510	723	988	771	1,070	3,080	3,000	3,420	2,290	1,230	974
29	550	612	650	896	-	1,120	2,870	2,800	3,070	2,260	1,240	896
30	545	678	683	801	-------	1,150	3,270	2,600	2,850	2,230	1,250	851
31	540	-------	672	813	-------	1,160	-------	2,600	-------	*2,210	1,360	-------
Total	35,447	21,977	24,736	24,678	20,688	26,892	76,200	108,090	136,250	81,610	51,030	26,869
Mean	1,143	733	798	796	739	867	2,540	3,487	4,542	2,633	1,646	896
Ac-ft	70,310	43,590	49,060	48,950	41,030	53,340	151,100	214,400	270,200	161,900	101,200	53,290

Calendar year 1958: Max 11,900 Min 365 Mean 2,167 Ac-ft 1,569,000
Water year 1958-59: Max 6,000 Min 324 Mean 1,738 Ac-ft 1,258,000

* Discharge measurement made on this day.

Note.--No gage-height record May 8 to June 3; discharge estimated on basis of records for station near Garden Valley, North Fork Payette River near Banks, and Payette River near Horseshoe Bend.

2385. Payette Lake at McCall, Idaho

Location.--Lat 44°55', long 116°07', in sec.8, T.18 N., R.3 E., at outlet of lake on North Fork Payette River at McCall.

Drainage area.--144 sq mi.

Records available.--August 1921 to September 1959 (fragmentary prior to Nov. 23, 1943). Prior to October 1942, published as "at Lardo."

Gage.--Water-stage recorder. Datum of gage is 4,982.73 ft above mean sea level, unadjusted. Prior to Aug. 26, 1931, staff gage at site 25 ft downstream at datum 2.0 ft higher. Aug. 26, 1931, to Nov. 22, 1943, staff gage at site 75 ft downstream at present datum.

Extremes.--Maximum gage height during year, 7.04 ft July 9; minimum, 1.85 ft Mar. 17. 1921-59: Maximum gage height observed, 8.75 ft July 13, 1935; minimum observed, 0.95 ft Oct. 3, 1931.

Remarks.--Flow from Payette Lake is regulated within natural range by taintor gates and removable stoplogs of a buttress and slab-type dam completed in November 1943. During period 1923 to 1943 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been effected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres. No capacity table has been developed. Water is used for irrigation in vicinty of Emmett. No diversion above station.

Cooperation.--Water-stage recorder inspected by employees of U. S. Forest Service.

Revisions (water years).--WSP 753: 1931. WSP 1013. Drainage area.

Gage height, in feet, at 12 p.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.68	1.99	1.91	1.92	2.12	1.97	1.97	3.58	4.25	6.98	6.78	6.30
2	5.68	1.96	1.90	1.90	2.11	1.95	1.99	3.68	4.53	7.00	6.77	6.29
3	5.66	1.93	1.90	1.88	2.10	1.94	2.02	3.65	4.85	6.98	6.74	6.28
4	5.66	1.94	1.89	1.87	2.10	1.94	2.04	3.58	5.07	6.98	6.73	6.27
5	5.65	1.95	1.87	1.94	2.08	1.93	2.08	3.50	5.32	6.97	6.69	6.28
6	5.65	2.00	1.89	1.95	2.08	1.92	2.13	3.40	5.65	6.93	6.67	6.29
7	5.64	2.05	1.92	1.95	2.07	1.91	2.18	3.37	5.66	6.99	6.65	6.28
8	5.66	2.06	1.90	1.94	2.05	1.91	2.22	3.42	5.49	7.03	6.63	6.28
9	5.63	2.10	1.90	1.95	2.04	1.91	2.24	3.50	5.34	7.01	6.60	6.26
10	5.46	2.13	1.94	1.95	2.06	1.90	2.26	3.48	5.12	6.98	6.57	6.25
11	5.28	2.13	1.99	1.93	2.09	1.89	2.30	3.44	4.99	6.98	6.54	6.24
12	4.89	2.12	2.01	1.98	2.07	1.88	2.35	3.46	5.16	6.99	6.52	6.25
13	4.53	2.12	2.01	2.01	2.05	1.88	2.43	3.69	5.49	7.01	6.49	6.34
14	4.19	2.11	2.00	2.03	2.07	1.87	2.50	4.17	5.70	7.01	6.45	6.54
15	3.90	2.09	1.99	2.05	2.06	1.86	2.57	4.68	5.67	6.97	6.44	6.63
16	3.65	2.04	1.98	2.07	2.08	1.86	2.60	4.75	5.54	6.97	6.42	6.64
17	3.42	2.00	1.98	2.08	2.08	1.86	2.60	4.65	5.46	6.97	6.38	6.65
18	3.22	2.01	1.97	2.08	2.10	1.86	2.60	4.50	5.40	6.98	6.36	6.69
19	3.10	2.05	1.96	2.07	2.10	1.88	2.59	4.32	5.51	6.99	6.38	6.84
20	2.93	2.04	1.95	2.06	2.09	1.87	2.58	4.15	5.87	6.98	6.44	6.95
21	2.79	2.05	1.98	2.06	2.06	1.88	2.60	4.00	5.76	6.96	6.43	6.91
22	2.66	2.04	1.97	2.07	2.05	1.90	2.64	3.95	5.89	6.95	6.42	6.78
23	2.56	2.04	1.95	2.10	2.05	1.92	2.68	4.04	6.41	6.92	6.41	6.63
24	2.46	2.04	1.94	2.19	2.02	1.91	2.75	4.27	6.79	6.94	6.39	6.47
25	2.38	2.02	1.96	2.17	2.03	1.90	2.88	4.50	7.01	6.92	6.37	6.35
26	2.31	1.99	1.96	2.15	2.01	1.92	3.07	4.57	6.86	6.91	6.36	6.34
27	2.24	1.97	1.97	2.22	2.00	1.92	3.15	4.45	6.85	6.88	6.36	6.29
28	2.18	1.94	1.95	2.20	1.98	1.94	3.15	4.29	6.85	6.86	6.34	6.19
29	2.12	1.93	1.95	2.18	-	1.95	3.15	4.14	6.84	6.83	6.34	6.07
30	2.08	1.91	1.95	2.16	-------	1.98	3.31	4.06	6.91	6.82	6.32	5.93
31	2.04	-------	1.93	2.15	-------	1.97	-------	4.08	-------	6.80	6.32	-------

2390. North Fork Payette River at McCall, Idaho

Location.--Lat 44°54'30", long 116°07'30", in sec.8, T.18 N., R.3 E., on left bank at McCall, a quarter of a mile downstream from outlet of Payette Lake.

Drainage area.--144 sq mi.

Records available.--September 1908 to June 1917, May 1919 to September 1959. Prior to October 1942, published as "at Lardo."

Gage.--Water-stage recorder. Altitude of gage is 4,970 ft (by barometer). Prior to Oct. 14, 1908, staff gage at site 1 mile downstream at different datum. Oct. 14, 1908, to Dec. 18, 1923, staff gages at sites near present gage at present datum.

Average discharge.--48 years (1908-16, 1919-59), 358 cfs (259,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,490 cfs June 15 (gage height, 6.02 ft); minimum, 8.5 cfs Oct. 5-9 (gage height, 1.39 ft).
1908-17, 1919-59: Maximum discharge, 4,260 cfs June 10, 1933, June 4, 1948; maximum gage height, 7.71 ft June 4, 1948; no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

Remarks.--Records excellent except those below about 100 cfs and those for period of no gage-height record, which are good. Flow partly regulated by gates at outlet of Payette Lake (see preceding page) and several smaller lakes upstream. Diversion for fish hatchery bypasses station and is returned below gage. Records of daily discharge of this diversion published in annual water-supply papers from October 1942 to February 1953.

Cooperation.--Water-stage recorder inspected by employees of U. S. Forest Service.

Revisions.--WSP 963: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 21-26)

1.3	6.1	2.3	90	4.0	770
1.4	9.1	2.6	154	5.0	1,490
1.6	17	3.0	275	6.0	2,430
1.8	30	3.5	486	7.0	3,480
2.0	48				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	113	88	92	142	112	107	714	1,200	429	66	45
2	8.8	105	*88	90	137	106	108	642	1,360	486	64	46
3	9.1	99	88	85	132	102	111	648	1,610	537	64	46
4	8.8	97	87	82	135	102	117	618	1,800	501	63	46
5	8.5	97	83	90	130	100	123	776	1,970	501	63	46
6	8.5	101	85	97	128	99	140	727	2,250	367	63	44
7	8.5	113	90	95	128	97	152	702	2,390	184	61	45
8	8.5	119	88	97	123	97	165	702	2,330	238	61	46
9	62	123	85	99	117	97	170	745	*2,190	327	60	45
10	434	137	87	97	123	94	178	764	2,020	316	59	45
11	452	140	95	97	128	91	*190	745	1,870	216	56	44
12	932	137	103	101	128	89	207	733	1,890	213	51	44
13	932	137	105	105	123	89	232	808	2,110	213	52	44
14	824	137	103	113	123	86	255	1,040	2,350	213	52	43
15	739	128	105	115	128	84	279	*1,430	2,450	210	51	72
16	654	121	105	121	128	84	294	1,620	2,360	159	51	176
17	575	107	103	123	128	84	301	1,590	2,240	118	50	178
18	506	103	101	123	132	84	301	1,510	2,180	79	50	178
19	452	111	99	121	142	89	297	1,380	1,900	90	50	178
20	411	113	97	*119	135	86	297	1,250	1,800	94	48	246
21	359	113	99	119	130	89	301	1,140	1,900	85	50	416
22	320	115	101	119	126	94	316	1,070	1,530	77	50	642
23	286	115	97	123	123	99	332	1,070	77	71	50	614
24	251	111	95	147	123	97	351	1,190	79	*67	*50	597
25	226	108	97	152	121	94	389	1,350	509	66	48	569
26	201	105	97	149	121	95	462	1,490	1,620	66	48	569
27	181	99	97	154	*119	97	537	1,450	1,000	66	47	569
28	*162	95	97	157	116	97	553	1,350	830	67	46	564
29	147	94	95	154	-	101	553	1,230	501	67	47	548
30	135	90	95	149	-------	107	591	1,160	420	66	46	527
31	123	-------	94	147	-------	108	-------	1,130	-------	66	46	-------
Total	9,434.2	3,383	2,949	3,632	3,569	2,950	8,409	33,372	48,736	6,255	1,663	7,272
Mean	304	113	95.1	117	127	95.2	280	1,077	1,625	202	53.6	242
Ac-ft	18,710	6,710	5,850	7,200	7,080	5,850	16,680	66,190	96,670	12,410	3,300	14,420

Calendar year 1958: Max 3,500 Min 8.5 Mean 385 Ac-ft 278,800
Water year 1958-59: Max 2,450 Min 8.5 Mean 361 Ac-ft 261,100

* Discharge measurement made on this day.
Note.--No gage-height record Feb. 28 to Mar. 24; discharge estimated on basis of records for Payette Lake and recorded range in stage.

2400. Lake Fork Payette River above Jumbo Creek, near McCall, Idaho

Location.--Lat 44°55', long 115°59', in NE¼ sec.8, T.18 N., R.4 E., on left bank 200 ft upstream from bridge at abandoned powerplant, a quarter of a mile upstream from Jumbo Creek, 3½ miles upstream from Lake Fork Reservoir dam, and 5½ miles east of McCall.

Drainage area.--48.9 sq mi.

Records available.--October 1945 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,140 ft (from topographic map). Prior to Nov. 10, 1945, staff gage at site 200 ft downstream at different datum.

Average discharge.--14 years, 150 cfs (108,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,310 cfs June 13 (gage height, 7.64 ft); minimum, 12 cfs Oct. 7 (gage height, 2.00 ft).
1945-59: Maximum discharge, 2,600 cfs June 3, 1948 (gage height, 9.19 ft), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum, 5.5 cfs Nov. 9, 1952 (gage height, 1.62 ft).

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

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge in cubic feet per second)
(Shifting-control method used May 13-17)

1.9	10	4.5	161
2.1	14	5.0	230
2.4	22	5.5	308
2.6	28	6.0	425
3.0	45	6.5	585
3.5	73	7.0	830
4.0	112	7.5	1,170

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	15	45	42	b48	34	35	613	459	264	32	17
2	14	16	*46	b35	b36	33	68	438	621	268	32	17
3	14	17	58	b25	b43	33	75	318	725	262	30	17
4	13	30	56	b25	b50	b30	85	276	750	230	30	17
5	13	27	b47	b40	b45	b30	108	248	920	203	28	24
6	13	57	b47	b50	b47	b30	157	227	1,070	199	28	23
7	12	147	57	a52	b45	32	133	238	765	177	27	21
8	18	76	52	a45	b42	32	124	281	661	154	26	18
9	24	100	48	a45	b40	30	116	299	*638	144	25	24
10	18	128	48	a45	b42	b27	116	268	531	141	24	40
11	18	75	80	a50	43	b27	*129	250	565	139	24	18
12	17	62	126	a55	40	32	160	282	850	137	23	17
13	16	58	77	a65	b37	31	187	459	1,030	128	23	23
14	16	56	b65	a50	b37	b29	180	750	932	116	a23	111
15	14	b45	b73	*a40	38	b28	181	*878	745	103	a23	114
16	14	b35	64	a50	39	b30	149	593	690	97	a22	56
17	13	b30	62	a54	42	b31	136	468	680	89	a22	40
18	14	b40	56	a52	39	32	126	428	685	82	a22	40
19	20	b55	54	a49	38	31	119	352	743	75	a27	164
20	24	b70	52	a40	b36	b29	121	308	752	69	42	179
21	20	86	56	b35	b35	b31	126	287	740	64	39	129
22	19	73	53	b50	b35	32	161	304	630	59	27	100
23	19	67	b45	50	35	32	161	346	542	56	25	120
24	19	63	52	81	b34	31	183	468	477	53	23	67
25	18	b45	49	70	*b33	32	228	514	495	*50	*21	92
26	18	b36	47	58	b33	34	312	495	489	46	21	136
27	18	b34	48	56	33	32	274	385	360	42	20	137
28	*17	b37	46	54	33	32	223	335	306	39	19	108
29	16	b42	b40	51	-	33	230	312	280	38	18	95
30	15	b50	b44	b45	-------	33	352	314	262	36	18	89
31	16	-------	b42	b47	-------	33	-------	360	-------	34	18	-------
Total	515	1,672	1,735	1,506	1,098	966	4,755	12,094	19,393	3,594	782	2,053
Mean	16.6	55.7	56.0	48.6	39.2	31.2	158	390	646	116	25.2	68.4
Cfsm	0.339	1.14	1.15	0.994	0.802	0.638	3.23	7.98	13.2	2.37	0.515	1.40
In.	0.39	1.27	1.32	1.15	0.84	0.73	3.62	9.20	14.75	2.73	0.59	1.56
Ac-ft	1,020	3,320	3,440	2,990	2,180	1,920	9,430	23,990	38,470	7,130	1,550	4,070

Calendar year 1958: Max 1,420 Min 12 Mean 149 Cfsm 3.05 In. 41.44 Ac-ft 108,100
Water year 1958-59: Max 1,070 Min 12 Mean 137 Cfsm 2.80 In. 38.15 Ac-ft 99,510

Peak discharge (base, 850 cfs).--May 15 (1:30 a.m.) 1,040 cfs (7.23 ft); June 5 (10 p.m.) 1,260 cfs (7.57 ft); June 13 (8 p.m.) 1,310 cfs (7.64 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for South Fork Salmon River near Knox and Johnson Creek at Yellow Pine.
b Stage-discharge relation affected by ice.

2410. Lake Fork Reservoir near McCall, Idaho

Location.--Lat 44°54', long 116°03', in NW¼NW¼ sec.13, T.18 N., R.3 E., at outlet gate near center of dam on Lake Fork Payette River, 3 miles east of McCall.

Drainage area.--64 sq mi, approximately.

Records available.--April 1926 to September 1959 (fragmentary).

Gage.--Staff gage and graduations on concrete gate-control structure of dam; gage read once or twice daily during irrigation season. Datum of gage is at mean sea level (levels by Lake Irrigation District).

Extremes.--Maximum contents observed during year, 20,140 acre-ft June 25, 30, July 5, 6 (elevation, 5,119.00 ft); practically no storage during winter months.
1926-59: Maximum contents observed, 20,140 acre-ft June 24, 25, 1958, June 25, 30, July 5, 6, 1959 (elevation, 5,119.00 ft); no storage above elevation 5,101.0 ft for long periods during fall and winter of most years.

Remarks.--Reservoir is formed by earth- and rock-fill dam completed in 1926. Capacity, 16,940 acre-ft between elevations, 5,101.0 (lower limit of capacity table, 4.0 ft above gate sill of outlet) and 5,117.0 ft (top of flashboards, 5.0 ft above spillway crest). Dead storage unknown. Water is used for irrigation of about 6,800 acres of land near McCall and Norwood. Figures given herein represent contents above 5,101.0 ft. There is some usable storage below elevation 5,101.0 ft, but natural flow passing through reservoir when outlet gates are operating prevents withdrawal of storage to elevation of sill of gates. Elevation in reservoir during water year 1959 reported below 5,101.0 ft as follows: Dec. 2, 5,100.97 ft; Jan. 20, 5,100.50 ft; Feb. 25, dry at gage.

Cooperation.--Elevation record and capacity table furnished by Lake Irrigation District.

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

5,101.0	0	5,110.0	6,770
5,102.0	481	5,112.0	9,380
5,103.0	969	5,114.0	12,320
5,104.0	1,500	5,116.0	15,390
5,106.0	2,810	5,119.0	20,140
5,108.0	4,550		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	-	14,310	-	12,740	3,080
2							-	-	14,830	-	12,140	2,860
3							-	9,080	15,450	-	11,870	2,660
4							-	-	16,010	-	11,420	2,480
5							-	-	16,690	20,140	11,090	2,330
6							-	-	17,480	20,140	10,670	2,200
7							-	11,240	17,820	19,850	10,300	2,080
8							-	-	17,600	19,650	9,950	1,960
9							-	12,080	17,820	19,590	9,520	1,800
10							-	-	17,920	19,430	9,140	1,740
11							-	-	18,050	19,230	8,810	1,730
12							-	-	18,400	19,040	8,510	1,670
13							834	12,870	19,200	18,850	8,160	1,830
14							-	-	19,300	18,650	7,790	2,040
15							-	-	19,170	18,430	7,500	2,140
16							-	13,480	18,910	18,170	7,150	-
17							-	-	19,330	17,920	6,770	-
18							-	-	19,330	17,660	6,420	-
19							-	-	19,560	17,350	6,140	2,250
20							-	-	19,780	17,030	5,950	-
21							-	14,150	19,780	16,720	5,790	-
22							1,350	-	19,560	15,760	5,550	-
23							-	-	19,560	16,040	5,290	-
24							-	-	19,560	15,700	5,030	-
25							-	14,150	20,140	15,200	4,720	-
26							-	-	19,850	15,020	4,450	3,400
27							-	14,520	19,750	14,650	4,210	-
28							-	-	19,880	14,280	3,990	-
29							3,910	-	19,910	13,850	3,710	-
30	628						-	14,030	20,140	13,480	3,500	-
31								-		13,080	3,290	
(†)	-	-	-	-	-	-	-	-	5,119.00	5,114.50	5,108.60	-
(‡)	-	-	-	-	-	-	-	-		-7,060	-9,790	-

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

2420. Lake Irrigation District Canal near McCall, Idaho

Location.--Lat 44°54', long 116°03', in SW¼ sec.13, T.18 N., R.3 E., on right bank 600 ft downstream from head of canal, half a mile south of Lake Fork Reservoir, and 3 miles southeast of McCall.

Records available.--May 1926 to September 1959 (irrigation seasons only 1927-34, 1942, 1946).

Gage.--Staff gage read once daily. Altitude of gage is 5,090 ft (from topographic map). Prior to May 1947, staff gage at same site at different datum.

Extremes.--1926-59: Maximum daily discharge, 205 cfs July 18, 1953; no flow or small amount of leakage through headgate during nonirrigation seasons.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. No diversion between headgate and station. Canal diverts from right bank of Lake Fork Payette River in SW¼ sec.13, T.18 N., R.3 E., for irrigation of 6,800 acres near McCall and Norwood, in the Lake Irrigation District project.

Cooperation.--Gage readings furnished by Lake Irrigation District.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a18	a6						0	50	183	157	73
2	a18	a6	(*)					0	56	180	150	72
3	a17	a6						0	61	179	143	71
4	a12	a6						0	68	179	138	71
5	a8	a5						0	78	176	129	68
6	a7	a5						0	87	176	124	61
7	a7	a5						7	88	172	120	58
8	a7	a5						a12	96	170	120	57
9	a7	a5						12	*108	164	120	59
10	a7	a4						a12	122	162	121	51
11	a7	a4						a12	138	163	121	23
12	a7	a4						a13	151	160	115	19
13	a7	a4					(*)	13	160	160	115	a17
14	a7	a4						a15	161	158	115	22
15	a7	a4						a17	168	155	111	26
16	a7	2						*24	177	146	110	26
17	a7	0						a28	186	145	109	a26
18	a6	0						a29	183	146	108	a26
19	a6	0						a29	183	145	107	26
20	a6	0		(*)				a30	188	144	104	a26
21	a6	0						31	188	144	100	a26
22	a6	0						a32	185	143	100	a26
23	a6	0						a32	188	143	99	a26
24	a6	0						a32	189	143	*98	a26
25	a6	0			(*)			40	182	143	92	a26
26	a6	0						a46	179	144	79	28
27	a6	0						47	179	146	79	a30
28	a6	0						a48	179	148	78	a30
29	a6	0			-			a48	182	152	76	a30
30	*6	0			-------			47	183	155	75	a31
31	a6	-------			-------		-------	a46	-------	156	74	-------
Total	241	75	0	0	0	0	0	702	4,343	4,880	3,387	1,157
Mean	7.8	2.5	0	0	0	0	0	22.6	145	157	109	38.6
Ac-ft	478	149	0	0	0	0	0	1,390	8,610	9,680	6,720	2,290

Calendar year 1958: Max 180 Min 0 Mean 39.5 Ac-ft 28,620
Water year 1958-59: Max 189 Min 0 Mean 40.5 Ac-ft 29,320

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of 2 discharge measuremerts, records for adjacent periods, and records for Lake Fork Payette River below Lake Irrigation District Canal.

2425. Lake Fork Payette River below Lake Irrigation District Canal, near McCall, Idaho

Location.--Lat 44°54', long 116°03', in SW¼ sec.13, T.18 N., R.3 E., on right bank 300 ft downstream from diversion dam for Lake Irrigation District Canal, half a mile downstream from Lake Fork Reservoir, and 3 miles southeast of McCall.

Drainage area.--64 sq mi, approximately.

Records available.--October 1940 to September 1959.

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

Average discharge.--19 years, 129 cfs (93,390 acre-ft per year).

Extremes.--Maximum discharge during year, 1,020 cfs June 14 (gage height, 5.77 ft); minimum, 3.3 cfs Apr. 29 (gage height, 1.99 ft).
1940-59: Maximum discharge, 2,120 cfs June 3, 1948 (gage height, 7.09 ft), from rating curve extended above 1,200 cfs by logarithmic plotting; minimum, 0.4 cfs Mar. 27, 28, 1944; minimum gage height, 1.76 ft Mar. 28, 1944.

Remarks.--Records excellent. Flow regulated by McDowell Reservoir, capacity, about 600 acre-ft, and by Lake Fork Reservoir (see p. 173). Lake Irrigation District Canal (see preceding page) diverts above station for irrigation of about 6,800 acres.

Revisions (water years).--WSP 963: 1941.

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

2.0	2.8	3.5	154
2.2	6.8	4.0	280
2.4	14	5.0	640
2.7	33	6.0	1,120
3.0	65		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	17	73	53	61	40	42	5.9	286	78	75	50
2	22	17	*71	52	b59	b40	44	5.0	334	72	72	50
3	21	17	69	b51	58	40	51	3.9	391	76	72	46
4	17	17	68	b49	58	b39	58	3.9	402	73	78	44
5	15	17	65	48	57	b38	65	15.0	515	63	73	39
6	15	18	64	48	54	b38	73	31	726	61	72	28
7	15	19	63	46	54	38	85	47	802	61	72	25
8	15	21	63	46	52	38	97	76	610	71	71	24
9	15	22	60	46	51	b38	100	141	*487	73	72	24
10	16	22	60	46	51	38	106	188	405	79	68	29
11	15	22	61	46	51	b38	111	202	370	76	64	33
12	16	22	72	48	50	37	121	209	412	78	63	29
13	15	23	78	52	49	37	*133	243	744	82	63	26
14	16	23	73	57	b49	b37	146	322	965	79	59	28
15	15	23	73	58	48	b37	156	464	840	81	60	28
16	16	105	75	58	46	b36	158	*543	513	84	61	28
17	16	181	73	59	46	b36	163	527	544	82	61	28
18	16	167	72	58	46	38	165	515	535	82	59	28
19	16	156	71	58	48	37	165	475	555	85	57	29
20	16	146	68	*58	46	b37	165	430	654	85	53	30
21	15	141	68	57	b46	b38	165	394	690	84	45	31
22	15	135	66	55	45	38	85	361	574	84	43	31
23	16	129	64	55	44	38	25	349	286	84	43	31
24	15	123	64	60	b44	38	26	367	319	82	*49	31
25	16	113	63	65	*43	b38	26	388	444	82	61	31
26	15	104	60	66	42	38	28	426	410	78	59	32
27	15	93	59	68	41	40	17	422	161	76	60	32
28	16	87	58	68	40	40	3.9	402	115	78	55	32
29	16	81	57	66	-	41	3.7	377	85	78	52	32
30	*15	76	55	65	-------	42	4.6	310	76	75	51	32
31	20	-------	54	64	-------	43	-------	271	-------	73	51	-------
Total	505	2,137	2,040	1,726	1,379	1,191	2,588.2	8,513.7	14,250	2,395	1,894	961
Mean	16.3	71.2	65.8	55.7	49.2	38.4	86.3	275	475	77.3	61.1	32.0
Ac-ft	1,000	4,240	4,050	3,420	2,740	2,360	5,130	16,890	28,260	4,750	3,760	1,910

Calendar year 1958: Max 1,360 Min 15 Mean 125 Ac-ft 90,490
Water year 1958-59: Max 965 Min 3.7 Mean 108 Ac-ft 78,510

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

2445. Cascade Reservoir at Cascade, Idaho

Location.--Lat 44°31'30", long 116°03'05", in NE¼NE¼ sec.26, T.14 N., R.3 E., just upstream from left abutment of dam on North Fork Payette River, half a mile downstream from Willow Creek and three-quarters of a mile northwest of Cascade.

Drainage area.--620 sq mi.

Records available.--January to December 1948 (fragmentary), January 1949 to September 1959.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Nov. 7, 1958, staff gage at same site and datum.

Extremes.--Maximum contents during year, 704,500 acre-ft June 22 (elevation, 4,828.05 ft); minimum observed, 395,000 acre-ft Oct. 12 (elevation, 4,814.49 ft).
1948-59: Maximum contents observed, 727,000 acre-ft June 10, 11, 1957 (elevation, 4,828.89 ft); no contents at times during March and September 1948.

Remarks.--Reservoir is formed by earth-fill dam completed in May 1949. Storage began Nov. 7, 1947. Capacity, 703,200 acre-ft between elevations 4,766 (4.0 ft above sill of outlet tunnel) and 4,828 ft (top of spillway gates). Figures given herein represent contents above elevation 4,766 ft. The Bureau of Reclamation plans to limit withdrawal to elevation 4,787.5 ft, retaining 50,000 acre-ft capacity as dead storage. Contents table computed from tables furnished by Bureau of Reclamation (revised 1950). Water is used for irrigation of lands in the Payette Division of the Boise Project and for power at Black Canyon powerplant near Emmett.

Cooperation.--Gage readings and capacity table furnished by Bureau of Reclamation.

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

4,812.0	348,600	4,824.0	601,400
4,816.0	424,600	4,828.0	703,200
4,820.0	508,500	4,829.0	730,000

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	409,800	412,200	437,500	458,700	488,000	494,300	452,500	509,800	610,200	669,700	653,300	535,400
2	407,100	412,400	437,500	459,100	487,800	493,800	450,700	510,300	611,200	700,300	650,200	531,300
3	404,300	412,600	438,300	459,100	488,000	493,400	448,700	518,500	615,100	700,300	647,400	527,500
4	402,000	412,800	438,300	458,700	487,300	493,000	447,000	521,800	620,800	700,300	644,100	522,500
5	399,800	414,700	438,300	458,300	486,900	493,000	445,400	525,000	627,800	700,300	640,100	516,900
6	398,300	415,500	438,700	458,100	487,300	492,800	444,000	527,500	636,000	700,300	636,800	512,500
7	397,500	418,500	440,700	458,300	387,600	492,500	442,300	530,000	643,600	699,200	633,000	507,600
8	396,700	419,500	441,300	460,200	487,600	492,300	440,700	533,100	651,800	698,700	629,300	502,600
9	395,900	420,100	441,700	461,200	487,300	492,300	440,100	536,100	657,100	697,900	625,300	496,900
10	395,400	420,900	442,500	462,000	487,300	491,900	442,100	538,800	660,200	697,600	621,300	491,900
11	395,200	421,700	445,400	462,300	488,200	491,200	444,800	541,800	662,800	696,800	617,300	486,900
12	395,000	422,100	446,000	465,400	488,000	489,100	448,000	545,000	665,300	696,100	613,400	482,200
13	395,200	423,300	446,800	466,700	487,600	485,600	451,100	548,000	668,700	695,000	608,900	479,800
14	396,100	425,000	447,200	467,700	488,400	482,200	454,400	552,600	674,400	693,900	605,000	479,400
15	397,100	426,000	447,600	468,400	489,100	479,400	457,900	559,800	679,000	692,600	601,400	478,100
16	398,500	425,200	447,800	469,200	489,900	478,500	460,400	566,800	683,500	691,800	597,500	475,400
17	400,400	425,000	448,200	470,300	490,400	477,700	463,500	574,100	687,900	690,500	596,600	472,800
18	402,400	424,600	448,900	470,500	492,100	477,500	466,500	581,300	692,600	688,700	589,500	470,500
19	404,300	429,000	449,900	471,300	492,800	476,800	469,000	587,000	697,100	686,900	585,400	470,500
20	406,300	430,000	450,100	471,700	493,200	476,600	472,000	592,400	700,000	684,800	583,700	470,300
21	408,000	431,600	451,900	472,000	493,600	476,400	474,900	597,500	703,200	682,400	579,600	469,600
22	410,000	433,500	451,900	472,400	493,800	476,400	478,300	599,900	704,300	680,300	576,000	469,600
23	410,600	434,100	453,000	473,200	494,300	475,400	481,100	600,100	702,100	677,500	572,000	469,000
24	410,600	435,700	453,200	479,600	494,500	472,400	483,500	600,900	699,200	675,700	568,500	468,600
25	410,800	436,300	454,600	480,300	494,500	469,600	487,100	603,100	698,400	673,100	564,000	468,100
26	411,000	436,700	455,000	481,300	494,500	466,700	491,200	605,000	700,000	670,500	559,600	469,000
27	411,200	436,500	455,800	484,100	494,500	463,700	494,900	606,500	701,100	667,900	555,800	469,400
28	411,400	436,700	456,600	485,200	494,500	460,600	498,200	608,200	700,500	664,800	551,700	469,600
29	411,600	436,900	456,900	485,800	-	458,500	500,800	609,200	699,500	661,700	536,300	469,400
30	411,800	436,900	457,700	486,500	-------	457,500	505,000	609,400	699,500	659,200	543,400	469,200
31	412,000	-------	458,100	487,300	-------	455,400	-------	609,700	-------	655,800	539,500	-------
(†)	4,815.36	4,816.61	4,817.65	4,819.03	4,819.36	4,817.52	4,819.84	4,824.34	4,827.86	4,826.18	4,821.38	4,818.18
(‡)	+1,600	+24,900	+21,200	+29,200	+7,200	-39,100	+49,600	+104,700	+89,800	-43,700	-116,300	-70,300

Calendar year 1958..... ‡ +110,800
Water year 1958-59..... ‡ +58,800

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

Note.--Contents computed from gage heights based on staff-gage readings Dec. 27 to Jan. 7, Mar. 29-31, Apr. 4. Daily contents as given are computed from once-daily staff-gage readings made at 6 a.m. Oct. 1-22, at about 5 p.m. Oct. 22 to Nov. 6, and from elevation at midnight as computed from recorder chart Nov. 7 to Sept. 30.

2450. North Fork Payette River at Cascade, Idaho

Location.--Lat 44°31'30", long 116°02'45", in NW¼ sec.25, T.14 N., R.3 E., on right bank 500 ft downstream from Cascade Dam and half a mile northwest of Cascade. Prior to Nov. 6, 1958, at site 1.7 miles downstream.

Drainage area.--620 sq mi.

Records available.--May 1941 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,735.25 ft above mean sea level (preliminary, unadjusted levels of U. S. Coast and Geodetic Survey). Prior to Jan. 28, 1947, staff gage and Jan. 28, 1947, to Nov. 5, 1958, water-stage recorder, at site 1.7 miles downstream at different datum. Auxiliary gage is same as that used Jan. 28, 1947, to Nov. 5, 1958.

Average discharge.--18 years, 1,023 cfs (740,600 acre-ft per year).

Extremes.--Maximum discharge during year, 3,000 cfs Sept. 4 (gage height, 10.69 ft); minimum, 4.2 cfs Apr. 17-27; minimum gage height, 0.21 ft Oct. 23 (site and datum then in use).

1941-59: Maximum discharge recorded, 7,320 cfs May 10, 1947 (gage height, 6.29 ft, site and datum then in use); minimum, 2 cfs or less in January 1948 when stage was below intake.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Cascade Reservoir (see preceding page), Payette Lake (see p. 170), and Lake Fork Reservoir (see p. 173). Diversions above station for irrigation of about 37,000 acres.

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

Oct. 1 to Nov. 5				Nov. 5 to Sept. 30			
0.2	30	1.0	264	0.8	3.8	4.0	102
.4	59	1.5	578	1.2	6.0	5.0	235
.6	104	2.0	1,040	1.6	9.4	6.0	480
.8	172	2.5	1,720	2.0	15	7.0	810
				2.5	25	9.0	1,820
				3.0	43	11.0	3,250

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,470	154	307	153	205	*457	2,080	114	2,190	678	1,500	2,170
2	1,270	154	283	192	346	528	2,090	115	2,170	678	1,480	2,160
3	1,210	154	*285	343	561	543	2,080	115	1,120	678	1,480	2,150
4	1,210	157	285	415	624	454	2,090	115	495	678	1,530	2,500
5	998	154	285	415	570	454	2,110	116	498	678	1,570	2,990
6	556	149	287	345	489	471	2,110	117	495	678	1,720	2,670
7	586	150	287	314	443	483	2,120	117	495	678	1,860	2,500
8	603	150	210	314	466	483	2,110	116	669	678	1,840	2,780
9	484	149	168	233	597	483	1,450	115	1,390	678	1,890	2,810
10	417	150	168	198	597	483	120	116	*2,080	674	1,990	2,720
11	463	150	170	198	537	531	5.0	117	2,080	674	2,040	2,680
12	463	150	171	198	501	667	4.9	117	2,090	698	2,030	2,700
13	272	152	171	198	501	1,340	4.7	117	2,100	770	a2,010	2,710
14	107	152	171	198	391	1,990	4.6	117	2,110	846	a2,000	2,340
15	154	153	231	200	209	2,070	4.5	107	2,120	774	a1,980	1,770
16	176	153	270	200	237	1,660	4.4	*102	2,130	734	a2,000	1,650
17	181	209	203	202	310	956	4.3	103	1,580	818	a2,030	1,580
18	181	283	173	202	310	728	4.2	101	1,290	905	a2,100	1,480
19	189	391	173	202	310	594	4.2	99	1,610	990	a2,170	1,310
20	185	196	173	202	312	594	4.2	99	1,820	1,070	2,230	1,270
21	116	54	173	*202	310	594	4.2	99	2,060	1,100	2,220	1,060
22	46	54	175	198	310	597	4.2	1,040	2,480	1,150	2,200	970
23	30	56	175	200	310	597	4.2	2,140	2,710	1,180	2,190	1,030
24	241	55	165	202	396	946	4.2	2,150	2,260	1,220	2,190	1,080
25	220	54	150	203	457	1,790	4.2	2,150	2,040	*1,270	2,180	1,030
26	215	166	150	203	457	2,040	4.2	2,160	1,690	1,270	*2,170	940
27	220	263	150	203	457	2,060	40	2,170	1,560	1,260	2,160	940
28	185	307	152	205	457	2,070	112	2,170	1,680	1,320	2,170	930
29	146	350	152	205	-	2,090	112	2,180	1,180	1,400	2,160	920
30	*146	350	152	205	-------	2,110	112	2,190	766	1,470	2,180	920
31	150	-------	152	205	-------	2,090	-------	2,190	-------	1,500	2,170	-------
Total	12,890	5,219	6,217	7,153	11,670	32,953	18,806.2	22,874	48,958	29,195	61,440	54,760
Mean	416	174	201	231	417	1,063	627	738	1,632	942	1,982	1,825
Ac-ft	25,570	10,350	12,330	14,190	23,150	65,360	37,300	45,370	97,110	57,910	121,900	108,600

Calendar year 1958: Max 2,850 Min 30 Mean 931 Ac-ft 674,400
Water year 1958-59: Max 2,990 Min 4.2 Mean 855 Ac-ft 619,100

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of record at auxiliary gage.

2460. North Fork Payette River near Banks, Idaho

Location.--Lat 44°07', long 116°06', in SE¼ sec.16, T.9 N., R.3 E., on right bank 40 ft downstream from highway bridge, 2½ miles north of Banks, and 3 miles upstream from confluence with South Fork.

Drainage area.--933 sq mi.

Records available.--April 1947 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,081.13 ft above mean sea level, unadjusted.

Average discharge.--12 years, 1,364 cfs (987,500 acre-ft per year).

Extremes.--Maximum discharge during year, 3,540 cfs Apr. 6 (gage height, 9.58 ft); minimum, 76 cfs Oct. 24 (gage height, 3.32 ft).
1947-59: Maximum discharge, 8,830 cfs May 11, 1947 (gage height, about 13.5 ft), estimated on basis of records for station near Smiths Ferry; minimum recorded, 36 cfs Dec. 31, 1947 (gage height, 3.01 ft).

Remarks.--Records excellent. Flow regulated by Payette Lake (see p. 170), Lake Fork Reservoir (see p. 173), Cascade Reservoir (see p. 176), and occasionally by milldam at Cascade. Many diversions from tributaries above station for irrigation.

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

3.3	80	6.0	940
4.0	213	8.0	2,200
5.0	513	10.0	4,020

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,580	178	447	262	385	592	2,340	950	2,660	950	1,560	2,190
2	1,500	178	395	218	298	596	2,490	1,180	2,700	901	1,560	2,180
3	1,290	183	382	158	520	697	2,750	965	2,500	877	1,550	2,160
4	1,270	202	382	270	766	623	3,030	844	1,180	863	1,550	2,180
5	1,260	215	364	502	*753	580	3,200	776	1,190	853	1,630	2,910
6	839	227	379	520	702	584	3,320	736	1,310	844	1,660	2,970
7	623	441	401	478	631	608	3,000	714	1,270	830	1,900	2,510
8	635	348	437	441	554	596	2,850	723	*1,200	830	1,900	2,470
9	639	318	309	447	631	600	2,710	753	1,520	812	1,910	2,820
10	434	336	278	385	732	604	1,310	719	2,420	794	1,990	2,800
11	434	301	389	357	753	584	1,040	681	2,600	789	2,070	2,690
12	458	262	510	411	648	676	877	681	2,660	784	2,060	2,700
13	437	281	389	604	623	940	877	744	2,700	816	2,050	2,740
14	252	306	298	565	604	1,860	771	868	2,720	891	2,050	3,020
15	156	262	289	447	471	2,130	693	1,070	2,690	935	2,030	2,340
16	187	200	401	434	385	2,140	588	1,100	*2,640	839	2,020	1,910
17	202	189	*395	414	411	1,270	539	985	2,520	826	2,050	1,810
18	202	292	318	385	496	1,080	517	990	1,840	920	2,100	1,700
19	218	401	295	376	485	*780	485	886	1,860	990	2,170	1,720
20	237	681	292	351	464	727	461	803	2,270	1,070	2,320	1,550
21	215	*398	315	262	458	740	461	758	2,320	1,160	2,300	1,470
22	162	252	360	345	458	758	492	740	2,580	1,170	2,260	1,170
23	106	213	301	367	464	766	535	2,320	2,980	1,230	2,240	1,120
24	82	193	295	581	451	762	539	2,690	2,920	1,250	2,220	1,200
25	251	168	295	908	565	1,460	588	2,730	2,380	1,310	2,220	1,230
26	244	133	262	652	584	2,190	656	2,740	2,380	*1,330	2,200	1,200
27	244	172	286	502	580	2,220	697	2,700	1,870	1,320	*2,210	1,140
28	242	373	262	482	580	2,240	656	2,690	2,000	1,320	2,180	1,120
29	209	447	235	496	-	2,270	697	2,660	1,870	1,410	2,190	1,090
30	185	454	276	373	-------	2,330	*710	2,650	1,250	1,490	2,180	1,070
31	178	-------	267	424	-------	2,320	-------	2,650	-------	1,570	2,190	-------
Total	14,971	8,604	10,506	13,417	15,452	36,323	39,879	42,496	65,000	31,974	62,520	59,180
Mean	483	287	339	433	552	1,172	1,329	1,371	2,167	1,031	2,017	1,973
Ac-ft	29,690	17,070	20,840	26,610	30,650	72,050	79,100	84,290	128,900	63,420	124,000	117,400

Calendar year 1958: Max 3,970 Min 82 Mean 1,343 Ac-ft 972,500
Water year 1958-59: Max 3,320 Min 82 Mean 1,097 Ac-ft 794,000

* Discharge measurement made on this day.

2475. Payette River near Horseshoe Bend, Idaho

Location.--Lat 45°56'30", long 116°12'00", in SE¼ sec.15, T.7 N., R.2 E., on left bank 300 ft upstream from bridge on State Highway 15, half a mile downstream from Porter Creek, and 2 miles north of Horseshoe Bend.

Drainage area.--2,230 sq mi, approximately.

Records available.--February 1906 to September 1916, July 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,625.61 ft above mean sea level, unadjusted. Prior to Nov. 23, 1912, staff gage at site 1¾ miles upstream at different datum. Nov. 23, 1912, to Apr. 16, 1953, water-stage recorder at site 1,000 ft downstream at datum 2.1 ft lower.

Average discharge.--50 years, 3,211 cfs (2,325,000 acre-ft per year).

Extremes.--Maximum discharge during year, 8,870 cfs June 14 (gage height, 10.04 ft); minimum daily, 680 cfs Jan. 4.
1906-16, 1919-59: Maximum discharge, 22,100 cfs June 9, 1921 (gage height, 9.57 ft, site and datum then in use); minimum, 350 cfs Dec. 17, 1935 (gage height, 0.26 ft, site and datum then in use), from rating curve extended below 600 cfs.

Remarks.--Records excellent. Flow regulated by Deadwood Reservoir, Payette Lake, Lake Fork Reservoir, and Cascade Reservoir (see elsewhere in this report). Diversions from tributaries above station for irrigation of about 50,000 acres.

Cooperation.--Water-stage recorder inspected by employees of Idaho Power Co.

Revisions.--WSP 533: Drainage area.

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

2.4	680	7.0	3,910
3.0	860	9.0	6,760
4.0	1,330	11.0	11,000
5.0	1,950		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,750	800	1,220	956	1,210	1,460	3,650	5,290	*5,700	3,690	3,740	3,560
2	2,700	804	1,100	928	1,000	1,520	4,190	6,320	6,110	3,790	3,740	3,550
3	2,740	811	1,090	769	1,100	1,610	5,100	5,310	6,590	3,810	*3,680	3,530
4	2,720	868	1,140	680	1,640	1,550	5,560	4,670	5,600	3,800	3,680	*3,450
5	2,700	976	1,040	1,020	1,560	1,460	6,020	4,220	5,930	3,720	3,710	3,900
6	2,380	948	1,040	1,260	1,500	1,470	6,840	3,900	6,970	3,620	3,720	3,840
7	2,620	1,670	1,120	1,340	1,430	1,480	6,210	3,780	7,430	3,670	3,740	3,300
8	2,740	1,430	1,280	1,260	1,320	1,470	5,760	3,910	6,860	3,630	3,600	3,160
9	2,640	1,320	1,080	1,200	1,270	1,440	5,360	4,190	6,590	3,540	3,570	3,510
10	2,160	1,290	996	1,160	1,450	1,440	3,920	3,980	6,930	3,560	3,630	3,510
11	2,090	1,220	1,340	1,090	1,500	1,380	3,480	3,730	6,830	3,630	3,730	3,380
12	2,100	1,050	2,200	1,180	1,390	1,480	3,500	3,720	7,000	3,720	3,720	3,360
13	2,080	1,060	1,790	1,820	1,300	1,710	3,790	4,140	7,960	3,780	3,690	3,430
14	1,900	1,220	1,260	1,720	1,240	2,510	3,850	5,090	8,700	3,840	3,690	3,890
15	1,740	1,040	1,180	1,370	1,180	2,880	3,710	6,640	8,610	3,840	3,670	3,750
16	1,770	864	1,360	1,350	*1,180	2,960	3,280	6,740	*7,770	3,670	3,650	2,920
17	1,800	769	*1,330	1,290	1,280	2,190	2,960	5,900	7,410	3,570	3,670	2,610
18	1,430	781	1,180	1,220	1,380	1,980	2,780	5,500	6,620	3,610	3,720	2,470
19	1,110	1,160	1,120	1,180	1,460	*1,710	2,580	4,920	6,790	3,630	3,640	2,880
20	1,090	1,730	1,070	1,120	1,400	1,590	2,480	4,450	7,400	3,670	4,100	2,780
21	940	*1,520	1,100	940	1,330	1,610	3,040	4,130	7,490	3,690	4,080	2,570
22	839	1,180	1,220	996	1,310	1,710	2,870	3,980	7,860	3,670	3,750	2,120
23	781	1,070	1,080	1,140	1,350	1,820	2,920	5,130	7,940	3,680	3,660	1,980
24	757	1,010	1,040	1,430	1,320	1,830	3,340	5,800	7,470	3,660	3,630	2,010
25	856	948	1,080	2,360	1,410	2,340	3,830	5,940	6,560	3,710	3,610	2,050
26	880	800	1,020	1,770	1,440	3,350	4,230	6,050	6,830	3,690	3,610	2,150
27	876	766	1,050	1,600	1,410	3,470	4,440	5,900	5,840	3,630	3,650	2,270
28	868	872	1,030	1,560	1,410	3,420	3,950	5,860	5,480	3,550	3,450	2,150
29	846	1,010	952	*1,500	-	3,560	3,730	5,720	4,960	3,650	3,450	2,020
30	814	1,180	980	1,260	-------	3,670	*4,130	5,580	4,240	3,710	3,450	1,970
31	800	-------	980	1,280	-------	3,680	-------	5,510	-------	3,750	3,670	-------
Total	52,517	32,167	36,468	39,749	37,770	65,750	121,500	156,000	204,470	114,180	113,600	88,070
Mean	1,694	1,072	1,176	1,282	1,349	2,121	4,050	5,032	6,816	3,683	3,671	2,936
Ac-ft	104,200	63,800	72,330	78,840	74,920	130,400	241,000	309,400	405,600	226,500	225,700	174,700

Calendar year 1958: Max 14,200 Min 757 Mean 3,575 Ac-ft 2,588,000
Water year 1958-59: Max 8,700 Min 680 Mean 2,911 Ac-ft 2,107,000

* Discharge measurement made on this day.

2495. Payette River near Emmett, Idaho

Location.--Lat 43°56', long 116°27', in sec.22, T.7 N., R.1 W., on right bank three-eighths of a mile downstream from Black Canyon Dam and 5 miles northeast of Emmett.

Drainage area.--2,680 sq mi, approximately.

Records available.--June 1925 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,400 ft (from topographic map).

Average discharge.--34 years, 3,003 cfs (2,174,000 acre-ft per year).

Extremes.--Maximum discharge during year, 12,800 cfs June 25 (gage height, 9.20 ft); minimum, 205 cfs Nov. 18 (gage height, 1.19 ft); minimum daily, 688 cfs Jan. 5.
1925-59: Maximum discharge, 22,800 cfs May 1, 1938; maximum gage height, 12.98 ft Dec. 22, 1955; minimum daily discharge, 0.7 cfs Jan. 7, 1957 (gage height, -1.49 ft), when gates in dam were closed.

Remarks.--Records excellent. Diversions above station for irrigation of about 135,000 acres (1952 determination). Flow regulated by diversion at and operation of gates in Black Canyon Dam and by Cascade Reservoir (see p. 176), Deadwood Reservoir (see p. 166), Payette Lake (see p. 170), and Lake Fork Reservoir (see p. 173). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Cooperation.--Gage-height record collected in cooperation with Bureau of Reclamation.

Revisions (water years).--WSP 1153: 1946(m), 1948(m).

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

2.1	640	5.0	4,200
2.5	1,010	6.0	5,860
3.0	1,580	7.0	7,800
4.0	2,820		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,920	792	1,280	1,030	1,450	1,690	3,650	4,250	4,550	2,160	2,110	2,070
2	1,890	830	1,200	1,030	1,420	1,740	4,090	5,540	4,900	2,130	2,100	2,050
3	1,930	840	1,150	850	1,330	1,800	5,030	4,250	5,520	2,200	2,050	2,100
4	1,900	840	1,210	783	1,320	1,780	5,540	3,490	4,570	2,200	2,050	1,980
5	1,700	980	1,150	688	1,700	1,640	6,040	3,040	4,870	2,130	2,050	2,400
6	1,840	1,010	1,110	1,050	1,600	1,660	6,980	2,680	5,950	2,020	2,080	2,470
7	1,880	1,470	1,160	1,360	1,620	1,650	6,380	2,510	6,500	2,020	2,060	1,980
8	1,810	1,660	1,310	1,350	1,600	1,640	5,730	2,600	5,910	2,020	1,960	1,770
9	*2,080	1,360	1,210	1,360	1,530	1,620	5,210	2,900	*5,520	1,950	1,960	2,060
10	1,330	1,320	1,090	1,400	1,510	1,620	3,910	2,760	5,660	1,920	2,000	2,160
11	1,390	1,320	1,320	1,320	1,560	1,600	3,030	2,470	5,700	2,000	2,080	2,040
12	1,360	1,140	2,340	1,420	1,570	1,540	3,030	2,360	5,820	2,070	2,070	2,070
13	1,350	1,080	2,100	2,120	1,580	1,690	3,140	2,850	6,860	2,100	2,060	2,180
14	1,410	1,300	1,460	2,120	1,510	2,400	3,030	3,900	7,560	2,160	2,040	3,080
15	1,000	1,130	1,220	1,630	1,500	2,910	2,760	5,590	7,420	2,190	2,050	3,350
16	1,050	940	1,390	1,520	*1,110	2,980	2,160	5,880	6,640	2,020	2,020	2,550
17	1,010	774	1,460	1,510	1,950	2,500	1,810	4,920	6,270	1,950	2,010	2,170
18	980	747	*1,250	1,420	2,060	2,020	1,840	4,580	*5,460	1,940	2,060	2,110
19	1,130	960	1,230	1,320	2,360	1,940	1,680	3,980	5,500	1,980	2,180	2,560
20	1,190	1,650	1,160	1,270	1,950	*1,770	*1,280	*3,380	6,040	2,020	2,530	2,650
21	1,130	1,700	1,180	1,230	1,800	1,700	1,380	3,050	6,110	2,020	2,600	2,380
22	930	1,260	1,330	990	1,710	1,830	1,690	2,900	6,380	2,050	2,260	1,950
23	930	1,140	1,190	1,160	1,710	1,860	1,500	3,830	6,400	2,050	2,240	1,800
24	783	*1,050	1,140	1,760	1,750	1,960	1,830	4,780	6,060	*2,040	*1,980	1,870
25	840	1,040	1,190	2,830	1,680	2,280	2,470	4,870	5,060	2,040	2,020	1,950
26	910	860	1,160	2,230	1,750	3,250	3,140	5,030	5,430	2,070	1,960	2,100
27	890	840	1,140	2,290	1,700	3,520	3,550	4,870	4,500	2,010	2,080	2,260
28	930	810	1,140	2,070	1,700	3,290	3,070	4,760	3,940	1,900	1,980	2,130
29	890	792	1,050	*1,640	-	3,380	2,810	4,600	3,580	1,990	1,920	2,000
30	820	1,180	1,030	1,580	-------	3,840	3,170	4,410	2,760	2,050	1,900	1,900
31	792	-------	1,080	1,520	-------	3,820	-------	4,380	-------	2,120	2,080	-------
Total	39,995	32,815	39,430	45,851	46,030	68,920	100,930	121,410	167,440	63,520	64,540	66,140
Mean	1,290	1,094	1,272	1,479	1,644	2,223	3,364	3,916	5,581	2,049	2,082	2,205
Ac-ft	79,330	65,090	78,210	90,940	91,300	136,700	200,200	240,800	332,100	126,000	128,000	131,200

Calendar year 1958: Max 14,200 Min 747 Mean 3,282 Ac-ft 2,376,000
Water year 1958-59: Max 7,560 Min 688 Mean 2,348 Ac-ft 1,700,000

* Discharge measurement made on this day.

2510. Payette River near Payette, Idaho

Location.--Lat 44°02'30", long 116°55'30", in SW¼ sec.10, T.8 N., R.5 W., on right bank just upstream from bridge on U. S. Highway 95, 1¾ miles south of Payette.

Drainage area.--3,240 sq mi, approximately.

Records available.--August 1935 to September 1959. Records for January 1895 to July 1897 (published as "at Payette" in 18th and 19th Annual Reports) have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 2,138.44 ft above mean sea level, unadjusted. Aug. 1, 1935, to Aug. 7, 1939, wire-weight gage at site 50 ft downstream at present datum.

Average discharge.--24 years, 3,147 cfs (2,278,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,700 cfs Apr. 6 (gage height, 8.14 ft); minimum, 810 cfs Apr. 21 (gage height, 4.35 ft); minimum daily, 886 cfs Apr. 21.
1935-59: Maximum discharge, 23,400 cfs May 2, 1938; maximum gage height, 12.75 ft Dec. 23, 1955; minimum discharge, 180 cfs Oct. 13, 20, 1935 (gage height, 2.04 ft); minimum daily, 220 cfs Oct. 5, 1935.

Remarks.--Records excellent. Diversions above station for irrigation of about 188,000 acres (1952 determination). Flow regulated by Black Canyon Dam and reservoirs on tributary streams.

Revisions (water years).--WSP 1397: 1949(m), 1952, 1953-54(m). See also Records available.

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

4.4	850	6.0	2,900
4.7	1,130	6.5	3,800
5.0	1,450	7.0	4,900
5.5	2,110	8.0	7,350

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,820	1,170	1,530	1,310	1,790	1,930	3,860	3,220	4,090	2,120	1,610	1,790
2	1,860	1,160	1,530	1,300	1,650	1,910	3,960	5,240	4,200	1,640	1,570	1,780
3	1,830	1,170	1,470	1,220	1,620	2,000	5,000	4,660	4,800	1,700	1,570	1,800
4	1,860	1,190	1,440	1,130	1,500	2,040	5,570	3,350	4,640	1,750	1,510	*1,760
5	1,840	1,240	1,490	1,060	1,900	1,960	6,150	2,820	4,180	1,660	1,500	1,970
6	1,710	1,340	1,360	1,190	1,860	1,890	6,920	2,420	5,070	1,520	1,530	2,390
7	1,780	1,350	1,460	1,530	1,890	1,900	6,980	2,110	6,200	1,470	1,530	2,110
8	1,760	2,140	1,520	1,570	1,790	1,890	6,150	2,040	5,980	1,520	1,470	1,620
9	*1,910	1,710	1,610	1,620	1,840	1,830	5,550	2,220	5,330	1,450	1,490	1,690
10	1,910	1,650	1,410	1,670	1,650	1,860	4,570	2,470	5,280	1,420	1,450	1,970
11	1,460	1,650	1,450	1,620	1,790	1,840	2,980	*2,140	5,570	1,510	1,490	1,940
12	1,500	1,530	2,180	1,570	1,800	1,790	2,790	1,860	5,330	1,430	1,560	1,900
13	1,530	1,430	2,640	2,030	1,790	1,820	2,720	1,970	5,960	1,500	1,570	1,930
14	1,450	*1,510	1,960	2,500	1,780	2,180	2,680	2,720	6,920	1,570	1,560	3,190
15	1,380	1,570	1,520	2,040	1,750	2,950	2,360	4,590	7,200	1,640	1,570	4,830
16	1,270	1,380	1,600	1,790	1,450	3,050	2,100	6,150	*6,700	1,570	1,570	3,370
17	1,250	1,210	1,750	1,750	2,400	3,020	1,520	5,210	5,980	1,460	1,570	2,610
18	1,280	1,140	*1,670	1,690	2,260	2,240	1,470	4,480	5,480	1,380	1,600	2,450
19	1,200	1,160	1,500	*1,640	3,020	2,220	1,450	4,110	4,970	1,430	1,630	2,820
20	1,300	1,220	1,470	1,580	2,470	1,940	*1,080	3,470	5,360	1,500	2,030	3,170
21	1,280	2,050	1,440	1,460	2,180	1,800	886	3,020	5,600	*1,510	2,340	2,820
22	1,270	1,750	1,520	1,550	2,030	1,910	985	2,770	5,840	1,520	2,180	2,550
23	1,300	1,570	1,550	1,210	1,980	2,030	1,010	2,930	5,980	1,500	1,940	2,160
24	1,220	1,430	1,410	1,580	*2,000	2,080	1,050	4,530	5,810	1,510	1,860	2,100
25	1,170	1,380	1,450	2,920	1,910	2,120	1,430	4,640	5,160	1,500	1,800	2,170
26	1,230	1,270	1,490	2,690	1,970	2,950	2,200	4,830	4,950	1,560	1,830	2,280
27	1,250	1,190	1,380	2,240	1,980	3,580	3,020	4,850	4,730	1,610	1,830	2,450
28	1,300	1,130	1,450	2,850	1,970	3,460	2,950	4,620	3,780	1,500	1,830	*2,450
29	1,240	1,130	1,370	1,970	-	3,460	2,560	4,530	3,440	1,470	1,700	2,290
30	1,220	1,220	1,280	1,940	-------	3,820	2,560	4,260	2,840	1,520	1,690	2,160
31	1,190	-------	1,360	1,730	-------	4,460	-------	4,130	-------	1,570	1,710	-------
Total	45,570	42,440	48,260	53,950	54,020	73,930	94,511	112,360	157,350	48,010	52,100	70,520
Mean	1,470	1,415	1,557	1,740	1,929	2,385	3,150	3,625	5,245	1,549	1,681	2,351
Ac-ft	90,390	84,180	95,720	107,000	107,100	146,600	187,500	222,900	312,100	95,230	103,300	139,900

Calendar year 1958: Max 13,600 Min 1,130 Mean 3,315 Ac-ft 2,400,000
Water year 1958-59: Max 7,200 Min 886 Mean 2,337 Ac-ft 1,692,000

* Discharge measurement made on this day.

2515. Weiser River at Tamarack, Idaho

Location.--Lat 44°57', long 116°23', in NW¼NE¼ sec.31, T.19 N., R.1 E., on left bank 43 ft upstream from railroad bridge, 0.65 mile south of Tamarack, and 1½ miles upstream from Beaver Creek.

Drainage area.--36.5 sq mi.

Records available.--September 1956 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,080 ft (by barometer). Prior to Oct. 8, 1949, staff gage at site a quarter of a mile upstream at different datum.

Average discharge.--3 years, 44.0 cfs (31,850 acre-ft per year).

Extremes.--Maximum discharge during year, 371 cfs Apr. 6 (gage height, 4.22 ft); minimum, 0.6 cfs Oct. 4; 5, 6, 7 (gage height, 0.89 ft).
1936-59: Maximum discharge, 1,320 cfs Dec. 22, 1955 (gage height, 7.17 ft), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; minimum, 0.5 cfs Sept. 21, 1958.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion above station. Diurnal fluctuation caused by millpond at Tamarack. Small flow from Boulder Creek in Salmon River basin enters Weiser River above station through transmountain diversion during late irrigation season.

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

Oct. 1 to Nov. 18				Nov. 19 to Sept. 30			
0.8	0.3	1.2	3.8	1.1	2.0	2.0	35
.9	.7	1.3	6.0	1.3	4.6	2.5	75
1.0	1.3	1.4	8.8	1.5	9.5	3.0	134
1.1	2.1	1.6	17	1.7	18	4.0	320

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	5.6	5.7	7.3	b15	15	66	203	34	9.2	8.4	6.5
2	7.8	6.0	5.3	b4.5	b16	17	121	220	31	6.9	8.7	6.7
3	11	6.6	*6.3	a3.0	b16	16	172	185	28	8.7	8.1	5.9
4	4.0	8.5	6.7	a2.5	16	b15	202	161	26	8.1	7.0	6.3
5	1.5	11	5.7	a4.0	b15	b15	234	138	26	8.1	7.3	7.0
6	7.2	9.5	6.1	a5.5	14	16	305	114	26	8.4	7.3	7.8
7	.6	14	9.2	a7.0	b14	16	254	105	23	8.7	6.7	7.3
8	.9	13	7.8	a8.0	b12	16	211	100	19	7.8	7.3	6.7
9	2.1	11	6.3	a9.0	13	16	184	103	20	7.8	6.7	6.5
10	4.9	9.2	7.3	a9.5	13	15	170	100	18	8.4	6.5	6.3
11	5.1	9.9	17	a9.0	13	16	175	92	*17	11	6.5	6.5
12	4.7	8.8	14	a15	12	16	*198	84	16	11	6.5	6.1
13	4.7	8.8	8.9	a25	11	16	226	83	14	11	6.5	7.3
14	4.7	9.5	7.8	a17	b11	14	218	90	14	10	6.3	15
15	4.9	8.5	6.5	a12	10	b13	202	*107	14	9.9	6.7	18
16	4.7	7.4	7.0	a11	12	15	170	110	13	9.9	6.5	13
17	4.7	7.1	6.7	a13	13	17	162	99	11	9.5	6.3	8.7
18	8.6	4.9	6.3	a15	15	25	138	97	12	9.5	6.3	8.1
19	3.1	8.9	6.7	a10	14	19	124	81	12	8.9	6.1	12
20	4.7	15	6.3	b7.5	14	18	127	73	11	8.7	9.2	15
21	6.3	11	12	*b7.6	b13	20	133	68	11	8.7	*9.9	13
22	6.3	9.2	11	8.1	b13	20	156	62	11	8.4	8.1	11
23	5.8	8.7	8.7	7.8	14	30	174	57	10	8.1	6.7	9.2
24	5.8	8.4	7.8	25	14	44	172	57	9.9	*8.1	6.3	8.4
25	6.0	6.3	8.1	38	14	60	180	55	10	8.7	6.3	8.7
26	6.0	5.9	7.3	32	13	77	214	56	9.2	8.1	6.1	11
27	6.3	b5.7	8.1	27	*14	80	224	48	11	7.8	6.3	15
28	6.0	5.5	7.3	24	14	80	189	51	11	8.4	6.3	13
29	*5.8	5.9	6.7	22	-	76	164	46	10	8.7	6.3	13
30	5.6	5.7	7.5	b16	-------	75	169	40	9.5	8.7	6.3	11
31	5.6	-------	7.3	19	-------	59	-------	37	-------	8.1	6.3	-------
Total	159.6	255.5	245.4	421.3	378	947	5,434	2,922	487.6	275.3	215.8	290.0
Mean	5.15	8.52	7.98	13.6	13.5	30.5	181	94.3	16.3	8.88	6.96	9.67
Ac-ft	317	507	487	836	750	1,880	10,780	5,800	967	546	428	575

Calendar year 1958: Max 600 Min 0.6 Mean 49.2 Ac-ft 35,620
Water year 1958-59: Max 305 Min 0.6 Mean 33.0 Ac-ft 23,870

Peak discharge (base, 280 cfs).--Apr. 6 (9:30 a.m.) 371 cfs (4.22 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Mud Creek near Tamarack.
b Stage-discharge relation affected by ice.

2540. Lost Valley Reservoir near Tamrack, Idaho

Location.--Lat 44°57'30", long 116°28'00", in sec.28, T.19 N., R.1 W., a short distance upstream from outlet gates near left end of dam on Lost Creek, 4 miles west of Tamarack, and 16 miles north of Council.

Drainage area.--29.4 sq mi.

Records available.--May to September 1924, May 1926 to September 1959 (fragmentary).

Gage.--Staff gage. Datum of gage is 4,748.8 ft above mean sea level (river-profile survey). Prior to May 1926, at datum 1.4 ft higher.

Extremes.--Maximum gage height observed during year, 26.60 ft June 14; minimum observed, 11.60 ft Nov. 14.
1924, 1926-59: Maximum gage height observed, 26.90 ft May 14, 1940; no storage at times in several years.

Remarks.--Reservoir is formed by earth dam completed in 1910 and raised 6 ft in 1929. Permanent spillway crest is at gage height 22.26 ft; flashboard structure built in 1938 to permit storage to gage height 25.9 ft. Bottom of outlet tunnel is at gage height 1.46 ft, but natural flow through reservoir limits withdrawal below about gage height 2.8 ft. Water is used for irrigation of lands in Weiser River basin.

Cooperation.--Nine gage readings furnished by Lost Valley Reservoir Company.

Revisions.--WSP 833: Drainage area.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	-	-		
2								-	-	-		
3								-	25.60	26.05		
4								-	-	-		
5								-	-	-		
6								-	-	-		
7								-	-	-		
8								-	-	-		
9								-	-	-		
10								-	26.45	-		
11								-	26.50	-		
12								-	-	-		
13								23.75	-	-		
14		11.60						24.00	26.60	-		
15								-	-	-		
16								-	-	-		
17								-	-	-		
18								-	-	-		
19								-	-	-		
20								-	-	-		
21								-	-	-	14.13	
22								-	-	-		
23								24.75	-	-		
24								-	-	21.95		
25								-	-	-		
26								-	-	-		
27								-	-	-		
28								-	-	-		
29	12.44				-			-	-	-		
30							23.50	24.90	-	-		
31								-		-		

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2545. Lost Creek near Tamarack, Idaho

Location.--Lat 44°57', long 116°28', in SE¼NW¼ sec.28, T.19 N., R.1 W., on right bank a quarter of a mile downstream from dam of Lost Valley Reservoir, 4 miles west of Tamarack, and 16 miles north of Council.

Drainage area.--29.4 sq mi.

Records available.--January 1910 to August 1914, May 1920 to September 1921, May 1924 to November 1929 (fragmentary); March 1930 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,729.6 ft above mean sea level (river-profile survey). Prior to Apr. 1, 1912, staff gage at same site and datum.

Average discharge.--29 years (1930-59), 39.5 cfs (28,600 acre-ft per year).

Extremes.--Maximum discharge during year, 172 cfs May 3 (gage height, 2.53 ft); minimum, 0.2 cfs Sept. 26-28, 30; minimum gage height, 0.47 ft Sept. 30.
1910-14, 1920-21, 1924-59: Maximum discharge, 688 cfs May 17, 18, 1921 (gage height, 4.29 ft); no flow at times when gates in dam were closed.

Remarks.--Records good except those below 12 cfs and those for periods of no gage-height record, which are poor. No diversion between reservoir and station; practically entire flow diverted below station during irrigation season. Flow regulated since 1910 by Lost Valley Reservoir (see preceding page).

Cooperation.--Water-stage recorder inspected occasionally by employees of Lost Valley Reservoir Co.

Revisions.--WSP 833: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 25-30)

0.6	0.2	1.3	10
.7	.3	1.5	20
.8	.6	1.7	36
.9	1.0	2.0	73
1.0	1.8	2.3	125
1.1	3.6	2.6	194
1.2	6.3		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	22	10	11	11	11	12	148	14	17	81	47
2	27	22	*10	11	11	11	12	167	14	16	59	47
3	27	22	10	11	11	11	12	172	12	13	59	46
4	26	22	10	11	11	11	12	167	5.5	10	59	46
5	26	21	10	11	11	11	12	158	8.9	10	63	46
6	26	21	10	11	11	11	12	144	15	10	73	45
7	26	22	10	11	11	11	12	133	24	10	89	37
8	26	22	10	11	11	11	12	129	32	28	89	32
9	25	22	10	11	11	11	12	133	37	69	89	32
10	25	22	10	11	11	11	*12	136	39	86	89	32
11	25	22	10	11	11	11	12	136	*32	81	87	32
12	25	21	10	11	11	11	12	133	32	79	86	32
13	25	21	10	11	11	11	13	119	33	79	84	32
14	25	16	10	11	11	11	13	*70	36	78	83	48
15	26	10	10	11	11	11	13	101	55	78	81	65
16	26	10	10	11	11	11	13	131	49	91	81	79
17	24	10	11	11	11	11	13	151	45	104	79	86
18	24	10	11	11	11	12	14	160	42	101	79	84
19	24	10	11	*11	11	12	14	160	36	101	79	81
20	24	10	11	11	11	12	14	153	34	101	73	76
21	24	10	11	11	11	12	14	144	32	101	*65	72
22	24	10	11	11	11	12	14	138	29	99	53	69
23	24	10	11	11	11	12	14	121	27	96	53	65
24	24	10	11	11	*11	12	14	79	25	*96	52	53
25	23	10	11	11	11	12	14	84	24	101	52	34
26	23	10	11	11	11	12	15	91	25	101	52	.2
27	23	10	11	11	11	12	24	94	23	99	51	.2
28	23	10	11	11	11	12	57	92	21	99	51	.2
29	*23	10	11	11	-	12	87	92	19	99	49	2.7
30	22	10	11	11	-------	12	117	63	18	98	49	.2
31	22	-------	11	11	-------	12	-------	14	-------	98	48	-------
Total	764	458	325	341	308	355	621	3,813	838.4	2,249	2,137	1,321.5
Mean	24.6	15.3	10.5	11.0	11.0	11.5	20.7	123	27.9	72.5	68.9	44.0
Ac-ft	1,520	908	645	676	611	704	1,230	7,560	1,660	4,460	4,240	2,620

Calendar year 1958: Max 497 Min 4.2 Mean 53.2 Ac-ft 38,560
Water year 1958-59: Max 172 Min 0.2 Mean 37.1 Ac-ft 26,830

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 25-28, Nov. 18 to Dec. 1, Dec. 4 to Jan. 18, Jan. 22 to Feb. 23, Feb. 28 to Apr. 9; discharge estimated on basis of 5 discharge measurements and knowledge of no gate change at Lost Valley Reservoir.

2585. Weiser River near Cambridge, Idaho

Location.--Lat 44°35', long 116°38', in NE¼ sec.1, T.14 N., R.3 W., on left bank 100 ft upstream from road bridge, 2¼ miles northeast of Cambridge, and 2½ miles upstream from Rush Creek.

Drainage area.--605 sq mi.

Records available.--March 1939 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,660 ft (by barometer). Prior to Apr. 23, 1939, staff gage and Apr. 23, 1939, to Dec. 21, 1955, water-stage recorder at site 35 ft downstream from road bridge at different datum. Dec. 22, 1955, to Aug. 28, 1956, wire-weight gage at bridge 2½ miles downstream at different datum.

Average discharge.--20 years, 665 cfs (481,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,210 cfs Apr. 6 (gage height, 4.97 ft); minimum, 8.0 cfs Nov. 16 (gage height, 1.12 ft, ice jam upstream).
1939-59: Maximum discharge, 10,100 cfs Dec. 22, 1955 (gage height, 13.9 ft, from floodmark, site and datum then in use); minimum, that of Nov. 16, 1958.

Remarks.--Records excellent except those for period of ice effect, which are good. Flow partly regulated by Lost Valley Reservoir (see p. 183) and other reservoirs. Diversions above station for irrigation of about 9,200 acres (1948 determination).

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

1.3	36	2.5	440
1.4	54	3.0	720
1.7	125	4.0	1,420
2.0	225	5.0	2,260

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	90	128	155	485	678	984	1,710	822	229	92	54
2	71	92	120	140	386	798	1,220	1,900	898	206	85	52
3	73	98	125	b60	377	684	1,540	1,640	964	192	69	50
4	78	120	137	b40	386	584	1,640	1,450	970	175	71	50
5	73	134	100	b50	341	540	1,690	1,280	1,020	158	80	58
6	69	128	115	b90	328	518	2,050	1,140	1,150	152	82	69
7	73	221	125	140	310	485	1,720	1,070	1,040	149	78	64
8	73	158	137	165	297	485	1,520	1,080	931	143	71	60
9	75	143	122	172	293	460	*1,310	1,150	879	137	71	50
10	78	149	118	195	273	445	1,180	1,100	798	155	73	50
11	80	137	140	206	285	400	1,170	1,030	750	158	71	49
12	82	120	245	397	265	408	1,280	1,030	786	149	69	47
13	82	*120	178	681	237	390	1,400	*1,170	846	143	69	50
14	78	134	122	422	218	354	1,400	1,400	828	140	69	128
15	78	120	118	323	253	323	1,330	1,720	756	134	71	341
16	78	82	*149	293	328	336	1,140	1,630	690	125	71	225
17	78	56	134	269	828	359	1,070	1,490	*636	125	71	181
18	78	80	125	269	1,120	400	970	1,510	572	131	71	178
19	90	112	122	269	1,820	436	866	1,320	545	131	*71	310
20	102	249	120	*249	1,320	400	846	1,180	518	122	95	332
21	95	214	134	172	984	418	879	1,100	490	120	120	281
22	98	162	165	218	886	485	991	1,080	436	112	118	241
23	98	143	137	233	860	594	1,120	1,070	386	*110	75	210
24	98	134	134	1,180	744	714	1,140	1,030	346	112	71	188
25	98	128	165	1,290	660	726	1,240	1,100	332	110	64	178
26	98	88	165	780	*624	834	1,480	1,140	408	108	60	185
27	98	56	181	1,420	578	846	1,640	1,030	323	105	62	188
28	98	69	185	1,880	572	786	1,400	984	293	105	60	175
29	92	95	146	1,010	-	834	1,300	924	269	102	58	149
30	90	120	155	696	-------	1,010	1,470	872	249	100	56	*140
31	90	-------	155	589	-------	1,130	-------	804	-------	95	54	-------
Total	2,615	3,752	4,402	14,053	16,058	17,860	38,986	38,134	19,931	4,233	2,298	4,333
Mean	84.4	125	142	453	574	576	1,300	1,230	664	137	74.1	144
Ac-ft	5,190	7,440	8,730	27,870	31,850	35,420	77,330	75,640	39,530	8,400	4,560	8,590

Calendar year 1958: Max 6,060 Min 56 Mean 781 Ac-ft 565,500
Water year 1958-59: Max 2,050 Min 40 Mean 457 Ac-ft 330,600

Peak discharge (base, 3,300 cfs).--No peak above base.

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

2600. Pine Creek near Cambridge, Idaho

Location.(revised).--Lat 44°35'23", long 116°44'12", in SE¼ sec.31, T.15 N., R.3 W., on right bank 300 ft upstream from West Fork and 3.2 miles northwest of Cambridge.

Drainage area.--54 sq mi, approximately.

Records available.--April 1938 to September 1959.

Gage.--Staff gage read twice daily. Altitude of gage is 2,800 ft (by barometer). Prior to Mar. 7, 1951, staff gages at nearby sites at present datum.

Average discharge.--21 years, 39.6 cfs (28,670 acre-ft per year).

Extremes.--Maximum discharge observed during year, 120 cfs May 15 (gage height, 2.74 ft); minimum observed, 1.3 cfs Aug. 13, 16; minimum gage height observed, 1.89 ft Oct. 4.
1938-59: Maximum discharge observed, 850 cfs Feb. 25, 1958 (gage height, 4.5 ft, from floodmark), from rating curve extended above 300 cfs on basis of slope-area measurement of peak flow; minimum observed, 0.7 cfs Aug. 3, 1949, July 13, 14, 1954; minimum gage height observed, 0.29 ft Aug. 5, 1952.

Remarks.--Records fair except those for periods of ice effect or doubtful gage-height record, which are poor. Several diversions above station for irrigation.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 21 to Nov. 12, June 7-16)

Oct. 1 to June 16				June 17 to Sept. 30			
1.8	3.5	2.2	32	1.8	0.3	2.2	12
1.9	7.0	2.5	68	1.9	1.5	2.4	28
2.0	12	2.8	120	2.0	3.5	2.6	52
				2.1	7.1		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	12	b11	12	17	45	56	53	60	20	2.5	2.1
2	6.6	12	b10	b8.5	16	50	65	55	78	18	2.5	2.1
3	7.0	13	b11	b5	19	50	72	53	86	14	1.9	2.1
4	6.3	14	b10	b4	17	43	72	50	98	14	2.3	2.3
5	7.0	15	b8	b8	16	43	76	39	97	12	2.7	3.1
6	6.3	19	b9	b12	13	41	71	38	98	12	2.3	2.7
7	6.6	21	b10	b18	12	39	60	35	77	10	1.9	2.9
8	7.0	16	b12	b17	11	38	56	35	78	9.7	1.7	2.7
9	7.6	18	19	b16	d11	36	*56	33	71	8.7	1.9	2.1
10	7.6	20	23	b15	d11	34	55	30	71	7.6	1.9	2.1
11	7.6	15	31	14	d11	29	56	34	67	7.6	1.5	2.3
12	7.6	14	30	36	d11	29	54	d40	62	6.4	1.4	2.9
13	9.2	*d13	18	24	11	26	56	*d50	60	6.0	1.4	3.9
14	10	d13	15	18	10	26	54	108	59	6.0	1.4	12
15	10	d8	12	14	11	23	50	116	55	5.7	1.5	12
16	10	b5	*12	15	20	23	48	108	54	4.9	1.3	10
17	10	b4	11	14	41	26	47	100	*50	4.6	1.5	11
18	11	b7	12	15	63	26	47	80	50	4.6	1.7	13
19	12	13	11	15	86	25	40	68	46	4.6	*1.7	14
20	13	17	11	*13	58	25	38	65	44	3.5	2.7	15
21	13	15	11	d10	55	28	39	63	41	2.9	3.1	14
22	12	12	10	d13	53	29	42	63	42	2.9	3.3	13
23	13	12	10	19	55	42	42	64	40	*2.9	2.5	13
24	12	12	12	56	51	38	41	64	39	2.9	2.5	11
25	12	b9	11	50	48	31	39	67	39	2.5	2.3	11
26	12	b6	16	36	*d40	35	41	70	38	2.9	2.3	18
27	12	b5	12	60	d38	36	42	65	25	2.9	2.5	d16
28	11	b6	11	40	d38	44	40	60	24	3.3	2.9	d15
29	12	b8	10	28	-	42	40	58	23	2.7	2.7	d14
30	12	b12	12	21	-------	50	44	62	22	2.7	2.5	*d13
31	12	-------	13	17	-------	53	-------	63	-------	2.3	2.5	-------
Total	302.4	366	414	643.5	843	1,105	1,539	1,895	1,694	210.8	66.8	258.3
Mean	9.75	12.2	13.4	20.8	30.1	35.6	51.3	61.1	56.5	6.80	2.15	8.61
Ac-ft	600	726	821	1,280	1,670	2,190	3,050	3,760	3,360	418	132	512

Calendar year 1958: Max 530 Min 3.2 Mean 63.6 Ac-ft 46,060
Water year 1958-59: Max 116 Min 1.3 Mean 25.6 Ac-ft 18,520

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge estimated on basis of 5 discharge measurements, weather records, and records for Little Weiser River near Indian Valley.

2610. Little Weiser River near Indian Valley, Idaho

Location.--Lat 44°30', long 116°24', in NE¼ sec.1, T.13 N., R.1 W., on left bank 60 ft downstream from barn at Richardson Ranch, 1 mile upstream from diversion feeding into C. Ben Ross Reservoir, and 4¾ miles southeast of Indian Valley.

Drainage area.--81.9 sq mi.

Records available.--June 1920 to February 1921, March to June 1923, February 1924 to October 1927, and April 1938 to September 1958.

Gage.--Water-stage recorder. Altitude of gage is 3,250 ft (by barometer). Prior to Feb. 25, 1924, staff gage at approximately present site at different datum. Feb. 25 to Apr. 22, 1924, staff gage at Burger Ranch 1 mile downstream at different datum. Apr. 23, 1924, to Nov. 18, 1927, water-stage recorder or staff gage at site half a mile downstream at different datum. May 6, 1938, to Aug. 11, 1950, staff gage at present site and datum.

Average discharge.--24 years (1924-27, 1938-59), 106 cfs (76,740 acre-ft per year).

Extremes.--Maximum discharge during year, 455 cfs Jan. 24 (gage height, 3.00 ft); minimum, 3.2 cfs Nov. 17 (gage height, -0.17 ft).
1920-21, 1923-27, 1938-59: Maximum discharge observed, about 1,840 cfs Feb. 4, 1925; minimum recorded, 2.9 cfs Dec. 8, 1956; minimum gage height, -0.19 ft Nov. 30, 1957.
Revisions.--The maximum discharge for the water year 1942 has been revised to 750 cfs May 29, 1942 (gage height, 4.10 ft), superseding figure published in WSP 963 and 1317.

Remarks.--Records excellent. One small diversion above station. Many diversions below station for irrigation including feeder canal to C. Ben Ross Reservoir.

Revisions (water years).--WSP 1347: 1923.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 6 to June 23)

0.1	4.5	1.0	57
.0	6.0	1.5	103
.1	8.0	2.0	178
.3	14	2.5	300
.5	24	3.0	455
.7	35		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	8.6	18	22	55	66	107	248	218	74	13	7.6
2	10	8.6	17	15	45	66	160	230	252	70	12	7.4
3	10	8.9	19	6.0	48	60	162	192	279	71	9.8	7.4
4	10	12	16	6.2	47	55	164	164	297	63	9.5	7.4
5	10	13	12	12	40	53	188	155	333	56	9.2	10
6	9.8	18	15	20	38	51	202	144	366	52	8.9	9.8
7	9.8	46	17	26	37	50	162	149	333	51	8.9	8.9
8	11	20	17	24	34	48	146	162	312	48	8.3	7.8
9	12	20	14	32	33	46	*132	169	288	46	8.3	7.2
10	11	24	15	58	33	44	126	154	258	43	8.0	7.2
11	10	18	36	67	33	39	134	150	260	41	8.0	7.2
12	10	14	54	168	30	41	150	165	291	38	7.8	7.0
13	9.8	18	26	124	28	40	160	*207	312	36	8.0	9.2
14	9.5	18	18	74	26	36	152	270	291	36	7.8	68
15	9.5	11	22	59	34	32	144	330	248	34	7.8	72
16	9.2	7.2	*24	56	43	35	140	276	225	32	7.8	30
17	9.5	5.6	22	52	76	41	118	262	*198	30	7.6	21
18	9.5	10	20	51	80	50	109	252	173	28	7.6	21
19	12	24	20	46	87	48	103	216	167	27	8.0	41
20	10	50	19	42	74	43	103	194	155	26	*27	59
21	10	34	30	*31	70	48	110	188	141	23	20	43
22	10	25	26	41	67	52	126	192	125	22	12	33
23	10	22	22	39	67	57	134	192	113	22	11	28
24	10	21	22	218	61	59	135	196	104	*21	9.5	24
25	10	15	25	110	59	67	157	222	107	21	9.5	24
26	10	8.9	22	82	*55	77	196	220	110	19	8.6	40
27	9.8	7.8	24	131	52	75	192	202	94	18	8.0	38
28	9.8	8.6	22	104	52	73	162	190	86	18	7.8	37
29	*9.5	14	20	79	-	77	167	182	81	18	7.6	33
30	8.9	20	22	72	------	96	205	182	78	14	7.6	30
31	8.6	------	22	63	------	96	------	192	------	13	7.4	------
Total	309.2	531.2	678	1,930.2	1,404	1,721	4,446	6,247	6,295	1,111	302.3	746.1
Mean	9.97	17.7	21.9	62.3	50.1	55.5	148	202	210	35.8	9.75	24.9
Cfsm	0.122	0.216	0.267	0.761	0.612	0.678	1.81	2.47	2.56	0.437	0.119	0.304
In.	0.14	0.24	0.31	0.88	0.64	0.78	2.02	2.84	2.86	0.50	0.14	0.34
Ac-ft	613	1,050	1,340	3,830	2,780	3,410	8,820	12,390	12,490	2,200	600	1,480

Calendar year 1958: Max 786 Min 5.6 Mean 120 Cfsm 1.47 In. 19.82 Ac-ft 86,580
Water year 1958-59: Max 366 Min 5.6 Mean 70.5 Cfsm 0.861 In. 11.69 Ac-ft 51,000

Peak discharge (base, 400 cfs).--Jan. 24 (11 a.m.) 455 cfs (3.00 ft).

* Discharge measurement made on this day.

2640. Crane Creek Reservoir near Midvale, Idaho

Location.--Lat 44°21'30", long 116°37'00", in SE¼ sec.19, T.12 N., R.2 W., at gate-control structure near left end of dam on Crane Creek, 9½ miles southeast of Midvale.

Drainage area.--242 sq mi.

Records available.--November 1923 to September 1959 (fragmentary).

Gage.--Staff gage. Altitude of gage is 3,190 ft (by barometer).

Extremes.--Maximum gage height observed during year, 50.0 ft Apr. 18, 24, May 5; minimum observed, 31.3 ft Sept. 17.
1923-59: Maximum gage height observed, 56.3 ft Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, Sept. 25 to Dec. 1, 1929, Oct. 22 to Dec. 3, 1952.

Remarks.--Reservoir is formed by earth dam completed in 1910 and raised in 1920-21. Spillway crest is at gage height 54.9 ft, and bottom of outlet tunnel is at gage height 6.56 ft. Approximate contents is 51,700 acre-ft between gage height 8.0 and 55.0 ft, based on capacity table computed by the Geological Survey in 1927 and extended above 43.0 ft by the Idaho Department of Reclamation in 1935. No usable contents below gage height 7.0 ft. Crane Creek Reservoir Administration Board reports no flow over spillway during the year.

Cooperation.--Gage readings furnished by Crane Creek Reservoir Administration Board.

Revisions.--WSP 833: Drainage area.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	41.5	-	-	-	-	-	-	-
2	-	-	-	-	-	-	49.8	-	-	-	-	33.8
3	-	-	-	-	-	-	-	-	-	48.7	-	-
4	-	34.5	-	-	-	48.3	49.9	-	-	-	-	-
5	-	-	-	-	-	-	-	50.0	-	-	-	-
6	-	-	-	-	-	-	49.9	-	49.6	-	-	-
7	-	-	-	-	-	-	-	-	-	-	41.3	-
8	-	-	-	-	-	-	49.95	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	49.9	-	-	-	-	-
11	-	-	-	-	-	48.5	-	-	-	-	-	-
12	-	-	-	35.3	42.1	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	49.90	49.5	47.2	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	34.6	-	-	-	-	-	-	-	-	-	-	-
16	-	-	34.75	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	49.35	-	-	-
18	-	-	-	-	-	-	50.0	-	-	-	-	31.3
19	-	-	-	-	-	-	-	49.9	-	-	37.7	-
20	-	-	-	36.70	46.1	-	-	-	-	45.7	-	-
21	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	45.34	36.9	-
23	-	-	-	-	-	48.8	-	-	-	-	-	-
24	-	-	-	37.8	-	-	50.0	-	-	-	-	-
25	-	34.6	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	47.55	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	47.8	-	-	-	-	-	-	-
29	34.50	-	-	-	-	-	-	-	48.9	-	-	-
30	-	-	34.9	-	-------	49.2	-	-	49.0	-	-	31.58
31	-	-------	-	-	-------	49.6	-------	-	-------	-	-	-------

2645. Crane Creek near Midvale, Idaho

Location.--Lat 44°21'30", long 116°37'10", in SE¼ sec.19, T.12 N., R.2 W., on left bank 400 ft downstream from Crane Creek Dam and 9½ miles southeast of Midvale.

Drainage area.--242 sq mi.

Records available.--October 1910 to September 1911, January 1912 to September 1915, January to April 1916, May 1924 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,140 ft (by barometer). Prior to May 1, 1924, staff gage at site 100 ft upstream at different datum. May 1, 1924, to Dec. 7, 1952, water-stage recorder on right bank at datum 1.54 ft higher.

Average discharge.--38 years (1912-15, 1924-59), 74.9 cfs (54,230 acre-ft per year).

Extremes.--Maximum discharge during year, 249 cfs Aug. 7 (gage height, 3.76 ft); no flow for many days November to March.

1910-16, 1924-59: Maximum discharge observed, 4,750 cfs (revised) Dec. 3, 1910 (gage height, 9.4 ft, from floodmark, site and datum thein in use), from rating curve extended above 3,500 cfs; no flow at times in many years when gates in dam were closed.

Revisions.--The maximum discharge and gage height for the water year 1911 have been revised to 4,750 cfs Dec. 3, 1910 (gage height, 9.4 ft, from floodmark, site and datum then in use), superseding figures published in WSP 312 and 1317.

Remarks.--Records good except those below 10 cfs, which are poor. Flow regulated since 1911 by Crane Creek Reservoir (see preceding page). No large diversion above station.

Cooperation.--Water-stage recorder inspected by employees of Crane Creek Reservoir Administration Board.

Revisions (water years).--WSP 833: Drainage area. WSP 963: 1941(M). WSP 1347: 1925, 1927.

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

1.56	0	2.0	18
1.6	.4	2.5	59
1.7	3.3	3.0	114
1.8	7.3	3.5	193
1.9	12	4.0	340

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	0.4	b0.1	0	b0.2	0.2	42	18	17	24	211	132
2	20	.4	b.1	0	b.2	.2	41	17	18	24	211	132
3	20	.4	b.2	b0	b.2	.2	41	17	19	78	197	130
4	20	.2	b.2	b0	b.2	.1	62	15	19	110	215	139
5	20	.2	b.1	b0	b.2	.1	79	14	19	110	232	146
6	20	.2	b.1	b0	b.2	.1	45	14	20	109	232	146
7	19	.2	b.2	b.1	b.2	.1	22	14	20	143	240	133
8	19	.2	b.2	b.1	b.2	.1	*21	14	20	164	246	114
9	9.8	.2	b.2	b.2	b.2	.1	21	14	17	189	246	102
10	.4	.2	b.2	b.3	b.2	.1	9.2	14	13	208	246	112
11	.4	.2	b.1	b.4	b.2	.1	.1	13	13	208	243	119
12	.4	.2	0	b.5	b.2	.1	.1	14	13	208	243	118
13	.4	.1	0	b.6	b.2	.2	.1	*14	13	206	243	118
14	.4	.1	b0	b.2	b.2	.1	.1	14	14	206	240	104
15	.4	.1	b.1	b.2	b.3	.1	.1	14	27	206	240	56
16	.6	b0	**b.1	b.2	b.4	.1	.1	14	27	206	238	.4
17	.6	0	b.1	b.2	b.5	.2	.1	14	28	206	238	.2
18	.6	0	b.1	b.6	b.6	.2	.1	14	28	204	235	.2
19	.6	0	b.1	b.5	.6	0	.1	14	28	204	*232	.2
20	.6	0	b.1	**b.4	b.5	.1	.1	14	28	204	232	.2
21	.6	0	b.1	b.2	b.3	.1	.1	14	28	204	215	.2
22	.4	.1	b.1	b.2	b.3	.2	.1	15	28	*204	204	.2
23	.4	.1	b.1	b.4	b.3	.2	.2	15	28	213	204	.1
24	.4	.1	b.1	b.5	b.3	.1	4.0	15	27	220	202	.1
25	.4	.1	b.1	.4	b.3	.2	6.9	14	24	235	202	.1
26	.4	.1	0	.4	**b.3	.2	6.9	14	24	232	202	.1
27	.4	.1	b.1	.6	.2	.4	12	14	24	220	182	.1
28	.4	b0	.1	.4	.2	.2	17	14	24	213	171	.1
29	**.4	b0	.1	.4	-	.2	17	14	24	213	171	.1
30	.4	b.1	0	b.3	-------	.2	17	14	24	211	171	**.1
31	.4	-------	0	b.2	-------	25	-------	14	-------	211	148	-------
Total	177.8	4.0	3.1	8.5	7.9	29.5	465.4	447	656	5,593	6,732	1,803.4
Mean	5.74	0.13	0.10	0.27	0.28	0.95	15.5	14.4	21.9	180	217	60.1
Ac-ft	353	7.9	6.1	17	16	59	923	887	1,300	11,090	13,350	3,580

Calendar year 1958: Max 924 Min 0 Mean 94.7 Ac-ft 68,560
Water year 1958-59: Max 246 Min 0 Mean 43.6 Ac-ft 31,590

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

2655. Crane Creek at mouth, near Weiser, Idaho

Location.--Lat 44°18', long 116°47', in sec.14, T.11 N., R.4 W., on right bank just downstream from highway bridge at Harris Ranch, a quarter of a mile upstream from mouth and 10 miles northeast of Weiser.

Drainage area.--288 sq mi.

Records available.--July to September 1920, February 1921 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,240 ft (by barometer).

Average discharge.--38 years (1921-59), 83.4 cfs (60,380 acre-ft per year).

Extremes.--Maximum discharge during year, 505 cfs Feb. 18 (gage height, 4.02 ft); minimum daily, 2 cfs, Apr. 21-23.
1920-59: Maximum discharge, 3,170 cfs Feb. 26, 1957 (gage height, 6.23 ft); no flow for part of May 1, 1956; minimum daily, 0.2 cfs May 3, 1956; minimum gage height, 1.30 ft Jan. 21, 1922.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Crane Creek Reservoir (see p. 188). Several small ditches divert above station for irrigation.

Revisions.--WSP 833: Drainage area.

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

1.5	1.5	2.2	30
1.6	2.9	2.5	56
1.7	5.0	2.8	95
1.8	7.8	3.1	154
2.0	16	3.4	238

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	4.8	6.7	6.1	11	13	53	5	4	14	199	128
2	24	4.8	6.7	5.9	9.4	12	53	8	3	12	199	128
3	24	4.8	6.4	b4.2	9.0	11	53	9	7	36	187	126
4	24	4.8	6.4	b3.5	8.6	11	60	8	8	93	196	128
5	24	4.4	6.1	b4.0	8.2	10	89	7	9	105	219	141
6	24	4.8	6.1	b5.0	8.2	10	69	4	9	105	219	139
7	22	5.3	6.4	b6.0	8.2	10	*29	4	6	140	222	130
8	22	5.0	6.4	b7.0	8.2	9.7	27	4	9	150	232	114
9	23	4.8	6.4	b7.0	8.2	9.7	23	7	10	170	229	102
10	12	4.8	6.4	6.7	8.2	9.7	17	7	10	195	226	107
11	7.8	5.0	6.4	7.0	9.4	9.4	7	7	8	190	229	114
12	7.6	*6.7	6.4	7.8	10	9.4	7	*7	6	190	229	116
13	7.3	6.4	6.1	10	9.0	9.4	7	7	6	190	232	116
14	7.6	6.4	5.9	8.2	9.0	9.0	6	5	6	190	229	130
15	7.3	6.4	*5.6	7.3	9.0	9.0	5	5	7	*193	229	92
16	7.3	b5.0	5.9	7.3	22	9.0	5	6	*11	193	229	16
17	7.3	b5.0	5.6	7.0	120	9.0	5	7	13	193	229	9.4
18	7.0	6.4	5.6	6.7	234	9.0	5	7	14	190	*226	9.0
19	5.3	6.7	5.6	7.8	272	9.0	5	7	14	187	226	10
20	5.9	7.0	5.9	*7.6	81	9.0	5	7	14	190	238	12
21	5.0	7.3	6.1	7.0	47	9.0	2	7	14	190	219	10
22	5.0	7.3	6.1	7.0	34	9.0	2	7	14	190	201	9.0
23	5.3	7.3	5.9	7.0	26	9.0	2	7	14	199	201	8.2
24	5.3	7.0	5.9	88	*24	9.0	3	7	13	210	201	7.8
25	5.3	6.7	7.0	37	22	9.0	5	5	10	219	199	7.8
26	5.0	6.7	7.0	19	19	9.0	5	4	10	216	196	9.7
27	5.6	5.9	6.1	141	17	8.0	6	3	10	204	179	10
28	6.1	6.1	6.1	94	14	8.0	7	3	10	196	162	8.6
29	5.6	6.7	6.1	24	-	9.0	6	3	10	199	159	*7.8
30	4.8	6.7	6.1	15	-------	63	4	3	11	201	162	7.6
31	4.8	-------	6.1	13	-------	37	-------	4	-------	201	152	-------
Total	351.2	177.0	191.5	584.1	1,065.6	376.3	572	181	290	5,151	6,455	1,953.9
Mean	11.3	5.90	6.18	18.8	38.1	12.1	19.1	5.8	9.7	166	208	65.1
Ac-ft	697	351	380	1,160	2,110	746	1,130	359	575	10,220	12,800	3,880

Calendar year 1958: Max 1,360 Min 4.4 Mean 105 Ac-ft 76,210
Water year 1958-59: Max 238 Min 2 Mean 47.5 Ac-ft 34,410

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Mar. 27 to Apr. 3, Apr. 10 to July 10, July 12, 13; discharge estimated on basis of fragmentary recorder record, 4 discharge measurements, and records for station near Midvale.

2660. Weiser River near Weiser, Idaho

Location.--Lat 44°16'50", long 116°47'00", in NW¼ sec.23, T.11 N., R.4 W., on right bank 0.4 mile upstream from county road bridge, 1¾ miles downstream from Crane Creek, and 9½ miles northeast of Weiser.

Drainage area.--1,460 sq mi, approximately.

Records available.--March 1890 to June 1891, December 1894 to October 1896, April to September 1897, March 1898 to November 1899, March 1900 to December 1904, October 1910 to December 1914, October 1952 to September 1959. Published as "at Weiser" prior to 1900.

Gage.--Water-stage recorder. Altitude of gage is 2,220 ft (by barometer). Prior to October 1952, staff gages at several sites downstream within 2½ miles of present site at various datums.

Average discharge.--16 years (1895-96, 1898-99, 1900-1904, 1911-14, 1952-59), 1,218 cfs (881,800 acre-ft per year).

Extremes.--Maximum discharge during year, 6,630 cfs Jan. 28 (gage height, 6.87 ft); minimum, 67 cfs Nov. 29 (gage height, 1.42 ft).
1890-91, 1894-1904, 1910-14, 1952-59: Maximum discharge observed, 19,900 cfs Dec. 23, 1955 (gage height, 11.06 ft); minimum observed, 14 cfs Aug. 7, 1911 (gage height, 2.80 ft, site and datum then in use).
Flood of Mar. 19, 1932, reached a discharge of about 17,500 cfs.

Remarks.--Records excellent except those of periods of ice effect, which are fair. Flow partly regulated by Crane Creek Reservoir (see p. 188), Lost Valley Reservoir (see p. 183), and other small reservoirs. Diversions above station for irrigation of about 22,000 acres (1948 determination). Records of chemical analyses for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 1347: 1895-1905, 1953(M).

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

1.4	67	3.5	1,060
1.6	108	4.0	1,550
2.0	220	5.0	2,910
2.5	420	6.0	4,730
3.0	690	7.0	6,940

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	151	234	244	870	1,010	1,520	1,930	1,160	340	303	230
2	125	154	227	b230	684	1,210	1,620	2,330	1,270	311	303	217
3	122	159	217	b100	608	1,110	2,040	2,070	1,440	261	280	210
4	120	165	207	b70	602	972	2,150	1,830	1,440	315	280	214
5	125	198	201	b90	580	885	2,240	1,620	1,530	299	295	230
6	125	204	171	b160	515	848	2,560	1,430	1,760	280	284	237
7	115	258	194	b250	500	797	*2,360	1,320	1,700	276	287	240
8	122	319	210	b300	475	776	1,990	1,310	1,480	299	299	220
9	135	251	217	b310	445	748	1,720	1,380	1,390	307	315	198
10	135	237	204	b350	440	703	1,550	1,380	1,250	331	311	188
11	127	240	223	b370	475	624	1,460	1,280	1,130	327	307	207
12	125	*227	307	515	480	608	1,530	*1,240	1,170	327	307	204
13	127	207	383	1,330	420	597	1,650	1,330	1,270	319	311	204
14	122	214	261	840	388	553	1,700	1,660	1,260	311	315	269
15	122	227	*194	586	397	505	1,630	2,230	1,190	*315	307	505
16	118	b160	227	536	531	495	1,460	2,380	*1,050	311	311	475
17	115	b110	240	475	2,160	515	1,320	2,000	980	299	335	307
18	120	b140	217	450	3,200	564	1,280	2,070	900	299	*307	291
19	125	171	207	*480	5,370	602	1,100	1,790	832	299	307	357
20	140	234	204	455	3,030	592	1,040	1,590	783	307	348	515
21	151	361	207	370	2,080	586	1,040	1,500	736	303	348	460
22	151	295	247	335	1,740	648	1,110	1,450	666	291	361	392
23	151	258	254	374	1,600	769	1,250	1,450	580	287	340	348
24	154	234	220	1,550	1,410	924	1,300	1,400	505	299	331	307
25	156	223	251	2,840	*1,240	924	1,410	1,500	465	315	315	284
26	156	b160	307	1,350	1,130	1,040	1,600	1,560	536	307	315	295
27	159	b110	265	2,830	1,000	1,120	1,980	1,430	500	303	295	331
28	159	b105	307	4,170	948	1,050	1,760	1,360	440	287	272	303
29	156	b130	261	1,880	-	1,110	1,590	1,250	397	291	265	*276
30	151	b210	237	1,260	-------	1,500	1,680	1,200	365	303	265	251
31	148	-------	251	1,030	-------	1,900	-------	1,150	-------	303	254	-------
Total	4,187	6,112	7,352	26,130	33,318	26,285	48,640	49,420	30,175	9,422	9,473	8,765
Mean	135	204	237	843	1,190	848	1,621	1,594	1,006	304	306	292
Ac-ft	8,300	12,120	14,580	51,830	66,090	52,140	96,480	98,020	59,850	18,690	18,790	17,390

Calendar year 1958: Max 15,700 Min 105 Mean 1,392 Ac-ft 1,008,000
Water year 1958-59: Max 5,370 Min 70 Mean 710 Ac-ft 514,300

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

2665. Weiser Irrigation District Canal near Weiser, Idaho

Location.--Lat 44°15', long 116°51', in sec.32, T.11 N., R.4 W., on left bank 3¼ miles downstream from headworks of canal and 7 miles east of Weiser.

Records available.--April 1920 to September 1959 (winter records fragmentary prior to 1950).

Gage.--Water-stage recorder. Altitude of gage is 2,160 ft (by barometer).

Extremes.--1920-59: Maximum daily discharge, 223 cfs June 24, 1957; no flow at times when gates were closed.

Remarks.--Records excellent except those below 30 cfs, which are good, and those for period of doubtful or no gage-height record, which are poor. Canal diverts water from right bank of Weiser River in sec.35, T.11 N., R.4 W., for irrigation of about 11,700 acres (1953 determination), including about 1,200 acres irrigated from five diversions above station in projects of Weiser and Weiser Bench Irrigation Districts.

Cooperation.--Water-stage recorder inspected by employees of Weiser Irrigation District.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	1.2	0.7	0.5	0.4	0.6	94	193	204	220	211	144
2	96	1.2	.7	.5	.4	.8	152	192	204	220	212	132
3	97	1.2	.7	.5	.4	.9	153	192	204	197	210	122
4	93	1.2	.7	.5	.4	.9	153	190	204	220	208	130
5	105	1.2	.7	.5	.4	.9	152	190	207	220	209	145
6	108	1.1	.6	.5	.4	.9	154	191	208	216	206	149
7	101	1.1	.6	.5	.4	.9	*153	190	209	202	204	154
8	100	1.1	.6	.5	.4	.9	149	192	207	214	209	146
9	105	1.1	.6	.5	.4	.9	148	192	206	215	208	125
10	104	1.1	.6	.5	.4	.9	147	192	206	215	205	105
11	103	1.1	.5	.4	.4	.9	149	192	208	215	202	117
12	101	*1.1	.5	.4	.4	.9	152	*191	208	219	204	129
13	101	1.1	.5	.4	.4	.9	156	193	212	218	204	130
14	101	1.1	.5	.4	.4	.9	160	200	212	218	204	149
15	101	1.1	*.5	.4	.4	.9	165	203	212	219	203	139
16	101	1.0	.5	.4	.4	.9	168	199	*213	220	201	126
17	100	1.0	.5	.4	.5	.9	170	198	216	219	198	119
18	63	1.0	.5	.4	.6	.9	170	201	215	219	*196	117
19	15	1.0	.5	*.4	.6	.9	169	202	215	219	196	114
20	15	1.0	.5	.4	.6	.9	169	198	214	218	198	112
21	15	.9	.5	.4	.6	.9	170	195	216	216	193	111
22	15	.9	.5	.4	.6	.9	173	199	215	*218	194	108
23	15	.9	.5	.4	.6	.9	177	203	214	217	193	107
24	15	.9	.5	.4	.6	.9	177	203	212	217	194	105
25	10	.9	.5	.4	*.6	.9	182	204	217	216	194	104
26	3.5	.8	.5	.4	.6	.9	184	204	220	214	192	104
27	3.1	.8	.5	.4	.6	.9	184	202	220	213	190	104
28	1.5	.8	.5	.4	.6	.9	183	201	220	212	182	*104
29	1.3	.8	.5	.4	-	.9	187	202	220	211	175	103
30	1.2	.8	.5	.4	-------	.9	192	202	220	212	175	101
31	1.2	-------	.5	.4	-------	33	-------	203	-------	212	170	-------
Total	1,881.8	30.5	17.0	13.4	13.5	59.6	4,892	6,109	6,358	6,681	6,140	3,655
Mean	60.7	1.02	0.55	0.43	0.48	1.92	163	197	212	216	198	122
Ac-ft	3,730	60	34	27	27	118	9,700	12,120	12,610	13,250	12,180	7,250

Calendar year 1958: Max 216 Min 0.3 Mean 84.0 Ac-ft 60,810
Water year 1958-59: Max 220 Min 0.4 Mean 98.2 Ac-ft 71,110

* Discharge measurement made on this day.

Note.--Doubtful or no gage-height record Oct. 28 to Mar. 30; discharge estimated on basis of 4 discharge measurements and recorder record.

2670. Mann Creek near Weiser, Idaho

Location.--Lat 44°23'30", long 116°53'40", in NE¼ sec.11, T.12 N., R.5 W., on left bank 2 miles upstream from U. S. Highway 95, 10 miles northeast of Weiser, and 11½ miles upstream from mouth.

Drainage area.--56 sq mi, approximately.

Records available.--March 1911 to September 1913, July to November 1920, April 1937 to September 1959.

Gage.--Staff gage read twice daily. Crest-stage indicator since July 16, 1957. Altitude of gage is 2,830 ft (from topographic map). Prior to Feb. 9, 1951, staff gages at sites within 1,000 ft upstream at different datums.

Average discharge.--24 years (1911-13, 1937-59), 41.2 cfs (29,830 acre-ft per year).

Extremes.--Maximum discharge during year, 198 cfs Apr. 26 or 27 (gage height, 2.20 ft); minimum observed, 0.3 cfs Aug. 9, 10, 11 (gage height, 0.60 ft).
1911-13, 1920, 1937-59: Maximum discharge, 1,540 cfs Mar. 27, 1940 (gage height, 5.45 ft, from floodmark, site and datum then in use), from rating curve extended above slope-area measurement at gage height 4.21 ft; no flow Aug. 18 to Sept. 22, 1937, July 31 to Sept. 13, 1939.

Remarks.--Records fair. One diversion above station for irrigation.

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

0.6	0.3	1.2	14
.7	1.2	1.2	22
.8	3.0	1.4	43
.9	5.6	1.7	91
1.0	9.4	2.0	152

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	4.0	5.1	4.8	11	23	62	93	27	9.9	1.2	1.0
2	2.8	4.3	5.1	b3.8	9.4	39	108	84	25	9.0	.8	1.0
3	3.0	4.0	4.8	b2.8	12	30	116	61	22	8.2	.8	1.0
4	4.0	4.5	5.1	b2.4	12	27	126	58	21	7.8	.8	1.0
5	4.0	4.5	2.2	b3.5	9.4	26	150	52	23	7.5	.7	2.6
6	3.5	5.6	b3.5	b5.5	9.4	25	139	46	28	7.1	1.2	2.2
7	4.0	9.4	4.0	b8.5	10	26	*110	42	25	7.1	1.1	2.2
8	3.5	9.9	5.1	b8.0	9.4	26	100	45	25	7.1	.6	1.9
9	4.0	6.4	5.1	b9.0	9.4	26	97	49	23	5.6	.4	1.1
10	4.3	5.1	6.4	9.4	9.9	26	95	49	22	5.3	.3	1.1
11	4.0	4.8	14	11	11	26	99	43	20	5.1	.3	1.0
12	4.0	4.8	21	13	10	26	120	*43	19	4.3	.9	.9
13	3.7	4.5	13	17	b9.4	24	118	46	16	3.7	.9	1.6
14	3.7	*6.4	5.1	14	b9.0	26	114	55	15	3.5	.8	3.5
15	3.7	4.0	4.0	9.4	9.4	22	102	80	15	3.0	.8	9.0
16	3.2	b1.5	*5.1	9.9	31	20	82	64	15	3.0	.8	4.8
17	3.2	b1.4	5.6	9.0	55	24	89	59	*13	2.6	.9	3.5
18	3.2	b3.5	6.0	8.6	91	31	79	59	13	2.6	.9	5.3
19	3.2	5.1	5.6	7.8	84	31	75	53	14	2.6	*1.2	13
20	6.4	6.0	5.6	*7.8	58	30	74	50	13	2.4	1.7	7.8
21	5.1	6.0	5.6	7.1	58	30	74	46	13	2.2	3.0	7.8
22	5.3	5.1	6.4	7.8	61	31	79	45	13	*1.9	3.7	6.7
23	6.0	5.1	4.8	7.8	52	33	91	43	12	1.4	2.1	5.1
24	5.3	5.1	6.0	13	42	39	88	43	11	1.4	1.6	4.3
25	5.3	4.0	6.4	14	*36	41	82	43	11	1.2	2.1	4.0
26	4.8	2.2	6.4	14	30	59	97	41	12	1.2	1.9	7.5
27	4.8	b2.1	7.1	42	23	56	95	41	11	1.2	1.7	6.0
28	4.0	b2.7	4.8	43	21	61	67	37	11	1.2	1.7	4.8
29	4.0	b3.5	4.3	20		53	62	34	11	1.6	1.4	*4.8
30	4.0	b4.8	6.0	14	-------	66	74	31	11	1.2	1.4	4.8
31	4.0	-------	4.8	14	-------	64	-------	29	-------	1.2	1.4	-------
Total	126.8	140.3	194.0	361.9	792.7	1,067	2,864	1,564	510	123.1	39.1	121.3
Mean	4.09	4.68	6.26	11.7	28.3	34.4	95.5	50.5	17.0	3.97	1.26	4.04
Ac-ft	252	278	385	718	1,570	2,120	5,680	3,100	1,010	244	78	241

Calendar year 1958: Max 438 Min 1.4 Mean 58.6 Ac-ft 42,460
Water year 1958-59: Max 150 Min 0.3 Mean 21.7 Ac-ft 15,680

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

2690. Snake River at Weiser, Idaho

Location.--Lat 44°14'40", long 116°58'25", in sec.31, T.11 N., R.5 W., on right bank a third of a mile upstream from highway bridge at Weiser and a third of a mile downstream from Weiser River.

Drainage area.--69,200 sq mi, approximately.

Records available.--October 1910 to September 1959. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895. Monthly discharge only for October 1910, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,086.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1914, staff gage half a mile downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, staff gage at present site and datum.

Extremes.--Maximum discharge during year, 21,600 cfs Sept. 16 (gage height, 5.68 ft); minimum, 9,820 cfs July 3 (gage height, 3.00 ft).
1910-59: Maximum discharge, 84,500 cfs Apr. 29, 1952 (gage height, 14.67 ft); minimum observed, 5,100 cfs Aug. 5, 1924 (gage height, 1.35 ft).
Flood of Mar. 3, 1910, reached a stage of 17.1 ft present site and datum, from reading on old U. S. Weather Bureau gage (discharge, 120,000 cfs). Flood in June 1894 was considerably higher.

Remarks.--Records excellent except those for doubtful gage-height record, which are good. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. Diversions for irrigation of about 2,473,000 acres (1948 determination) above station.

Revisions (water years).--WSP 1317: 1918. WSP 1567: 1910(M).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 6, Jan. 15-23, May 9 to June 21, Sept. 23-30)

3.0	9,700
4.0	13,600
5.0	17,900
6.0	22,900

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,700	14,500	12,900	12,700	13,100	13,600	16,200	14,400	15,600	11,000	11,100	12,800
2	14,600	12,900	12,400	13,000	13,400	13,100	17,100	16,400	15,500	10,200	10,500	11,200
3	14,900	12,900	13,900	12,700	12,900	13,800	18,400	16,800	15,600	10,100	11,100	11,300
4	15,100	13,100	15,200	12,100	12,600	13,600	19,300	15,900	15,600	12,300	11,100	11,400
5	13,800	12,600	12,700	12,400	13,500	13,600	19,000	15,600	15,400	10,500	10,400	11,600
6	13,100	13,600	11,600	12,100	12,400	13,900	*20,000	17,600	15,200	10,200	11,000	12,600
7	13,000	13,700	12,900	12,500	12,500	14,200	19,700	14,200	16,600	10,000	10,700	13,400
8	14,900	14,400	12,800	11,500	13,000	14,400	17,900	13,000	17,000	10,000	10,900	12,500
9	14,600	14,800	13,800	12,400	13,000	14,200	17,200	13,200	16,600	10,000	11,200	12,900
10	12,700	14,100	14,000	13,100	12,300	13,700	16,600	14,500	16,400	9,970	10,700	13,100
11	13,800	12,700	12,700	13,400	12,700	12,200	13,600	*13,900	16,600	9,910	10,800	13,400
12	13,600	14,200	12,800	13,600	*12,500	12,200	12,900	12,400	16,100	9,940	11,200	12,900
13	14,500	13,200	14,400	14,100	12,500	12,500	13,100	12,000	17,400	9,940	10,800	14,000
14	14,200	*13,400	14,000	14,600	13,000	13,200	12,400	12,500	17,200	*9,970	10,900	15,200
15	15,200	14,200	*13,300	12,800	12,700	13,600	13,200	15,200	17,300	10,100	11,000	19,800
16	14,300	13,400	13,300	13,800	12,900	14,100	12,100	18,800	16,800	10,100	11,000	19,900
17	14,600	13,400	15,000	14,000	14,900	14,000	12,100	17,800	15,800	10,000	11,000	17,800
18	15,600	13,800	13,700	13,800	15,900	12,800	11,000	17,300	16,000	9,910	*10,900	16,100
19	15,200	13,400	10,800	*12,900	19,000	12,900	11,200	17,000	*14,800	9,940	11,000	18,100
20	17,100	12,700	12,200	13,200	17,000	12,700	10,800	16,500	15,200	10,200	11,500	19,700
21	16,200	13,900	13,100	13,000	15,600	12,900	*11,000	15,100	15,400	10,300	13,400	18,300
22	15,000	14,000	13,100	12,900	14,800	12,800	11,100	14,500	14,600	10,200	13,100	17,500
23	14,600	14,800	12,600	12,500	14,800	12,800	11,400	15,600	15,000	10,200	12,800	16,100
24	14,300	14,500	12,800	13,100	14,700	13,300	10,600	17,000	14,200	10,800	13,200	16,100
25	14,300	13,200	13,700	16,300	13,400	13,100	11,500	17,100	13,600	10,300	12,700	16,400
26	15,200	14,100	13,000	15,800	13,500	14,200	12,200	16,800	13,600	10,400	12,700	17,400
27	15,100	13,700	12,800	15,600	13,600	15,600	13,300	16,800	16,600	10,500	12,700	17,000
28	14,600	14,000	12,700	18,000	13,900	15,000	13,900	*16,000	13,400	10,300	12,000	*17,000
29	14,200	12,700	12,900	14,900	-	14,500	13,500	16,500	*12,900	10,200	12,700	16,100
30	13,600	14,000	12,100	14,600	-------	14,900	14,100	15,700	11,900	10,400	12,200	16,800
31	14,200	-------	12,100	13,600	-------	17,200	-------	15,200	-------	10,400	16,800	-------
Total	450,800	409,900	405,300	421,000	386,100	424,600	426,400	481,300	463,900	318,280	363,100	458,400
Mean	14,540	13,660	13,070	13,580	13,790	13,700	14,210	15,530	15,460	10,270	11,710	15,280
Ac-ft	894,100	813,000	803,900	835,000	765,800	842,200	845,800	954,600	920,100	631,300	720,200	909,200

Calendar year 1958: Max 42,200 Min 10,300 Mean 19,110 Ac-ft 13,840,000
Water year 1958-59: Max 20,000 Min 9,910 Mean 13,720 Ac-ft 9,935,000

* Discharge measurement made on this day.
Note.--Doubtful gage-height record May 1 to July 14; discharge computed from partly reconstructed gage-height record and on basis of records for upstream stations.

2725. Unity Reservoir near Unity, Oreg.

Location.--Lat 44°30'20", long 118°11'00", in SW¼SE¼ sec.21, T.12 S., R.37 E., at Unity Dam on Burnt River, 500 ft downstream from Job Creek, 0.5 mile downstream from confluence of North, Middle, and South Forks of Burnt River, and 4½ miles north of Unity.

Drainage area.--309 sq mi.

Records available.--March 1938 to September 1959.

Gage.--Staff gage above elevation 3,803.3 ft, reference marks for lower readings; gage read once daily. Datum of gage is at mean sea level, Bureau of Reclamation bench mark (to convert elevations to datum of 1929, add 0.12 ft). Prior to Nov. 4, 1941, reference mark or mercury pressure gage at same site and datum.

Extremes.--Maximum contents observed during year, 25,400 acre-ft Apr. 25 (elevation, 3,820.2 ft); minimum observed, 1,380 acre-ft Sept. 30 (elevation, 3,783.2 ft).
1938-59: Maximum contents observed, 25,770 acre-ft Apr. 13, 1942 (elevation, 3,820.6 ft); no contents Sept. 5 to Oct. 4, 1955.

Remarks.--Reservoir is formed by earth-fill dam with concrete spillway and outlet works, completed by Bureau of Reclamation in 1937; storage began Feb. 19, 1938. Capacity, 25,220 acre-ft between elevations 3,776.5 (bottom of outlet gates) and 3,820.0 ft (top of radial gates on spillway when closed). Dead storage, 600 acre-ft below elevation 3,776.5 ft. Records given herein represent usable contents. Water used for irrigation in the Burnt River Irrigation District near Hereford and Bridgeport. Contents computed from capacity table based on surveys by Bureau of Reclamation.

Month-end elevation and contents, water year October 1958 to September 1959

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,788.3	3,250	-
Oct. 31	3,786.1	2,360	-890
Nov. 30	3,789.6	3,840	+1,480
Dec. 31	3,795.4	6,830	+2,990
Calendar year 1958	-	-	+1,040
Jan. 31	3,799.9	9,540	+2,710
Feb. 28	3,804.5	12,610	+3,070
Mar. 31	3,813.1	19,160	+6,550
Apr. 30	3,819.95	25,170	+6,010
May 31	3,817.05	22,560	-2,610
June 30	3,811.0	17,460	-5,100
July 31	3,803.0	11,570	-5,890
Aug. 31	3,791.1	4,550	-7,020
Sept.30	3,783.2	1,380	-3,170
Water year 1958-59	-	-	-1,870

Note.--Gage read between 4 and 7:30 p.m.

2730. Burnt River near Hereford, Oreg.

Location.--Lat 44°30'20", long 118°10'50", in SE¼ sec.21, T.12 S., R.37 E., on left bank at entrance to canyon, 1,250 ft downstream from Unity Dam, 0.3 mile upstream from Van Cleve ditch, 0.7 mile downstream from South Fork, and 7 miles west of Hereford.

Drainage area.--309 sq mi.

Records available.--March to September 1915, April to September 1916, October 1928 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,756.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Mar. 16, 1915, to Sept. 4, 1916, staff gage at site 2 miles downstream at different datum. Oct. 22, 1928, to June 28, 1932, water-stage recorder at site 0.5 mile downstream at different datum. June 29, 1932, to Sept. 16, 1937, water-stage recorder at site 300 ft upstream at different datum. Sept. 17, 1937, to Sept. 30, 1943, water-stage recorder at present site at datum 3.29 ft higher.

Average discharge.--31 years (1928-59), 82.9 cfs (60,020 acre-ft per year).

Extremes.--Maximum discharge during year, 270 cfs Apr. 12 (gage height, 3.60 ft); minimum, 0.7 cfs Mar. 19-21.

1915-16, 1928-59: Maximum discharge, 2,220 cfs Apr. 17, 1943 (gage height, 7.35 ft, present datum), from rating curve extended above 1,300 cfs by logarithmic plotting; maximum gage height, 7.85 ft, Apr. 16, 1943, present datum, just before concrete control washed out; no flow at times; minimum discharge before construction of Unity Reservoir Dam, 1.6 cfs Aug. 31, 1935.

Remarks.--Records good. Flow regulated since 1938 by Unity Reservoir (see preceding page). Diversions for irrigation of 8,700 acres above station. Eldorado ditch diverts as much as 34 cfs from several tributaries above station for irrigation in Willow Creek basin. A transmountain diversion from headwaters of John Day River delivers 12 cfs to North Fork Burnt River for irrigation.

Revisions (water years).--WSP 903: 1939. WSP 1397: 1916, 1930, 1933(M).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 4 to June 12, June 26 to July 11, Aug. 5-8)

0.97	0.7	1.6	20
1.0	1.0	1.9	41
1.1	2.5	2.4	92
1.2	4.5	3.0	185
1.4	10	3.3	245

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	6.8	49	13	3.9	4.8	1.6	178	88	*127	85	98
2	46	7.0	49	13	3.9	4.8	*2.2	209	87	123	85	93
3	46	7.0	*49	13	3.9	5.0	38	152	87	116	85	90
4	46	7.3	49	19	3.9	5.0	56	100	88	110	85	88
5	46	7.6	49	29	3.9	5.2	100	92	90	105	*103	87
6	46	7.6	49	*29	3.9	5.5	160	80	84	96	112	86
7	46	7.6	48	29	3.7	6.2	171	103	72	91	112	85
8	46	7.6	48	29	3.1	6.8	154	123	72	88	116	85
9	46	7.6	48	29	3.1	6.2	159	105	71	86	126	*84
10	46	7.6	48	29	*3.1	5.8	158	142	67	85	124	81
11	46	7.9	53	29	3.1	5.5	170	177	103	109	123	80
12	46	7.9	57	23	2.9	5.5	200	177	121	135	129	62
13	46	7.9	57	12	2.9	4.8	*195	150	122	130	146	43
14	46	20	57	12	2.9	4.3	187	132	105	128	144	44
15	46	33	57	12	2.7	4.1	167	135	112	123	144	44
16	45	33	57	8.0	2.9	3.5	179	136	118	114	144	44
17	45	33	57	3.9	2.7	*2.9	140	134	122	108	141	41
18	45	40	57	3.9	2.7	1.8	146	124	142	118	141	40
19	45	50	57	3.9	2.7	.9	175	106	158	85	138	41
20	45	50	57	3.9	2.7	.7	132	110	165	96	134	42
21	45	50	57	3.9	2.7	.7	105	112	177	95	124	41
22	*29	50	57	3.9	2.7	.8	*90	102	185	96	123	41
23	7.0	50	57	3.9	2.7	.8	84	96	181	93	122	41
24	7.0	50	57	3.9	2.7	1.8	111	93	179	91	118	40
25	7.0	50	57	3.9	2.7	2.7	156	88	183	87	110	40
26	6.8	50	57	3.9	3.7	2.2	235	97	171	87	102	40
27	6.8	50	33	3.9	4.5	2.0	219	93	159	86	102	40
28	6.8	50	12	3.9	4.8	2.7	186	92	152	86	101	44
29	6.8	49	12	3.9	-	1.8	135	93	153	85	100	51
30	6.8	49	12	3.9	-------	1.4	135	*93	142	85	98	51
31	6.8	-------	12	3.9	-------	1.2	-------	91	-------	85	98	-------
Total	1,050.8	854.4	1,475	386.5	91.1	107.4	4,146.8	3,715	3,756	3,149	3,615	1,787
Mean	33.9	28.5	47.6	12.5	3.25	3.46	138	120	125	102	117	59.6
Ac-ft	2,080	1,690	2,930	767	181	213	8,230	7,370	7,450	6,250	7,170	3,540

Calendar year 1958: Max 730 Min 6.8 Mean 148 Ac-ft 107,000
Water year 1958-59: Max 235 Min 0.7 Mean 66.1 Ac-ft 47,870

* Discharge measurement made on this day.

2742. Burnt River near Bridgeport, Oreg.

Location.--Lat 44°32'30", long 117°41'20", in SW¼ sec.3, T.12 S., R.41 E., on left bank 0.5 mile downstream from Dark Canyon, 4½ miles upstream from Deer Creek, and 5 miles northeast of Bridgeport.

Drainage area.--650 sq mi, approximately.

Records available.--October 1956 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,223.22 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum discharge during year, 252 cfs Apr. 14 (gage height, 2.63 ft); minimum, 10 cfs Nov. 1, 2, 4 (gage height, 1.50 ft).
1956-59: Maximum discharge, 1,270 cfs Feb. 26, 1957 (gage height, 5.43 ft); minimum, that of Nov. 1, 2, 4, 1958.

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow regulated by Unity Reservoir (see p. 195). Many diversions for irrigation above station.

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

Oct. 1 to Jan. 10		Jan. 11 to Sept. 30	
1.5	10	1.3	23
1.6	22	1.5	40
1.8	52	1.8	75
2.1	111	2.2	147
		2.6	245

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	11	b60	28	39	36	48	120	72	*90	57	65
2	77	11	b55	b26	b32	38	50	139	68	92	57	71
3	75	12	*63	b20	b36	36	62	168	57	87	54	75
4	77	11	b60	b17	b38	35	75	170	51	87	57	68
5	77	12	b55	b30	b34	33	120	120	52	84	*60	67
6	71	14	67	*b44	35	33	136	86	52	84	55	67
7	71	16	62	b60	34	32	180	72	49	84	55	62
8	71	17	62	b80	b34	34	202	52	51	70	54	56
9	71	15	62	b90	b30	32	210	54	45	75	49	*54
10	71	15	62	b100	*b26	32	208	51	45	70	50	57
11	71	12	69	95	29	30	210	46	40	56	48	65
12	69	12	81	87	27	30	210	60	33	54	47	60
13	67	15	77	b75	b24	31	228	52	35	66	44	57
14	67	18	b70	b65	b24	29	245	60	41	78	38	60
15	65	22	b65	b55	25	28	242	51	47	70	46	66
16	65	b32	b70	50	32	28	225	61	42	65	49	61
17	65	b30	75	49	38	*30	220	70	39	62	51	65
18	65	*b46	69	44	36	31	220	74	37	65	54	70
19	63	b55	71	42	36	31	178	82	41	66	52	80
20	62	60	71	b40	36	29	200	75	45	63	60	87
21	62	58	71	b36	36	26	190	70	49	56	76	84
22	*60	58	71	b38	34	29	*147	87	67	60	82	82
23	60	60	b70	39	34	29	134	93	84	66	82	80
24	41	60	73	40	32	36	116	86	97	67	82	78
25	28	60	77	b44	31	35	122	84	105	68	78	74
26	25	b50	77	48	32	37	147	80	107	62	81	81
27	21	b55	81	45	32	40	198	*81	122	57	78	84
28	20	b50	73	b48	34	43	220	78	109	60	82	80
29	17	b55	32	b46	--	47	202	80	97	61	84	74
30	14	b60	28	43	------	51	147	76	95	60	75	74
31	11	-------	28	39	-------	51	------	75	-------	57	74	------
Total	1,756	1,002	2,007	1,563	910	1,062	5,092	2,553	1,874	2,142	1,911	2,104
Mean	56.6	33.4	64.7	50.4	32.5	34.3	170	82.4	62.5	69.1	61.6	70.1
Ac-ft	3,480	1,990	3,980	3,100	1,800	2,110	10,100	5,060	3,720	4,250	3,790	4,170

Calendar year 1958: Max 1,030 Min 11 Mean 202 Ac-ft 145,900
Water year 1958-59: Max 245 Min 11 Mean 65.7 Ac-ft 47,550

Peak discharge (base, 350 cfs).--No peak above base.

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

2750. Burnt River at Huntington, Oreg.

Location.--Lat 44°21'30", long 117°16'20", in NE¼ sec.13,T.14 S., R.44 E., on right bank 0.5 miles northwest of Huntington and 3½ miles upstream from mouth.

Drainage area.--1,093 sq mi.

Records available.--September 1928 to September 1932, October 1956 to September 1959 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 2,104.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Sept. 13, 1928, to Sept. 30, 1932, staff gage at site 200 ft upstream at different datum.

Average discharge.--7 years, 116 cfs (83,980 acre-ft per year).

Extremes.--Maximum discharge during year, 329 cfs Apr. 15 (gage height, 2.34 ft); minimum, 20 cfs Jan. 3.
1928-32, 1956-59: Maximum discharge, 2,190 cfs Feb. 26, 1957 (gage height, 6.39 ft); no flow at times.

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow regulated since 1938 by Unity Reservoir (see p. 195). Diversions for irrigation of 28,000 acres above station.

Revisions (water years).--WSP 1567: 1930.

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

Oct. 1 to Jan. 10				Jan. 11 to Sept. 30			
0.8	19	1.3	56	0.8	22	1.8	151
1.0	30	1.5	84	1.1	43	2.4	350
1.2	46	1.9	170	1.4	76		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	64	110	84	80	86	106	164	79	*84	41	60
2	100	64	102	57	71	88	106	156	70	82	41	56
3	93	65	*108	26	72	86	112	167	64	88	41	61
4	91	66	102	b22	78	84	124	181	55	86	37	64
5	89	66	95	b40	73	80	164	162	46	82	*36	70
6	84	69	104	b60	75	79	207	122	44	78	37	73
7	78	72	108	b80	73	79	242	100	41	82	35	73
8	76	70	104	b95	71	78	270	84	42	75	33	67
9	76	68	102	b130	67	78	298	68	42	61	32	*86
10	82	65	102	148	*70	76	284	59	41	59	29	64
11	81	64	110	126	75	72	287	56	40	51	29	66
12	81	64	124	144	70	72	301	47	39	38	29	67
13	84	65	122	140	60	73	308	44	34	31	31	67
14	89	70	110	140	61	73	318	42	34	38	30	75
15	86	69	106	106	71	67	318	63	33	48	28	84
16	84	b46	118	105	82	67	298	71	37	44	29	85
17	86	51	122	98	100	*68	280	62	38	41	26	80
18	88	60	118	93	100	71	276	72	36	42	27	85
19	82	93	116	88	112	70	245	72	36	37	31	108
20	82	106	116	82	103	64	234	76	34	44	45	142
21	*89	106	118	72	100	64	242	76	41	44	45	118
22	95	106	116	75	94	64	*210	79	41	43	54	112
23	97	106	112	85	93	66	178	90	44	47	61	110
24	97	106	118	85	90	82	159	85	59	52	61	105
25	82	108	122	91	86	79	142	85	78	61	63	103
26	74	b85	120	108	84	80	164	88	90	63	62	112
27	69	89	122	96	84	82	184	*94	100	58	59	114
28	66	b85	122	103	82	85	234	100	105	48	56	114
29	68	98	102	98	-	94	234	93	96	43	59	106
30	66	112	89	105	-------	105	204	88	91	44	63	103
31	65	-------	84	-------	-------	86	-------	85	-------	45	60	-------
Total	2,582	2,358	3,424	2,868	2,277	2,420	6,729	2,831	1,630	1,739	1,310	2,610
Mean	83.3	78.6	110	92.5	81.3	78.1	224	91.3	54.3	56.1	42.3	87.0
Ac-ft	5,120	4,680	6,790	5,690	4,520	4,800	13,350	5,620	3,230	3,450	2,600	5,180

Calendar year 1958: Max 1,290 Min 46 Mean 284 Ac-ft 205,900
Water year 1958-59: Max 318 Min 22 Mean 89.8 Ac-ft 65,030

Peak discharge (base, 500 cfs).-- No peak above base.

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

2755. Powder River near Baker, Oreg.

Location.--Lat 44°39'20", long 117°52'30", in NE¼ sec.36, T.10 S., R.39 E., on right bank 700 ft downstream from Stices Gulch and 8½ miles south of Baker.

Drainage area.--219 sq mi.

Records available.--December 1903 to August 1914, July 1926 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as "near Baker City" December 1903 to December 1905, and as "at Salisbury" January 1906 to August 1914, October 1928 to September 1951.

Gage.--Water-stage recorder and concrete bag-filled control. Datum of gage is 3,632.31 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Dec. 20, 1903, to Feb. 29, 1912, staff gage at site 400 ft upstream at different datum. Mar. 1, 1912, to Aug. 1, 1914, and June 16, 1926, to Oct. 16, 1933, staff gage at site 0.4 mile downstream at different datum.

Average discharge.--42 years (1904-13, 1926-59), 113 cfs (81,810 acre-ft per year).

Extremes.--Maximum discharge during year, 608 cfs May 15 (gage height, 3.76 ft); minimum, 4.8 cfs Sept. 3.
1903-14, 1926-59: Maximum discharge, 1,820 cfs Mar. 20, 1910 (gage height, 7.05 ft, site and datum then in use, from graph based on gage readings), from rating curve extended above 660 cfs; no flow Aug. 31, 1909, Sept. 7, 1931.

Remarks.--Records good except those for periods of ice effect, which are fair. Many small diversions for irrigation above station. At times Auburn ditch diverts water into basin above station.

Revisions (water years).--WSP 813: 1935. WSP 1093: Drainage area. WSP 1397: 1904-13, 1929-31, 1940, 1942, 1949-50.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 19-21)

1.0	3.0	1.7	71
1.1	6.5	2.3	190
1.2	12	3.0	380
1.4	31	3.7	590

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	16	31	59	68	85	143	272	215	64	14	6.2
2	14	18	31	44	59	86	210	278	235	62	11	6.2
3	14	21	36	b34	b65	85	341	248	311	62	11	5.1
4	13	22	*37	b28	b65	76	374	228	335	60	10	5.4
5	13	26	b30	b40	b60	76	416	218	368	60	9.8	6.2
6	12	31	37	*b60	62	76	512	210	449	59	9.2	6.2
7	12	46	43	b80	56	76	431	182	401	58	*8.2	6.2
8	12	47	43	b110	60	80	341	178	332	58	8.2	5.8
9	12	43	43	96	52	76	280	202	299	56	7.6	*5.4
10	12	42	44	66	55	73	240	205	258	55	6.5	5.4
11	12	41	90	62	*55	66	235	200	228	53	8.7	5.1
12	12	38	168	b70	b50	76	260	195	225	52	6.5	5.1
13	12	39	117	b60	b55	80	*285	228	245	48	6.5	5.4
14	12	41	90	b65	51	70	288	386	255	46	6.2	5.8
15	11	36	90	64	52	65	265	566	230	42	6.2	7.6
16	12	b32	85	60	58	76	238	476	210	38	5.8	8.2
17	11	b28	76	60	59	*86	222	419	190	37	5.8	8.2
18	12	b40	71	59	58	96	208	368	165	36	5.8	11
19	17	42	74	56	59	100	192	296	147	33	6.2	18
20	18	43	73	60	59	90	188	265	147	32	8.2	29
21	18	42	70	53	59	95	180	265	137	30	8.2	27
22	*16	42	65	59	65	93	*192	232	125	27	8.7	21
23	17	42	b55	58	65	98	232	212	113	27	7.0	18
24	17	41	b60	90	59	98	260	235	105	26	6.5	16
25	16	38	64	88	62	95	288	265	96	27	6.2	15
26	17	b32	59	80	62	111	278	288	96	26	6.2	26
27	16	b28	60	93	64	117	268	265	90	22	6.2	50
28	17	b26	58	b80	70	125	245	248	74	18	6.2	38
29	17	b30	56	b70	-	135	220	228	71	18	5.8	30
30	16	35	58	b65	-------	147	220	*212	*66	15	5.8	28
31	15	-------	59	73	-------	151	-------	198	-------	14	5.8	-------
Total	439	1,048	1,973	2,042	1,664	2,859	8,052	8,268	6,218	1,261	234.0	430.5
Mean	14.2	34.9	63.6	65.9	59.4	92.2	268	267	207	40.7	7.55	14.4
Ac-ft	871	2,080	3,910	4,050	3,300	5,670	15,970	16,400	12,330	2,500	464	854

Calendar year 1958: Max 1,340 Min 6.5 Mean 180 Ac-ft 130,100
Water year 1958-59: Max 566 Min 5.1 Mean 94.5 Ac-ft 68,400

Peak discharge (base, 340 cfs, revised).--Apr. 6 (11 a.m.) 545 cfs (3.55 ft); May 15 (3:30 p.m.) 608 cfs (3.76 ft); June 6 (2:30 p.m.) 482 cfs (3.34 ft).

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

2867. Powder River near Richland, Oreg.

Location.--Lat 44°46'40", long 117°17'30", in SE¼ sec.14, T.9 S., R.44 E., on left bank 0.4 mile (revised) upstream from Upper Timber Canyon and 6 miles west of Richland.

Drainage area.--1,310 sq mi, approximately.

Records available.--October 1957 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,277.42 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum discharge during year, 861 cfs Apr. 6 (gage height, 3.03 ft); minimum, 25 cfs Sept. 10, 11.

Remarks.--Records excellent except those for periods of ice effect or backwater from moss, which are good, and those for periods of no gage-height record, which are poor. Flow partly regulated by several reservoirs, the largest being Thief Valley Reservoir (capacity, 17,400 acre-ft). Many diversions above station for irrigation above and below station.

Rating tables, water year 1958-59, except periods of ice effect or backwater from moss (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 21		Dec. 22 to Sept. 30			
0.9	35	0.8	23	1.8	240
1.2	86	1.0	46	2.5	530
1.7	222	1.3	100	3.0	840

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	54	b55	b240	374	326	495	219	151	50	55	41
2	63	58	*b55	b180	338	330	536	278	112	*46	54	34
3	64	61	b60	135	306	330	596	264	83	40	48	33
4	63	61	64	b95	330	314	650	268	77	36	52	36
5	63	63	b55	b100	342	300	716	231	83	32	49	43
6	61	59	49	110	334	296	826	201	138	30	*37	50
7	58	56	63	201	314	292	826	171	334	50	46	45
8	58	56	61	250	292	292	812	148	412	60	52	37
9	58	54	59	*300	275	292	791	132	394	70	42	29
10	58	51	59	462	254	289	758	132	382	70	40	26
11	58	49	84	542	*250	286	704	119	*366	70	43	28
12	58	48	204	722	254	282	668	107	310	70	48	32
13	56	54	175	704	222	282	650	96	250	70	43	40
14	56	58	119	566	225	278	608	114	200	70	54	52
15	54	56	114	458	213	268	590	244	160	60	70	63
16	54	b50	102	412	250	261	530	530	140	60	61	*74
17	54	b46	91	394	412	264	500	466	120	60	46	63
18	54	b55	84	412	448	*282	471	510	100	60	38	56
19	52	*b60	80	390	462	296	435	505	80	60	31	66
20	52	61	78	362	462	296	394	458	90	60	43	110
21	*52	63	76	314	444	296	*346	422	100	50	85	96
22	52	59	207	292	412	289	314	354	110	40	98	83
23	52	58	264	300	390	292	300	292	120	50	98	70
24	52	56	254	362	374	296	310	268	110	50	74	65
25	52	56	261	471	362	296	300	261	90	50	61	63
26	52	b50	275	466	358	310	264	261	80	40	50	94
27	52	b55	278	466	338	342	261	240	70	40	50	117
28	54	b46	289	505	334	354	240	198	60	30	50	92
29	54	b50	289	466	-	370	204	174	55	30	45	92
30	56	b55	275	435	-------	378	189	177	50	33	40	85
31	56	-------	275	394	-------	435	-------	174	-------	41	40	-------
Total	1,746	1,658	4,454	11,506	9,369	9,514	15,284	8,014	4,827	1,578	1,643	1,815
Mean	56.3	55.3	144	371	335	307	509	259	161	50.9	53.0	60.5
Ac-ft	3,460	3,290	8,830	22,820	18,580	18,870	30,320	15,900	9,570	3,130	3,260	3,600

Calendar year 1958: Max 2,170 Min 27 Mean 448 Ac-ft 324,200
Water year 1958-59: Max 826 Min 26 Mean 196 Ac-ft 141,600

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record June 13 to July 1, July 3-29; discharge estimated on basis of weather records, recorded range in stage, records for Eagle Creek above Skull Creek, near New Bridge, and records of gate openings at Thief Valley Reservoir. Backwater from moss Oct. 8 to Nov. 15, July 30 to Sept. 30.

2882. Eagle Creek above Skull Creek, near New Bridge, Oreg.

Location.--Lat 44°52'50", long 117°15'10", in SE¼ sec.7, T.8 S., R.45 E., on left bank half a mile upstream from Skull Creek and 6¼ miles northwest of New Bridge.

Drainage area.--156 sq mi.

Records available.--October 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

Extremes.--Maximum discharge during year, 2,020 cfs June 13 (gage height, 3.46 ft); minimum, 93 cfs Jan. 3 (gage height, 0.78 ft).
1957-59: Maximum discharge, 2,690 cfs May 27, 1958 (gage height, 4.02 ft); minimum, 69 cfs Dec. 31, 1957 (gage height, 0.61 ft).

Remarks.--Records excellent. Some diversions above station for irrigation and one small inter-basin diversion for irrigation supply. All diversions are small compared to flow at station during irrigation season.

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

Oct. 1 to Nov. 6		Nov. 7 to Sept. 30			
0.7	86	0.7	76	2.0	640
1.0	161	1.0	145	3.0	1,530
1.5	360	1.4	295	4.0	2,670

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	114	142	157	145	138	189	782	1,040	570	154	115
2	101	124	*138	140	135	138	268	682	1,280	*591	148	113
3	101	124	172	106	154	135	320	626	1,450	534	145	111
4	107	152	169	95	148	135	350	577	1,460	498	142	115
5	107	152	145	150	140	135	406	534	1,630	474	140	140
6	107	332	157	234	138	135	498	504	1,780	498	*138	132
7	107	389	169	226	135	135	439	516	1,500	456	135	120
8	135	282	160	182	135	135	417	584	1,250	385	140	113
9	124	325	151	*160	130	135	400	633	*1,120	365	142	111
10	127	335	169	160	132	132	400	558	918	385	140	106
11	120	259	516	169	*135	128	456	540	959	400	140	106
12	114	234	498	254	128	128	522	605	1,360	417	140	104
13	112	214	345	226	122	125	558	862	1,660	406	138	104
14	110	203	286	200	130	122	564	1,330	1,670	370	138	140
15	107	172	264	178	130	120	534	1,650	1,490	330	138	189
16	107	166	246	172	142	125	486	1,160	1,370	310	132	*135
17	105	148	234	166	140	130	480	986	1,330	300	130	122
18	107	172	222	163	140	*132	439	878	1,340	295	135	145
19	120	186	210	157	140	132	428	790	1,480	286	138	268
20	122	200	203	154	140	128	439	726	1,580	277	148	250
21	*117	186	203	145	138	132	*492	718	1,580	259	154	214
22	117	175	189	151	140	132	570	774	1,370	246	138	210
23	122	172	175	148	140	135	640	862	1,150	234	130	196
24	120	172	182	182	135	138	689	986	1,020	238	128	186
25	120	154	186	178	135	145	718	1,090	926	218	120	192
26	120	145	178	166	132	172	703	1,010	814	200	120	355
27	120	151	178	186	132	175	661	894	718	192	120	286
28	120	163	169	182	132	182	605	798	633	186	120	259
29	120	154	163	169	-	175	626	742	564	175	120	250
30	117	145	163	157	-------	186	718	766	546	166	118	234
31	117	-------	160	157	-------	186	-------	870	-------	160	115	-------
Total	3,553	5,900	6,542	5,270	3,823	4,381	15,015	25,033	36,988	10,421	4,184	5,121
Mean	115	197	211	170	137	141	500	808	1,233	336	135	171
Ac-ft	7,050	11,700	12,980	10,450	7,580	8,690	29,780	49,650	73,360	20,670	8,300	10,160

Calendar year 1958: Max 2,530 Min 94 Mean 442 Ac-ft 319,700
Water year 1958-59: Max 1,780 Min 95 Mean 346 Ac-ft 250,400

Peak discharge (base, 1,700 cfs).--May 15 (3:30 a.m.) 1,770 cfs (3.24 ft); June 5 (9:30 p.m.) 1,940 cfs (3.39 ft); June 13 (9 p.m.) 2,020 cfs (3.46 ft).

* Discharge measurement made on this day.

2897. Brownlee Reservoir at Idaho-Oregon State line

Location.--Lat 44°50'10", long 116°54'00", in SE¼ sec.2, T.17 N., R.5 W., at Brownlee Dam on Snake River near Idaho end of dam, 1.1 miles upstream from Wildhorse River, 3½ miles downstream from Brownlee Creek, and 10½ miles east of Halfway, Oreg.

Drainage area.--72,590 sq mi, approximately.

Records available.--May 1958 to September 1959.

Gage.--Remote registering water-stage recorder checked periodically by levels to water surface. Datum of gage is at mean sea level, datum of Idaho Power Co. Prior to Feb. 2, 1959, staff gage or levels to water surface at same site and datum.

Extremes.--Maximum contents during year, 1,428,800 acre-ft June 23 (elevation, 2,077.15 ft); minimum, 758,800 acre-ft Apr. 17 (elevation, 2,017.0 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Operating elevations are from 1,976 to 2,077 ft, capacity, 446,450 to 1,426,700 acre-ft, respectively. Water is used for power generation.

Cooperation.--Gage-height record and capacity table furnished by Idaho Power Co.

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

2,010.0	697,900
2,030.0	880,600
2,050.0	1,080,100
2,070.0	1,330,200
2,080.0	1,468,800

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	806.9	915.1	954.7	1,015.9	1,010.8	908.3	779.0	809.7	1,274.9	1,415.0	1,410.0	1,419.7
2	806.0	917.0	954.7	1,014.9	994.6	904.5	776.2	833.2	1,289.6	1,417.6	1,415.5	1,415.5
3	804.1	916.0	958.6	1,013.9	987.9	908.3	776.2	859.7	1,305.8	1,419.0	1,421.1	1,408.9
4	803.2	916.0	965.4	1,009.8	977.1	911.2	778.0	877.8	1,320.7	1,427.0	1,422.7	1,403.4
5	803.2	917.0	974.1	1,004.8	970.2	908.3	780.8	894.0	1,328.8	1,425.9	1,423.9	1,399.0
6	797.6	917.0	975.1	1,001.8	962.4	904.5	784.5	915.1	1,331.5	1,426.0	1,426.1	1,403.0
7	812.5	917.0	977.1	995.9	954.7	904.5	788.2	933.4	1,331.1	1,426.0	1,425.3	1,400.5
8	832.3	919.9	983.9	996.8	946.0	902.6	789.2	945.0	1,329.5	1,426.7	1,424.0	1,398.7
9	848.3	925.7	986.9	992.8	938.2	900.7	787.3	960.5	1,327.0	1,426.4	1,426.7	1,397.9
10	856.8	928.6	991.8	992.8	935.3	900.7	785.4	980.0	1,329.2	1,426.0	1,426.0	1,395.1
11	856.8	931.4	996.8	992.8	931.4	899.7	781.7	989.9	1,340.5	1,427.1	1,426.0	1,394.7
12	861.6	935.3	1,000.8	992.8	931.4	897.8	776.2	995.9	1,350.6	1,424.9	1,426.7	1,393.6
13	861.6	938.2	1,003.8	1,001.8	928.6	899.7	769.7	999.8	1,361.6	1,426.0	1,425.7	1,401.6
14	862.6	938.2	1,008.8	1,008.8	930.5	901.6	765.2	1,003.8	1,372.9	1,426.7	1,423.4	1,421.8
15	864.4	936.3	1,016.9	1,012.9	934.3	904.5	765.2	1,016.9	1,385.8	1,426.1	1,421.1	1,415.7
16	866.4	934.3	1,018.9	1,015.9	934.3	904.5	760.6	1,039.5	1,395.7	1,426.1	1,423.9	1,416.2
17	871.1	933.4	1,022.0	1,018.9	936.3	899.7	758.8	1,062.8	1,401.5	1,425.0	1,420.7	1,414.7
18	876.8	928.6	1,025.1	1,020.0	943.0	894.0	759.7	1,080.1	1,407.1	1,424.6	1,417.1	1,409.3
19	881.6	928.6	1,024.0	1,016.9	946.9	883.5	768.8	1,104.6	1,408.0	1,426.8	1,415.8	1,408.4
20	885.4	927.6	1,018.9	1,014.9	947.9	872.0	769.7	1,113.7	1,411.8	1,415.1	1,415.5	1,409.7
21	891.1	925.7	1,021.0	1,009.8	945.0	861.6	769.7	1,124.0	1,421.8	1,414.4	1,417.1	1,409.1
22	895.9	925.7	1,024.0	1,013.9	941.1	850.2	767.0	1,128.7	1,426.7	1,389.1	1,421.4	1,406.2
23	899.7	926.6	1,025.1	1,013.9	936.3	839.8	765.2	1,134.5	1,425.0	1,388.6	1,426.7	1,400.7
24	906.4	930.5	1,026.1	1,015.9	930.5	830.4	762.4	1,142.8	1,418.9	1,386.4	1,426.0	1,397.7
25	908.3	929.5	1,028.1	1,020.0	921.8	820.0	765.2	1,151.1	1,423.8	1,386.2	1,424.9	1,394.4
26	906.4	929.5	1,031.2	1,021.0	914.1	811.6	770.7	1,168.1	1,424.6	1,388.8	1,421.1	1,391.4
27	906.4	933.4	1,031.2	1,020.0	910.3	806.0	774.3	1,185.4	1,423.2	1,388.2	1,425.3	1,387.3
28	909.3	939.2	1,026.1	1,021.0	907.4	800.4	781.7	1,201.8	1,415.5	1,398.4	1,424.2	1,384.7
29	917.0	944.0	1,023.0	1,024.0	-	796.6	789.2	1,219.8	1,414.8	1,389.1	1,426.1	1,381.1
30	912.2	947.9	1,020.0	1,016.9	-------	785.4	796.6	1,240.6	1,414.8	1,400.2	1,423.9	1,384.0
31	916.0	-------	1,016.9	1,016.9	-------	782.7	-------	1,260.3	-------	1,404.8	1,426.0	-------
(†)	2,033.7	2,037.0	2,044.0	2,044.0	2,032.8	2,019.6	2,021.1	2,064.8	2,076.15	2,075.43	2,076.95	2,073.93
(‡)	+107.6	+32.3	+69.0	0	-109.5	-124.7	+13.9	+463.7	+154.5	-10.0	+21.2	-42.0

Calendar year 1958..... ‡ -
Water year 1958-59..... ‡ +576.0

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

2902. Snake River below Pine Creek, at Oxbow, Oreg.

Location.--Lat 44°58'40", long 116°51'25", in NW¼NW¼ sec.9, T.7 S., R.48 E., or left bank at Oxbow, 0.1 mile upstream from Hansaker Creek, 0.1 mile north of Oxbow school, a third of a mile downstream from Pine Creek, and 3.2 miles south of Homestead.

Drainage area.--73,150 sq mi, approximately.

Records available.--January 1958 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,668.34 ft above mean sea level, datum of Idaho Power Co.

Extremes.--Maximum discharge during year, 21,900 cfs July 22 (gage height, 11.22 ft); minimum, 1,820 cfs Oct. 8 (gage height, 1.33 ft).
1958-59: Maximum discharge, 48,600 cfs May 23, 1958 (gage height, 19.80 ft); minimum daily, 900 cfs Aug. 31, 1958; minimum gage height not determined.

Remarks.--Records excellent. Flow regulated by Brownlee Reservoir (see preceding page) and by many other reservoirs above station. Diversions for irrigation of about 2,628,000 acres above station.

Cooperation.--Recorder inspected by employees of Idaho Power Co.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,500	14,200	11,900	13,700	17,300	17,400	19,800	11,400	8,980	11,400	8,090	16,500
2	14,600	13,700	12,100	13,900	18,000	16,200	20,200	7,630	11,000	10,800	7,200	13,400
3	15,900	13,800	11,400	14,600	18,100	14,000	20,400	6,430	9,990	9,620	7,970	13,700
4	15,600	13,400	11,100	14,600	18,600	12,800	20,500	7,970	10,300	8,830	9,490	13,900
5	15,400	12,500	11,800	14,800	18,200	14,600	20,700	8,920	11,700	11,400	9,470	13,600
6	13,500	13,400	11,300	15,300	18,100	17,700	20,800	9,270	16,500	10,300	9,510	11,400
7	*3,900	13,700	10,600	14,600	17,900	14,800	20,900	7,450	18,900	10,700	10,400	12,800
8	5,740	12,600	11,600	14,100	18,000	16,000	*21,000	7,850	20,100	10,300	10,800	13,300
9	7,530	13,300	12,000	13,600	18,600	16,500	21,000	7,120	20,100	10,800	10,100	12,700
10	12,000	13,400	12,000	13,200	15,700	15,500	20,700	5,910	18,800	10,700	10,500	13,800
11	11,200	11,900	12,300	12,100	*15,400	14,300	18,900	8,590	14,800	9,900	10,200	13,300
12	11,500	12,500	12,000	13,300	14,300	13,400	19,000	10,500	12,300	10,600	10,400	13,100
13	13,600	*12,400	11,700	12,900	14,300	12,400	19,000	10,900	14,300	10,500	11,300	10,700
14	13,900	14,100	11,400	12,400	13,700	12,800	18,300	*12,200	14,400	9,970	11,200	11,100
15	14,000	14,800	12,200	12,900	12,200	13,000	16,000	12,800	13,500	10,400	11,200	13,500
16	14,000	14,800	12,600	12,600	13,300	13,200	16,500	11,000	14,300	10,600	10,200	19,200
17	11,300	15,000	*13,200	13,400	14,800	17,900	16,200	9,140	14,300	10,800	11,100	18,900
18	11,300	15,200	13,100	15,300	14,500	16,300	14,300	10,400	*14,800	10,600	12,300	19,000
19	12,100	14,500	14,600	16,100	17,300	19,100	9,740	10,900	16,800	9,360	12,200	19,000
20	13,800	14,400	12,800	13,500	19,000	19,300	11,000	10,600	16,200	12,700	*11,300	19,100
21	13,800	14,300	12,700	*14,100	19,400	19,600	12,500	11,100	14,200	13,600	12,000	19,200
22	13,300	14,300	12,900	14,400	18,900	18,900	14,200	13,500	12,600	16,400	11,200	19,200
23	11,700	13,900	13,500	12,400	18,900	19,600	14,200	14,700	17,400	*12,100	9,530	19,200
24	11,600	14,100	12,900	12,200	19,500	19,100	13,500	14,800	19,200	11,500	12,000	18,700
25	14,700	14,600	11,900	14,400	19,400	19,100	12,800	16,100	15,500	10,600	13,300	18,000
26	15,000	12,700	13,400	17,200	19,300	19,500	12,000	11,700	12,200	9,290	13,500	18,900
27	14,600	11,700	14,900	17,800	17,600	19,100	12,900	10,800	17,400	10,200	11,500	19,400
28	11,600	11,700	15,600	17,900	17,000	19,300	13,100	10,200	18,500	9,970	11,900	18,900
29	12,100	11,700	15,000	19,100	-	19,500	12,400	9,790	16,600	9,860	11,200	17,900
30	14,200	11,200	14,500	19,400	-------	19,800	12,100	7,990	13,900	9,510	12,300	15,100
31	14,500	-------	14,100	18,100	-------	19,700	-------	7,260	-------	8,320	13,900	-------
Total	393,470	403,800	393,100	453,900	477,300	520,400	494,640	314,920	449,570	331,630	337,880	476,500
Mean	12,690	13,460	12,680	14,640	17,050	16,790	16,490	10,160	14,990	10,700	10,880	15,880
Ac-ft	780,400	800,900	779,700	900,300	946,700	1,032,000	981,100	624,600	891,700	657,800	668,900	945,100

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 21,000 Min 3,900 Mean 13,830 Ac-ft 10,010,000

* Discharge measurement made on this day.

2905. Snake River near Joseph, Idaho

Location.--Lat 45°49', long 116°45', in SW¼ sec.18, T.4 N., R.49 E., on left bank, at China Gulch, a quarter of a mile downstream from Mountain Sheep damsite, 0.7 mile upstream from Imnaha River, 0.9 mile downstream from Divide Creek, 13 miles west of Joseph, 22 miles west of White Bird, and at mile 53.2 from Lewiston.

Drainage area.--73,800 sq mi, approximately.

Records available.--April 1955 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 940.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum discharge during year, 21,800 cfs Apr. 6 (gage height, 6.62 ft); minimum daily, 5,000 cfs Oct. 8.
1955-59: Maximum discharge, 76,700 cfs probably May 23, 1957 (gage height, 21.5 ft, from floodmarks); minimum daily, 1,050 cfs Sept. 1, 1958.

Remarks.--Records excellent except those for periods of backwater from Imnaha River, which are good, and those for period of no gage-height record, which are poor. Flow regulated by many reservoirs above station at Weiser and by Brownlee Reservoir (see p. 202). Diurnal fluctuation caused by Swan Falls powerplant. Diversions for irrigation of about 2,628,000 acres above station (1948 determination).

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,000	14,700	11,400	13,900	17,600	15,400	20,100	13,100	7,750	12,300	8,070	17,000
2	14,700	14,300	12,500	13,800	17,700	15,700	20,700	11,100	10,900	11,900	7,830	14,700
3	15,900	13,900	11,600	14,200	18,200	15,500	21,500	8,310	11,400	9,830	6,890	13,400
4	16,000	14,100	11,300	14,900	18,600	12,900	21,200	7,150	11,000	9,700	8,090	14,300
5	15,800	13,100	11,600	14,400	18,200	13,100	21,400	9,550	11,400	10,100	9,760	14,000
6	15,600	13,500	12,100	15,300	18,100	18,700	21,500	9,760	16,800	11,700	9,190	13,400
7	a7,200	14,200	11,200	15,000	18,200	15,000	21,300	9,740	18,500	10,600	9,930	10,800
8	a5,000	13,600	10,900	14,200	17,900	15,600	21,500	7,730	20,800	10,400	11,200	13,500
9	a8,400	13,300	12,100	13,700	18,400	16,600	21,500	8,770	20,900	10,600	10,600	12,600
10	9,610	13,800	12,000	14,000	17,200	16,100	21,300	7,150	20,400	10,800	10,000	13,200
11	12,300	13,300	12,500	13,700	15,600	15,000	20,300	5,910	17,500	10,500	9,990	13,700
12	10,900	12,100	13,600	13,000	14,800	13,700	19,100	11,200	12,500	10,100	10,300	13,200
13	12,800	*13,000	12,500	14,700	14,200	12,800	19,400	11,300	14,800	11,000	10,700	12,200
14	14,500	13,900	12,200	12,900	14,000	12,700	19,400	12,300	15,400	10,100	11,500	9,720
15	13,800	15,000	11,700	13,100	13,500	13,200	19,300	13,800	14,600	10,100	11,100	12,400
16	14,800	15,500	12,800	13,000	11,300	12,000	19,400	13,600	14,600	10,600	11,400	18,000
17	12,300	15,200	13,200	12,700	14,600	16,200	16,600	11,300	14,700	10,500	9,190	19,200
18	11,900	15,800	13,800	15,200	14,600	16,800	15,800	*9,740	15,000	11,000	12,600	19,000
19	11,800	15,300	14,100	16,000	16,100	18,200	12,900	12,300	16,800	10,100	12,200	19,000
20	13,600	15,000	13,800	14,500	18,500	19,100	9,090	11,600	17,100	9,090	12,000	19,200
21	14,300	14,900	13,100	13,700	19,500	19,400	12,700	11,700	15,800	16,500	11,600	19,300
22	14,000	14,800	12,600	14,200	19,200	19,000	14,300	13,200	12,100	14,800	11,800	19,200
23	12,600	14,500	13,400	*13,600	18,900	19,300	14,900	15,500	16,300	*13,900	10,600	19,300
24	11,800	14,200	13,700	12,100	19,600	19,400	14,000	15,400	19,400	11,800	10,100	19,000
25	13,600	14,900	12,400	13,900	19,300	19,000	14,200	16,300	18,500	11,000	13,600	18,000
26	15,500	13,800	12,800	16,700	19,400	19,600	13,000	14,100	12,200	10,400	13,100	18,200
27	15,400	12,500	14,300	18,000	18,600	19,200	12,600	11,600	16,000	8,460	13,000	19,800
28	13,300	11,400	15,800	18,100	17,400	19,500	13,800	11,500	19,000	10,800	11,300	19,500
29	11,700	12,300	15,500	19,100	-	19,800	13,300	10,500	18,100	9,840	11,800	18,600
30	14,000	11,600	14,800	19,600	-------	20,000	12,900	10,400	15,400	9,610	12,200	16,600
31	14,700	-------	14,400	18,600	-------	20,300	-------	7,950	-------	8,960	12,300	-------
Total	401,810	417,500	399,700	459,800	479,200	518,800	518,990	343,560	465,650	337,090	333,940	480,020
Mean	12,960	13,920	12,890	14,830	17,110	16,740	17,300	11,080	15,520	10,870	10,770	16,000
Ac-ft	797,000	828,100	792,800	912,000	950,500	‡1,029	‡1,029	681,400	923,600	668,600	662,400	952,100

Calendar year 1958: Max 51,000 Min 1,050 Mean 20,080 Ac-ft 14,540,000
Water year 1958-59: Max 21,500 Min 5,000 Mean 14,130 Ac-ft 10,230,000

* Discharge measurement made on this day.
‡ Expressed in thousands.
a No gage-height record; discharge estimated on basis of records for stations below Pine Creek at Oxbow and near Anatone, Salmon River at White Bird, and records for nearby tributaries.
Note.--Stage-discharge relation affected by backwater from Imnaha River Apr. 3-8, 12-15, Apr. 23 to June 30.

2920. Imnaha River at Imnaha, Oreg.

Location.--Lat 45°34', long 116°50', in SW¼ sec.16, T.1 N., R.48 E., on left bank at Imnaha, three-eighths of a mile downstream from Big Sheep Creek.

Drainage area.--640 sq mi, approximately.

Records available.--June 1928 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,941.14 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Aug. 6, 1934, staff gage at site a quarter of a mile upstream at different datum.

Average discharge.--31 years, 495 cfs (358,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,790 cfs May 15 (gage height, 4.99 ft); minimum, 95 cfs Jan. 4 (gage height, 1.60 ft).
1928-59: Maximum discharge, 6,650 cfs May 19, 1957 (gage height, 6.80 ft); minimum observed, 16 cfs Nov. 22, 1931.

Remarks.--Records good October to January, excellent thereafter. Diversions for irrigation of about 4,000 acres above station. Since 1934, one diversion of less than 10 cfs above station for irrigation below station. Water is diverted from Big Sheep Creek and tributaries above station for irrigation of 6,500 acres in Wallowa River basin.

Revisions (water years).--WSP 883: 1938. WSP 1217: Drainage area. WSP 1397: 1929, 1932(M), 1949.

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

1.7	116	3.5	970
1.8	139	4.0	1,430
2.3	285	5.0	2,810
3.0	620		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	137	204	193	305	278	485	1,800	1,330	771	250	162
2	152	139	187	187	260	293	708	1,650	1,530	799	250	159
3	152	144	193	150	282	309	962	1,470	1,750	764	237	159
4	159	180	*223	120	293	305	1,090	1,360	1,770	792	231	159
5	159	193	190	200	260	297	1,080	1,240	1,900	708	228	172
6	156	185	196	250	271	297	1,390	1,110	2,200	674	228	190
7	156	321	204	254	250	293	1,180	1,030	2,020	674	224	190
8	162	250	207	254	237	285	994	1,090	1,730	*602	215	167
9	182	282	201	271	224	274	876	1,210	1,620	550	210	164
10	164	361	201	271	247	274	799	1,170	1,410	545	207	159
11	164	274	257	289	250	247	820	1,100	1,290	560	204	154
12	159	240	396	690	234	264	914	1,080	1,500	572	*198	149
13	154	244	309	*930	207	254	1,030	1,310	1,810	572	198	149
14	152	234	257	668	224	240	978	1,800	1,930	535	196	180
15	149	210	274	530	231	221	962	2,560	1,800	500	190	297
16	149	190	264	475	237	*237	855	2,160	1,650	495	187	*237
17	146	130	244	425	254	247	806	1,900	1,560	470	187	198
18	146	*180	237	388	240	285	743	1,870	1,560	450	180	185
19	180	234	234	365	244	309	694	1,670	1,660	425	182	271
20	180	264	228	353	247	293	680	1,480	1,800	410	228	285
21	162	250	234	317	247	305	736	1,380	1,870	396	224	260
22	154	228	234	325	257	305	869	1,330	1,700	378	207	244
23	152	221	204	313	271	309	1,030	1,400	1,530	357	187	224
24	149	218	221	349	271	*313	1,170	1,470	1,400	374	180	212
25	149	207	215	430	274	313	1,230	1,730	1,280	357	177	215
26	146	156	204	415	274	357	1,300	1,690	1,180	329	174	268
27	146	154	218	401	268	388	1,340	1,570	1,090	313	172	325
28	*144	130	210	392	264	401	1,210	1,430	986	301	169	305
29	142	180	201	357	-	420	*1,210	1,320	848	285	164	293
30	139	218	201	321	-------	430	1,520	1,280	785	278	164	293
31	137	-------	196	337	-------	460	-------	1,270	-------	271	162	-------
Total	4,793	6,354	7,044	11,220	7,123	9,503	29,661	45,930	46,489	15,507	6,210	6,425
Mean	155	212	227	362	254	307	989	1,482	1,550	500	200	214
Ac-ft	9,510	12,600	13,970	22,250	14,130	18,850	58,830	91,100	92,210	30,760	12,320	12,740

Calendar year 1958: Max 3,510 Min 120 Mean 667 Ac-ft 483,100
Water year 1958-59: Max 2,560 Min 120 Mean 538 Ac-ft 389,300

Peak discharge (base, 1,600 cfs, revised).--May 1 (6:30 p.m.) 1,870 cfs (4.38 ft); May 15 (12:30 p.m.) 2,790 cfs (4.99 ft); June 6 (6 a.m.) 2,320 cfs (4.70 ft); June 14 (3 a.m.) 2,110 cfs (4.56 ft).

* Discharge measurement made on this day.

2950. Valley Creek at Stanley, Idaho

Location.--Lat 44°13', long 114°56', in SW¼ sec.3, T.10 N., R.13 E., on left bank a quarter of a mile upstream from mouth, three-eighths of a mile downstream from upper Stanley, and three-quarters of a mile upstream from lower Stanley.

Drainage area.--147 sq mi.

Records available.--December 1910 to April 1911 (gage heights only), May 1911 to October 1913, May 1921 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 6,221.81 ft above mean sea level, datum of 1929. Prior to May 28, 1911, staff gage at site a quarter of a mile upstream and May 28, 1911, to Oct. 31, 1913, at site three-quarters of a mile upstream, at different datums. May 2, 1921, to Apr. 30, 1949, staff gage at present site and datum.

Average discharge.--40 years (1911-13, 1921-59), 198 cfs (143,300 acre-ft per year).

Extremes.--Maximum discharge during year, 910 cfs June 7 (gage height, 2.67 ft); minimum, 60 cfs Mar. 11 (gage height, 0.68 ft).
1910-13, 1921-59: Maximum discharge, 2,000 cfs May 24, 1956 (gage height, 3.92 ft); minimum, 40 cfs (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Remarks.--Records excellent. Diversions for irrigation of about 590 acres above station (1948 determination). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 362: 1911-12. WSP 1567: Drainage area.

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

Oct. 1 to Feb. 26		Feb. 27 to Sept. 30			
0.9	80	0.8	68	2.0	457
1.0	95	1.0	97	2.5	780
1.2	134	1.2	138	2.7	933
1.6	251	1.5	228		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	86	102	100	96	99	92	580	314	355	136	91
2	92	89	*104	94	94	94	131	474	360	341	131	89
3	92	94	124	90	108	97	156	384	420	337	125	89
4	92	146	128	90	99	89	179	365	468	327	120	86
5	90	119	108	99	97	91	198	341	543	314	114	99
6	90	128	111	104	97	92	211	323	708	309	110	112
7	90	251	117	108	94	95	185	332	871	300	106	106
8	100	188	113	104	92	89	173	360	758	288	105	101
9	102	194	111	104	95	87	151	380	687	258	103	99
10	97	185	109	102	94	91	154	332	606	239	97	97
11	95	144	148	102	95	83	176	314	543	236	94	95
12	94	124	191	108	97	91	218	346	573	239	94	95
13	92	130	132	119	99	89	*251	394	687	239	95	101
14	92	115	115	108	104	81	247	457	810	236	95	131
15	90	102	115	95	104	83	218	519	*841	228	94	182
16	90	111	119	104	100	89	185	549	758	221	87	134
17	92	94	117	100	102	87	191	496	701	*208	86	123
18	92	106	109	100	99	91	191	474	687	201	87	116
19	97	117	113	97	99	89	191	415	694	194	94	146
20	102	136	109	*95	95	83	208	370	722	188	110	161
21	94	139	111	88	95	86	239	346	758	176	114	154
22	95	130	109	95	99	91	258	327	780	170	108	138
23	95	124	106	97	99	89	262	323	744	161	*101	129
24	97	117	102	104	97	86	360	318	680	154	97	127
25	94	100	100	104	97	86	425	327	673	154	95	134
26	95	94	100	97	97	87	430	*346	758	151	95	164
27	*94	94	108	99	*94	83	341	327	625	146	92	185
28	90	94	102	99	95	87	300	360	543	141	91	159
29	89	97	94	94	-	89	365	337	452	134	92	143
30	86	100	106	89	------	89	474	300	389	129	91	141
31	86	------	100	97	------	87	------	292	------	127	89	------
Total	2,890	3,748	3,533	3,086	2,733	2,750	7,160	11,808	19,153	6,901	3,148	3,727
Mean	93.2	125	114	99.5	97.6	88.7	239	381	638	223	102	124
Cfsm	0.634	0.850	0.776	0.677	0.664	0.603	1.63	2.59	4.34	1.52	0.694	0.844
In.	0.73	0.95	0.89	0.78	0.69	0.70	1.82	2.99	4.84	1.75	0.80	0.94
Ac-ft	5,730	7,430	7,010	6,120	5,420	5,450	14,200	23,420	37,990	13,690	6,240	7,390

Calendar year 1958: Max 1,240 Min 69 Mean 221 Cfsm 1.50 In. 20.39 Ac-ft 160,000
Water year 1958-59: Max 671 Min 61 Mean 194 Cfsm 1.32 In. 17.88 Ac-ft 140,100

Peak discharge (base, 600 cfs).--May 1 (7:30 p.m.) 701 cfs (2.38 ft); June 7 (8 to 11 a.m.) 910 cfs (2.67 ft); June 15 (9 to 11 a.m.) 864 cfs (2.61 ft).

* Discharge measurement made on this day.

2955. Salmon River below Valley Creek, at Stanley, Idaho

Location.--Lat 44°14', long 114°55', in SE¼SE¼ sec.34, T.11 N., R.13 E., on left bank three-quarters of a mile downstream from Valley Creek and 1¼ miles northeast of upper Stanley.

Drainage area.--501 sq mi.

Records available.--July 1925 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 6,190.32 ft above mean sea level, datum of 1929. Prior to Oct. 13, 1925, staff gage at same site and datum.

Average discharge.--34 years, 667 cfs (482,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,800 cfs June 22 (gage height, 3.23 ft); minimum, 292 cfs Mar. 15, 20 (gage height, 0.90 ft).
1925-59: Maximum discharge, 5,070 cfs May 27, 1956 (gage height, 4.62 ft); minimum, 100 cfs (estimated) Nov. 20-30, 1929.

Remarks.--Records excellent. Diversions above station for irrigation of about 6,000 acres (1948 determination).

Revisions.--WSP 1567: Drainage area.

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

1.0	320	2.5	1,770
1.2	430	3.0	2,450
1.5	660	3.5	3,210
2.0	1,170		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376	376	*406	412	412	370	365	1,410	870	1,350	508	360
2	365	388	406	388	355	360	458	1,280	994	1,260	508	360
3	355	394	430	360	382	365	508	1,100	1,180	1,200	479	360
4	355	500	451	350	394	350	564	1,050	1,380	1,170	458	350
5	355	465	418	376	370	350	620	983	1,600	1,140	444	370
6	350	486	430	400	382	355	669	950	2,000	1,100	430	388
7	345	750	437	418	376	360	596	950	2,450	1,090	418	382
8	355	644	437	412	376	350	556	994	2,300	1,070	412	370
9	376	652	424	418	365	340	508	1,030	2,090	983	406	370
10	370	628	424	412	370	360	524	972	1,870	910	394	370
11	376	532	532	406	388	335	580	950	1,720	880	382	355
12	376	493	644	430	382	355	652	983	1,770	860	382	365
13	376	516	500	458	365	350	*760	1,080	2,100	850	382	370
14	376	508	451	406	360	335	741	1,280	2,540	860	394	437
15	376	465	451	382	370	335	687	1,470	*2,740	850	388	596
16	376	451	472	406	388	350	612	1,620	2,580	820	376	516
17	370	400	458	406	382	345	620	1,520	2,460	*800	365	493
18	365	412	437	406	382	355	620	1,440	2,440	790	376	472
19	394	465	437	394	388	345	628	1,290	2,460	750	376	540
20	412	508	430	*394	370	330	660	1,190	2,520	723	406	556
21	400	500	437	365	370	340	723	1,100	2,640	687	412	556
22	400	486	430	400	370	350	760	1,030	2,750	660	412	532
23	400	472	418	400	376	350	790	910	2,720	628	*394	508
24	406	458	412	424	370	335	910	860	2,580	612	388	500
25	394	424	412	412	370	335	1,090	870	2,480	596	388	516
26	400	400	412	400	365	345	1,160	*890	2,560	580	400	580
27	394	382	430	406	*355	335	1,020	890	2,270	564	388	620
28	*388	382	424	406	365	345	900	930	1,990	540	376	588
29	382	394	388	400	-	350	994	880	1,720	516	376	556
30	382	406	424	370	------	355	1,200	840	1,510	500	376	548
31	376	------	412	394	------	360	------	820	------	486	365	------
Total	11,721	14,337	13,674	12,411	10,498	10,795	21,475	33,562	63,284	25,825	12,559	13,884
Mean	378	478	441	400	375	348	716	1,083	2,109	833	405	463
Cfsm	0.754	0.954	0.880	0.798	0.749	0.695	1.43	2.16	4.21	1.66	0.808	0.924
In.	0.87	1.06	1.01	0.92	0.78	0.80	1.60	2.49	4.70	1.91	0.93	1.03
Ac-ft	23,250	28,440	27,120	24,620	20,820	21,410	42,600	66,570	125,500	51,220	24,910	27,540

Calendar year 1958: Max 4,280 Min 308 Mean 786 Cfsm 1.57 In. 21.29 Ac-ft 569,100
Water year 1958-59: Max 2,750 Min 330 Mean 669 Cfsm 1.34 In. 18.10 Ac-ft 484,000

Peak discharge (base, 1,700 cfs).--June 7 (11:30 a.m. to 3:30 p.m.) 2,510 cfs (3.04 ft); June 22 (9:30 a.m. to 12:30 p.m.) 2,800 cfs (3.23 ft).

* Discharge measurement made on this day.

2965. Salmon River below Yankee Fork, near Clayton, Idaho

Location.--Lat 44°16', long 114°44', in sec.20, T.11 N., R.15 E., on left bank a quarter of a mile downstream from Sunbeam Dam and Yankee Fork and 18 miles upstream from Clayton.

Drainage area.--802 sq mi.

Records available.--October 1921 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,900 ft (by barometer). Prior to Oct. 3, 1926, staff gage at site 200 ft downstream at datum approximately 1.5 ft higher. Oct. 3, 1926, to Sept. 2, 1927, staff gage and Sept. 3, 1927, to Nov. 5, 1934, water-stage recorder, at site 200 ft downstream at approximately present datum.

Average discharge.--38 years, 989 cfs (716,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,770 cfs June 15 (gage height, 7.81 ft); minimum, 329 cfs Jan. 4 (gage height, 1.82 ft).
1921-59: Maximum discharge, 10,300 cfs May 24, 1956 (gage height, 11.60 ft); minimum, 160 cfs (estimated) Nov. 25-30, 1929.

Remarks.--Records excellent. Diversions above station for irrigation of about 6,000 acres (1948 determination).

Revisions (water years).--WSP 1347: 1931. WSP 1567: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 22 to Dec. 17, May 11 to June 7, Aug. 19-24)

2.0	378	5.0	2,090
2.5	590	6.0	2,910
3.0	820	7.0	3,830
4.0	1,380	8.0	4,880

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	504	458	556	517	466	466	462	2,140	1,650	1,940	716	491
2	496	470	*556	487	412	449	599	2,000	2,010	1,820	734	487
3	491	491	594	424	445	462	725	1,670	2,440	1,750	680	479
4	487	612	635	403	466	424	865	1,570	2,740	1,690	648	470
5	487	577	556	458	433	428	976	1,480	3,170	1,620	626	491
6	479	594	594	496	458	445	1,110	1,400	3,910	1,570	612	521
7	458	935	604	508	462	462	965	1,420	4,540	1,550	599	508
8	483	810	594	500	445	433	895	1,540	4,140	1,500	581	487
9	517	860	586	500	428	412	790	1,700	3,720	1,370	573	475
10	500	855	577	496	449	454	780	1,600	3,370	1,290	556	479
11	491	720	694	496	466	412	835	1,510	3,140	1,240	547	454
12	487	653	885	517	470	449	976	1,560	3,370	1,210	543	445
13	479	698	662	573	445	445	*1,130	1,850	4,010	1,190	547	458
14	470	684	581	504	437	403	1,150	2,380	4,590	1,180	547	513
15	466	577	581	454	454	399	1,090	2,700	*4,680	1,170	538	800
16	462	590	630	504	475	437	960	2,860	4,340	1,130	530	648
17	458	513	617	500	475	441	920	2,590	4,180	*1,080	517	608
18	458	547	581	491	475	454	900	2,370	4,050	1,060	526	577
19	483	635	581	479	479	437	870	2,110	4,050	1,020	534	648
20	513	684	564	*462	466	399	895	1,910	4,040	982	581	702
21	487	684	568	412	449	428	950	1,780	4,110	958	590	712
22	491	658	564	475	458	449	1,040	1,700	4,110	910	*586	662
23	504	635	538	475	470	454	1,060	1,600	3,920	885	560	635
24	504	617	526	508	462	433	1,170	1,560	3,650	865	547	608
25	491	551	534	504	458	441	1,480	*1,580	3,500	845	538	626
26	491	508	517	470	458	449	1,660	1,660	3,490	815	543	689
27	487	504	551	491	*441	437	1,480	1,620	3,130	805	530	780
28	*475	508	543	491	454	449	1,280	1,650	2,780	770	513	730
29	466	547	479	483	-	454	1,370	1,580	2,420	738	517	676
30	449	560	538	424	------	454	1,750	1,490	2,160	712	508	653
31	449	------	521	475	------	454	------	1,480	------	689	496	------
Total	14,963	18,735	18,107	14,977	12,756	13,613	31,133	56,060	105,410	36,354	17,663	17,512
Mean	483	624	584	483	456	439	1,038	1,808	3,514	1,173	570	584
Cfsm	0.602	0.778	0.728	0.602	0.569	0.547	1.29	2.25	4.38	1.46	0.711	0.728
In.	0.69	0.87	0.84	0.69	0.59	0.63	1.44	2.59	4.89	1.68	0.82	0.81
Ac-ft	29,680	37,160	35,910	29,710	25,300	27,000	61,750	111,200	209,100	72,110	35,030	34,730

Calendar year 1958: Max 7,050 Min 428 Mean 1,151 Cfsm 1.44 In. 19.48 Ac-ft 833,500
Water year 1958-59: Max 4,680 Min 399 Mean 979 Cfsm 1.22 In. 16.54 Ac-ft 708,700

Peak discharge (base, 2,350 cfs).--May 16 (5:30 a.m.) 2,930 cfs (5.92 ft); June 7 (8 a.m.) 4,660 cfs (7.70 ft); June 15 (12:30 a.m.) 4,770 cfs (7.81 ft).

* Discharge measurement made on this day.

2985. Salmon River near Challis, Idaho

Location.--Lat 44°23', long 114°15', in sec.7, T.12 N., R.19 E., on left bank 250 ft downstream from Bayhorse Creek and 9 miles south of Challis.

Drainage area.--1,800 sq mi, approximately.

Records available.--October 1928 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,163.99 ft above mean sea level, datum of 1929.

Average discharge.--31 years, 1,457 cfs (1,055,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,210 cfs June 15 (gage height, 7.30 ft); minimum, 232 cfs Jan. 4 (gage height, 1.08 ft).
1928-59: Maximum discharge, 15,400 cfs May 25, 1956 (gage height, 10.95 ft); minimum, 160 cfs Dec. 14, 1940.

Remarks.--Records excellent. No regulation. Diversions for irrigation of about 10,000 acres above station (1948 determination).

Revisions.--WSP 1043: Drainage area.

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

1.3	301	4.0	2,140
1.6	416	5.0	3,470
2.0	600	6.0	4,990
2.5	880	7.2	7,030
3.0	1,210		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	814	740	814	745	668	663	647	2,580	2,020	2,940	1,090	745
2	803	762	797	690	542	652	814	2,590	2,470	2,740	1,140	740
3	797	779	*808	542	576	642	1,020	2,140	3,120	2,650	1,090	734
4	791	856	892	326	717	595	1,130	1,950	3,640	2,560	1,040	723
5	791	923	785	446	636	585	1,260	1,820	4,240	2,440	1,010	723
6	791	874	826	636	695	610	1,450	1,720	5,360	2,360	968	785
7	768	1,130	832	745	684	631	1,320	1,710	6,480	2,310	942	785
8	774	1,120	838	728	642	595	1,210	1,810	5,900	2,260	911	745
9	838	1,150	814	745	513	571	1,090	2,070	5,260	2,060	892	717
10	814	1,150	808	779	561	600	1,060	2,000	4,750	1,930	862	723
11	803	1,050	892	774	674	566	1,070	1,870	4,420	1,890	844	712
12	797	930	1,160	768	616	616	*1,180	1,870	4,720	1,860	838	690
13	785	961	974	844	571	631	1,340	2,190	5,990	1,830	826	701
14	779	968	785	756	561	566	1,420	2,940	6,870	1,830	820	751
15	774	856	779	605	745	542	1,420	3,370	*6,990	1,790	808	1,340
16	762	779	886	768	695	616	1,270	3,780	6,380	1,750	791	1,170
17	762	652	886	751	701	647	1,200	3,440	6,180	*1,690	779	1,050
18	751	701	832	745	690	668	1,170	3,130	5,990	1,650	779	993
19	762	905	832	*717	701	631	1,130	2,810	6,040	1,580	779	1,000
20	814	942	808	695	674	566	1,110	2,550	5,970	1,520	826	1,090
21	791	948	803	500	631	610	1,150	2,310	6,110	1,470	832	1,100
22	791	923	808	636	642	647	1,240	2,190	6,230	1,400	*950	1,050
23	808	892	779	756	657	647	1,290	2,040	5,870	1,350	826	1,010
24	814	874	728	770	642	626	1,310	1,980	5,450	1,310	803	987
25	803	808	774	808	636	621	1,690	*1,980	5,150	1,300	791	980
26	797	674	745	706	631	642	1,960	2,070	5,250	1,250	808	1,030
27	797	631	779	723	*616	621	1,880	2,040	4,580	1,230	791	1,180
28	*785	626	768	745	616	636	1,600	2,040	4,070	1,180	774	1,130
29	762	712	690	706	-	642	1,560	2,000	3,620	1,130	774	1,080
30	745	791	745	600	------	636	1,960	1,890	3,260	1,100	762	1,050
31	740	------	756	647	------	642	------	1,840	------	1,070	756	------
Total	24,403	26,107	25,423	21,411	17,933	19,163	38,951	70,720	152,380	55,430	26,802	27,514
Mean	787	870	820	691	640	618	1,298	2,281	5,079	1,788	865	917
Cfsm	0.437	0.483	0.456	0.384	0.356	0.343	0.721	1.27	2.82	0.993	0.481	0.509
In.	0.50	0.54	0.53	0.44	0.37	0.40	0.80	1.46	3.15	1.14	0.55	0.57
Ac-ft	48,400	51,780	50,430	42,470	35,570	38,010	77,260	140,300	302,200	109,900	53,160	54,570

Calendar year 1958: Max 11,100 Min 434 Mean 1,756 Cfsm 0.976 In. 13.22 Ac-ft 1,271,000
Water year 1958-59: Max 6,990 Min 326 Mean 1,387 Cfsm 0.771 In. 10.45 Ac-ft 1,004,000

* Discharge measurement made on this day.

2990. Challis Creek near Challis, Idaho

Location.--Lat 44°34', long 114°19', in sec.2, T.14 N., R.18 E., on left bank 0.1 mile downstream from Eddy Creek, 6 miles northwest of Challis, and 6¾ miles upstream from mouth.

Drainage area.--85 sq mi, approximately.

Records available.--October 1943 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,369.3 ft (levels by Topographic Division). Prior to Sept. 27, 1944, staff gage and Sept. 27, 1944, to Nov. 10, 1948, water-stage recorder, at site 350 ft downstream at datum 0.64 ft lower. Nov. 11, 1948, to Aug. 11, 1956, water-stage recorder at present site at datum 0.64 ft lower.

Average discharge.--16 years, 46.1 cfs (33,380 acre-ft per year).

Extremes.--Maximum discharge during year, 210 cfs June 15, 16 (gage height, 3.97 ft); minimum, 8.0 cfs Mar. 11 (gage height, 2.40 ft), but may have been less during period of ice effect.
1943-59: Maximum discharge, 508 cfs June 1, 1956; maximum gage height, 6.30 ft May 24, 1956; minimum discharge, 5.7 cfs Mar. 11, 29, 1950.

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

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

Oct. 1 to Apr. 1		Apr. 2 to Sept. 30	
2.5	10	2.6	22
2.6	16	2.8	35
2.7	22	3.0	54
2.8	29	3.5	121
		4.0	220

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	17	b21	18	b14	17	22	50	54	97	50	34
2	21	18	20	b16	b14	17	32	51	60	93	50	35
3	21	18	*21	b14	b15	16	30	49	72	86	48	34
4	21	19	20	b12	b16	b15	33	47	83	83	47	34
5	20	18	b19	b15	b16	b15	34	45	98	78	46	35
6	20	18	20	b18	b15	b15	36	41	123	77	45	36
7	20	20	20	b17	b16	b15	31	41	149	77	44	36
8	22	19	19	b17	b14	b14	28	42	137	74	43	35
9	22	18	19	b18	b13	b15	*29	45	132	69	43	35
10	22	19	18	18	b14	15	29	47	125	68	41	34
11	21	17	22	17	b15	b14	30	47	*119	64	40	30
12	20	b16	24	18	b13	16	30	47	125	63	41	28
13	20	18	20	17	b13	16	32	52	139	63	41	27
14	20	18	b17	17	b13	16	33	61	159	*62	40	30
15	20	14	b19	b17	b16	b16	33	69	201	59	40	34
16	19	b13	b18	*b17	b16	17	33	79	201	56	39	30
17	20	b14	19	17	b15	18	32	78	193	55	38	29
18	19	21	18	17	b15	18	31	77	181	54	38	29
19	18	23	18	17	b15	17	30	73	177	52	*40	28
20	19	20	18	16	b15	14	27	69	173	50	40	28
21	18	18	18	b14	b14	17	26	66	167	49	40	28
22	19	19	18	b16	b14	17	25	61	159	46	40	28
23	19	19	b14	17	b14	17	26	59	151	49	40	28
24	20	19	b17	18	b14	17	28	57	143	50	40	27
25	19	18	b17	17	b14	17	32	*56	139	49	40	26
26	19	b16	b17	17	*b14	18	33	59	137	48	39	28
27	18	b15	b16	16	b15	18	39	59	130	49	38	29
28	*18	b16	b17	16	16	18	40	57	119	48	37	28
29	18	b18	b16	16	-	18	41	56	115	51	37	28
30	17	b20	b18	b14	------	18	45	52	105	50	35	28
31	17	------	19	b13	------	18	------	52	------	49	34	------
Total	608	536	577	507	408	509	950	1,744	4,066	1,920	1,274	919
Mean	19.6	17.9	18.6	16.4	14.6	16.4	31.7	56.3	136	61.9	41.1	30.6
Ac-ft	1,210	1,060	1,140	1,010	809	1,010	1,880	3,460	8,060	3,810	2,530	1,820

Calendar year 1958: Max 426 Min 9.8 Mean 52.2 Ac-ft 37,760
Water year 1958-59: Max 201 Min 12 Mean 38.4 Ac-ft 27,800

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

3020. Pahsimeroi River near May, Idaho

Location.--Lat 44°42', long 114°03', in W½ sec.25, T.16 N., R.20 E., on right bank a quarter of a mile downstream from old highway bridge on Challis-Salmon River highway, a quarter of a mile upstream from mouth, and 10 miles northwest of May.

Drainage area.--845 sq mi, approximately.

Records available.--October 1929 to September 1959 (discontinued). Monthly discharge only for October 1929, published in WSP 1317.

Gage.--Staff gage read once daily. Datum of gage is 4,636.95 ft above mean sea level, adjustment of 1912.

Average discharge.--30 years, 212 cfs (153,500 acre-ft per year).

Extremes.--Maximum discharge observed during year, 436 cfs Dec. 12 (gage height, 2.88 ft); minimum observed, 92 cfs May 9, 11, 15 (gage height, 1.75 ft).
1929-59: Maximum discharge observed, 796 cfs June 8, 1957; maximum gage height observed, 4.37 ft May 25, 1956 (backwater from Salmon River); minimum discharge observed, 74 cfs May 19, 1955 (gage height, 1.66 ft).

Remarks.--Records good. Diversions for irrigation of about 12,500 acres above station.

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

1.7	81	2.2	187
1.8	97	2.5	281
2.0	136	3.0	490

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	228	281	338	342	311	334	285	121	132	182	163	153
2	254	281	362	342	311	326	288	106	130	179	165	155
3	250	278	*362	318	311	318	292	104	132	174	163	160
4	250	281	371	296	311	314	285	108	132	171	155	163
5	254	285	371	274	311	314	274	104	132	174	150	160
6	257	281	375	274	307	311	264	101	130	171	146	160
7	264	285	366	274	307	311	261	102	148	168	148	160
8	267	285	358	278	307	311	254	99	143	163	150	160
9	271	288	354	292	307	318	238	92	134	163	148	160
10	271	288	350	303	307	314	*228	95	134	163	148	163
11	274	288	375	314	307	311	228	92	*141	160	148	163
12	274	288	436	350	307	311	228	94	134	160	150	163
13	278	292	379	346	307	314	232	95	132	160	148	165
14	285	296	362	330	303	314	232	99	132	*158	148	196
15	271	296	354	330	307	311	219	92	128	165	150	202
16	267	296	346	*330	322	311	219	110	128	163	150	187
17	271	292	346	330	338	311	213	108	130	160	150	190
18	274	292	342	330	342	307	196	113	130	163	150	193
19	271	303	342	330	338	300	187	117	132	171	*153	193
20	271	346	346	330	338	303	176	119	132	168	158	199
21	281	346	354	326	330	300	179	*121	141	163	160	228
22	285	346	350	326	318	300	182	119	141	163	158	225
23	285	354	350	311	318	303	182	119	134	163	155	228
24	288	362	346	318	314	303	179	123	134	176	155	228
25	288	366	346	322	314	307	174	126	150	193	155	247
26	281	358	346	318	*318	307	174	126	160	174	155	278
27	278	350	342	322	318	300	163	126	165	163	155	288
28	278	346	342	322	322	296	160	130	174	158	150	285
29	*271	326	338	318	-	292	143	130	184	160	148	281
30	274	334	338	318	-------	285	132	130	176	160	150	274
31	278	-------	346	311	-------	288	-------	132	-------	163	153	-------
Total	8,389	9,310	11,033	9,825	8,851	9,545	6,467	3,453	4,225	5,172	4,735	6,007
Mean	271	310	356	317	316	308	216	111	141	167	153	200
Ac-ft	16,640	18,470	21,880	19,490	17,560	18,930	12,830	6,850	8,380	10,260	9,390	11,910

Calendar year 1958: Max 436 Min 89 Mean 258 Ac-ft 186,500
Water year 1958-59: Max 436 Min 92 Mean 238 Ac-ft 172,600

* Discharge measurement made on this day.

3025. Salmon River at Salmon, Idaho

Location.--Lat 45°11'00", long 113°53'40", in NE¼ sec.6, T.21 N., R.22 E., on left bank 1,000 ft downstream from island, 0.4 mile upstream from Lemhi River, and 0.5 mile downstream from highway bridge at Salmon.

Drainage area.--3,760 sq mi, approximately.

Records available.--April 1912 to September 1916, July 1919 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,911.14 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Oct. 21, 1929, staff gage at site 700 ft upstream at different datum.

Average discharge.--44 years, 1,925 cfs (1,394,000 acre-ft per year).

Extremes.--Maximum discharge during year, 8,460 cfs June 15 (gage height, 5.94 ft); minimum daily, 700 cfs Jan. 5; minimum gage height, 1.70 ft Jan. 5.
1912-16, 1919-59: Maximum discharge, 16,500 cfs May 25, 1956 (gage height, 8.25 ft); maximum gage height, 9.62 ft Jan. 8, 1942 (ice jam); minimum discharge, 242 cfs Jan. 8, 1937 (gage height, 1.50 ft).

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

Revisions (water years).--WSP 1043: Drainage area. WSP 1317: 1916.

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

1.6	690	3.5	2,190
2.0	870	4.0	3,000
2.5	1,180	5.0	5,510
3.0	1,620	6.0	8,660

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	1,270	1,450	1,350	1,220	1,210	1,120	2,290	2,180	3,520	1,310	1,000
2	1,190	1,270	1,480	1,300	1,190	1,240	1,240	2,830	2,360	3,280	1,350	1,010
3	1,170	1,280	1,470	b1,000	1,090	1,180	1,500	2,640	2,940	3,100	1,360	1,010
4	1,180	1,310	*1,480	b850	1,170	1,150	1,560	2,270	3,680	3,000	1,310	1,010
5	1,190	1,380	1,490	b700	1,270	1,100	1,750	2,120	4,250	2,870	1,240	1,020
6	1,200	1,420	1,410	968	1,180	1,100	1,830	1,980	5,390	2,690	1,200	1,020
7	1,200	1,440	1,470	1,240	1,240	1,130	1,940	1,860	7,360	2,640	1,170	1,050
8	1,210	1,710	1,480	1,290	1,210	1,140	1,780	1,850	7,520	2,610	1,160	1,050
9	1,240	1,670	1,450	1,280	1,150	1,100	1,650	1,980	6,540	2,480	1,120	1,000
10	1,290	1,710	1,430	1,320	1,050	1,090	1,520	2,180	5,900	2,330	1,100	986
11	1,280	1,690	1,480	1,360	1,150	1,100	1,480	2,070	*5,340	2,250	1,070	992
12	1,250	1,560	1,680	1,360	1,210	1,090	*1,520	1,980	5,130	2,190	1,060	992
13	1,240	1,480	1,860	1,370	1,120	1,140	1,670	2,050	6,020	2,140	1,050	992
14	1,240	1,540	1,570	1,390	1,100	1,120	1,810	2,510	7,580	2,100	1,050	1,030
15	1,240	1,530	1,500	*1,300	1,120	1,070	1,850	3,460	8,200	*2,070	1,040	1,200
16	1,240	1,390	1,430	1,210	1,270	1,070	1,810	4,000	7,870	2,010	1,020	1,670
17	1,230	1,330	1,520	1,320	1,320	1,170	1,650	4,150	7,100	1,980	1,000	1,530
18	1,240	1,240	1,490	1,290	1,290	1,220	1,570	3,800	6,790	1,950	998	1,440
19	1,240	1,370	1,460	1,290	1,290	1,200	1,520	3,460	6,540	1,870	1,000	1,380
20	1,240	1,540	1,440	1,260	1,280	1,130	1,440	3,160	6,480	1,810	*1,020	1,430
21	1,310	1,560	1,410	1,150	1,230	1,080	1,410	*2,850	6,480	1,750	1,030	1,540
22	1,320	1,580	1,410	1,040	1,180	1,120	1,470	2,660	6,610	1,680	1,050	1,550
23	1,340	1,560	1,410	1,230	1,200	1,170	1,580	2,510	6,390	1,620	1,050	1,500
24	1,350	1,540	1,350	1,430	1,210	1,170	1,600	2,390	5,930	1,540	1,040	1,470
25	1,360	1,510	1,350	1,450	1,190	1,130	1,660	2,380	5,480	1,540	1,030	1,470
26	1,340	1,420	1,360	1,370	*1,180	1,140	1,960	2,420	5,690	1,560	1,040	1,500
27	1,320	1,330	1,340	1,280	1,170	1,140	2,180	2,440	5,360	1,530	1,040	1,580
28	1,310	1,310	1,380	1,310	1,150	1,130	2,010	2,450	4,790	1,460	1,020	1,690
29	*1,290	1,300	1,330	1,300	-	1,130	1,850	2,450	4,300	1,390	1,010	1,650
30	1,280	1,380	1,280	1,240	-------	1,120	1,870	2,330	3,850	1,360	1,010	1,600
31	1,260	-------	1,330	1,150	-------	1,120	-------	2,200	-------	1,320	1,010	-------
Total	38,990	43,620	44,990	38,398	33,430	35,200	49,800	79,720	170,050	65,640	33,958	38,362
Mean	1,258	1,454	1,451	1,239	1,194	1,135	1,660	2,572	5,668	2,117	1,095	1,279
Ac-ft	77,340	86,520	89,240	76,160	66,310	69,820	98,780	158,100	337,300	130,200	67,350	76,090

Calendar year 1958: Max 12,800 Min 800 Mean 2,278 Ac-ft 1,649,000
Water year 1958-59: Max 8,200 Min 700 Mean 1,842 Ac-ft 1,333,000

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

3030. Texas Creek near Leadore, Idaho

Location.--Lat 44°35', long 113°20', in NW¼SW¼ sec.35, T.15 N., R.26 E., on right bank 50 ft downstream from Nez Perce Creek, half a mile upstream from county road bridge, and 6½ miles south of Leadore.

Drainage area.--73 sq mi, approximately.

Records available.--June 1955 to September 1959. November 1938 to July 1939 at site half a mile downstream not equivalent owing to diversions.

Gage.--Water-stage recorder. Altitude of gage is 6,280 ft (by barometer). November 1938 to July 1939, staff gage at site half a mile downstream at different datum.

Extremes.--Maximum daily discharge during year, 44 cfs Apr. 2 (gage height not recorded); maximum gage height recorded, 3.84 ft Nov. 18 (ice jam); minimum discharge, 5.2 cfs Aug. 5 (gage height, 2.80 ft).
1938-39, 1955-59: Maximum discharge, 116 cfs Mar. 25, 1956 (gage height, 3.94 ft), from rating curve extended above 50 cfs by logarithmic plotting; maximum gage height, 4.38 ft Jan. 31, Feb. 1, 1957 (ice jam); minimum discharge, 4.3 cfs Aug. 31, 1955 (gage height, 2.72 ft).

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

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

2.7	4.0	3.0	20
2.8	7.0	3.2	36
2.9	13	3.5	64

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	*29	33	b28	24	33	32	24	9.4	15	11	14
2	22	31	33	b25	24	32	44	26	8.2	12	12	15
3	22	30	37	22	23	31	39	28	8.8	12	11	14
4	21	29	*33	20	23	31	38	26	8.8	13	6.4	12
5	21	27	b28	23	22	31	38	23	8.2	14	5.8	13
6	21	27	32	25	25	32	41	22	11	12	5.8	16
7	20	36	32	27	27	32	34	20	19	13	6.7	15
8	22	36	32	27	26	31	*31	19	14	11	8.8	13
9	26	35	30	27	22	30	31	20	12	11	7.6	14
10	27	36	29	27	25	31	30	20	11	9.4	11	15
11	26	32	33	27	25	28	32	19	*12	10	12	16
12	26	31	34	29	25	31	32	17	12	12	11	16
13	26	32	b28	31	22	31	32	*12	13	12	11	14
14	25	34	b22	29	22	29	28	11	14	12	11	19
15	25	b30	b23	*25	26	28	25	12	16	*11	12	20
16	26	b27	b25	25	28	30	24	14	19	10	13	16
17	27	b26	b27	25	29	31	26	16	17	9.4	13	16
18	26	b27	30	26	29	32	26	16	16	9.4	14	16
19	27	b31	30	26	30	31	24	22	19	10	*14	14
20	28	34	30	25	31	26	24	21	17	10	16	18
21	29	38	30	b21	31	29	25	14	14	10	14	20
22	30	37	30	b24	31	31	25	13	12	9.4	13	18
23	30	34	b25	b25	30	32	24	12	11	9.4	12	18
24	30	34	26	b27	29	32	26	12	12	11	11	18
25	30	b30	28	26	*30	32	26	12	14	12	10	21
26	30	b26	b26	26	30	32	26	13	22	14	10	26
27	30	b23	b25	26	30	31	24	15	18	14	7.6	30
28	30	b25	b25	27	31	31	22	17	16	12	8.2	30
29	29	27	b21	26	-	31	22	13	27	13	11	29
30	28	30	b22	25	-------	30	22	12	22	11	12	29
31	28	-------	b26	24	-------	31	-------	11	-------	10	13	-------
Total	809	924	885	796	750	953	873	532	433.4	354.0	334.9	545
Mean	26.1	30.8	28.5	25.7	26.8	30.7	29.1	17.2	14.4	11.4	10.8	18.2
Ac-ft	1,600	1,830	1,760	1,580	1,490	1,890	1,730	1,060	860	702	664	1,080

Calendar year 1958: Max 51 Min 7.0 Mean 25.5 Ac-ft 18,450
Water year 1958-59: Max 44 Min 5.8 Mean 22.4 Ac-ft 16,250

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 3-15, Jan. 27 to Feb. 24, Mar. 2 to Apr. 8; discharge estimated on basis of weather records and records for Lemhi River near Lemhi.

3050. Lemhi River near Lemhi, Idaho

Location.--Lat 44°55', long 113°37', in sec.4, T.18 N., R.24 E., near center of span on downstream side of private bridge on Langfitt Ranch, 3½ miles downstream from Hayden Creek and 4½ miles north of Lemhi.

Drainage area.--890 sq mi, approximately.

Records available.--November 1938 to August 1939, April 1955 to September 1959.

Gage.--Staff gage read once daily; crest-stage indicator since Apr. 29, 1955. Datum of gage is 4,971.7 ft above mean sea level, adjustment of 1929 (levels by Corps of Engineers).

Extremes.--Maximum discharge during year, 646 cfs June 26 (gage height, 2.67 ft); minimum observed, 92 cfs May 13, June 1 (gage height, 1.38 ft).
1938-39, 1955-59: Maximum discharge, 1,840 cfs June 7, 1957 (gage height, 4.48 ft); minimum observed, that of May 31, June 1, 1959; minimum gage height observed, 1.38 ft Aug. 13, 14, 16, 17, 1958, May 31, June 1, 1959.

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

Revisions (water years).--WSP 1397: 1939.

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

1.3	78	2.0	306
1.5	121	2.5	555
1.7	186	2.7	670

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	190	260	236	228	b210	252	256	224	92	440	179	145
2	197	260	236	213	b205	252	360	232	121	380	182	151
3	197	268	252	b200	b202	252	328	232	165	370	182	151
4	216	268	*268	b180	b205	244	328	232	190	360	176	139
5	224	268	236	b205	182	244	319	216	256	341	168	151
6	216	268	244	b210	220	256	337	209	365	324	162	172
7	201	268	244	213	228	248	277	209	522	315	154	172
8	190	277	260	213	228	240	256	216	470	298	142	179
9	190	277	252	213	b190	224	232	194	410	289	130	151
10	197	277	244	220	b210	248	*248	194	400	268	124	158
11	197	277	252	220	b210	224	240	186	*360	244	114	158
12	197	260	302	228	b210	252	248	165	420	244	108	165
13	201	277	277	244	b195	252	248	158	544	252	108	172
14	201	277	220	236	b195	228	232	158	634	252	111	179
15	209	268	220	*213	b220	220	240	172	634	*240	116	209
16	216	236	228	228	232	236	232	209	588	228	106	240
17	213	220	236	220	232	256	224	186	538	205	101	232
18	205	b220	244	228	240	264	224	186	516	213	111	224
19	205	b230	244	228	248	256	224	186	594	205	*111	240
20	213	252	252	b218	248	216	216	179	616	197	116	248
21	197	260	252	b200	232	240	209	*151	628	194	121	256
22	209	260	252	b215	232	264	216	145	640	194	121	315
23	256	260	220	220	240	260	216	139	582	186	127	306
24	264	260	236	220	240	260	216	127	550	172	127	306
25	264	252	228	244	232	252	224	133	506	179	133	298
26	264	213	220	228	*232	252	240	106	652	186	139	306
27	260	b210	228	228	240	244	224	106	550	186	139	306
28	260	b215	228	236	240	256	216	101	511	179	133	298
29	*260	228	190	220	-	256	205	96	500	172	127	289
30	260	236	228	b210	-------	240	209	96	470	172	121	298
31	260	-------	228	b208	-------	248	-------	92	-------	165	127	-------
Total	6,829	7,602	7,457	6,787	6,198	7,636	7,444	5,235	14,024	7,650	4,116	6,614
Mean	220	253	241	219	221	246	248	169	467	247	133	220
Ac-ft	13,550	15,080	14,790	13,460	12,290	15,150	14,760	10,380	27,820	15,170	8,160	13,120

Calendar year 1958: Max 891 Min 112 Mean 281 Ac-ft 203,200
Water year 1958-59: Max 652 Min 92 Mean 240 Ac-ft 173,700

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

3065. Panther Creek near Shoup, Idaho

Location.--Lat 45°19', long 114°23', in sec.19, T.23 N., R.18 E., on left bank 25 ft downstream from bridge on private road, 1 mile upstream from mouth, and 7 miles southwest of Shoup.

Drainage area.--529 sq mi.

Records available.--October 1944 to September 1959.

Gage.--Staff gage read once daily. Altitude of gage is 3,280 ft (from river-profile map).

Average discharge.--15 years, 256 cfs (185,300 acre-ft per year).

Extremes.--Maximum discharge observed during year, 1,960 cfs June 10 (gage height, 3.60 ft); minimum daily, 22 cfs Nov. 17 (gage height, -0.37 ft).
1944-59: Maximum discharge observed, 2,740 cfs May 25, 1956 (gage height, 4.30 ft); maximum gage height observed, 4.4 ft Jan. 6, 1947 (backwater from ice); minimum discharge observed, that of Nov. 17, 1958.

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 1,000 acres above station (1950 determination).

Revisions (water years).--WSP 1063: 1945.

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

-0.4	20	0.4	106	2.0	715
-.3	24	.8	198	2.5	1,030
-.1	36	1.2	326	3.0	1,410
.1	56	1.6	495	4.0	2,300

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a85	95	b130	95	52	80	95	294	467	516	148	106
2	a85	91	b150	80	52	84	162	297	574	467	141	102
3	a87	91	b150	b70	91	80	167	304	640	467	137	98
4	a87	95	133	b50	89	80	182	297	804	458	133	95
5	87	100	*93	b65	93	77	209	270	1,060	431	133	91
6	84	108	85	b80	82	87	238	244	1,140	380	128	110
7	84	108	112	b85	78	87	209	232	1,450	372	128	106
8	84	104	104	b85	82	75	170	244	1,650	356	124	102
9	80	116	96	b90	53	78	137	256	1,880	341	124	98
10	102	128	96	b90	b70	75	146	283	1,880	304	120	98
11	100	124	133	91	b80	69	*150	276	1,170	297	120	95
12	96	124	155	91	b70	78	155	356	*1,120	283	116	95
13	93	120	165	87	b70	82	180	458	1,210	276	116	98
14	89	116	60	*87	b70	82	185	490	1,530	270	112	102
15	89	112	b80	77	b90	78	185	646	1,530	*256	112	124
16	85	57	b120	80	91	84	180	797	1,490	250	112	104
17	85	22	b110	77	84	91	175	738	1,290	238	108	104
18	85	b50	b120	84	80	98	180	657	1,210	220	104	100
19	93	b130	112	82	84	102	165	590	1,140	209	108	100
20	96	b130	93	78	85	98	160	569	1,060	209	*133	100
21	93	b120	93	35	85	95	150	486	1,060	198	128	96
22	93	126	96	b70	82	91	155	*467	996	188	124	100
23	95	126	78	b90	85	87	155	458	866	182	116	96
24	98	122	75	b100	85	82	155	467	744	177	112	104
25	98	122	78	93	*85	82	160	477	629	172	108	104
26	91	59	80	93	85	85	206	467	686	182	108	100
27	91	b55	78	87	82	85	235	458	744	177	112	128
28	91	b60	b78	84	85	89	212	467	563	172	108	124
29	*91	b70	b75	84	-	96	229	477	623	162	106	120
30	91	b100	b80	64	------	93	266	458	635	158	102	116
31	95	------	b85	52	------	93	------	440	------	153	102	------
Total	2,803	2,981	3,193	2,476	2,220	2,643	5,353	13,420	31,841	8,521	3,683	3,116
Mean	90.4	99.4	103	79.9	79.3	85.3	178	433	1,061	275	119	104
Cfsm	0.171	0.188	0.195	0.151	0.150	0.161	0.336	0.819	2.01	0.520	0.225	0.197
In.	0.20	0.21	0.22	0.17	0.16	0.19	0.38	0.94	2.24	0.60	0.26	0.22
Ac-ft	5,560	5,910	6,330	4,910	4,400	5,240	10,620	26,620	63,160	16,900	7,310	6,180

Calendar year 1958: Max 1,900 Min 22 Mean 246 Cfsm 0.465 In. 6.33 Ac-ft 178,400
Water year 1958-59: Max 1,880 Min 22 Mean 225 Cfsm 0.425 In. 5.79 Ac-ft 163,100

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for adjacent periods.
b Stage-discharge relation affected by ice.

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3070. Salmon River near Shoup, Idaho

Location.--Lat 45°19'30", long 114°26'00", in NE¼SW¼ sec.14, T.23 N., R.17 E., on right bank 0.6 mile upstream from Owl Creek, 2.3 miles downstream from Panther Creek, and 9 miles southwest of Shoup.

Drainage area.--6,270 sq mi, approximately.

Records available.--October 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,160 ft (from river-profile map). Prior to May 4, 1947, wire-weight gage at site 1.3 miles upstream at datum 3,168.69 ft above mean sea level, unadjusted. May 4, 1947, to Sept. 17, 1951, staff gage at site 200 ft downstream from wire-weight gage at datum 1.28 ft higher than datum of wire-weight gage.

Average discharge.--15 years, 3,065 cfs (2,219,000 acre-ft per year).

Extremes.--Maximum discharge during year, 11,900 cfs June 16 (gage height, 8.06 ft); minimum daily, 900 cfs Jan. 5.
1944-59: Maximum discharge, 24,900 cfs May 26, 1956 (gage height, 13.00 ft); minimum daily, 800 cfs Jan. 31, Feb. 1, 1951.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversions for irrigation of about 88,000 acres above station (1948 determination).

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

1.8	1,050	4.0	3,710
2.0	1,180	5.0	5,470
2.5	1,640	6.0	7,420
3.0	2,240	8.0	11,800

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,570	1,870	2,070	1,820	1,600	1,710	1,630	2,960	3,310	5,870	1,790	1,380
2	1,600	1,870	2,070	1,700	1,580	1,820	1,890	3,600	3,520	5,310	1,850	1,360
3	1,570	1,870	2,160	b1,250	1,530	1,760	2,240	3,680	4,220	4,950	1,860	1,350
4	1,580	1,920	2,180	b1,000	1,540	1,670	2,360	3,250	5,250	4,700	1,790	1,350
5	1,600	1,950	*2,070	b900	1,670	1,620	2,440	2,980	6,360	4,480	1,670	1,370
6	1,610	2,050	2,010	b1,400	1,710	1,610	2,670	2,770	8,110	4,150	1,610	1,410
7	1,580	2,070	2,000	1,870	1,680	1,620	2,800	2,630	10,600	4,000	1,550	1,450
8	1,640	2,200	2,050	1,930	1,710	1,630	2,640	2,570	11,300	4,000	1,510	1,460
9	1,700	2,370	2,030	1,910	1,560	1,620	2,420	2,680	10,100	3,780	1,490	1,430
10	1,730	2,450	1,970	1,890	1,380	1,570	2,240	2,820	9,120	3,490	1,440	1,370
11	1,770	2,420	2,010	1,940	1,520	1,560	*2,150	2,840	*8,300	3,260	1,410	1,360
12	1,760	2,230	2,190	1,930	1,720	1,580	2,150	2,680	8,050	3,140	1,390	1,350
13	1,730	2,120	2,440	1,990	1,640	1,600	2,280	2,710	8,970	3,050	1,390	1,340
14	1,720	2,110	2,190	*1,980	1,510	1,610	2,470	3,140	10,500	2,020	1,380	1,360
15	1,730	2,150	1,880	1,860	1,570	1,540	2,570	4,220	11,700	*2,860	1,360	1,630
16	1,730	2,040	1,930	1,730	1,650	1,540	2,540	5,400	11,500	2,750	1,330	2,030
17	1,740	1,650	2,060	1,710	1,820	1,610	2,400	5,770	10,600	2,630	1,310	2,200
18	1,720	1,620	2,060	1,800	1,830	1,790	2,250	5,340	10,200	2,560	1,300	2,040
19	1,720	1,850	2,010	1,810	1,810	1,760	2,160	4,860	9,710	2,460	1,520	1,980
20	1,730	2,090	1,950	1,770	1,790	1,650	2,060	4,390	9,670	2,360	*1,390	1,970
21	1,770	2,320	1,940	1,490	1,750	1,600	2,000	4,050	9,670	2,300	1,400	2,190
22	1,880	2,200	1,940	b1,350	1,680	1,620	1,990	*3,760	9,710	2,200	1,430	2,340
23	1,890	2,180	1,920	1,560	1,640	1,680	2,100	3,580	9,410	2,120	1,440	2,290
24	1,910	2,140	1,820	1,920	1,650	1,710	2,180	3,500	8,750	2,030	1,440	2,200
25	1,920	2,100	1,810	2,250	*1,660	1,670	2,240	3,550	8,260	2,050	1,400	2,200
26	1,910	2,030	1,830	2,040	1,670	1,640	2,490	3,740	8,320	2,000	1,420	2,240
27	1,880	1,830	1,830	1,870	1,660	1,650	2,840	3,690	8,280	2,040	1,440	2,360
28	1,880	1,610	1,830	1,820	1,650	1,650	2,800	3,610	7,420	1,990	1,420	2,440
29	*1,870	1,710	1,810	1,850	-	1,640	2,570	3,580	6,920	1,890	1,380	2,420
30	1,850	1,880	1,770	1,720	------	1,630	2,630	3,490	6,460	1,860	1,380	2,370
31	1,820	------	1,760	1,650	------	1,630	------	3,310	------	1,770	1,380	------
Total	54,110	60,900	61,590	53,710	46,180	50,990	70,200	111,150	254,290	95,070	45,670	54,240
Mean	1,745	2,030	1,987	1,733	1,649	1,645	2,340	3,585	8,476	3,067	1,473	1,808
Ac-ft	107,300	120,800	122,200	106,500	91,600	101,100	139,200	220,500	504,400	188,600	90,590	107,600

Calendar year 1958: Max 17,700 Min 1,200 Mean 3,138 Ac-ft 2,272,000
Water year 1958-59: Max 11,700 Min 900 Mean 2,625 Ac-ft 1,900,000

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

3085. Middle Fork Salmon River near Cape Horn, Idaho

Location.--Lat 44°25', long 115°11', in sec.34, T.13 N., R.11 E., on left bank 1,100 ft downstream from Little Beaver Creek, half a mile downstream from confluence of Marsh and Beaver Creeks, and 2 miles northwest of Cape Horn.

Drainage area.--138 sq mi.

Records available.--September 1928 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,435 ft (by barometer).

Average discharge.--31 years, 237 cfs (171,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,510 cfs June 7 (gage height, 5.50 ft); minimum, 35 cfs Mar. 25 (gage height, 2.16 ft).
1928-59: Maximum discharge, 2,980 cfs May 24, 1956 (gage height, 6.96 ft); minimum recorded, 31 cfs Apr. 14, 1945 (gage height, 2.12 ft).

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

Revisions.--WSP 738: Drainage area.

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

Oct. 1 to June 6						June 7 to Sept. 30			
2.2	39	2.8	144	4.0	565	2.5	80	4.0	560
2.3	52	3.0	195	5.0	1,120	3.0	190	5.0	1,140
2.5	84	3.5	360	6.0	1,960	3.5	350	6.0	1,940

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	81	b90	80	b66	67	69	432	601	426	146	102
2	91	82	b85	65	b56	64	91	408	725	398	147	100
3	89	88	b90	50	b70	66	91	364	848	378	140	98
4	89	120	b90	52	b70	b63	98	353	954	358	136	96
5	89	100	b75	75	b67	b64	112	336	1,080	336	130	114
6	88	129	b92	90	b70	b64	124	346	1,360	321	130	114
7	88	198	91	85	b66	64	114	388	1,420	314	125	104
8	102	146	88	80	b64	64	114	464	1,270	304	122	100
9	98	158	88	80	b64	b62	108	488	1,150	280	120	94
10	93	149	88	85	b70	*b64	112	436	1,010	264	116	94
11	88	110	118	90	b70	b60	122	452	964	254	114	93
12	89	95	129	90	b67	b64	137	538	1,070	245	113	93
13	89	108	b110	90	b67	64	156	675	1,290	236	112	98
14	86	b85	b100	80	b60	b60	166	766	1,410	227	112	133
15	84	b70	b110	70	b65	b60	171	859	1,340	221	112	174
16	84	b63	b120	85	b72	b64	158	804	*1,180	210	112	122
17	82	b47	b110	85	b71	b63	151	715	1,120	*204	110	112
18	84	b72	b100	80	70	b65	140	655	1,080	198	110	108
19	95	b92	88	75	69	62	135	574	1,080	198	115	145
20	95	b100	86	75	66	60	135	524	1,050	182	125	142
21	86	b108	88	65	70	64	146	504	1,070	160	140	131
22	88	106	82	70	70	66	161	504	994	175	140	120
23	89	100	82	78	67	64	151	512	880	170	125	112
24	91	97	79	88	67	61	192	538	772	165	*114	110
25	88	b80	82	80	66	60	249	556	778	164	112	120
26	86	b60	89	73	66	62	283	*592	740	160	110	150
27	*86	b55	88	73	67	61	266	560	640	156	108	152
28	82	b60	82	*b72	66	64	234	556	570	153	108	133
29	84	b80	75	b70	-	64	262	508	510	153	106	125
30	82	b93	85	b68	------	64	308	492	462	146	104	*116
31	77	------	85	b70	------	62	------	524	------	143	102	------
Total	2,733	2,932	2,865	2,369	1,879	1,956	4,756	16,423	29,418	7,319	3,716	3,505
Mean	88.2	97.7	92.4	76.4	67.1	63.1	159	530	981	236	120	117
Cfsm	0.639	0.708	0.670	0.554	0.486	0.457	1.15	3.84	7.11	1.71	0.870	0.848
In.	0.74	0.79	0.77	0.64	0.51	0.53	1.28	4.43	7.93	1.97	1.00	0.94
Ac-ft	5,420	5,820	5,680	4,700	3,730	3,880	9,430	32,570	58,350	14,520	7,370	6,950

Calendar year 1958: Max 2,100 Min 47 Mean 261 Cfsm 1.89 In. 25.70 Ac-ft 189,100
Water year 1958-59: Max 1,420 Min 47 Mean 219 Cfsm 1.59 In. 21.53 Ac-ft 158,400

Peak discharge (base, 930 cfs).--May 13 (8:30 p.m.) 936 cfs (4.71 ft); June 7 (12:30 a.m.) 1,510 cfs (5.50 ft); June 14 (10 p.m.) 1,450 cfs (5.42 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 29 to Jan. 27, July 20 to Aug. 23; discharge estimated on basis of weather records and records for Valley Creek at Stanley and other nearby streams.

3090. Bear Valley Creek near Cape Horn, Idaho

Location.--Lat 44°26', long 115°17', in sec.29, T.13 N., R.10 E., on right bank 250 ft downstream from Fir Creek, 3 miles upstream from mouth, and 7 miles northwest of Cape Horn.

Drainage area.--180 sq mi, approximately.

Records available.--September 1921 to September 1928 (fragmentary), October 1928 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,340 ft (by barometer).

Average discharge.--31 years (1928-59), 291 cfs (210,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,600 cfs June 6 (gage height, 3.85 ft); minimum daily, 60 cfs Nov. 17, but may have been less during period of ice effect; minimum gage height, 1.08 ft sometime during period Jan. 20-27.
1921-59: Maximum discharge, 3,860 cfs May 27, 1956 (gage height, 5.87 ft), from rating curve extended above 2,300 cfs by logarithmic plotting; minimum recorded, 28 cfs Nov. 11, 1931.

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

Revisions.--WSP 573: Drainage area.

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

1.1	72	2.5	580
1.3	110	3.0	910
1.5	157	4.0	1,730
2.0	327		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	90	120	110	95	98	104	724	861	410	147	121
2	94	90	115	85	80	98	123	738	938	392	147	121
3	94	96	125	75	100	100	140	598	*1,020	353	140	119
4	92	134	120	78	100	104	163	532	1,040	331	137	117
5	92	142	100	100	95	102	179	498	1,150	315	130	137
6	92	144	120	130	100	102	213	492	1,430	303	132	154
7	90	420	117	120	95	98	213	556	1,490	291	130	134
8	104	226	115	110	90	100	200	672	1,310	287	128	125
9	123	261	112	110	90	100	197	750	1,210	272	125	119
10	110	261	112	140	100	*100	194	604	1,080	261	123	117
11	104	179	137	135	100	106	200	580	987	247	121	112
12	100	142	204	125	95	112	223	712	1,020	240	121	112
13	96	144	150	125	95	104	247	938	1,140	223	121	117
14	94	114	140	115	85	106	261	1,130	1,220	213	121	160
15	94	90	150	100	90	106	257	1,320	1,200	213	121	280
16	92	80	165	125	104	108	230	1,210	*1,080	200	121	204
17	94	60	165	121	102	114	216	1,010	1,020	191	119	160
18	96	90	150	114	98	106	210	980	966	*188	121	144
19	102	120	130	110	96	104	194	819	945	179	125	216
20	114	140	125	a105	94	104	194	698	924	177	152	250
21	104	160	119	a90	100	108	210	724	882	174	168	213
22	104	157	115	a100	110	106	243	750	819	165	166	174
23	108	147	110	a110	98	102	257	833	724	163	150	163
24	114	132	115	a125	104	108	276	840	646	160	*132	154
25	110	110	115	a115	102	106	366	924	660	160	130	160
26	106	80	110	a105	100	106	440	994	812	154	128	204
27	*102	75	110	*105	102	106	430	840	610	152	128	257
28	98	80	105	105	98	110	366	805	562	150	125	210
29	94	100	100	100	-	108	388	777	487	150	123	200
30	90	125	115	95	------	108	544	757	445	144	123	*179
31	90	------	115	100	------	102	------	784	------	144	121	------
Total	3,091	4,189	3,901	3,383	2,718	3,242	7,478	24,589	28,678	7,002	4,078	4,933
Mean	99.7	140	126	109	97.1	105	249	793	956	226	132	164
Cfsm	0.554	0.778	0.700	0.606	0.539	0.583	1.38	4.41	5.31	1.26	0.733	0.911
In.	0.64	0.87	0.81	0.70	0.56	0.67	1.55	5.08	5.93	1.45	0.84	1.02
Ac-ft	6,130	8,310	7,740	6,710	5,390	6,430	14,830	48,770	56,880	13,890	8,090	9,780

Calendar year 1958: **Max** 2,820 **Min** 60 **Mean** 331 **Cfsm** 1.84 **In.** 24.97 **Ac-ft** 239,600
Water year 1958-59: **Max** 1,490 **Min** 60 **Mean** 267 **Cfsm** 1.48 **In.** 20.12 **Ac-ft** 193,000

Peak discharge (base, 1,200 cfs).--May 15 (10:30 a.m.) 1,370 cfs (3.60 ft); June 6 (5:30 p.m.) 1,600 cfs (3.85 ft); June 14 (3 p.m.) 1,270 cfs (3.48 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for Johnson Creek at Yellow Pine.
Note.--Stage-discharge relation affected by ice Nov. 15-19, Nov. 25 to Dec. 2, Dec. 4-6, 8, 9, 13-20, Dec. 22 to Jan. 11, Jan. 13-16, 19, Jan. 28 to Feb. 15, Feb. 20-22.

3105. South Fork Salmon River near Knox, Idaho

Location.--Lat 44°39', long 115°42', in NW¼ sec.11, T.15 N., R.6 E., on left bark 800 ft downstream from Curtis Creek, 1 mile upstream from Warm Lake Creek, 1½ miles southwest of Knox, and 21 miles northeast of Cascade.

Drainage area.--92 sq mi, approximately.

Records available.--September 1928 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,090.31 ft above mean sea level, unadjusted. Prior to Oct. 22, 1942, staff gage at site 800 ft downstream at datum 2.09 ft lower.

Average discharge.--31 years, 145 cfs (105,000 acre-ft per year).

Extremes.--Maximum discharge during year, 885 cfs June 6 (gage height, 5.11 ft); minimum, 19 cfs Oct. 31 (gage height, 2.30 ft), but may have been less during period of ice effect.

1928-59: Maximum discharge, 1,620 cfs May 27, 1956 (gage height, 6.33 ft); minimum recorded, 14 cfs Nov. 3, 1952 (gage height, 2.23 ft), but may have been less during period of ice effect.

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

Revisions (water years).--WSP 1043: 1943.

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

2.4	28	3.5	227
2.5	37	4.0	390
2.7	62	4.5	600
3.0	116	5.0	830

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	39	*45	48	50	46	54	568	410	212	65	46
2	38	40	43	40	40	45	86	506	470	200	64	45
3	38	41	56	31	52	42	106	406	555	190	61	44
4	38	74	56	31	52	41	126	352	604	177	59	44
5	37	54	48	50	50	40	155	310	690	168	59	61
6	38	82	51	56	49	41	193	281	855	161	58	55
7	38	153	55	56	48	41	172	275	800	155	56	49
8	46	84	55	54	46	41	157	297	730	149	55	46
9	49	99	51	50	44	39	144	320	676	140	54	45
10	44	105	51	50	47	40	138	284	*591	134	54	44
11	42	69	106	52	47	38	146	275	578	128	52	42
12	40	59	155	54	46	43	170	291	645	122	52	42
13	39	59	105	60	44	41	193	375	748	118	52	47
14	38	56	80	52	42	40	*197	494	780	112	52	112
15	38	51	85	45	45	38	188	672	717	108	51	126
16	37	40	75	55	48	42	168	596	645	105	49	72
17	37	28	64	52	48	44	155	537	609	99	48	58
18	38	45	61	54	46	46	146	*494	582	97	48	58
19	45	56	59	54	46	45	140	426	586	92	65	126
20	47	64	58	50	45	41	140	379	564	90	86	114
21	41	69	61	43	44	45	146	356	560	88	77	90
22	40	68	58	50	44	46	166	345	498	84	67	76
23	41	65	52	50	45	47	172	356	438	81	58	67
24	42	61	54	61	45	47	193	422	382	*79	55	61
25	42	47	52	64	44	48	240	434	375	77	52	65
26	41	36	54	*55	45	51	269	454	379	76	*51	93
27	*41	34	52	54	44	49	263	410	304	72	49	103
28	41	36	51	52	*42	51	230	382	272	69	48	86
29	39	40	48	49	-	52	240	360	249	69	47	79
30	40	50	51	48	------	52	360	356	230	67	47	72
31	40	------	49	50	------	51	------	363	------	65	46	------
Total	1,253	1,804	1,941	1,570	1,288	1,373	5,255	12,376	16,522	3,584	1,737	2,068
Mean	40.4	60.1	62.6	50.6	46.0	44.3	175	399	551	116	56.0	68.9
Cfsm	0.439	0.653	0.680	0.550	0.500	0.482	1.90	4.34	5.99	1.26	0.609	0.749
In.	0.51	0.73	0.78	0.63	0.52	0.56	2.12	5.00	6.68	1.45	0.70	0.84
Ac-ft	2,490	3,580	3,850	3,110	2,550	2,720	10,420	24,550	32,770	7,110	3,450	4,100

Calendar year 1958: Max 1,340 Min 28 Mean 172 Cfsm 1.87 In. 25.41 Ac-ft 124,700
Water year 1958-59: Max 780 Min 28 Mean 139 Cfsm 1.51 In. 20.52 Ac-ft 100,700

Peak discharge (base, 600 cfs).--May 2 (7 p.m.) 704 cfs (4.72 ft); May 15 (4 a.m.) 699 cfs (4.72 ft); June 6 (11 p.m.) 885 cfs (5.11 ft); June 14 (1 a.m.) 845 cfs (5.03 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 15-22, Nov. 25 to Dec. 2, Dec. 5, 6, 13-17, 29, 30, Jan. 1-18, 20-23, Jan. 29 to Feb. 6, Feb. 8-10, 12-15, 21, 22, Mar. 2-17, 20, 21 (no gage-height record Jan. 4-14).

3130. Johnson Creek at Yellow Pine, Idaho

Location.--Lat 44°58', long 115°30', in NE¼ sec.29, T.19 N., R.8 E., on right bank 700 ft upstream from mouth and a quarter of a mile southwest of Yellow Pine.

Drainage area.--213 sq mi.

Records available.--August 1928 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,657.70 ft above mean sea level, datum of 1929 (preliminary).

Average discharge.--31 years, 341 cfs (246,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,880 cfs June 6 (gage height, 5.56 ft); minimum, 44 cfs Nov. 17 (gage height, 0.95 ft).
1928-59: Maximum discharge, 5,440 cfs May 27, 1956 (gage height, 7.64 ft); minimum, 21 cfs Nov. 30, 1954 (gage height, 0.66 ft).

Remarks.--Records excellent except those below about 100 cfs, which are good. Small diversion from Johnson Creek basin to Deadwood River basin (see Remarks for Deadwood Reservoir near Lowman). Records of water temperatures for the water year 1959 are given in WSP 1644.

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

1.0	50	2.5	507
1.2	77	3.0	770
1.5	135	4.0	1,420
1.8	215	5.0	2,300
2.1	323	6.0	3,390

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	76	*102	100	86	89	89	1,160	1,190	671	147	98
2	77	79	100	89	66	86	120	1,100	1,410	634	145	94
3	80	77	108	60	89	87	142	885	1,640	618	137	92
4	77	120	116	61	94	84	157	786	1,750	556	131	92
5	79	114	91	100	86	82	182	720	2,020	517	129	108
6	76	108	108	96	92	86	235	671	2,740	487	127	116
7	74	252	112	98	87	86	235	698	2,350	463	124	108
8	84	164	104	92	84	84	238	814	1,990	439	120	99
9	92	188	98	94	80	76	225	921	1,810	*398	116	94
10	87	232	100	96	87	84	228	798	*1,520	366	114	92
11	86	157	122	96	80	74	241	764	1,560	344	112	90
12	82	131	172	104	86	86	284	909	1,870	327	110	87
13	79	140	157	118	84	82	336	1,180	2,210	311	110	92
14	77	122	127	102	76	79	*349	1,640	2,260	296	110	157
15	74	102	137	86	80	77	357	1,870	2,060	277	110	212
16	72	77	147	106	86	87	323	1,590	1,780	259	106	154
17	72	56	131	98	89	86	304	1,330	1,740	245	104	124
18	72	87	122	98	86	89	288	*1,230	1,690	232	104	114
19	82	108	122	94	86	86	270	1,060	1,710	218	108	145
20	89	122	118	92	86	77	262	957	1,680	212	133	206
21	82	135	120	74	86	87	277	903	1,680	197	140	192
22	80	131	116	96	87	87	311	921	1,520	191	149	167
23	84	122	100	94	87	86	319	987	1,340	185	129	147
24	86	116	112	114	86	84	332	1,140	1,200	180	118	133
25	84	91	108	102	87	80	420	1,250	1,150	175	*112	140
26	82	70	104	*92	86	84	507	1,280	1,250	167	110	157
27	*82	65	108	96	86	82	512	1,100	987	162	108	200
28	80	76	104	94	*86	84	463	1,000	873	154	104	175
29	77	92	91	89	-	86	478	963	792	152	100	159
30	74	112	106	86	------	86	781	963	732	152	100	152
31	72	------	100	92	------	84	------	981	------	147	98	------
Total	2,474	3,522	3,563	2,909	2,381	2,597	9,265	32,571	48,504	9,732	3,665	3,996
Mean	79.8	117	115	93.8	85.0	83.8	309	1,051	1,617	314	118	133
Cfsm	0.375	0.549	0.540	0.440	0.399	0.393	1.45	4.93	7.59	1.47	0.554	0.624
In.	0.43	0.61	0.62	0.51	0.42	0.45	1.62	5.69	8.48	1.70	0.64	0.70
Ac-ft	4,910	6,990	7,070	5,770	4,720	5,150	18,380	64,600	96,210	19,300	7,270	7,930

Calendar year 1958: Max 3,800 Min 56 Mean 390 Cfsm 1.83 In. 24.86 Ac-ft 282,600
Water year 1958-59: Max 2,740 Min 56 Mean 343 Cfsm 1.61 In. 21.87 Ac-ft 248,300

Peak discharge (base, 1,800 cfs).--May 15 (2 a.m.) 2,000 cfs (4.67 ft); June 6 (8 p.m.) 2,880 cfs (5.56 ft); June 13 (9:30 p.m.) 2,640 cfs (5.35 ft).

* Discharge measurement made on this day.

3155. Mud Creek near Tamarack, Idaho

Location.--Lat 45°00', long 116°21', in sec.9, T.19 N., R.1 E., on left bank 0.5 mile upstream from Little Mud Creek, 3¼ miles northeast of Tamarack, and 5 miles upstream from mouth.

Drainage area.--15.8 sq mi.

Records available.--April 1937 to September 1939 (fragmentary), October 1939 to September 1943 (discharge measurements only), September 1945 to September 1959 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 3,990 ft (by barometer). Prior to Sept. 18, 1945, staff gage at site 40 ft downstream at datum 1.21 ft higher.

Average discharge.--14 years (1945-59), 19.2 cfs (13,900 acre-ft per year).

Extremes.--Maximum discharge during year, 110 cfs May 1 (gage height, 3.42 ft); maximum gage height, 3.84 ft Mar. 16 (backwater from ice); minimum discharge, 0.4 cfs Nov. 1; (gage height, 2.13 ft).
1937-38, 1945-59: Maximum discharge, 395 cfs Apr. 27, 1952 (gage height, 5.00 ft); maximum gage height recorded, 6.29 ft Feb. 27, 1957 (backwater from ice); minimum discharge, 0.2 cfs Nov. 19, 20, 1952.

Remarks.--Records good except those below about 10 cfs, which are fair, and those for periods of ice effect, and no gage height record, which are poor. No regulation or diversion.

Revisions (water years).--WSP 1153: 1948.

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

2.2	0.9	2.5	7.7	2.9	34
2.3	2.4	2.6	12	3.2	70
2.4	4.7	2.7	17	3.5	112

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.2	2.0	2.5	5.5	6.4	13	96	17	3.6	2.0	1.6
2	1.2	1.4	*1.9	1.8	6.0	7.0	22	97	17	3.3	2.4	1.6
3	1.2	1.6	2.2	1.2	6.0	6.7	40	83	16	3.1	1.8	1.6
4	1.2	3.3	2.3	1.0	6.0	6.7	52	74	14	3.1	1.8	1.6
5	1.2	2.2	1.9	1.5	5.7	*6.8	66	64	13	2.9	1.8	2.0
6	1.2	3.3	2.1	2.1	5.5	6.0	83	57	13	3.3	1.8	2.0
7	1.1	3.6	3.1	2.7	5.5	6.0	76	53	12	3.1	1.7	1.8
8	1.4	2.6	2.6	3.1	5.0	5.5	69	55	11	3.1	1.7	1.6
9	1.6	2.9	2.3	3.4	5.2	5.5	61	56	10	2.6	1.6	1.4
10	1.1	3.1	2.7	3.5	5.2	5.0	*60	56	9.7	2.6	1.6	1.4
11	1.1	2.0	6.0	3.6	5.2	4.5	67	49	*8.1	2.6	1.4	1.4
12	1.1	1.8	4.5	5.8	4.9	4.5	79	47	7.4	2.4	1.4	1.4
13	1.0	1.8	3.0	9.0	4.5	4.0	89	50	6.5	2.2	1.4	2.2
14	1.0	1.8	2.6	7.0	4.5	3.8	89	60	5.9	2.4	1.4	6.2
15	1.0	1.7	2.3	4.5	4.1	3.6	82	*67	5.9	2.4	1.4	7.1
16	1.0	1.6	2.3	4.2	5.0	4.0	71	58	5.6	2.4	1.2	3.6
17	1.0	1.5	2.3	4.5	5.5	4.5	64	52	5.3	2.2	1.2	2.6
18	1.0	1.1	2.3	5.0	6.0	6.0	57	47	5.0	2.0	1.2	2.2
19	1.7	2.5	2.3	3.8	5.7	4.0	56	40	4.7	2.0	1.6	4.0
20	1.7	5.0	2.3	3.2	5.7	3.5	57	33	4.5	2.0	3.1	5.6
21	1.4	4.2	4.0	3.4	5.4	4.0	65	30	4.2	1.8	*3.3	4.0
22	1.1	3.1	3.5	*3.5	5.4	5.0	75	27	4.2	1.8	2.0	3.3
23	1.2	2.6	3.0	3.4	5.7	5.6	79	27	4.0	1.8	2.0	2.6
24	1.2	2.4	2.7	9.0	5.7	6.8	82	28	4.0	*1.8	1.8	2.2
25	1.2	2.3	2.8	15	5.7	7.7	84	28	5.3	2.0	1.8	2.9
26	1.2	2.2	2.6	12	5.4	10	98	28	5.6	1.8	1.8	6.5
27	1.2	2.1	2.7	10	5.7	11	96	26	4.5	1.8	1.8	5.6
28	1.2	2.0	2.6	9.0	5.8	11	83	26	4.5	1.7	1.7	4.0
29	*1.2	2.1	2.4	8.0	-	11	78	22	4.0	1.8	1.7	3.3
30	1.2	2.1	2.5	6.0	------	11	83	20	3.6	1.8	1.6	3.6
31	1.2	------	2.5	7.0	------	11	------	19	------	1.8	1.6	------
Total	37.3	71.1	84.3	159.7	151.5	198.1	2,076	1,475	235.5	73.2	54.6	90.9
Mean	1.20	2.37	2.72	5.15	5.41	6.39	69.2	47.6	7.85	2.36	1.76	3.03
Cfsm	0.076	0.150	0.172	0.326	0.342	0.404	4.38	3.01	0.497	0.149	0.111	0.192
In.	0.08	0.17	0.20	0.38	0.36	0.47	4.89	3.47	0.55	0.17	0.13	0.21
Ac-ft	74	141	167	317	300	393	4,120	2,930	467	145	108	180

Calendar year 1958: Max 202 Min 1.0 Mean 21.0 Cfsm 1.33 In. 18.05 Ac-ft 15,200
Water year 1958-59: Max 98 Min 1.0 Mean 12.9 Cfsm 0.816 In. 11.08 Ac-ft 9,340

Peak discharge (base, 100 cfs).--May 1 (11 p.m.) 110 cfs (3.42 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Oct. 30, 31, Nov. 15-20, Nov. 25 to Mar. 11, Mar. 14-18, 20, 21 (no gage-height record Jan. 9-21, Feb. 6-15, Feb. 22 to Mar. 5; discharge estimated on basis of fragmentary recorder record, weather records, and records for Weiser River at Tamarack).

3165. Little Salmon River at Riggins, Idaho

Location.--Lat 45°24'50", long 116°19'30", in SE¼SW¼ sec.15, T.24 N., R.1 E., on right bank 250 ft upstream from highway bridge, half a mile upstream from mouth, and three-quarters of a mile southwest of Riggins.

Drainage area.--576 sq mi.

Records available.--February 1951 to February 1955, September 1956 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 1,760 ft (from topographic map).

Average discharge.--6 years (1951-54, 1956-59) 856 cfs (619,700 acre-ft per year).

Extremes.--Maximum discharge during year, 4,680 cfs June 13 (gage height, 5.55 ft); minimum observed, 158 cfs Nov. 17 (gage height, 0.42 ft).
1951-55, 1956-59: Maximum discharge, 6,720 cfs May 20, 1958; maximum gage height, 7.39 ft June 13, 1953; minimum discharge, 116 cfs Feb. 20, 1955; minimum gage height observed, that of Nov. 17, 1958.
Flood about June 1, 1948, reached an undetermined stage (discharge, 9,200 cfs by slope-area measurement).

Remarks.--Records fair except those for April to July, which are good. Diversions for irrigation of about 13,600 acres above station (1948 determination).

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	191	184	227	239	378	312	677	1,960	2,170	1,030	307	211
2	188	191	215	231	355	331	922	2,060	2,680	994	297	207
3	184	199	215	223	364	342	1,260	1,820	3,010	946	288	203
4	180	274	231	169	363	331	1,400	1,550	3,120	886	278	203
5	176	*252	215	207	342	331	1,430	1,380	3,500	832	278	227
6	176	248	211	207	347	331	1,740	1,250	4,000	814	274	231
7	176	364	211	215	316	321	1,620	1,200	3,350	798	269	227
8	184	326	235	215	278	312	1,360	1,280	*2,900	738	269	223
9	203	307	227	231	278	312	1,150	1,400	2,800	682	265	223
10	191	386	219	248	288	312	1,020	1,300	2,310	650	252	215
11	188	350	328	256	307	292	*1,020	1,190	2,390	622	244	203
12	184	302	520	520	302	297	1,100	1,240	3,160	600	239	195
13	180	283	355	628	292	302	1,210	1,630	3,780	580	235	188
14	176	283	265	510	283	292	1,230	2,440	3,780	560	227	430
15	173	256	256	391	274	274	1,210	3,210	3,380	525	223	726
16	169	215	261	382	312	283	1,110	2,770	3,030	500	215	535
17	169	158	252	350	350	302	1,020	2,320	2,880	480	211	386
18	173	195	*231	347	368	321	976	2,210	2,800	455	203	337
19	195	223	219	*331	391	331	916	1,900	2,900	435	199	480
20	235	297	219	326	400	331	892	*1,670	2,980	*420	252	776
21	235	373	235	326	382	342	916	1,560	2,880	415	316	660
22	235	373	288	302	368	378	970	1,580	2,500	396	297	550
23	195	312	244	292	360	440	1,030	1,760	2,140	382	278	455
24	195	283	235	628	*342	505	1,090	2,180	1,860	386	*274	396
25	195	274	252	940	331	580	1,200	2,590	1,770	382	252	386
26	195	215	239	638	331	677	1,430	2,420	1,890	373	235	480
27	195	188	265	565	326	704	1,600	2,080	1,530	358	223	628
28	195	188	274	555	321	677	1,440	1,860	1,330	347	215	515
29	188	211	248	495	-	677	1,360	1,720	1,200	337	215	455
30	191	227	248	415	-------	660	1,560	1,700	1,090	331	215	420
31	184	-------	248	373	-------	677	-------	1,820	-------	316	207	-------
Total	5,894	7,937	7,888	11,755	9,349	12,577	35,859	57,050	79,110	17,570	7,752	11,371
Mean	190	265	254	379	334	406	1,195	1,840	2,637	567	250	379
Ac-ft	11,690	15,740	15,650	23,320	18,540	24,950	71,130	113,200	156,900	34,850	15,380	22,550

Calendar year 1958: Max 5,600 Min 158 Mean 836 Ac-ft 605,600
Water year 1958-59: Max 4,000 Min 158 Mean 724 Ac-ft 523,900

Peak discharge (base, 2,000 cfs).--May 1 (11:30 p.m.) 2,120 cfs (3.27 ft); May 15 (1:45 a.m.) 3,240 cfs (4.31 ft); May 25 (4 a.m.) 2,750 cfs (3.86 ft); June 6 (1:30 a.m.) 4,240 cfs (5.18 ft); June 13 (8:30 p.m.) 4,680 cfs (5.55 ft).

* Discharge measurement made on this day.
Note.--Discharge computed from once-daily staff-gage readings Oct. 1 to Nov. 6, Nov. 8, 9, 12-20, Nov. 23 to Dec. 10, Dec. 14 to Jan. 11, Jan. 18-23, Feb. 4-16, Feb. 24 to Mar. 21, July 27 to Sept. 13.

3170. Salmon River at Whitebird, Idaho

Location.--Lat 45°45', long 116°20', in sec.22, T.28 N., R.1 E., on left bank just upstream from Whitebird Creek, half a mile downstream from Canfield-Joseph highway bridge, and 1 mile southwest of Whitebird. Records include flow of Whitebird Creek.

Drainage area.--13,550 sq mi, approximately, includes that of Whitebird Creek.

Records available.--August 1910 to September 1917, October 1919 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,412.65 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Aug. 18, 1910, to Sept. 30, 1917, and Oct. 1, 1919, to Sept. 13, 1920, staff gages at site 600 ft downstream at different datum. Sept. 14, 1920, to Jan. 2, 1931, chain gage on highway bridge 200 ft upstream at datum 10 ft higher.

Average discharge.--47 years, 10,910 cfs (7,899,000 acre-ft per year).

Extremes.--Maximum discharge during year, 64,200 cfs June 15 (gage height, 27.18 ft); minimum, 2,150 cfs Jan. 5 (gage height, 11.29 ft).
1910-17, 1919-59: Maximum discharge, 106,000 cfs May 24, 1956 (gage height, 33.05 ft); minimum, 1,580 cfs Dec. 11, 1932 (gage height, 10.23 ft), from rating curve extended below 2,200 cfs.
Maximum stage known, about 37.5 ft, June 1894, present datum (discharge, 120,000 cfs).

Remarks.--Records excellent. Amount of water diverted above station for irrigation is a negligible percentage of total flow. Records of chemical analyses for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 753: 1932. WSP 1043: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 12 to Jan. 26, July 19-21, Aug. 22 to Sept. 12)

11.2	2,260	17.0	14,300	23.0	39,100
12.0	3,280	19.0	21,400	25.0	50,400
13.0	4,840	21.0	29,500	27.0	63,000
15.0	8,960				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,150	4,290	4,820	4,390	4,740	4,650	5,610	20,700	25,600	23,300	6,370	4,120
2	4,120	4,290	5,250	4,340	4,700	4,810	6,230	25,600	28,800	21,700	6,310	4,150
3	4,120	4,370	5,330	3,920	4,520	5,000	8,380	25,200	35,000	20,400	6,330	4,040
4	4,120	*4,520	5,570	2,830	4,420	4,930	10,300	22,200	40,200	19,400	6,130	3,940
5	4,100	4,930	5,630	2,290	4,580	4,790	10,800	19,800	46,000	18,200	5,910	4,000
6	4,080	5,250	5,220	2,630	4,690	4,650	12,400	*17,900	56,000	17,200	5,680	4,310
7	4,070	6,010	5,090	3,600	4,670	4,550	13,800	16,500	62,600	16,300	5,490	4,580
8	4,160	6,780	*5,270	4,310	4,600	4,550	13,000	16,500	59,500	15,700	5,360	4,440
9	4,480	6,820	5,250	4,450	4,500	4,500	11,600	18,100	*55,000	15,000	5,150	4,260
10	4,620	7,200	5,070	4,390	4,310	4,450	10,600	19,100	48,800	14,000	5,060	4,120
11	4,650	7,370	5,660	4,450	4,150	4,320	10,000	18,300	43,800	13,200	4,810	4,040
12	4,600	6,760	7,080	4,860	4,240	4,310	10,100	17,700	45,400	12,600	4,810	3,940
13	4,480	6,190	7,350	5,460	4,440	4,340	11,000	19,300	53,400	12,100	4,740	3,920
14	4,370	5,930	6,700	5,610	4,380	4,400	11,900	25,100	60,900	11,700	4,700	4,320
15	4,280	5,780	5,780	5,250	4,240	4,290	12,600	37,200	62,500	11,300	4,650	5,740
16	4,260	5,440	5,160	4,880	4,260	4,130	12,300	40,600	57,700	10,900	4,580	6,290
17	4,230	4,700	5,250	4,640	4,640	4,150	11,600	38,400	54,100	10,400	4,450	6,010
18	4,200	4,080	5,440	4,670	4,860	4,470	10,800	35,000	51,400	9,960	4,340	5,800
19	4,310	3,990	5,270	4,690	4,980	4,790	10,200	31,400	50,600	9,620	4,290	5,480
20	4,580	5,200	5,110	*4,620	4,950	4,910	9,620	27,900	50,700	9,310	4,250	6,150
21	4,690	6,210	5,020	4,320	4,930	4,690	9,410	25,400	50,400	*8,870	4,280	6,840
22	4,570	6,390	5,000	4,040	4,820	4,670	9,770	24,000	48,300	8,450	5,090	6,930
23	4,620	6,130	4,860	3,750	4,740	4,890	10,300	23,700	44,100	8,180	4,890	6,660
24	4,580	5,930	4,670	4,450	4,720	5,110	10,900	25,500	39,800	7,870	*4,770	6,210
25	4,600	5,740	4,500	6,070	*4,740	5,250	11,500	29,000	36,100	7,920	4,620	5,930
26	4,620	5,360	4,520	6,390	4,740	5,340	12,900	30,800	36,000	7,740	4,470	6,410
27	4,600	4,700	4,530	5,870	4,690	5,460	15,000	30,400	33,800	7,350	4,390	7,760
28	4,550	4,070	4,580	5,650	4,650	5,490	15,400	28,500	30,200	7,100	4,370	*7,810
29	4,500	3,880	4,520	5,490	-	5,550	14,800	26,900	27,200	6,910	4,290	7,330
30	4,480	4,160	4,400	5,290	------	*5,510	15,800	25,600	25,300	6,720	4,180	6,860
31	4,360	------	4,320	5,040	------	5,590	------	24,800	------	6,570	4,130	------
Total	136,150	162,470	162,220	142,640	128,900	148,540	338,620	787,100	1,359,200	375,970	153,890	162,390
Mean	4,392	5,416	5,233	4,601	4,604	4,792	11,290	25,390	45,310	12,130	4,967	5,413
Cfsm	0.324	0.400	0.386	0.340	0.340	0.354	0.833	1.87	3.34	0.895	0.367	0.399
In.	0.37	0.45	0.45	0.39	0.35	0.41	0.93	2.16	3.73	1.03	0.42	0.45
Ac-ft	270,000	322,300	321,800	282,900	255,700	294,600	671,600	1,561,000	2,696,000	745,700	305,400	322,100

Calendar year 1958: Max 82,800 Min 2,520 Mean 11,830 Cfsm 0.873 In. 11.85 Ac-ft 8,561,000
Water year 1958-59: Max 62,600 Min 2,290 Mean 11,120 Cfsm 0.821 In. 11.14 Ac-ft 8,049,000

* Discharge measurement made on this day.

3190. Grande Ronde River at La Grande, Oreg.

Location.--Lat 45°21', long 118°08', near center sec.36, T.2 S., R.37 E., on left bank 2 miles northwest of La Grande and 5 miles downstream from Fivepoint Creek.

Drainage area.--678 sq mi.

Records available.--October 1903 to September 1915, February 1918 to September 1923, October 1925 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as "at Hilgard" 1903-15.

Gage.--Water-stage recorder. Datum of gage is 2,830.86 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Nov. 6, 1903, to Sept. 30, 1915, staff gage at site 5 miles upstream, 1,000 ft downstream from Fivepoint Creek, at various datums. Feb. 16, 1918, to June 28, 1923, and Oct. 1, 1925, to Nov. 24, 1931, staff gage at site 1 mile downstream at various datums.

Average discharge.--51 years, 387 cfs (280,200 acre-ft per year).

Extremes.--Maximum discharge during year, 5,100 cfs Dec. 11 (gage height, 7.30 ft); minimum, 16 cfs Oct. 3, 7.
1903-15, 1918-23, 1925-59: Maximum discharge, 8,880 cfs Mar. 18, 1932 (gage height, 8.90 ft), from rating curve extended above 4,300 cfs; minimum, 3.9 cfs Aug. 26, 1940 (gage height, 1.23 ft).

Remarks.--Records excellent except those for periods of ice effect or shifting control, which are good. Since 1915, slight regulation by city of La Grande reservoir on Beaver Creek (capacity, about 900 acre-ft). Diversions for irrigation of about 400 acres above station. Since 1909, city of La Grande has diverted about 3 cfs from Beaver Creek above station for domestic water supply.

Revisions (water years).--WSP 768: 1933. WSP 1397: 1904-11, 1913, 1915, 1919-20, 1922-23, 1926, 1929-31, 1936-37, 1939, 1942.

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

Oct. 1 to Dec. 11				Dec. 12 to Sept. 30			
1.3	17	2.5	375	1.2	15	2.2	275
1.4	28	3.0	640	1.3	25	3.0	710
1.5	44	4.0	1,340	1.5	55	4.0	1,400
1.6	65	6.0	3,390	1.8	125	6.0	3,390
1.9	145						

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	24	*b110	405	584	491	1,200	1,110	496	101	28	23
2	18	27	b100	350	474	530	*1,740	1,050	508	91	*26	24
3	18	31	155	b260	486	524	1,880	967	518	86	23	23
4	18	38	223	b200	508	474	1,740	872	502	82	23	24
5	18	61	155	*b360	*447	447	1,550	824	508	77	23	26
6	17	87	161	452	436	430	1,620	788	662	77	24	34
7	17	112	270	385	375	425	1,370	722	535	82	22	32
8	19	107	330	335	390	410	1,180	710	464	101	22	*28
9	25	94	282	340	340	395	1,020	794	458	80	21	23
10	30	94	361	365	350	385	878	740	430	69	21	22
11	25	89	3,340	425	330	345	854	698	380	65	20	22
12	22	70	2,800	764	248	425	866	674	*355	61	20	21
13	21	94	1,200	818	198	415	878	722	350	57	21	20
14	21	115	746	662	295	390	830	*904	325	55	22	22
15	20	84	562	562	270	360	806	1,230	300	50	22	30
16	19	61	491	584	266	395	734	1,090	285	48	21	37
17	19	41	425	632	275	405	734	995	262	46	20	35
18	20	61	390	638	275	442	692	981	239	43	20	34
19	30	118	370	602	310	464	656	854	226	41	23	41
20	*54	177	360	552	365	442	*632	776	226	38	28	65
21	39	246	360	502	375	540	614	746	198	37	35	63
22	30	208	345	524	375	557	674	740	176	35	40	53
23	27	212	285	540	375	579	734	728	162	33	34	48
24	26	227	305	904	335	574	752	698	152	34	30	45
25	25	205	295	1,050	360	574	752	710	149	38	28	41
26	25	127	266	878	*385	692	758	704	143	34	25	88
27	25	b90	290	1,010	370	818	776	650	137	32	24	146
28	25	b110	262	1,280	395	842	746	638	125	30	24	89
29	25	b140	244	995	-	897	740	*596	*120	30	24	77
30	22	b170	310	800	-------	*884	848	552	114	29	24	73
31	21	-------	365	728	-------	1,060	-------	502	-------	29	23	-------
Total	740	3,320	16,158	18,902	10,192	16,611	29,254	24,765	9,505	1,711	761	1,309
Mean	23.9	111	521	610	364	536	975	799	317	55.2	24.5	43.6
Ac-ft	1,470	6,590	32,050	37,490	20,220	32,950	58,020	49,120	18,850	3,390	1,510	2,600

Calendar year 1958: Max 4,080 Min 17 Mean 565 Ac-ft 409,400
Water year 1958-59: Max 3,340 Min 17 Mean 365 Ac-ft 264,300

Peak discharge (base, 2,100 cfs, revised).--Dec. 11 (11 p.m.) 5,100 cfs (7.30 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Shifting-control method used Oct. 1 to Nov. 19, Mar. 12 to Apr. 30, May 31 to July 26.

3200. Catherine Creek near Union, Oreg.

Location.--Lat 45°09'20", long 117°46'40", in SE¼ sec.2, T.5 S., R.40 E., on right bank 3 miles downstream from Little Catherine Creek and 6 miles southeast of Union.

Drainage area.--105 sq mi.

Records available.--May 1906 to May 1907 (gage heights only), August 1911 to December 1912, March to September 1915, February 1918 to September 1919, October 1925 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,081.76 ft above mean sea level, datum of 1929, supplementary adjustment of 1947 (Oregon State Highway Department bench mark). Prior to Nov. 28, 1938, staff gages at several sites within 1¾ miles of present site at various datums. Nov. 28, 1938, to May 16, 1939, water-stage recorder at site 400 ft downstream at datum 4.29 ft lower.

Average discharge.--36 years (1911-12, 1918-19, 1925-59), 121 cfs (87,600 acre-ft per year).

Extremes.--Maximum discharge during year, 715 cfs May 15 (gage height, 3.23 ft); minimum, 21 cfs Jan. 3 (gage height, 0.57 ft).
1911-12, 1915, 1918-19, 1925-59: Maximum discharge, 1,740 cfs May 27, 1948 (gage height, 4.57 ft); minimum, 6.5 cfs Feb. 4, 1955 (gage height, 0.44 ft), result of freezeup.

Remarks.--Records excellent except those for periods of ice effect, which are good. No regulation. Several small diversions for irrigation of about 130 acres above station. Since 1937, diversion to Big Creek in Powder River basin to supplement irrigation of up to 3,300 acres.

Revisions (water years).--WSP 1397: 1912-13, 1919, 1926, 1928-33, 1937, 1939, 1940(M), 1941-43, 1950.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 14-19)

Oct. 1 to Jan. 4				Jan. 5 to Sept. 30			
0.6	23	1.5	150	0.7	30	1.9	233
.8	40	2.0	280	.9	50	2.5	420
1.1	79	2.5	440	1.3	105	3.2	700

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	28	*52	79	88	74	138	371	350	138	51	41
2	28	33	48	66	78	75	*208	335	420	134	51	41
3	28	35	73	b30	86	78	260	311	466	129	*50	40
4	28	40	66	b26	88	78	281	284	469	121	49	41
5	27	54	b55	*b75	*82	76	299	260	498	118	49	58
6	27	135	61	b80	82	75	357	244	562	114	50	51
7	27	143	67	78	79	76	314	255	486	114	49	47
8	39	109	64	72	75	75	287	284	430	107	47	44
9	36	105	61	92	74	72	260	314	399	99	47	43
10	42	100	80	89	75	71	249	284	347	94	46	42
11	34	82	366	107	71	67	266	266	335	91	46	40
12	31	74	*412	189	b60	70	287	287	388	86	46	39
13	29	76	286	189	b65	68	299	371	441	85	46	39
14	29	67	217	156	71	66	299	*514	438	82	44	48
15	29	54	177	131	65	62	281	*670	396	79	44	63
16	28	b44	152	119	66	*62	246	538	364	75	43	41
17	28	b36	134	109	68	68	228	502	335	72	43	*36
18	30	68	123	102	70	76	213	455	323	71	43	46
19	44	70	116	99	71	79	198	406	332	68	48	66
20	*40	76	109	95	71	78	201	368	332	65	65	67
21	36	79	105	b75	72	78	216	347	326	63	65	66
22	34	81	95	89	74	78	263	350	302	61	52	*62
23	33	82	87	86	74	79	302	364	287	60	49	54
24	32	81	90	103	72	79	320	402	263	66	47	50
25	31	67	92	114	72	79	326	448	226	62	46	50
26	31	b55	85	114	71	103	320	430	206	60	44	145
27	30	b46	93	118	70	109	305	388	196	58	44	102
28	29	b50	85	116	68	118	284	*354	182	57	43	97
29	29	72	78	110	-	118	299	320	154	56	43	91
30	28	70	84	100	------	125	350	311	*146	55	42	85
31	28	------	84	97	------	132	------	317	------	54	41	------
Total	974	2,112	3,697	3,105	2,058	2,544	8,156	11,350	10,399	2,594	1,473	1,735
Mean	31.4	70.4	119	100	73.5	82.1	272	366	347	83.7	47.5	57.8
Ac-ft	1,930	4,190	7,330	6,160	4,080	5,050	16,180	22,510	20,630	5,150	2,920	3,440

Calendar year 1958: Max 1,090 Min 27 Mean 157 Ac-ft 113,600
Water year 1958-59: Max 670 Min 26 Mean 138 Ac-ft 99,570

Peak discharge (base, 500 cfs).--Dec. 11 (11:30 p.m.) 580 cfs (2.85 ft); May 15 (3 a.m.) 715 cfs (3.23 ft); June 6 (3 a.m.) 610 cfs (3.00 ft).

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

3235. Grande Ronde River near Elgin, Oreg.

Location.--Lat 45°31', long 117°56', in NW¼ sec.3, T.1 S., R.39 E., on right bank 700 ft upstream from bridge on State Highway 82, 1½ miles downstream from Willow Creek, and 3¾ miles south of Elgin.

Drainage area.--1,250 sq mi, approximately.

Records available.--August 1955 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,660.31 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum discharge during year, 3,460 cfs Dec. 12 (gage height, 9.44 ft, from floodmark); minimum, 18 cfs Aug. 17 (gage height, 0.77 ft).
1955-59: Maximum discharge, 5,220 cfs May 12, 1956 (gage height, 11.78 ft); minimum, that of Aug. 17, 1959.
Flood in May 1948 reached a stage of 2,672.9 ft on Corps of Engineers' gage at bridge 700 ft downstream (discharge, 5,690 cfs, discharge measurement).
Floods in 1894 and 1917 were much higher, based on Corps of Engineers' flood profiles.

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

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

Oct. 1 to Dec. 11				Dec. 12 to Sept. 30			
1.1	60	3.0	436	0.8	20	3.0	436
1.5	108	4.0	775	1.0	40	5.0	1,150
2.0	201	6.0	1,600	1.5	109	7.0	2,100
				2.0	201	9.0	3,200

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	89	*270	550	1,300	834	1,640	1,620	1,110	298	42	33
2	68	90	258	550	1,200	926	1,780	1,750	1,070	272	*40	33
3	68	94	252	500	1,100	962	2,100	1,760	1,050	252	37	32
4	68	98	301	400	1,100	940	2,340	1,720	1,060	215	34	32
5	68	120	347	*340	1,200	890	2,420	1,640	1,090	191	31	39
6	67	149	312	500	*1,110	848	2,420	1,580	1,220	181	30	44
7	66	205	335	677	998	817	2,440	1,480	1,330	166	31	48
8	67	254	565	747	898	796	2,380	1,380	1,290	162	32	*53
9	71	281	604	862	845	764	2,240	1,380	1,270	166	32	55
10	71	275	542	901	768	744	2,080	1,390	1,240	152	32	60
11	81	264	1,210	918	744	712	1,920	1,360	1,170	141	31	58
12	86	245	2,600	1,050	698	674	1,800	1,310	1,090	130	28	56
13	84	235	3,200	1,310	600	698	1,740	1,290	1,020	120	25	53
14	84	260	2,000	1,360	535	694	1,700	1,350	982	112	24	50
15	83	258	1,400	1,250	576	656	1,660	1,620	958	108	23	57
16	80	227	1,100	1,130	624	*635	1,600	1,840	940	102	24	61
17	78	179	1,000	1,130	778	638	1,530	1,860	915	*98	21	79
18	78	151	900	1,130	856	674	1,450	1,900	870	91	21	96
19	84	173	800	1,100	862	740	1,340	1,900	810	76	24	100
20	*86	245	750	1,040	890	764	*1,250	1,840	750	71	29	112
21	104	342	700	950	908	758	1,180	1,760	716	68	37	139
22	110	373	700	887	887	803	1,150	1,720	670	65	37	154
23	104	347	650	901	862	852	1,250	1,620	624	62	38	152
24	99	352	550	1,190	831	890	1,360	1,540	565	61	41	149
25	96	365	550	1,640	789	901	1,450	1,480	522	60	41	134
26	92	333	550	1,800	824	922	1,490	1,470	483	57	39	143
27	90	249	550	1,600	828	1,060	1,540	1,440	436	53	37	201
28	90	227	550	1,800	796	1,130	1,560	1,400	392	50	37	272
29	90	215	500	2,200	-	1,240	1,540	*1,340	*365	50	36	272
30	92	247	460	1,800	-------	1,320	1,540	1,270	335	48	34	256
31	90	-------	500	1,400	-------	1,450	-------	1,190	-------	46	34	-------
Total	2,564	6,942	25,006	33,613	24,407	26,732	51,890	48,200	26,343	3,724	1,002	3,023
Mean	82.7	231	807	1,084	872	862	1,730	1,555	878	120	32.3	101
Ac-ft	5,090	13,770	49,600	66,670	48,410	53,020	102,900	95,600	52,250	7,390	1,990	6,000

Calendar year 1958: Max 5,060 Min 43 Mean 948 Ac-ft 686,000
Water year 1958-59: Max 3,200 Min 21 Mean 694 Ac-ft 502,700

Peak discharge (base, 3,000 cfs).--Dec. 12 (about 12 p.m.) 3,460 cfs (9.44 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 12 to Jan. 4, Jan. 26 to Feb. 5; discharge estimated on basis of recorded range in stage, weather records, and records for stations at La Grande and Rondowa.

3250. East Fork Wallowa River near Joseph, Oreg.

Location.--Lat 45°16'20", long 117°12'35", in NE¼ sec.29, T.3 S., R.45 E., on left bank a quarter of a mile upstream from confluence with West Fork, 1 mile upstream from Wallowa Lake, and 5½ miles south of Joseph.

Drainage area.--10 sq mi, approximately.

Records available.--July 1924 to September 1959. Prior to October 1952, records published separately as East Fork Wallowa River near Joseph and Wallowa Falls powerplant tailrace near Joseph.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,517.69 ft above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark). Prior to Apr. 8, 1950, staff gage at same site and datum.

Average discharge.--35 years, 21.3 cfs (15,420 acre-ft per year).

Extremes.--Maximum discharge during year, 112 cfs June 21; minimum daily, 12 cfs for many days in January and March.
1924-59: Maximum discharge, 450 cfs July 25, 1937 (no flow in powerplant tailrace), from rating curve extended above 80 cfs by logarithmic plotting; minimum daily, 6.6 cfs Feb. 13, 1927.

Remarks.--Records good. All records presented herein include flow in Wallowa Falls powerplant tailrace of Pacific Power & Light Co. Most of low flow is diverted at dam 1 mile upstream into a conduit 1 mile above Wallowa Falls powerhouse and discharged into West Fork a quarter of a mile below powerhouse.

Revisions (water years).--WSP 1217: Drainage area. WSP 1247: 1931, 1937(M), 1948-49, records for river station; 1948, records for tailrace station.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	19	15	15	14	13	15	23	32	54	29	20
2	20	19	17	17	13	13	17	21	37	53	28	19
3	19	18	*21	12	13	13	15	20	41	53	27	19
4	18	16	16	12	13	13	16	20	44	53	27	20
5	16	14	15	15	13	12	17	19	51	52	26	22
6	19	24	16	15	13	14	17	19	69	54	26	34
7	19	24	17	15	13	12	16	19	65	55	25	24
8	23	25	16	14	13	12	15	20	63	*52	24	21
9	20	28	16	15	14	12	15	21	62	50	24	20
10	21	26	16	15	15	12	16	20	60	50	23	19
11	20	23	17	15	13	13	15	19	64	48	*23	18
12	20	20	20	25	13	12	16	22	75	49	23	18
13	19	20	17	*19	14	12	16	27	81	50	23	18
14	18	20	17	17	15	13	16	34	82	49	22	24
15	18	20	17	17	15	14	16	37	81	48	22	28
16	18	20	17	16	14	12	15	31	82	48	22	*20
17	18	18	16	16	14	13	15	29	75	46	21	19
18	20	24	16	16	14	13	15	27	76	45	20	21
19	30	18	16	16	14	12	14	26	79	43	22	24
20	25	18	16	15	14	14	14	24	96	42	23	22
21	24	19	16	14	14	12	15	23	105	41	22	21
22	23	21	15	15	13	13	16	24	90	41	22	20
23	22	20	15	15	13	12	16	26	85	39	21	19
24	20	18	16	16	13	*13	17	29	80	40	21	19
25	20	16	15	15	13	13	17	30	73	38	20	19
26	19	18	16	15	13	14	17	29	69	36	20	28
27	19	18	16	15	13	13	17	28	71	35	21	22
28	*18	15	15	15	13	13	17	27	63	34	20	21
29	19	21	16	14	-	13	*20	26	58	32	20	20
30	19	19	16	15	------	13	23	26	55	30	20	20
31	18	------	15	14	------	14	------	27	------	30	20	------
Total	621	599	511	482	381	397	486	773	2,064	1,390	707	639
Mean	20.0	20.0	16.5	15.5	13.6	12.8	16.2	24.9	68.8	44.8	22.8	21.3
Cfsm	2.00	2.00	1.65	1.55	1.36	1.28	1.62	2.49	6.88	4.48	2.28	2.13
In.	2.31	2.23	1.90	1.79	1.42	1.48	1.81	2.87	7.68	5.17	2.63	2.38
Ac-ft	1,230	1,190	1,010	956	756	787	964	1,530	4,090	2,760	1,400	1,270

Calendar year 1958: Max 125 **Min** 12 **Mean** 28.3 **Cfsm** 2.83 **In.** 38.48 **Ac-ft** 20,520
Water year 1958-59: Max 105 **Min** 12 **Mean** 24.8 **Cfsm** 2.48 **In.** 33.67 **Ac-ft** 17,940

* Discharge measurement made on this day.

3260. Wallowa Lake near Joseph, Oreg.

Location.--Lat 45°20'10", long 117°13'15", in NW¼ sec.5, T.3 S., R.45 E., on trashrack structure near west end of Wallowa Lake Dam, three-quarters of a mile southeast of Joseph.

Drainage area.--52 sq mi, approximately.

Records available.--November 1903 to July 1906 (gage heights only), January 1912 to March 1914, May to September 1915 (gage heights and change in contents only), October 1925 to June 1926, December 1926 to September 1959. Month-end contents only for some periods, published in WSP 1317. November 1903 to March 1905, published as Wallowa River at Joseph. Change in contents for January 1912 to March 1914 and May to September 1915 published with records for Wallowa River at Joseph.

Gage.--Staff gage read once daily. Datum of gage is 4,355.66 ft above mean sea level, datum of 1929. Nov. 12, 1903, to July 28, 1906, Jan. 13, 1912, to Mar. 31, 1914, May 21 to Sept. 25, 1915, staff gages at several sites within half a mile of present site at different datums.

Extremes.--Maximum contents observed during year, 43,080 acre-ft June 22, 24 (gage height, 27.00 ft); minimum observed, 18,460 acre-ft Sept. 5 (gage height, 11.85 ft).
1925-59: Maximum contents observed, 47,830 acre-ft June 5-7, 1957 (gage height, 29.85 ft); minimum observed, 4,790 acre-ft Oct. 10, 1929 (gage height, 3.10 ft).

Remarks.--Reservoir is formed by concrete dam. Capacity, 42,750 acre-ft between gage heights 0.0 (sill of outlet gates) and 26.8 ft (spillway crest). About 5,300 acre-ft dead storage above outlet gates, since channel is about 3.4 ft above outlet gates. Dead storage below outlet gates not known. Records are based on capacities above outlet gates.

Month-end gage height and contents, water year October 1958 to September 1959

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	14.65	22,920	-
Oct. 31	15.35	24,040	+1,120
Nov. 30	17.75	27,900	+3,860
Dec. 31	20.05	31,630	+3,730
Calendar year 1958	-	-	+7,510
Jan. 31	21.40	33,840	+2,210
Feb. 28	21.35	33,760	-80
Mar. 31	21.55	34,080	+320
Apr. 30	23.45	37,200	+3,120
May 31	24.85	39,520	+2,320
June 30	25.80	41,090	+1,570
July 31	18.80	29,600	-11,490
Aug. 31	11.90	18,540	-11,060
Sept.30	14.25	22,280	+3,740
Water year 1958-59	-	-	-640

† Gage height at 7 a.m.

3275. Wallowa River at Joseph, Oreg.

Location.--Lat 45°20'15", long 117°13'35", in NW¼ sec.5, T.3 S., R.45 E., on left bank 1,000 ft downstream from Wallowa Lake Dam and three-quarters of a mile south of Joseph.
Drainage area.--52 sq mi, approximately.
Records available.--November 1903 to August 1907, June 1908 to March 1914, May to September 1915, December 1926 to September 1959. Monthly discharge only for some periods, published in WSP 1317. Published as "near Joseph" 1911.
Gage.--Water-stage recorder. Datum of gage is 4,326.86 ft above mean sea level, datum of 1929. Nov. 12, 1903, to Sept. 25, 1915, staff gages at several sites at lake outlet or near present site at different datums.
Average discharge.--32 years (1927-59), 127 cfs (91,940 acre-ft per year), adjusted for storage and diversion.
Extremes.--Maximum discharge during year, 604 cfs June 23 (gage height, 3.51 ft); minimum, 18 cfs Feb. 13 to Mar. 3.
1903-15, 1926-59: Maximum discharge, 1,200 cfs June 5, 1957 (gage height, 4.75 ft); no flow at times in some years.
Remarks.--Records good except those for periods of no gage-height record or shifting control, which are fair. Monthly discharge adjusted for storage in Wallowa Lake (see preceding page) and diversion from Wallowa Lake by Silver Lake Canal. Silver Lake Canal diverts at Wallowa Lake Dam for irrigation of 4,900 acres northeast of Joseph. City of Joseph diverts less than 1 cfs from Wallowa Lake for municipal use.
Revisions (water years).--WSP 1397: 1906.

Rating tables, water year 1958-59, except periods of shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 3		Mar. 4 to Sept. 30			
1.1	14	1.2	25	2.6	300
1.2	22	1.5	61	3.5	600
1.4	43	2.0	151		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*31	30	26	38	29	18	37	37	288	452	360	71
2	31	30	23	38	29	18	37	37	309	424	354	71
3	30	30	*23	38	29	18	37	37	327	424	351	71
4	30	30	23	38	29	33	37	37	354	424	360	71
5	30	30	23	38	29	37	37	37	348	396	366	40
6	30	30	23	30	28	37	37	37	342	375	345	33
7	30	30	23	30	27	37	37	37	345	327	330	32
8	30	29	23	30	27	37	37	37	348	303	324	31
9	30	29	23	30	24	37	37	37	369	300	297	31
10	30	30	23	30	20	37	37	37	387	*285	273	31
11	30	31	23	30	20	37	37	*56	399	282	*248	31
12	30	31	23	*29	*19	37	37	125	399	248	242	31
13	29	31	23	30	18	37	37	149	408	252	230	31
14	29	31	23	30	18	37	37	237	444	250	218	31
15	29	30	23	29	18	37	37	291	469	276	186	31
16	29	29	23	29	18	37	37	294	452	306	162	*31
17	29	29	23	*29	18	37	37	*294	441	345	168	31
18	29	29	23	29	18	37	37	294	458	375	172	31
19	29	29	23	29	18	37	37	258	458	390	170	31
20	30	29	23	29	18	37	37	228	466	441	147	31
21	30	28	23	29	18	37	*37	222	466	514	133	32
22	30	28	23	29	18	37	37	188	522	536	112	32
23	30	28	23	29	18	37	37	174	580	497	92	32
24	30	28	23	29	18	37	37	174	596	472	77	32
25	31	28	23	29	18	37	37	200	596	469	71	32
26	31	27	23	29	18	37	37	212	556	427	71	32
27	31	27	30	29	18	37	37	218	514	414	71	32
28	31	26	38	29	18	37	37	238	490	366	71	32
29	31	26	38	29	-	37	*37	258	486	363	*71	33
30	31	26	38	29	-------	37	37	250	483	378	71	33
31	31	-------	38	29	-------	37	-------	260	-------	366	71	-------
Total	932	869	783	952	598	1,086	1,110	4,990	13,100	11,677	6,214	1,114
Mean	30.1	29.0	25.3	30.7	21.4	35.0	37.0	161	437	377	200	37.1
Ac-ft	1,850	1,720	1,550	1,890	1,190	2,150	2,200	9,900	25,980	23,160	12,330	2,210

Adjusted for change in contents in Wallowa Lake and diversion by Silver Lake Canal

Mean	55.3	98.8	88.8	72.5	24.0	47.2	93.6	209	548	300	100	109
Cfsm	1.06	1.90	1.71	1.39	0.462	0.908	1.80	4.02	10.5	5.77	1.92	2.10
In.	1.23	2.12	1.97	1.61	0.48	1.05	2.01	4.64	11.75	6.65	2.22	2.34
Ac-ft	3,400	5,880	5,460	4,460	1,330	2,900	5,570	12,860	32,590	18,450	6,160	6,480

Observed

Calendar year 1958: Max 735 Min 9.8 Mean 122 Ac-ft 88,030
Water year 1958-59: Max 598 Min 18 Mean 119 Ac-ft 86,130

Adjusted

Calendar year 1958: Mean 160 Cfsm 3.08 In. 41.80 Ac-ft 115,900
Water year 1958-59: Mean 146 Cfsm 2.81 In. 38.07 Ac-ft 105,500

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 16 to Jan. 11; discharge estimated on basis of recorded range in stage and gate changes at Wallowa Lake Dam. Shifting-control method used Nov. 21 to Dec. 15, Jan. 28 to Mar. 3, Sept. 5-30.

3295. Hurricane Creek near Joseph, Oreg.

Location.--Lat 45°20'15", long 117°17'30", in NE¼ sec.3, T.3 S., R.44 E., on left bank 350 ft upstream from intake of Moonshine ditch and 3½ miles southwest of Joseph.

Drainage area.--31 sq mi, approximately.

Records available.--April to September 1915, April 1924 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (by barometer). Apr. 27 to Sept. 3, 1915, staff gage at site 250 ft downstream at different datum. Apr. 23, 1924, to June 13, 1933, water-stage recorder at site 150 ft downstream from present site at different datum.

Average discharge.--35 years (1924-59), 73.0 cfs (52,850 acre-ft per year).

Extremes.--Maximum discharge during year, 690 cfs June 20 (gage height, 4.15 ft), from rating curve extended above 290 cfs by logarithmic plotting; minimum, 12 cfs Mar. 15 (gage height, 2.00 ft).
1915, 1924-59: Maximum discharge, 1,110 cfs June 9, 1948 (gage height, 3.55 ft); maximum gage height, 4.69 ft June 13, 1955 (backwater from debris); minimum discharge, 2.8 cfs Mar. 2, 1955 (gage height, 1.22 ft), result of ice jam upstream.

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

Revisions (water years).--WSP 1397: 1915, 1925-28.

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

2.0	12	2.8	125
2.2	28	3.2	240
2.5	67	3.9	550

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	27	49	48	43	20	28	88	168	222	110	42
2	30	26	49	43	38	18	43	79	236	212	99	40
3	29	27	77	35	42	18	40	76	279	212	97	39
4	28	38	*60	29	42	17	39	74	315	196	95	43
5	*27	36	52	34	42	17	43	70	415	193	85	52
6	27	109	52	37	40	16	48	69	475	202	80	99
7	27	103	56	40	38	17	44	70	378	*181	75	56
8	37	128	49	46	37	16	42	76	*323	150	70	48
9	32	145	48	46	35	17	40	82	291	150	70	44
10	38	128	54	44	*34	16	40	79	244	172	*69	40
11	36	97	150	47	32	16	44	77	279	193	69	38
12	32	84	130	*64	30	16	48	86	410	208	69	38
13	30	79	95	51	28	16	52	125	505	199	66	38
14	28	72	88	47	28	15	52	205	455	184	66	66
15	28	64	82	46	28	16	54	250	425	178	62	*76
16	28	55	79	46	29	16	51	178	400	172	62	58
17	27	52	74	*44	27	18	49	158	386	170	62	51
18	32	56	72	43	26	18	48	145	415	168	60	51
19	58	58	69	44	26	18	47	132	480	168	62	64
20	42	62	67	43	25	16	47	125	535	160	62	66
21	37	61	67	40	24	19	*47	118	540	158	61	56
22	36	60	62	42	24	19	48	114	475	152	60	54
23	35	58	58	46	23	*20	51	138	425	150	54	51
24	32	*56	60	52	21	20	56	162	386	160	52	49
25	32	51	58	48	21	20	60	181	351	140	52	52
26	31	47	56	47	21	20	61	162	311	128	49	97
27	*31	44	55	47	20	20	58	150	264	123	48	72
28	30	44	54	46	20	20	56	138	222	120	49	64
29	29	51	52	46	-	20	64	128	202	110	47	60
30	29	49	51	42	------	21	84	125	199	110	44	58
31	28	------	49	43	------	22	------	135	------	110	44	------
Total	997	1,967	2,074	1,376	844	558	1,484	3,795	10,789	5,175	2,050	1,662
Mean	32.2	65.6	66.9	44.4	30.1	18.0	49.5	122	360	167	66.1	55.4
Cfsm	1.04	2.12	2.16	1.43	0.971	0.581	1.60	3.94	11.6	5.39	2.13	1.79
In.	1.20	2.36	2.49	1.65	1.01	0.67	1.78	4.55	12.94	6.21	2.46	1.99
Ac-ft	1,980	3,900	4,110	2,730	1,670	1,110	2,940	7,530	21,400	10,260	4,070	3,300

Calendar year 1958: Max 486 Min 6.8 Mean 88.3 Cfsm 2.85 In. 38.68 Ac-ft 63,940
Water year 1958-59: Max 540 Min 15 Mean 89.8 Cfsm 2.90 In. 39.31 Ac-ft 65,000

Peak discharge (base, 400 cfs).--June 5 (9:30 p.m.) 575 cfs (3.95 ft); June 20 (6 p.m.) 690 cfs (4.15 ft).

* Discharge measurement made on this day.

3300. Lostine River near Lostine, Oreg.

Location.--Lat 45°26'20", long 117°25'35", in NW¼ sec.34, T.1 S., R.43 E., on left bank 3½ miles south of Lostine and 9 miles upstream from mouth.

Drainage area.--70 sq mi, approximately.

Records available.--August 1912 to March 1914, April to September 1915, July 1925 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,650 ft (by barometer). Aug. 27, 1912, to Sept. 25, 1915, staff gage at site 500 ft upstream at different datum. July 21, 1925, to Sept. 30, 1929, water-stage recorder at site 100 ft upstream at datum about 1.5 ft higher. Oct. 1, 1929, to Dec. 15, 1953, water-stage recorder at site 85 ft downstream at datum 1.00 ft higher.

Average discharge.--35 years (1912-13, 1925-59), 194 cfs (140,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,780 cfs June 20 (gage height, 6.13 ft); minimum, 30 cfs Mar. 15 (gage height, 0.65 ft).
1912-15, 1925-59: Maximum discharge observed, 2,540 cfs May 27, 1913 (gage height, 6.60 ft, site and datum then in use); minimum recorded, 10 cfs Nov. 28-30, 1936.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Diversions for irrigation of about 130 acres of which about 20 acres is below station.

Revisions (water years).--WSP 1397: 1913, 1942.

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

Oct. 1 to Nov. 5		Nov. 6 to Sept. 30			
0.6	27	0.7	35	3.0	490
.8	45	1.0	71	4.0	800
1.2	91	1.5	145	6.0	1,720
1.6	153	2.0	237		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	53	110	110	84	56	67	302	511	601	154	46
2	39	55	108	b100	b85	52	137	260	706	649	154	44
3	37	5:	*224	b80	79	53	134	235	863	598	139	43
4	35	87	167	b65	77	51	131	215	914	553	128	52
5	*35	83	143	b75	72	52	137	202	1,160	547	118	89
6	33	405	150	b85	70	50	167	185	1,420	568	112	147
7	33	443	171	b90	72	51	154	182	1,080	*529	106	88
8	63	451	159	b100	77	51	143	200	*860	420	100	71
9	53	481	148	*96	72	50	135	233	776	420	96	62
10	76	457	164	93	*77	50	134	211	634	480	*89	57
11	65	322	702	96	78	47	143	198	706	550	88	*52
12	62	265	670	*123	b60	50	160	219	1,060	600	84	51
13	56	241	420	110	b55	48	169	352	1,410	550	81	48
14	52	211	342	99	59	46	171	589	1,420	500	74	62
15	49	182	292	98	58	44	167	772	1,190	460	68	124
16	48	164	256	102	58	47	157	607	1,070	400	67	86
17	46	b140	231	100	58	50	152	511	1,050	360	66	77
18	56	b150	213	98	57	50	143	436	1,080	340	63	75
19	137	159	198	93	56	48	137	380	1,320	300	70	112
20	99	173	184	91	54	46	131	338	1,510	260	82	128
21	84	173	182	b85	53	48	135	315	1,500	240	75	114
22	78	166	162	88	52	48	150	328	1,260	220	67	111
23	74	164	147	91	52	*48	162	390	1,100	200	61	102
24	70	157	148	117	50	47	182	505	1,010	200	58	93
25	68	139	140	104	52	46	194	595	906	190	56	108
26	66	b120	135	98	52	48	198	523	796	180	52	252
27	*64	b100	129	100	51	48	193	451	679	170	51	202
28	63	b110	124	100	52	50	180	400	586	170	51	175
29	58	b120	118	99	-	50	198	360	532	*162	50	154
30	55	112	117	b85	------	52	271	342	529	159	47	147
31	53	------	116	89	------	56	------	380	------	154	46	------
Total	1,847	5,940	6,570	2,960	1,772	1,533	4,732	11,216	29,638	11,730	2,553	2,972
Mean	59.6	198	212	95.5	63.3	49.5	158	362	988	378	82.4	99.1
Ac-ft	3,660	11,780	13,030	5,870	3,510	3,040	9,390	22,250	58,790	23,270	5,060	5,890

Calendar year 1958: Max 1,540 Min 24 Mean 246 Ac-ft 178,300
Water year 1958-59: Max 1,510 Min 33 Mean 229 Ac-ft 165,500

Peak discharge (base, 1,100 cfs).--June 6 (2:30 a.m.) 1,600 cfs (5.76 ft); June 13 (10 p.m.) 1,700 cfs (5.97 ft); June 20 (10 p.m.) 1,780 cfs (6.13 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record July 8-28; discharge estimated on basis of recorded range in stage, weather records, and records for Bear Creek near Wallowa.

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3305. Bear Creek near Wallowa, Oreg.

Location.--Lat 45°32', long 117°33', in NE¼ sec.34, T.1 N., R.42 E., on right bank 30 ft downstream from road bridge, 3 miles southwest of Wallowa, and 4½ miles upstream from mouth.

Drainage area.--68 sq mi, approximately.

Records available.--April to September 1915, April 1924 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,250 ft (by barometer). Apr. 13 to Sept. 16, 1915, staff gage at site 1 mile upstream at different datum. Apr. 22, 1924, to Nov. 2, 1931, water-stage recorder at site 1½ miles upstream at different datum.

Average discharge.--35 years (1924-59), 113 cfs (81,810 acre-ft per year).

Extremes.--Maximum discharge during year, 1,230 cfs Dec. 11 (gage height, 3.17 ft); minimum, 12 cfs Aug. 29 to Sept. 4.
1915, 1924-59: Maximum discharge, 1,620 cfs Apr. 22, 1936 (gage height, 3.82 ft, from floodmark), from rating curve extended above 930 cfs; minimum daily, 3 cfs Jan. 20, Feb. 1, 1937.

Remarks.--Records good prior to June 4, excellent thereafter. No regulation. Diversions for irrigation of about 43 acres above station. Water for irrigation of about 440 acres in Lostine River basin diverted from Little Bear Creek, a tributary above station, in sec.32, T.1 S., R.43 E.

Revisions (water years).--WSP 1397: 1915, 1927, 1929-30, 1932, 1936-40, 1945, 1949.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 5 to June 3; stage-discharge relation affected by ice Feb. 13)

Oct. 1 to June 3				June 4 to Sept. 30			
0.8	11	1.7	156	1.1	8.0	1.7	115
1.0	25	2.1	310	1.2	15	2.1	261
1.2	48	2.5	560	1.3	26	2.5	480
1.4	81	2.8	810	1.4	42	2.9	830

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	24	76	79	114	63	117	301	366	227	25	12
2	15	25	74	72	100	65	320	270	490	210	24	12
3	15	27	*142	58	100	68	*320	237	553	191	22	12
4	15	42	147	46	103	67	296	200	592	177	22	12
5	15	47	127	50	94	63	283	180	*676	173	22	17
6	15	237	122	55	92	60	*306	159	740	170	21	29
7	14	274	144	60	85	58	270	153	616	*156	20	21
8	20	283	144	65	79	58	237	170	*525	130	20	20
9	*18	292	139	*65	77	52	194	200	477	124	19	18
10	23	278	150	74	74	50	180	187	395	127	*18	17
11	24	208	691	89	70	47	183	170	432	130	17	16
12	24	170	783	*127	67	47	197	183	592	134	17	15
13	22	153	525	139	60	40	200	301	730	124	17	15
14	20	127	378	127	65	39	197	504	712	109	16	18
15	20	110	296	114	57	36	187	576	624	101	15	*25
16	20	92	249	110	58	38	163	448	576	95	15	21
17	20	81	211	100	62	40	153	390	539	87	15	20
18	24	85	190	96	58	45	136	345	539	82	15	20
19	58	89	166	92	58	51	122	301	592	77	15	24
20	48	117	147	92	58	51	112	249	658	70	18	42
21	42	147	144	85	58	54	112	233	640	63	21	38
22	40	156	122	87	58	54	*136	245	548	57	17	42
23	38	159	107	92	58	58	183	310	458	50	16	38
24	35	150	110	136	57	54	190	378	419	52	15	35
25	34	130	107	156	58	*52	197	434	383	46	15	37
26	31	114	98	159	60	57	197	408	326	40	14	132
27	*30	98	96	183	58	57	183	340	266	37	14	121
28	29	100	89	156	58	70	166	270	227	33	13	101
29	27	87	79	147	-	72	180	245	195	*30	13	90
30	26	79	81	136	-------	76	261	229	199	29	12	90
31	25	-------	79	124	-------	81	-------	253	-------	26	12	-------
Total	802	3,981	6,013	3,151	1,996	1,719	5,958	8,869	15,083	3,157	535	1,110
Mean	25.9	133	194	102	71.3	55.5	199	286	503	102	17.3	37.0
Ac-ft	1,590	7,900	11,930	6,250	3,960	3,410	11,820	17,590	29,920	6,260	1,060	2,200

Calendar year 1958: Max 1,090 Min 12 Mean 153 Ac-ft 110,700
Water year 1958-59: Max 783 Min 12 Mean 143 Ac-ft 103,900

Peak discharge (base, 600 cfs).--Dec. 11 (9:30 p.m.) 1,230 cfs (3.17 ft); May 15 (5 a.m.) 624 cfs (2.73 ft); June 6 (2 a.m.) 885 cfs (2.95 ft); June 13 (8 p.m.) 820 cfs (2.89 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 4-8; discharge estimated on basis of weather records and records for Lostine River near Lostine and Hurricane Creek near Joseph.

3325. Grande Ronde River at Rondowa, Oreg.

Location.--Lat 45°44', long 117°47', in NW¼ sec.23, T.3 N., R.40 E., on right bank at Rondowa, 500 ft downstream from Wallowa River, 13 miles northeast of Elgin, and at mile 81.4 (river-profile survey).

Drainage area.--2,555 sq mi.

Records available.--October 1926 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 2,281.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--33 years, 2,115 cfs (1,531,000 acre-ft per year).

Extremes.--Maximum discharge during year, 12,800 cfs Dec. 12 (gage height, 7.52 ft); minimum, 506 cfs Aug. 17 (gage height, 1.24 ft).
1926-59: Maximum discharge, 19,900 cfs May 28, 1948 (gage height, 9.76 ft); minimum, 225 cfs Dec. 19, 1935.

Remarks.--Records excellent except those for period of doubtful gage-height record, which are good. Flow slightly regulated by Wallowa Lake (see p. 228) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Sheep Creek in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley.

Revisions (water years).--WSP 1093: 1928-29, 1932-33, 1936, 1938, 1939(M), 1943. WSP 1397: 1927. WSP 1447: 1927.

Rating tables, water year 1958-59, except period of doubtful gage-height record (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 11				Dec. 12 to Sept. 30			
1.2	495	3.0	2,540	1.2	480	3.0	2,500
1.5	720	6.0	8,870	1.5	690	4.0	4,360
2.0	1,210			2.0	1,150	7.0	11,300

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	580	640	1,310	2,300	3,160	2,630	4,150	5,000	4,130	2,310	714	580
2	572	648	1,260	2,200	3,000	2,710	5,770	4,930	4,740	2,420	690	566
3	565	688	1,590	1,580	2,800	2,660	6,060	4,610	5,590	2,360	660	545
4	558	801	1,800	1,400	2,800	2,470	5,900	4,340	5,590	2,200	622	552
5	551	891	1,650	1,490	2,800	2,310	5,680	4,090	6,310	2,130	630	668
6	544	1,160	1,620	1,800	2,600	2,200	5,950	3,810	7,940	2,160	622	788
7	530	2,610	2,340	1,860	2,400	2,140	5,590	3,610	7,140	2,140	630	770
8	602	2,030	2,610	2,060	2,200	2,070	5,200	3,610	6,120	1,970	608	668
9	672	2,270	*2,400	2,530	2,000	1,980	4,780	3,830	5,700	1,790	601	638
10	656	2,510	2,330	2,710	1,900	1,930	4,440	3,690	*4,960	1,760	594	622
11	640	1,990	6,910	2,930	1,800	1,790	4,260	3,510	4,700	1,800	594	608
12	625	1,760	10,500	4,210	1,700	1,800	4,260	3,460	5,570	1,820	573	594
13	610	1,890	8,030	4,030	1,600	1,830	4,230	3,950	6,790	1,840	573	580
14	595	1,740	6,420	*3,550	1,600	1,770	4,130	5,290	7,070	*1,670	*559	587
15	588	1,560	5,240	3,270	1,600	1,670	3,990	7,000	6,400	1,480	545	869
16	580	1,400	4,460	3,090	1,600	1,710	3,750	6,560	5,750	1,400	532	833
17	572	1,140	3,870	2,980	2,000	1,750	3,610	6,150	5,480	1,310	519	754
18	610	1,240	3,340	2,980	2,400	1,870	3,420	5,900	5,310	1,270	519	754
19	828	1,410	3,020	2,920	2,400	1,970	3,180	5,480	5,660	1,200	532	860
20	873	1,840	2,760	2,830	*2,660	1,930	3,000	5,070	6,100	1,160	608	1,020
21	747	2,180	2,680	2,630	2,610	1,970	2,930	*4,800	6,170	1,100	746	980
22	747	2,070	2,530	2,610	2,500	2,030	3,140	4,820	5,460	1,050	690	990
23	729	2,080	2,280	2,660	2,390	2,160	3,460	4,930	4,740	990	652	*932
24	704	2,070	2,200	3,690	2,250	2,190	3,730	5,150	4,340	1,020	645	896
25	688	1,880	2,240	4,130	2,250	2,200	3,890	5,620	3,970	1,010	622	878
26	680	1,650	2,130	3,770	2,420	*2,400	3,950	5,350	3,590	941	601	1,520
27	672	1,470	2,240	3,970	2,260	2,580	3,990	4,870	3,110	914	601	1,800
28	664	1,290	2,160	4,680	2,260	2,690	3,910	4,550	2,740	860	594	1,770
29	656	1,310	2,030	4,150	-	2,920	3,990	4,230	2,500	815	601	1,550
30	648	1,310	2,080	3,750	-------	3,220	4,420	3,990	2,340	762	594	1,460
31	*640	-------	2,220	3,420	-------	3,690	-------	3,870	-------	746	580	-------
Total	19,926	47,528	98,250	92,180	63,960	69,240	128,760	146,070	156,010	46,398	18,851	26,632
Mean	643	1,584	3,169	2,974	2,284	2,234	4,292	4,712	5,200	1,497	608	888
Ac-ft	39,520	94,270	194,900	182,800	126,900	137,300	255,400	289,700	309,400	92,030	37,390	52,820

Calendar year 1958: Max 11,500 Min 462 Mean 2,927 Ac-ft 2,119,000
Water year 1958-59: Max 10,500 Min 519 Mean 2,504 Ac-ft 1,812,000

Peak discharge (base, 6,200 cfs, revised).--Dec. 12 (2 a.m.) 12,800 cfs (7.52 ft); Apr. 2 (9 p.m.) 6,240 cfs (4.86 ft); May 15 (4 p.m.) 7,320 cfs (5.33 ft); June 6 (7 a.m.) 8,310 cfs (5.76 ft); June 14 (1:30 a.m.) 7,550 cfs (5.43 ft).

* Discharge measurement made on this day.
Note.--Doubtful gage-height record Feb. 3-19; discharge computed on basis of records for station at Troy.

3330. Grande Ronde River at Troy, Oreg.

Location.--Lat 45°57', long 117°27', in NW¼ sec.4, T.5 N., R.43 E., on downstream side of left end of bridge at Troy, 100 ft downstream from Wenaha River and at mile 45.4 (river-profile survey).

Drainage area.--3,275 sq mi.

Records available.--August 1944 to September 1959. Monthly discharge only for August 1944, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 1,587.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1949, wire-weight gage at same site at datum 12.00 ft lower.

Average discharge.--15 years, 3,343 cfs (2,420,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,800 cfs Dec. 12 (gage height, 8.94 ft); minimum, 717 cfs Oct. 7 (gage height, 2.11 ft).
1944-59: Maximum discharge observed, 30,000 cfs Dec. 15, 1946 (gage height, 11.20 ft, present datum); minimum, 434 cfs Nov. 29, 1952 (gage height, 1.71 ft), result of freezeup.

Remarks.--Records good except those for period Nov. 7 to Dec. 29, which are fair. Flow slightly regulated by Wallowa Lake (see p. 228) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Big Sheep Creek and tributaries in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley.

Revisions (water years).--WSP 1397: 1946(M), 1948-50.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 7-10, 18-21, Nov. 30 to Dec. 29)

Oct. 1 to Nov. 6		Nov. 7 to Sept. 30			
2.1	710	2.2	760	5.0	4,500
2.5	1,000	3.0	1,430	7.0	9,900
3.0	1,430	4.0	2,700	9.0	18,000

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	773	857	1,800	3,410	4,660	3,630	6,520	6,980	4,900	2,720	1,010	823
2	766	864	1,760	3,410	4,160	4,060	9,690	6,900	5,420	2,760	996	816
3	759	899	2,780	2,640	3,900	4,100	9,830	6,150	6,350	2,750	964	802
4	752	1,040	*3,340	2,110	4,080	3,720	8,990	5,900	6,550	2,610	916	816
5	738	1,130	2,940	2,500	4,020	3,540	8,450	5,450	6,980	2,490	900	924
6	731	1,360	2,720	2,640	3,760	3,360	8,990	5,150	8,900	2,520	893	1,130
7	724	3,020	3,230	2,680	3,340	3,130	8,150	4,900	8,240	2,540	886	1,100
8	944	2,960	4,500	2,720	3,100	2,990	7,490	4,840	7,120	2,400	872	940
9	913	3,250	3,920	3,100	2,940	2,890	6,950	5,050	6,780	*2,080	851	879
10	899	3,270	3,580	3,540	2,780	2,830	6,480	4,950	6,020	*2,010	844	872
11	864	2,670	7,930	3,790	2,640	2,620	6,180	4,720	5,520	2,060	844	851
12	843	2,310	15,900	6,620	2,480	2,640	6,250	4,580	6,100	2,110	830	830
13	829	2,540	11,100	6,680	2,310	2,730	6,450	5,000	6,980	2,150	*816	816
14	801	2,480	8,690	5,500	2,370	2,600	6,150	6,450	7,460	1,990	816	830
15	794	2,180	7,100	4,660	2,370	2,540	5,900	8,450	7,020	1,780	809	1,040
16	780	1,870	6,100	4,280	2,370	2,480	5,400	8,450	6,550	1,680	795	1,160
17	780	1,600	5,320	4,100	3,100	2,550	5,220	7,730	6,150	1,600	781	*1,040
18	815	1,670	4,760	4,060	3,630	2,830	5,000	7,430	5,850	1,540	774	1,010
19	976	1,850	4,240	3,860	*3,580	3,040	4,700	6,920	5,780	1,480	781	1,060
20	1,200	2,260	3,880	3,680	3,850	2,920	4,420	6,500	6,220	1,430	865	1,260
21	1,020	3,080	3,720	3,360	3,760	2,890	4,340	6,120	6,600	1,370	1,030	1,290
22	976	3,080	3,670	3,360	3,680	2,940	4,720	6,080	6,100	1,320	996	1,250
23	952	3,080	3,310	3,470	3,500	3,050	5,200	6,150	5,280	1,280	924	1,230
24	960	3,220	3,150	6,000	3,270	3,270	5,580	6,280	4,800	1,270	893	1,180
25	936	2,960	3,160	7,000	3,100	*3,250	5,650	6,780	4,480	1,280	879	1,160
26	928	2,640	3,050	6,120	3,360	3,540	5,600	6,600	4,120	1,250	858	1,660
27	913	2,170	3,150	6,550	3,200	3,900	5,750	5,900	3,680	1,220	844	2,670
28	899	1,820	3,200	8,510	3,070	3,960	5,680	5,520	3,250	1,190	837	2,320
29	*885	1,820	3,080	7,120	-	4,200	5,900	5,200	3,020	1,150	837	2,060
30	871	1,810	*2,910	6,000	-------	4,480	*6,350	4,840	2,810	1,090	837	1,880
31	864	-------	3,100	5,380	-------	5,200	-------	4,720	-------	1,060	830	-------
Total	26,885	65,760	141,090	138,850	92,380	101,880	191,980	186,690	175,030	56,180	27,008	35,699
Mean	867	2,192	4,551	4,479	3,299	3,286	6,399	6,022	5,834	1,812	871	1,190
Ac-ft	53,330	130,400	279,800	275,400	183,200	202,100	380,800	370,300	347,200	111,400	53,570	70,810

Calendar year 1958: Max 18,000 Min 650 Mean 3,812 Ac-ft 2,760,000
Water year 1958-59: Max 15,900 Min 724 Mean 3,396 Ac-ft 2,458,000

Peak discharge (base, 9,000 cfs, revised).--Dec. 12 (4 a.m.) 18,800 cfs (8.94 ft); Jan. 28 (4 a.m.) 9,200 cfs (6.80 ft); Apr. 2 (10 p.m.) 10,800 cfs (7.25 ft); May 16 (2 a.m.) 9,140 cfs (6.78 ft); June 6 (2 p.m.) 9,620 cfs (6.92 ft).

* Discharge measurement made on this day.

3343. Snake River near Anatone, Wash.

Location.--Lat 46°05'55", long 116°58'30", in SE¼NE¼ sec.12, T.7 N., R.46 E., on left bank 1½ miles downstream from Grande Ronde River, 7.8 miles east of Anatone, 22 miles south of Clarkston, and at mile 28.4 from Lewiston.

Drainage area.--92,960 sq mi, approximately.

Records available.--July 1958 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 806.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum discharge during year, 91,300 cfs June 7 (gage height, 14.21 ft); minimum, 8,760 cfs Oct. 8 (gage height, 2.15 ft).
1958-59: Maximum discharge, that of June 7, 1959; minimum, 6,010 cfs Sept. 2, 1958 (gage height, 1.29 ft).

Remarks.--Records excellent. Flow regulated by many powerplants and diversions upstream. Diversions for irrigation of about 2,837,000 acres above station.

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

2.0	8,270	6.0	25,200
3.0	11,800	10.0	55,200
4.0	15,800	14.1	90,300

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21,000	20,200	18,300	23,000	29,300	25,700	34,400	42,900	38,400	40,700	16,500	21,800
2	20,100	19,900	19,700	23,000	28,100	26,200	40,000	47,800	44,300	37,600	16,200	21,400
3	20,700	19,600	20,200	22,600	28,200	26,700	44,200	45,200	52,800	34,100	15,400	*19,200
4	21,000	20,000	21,000	21,800	28,300	*23,400	45,700	40,400	58,500	32,800	16,300	19,900
5	20,800	19,500	20,600	20,400	28,300	22,900	*46,000	39,500	64,400	31,400	17,500	19,800
6	20,600	20,200	20,600	21,400	27,700	26,500	48,600	36,400	78,400	32,200	17,100	19,600
7	15,600	22,600	19,900	22,000	27,400	24,800	49,100	33,900	89,400	30,200	17,300	17,700
8	9,710	23,700	21,300	22,200	26,800	24,200	47,500	30,900	89,400	29,600	18,100	19,900
9	12,500	23,400	22,200	22,500	26,800	25,000	44,900	33,000	84,800	28,700	17,900	19,100
10	15,400	24,400	*21,600	23,300	26,100	24,600	42,500	33,200	*79,300	27,800	16,900	19,000
11	18,500	24,600	25,400	23,000	25,600	23,200	40,000	31,500	71,000	26,700	16,900	19,200
12	17,200	*22,100	39,600	24,800	22,800	21,800	38,400	*34,300	65,200	25,300	17,000	18,800
13	18,400	22,500	34,700	29,500	21,700	21,400	39,600	36,100	73,700	26,000	17,000	18,400
14	20,000	22,600	30,700	26,300	21,900	20,800	40,100	42,700	83,400	24,600	17,900	15,900
15	19,300	23,500	26,900	25,300	21,200	21,000	38,600	58,000	86,400	24,000	17,500	18,800
16	19,900	23,500	25,700	24,400	18,900	20,200	37,500	67,500	82,000	23,800	17,900	24,300
17	18,600	22,400	24,800	23,200	22,400	23,000	36,400	83,500	77,700	23,100	15,600	26,900
18	17,300	22,000	25,000	25,000	23,600	25,100	34,400	57,500	75,000	23,000	18,100	26,300
19	17,600	21,500	24,700	25,900	24,800	26,200	30,600	55,800	75,000	22,000	18,100	26,200
20	19,200	21,600	24,600	24,800	28,400	28,200	25,400	50,300	76,200	20,400	18,200	26,600
21	20,400	23,900	22,800	23,000	29,700	28,300	28,000	46,400	75,800	26,100	18,000	27,800
22	20,100	25,000	22,300	23,100	29,300	28,200	29,600	45,000	70,900	23,600	19,100	28,000
23	19,000	24,800	22,800	*22,800	28,400	28,300	32,200	47,200	68,900	25,300	17,900	27,900
24	18,000	24,400	22,600	22,200	28,800	29,200	33,300	47,900	68,200	21,500	16,800	27,100
25	18,900	24,600	21,300	28,600	28,600	28,800	33,900	52,800	63,400	*21,000	19,500	25,700
26	21,200	23,100	21,200	31,300	28,900	29,800	33,500	54,700	55,400	20,300	19,200	25,700
27	21,100	20,700	22,800	32,100	28,200	30,500	34,800	51,300	56,500	18,200	19,400	30,200
28	19,600	18,800	24,600	35,700	26,600	30,600	38,400	48,400	56,300	19,700	17,100	30,600
29	17,700	18,800	24,500	34,600	-	31,300	37,200	44,900	51,700	18,800	18,100	29,300
30	19,200	18,300	23,600	33,600	-------	31,500	37,600	42,600	45,700	18,400	17,700	27,000
31	20,200	-------	23,200	31,600	-------	33,100	-------	38,800	-------	17,900	18,100	-------
Total	578,810	662,200	739,200	793,000	734,800	810,500	‡1,142.4	‡1,400.4	‡2,058.1	794,800	544,400	698,100
Mean	18,670	22,070	23,840	25,580	26,240	26,140	38,080	45,170	68,600	25,640	17,560	23,270
Ac-ft	‡1,148	‡1,313	‡1,466	‡1,573	‡1,457	‡1,608	‡2,266	‡2,778	‡4,082	‡1,576	‡1,080	‡1,385

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 89,800 Min 9,710 Mean 30,020 Ac-ft 21,730,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

3345. Asotin Creek near Asotin, Wash.

Location.--Lat 46°19'40", long 117°12'20", in SE¼ sec.20, T.10 N., R.45 E., on left bank 350 ft upstream from the Washington Water Power Co.'s diversion for water supply and irrigation, 5 miles upstream from George Creek, and 8 miles west of Asotin.

Drainage area.--156 sq mi.

Records available.--March to November 1904, April 1905 to February 1906, May to November 1906, August to September 1910, July to October 1911, August 1928 to November 1959 (discontinued). Published as "at Shelman's Ranch, near Asotin" 1904-5.

Gage.--Staff gage and crest-stage indicator; gage read twice daily. Datum of gage is 1,435.78 ft above mean sea level (Washington Water Power Co.'s bench mark). Prior to Jan. 11, 1934, staff gages within 0.3 mile of present site at different datums. Jan. 11, 1934, to May 17, 1957, at site 0.3 mile upstream at same datum.

Average discharge.--31 years (1928-59), 68.4 cfs (49,520 acre-ft per year).

Extremes.--1958-59: Maximum discharge observed during water year, 370 cfs Jan. 12 (gage height, 8.45 ft); minimum observed, 30 cfs Aug. 10; minimum gage height observed, 6.89 ft Oct. 1-6.
1959: Maximum daily discharge during period October to November, 85 cfs Nov. 24, 25; minimum discharge observed, 38 cfs Oct. 8 (gage height, 6.98 ft).
1904-6, 1910-11, 1928-59: Maximum discharge observed, 1,180 cfs Apr. 15, 1904 (gage height, 4.3 ft, site and datum then in use); minimum observed, 16 cfs Jan. 5, 1937.

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. No regulation. Several diversions for irrigation and domestic use.

Cooperation.--Gage-height record furnished by the Washington Water Power Co.

Revisions (water years).--WSP 1217: Drainage area. WSP 1317: 1931(M), 1935(M).

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	41	64	100	129	103	103	154	108	60	37	40
2	36	42	62	100	103	108	172	141	117	60	37	36
3	37	42	80	86	103	110	200	133	133	55	37	35
4	36	75	88	b80	101	105	181	125	137	52	37	36
5	36	55	83	b75	98	101	170	114	159	55	37	43
6	36	56	80	b75	96	94	181	107	200	55	37	46
7	*37	75	86	83	89	93	163	101	170	58	36	40
8	55	64	86	83	89	88	145	103	*150	58	35	37
9	45	66	86	93	86	86	141	107	152	54	35	36
10	45	72	84	107	86	83	129	107	139	54	31	35
11	43	62	150	125	83	76	121	103	131	51	32	34
12	42	56	240	354	76	78	121	100	123	51	32	34
13	41	*68	196	316	73	76	127	108	121	48	32	34
14	38	61	*152	212	73	73	121	137	117	48	32	36
15	40	61	133	186	72	70	119	198	110	48	32	48
16	38	54	116	154	70	70	114	191	103	48	*32	41
17	37	47	103	137	76	72	108	110	96	47	32	38
18	42	51	100	129	70	*76	105	*161	89	45	32	37
19	46	55	93	119	76	80	100	148	86	45	35	36
20	46	56	86	114	70	76	96	137	83	*45	52	*38
21	42	80	84	100	73	78	96	133	80	42	50	41
22	42	89	80	100	73	80	100	125	73	42	42	37
23	42	96	75	98	76	81	108	129	70	42	38	37
24	42	100	73	170	*76	84	114	135	78	42	37	38
25	41	98	73	205	76	84	117	150	72	40	37	36
26	42	91	70	177	76	94	119	145	68	40	37	54
27	41	81	93	163	76	100	117	137	67	40	37	60
28	41	73	89	*161	76	100	*114	133	72	40	37	50
29	40	70	86	145	-	100	121	121	66	40	36	48
30	40	66	86	133	-------	100	139	112	61	40	35	47
31	42	-------	86	129	-------	100	-------	107	-------	38	35	-------
Total	1,267	2,003	3,063	4,309	2,323	2,719	3,862	4,012	3,231	1,483	1,123	1,208
Mean	40.9	66.8	98.8	139	83.0	87.7	129	129	108	47.8	36.2	40.3
Ac-ft	2,510	3,970	6,080	8,550	4,610	5,390	7,660	7,960	6,410	2,940	2,230	2,400

Calendar year 1958: Max 343 Min 35 Mean 77.0 Ac-ft 55,770
Water year 1958-59: Max 354 Min 31 Mean 83.8 Ac-ft 60,710

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

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	45	48	7	42	50	13	66	42	19	50	47	25	58	a85
2	43	50	8	40	50	14	64	45	20	50	46	26	52	a75
3	43	50	9	61	50	15	61	47	21	50	52	27	50	a70
4	42	55	10	58	48	16	55	58	22	52	52	28	54	a68
5	41	47	11	72	48	17	52	70	23	55	a70	29	52	a65
6	42	48	12	73	50	18	50	47	24	52	a85	30	50	a60
												31	48	-
Total													1,623	1,678
Mean													52.4	55.9
Runoff in acre-feet													3,220	3,330

a No gage-height record; discharge estimated on basis of weather records and records for station below Kearney Gulch, near Asotin.
Note.--Result of discharge measurement, 52 cfs Dec. 2.

3365. Selway River near Lowell, Idaho

Location.--Lat 46°05', long 115°31', in NE¼ sec.25, T.32 N., R.7 E., on right bank a quarter of a mile upstream from O'Hara Creek and 7 miles upstream from Lowell.

Drainage area.--1,910 sq mi, approximately.

Records available.--April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to September 1959. Monthly discharge only for October 1929, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 1,540 ft (from river-profile map). Apr. 11 to Sept. 2, 1911, staff gage at site 2 miles downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, staff or chain gages at nearby sites at different datum.

Average discharge.--30 years (1929-59), 3,668 cfs (2,656,000 acre-ft per year).

Extremes.--Maximum discharge during year, 29,000 cfs June 6 (gage height, 11.74 ft); minimum, 532 cfs Oct. 7 (gage height, 2.76 ft).
1929-59: Maximum discharge, 48,900 cfs May 29, 1948 (gage height, 16.04 ft); minimum, probably less than 100 cfs Jan. 8, 1937, during period of ice effect.

Remarks.--Records excellent except those for periods of ice effect, which are good. Small diversions from headwaters.

Revisions.--WSP 1043: Drainage area.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 3-11)

Oct. 1 to June 11				June 12 to Sept. 30			
2.7	490	6.0	5,580	3.0	711	6.0	5,540
3.0	725	8.0	12,500	3.5	1,200	8.0	11,900
3.5	1,220	10.0	21,100	4.0	1,830	10.0	20,500
4.0	1,830	12.0	30,900	5.0	3,360	12.0	29,900
5.0	3,360						

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	632	862	2,320	2,490	2,500	2,340	*3,410	13,400	14,500	6,820	1,360	889
2	608	853	2,280	2,180	2,360	2,540	6,920	14,200	17,600	6,770	1,390	871
3	592	900	5,260	b1,600	2,320	2,430	8,120	12,200	20,600	6,630	1,330	763
4	584	1,390	5,300	b1,250	2,370	2,300	7,420	10,800	21,000	5,840	1,240	728
5	568	1,510	4,320	b1,700	2,210	2,170	7,090	9,620	24,300	5,340	1,180	899
6	553	2,220	3,890	b2,250	2,180	2,100	9,260	8,540	27,800	5,270	1,140	1,790
7	539	5,800	4,140	2,240	2,080	2,080	8,230	8,260	23,900	4,930	1,080	1,870
8	1,360	4,830	4,360	2,010	1,980	2,000	7,090	8,970	20,000	4,580	1,040	1,280
9	1,670	5,120	3,850	1,970	1,830	1,960	6,220	10,600	19,800	4,160	1,020	1,110
10	1,570	5,420	3,670	1,980	1,840	1,930	5,770	10,100	17,300	4,080	975	975
11	1,730	4,290	*5,240	1,940	1,870	1,840	5,720	9,040	15,500	4,040	937	899
12	1,510	3,650	7,220	2,140	1,820	1,970	6,250	8,680	*18,900	3,890	908	825
13	1,450	3,520	5,820	2,370	1,650	2,070	7,220	10,700	24,200	3,790	889	816
14	1,320	3,190	4,710	2,180	1,600	2,000	7,030	16,200	25,400	3,600	880	899
15	1,200	2,830	4,160	2,040	1,760	1,910	7,060	*21,400	23,300	3,290	871	1,100
16	1,100	2,320	3,870	2,110	1,730	1,910	6,330	22,000	19,800	3,140	834	1,140
17	1,020	*b1,900	3,500	2,070	1,930	2,030	5,850	17,800	19,600	2,940	807	1,100
18	970	2,170	3,360	2,170	1,790	2,220	5,500	16,000	18,300	2,760	781	985
19	1,070	2,640	3,260	2,170	1,750	2,370	5,200	13,900	18,700	2,610	807	956
20	1,410	2,670	3,050	2,070	1,730	2,260	4,950	12,600	19,500	2,480	871	1,220
21	1,230	3,020	3,070	*1,670	1,740	2,310	5,120	11,900	18,900	2,360	947	1,370
22	1,130	3,040	3,020	1,910	1,760	2,430	5,740	12,000	16,700	*2,190	1,020	1,410
23	1,110	3,330	2,810	2,280	1,800	2,580	5,880	12,700	14,500	2,080	918	1,250
24	1,090	3,430	2,670	3,220	1,800	2,730	6,600	14,800	12,700	1,980	844	1,130
25	1,050	3,210	2,780	3,910	1,820	2,860	7,030	19,000	11,300	1,980	*789	1,290
26	1,030	2,640	2,640	3,430	1,910	3,040	7,220	18,000	11,200	1,890	763	2,220
27	1,000	b2,300	2,600	3,280	*1,840	3,040	7,550	15,300	9,050	1,750	763	3,540
28	980	b2,200	2,500	3,240	1,840	2,970	7,290	13,900	8,950	1,640	772	2,810
29	960	2,340	2,360	3,050	-	3,020	8,160	12,700	7,940	1,560	746	2,360
30	920	2,460	2,380	2,810	------	2,960	10,600	12,100	7,130	1,480	711	2,080
31	891	------	2,460	2,660	------	2,990	------	12,500	------	1,390	720	------
Total	32,847	86,055	112,870	72,390	53,810	73,360	201,830	409,910	528,370	107,260	29,333	40,575
Mean	1,060	2,868	3,641	2,335	1,922	2,366	6,728	13,220	17,610	3,460	946	1,352
Cfsm	0.555	1.50	1.91	1.22	1.01	1.24	3.52	6.92	9.22	1.81	0.495	0.708
In.	0.64	1.68	2.20	1.41	1.05	1.43	3.93	7.98	10.29	2.09	0.57	0.79
Ac-ft	65,150	170,700	223,900	143,600	106,700	145,500	400,300	813,000	‡1,048	212,700	58,180	80,480

Calendar year 1958: Max 29,200 Min 343 Mean 3,754 Cfsm 1.96 In. 26.69 Ac-ft 2,718,000
Water year 1958-59: Max 27,800 Min 539 Mean 4,791 Cfsm 2.51 In. 34.06 Ac-ft 3,468,000

Peak discharge (base, 18,000 cfs).--May 16 (3:30 a.m.) 23,800 cfs (10.58 ft); May 25 (9 p.m.) 19,800 cfs (9.75 ft); June 6 (4:45 a.m.) 29,000 cfs (11.74 ft); June 14 (12:30 a.m.) 27,800 cfs (11.57 ft).

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

3368. Warm Springs Creek near Powell ranger station, Idaho

Location.--Lat 46°29', long 114°53', in sec.7. T.36 N., R.13 E.(unsurveyed), on right bank an eighth of a mile upstream from mouth and pack bridge across Lochsa River, and 8½ miles southwest of Powell ranger station.

Drainage area.--74.7 sq mi.

Records available.--October 1956 to October 1959 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 3,100 ft (from topographic map).

Extremes.--Maximum discharge during year, 2,260 cfs June 13 (gage height, 4.40 ft); minimum, 15 cfs Oct. 7 (gage height, 0.93 ft).
1956-59: Maximum discharge, that of June 13, 1959; minimum, 4.7 cfs Nov. 3, 1957 (gage height, 0.69 ft).
Revisions.--Maximum discharge for the water year 1958 has been revised to 2,000 cfs May 21, 1958 (gage height, 4.33 ft), superseding that published in WSP 1567.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records of water temperatures for the water year 1959 are given in WSP 1644.

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

0.9	14	2.4	258
1.0	20	2.8	430
1.3	46	3.2	680
1.6	82	3.7	1,100
2.0	149	4.2	1,780

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	32	99	94	90	80	71	441	758	468	61	47
2	19	30	100	70	90	75	178	458	964	452	60	34
3	19	35	186	60	90	70	158	395	1,170	395	54	31
4	17	63	*156	55	90	65	156	362	1,290	353	53	32
5	17	47	153	90	80	60	169	340	1,520	335	51	45
6	16	101	147	100	80	60	222	319	1,710	327	50	107
7	17	164	149	100	70	60	194	319	1,460	295	48	60
8	53	123	140	95	70	60	174	348	1,290	295	46	49
9	40	128	132	105	70	56	158	385	1,370	265	45	42
10	45	186	132	100	70	55	151	358	1,090	255	43	38
11	45	140	162	100	65	52	153	344	1,070	235	41	35
12	40	125	174	120	60	*53	169	348	1,410	225	42	33
13	38	125	158	*113	50	53	188	452	*1,780	210	42	34
14	33	115	140	110	64	51	181	666	1,780	194	40	35
15	32	99	145	105	60	51	181	822	1,580	178	38	42
16	29	76	138	105	60	51	171	830	1,430	*165	37	42
17	28	62	132	105	58	52	164	722	1,360	151	36	36
18	27	80	130	105	56	55	160	673	1,310	140	35	35
19	45	97	125	103	56	53	153	597	1,400	134	35	37
20	49	107	122	80	54	49	153	558	1,450	123	38	56
21	39	136	125	60	50	52	153	552	1,380	115	*39	50
22	37	125	118	80	52	64	174	552	1,180	107	38	45
23	36	134	102	100	52	54	186	*617	1,000	102	35	44
24	33	143	118	130	50	54	210	722	886	94	33	41
25	32	127	113	120	52	54	216	910	814	90	32	52
26	32	100	107	110	52	56	225	830	750	86	31	67
27	32	94	107	105	50	56	228	715	604	81	32	91
28	32	100	100	100	55	56	*225	673	597	74	33	78
29	30	107	96	96	-	56	262	624	527	71	32	71
30	*29	107	99	93	------	56	327	597	485	67	30	64
31	28	------	99	92	------	57	------	631	------	63	35	------
Total	989	3,108	4,004	3,001	1,796	1,776	5,510	17,160	35,415	6,145	1,265	1,473
Mean	31.9	104	129	96.8	64.1	57.3	184	554	1,180	198	40.8	49.1
Cfsm	0.427	1.39	1.73	1.30	0.858	0.767	2.46	7.42	15.8	2.65	0.546	0.657
In.	0.49	1.55	1.99	1.49	0.89	0.88	2.74	8.54	17.63	3.06	0.63	0.73
Ac-ft	1,960	6,160	7,940	5,950	3,560	3,520	10,930	34,040	70,240	12,190	2,510	2,920

Calendar year 1958: Max 1,530 Min 14 Mean 167 Cfsm 2.24 In. 30.35 Ac-ft 121,000
Water year 1958-59: Max 1,780 Min 16 Mean 224 Cfsm 3.00 In. 40.62 Ac-ft 161,900

Peak discharge (base, 800 cfs).--May 15 (12 p.m.) 894 cfs (3.48 ft); May 25 (8:30 p.m.) 937 cfs (3.51 ft); June 6 (12:30 a.m.) 1,900 cfs (4.24 ft); June 13 (8 p.m.) 2,260 cfs (4.40 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Nov. 17, 18, Jan. 2-12, Jan. 15 to Mar. 11; discharge estimated on basis of 2 discharge measurements, weather records, and records for Fish Creek near Lochsa ranger station.

Discharge, in cubic feet per second, 1959

Oct. 1	58	Oct. 7	79
2	56	8	69
3	56	9	97
4	60	10	82
5	63	11	175
6	67	12	†316

† Result of discharge measurement.

3369. Fish Creek near Lochsa ranger station, Idaho

Location.--Lat 46°20', long 115°21', in sec.33, T.35 N., R.9 E. (projected), on left bank 640 ft upstream from mouth, 1.3 miles southwest of Lochsa ranger station, and 18 miles northeast of Lowell.

Drainage area.--89.2 sq mi.

Records available.--September 1957 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,996.94 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 1,530 cfs May 1 (gage height, 4.92 ft); minimum, 33 cfs Oct. 6, Aug. 30, 31 (gage height, 1.18 ft).
1957-59: Maximum discharge, 1,720 cfs Apr. 20, 1958 (gage height, 5.07 ft); minimum, 17 cfs Nov. 9, 1957 (gage height, 0.98 ft).

Remarks.--Records excellent except those for periods of ice effect, which are poor. Records of water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 26-30)

1.2	34	3.0	303
1.4	45	3.5	459
1.6	62	4.0	700
2.0	107	4.5	1,070
2.5	190	5.0	1,630

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	49	204	290	259	264	*437	1,470	736	186	50	54
2	35	51	223	218	247	218	998	1,350	786	173	49	39
3	35	60	660	b170	242	192	812	1,170	818	164	44	36
4	34	118	508	b150	240	179	742	1,030	799	155	43	36
5	34	83	434	b220	220	169	792	924	818	145	43	87
6	34	297	384	b250	220	164	1,050	855	870	143	42	174
7	34	384	434	242	200	164	812	892	742	147	41	70
8	200	445	381	220	198	160	724	980	672	142	40	56
9	82	378	339	245	190	155	672	1,050	736	126	39	44
10	113	448	371	223	190	151	672	916	649	117	38	41
11	80	333	*577	223	184	143	730	818	596	110	37	38
12	61	290	712	288	167	167	812	862	*601	107	38	36
13	53	298	591	259	140	160	812	1,050	596	99	38	38
14	48	247	512	242	180	148	718	1,320	572	93	38	47
15	45	b200	452	233	171	140	689	*1,390	517	89	36	92
16	43	b150	410	240	169	153	596	1,250	479	84	34	58
17	42	*b139	371	238	167	182	567	1,090	437	81	34	46
18	42	b160	384	245	155	220	548	1,030	406	76	34	41
19	147	192	378	233	153	202	517	916	381	72	37	58
20	150	225	342	b190	151	186	543	848	356	70	47	79
21	92	247	381	*b160	143	198	627	840	330	66	55	74
22	79	240	356	b210	145	210	689	892	306	*65	45	69
23	71	378	333	273	147	220	754	956	276	63	40	59
24	65	406	322	525	143	242	832	1,020	264	61	38	51
25	62	336	316	452	147	273	818	1,050	259	60	36	76
26	60	288	293	384	147	296	806	964	264	58	*34	104
27	58	271	300	365	*139	280	818	840	236	56	38	273
28	57	225	278	344	153	278	989	773	238	52	41	210
29	55	233	261	311	-	271	1,190	718	223	52	37	148
30	52	220	278	288	------	266	1,280	689	206	51	34	124
31	50	------	296	273	------	283	------	694	------	50	43	------
Total	2,049	7,391	12,081	8,204	5,007	6,334	23,046	30,647	15,169	3,013	1,243	2,358
Mean	66.1	246	390	265	179	204	768	989	506	97.2	40.1	78.6
Cfsm	0.741	2.76	4.37	2.97	2.01	2.29	8.61	11.1	5.67	1.09	0.450	0.881
In.	0.85	3.08	5.04	3.42	2.09	2.64	9.61	12.78	6.32	1.26	0.52	0.98
Ac-ft	4,060	14,660	23,960	16,270	9,930	12,560	45,710	60,790	30,090	5,980	2,470	4,680

Calendar year 1958: Max 1,580 Min 27 Mean 274 Cfsm 3.07 In. 41.74 Ac-ft 198,600
Water year 1958-59: Max 1,470 Min 34 Mean 319 Cfsm 3.58 In. 48.59 Ac-ft 231,200

Peak discharge (base, 800 cfs).--Dec. 3 (7 a.m.) 900 cfs (4.31 ft); Dec. 12 (12:30 a.m.) 916 cfs (4.35 ft); Apr. 2 (8 a.m.) 1,060 cfs (4.49 ft); Apr. 6 (1:30 a.m.) 1,250 cfs (4.67 ft); May 1 (7 p.m.) 1,530 cfs (4.92 ft); May 14 (9 p.m.) 1,510 cfs (4.90 ft).

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

3370. Lochsa River near Lowell, Idaho

Location.--Lat 46°09', long 115°35', in SW¼SE¼ sec.33, T.33 N., R.7 E., on right bank 0.7 mile upstream from Lowell, 0.9 mile upstream from mouth, 1.2 miles downstream from Pete King Creek, and 19 miles east of Kooskia.

Drainage area.--1,180 sq mi, approximately.

Records available.--October 1910 to September 1912, October 1929 to September 1959 (discontinued). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 1,452.98 ft above mean sea level, unadjusted. Prior to Nov. 21, 1930, staff gages at site 1 mile upstream at different datums.

Average discharge.--32 years, 2,789 cfs (2,019,000 acre-ft per year).

Extremes.--Maximum discharge during year, 20,900 cfs June 6 (gage height, 10.21 ft); minimum, 400 cfs Oct. 7 (gage height, 1.84 ft).
1910-12, 1929-59: Maximum discharge, 34,800 cfs June 10, 1933 (gage height, 13.44 ft), from rating curve extended above 25,000 cfs; minimum, probably less than 100 cfs Jan. 8, 1937, during period of ice effect.

Remarks.--Records excellent except those for period of ice effect, which are good. Records of water temperatures for the water year 1959 are given in WSP 1644.

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

1.8	380	4.0	2,960
2.0	515	6.0	7,170
2.5	940	8.0	12,900
3.0	1,500	10.0	20,000

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	494	638	2,170	2,340	2,360	2,060	*2,910	12,100	10,500	5,040	980	730
2	466	658	2,170	1,990	2,220	2,140	7,020	12,300	12,900	4,910	980	670
3	452	678	4,700	b1,450	2,100	1,930	6,950	10,400	15,100	4,700	921	568
4	438	1,130	4,890	b1,200	2,240	1,810	6,340	9,240	15,500	4,190	874	538
5	426	1,310	4,090	b1,700	2,090	1,700	6,270	8,410	17,100	3,830	836	712
6	412	1,790	3,620	2,170	2,030	1,630	8,080	7,600	19,700	3,810	818	1,760
7	406	4,530	3,950	2,040	1,950	1,630	6,910	7,420	16,400	3,830	782	1,660
8	1,170	3,970	3,780	1,860	1,820	1,590	6,130	7,950	14,300	3,510	746	1,130
9	1,250	3,700	3,310	1,920	1,760	1,560	5,450	9,100	15,200	3,180	721	1,020
10	1,110	4,970	3,220	1,920	1,710	1,550	5,190	8,490	13,200	3,010	678	864
11	1,130	3,720	*4,740	1,920	1,720	1,480	5,230	7,670	11,400	2,930	662	755
12	980	3,080	6,040	2,410	1,640	1,620	5,740	7,470	*13,400	2,840	638	678
13	892	3,290	4,850	2,650	1,460	1,660	6,240	8,970	16,900	2,710	638	654
14	827	2,760	3,890	2,410	1,480	1,590	5,850	13,000	17,700	2,570	638	738
15	755	2,360	3,600	2,220	1,560	1,530	5,850	*16,200	16,200	2,360	614	902
16	696	1,960	3,440	2,260	1,590	1,510	5,300	15,800	14,100	2,220	582	921
17	646	*1,640	3,150	2,230	1,660	1,630	4,930	13,000	13,500	2,100	560	892
18	622	1,680	3,240	2,320	1,490	1,900	4,760	11,800	12,400	1,960	552	782
19	1,000	2,070	3,040	2,280	1,460	1,970	4,510	10,200	12,600	1,850	552	800
20	1,460	2,160	2,760	2,110	1,450	1,840	4,390	9,350	13,300	1,770	630	1,070
21	1,130	2,680	2,890	*1,760	1,440	1,840	4,660	9,190	12,800	1,670	746	1,270
22	940	2,880	2,820	1,990	1,400	1,990	5,230	9,460	11,300	*1,580	746	1,180
23	883	3,420	2,610	2,460	1,430	2,040	5,540	10,000	9,580	1,500	638	1,060
24	845	3,830	2,380	3,910	1,420	2,130	6,220	11,500	8,570	1,430	590	990
25	791	3,550	2,530	4,050	1,440	2,230	6,470	14,200	7,720	1,380	560	1,120
26	764	2,860	2,400	3,490	1,490	2,420	6,570	13,500	7,740	1,310	*530	1,790
27	738	2,660	2,400	3,310	*1,430	2,400	6,690	11,100	6,500	1,240	545	3,150
28	721	2,340	2,280	3,200	1,440	2,340	6,860	10,200	6,340	1,150	575	2,580
29	712	2,280	2,130	2,930	-	2,380	7,900	9,270	5,970	1,110	575	2,090
30	687	2,240	2,160	2,690	------	2,300	9,630	8,970	5,360	1,060	538	1,860
31	654	------	2,280	2,550	------	2,360	------	9,240	------	1,020	545	------
Total	24,497	76,814	101,550	73,740	47,280	58,760	179,840	323,100	373,280	77,770	20,990	34,934
Mean	790	2,560	3,276	2,379	1,689	1,895	5,995	10,420	12,440	2,509	677	1,164
Cfsm	0.669	2.17	2.78	2.02	1.43	1.61	5.08	8.83	10.5	2.13	0.574	0.986
In.	0.77	2.42	3.20	2.32	1.49	1.85	5.67	10.18	11.76	2.45	0.66	1.10
Ac-ft	48,590	152,400	201,400	146,300	93,780	116,500	356,700	640,900	740,400	154,300	41,630	69,290

Calendar year 1958: Max 21,500 Min 326 Mean 2,956 Cfsm 2.51 In. 34.00 Ac-ft 2,140,000
Water year 1958-59: Max 19,700 Min 406 Mean 3,815 Cfsm 3.23 In. 43.87 Ac-ft 2,762,000

Peak discharge (base, 12,000 cfs).--May 2 (1 to 4 a.m.) 13,000 cfs (7.98 ft); May 16 (6 a.m.) 16,800 cfs (9.09 ft); May 26 (12:30 a.m.) 14,500 cfs (8.44 ft); June 6 (6:20 a.m.) 20,900 cfs (10.21 ft); June 14 (4 a.m.) 19,200 cfs (9.76 ft).

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

3375. South Fork Clearwater River near Elk City, Idaho

Location.--Lat 45°49', long 115°32', in NE¼ sec.25, T.29 N., R.7 E., on right bank just upstream from bridge on road to Orogrande, 0.2 mile upstream from Crooked River and 4½ miles west of Elk City.

Drainage area.--261 sq mi.

Records available.--September 1944 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 3,816.27 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to June 23, 1949, wire-weight gage at site 24 ft downstream at datum 6.14 ft lower.

Average discharge.--15 years, 260 cfs (188,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,770 cfs May 16 (gage height, 5.35 ft); minimum, 28 cfs Aug. 10 (gage height, 1.42 ft).
1944-59: Maximum discharge observed, 3,700 cfs May 29, 1948 (gage height, 13.06 ft, site and datum then in use); minimum daily, 10 cfs Nov. 28, 29, 1952.

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

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

Oct. 1 to Dec. 11				Dec. 12 to Sept. 30			
1.5	29	2.6	245	1.5	34	3.5	572
1.7	49	3.0	368	1.7	57	4.0	840
2.0	96	3.4	535	2.0	108	5.0	1,510
2.3	164	3.8	750	2.5	233	5.2	1,660
				3.0	380		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	42	128	192	176	190	352	1,480	942	253	66	64
2	37	45	123	132	172	187	563	1,500	954	236	*75	60
3	36	56	280	b110	172	187	665	1,260	980	222	64	46
4	35	*67	283	b110	172	179	698	1,120	960	211	55	43
5	34	80	195	b145	164	164	769	1,020	966	198	53	66
6	34	138	174	b180	162	176	1,170	888	1,100	198	52	135
7	34	280	223	b170	162	174	894	852	960	209	50	98
8	105	217	265	b162	154	169	774	912	882	206	48	63
9	144	220	206	b164	144	159	676	1,020	954	179	46	52
10	128	223	204	b170	b150	159	645	954	876	164	42	48
11	121	167	654	b170	b155	152	676	864	720	156	42	44
12	76	134	*1,080	b180	b145	169	769	852	676	147	40	42
13	62	132	546	b200	b125	166	858	992	*655	140	40	47
14	54	118	368	b180	b140	154	804	1,250	635	135	42	68
15	49	102	334	b155	b140	147	828	1,600	586	130	40	147
16	46	b55	343	b170	b145	164	720	*1,660	541	121	39	108
17	45	b45	302	b170	b160	179	665	1,460	499	112	37	73
18	44	b80	284	b170	b160	198	630	1,430	460	106	37	60
19	57	b120	284	b170	159	195	572	1,280	431	100	40	55
20	98	137	255	*b140	159	172	563	1,160	406	96	58	75
21	75	162	258	b120	154	201	620	1,080	383	90	61	106
22	62	144	255	b150	154	211	708	1,040	358	83	70	106
23	61	195	192	b175	156	222	725	1,010	331	82	63	78
24	56	195	203	b225	156	239	828	1,170	313	80	49	67
25	53	146	225	290	156	253	852	1,380	319	87	*44	82
26	53	110	201	255	*162	278	900	1,480	374	80	42	239
27	50	b100	203	222	162	276	930	1,290	322	75	43	390
28	49	b82	192	222	164	281	936	1,250	355	68	42	287
29	46	b110	169	203	-	290	1,060	1,140	307	67	42	214
30	44	b120	190	182	------	284	1,260	1,030	278	66	41	176
31	42	------	203	187	------	*296	------	954	------	60	40	------
Total	1,868	3,822	8,822	5,471	4,380	6,271	23,110	36,378	18,523	4,157	1,503	3,139
Mean	60.3	127	285	176	156	202	770	1,173	617	134	48.5	105
Cfsm	0.231	0.487	1.09	0.674	0.598	0.774	2.95	4.49	2.36	0.513	0.186	0.402
In.	0.27	0.54	1.26	0.78	0.62	0.89	3.29	5.18	2.64	0.59	0.21	0.45
Ac-ft	3,710	7,580	17,500	10,850	8,690	12,440	45,840	72,150	36,740	8,250	2,980	6,230

Calendar year 1958: Max 1,300 Min 27 Mean 230 Cfsm 0.881 In. 11.97 Ac-ft 166,700
Water year 1958-59: Max 1,660 Min 34 Mean 322 Cfsm 1.23 In. 16.72 Ac-ft 233,000

Peak discharge (base, 1,300 cfs).--Dec. 12 (1 a.m.) 1,570 cfs (5.08 ft); Apr. 6 (3 to 4 a.m.) 1,310 cfs (4.70 ft); May 2 (3 a.m.) 1,620 cfs (5.16 ft); May 16 (3 a.m.) 1,770 cfs (5.35 ft); May 26 (1 a.m.) 1,590 cfs (5.11 ft).

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

3380. South Fork Clearwater River near Grangeville, Idaho

Location.--Lat 45°55', long 116°01', in SE¼NW¼ sec.30, T.30 N., R.4 E., on right bank just downstream from powerhouse of Washington Water Power Co., 6 miles east of Grangeville.

Drainage area.--865 sq mi.

Records available.--November 1910 to January 1911, March 1911 to July 1911, October 1911 to September 1916, April 1923 to September 1959. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 1,830 ft (from river-profile map). Nov. 14, 1910, to July 31, 1911, staff gage at datum 2.2 ft higher than present datum. Nov. 2, 1911, to Sept. 30, 1916, staff gage at datum 1.0 ft higher than present datum. Apr. 1, 1923, to Oct. 15, 1944, chain or staff gages at present datum.

Average discharge.--41 years (1911-16, 1923-59), 871 cfs (630,600 acre-ft per year).

Extremes.--Maximum discharge during year, 6,140 cfs May 15 (gage height, 8.67 ft); minimum, 16 cfs Nov. 4 (gage height, 2.00 ft); minimum daily, 141 cfs Oct. 7.
1910-16, 1923-59: Maximum discharge observed, 12,600 cfs May 29, 1948 (gage height, 12.50 ft); no flow part of day Aug. 27, 1947, Aug. 15, 1956; minimum daily, 29 cfs Nov. 23, 27, 29, 1952.
Flood of May 30, 1917, reached a stage of 13.6 ft (present datum), from stage record by powerplant operator (discharge, 15,000 cfs).

Remarks.--Records good except those for period of ice effect, which are fair. Diurnal fluctuation at low stages caused by powerplant just above station. No diversion for irrigation.

Cooperation.--Water-stage recorder inspected by employees of Washington Water Power Co. in connection with a Federal Power Commission project.

Revisions.--WSP 633: Drainage area.

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

2.7	131	5.0	1,350
3.0	219	6.0	2,240
3.5	430	7.0	3,370
4.0	685	9.0	6,800

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	149	398	605	580	585	1,070	4,550	3,200	1,300	308	a260
2	166	149	372	465	545	610	1,710	4,500	3,410	1,230	340	a240
3	157	*172	619	344	560	605	2,080	3,840	3,670	1,180	322	a200
4	154	202	788	322	570	570	2,190	3,410	3,700	1,100	283	a180
5	152	237	545	b430	540	535	2,150	3,110	3,920	1,020	279	a260
6	144	315	500	b550	530	540	3,180	2,780	4,620	1,000	267	a470
7	141	800	565	b510	505	545	2,720	2,650	3,960	1,010	251	a350
8	296	565	776	b500	480	525	2,400	2,730	3,600	983	248	a240
9	465	600	605	505	421	510	2,100	2,930	3,720	878	241	a200
10	372	658	570	515	450	515	1,950	2,810	3,370	812	230	a180
11	403	535	2,060	530	495	480	1,940	2,630	3,060	770	216	a165
12	279	426	*3,120	585	465	535	2,100	2,600	3,220	734	216	154
13	226	416	1,860	636	390	510	2,320	2,990	*3,410	702	212	163
14	199	380	1,290	560	435	495	2,220	3,920	3,370	668	212	212
15	183	344	1,090	465	450	430	2,310	5,820	3,160	646	202	515
16	174	230	1,030	530	460	525	2,130	*5,390	2,960	610	186	390
17	169	149	908	530	515	540	2,020	4,640	2,840	585	186	295
18	166	209	818	545	515	674	1,970	4,550	2,690	555	183	244
19	209	326	812	550	510	658	1,930	4,000	2,650	525	189	244
20	344	390	718	*510	500	570	1,930	3,640	2,590	505	259	304
21	271	510	707	372	500	636	2,010	3,420	2,550	*480	271	398
22	226	465	724	470	495	685	2,260	3,380	2,300	460	326	465
23	209	535	585	540	510	734	2,370	3,320	2,070	435	279	362
24	193	445	555	724	505	776	2,530	3,580	1,900	412	237	304
25	186	475	605	854	505	794	2,550	4,190	1,850	421	*209	331
26	174	344	555	758	*520	896	2,670	4,350	2,020	398	200	741
27	174	313	565	702	490	890	2,760	3,870	1,720	390	a200	1,370
28	169	255	540	724	495	902	2,730	3,740	1,740	372	a200	989
29	166	340	475	668	-	948	2,950	3,500	1,570	354	a194	740
30	157	385	565	590	------	934	3,580	3,250	1,410	340	a190	625
31	152	------	641	605	------	*927	------	3,130	------	313	a184	------
Total	6,656	11,319	25,961	17,194	13,936	20,079	68,830	113,220	86,250	21,188	7,320	11,571
Mean	215	377	837	555	498	648	2,294	3,652	2,875	683	236	386
Cfsm	0.249	0.436	0.968	0.642	0.576	0.749	2.65	4.22	3.32	0.790	0.273	0.446
In.	0.29	0.49	1.12	0.74	0.60	0.86	2.96	4.87	3.71	0.91	0.31	0.50
Ac-ft	13,200	22,450	51,490	34,100	27,640	39,830	136,500	224,600	171,100	42,030	14,520	22,950

Calendar year 1958: Max 4,470 Min 106 Mean 853 Cfsm 0.986 In. 13.40 Ac-ft 617,200
Water year 1958-59: Max 5,820 Min 141 Mean 1,106 Cfsm 1.28 In. 17.36 Ac-ft 800,400

Peak discharge (base, 3,200 cfs).--Dec. 12 (7 a.m.) 3,670 cfs (7.22 ft); Apr. 6 (7 a.m.) 3,530 cfs (7.12 ft); May 2 (1 a.m.) 4,790 cfs (7.93 ft); May 15 (7 a.m.) 6,140 cfs (8.67 ft); June 6 (7 a.m.) 4,940 cfs (8.01 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for station near Elk City.
b Stage-discharge relation affected by ice.

3390. Clearwater River at Kamiah, Idaho

Location.--Lat 46°14', long 116°01', in sec.1, T.33 N., R.3 E., on left bank a quarter of a mile downstream from highway bridge at Kamiah, three-quarters of a mile downstream from Lawyer Creek, and 6 miles downstream from South Fork.

Drainage area.--4,850 sq mi, approximately.

Records available.--August 1910 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,162.52 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 2, 1934, staff or chain gages at site 300 ft downstream at same datum.

Average discharge.--49 years, 8,159 cfs (5,907,000 acre-ft per year).

Extremes.--Maximum discharge during year, 55,100 cfs June 6 (gage height, 14.07 ft); minimum, 1,190 cfs Oct. 7 (gage height, 3.26 ft).
1910-59: Maximum discharge, 99,000 cfs May 29, 1948 (gage height, 19.22 ft); minimum, 179 cfs about Dec. 1, 1952 (gage height, 1.98 ft).

Remarks.--Records excellent. Some diurnal regulation at low stages caused by powerplant on South Fork. Records of water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 26-30)

3.2	1,170	7.0	9,890
3.6	1,660	9.0	18,900
4.0	2,250	11.0	30,900
5.0	4,240	14.0	54,500
6.0	6,740		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	1,830	5,450	5,980	6,600	7,490	8,320	31,300	27,600	13,400	2,810	1,880
2	1,400	1,810	5,220	5,450	6,110	7,210	15,500	33,500	32,800	13,200	2,830	2,040
3	1,340	*1,880	9,290	4,060	5,800	6,470	19,400	28,500	39,200	12,800	2,730	1,810
4	1,320	2,280	13,200	3,060	6,080	5,850	17,700	23,300	40,100	11,700	2,550	1,630
5	1,280	3,460	10,000	3,630	5,700	5,550	16,700	22,700	43,600	10,500	2,420	1,830
6	1,270	3,180	8,840	5,480	5,480	5,220	21,400	20,200	51,600	10,200	2,340	3,380
7	1,250	11,600	9,460	5,420	5,250	5,280	19,600	19,200	45,500	9,960	2,250	4,640
8	1,940	9,500	10,400	4,950	4,900	5,150	17,200	20,000	38,900	9,390	2,170	3,220
9	4,200	10,800	8,980	4,760	4,640	4,880	15,000	22,900	38,400	8,540	2,080	2,560
10	3,040	11,200	8,320	4,950	4,450	4,880	13,800	22,300	35,300	8,040	2,020	2,250
11	3,630	9,850	13,900	4,850	4,610	4,610	13,400	20,200	*30,500	7,850	1,940	2,020
12	3,140	7,940	*19,700	5,250	4,470	4,850	14,400	19,100	34,300	7,640	1,880	1,860
13	2,770	7,820	15,100	6,290	4,020	5,200	16,100	21,600	42,300	7,320	1,860	1,770
14	2,580	7,180	11,800	5,750	3,910	4,930	15,800	*31,300	46,900	7,010	1,860	1,860
15	2,340	6,260	10,000	5,280	4,170	4,590	16,200	43,300	44,200	6,550	1,830	2,580
16	2,120	5,320	9,220	5,320	4,290	4,590	15,400	45,200	37,200	6,160	1,730	2,700
17	2,000	4,240	8,410	5,480	5,480	4,780	14,300	37,000	36,100	5,800	1,670	2,460
18	1,900	3,950	7,790	5,680	5,150	5,550	13,400	33,700	33,400	5,450	1,650	2,220
19	2,170	5,300	7,880	5,800	4,980	5,920	12,800	29,100	33,700	5,120	1,660	2,040
20	3,320	5,700	7,180	5,480	5,150	5,600	12,100	26,400	35,400	4,850	1,830	2,510
21	3,100	6,520	7,040	*4,470	5,120	5,600	12,400	25,100	35,000	4,690	2,140	3,200
22	2,560	7,070	7,260	4,640	4,950	6,050	13,800	25,400	31,300	*4,540	2,280	3,260
23	2,390	7,700	6,630	6,180	4,830	6,470	14,400	26,100	27,000	4,310	2,120	2,870
24	2,300	8,480	6,050	9,820	4,780	6,930	15,800	29,300	24,000	4,090	1,880	2,530
25	2,220	8,290	6,370	11,300	4,950	6,980	16,700	36,500	21,400	4,000	1,740	2,490
26	2,140	6,880	6,160	9,530	5,450	7,520	17,000	37,200	21,600	3,870	*1,670	3,950
27	2,080	6,050	6,000	8,980	5,120	7,880	18,000	31,900	18,500	3,630	1,660	8,380
28	2,030	5,500	5,980	9,780	*5,150	7,520	17,600	29,000	17,200	3,380	1,690	7,290
29	1,980	5,300	5,550	8,510	-	7,850	18,800	26,700	16,400	3,200	1,690	5,720
30	1,930	5,480	5,480	7,520	------	7,490	23,100	25,200	14,500	3,060	1,620	4,930
31	1,880	------	5,920	7,040	------	*7,490	------	25,200	------	2,900	1,610	------
Total	69,080	188,370	268,580	190,690	141,590	186,380	476,120	868,400	993,900	213,150	62,390	91,880
Mean	2,228	6,279	8,664	6,151	5,057	6,012	15,870	28,010	33,130	6,876	2,010	3,063
Cfsm	0.459	1.29	1.79	1.27	1.04	1.24	3.27	5.78	6.83	1.42	0.414	0.632
In.	0.53	1.44	2.06	1.46	1.09	1.43	3.65	6.66	7.62	1.63	0.48	0.70
Ac-ft	137,000	373,600	532,700	378,200	280,800	369,700	944,400	‡1,722	‡1,971	422,800	123,600	182,200

Calendar year 1958: Max 54,600 Min 846 Mean 8,043 Cfsm 1.66 In. 22.52 Ac-ft 5,823,000
Water year 1958-59: Max 51,600 Min 1,250 Mean 10,280 Cfsm 2.12 In. 28.75 Ac-ft 7,438,000

Peak discharge (base, 28,200 cfs).--May 2 (7:20 a.m.) 35,000 cfs (11.58 ft); May 16 (9:30 a.m.) 47,500 cfs (13.16 ft); May 26 (6:20 a.m.) 39,300 cfs (12.14 ft); June 6 (11:30 a.m.) 55,100 cfs (14.07 ft); June 14 (6 a.m.) 50,900 cfs (13.59 ft).

* Discharge measurement made on this day.
‡ Expressed in thousands.

3405. North Fork Clearwater River at Bungalow ranger station, Idaho

Location.--Lat 46°38', long 115°30', in sec.18, T.38 N., R.8 E., on left bank at Bungalow ranger station, 300 ft downstream from mouth of Orogrande Creek, 1,000 ft downstream from highway bridge, and 17 miles northeast of Pierce.

Drainage area.--996 sq mi.

Records available.--September 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,240 ft (from river-profile map).

Average discharge.--15 years, 2,917 cfs (2,112,000 acre-ft per year).

Extremes.--Maximum discharge during year, 14,100 cfs May 14 (gage height, 7.63 ft); minimum, 597 cfs Oct. 6, 7 (gage height, 2.64 ft).
1944-59: Maximum discharge, 27,400 cfs May 29, 1948 (gage height, 11.13 ft); minimum daily, 180 cfs Nov. 29, 1952.

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

Cooperation.--Water-stage recorder inspected by U. S. Forest Service ranger at Bungalow ranger station.

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

2.6	570	5.0	4,910
3.0	960	6.0	7,940
3.5	1,620	8.0	15,500
4.0	2,500		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	642	820	2,400	2,620	2,370	2,290	3,580	11,300	9,340	3,580	1,140	1,100
2	633	820	2,520	1,970	2,170	*1,920	*8,510	11,200	10,100	3,430	1,140	840
3	624	883	4,940	a1,600	2,260	1,760	7,060	9,620	11,700	3,240	1,080	780
4	615	1,730	4,480	a1,400	2,220	1,650	6,200	8,640	11,900	3,040	1,030	770
5	606	1,400	3,950	a1,700	1,990	1,590	6,170	7,910	12,300	2,870	1,030	1,250
6	606	2,120	3,600	a2,000	2,040	1,540	7,840	7,150	12,900	2,800	1,010	2,500
7	615	4,590	3,800	a1,900	1,880	1,540	6,380	7,180	11,300	2,720	984	1,670
8	2,080	3,950	3,380	a1,700	1,860	1,520	5,670	7,680	10,300	2,890	949	1,460
9	1,330	3,530	*3,090	a1,800	1,760	1,500	5,080	8,410	11,000	2,480	927	1,280
10	1,230	4,780	3,040	a2,000	1,800	1,470	4,970	7,780	9,760	2,330	905	1,090
11	1,190	3,600	4,030	a2,200	1,760	1,430	5,220	7,150	8,810	2,260	883	984
12	960	3,130	4,690	a3,800	1,700	1,520	5,790	7,180	9,510	2,180	872	916
13	883	3,340	3,980	a4,000	1,460	1,540	6,260	8,580	11,100	2,090	872	949
14	820	2,800	3,580	a3,500	1,650	1,460	5,700	*11,200	11,300	1,990	872	972
15	790	*2,400	3,240	a3,100	1,720	1,400	5,530	13,300	10,300	1,880	850	1,160
16	770	2,000	3,110	a2,900	1,640	1,440	4,970	12,800	9,440	1,830	830	1,120
17	741	b1,670	2,830	a2,700	1,600	1,580	4,670	10,700	8,920	1,750	820	1,010
18	732	b1,970	2,910	a2,700	1,480	1,930	4,530	9,970	8,240	1,680	810	938
19	1,960	2,400	2,800	a2,700	1,480	1,860	4,340	8,610	8,200	1,600	830	927
20	1,990	2,420	2,580	a2,400	1,470	1,700	4,370	8,440	8,300	1,560	861	1,430
21	1,330	3,310	2,850	a2,200	1,430	1,780	4,860	8,440	7,940	1,500	1,090	1,370
22	1,180	3,240	2,720	*a2,250	1,410	1,850	5,620	8,920	*7,180	1,460	916	1,290
23	1,100	4,400	2,480	b2,500	1,440	1,860	5,900	9,510	6,320	*1,400	861	1,210
24	1,010	5,560	2,460	4,210	1,410	1,950	6,620	10,500	5,930	1,360	820	1,130
25	949	4,910	2,480	4,290	1,410	2,110	6,650	11,300	5,410	1,330	800	1,410
26	927	3,780	2,350	3,600	1,460	2,390	6,560	10,800	5,270	1,300	790	1,680
27	905	3,340	2,400	3,380	1,400	2,290	6,530	9,480	4,610	1,330	*840	2,460
28	894	2,720	2,240	3,240	1,430	2,200	6,900	8,780	4,500	1,200	927	2,640
29	883	2,620	2,110	2,930	-	2,170	8,510	8,240	4,110	1,200	850	2,260
30	840	2,600	2,170	2,700	------	2,110	9,690	8,140	3,820	1,190	770	2,020
31	830	------	2,350	2,520	------	2,270	------	8,440	------	1,150	830	------
Total	30,665	86,833	95,560	82,510	47,700	55,620	180,680	287,350	259,810	62,620	28,189	40,616
Mean	989	2,894	3,083	2,662	1,704	1,794	6,023	9,269	8,660	2,020	909	1,354
Cfsm	0.993	2.91	3.10	2.67	1.71	1.80	6.05	9.31	8.69	2.03	0.913	1.36
In.	1.15	3.24	3.57	3.08	1.78	2.08	6.75	10.73	9.70	2.34	1.05	1.52
Ac-ft	60,820	172,200	189,500	163,700	94,610	110,300	358,400	570,000	515,300	124,200	55,910	80,560

Calendar year 1958: Max 17,400 Min 450 Mean 2,796 Cfsm 2.81 In. 38.13 Ac-ft 2,024,000
Water year 1958-59: Max 13,300 Min 606 Mean 3,447 Cfsm 3.46 In. 46.99 Ac-ft 2,496,000

Peak discharge (base, 9,000 cfs).--Apr. 2 (10:20 a.m.) 9,400 cfs (6.44 ft); May 1 (11 p.m.) 12,400 cfs (7.21 ft); May 14 (10 p.m.) 14,100 cfs (7.63 ft); May 25 (1 a.m.) 11,900 cfs (7.07 ft); June 6 (3 a.m.) 13,400 cfs (7.45 ft).

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

3410. North Fork Clearwater River near Ahsahka, Idaho

Location.--Lat 46°31', long 116°18', in SE¼ sec.26, T.37 N., R.1 E., on right bank at Bruce's Eddy, 1½ miles northeast of Ahsahka and 2 miles upstream from mouth.

Drainage area.--2,440 sq mi, approximately.

Records available.--August 1926 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 969.82 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 29, 1930, staff gage at site 300 ft upstream at different datum.

Average discharge.--33 years, 5,695 cfs (4,123,000 acre-ft per year).

Extremes.--Maximum discharge during year, 26,400 cfs May 15 (gage height, 16.95 ft); minimum, 1,150 cfs Oct. 7 (gage height, 2.79 ft).
1926-59: Maximum discharge, 100,000 cfs Dec. 23, 1933 (gage height, 35.5 ft, from floodmarks), from rating curve extended above 24,000 cfs by logarithmic plotting; minimum, probably less than 250 cfs Jan. 8, 1937, during period of ice effect.

Remarks.--Records excellent except those for period of no gage-height record, which are fair. Records of water temperatures for the water year 1959 are given in WSP 1644.

Revisions.--Revised figures of discharge, in cubic feet per second, for high-water period in the water year 1932, superseding those published in WSP 738 and 1317 are given herewith:

1932
May 6..... 28,200
7..... 28,500
8..... 30,600

Month	Maximum	Minimum	Mean	Per square mile	Runoff	
					Inches	Acre-feet
May 1932.....	-	-	26,800	11.0	12.64	1,645,000
Water year 1931-32..	-	-	6,212	2.55	34.63	4,505,000
Calendar year 1932..	-	-	6,462	-	36.04	4,690,400

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	1,560	5,210	7,570	7,000	5,530	10,300	24,000	15,900	7,340	2,140	1,940
2	1,210	1,570	5,340	6,960	6,370	6,790	17,500	24,000	17,900	7,090	2,110	1,930
3	1,200	1,640	9,120	5,170	6,010	5,670	*18,600	21,000	20,300	6,740	2,040	1,590
4	1,190	2,600	10,400	4,280	5,950	5,100	15,800	18,500	20,800	6,370	1,950	1,520
5	1,180	3,460	8,640	4,800	5,510	4,730	14,900	16,800	22,400	6,000	1,920	2,250
6	1,170	3,190	7,810	5,800	5,270	4,490	17,700	15,000	24,400	5,870	1,870	5,650
7	1,170	10,200	7,940	5,520	4,990	4,470	15,500	14,200	21,800	5,560	1,860	4,700
8	2,470	8,190	8,000	4,970	4,790	4,410	13,400	14,900	19,400	5,910	1,830	3,050
9	4,440	7,990	*7,020	5,380	4,600	4,360	11,900	16,500	19,500	5,420	1,770	2,930
10	2,660	8,620	6,790	5,800	4,490	4,270	11,100	16,200	*19,100	5,020	1,730	2,300
11	2,800	7,540	10,200	6,220	a4,500	4,010	11,400	14,600	16,400	4,770	1,710	2,030
12	2,190	6,340	12,600	11,600	a4,300	4,250	12,600	13,600	16,600	4,630	1,680	1,880
13	1,830	7,920	10,300	12,600	a3,700	4,720	14,000	*15,200	19,100	4,460	1,670	1,800
14	1,680	6,960	8,750	10,300	a4,200	4,460	13,200	19,700	20,300	4,210	1,660	1,870
15	1,580	5,670	7,810	8,850	a4,300	4,140	12,900	25,100	19,000	4,020	1,630	2,360
16	1,510	*4,590	7,210	8,220	a4,200	4,070	11,700	25,500	17,200	3,820	1,600	2,410
17	1,450	3,680	6,670	7,700	a4,100	4,330	11,000	21,700	16,200	3,670	1,550	2,120
18	1,430	3,480	6,480	7,740	a3,800	5,000	10,600	19,800	14,900	3,520	1,530	1,940
19	2,200	4,180	6,840	7,720	a3,700	5,450	10,100	17,800	14,700	3,390	1,530	1,880
20	5,600	4,560	6,200	6,980	a3,700	5,100	10,100	16,700	15,200	3,230	1,630	2,600
21	3,400	6,520	6,340	5,910	a3,700	5,110	10,600	16,000	15,000	3,110	1,940	3,070
22	2,530	6,970	7,030	*6,040	a3,700	5,270	12,300	16,500	13,800	2,980	2,110	3,060
23	2,260	9,020	6,360	6,520	a3,700	5,490	13,600	17,600	12,300	2,850	1,760	2,710
24	2,070	11,600	5,910	11,800	a3,700	5,690	14,800	19,300	11,500	*2,760	1,650	2,370
25	1,900	12,100	5,940	14,200	a3,700	6,080	14,900	20,700	10,500	2,690	1,580	2,550
26	1,830	9,230	5,800	11,400	a3,800	6,940	14,400	20,600	10,300	2,580	1,520	3,580
27	1,780	7,660	6,380	10,300	a3,700	7,400	14,900	18,400	9,230	2,490	*1,550	5,240
28	1,750	6,430	6,400	10,900	*a3,800	7,080	16,300	16,700	8,620	2,390	1,680	7,060
29	1,700	5,810	5,830	9,570	-	7,030	19,000	15,600	8,400	2,310	1,760	5,240
30	1,660	5,530	5,910	8,450	------	6,850	21,700	14,900	7,810	2,280	1,590	4,460
31	1,590	------	6,660	7,660	------	7,990	------	14,800	------	2,210	1,520	------
Total	62,670	184,810	227,890	246,930	125,280	166,280	416,800	561,900	478,560	129,690	54,070	88,090
Mean	2,022	6,160	7,351	7,965	4,474	5,364	13,890	18,130	15,950	4,184	1,744	2,936
Cfsm	0.829	2.52	3.01	3.26	1.83	2.20	5.69	7.43	6.54	1.71	0.715	1.20
In.	0.96	2.82	3.47	3.76	1.91	2.53	6.35	8.56	7.29	1.98	0.82	1.34
Ac-ft	124,300	366,600	452,000	489,800	248,500	329,800	826,700	‡1,115	949,200	257,200	107,200	174,700

Calendar year 1958: Max 30,500 Min 1,000 Mean 6,304 Cfsm 2.58 In. 35.07 Ac-ft 4,564,000
Water year 1958-59: Max 25,500 Min 1,170 Mean 7,515 Cfsm 3.08 In. 41.79 Ac-ft 5,441,000

Peak discharge (base, 18,000 cfs).--Apr. 2 (8:30 p.m.) 21,500 cfs (15.17 ft); May 2 (9 a.m.) 25,600 cfs (16.67 ft); May 15 (10:30 a.m.) 26,400 cfs (16.95 ft); June 6 (12 m.) 25,600 cfs (16.66 ft).

* Discharge measurement made on this day.
‡ Expressed in thousands.
a No gage-height record; discharge estimated on basis of weather records and records for North Fork Clearwater River at Bungalow ranger station.

3415. Potlatch River at Kendrick, Idaho
(Formerly published as Potlatch Creek at Kendrick)

Location.--Lat 46°37', long 116°39', in NW¼ sec.25, T.38 N., R.3 W., near center of main span on upstream side of Mill Street Bridge in Kendrick, 0.9 mile downstream from Bear Creek and 3.2 miles upstream from Middle Potlatch Creek.

Drainage area.--425 sq mi.

Records available.--October 1945 to September 1959. Published as "Potlatch Creek" prior to October 1958.

Gage.--Wire-weight gage and crest-stage indicator; gage read once daily. Datum of gage is 1,198.2 ft above mean sea level, unadjusted. Prior to Aug. 17, 1957, wire-weight gage only.

Average discharge.--14 years, 429 cfs (310,600 acre-ft per year).

Extremes.--Maximum discharge during year, 8,740 cfs Jan. 24 (gage height, 10.85 ft); minimum observed, 8.4 cfs Aug. 18, 19 (gage height, 4.44 ft).
1945-59: Maximum discharge, 13,000 cfs Feb. 26, 1948 (gage height, 12.6 ft, from floodmarks), result of slope-area measurement of peak flow; minimum observed, 4.3 cfs Aug. 25, 1946; minimum gage height observed, 3.28 ft Oct. 12-16, 1945.

Remarks.--Records fair. No regulation or diversion.

Revision (water years).--WSP 1093: 1946(M). WSP 1567: Drainage area.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 20 to Sept. 30)

Oct. 1 to Jan. 24				Jan. 25 to Sept. 30			
4.9	15	6.5	560	4.2	7.5	6.0	500
5.0	21	7.0	970	4.3	10	6.5	830
5.2	45	8.0	2,070	4.5	22	7.0	1,260
5.4	80	9.0	3,900	4.7	42	8.0	2,350
5.7	160	10.0	6,300	5.0	96	9.0	4,120
6.0	280	11.0	9,070	5.5	250	10.0	6,500

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	21	121	1,400	958	1,780	1,580	1,180	176	52	11	25
2	16	22	124	758	816	1,650	2,160	1,310	157	51	9.9	18
3	16	*21	290	430	690	*1,300	*2,100	1,140	142	48	9.9	*19
4	15	80	386	250	690	1,140	1,760	910	128	40	9.3	18
5	17	94	272	340	662	886	1,540	774	195	40	9.6	28
6	16	84	220	350	641	816	1,570	683	676	41	9.6	56
7	15	268	774	276	464	823	1,260	572	602	39	10	83
8	25	196	916	272	524	950	1,010	512	326	50	9.6	48
9	88	208	488	630	434	950	918	506	243	40	9.3	34
10	56	160	*476	1,060	424	788	795	470	286	40	9.3	32
11	50	136	2,160	1,150	402	602	746	429	243	35	9.3	24
12	44	184	2,200	3,510	308	894	746	370	189	32	9.0	21
13	33	320	1,050	2,400	262	1,040	739	*330	166	30	9.0	20
14	26	320	718	1,190	355	718	795	308	151	31	8.7	21
15	24	200	375	750	312	627	809	429	*131	30	8.7	39
16	21	139	325	686	286	760	788	620	125	27	9.3	70
17	21	86	272	799	243	830	902	518	114	25	9.3	51
18	21	88	252	1,460	627	878	878	590	106	23	8.4	40
19	28	103	305	1,340	641	1,120	802	488	94	27	8.4	35
20	52	154	272	782	566	918	683	482	87	26	13	52
21	80	310	272	494	788	966	641	370	87	21	15	154
22	51	350	268	518	781	999	718	345	70	14	18	96
23	39	623	268	1,090	704	910	767	299	65	14	22	117
24	32	586	236	*7,470	620	1,030	753	266	67	*21	22	182
25	26	595	228	4,560	662	1,030	690	236	67	18	15	119
26	26	305	240	3,150	942	1,400	676	212	65	16	14	145
27	24	228	952	3,300	838	1,400	830	232	67	13	15	154
28	24	184	1,120	3,760	886	1,300	838	232	56	12	14	176
29	22	136	835	2,160	-	1,310	942	198	55	11	17	170
30	20	154	1,310	1,440	------	1,270	918	222	52	10	14	104
31	21	------	1,480	1,200	------	1,370	------	185	------	11	9.9	------
Total	966	6,357	19,205	48,975	16,526	32,455	30,354	15,418	4,988	888	366.5	2,151
Mean	31.2	212	620	1,580	590	1,047	1,012	497	166	28.6	11.8	71.7
Cfsm	0.073	0.499	1.46	3.71	1.39	2.46	2.38	1.17	0.391	0.067	0.028	0.169
In.	0.08	0.56	1.68	4.28	1.45	2.84	2.66	1.35	0.44	0.08	0.03	0.19
Ac-ft	1,920	12,610	38,090	97,140	32,780	64,370	60,210	30,580	9,890	1,760	727	4,270

Calendar year 1958: Max 3,970 Min 8.2 Mean 443 Cfsm 1.04 In. 14.15 Ac-ft 320,800
Water year 1958-59: Max 7,470 Min 8.4 Mean 489 Cfsm 1.15 In. 15.64 Ac-ft 354,300

Peak discharge (base, 3,600 cfs).--Jan. 12 (5:30 p.m.) 3,860 cfs (8.98 ft); Jan. 24 (9:10 p.m.) 8,740 cfs (10.85 ft).

* Discharge measurement made on this day.

3422. Twenty One Ranch Spring near Waha, Idaho

Location.--Lat 46°14', long 116°51, in sec.4, T.33 N., R.4 W., in spring shelter 1 mile north of Waha and 15 miles southeast of Lewiston.

Records available.--January 1958 to September 1959.

Gage.--Water-stage recorder and concrete broad-crested weir. Altitude of gage is 2,780 ft (from topographic map).

Extremes.--Maximum daily discharge during year, 12 cfs May 12-27; maximum gage height, 4.26 ft Sept. 19, 20; minimum daily discharge, 3.7 cfs Jan. 3-9, 12-18, 22, 23.
1958-59: Maximum daily discharge, that of May 12-27, 1959; maximum gage height, that of Sept. 19, 20, 1959; minimum daily discharge, 2.9 cfs Feb. 25 to Mar. 25, 1958.

Remarks.--Records good. Station is bypassed by flow through a three-inch pipe which at times actuates a hydraulic ram. Records of water temperatures for the water year 1959 are given in WSP 1644.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	4.8	4.3	3.9	4.1	4.8	4.8	8.5	11	9.9	9.1	9.5
2	6.0	4.8	4.3	3.9	4.1	4.8	4.8	8.6	11	10	9.0	9.8
3	6.0	4.8	4.3	3.7	4.1	4.8	4.8	8.8	11	10	8.8	*10
4	6.0	4.8	4.3	3.7	4.1	*4.8	4.8	9.2	11	9.9	8.7	10
5	6.0	4.8	4.1	3.7	4.1	4.8	4.8	9.5	11	9.9	8.6	10
6	6.0	4.6	4.1	3.7	4.1	4.6	*4.8	9.9	11	9.9	8.5	10
7	5.8	4.6	4.1	3.7	4.1	4.6	4.8	10	10	9.9	8.4	10
8	5.8	4.6	4.1	3.7	4.1	4.6	4.8	10	10	9.9	8.3	10
9	5.5	4.6	4.1	3.7	4.1	4.3	5.1	11	*10	9.9	8.2	10
10	5.5	4.6	*4.1	3.9	4.1	4.3	5.1	11	10	9.9	8.1	9.9
11	5.5	4.6	4.1	3.9	4.1	4.3	5.1	11	10	9.8	8.0	10
12	5.5	4.3	4.3	3.7	4.1	4.3	5.3	12	10	9.8	7.8	10
13	5.5	4.3	4.3	3.7	4.1	4.3	5.5	12	10	9.7	7.8	10
14	5.5	*4.3	4.3	3.7	4.1	4.3	5.5	12	10	9.7	7.8	10
15	5.5	4.3	4.3	3.7	4.1	4.3	5.8	12	10	9.7	8.0	10
16	5.5	4.6	4.3	3.7	4.1	4.3	6.0	12	10	9.7	8.1	10
17	5.5	4.6	4.3	3.7	4.1	4.3	6.0	*12	10	9.7	8.2	10
18	5.3	4.6	4.1	3.7	4.1	4.3	6.5	12	10	9.6	8.3	10
19	5.3	4.6	4.1	3.9	4.1	4.3	6.7	12	10	9.5	8.4	10
20	5.3	4.6	4.1	3.9	4.3	4.6	6.7	12	10	9.5	8.5	10
21	5.3	4.6	4.1	3.9	4.3	4.8	7.0	12	10	9.5	8.6	10
22	5.1	4.3	4.1	3.7	4.3	4.8	7.0	12	10	9.4	8.7	9.9
23	5.1	4.3	4.1	3.7	4.3	4.8	7.2	12	10	9.4	8.7	9.8
24	5.1	4.3	4.1	*3.9	4.3	4.8	7.4	12	10	*9.4	8.7	9.7
25	5.1	4.3	3.9	3.9	4.3	4.8	7.6	12	10	9.5	8.7	9.7
26	5.1	4.3	3.9	4.1	4.6	4.8	7.7	12	10	9.5	8.7	9.4
27	4.8	4.3	3.9	3.9	4.8	4.8	8.0	12	10	9.4	8.9	9.3
28	4.8	4.3	3.9	4.1	4.8	4.8	8.0	11	9.9	9.4	9.1	9.1
29	4.8	4.3	3.9	4.1	-	4.8	8.1	11	9.9	9.3	9.2	8.8
30	4.8	4.3	3.9	4.1	-------	4.8	8.4	11	9.9	9.2	9.2	8.6
31	4.8	-------	3.9	4.1	-------	4.8	-------	11	-------	9.1	9.3	-------
Total	167.8	135.1	127.7	118.7	117.9	142.5	184.1	343.5	305.7	299.0	264.4	293.5
Mean	5.41	4.50	4.12	3.83	4.21	4.60	6.14	11.1	10.2	9.65	8.53	9.78
Ac-ft	333	268	253	235	234	283	365	681	606	593	524	582

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 12 Min 3.7 Mean 6.85 Ac-ft 4,960

* Discharge measurement made on this day.

3425. Clearwater River at Spalding, Idaho

Location (revised).--Lat 46°27'05", long 116°49'25", in lot 22, sec.22, T.36 N., R.4 W., on right bank a quarter of a mile downstream from Lapwai Creek, three-eighths of a mile northwest of Spalding Post Office, and 2,300 ft downstream from bridge on U. S. Highway 95.

Drainage area.--9,570 sq mi, approximately.

Records available (revised).--August 1910 to October 1913, October to December 1924, May 1925 to September 1959. Prior to October 1926, published as "near Lewiston."

Gage (revised).--Water-stage recorder. Altitude of gage is 770.5 ft (estimated from datum of gage 2,300 ft upstream). Aug. 23, 1910, to Oct. 31, 1913, staff gage at datum about 731.5 ft, and Oct. 2, 1924, to Sept. 30, 1926, water-stage recorder at datum 730.23 ft at sites 7 miles downstream. Oct. 1, 1926, to Sept. 21, 1928, staff gage at highway bridge 2,300 ft upstream from present gage at datum 772.49 ft above mean sea level (datum of 1929, supplementary adjustment of 1947). Staff or wire-weight gage at bridge site and datum 2,300 ft upstream used as supplementary gage since 1928.

Average discharge.--37 years (1910-13, 1925-59), 15,200 cfs (11,000,000 acre-ft per year).

Extremes.--Maximum discharge during year, 84,000 cfs June 6 (gage height, 16.20 ft); minimum, 2,400 cfs Oct. 7 (gage height, 2.82 ft).

1910-13, 1924-59: Maximum discharge, 177,000 cfs May 29, 1948 (gage height, 23.76 ft); maximum gage height, 25.6 ft Jan. 5, 1928 (present site and datum), from floodmark (ice jam); minimum daily discharge, 500 cfs Jan. 9, 1937, Dec. 1, 1952.

Flood in June 1894 reached a stage of 20.8 ft, site and datum in use 1924-26 (discharge, 136,000 cfs).

Remarks.--Records excellent. Small diversions from tributaries; slight diurnal fluctuation at times caused by powerplant on South Fork.

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

2.8	2,360	8.0	20,800
3.0	2,740	12.0	47,000
4.0	5,000	16.0	82,000
6.0	11,700		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,900	*3,560	11,800	17,100	18,300	18,100	23,400	58,900	44,000	21,500	5,080	3,520
2	2,760	3,520	11,500	15,900	16,500	21,800	35,000	65,700	50,500	20,800	4,970	4,250
3	2,660	3,560	15,100	12,400	15,200	*17,600	*48,000	57,100	59,400	20,200	4,970	*3,740
4	2,590	4,230	26,500	9,200	15,200	15,500	41,100	49,300	62,700	19,100	4,740	3,370
5	2,550	7,010	21,200	10,000	14,500	14,200	37,800	44,400	66,800	17,400	4,490	3,580
6	2,470	6,790	18,600	12,000	13,700	13,300	43,100	39,500	76,900	16,700	4,370	7,300
7	2,420	17,900	18,800	14,700	13,000	13,000	42,300	36,700	73,700	16,400	4,250	10,700
8	2,740	20,000	22,900	12,800	12,400	13,300	36,200	37,100	62,800	15,900	4,130	7,560
9	8,560	20,400	19,400	12,400	11,800	12,600	31,600	40,600	*60,600	15,100	4,010	6,200
10	6,950	19,800	*17,300	14,100	11,200	12,200	29,000	41,800	59,700	13,900	3,850	5,270
11	6,670	20,400	27,500	14,500	11,100	11,500	28,100	38,100	50,200	13,300	3,740	4,490
12	6,110	16,100	41,700	21,300	10,800	11,700	29,800	35,300	50,700	13,100	3,630	4,080
13	5,080	16,700	33,100	24,300	9,940	13,300	32,700	*37,500	61,600	12,700	3,560	3,850
14	4,640	16,500	25,600	20,200	9,350	12,400	33,200	48,600	69,100	12,100	3,560	3,830
15	4,300	15,900	21,300	17,300	9,940	11,300	32,600	68,400	66,200	11,500	3,540	4,560
16	3,960	11,800	19,200	16,200	10,100	11,200	31,100	75,600	57,900	10,700	3,460	5,790
17	3,710	9,490	17,800	16,300	12,100	11,700	29,900	65,400	54,900	10,100	3,350	5,270
18	3,560	8,070	16,500	17,200	13,200	13,300	28,200	57,900	51,500	9,600	3,220	4,770
19	3,850	9,490	17,000	17,600	12,500	15,000	27,100	51,800	49,700	9,060	3,180	4,390
20	9,170	11,200	15,700	15,900	12,900	14,200	25,900	46,800	51,700	8,600	3,350	4,920
21	8,320	13,400	15,000	13,300	13,000	13,700	26,300	43,600	51,800	8,180	3,850	6,610
22	6,080	15,500	16,500	12,600	12,800	14,300	28,400	43,700	47,900	7,730	4,520	7,010
23	5,270	17,600	15,200	15,000	11,900	14,800	31,800	45,000	41,600	7,270	4,250	6,550
24	4,840	22,000	14,000	*34,400	11,500	15,900	33,400	49,200	36,800	*6,980	3,780	5,650
25	4,490	23,700	13,700	41,800	11,700	16,400	34,800	56,200	33,200	6,770	3,500	5,300
26	4,270	18,600	14,100	30,900	13,000	17,700	34,500	60,900	32,000	6,640	3,310	6,950
27	4,180	15,400	14,800	27,900	12,700	20,000	36,900	54,000	29,300	6,310	3,240	12,400
28	4,010	13,400	15,600	34,600	12,500	18,900	37,500	48,000	26,000	6,020	3,350	17,000
29	3,940	12,100	14,200	27,700	-	19,100	40,500	44,200	25,700	5,650	3,540	13,200
30	3,780	12,000	14,500	23,000	------	18,300	48,000	41,800	25,300	5,510	3,410	10,900
31	3,650	------	16,200	20,200	------	19,200	------	41,100	------	5,320	3,180	------
Total	140,480	404,120	582,300	592,800	352,830	465,500	#1,018.2	#1,524.2	#1,528.2	360,140	119,380	193,010
Mean	4,532	13,470	18,780	19,120	12,600	15,020	33,940	49,170	50,940	11,620	3,851	6,434
Cfsm	0.474	1.41	1.96	2.00	1.32	1.57	3.55	5.14	5.32	1.21	0.402	0.672
In.	0.55	1.57	2.26	2.30	1.37	1.81	3.96	5.92	5.94	1.40	0.46	0.75
Ac-ft	278,600	801,600	#1,155	#1,176	699,800	923,300	#2,020	#3,023	#3,031	714,400	236,800	382,800

Calendar year 1958: Max 85,300 Min 2,250 Mean 15,890 Cfsm 1.66 In. 22.53 Ac-ft 11,500,000
Water year 1958-59: Max 76,900 Min 2,420 Mean 19,950 Cfsm 2.08 In. 28.29 Ac-ft 14,440,000

Peak discharge (base, 50,000 cfs).--Apr. 3 (4 a.m.) 50,700 cfs (12.46 ft); May 2 (1:30 p.m.) 67,900 cfs (14.50 ft); May 16 (3 p.m.) 77,800 cfs (15.58 ft); May 26 (11:30 a.m.) 62,000 cfs (13.84 ft); June 6 (4:30 p.m.) 84,000 cfs (16.20 ft); June 14 (1 p.m.) 73,800 cfs (15.16 ft).

* Discharge measurement made on this day.
# Expressed in thousands.

3435. *Snake River near Clarkston, Wash.*

Location.--Lat 46°25'30", long 117°10'30", in lot 1, sec.16, T.11 N., R.45 E., on right bank 2 miles upstream from Alpowa Creek, 7 miles downstream from Clarkston, and 134 miles upstream from mouth.

Drainage area.--103,200 sq mi, approximately.

Records available.--October 1915 to September 1959 in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1317. October 1909 to September 1953 (monthly discharge only) in State Water-Supply Bulletin 6. Prior to October 1935, published as "at Riparia." Gage-height records collected at Riparia, 1900-16 (fragmentary), 1935-48, are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 670 ft above mean sea level (Corps of Engineers bench mark). Prior to Sept. 12, 1917, staff gage, and Sept. 12, 1917, to Sept. 30, 1922, Aug. 6, 1928, to Sept. 30, 1935, chain gage, at Riparia 66 miles downstream at different datum.

Extremes.--Maximum discharge during year, 171,400 cfs June 6 (gage height, 28.37 ft); *minimum*, 9,790 cfs Oct. 8 (gage height, 7.92 ft); minimum daily, 13,400 cfs Oct. 8.
1909-59: Maximum discharge, 369,000 cfs May 29, 1948 (gage height, 40.36 ft, from high-water mark in well); minimum, 6,660 cfs Sept. 2, 1958 (gage height, 6.79 ft).
Maximum stage known, 24.7 ft, June 5, 1894, Riparia site and datum, determined from floodmarks by U. S. Weather Bureau (discharge, 409,000 cfs).

Remarks.--Records excellent. Over 2,840,000 acres are irrigated above station from numerous large irrigation projects. Regulation from many storage reservoirs upstream and fluctuations during low-water periods from powerplants on Clearwater River at Lewiston, Idaho, and Snake River at Brownlee Dam.

Revisions (water years).--WSP 463: 1916. WSP 933: 1937. WSP 1447: 1931(M), 1934(M).

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

9.0	13,400	18.0	61,400
11.0	20,800	23.0	106,600
14.0	35,600	29.0	180,200

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,500	24,300	30,400	41,100	48,600	44,500	57,500	100,400	83,800	64,000	22,300	23,800
2	23,900	24,000	31,400	40,300	45,400	48,900	71,400	112,400	94,100	59,200	21,600	26,600
3	23,300	23,300	34,700	36,300	44,200	46,200	92,700	104,000	110,400	56,300	20,800	23,800
4	24,500	24,200	48,500	31,100	43,900	41,100	87,200	91,700	120,200	53,400	21,200	23,700
5	23,900	27,000	43,300	29,900	44,100	38,300	83,800	85,100	130,300	49,800	22,000	23,600
6	23,900	27,000	40,500	33,200	42,300	39,700	89,000	77,800	154,300	50,200	21,800	26,300
7	*21,700	38,000	39,200	35,800	41,300	40,200	92,000	72,100	167,600	48,000	21,700	29,000
8	13,400	45,200	44,800	35,200	40,300	38,400	84,500	69,200	158,400	46,800	22,300	28,200
9	18,100	44,900	42,900	35,500	39,500	38,900	77,800	73,500	*149,100	45,200	22,100	26,100
10	21,200	44,600	40,300	37,700	38,600	38,400	72,400	76,600	144,100	43,300	21,400	24,600
11	25,000	46,500	50,000	37,700	35,700	36,500	69,200	71,300	124,500	41,800	21,300	24,700
12	24,100	39,600	79,200	45,400	34,900	34,800	68,300	70,300	116,600	39,700	20,900	23,600
13	23,300	39,800	71,600	55,200	32,600	36,000	71,800	73,100	133,600	40,000	20,700	23,100
14	24,600	*39,800	*58,800	49,200	31,900	34,000	73,900	88,300	154,000	37,900	21,600	20,400
15	24,400	38,000	50,700	44,200	31,900	33,500	72,600	121,000	156,900	36,700	21,500	22,500
16	24,200	35,900	46,800	41,800	30,100	32,700	69,600	143,600	144,300	35,700	*21,400	28,600
17	23,800	32,800	44,200	40,600	34,900	33,900	67,800	*131,200	135,200	34,400	19,800	33,500
18	21,000	30,500	42,700	42,700	38,000	39,400	64,400	117,500	128,100	33,700	20,800	32,300
19	21,100	31,500	42,600	44,200	37,600	41,200	59,900	109,500	124,900	32,100	21,800	31,800
20	26,800	33,100	42,100	42,500	41,500	43,100	53,400	99,500	128,400	29,900	21,800	*32,100
21	29,300	36,800	38,800	37,200	43,400	42,600	54,600	92,300	128,500	34,600	21,600	35,400
22	27,000	41,000	40,000	36,300	43,300	43,400	58,300	90,000	121,100	31,900	23,700	36,100
23	25,200	42,700	38,800	38,500	41,500	43,500	65,200	92,800	111,100	35,600	22,700	35,800
24	23,100	46,800	37,600	55,500	41,200	45,600	67,600	97,500	105,800	29,800	20,800	34,600
25	22,900	49,800	36,200	71,000	*41,400	46,000	69,600	108,300	98,200	28,900	22,900	32,700
26	25,800	44,100	35,500	63,000	42,700	47,600	69,200	118,000	98,500	27,800	23,200	33,500
27	25,800	37,600	37,800	60,700	42,300	51,300	72,800	107,700	85,600	25,700	23,100	41,800
28	25,000	33,800	40,900	70,400	40,100	50,200	*76,300	98,800	82,600	26,000	20,800	49,000
29	22,100	31,100	39,900	63,900	-	50,800	78,400	92,300	78,600	25,100	21,600	44,400
30	22,500	30,800	38,900	58,100	-------	50,400	85,800	86,900	70,100	24,500	20,800	40,100
31	24,400	-------	40,300	53,800	-------	52,200	-------	82,200	-------	23,800	22,400	-------
Total	729,800	‡1,084	‡1,349	‡1,408	‡1,113	‡1,303	‡2,177	‡2,954	‡3,638	‡1,191	672,400	911,700
Mean	23,540	36,150	43,530	45,420	39,760	42,040	72,570	95,320	121,300	38,450	21,690	30,390
Ac-ft	‡1,448	‡2,151	‡2,676	‡2,793	‡2,208	‡2,585	‡4,318	‡5,861	‡7,218	‡2,364	‡1,334	‡1,808

Calendar year 1958: Max 239,800 Min 9,320 Mean 54,060 Ac-ft 39,140,000
Water year 1958-59: Max 167,600 Min 13,400 Mean 50,780 Ac-ft 36,760,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

3445. Tucannon River near Starbuck, Wash.

Location.--Lat 46°30'20", long 118°03'55", in NE¼SW¼ sec.21, T.12 N., R.38 E., on right bank 180 ft downstream from county road bridge, 3 miles east of Starbuck, and 3½ miles downstream from Pataha Creek.

Drainage area.--431 sq mi.

Records available.--October 1914 to September 1917, August 1928 to September 1931, October 1958 to September 1959. Monthly discharge only for October and November 1914, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 730 ft (from topographic map). Nov. 8, 1914, to Sept. 30, 1917, staff gage at site 2¾ miles upstream at different datum. Aug. 9, 1928, to Sept. 30, 1931, staff gages at site 2½ miles upstream at various datums.

Average discharge.--7 years, 169 cfs (122,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,040 cfs Dec. 12 (gage height, 4.04 ft); minimum, 55 cfs Aug. 4 (gage height, 1.84 ft).
1914-17, 1928-31, 1958-59: Maximum discharge, 6,000 cfs Feb. 2, 1930 (gage height, 8.08 ft, from floodmarks), from rating curve extended above 350 cfs on basis of slope-area measurement of peak flow; minimum, 15 cfs July 11, 12, 1930 (gage height, 1.12 ft).

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

Revisions (water years).--WSP 1347: 1930.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 13 to Apr. 9)

1.8	49	2.8	330
2.0	82	3.4	622
2.4	185	4.0	985

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	68	170	279	347	279	228	294	224	114	61	80
2	64	68	165	282	314	306	318	294	234	106	62	80
3	64	70	201	b250	314	318	409	267	248	106	61	80
4	66	76	242	b220	314	306	418	256	256	112	60	82
5	66	74	231	b190	294	286	391	242	290	112	60	88
6	67	110	228	b200	298	275	396	228	356	102	62	105
7	70	130	286	*b220	279	267	378	211	347	97	61	94
8	*82	185	306	b240	267	252	343	204	*310	100	61	90
9	90	180	302	248	252	242	314	214	310	93	62	86
10	84	170	290	260	*248	228	294	217	286	91	62	83
11	80	160	*561	290	242	214	279	211	263	86	61	82
12	77	180	*972	437	228	214	271	204	248	86	60	82
13	75	286	768	516	214	214	271	211	245	82	60	84
14	73	195	568	456	220	211	267	245	242	80	61	88
15	72	*176	*461	400	220	204	267	356	228	78	61	98
16	71	165	378	369	224	204	252	391	217	77	*64	96
17	70	148	322	334	263	198	245	352	211	77	64	94
18	71	156	294	318	242	201	238	339	198	75	64	92
19	84	217	267	302	248	207	228	310	188	73	70	92
20	80	204	248	286	248	*211	214	294	182	73	90	91
21	77	217	238	260	252	214	211	282	176	*69	120	*91
22	74	234	228	263	252	217	211	271	168	69	100	91
23	73	242	217	294	252	217	224	271	153	68	92	93
24	72	245	214	334	245	217	238	271	156	71	88	91
25	70	252	211	423	252	207	245	282	145	71	86	91
26	69	228	217	447	263	211	252	282	142	73	84	112
27	69	207	267	474	245	214	*248	267	134	71	83	165
28	69	188	263	521	245	220	242	252	137	69	82	137
29	68	182	260	*447	-	217	242	238	140	64	80	124
30	68	179	260	418	-------	224	271	228	129	64	80	119
31	67	-------	263	386	-------	224	-------	220	-------	62	80	-------
Total	2,246	5,192	9,898	10,364	7,282	7,219	8,405	8,204	6,563	2,571	2,242	2,881
Mean	72.5	173	319	334	260	233	280	265	219	82.9	72.3	96.0
Ac-ft	4,450	10,300	19,630	20,560	14,440	14,320	16,670	16,270	13,020	5,100	4,450	5,710

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 972 Min 60 Mean 200 Ac-ft 144,900

Peak discharge (base, 700 cfs).--Dec. 12 (10 a.m.) 1,040 cfs (4.04 ft); Jan. 27 (9:30 p.m.) 972 cfs (3.83 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 1 to Nov. 12, Aug. 17 to Sept. 20; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby stations.

3460. Palouse River near Colfax, Wash.

Location.--Lat 46°55'30", long 117°19'10", in NW¼SW¼ sec.31, T.17 N., R.44 E., on right bank 3½ miles northeast of Colfax and 4 miles upstream from mouth of South Fork.

Drainage area.--491 sq mi.

Records available.--September 1955 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,010 ft (from topographic map).

Extremes.--Maximum discharge during year, 6,310 cfs Jan. 25 (gage height, 8.18 ft); minimum, 4.3 cfs Aug. 28 (gage height, 1.39 ft).
1955-59: Maximum discharge, that of Jan. 25, 1959; minimum, 2.7 cfs Aug. 23, 1958 (gage height, 1.30 ft).

Remarks.--Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Small diversions for irrigation and domestic use above station. Slight regulation by millponds above station.

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

Oct. 1 to Dec. 11				Dec. 12 to Sept. 30			
1.4	5.8	2.2	97	1.4	4.6	3.5	475
1.5	10.5	2.7	227	1.5	9.0	4.0	765
1.7	25	3.3	450	1.7	22	5.0	1,520
1.9	48	4.0	840	2.0	53	6.0	2,650
				2.5	135	8.0	5,950
				3.0	280		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	18.5	123	670	1,030	1,630	1,330	720	168	45	9	7.0
2	9.9	20	105	592	784	1,720	1,510	810	156	50	8.5	10.5
3	11	18.5	112	400	694	1,300	1,830	837	144	48	9	9.5
4	7.9	26	123	300	798	942	1,610	706	135	44	10	6.6
5	9.9	33	151	250	628	810	1,290	622	146	40	9	9.5
6	*8.9	80	127	250	610	720	1,130	525	240	42	8.5	17
7	10.5	60	206	273	558	784	1,210	457	378	45	8	10
8	16.5	168	299	336	480	720	1,000	418	235	44	8	14.5
9	13.5	125	295	634	414	622	784	386	201	43	8.5	25
10	14	125	247	893	402	758	652	390	*160	40	8	25
11	50	98	611	1,030	398	622	564	350	150	38	7.5	21
12	35	*95	*970	1,720	346	610	598	329	140	35	7	13
13	35	108	670	1,720	315	758	515	298	130	33	7	13.5
14	31	310	398	1,120	273	720	646	276	115	31	6.5	17
15	21	234	284	784	340	515	676	386	100	28	*6.5	18
16	21	162	226	700	352	439	652	569	110	28	6.5	17
17	19	78	210	921	640	330	610	530	105	27	6.5	16.5
18	17.5	78	210	1,000	530	*634	592	*439	100	26	7	18
19	20	99	187	1,030	485	732	726	439	95	25	8	*26
20	22	134	204	746	457	706	505	414	90	23	*9.5	26
21	22	129	190	430	505	694	515	378	85	20	11.5	26
22	50	157	198	378	569	664	515	362	80	*18	10.5	25
23	48	190	210	1,100	515	634	610	318	75	16	14	29
24	34	340	184	4,780	490	726	664	290	70	16	10.5	49
25	25	355	229	5,890	622	682	658	270	65	15	6.6	43
26	22	317	262	*3,750	1,000	804	652	245	60	14	13.5	43
27	22	234	752	*2,930	893	1,190	604	245	60	13	7.5	39
28	22	157	991	*4,150	1,080	1,150	622	235	62	12	5.3	47
29	15.5	116	616	3,120	-	1,100	598	223	57	11	9.5	104
30	19	125	586	1,680	-------	991	640	196	52	10	8.5	89
31	16.5	-------	739	1,330	-------	1,030	-------	193	-------	9	8.5	-------
Total	682.6	4,190.0	10,715	44,907	16,208	25,937	24,508	12,856	3,764	889	264.4	814.6
Mean	22.0	140	346	1,449	579	837	817	415	125	28.7	8.53	27.2
Ac-ft	1,350	8,310	21,250	89,070	32,150	51,450	48,610	25,500	7,470	1,760	524	1,620

Calendar year 1958: Max 2,730 Min 3.2 Mean 366 Ac-ft 265,200
Water year 1958-59: Max 5,890 Min 5.3 Mean 399 Ac-ft 289,100

Peak discharge (base, 2,000 cfs).--Jan. 12 (12 p.m.) 2,070 cfs (5.53 ft); Jan. 25 (7:30 a.m.) 6,310 cfs (8.18 ft); Jan. 28 (2 a.m.) 4,400 cfs (7.16 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 3-6 (stage-discharge relation affected by ice), Jure 10 to July 22, Aug. 4-19 and doubtful gage-height record July 23 to Aug. 3; discharge estimated on basis of 4 discharge measurements, recorded range in stage, weather records, and records for nearby stations.

3505. Union Flat Creek near Colfax, Wash.

Location.--Lat 46°49'00", long 117°26'05", in SW¼SW¼ sec.5, T.15 N., R.43 E., on right bank upstream from county highway bridge, 5½ miles southwest of Colfax.

Drainage area.--189 sq mi.

Records available.--July 1953 to September 1959.

Gage.--Water-stage recorder. Artificial channel since Nov. 12, 1957, and concrete control since Aug. 20, 1958. Altitude of gage is 1,865 ft (from topographic map).

Average discharge.--6 years, 43.5 cfs (31,490 acre-ft per year).

Extremes.--Maximum discharge during year, 1,730 cfs Jan. 27 (gage height, 8.04 ft); minimum, 0.9 cfs Aug. 4, 18 (gage height, 3.16 ft).
1953-59: Maximum discharge, 2,080 cfs Feb. 13, 1958 (gage height, 5.52 ft, see Gage); maximum gage height, that of Jan. 27, 1959; no flow Aug. 15 to Sept. 13, 1955.

Remarks.--Records good except those below 10 cfs or those for periods of ice effect, which are fair. No known regulation. Small diversions above station for irrigation.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 13 to Jan. 29, Feb. 16 to May 15)

3.1	0.2	3.6	22	5.5	350
3.2	2.0	4.0	56	6.0	520
3.3	5.4	4.5	116	6.5	760
3.4	9.9	5.0	215	7.0	1,080

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	3.2	14	b80	215	470	79	34	16	6.6	1.4	3.2
2	1.7	3.6	22	b55	178	263	70	46	14.5	6.6	1.2	2.8
3	1.7	3.6	36	b20	172	198	61	41	13.5	6.2	1.2	2.8
4	1.7	5.8	47	b20	235	130	49	28	12	5.8	1.2	2.8
5	1.7	4.6	24	b25	148	132	44	27	17	5.8	1.2	3.6
6	*1.7	8.8	18	*b30	160	122	39	25	49	5.8	1.2	3.9
7	2.0	8.9	60	b35	118	150	34	19.5	52	5.4	1.4	3.6
8	3.6	12	104	b70	141	129	33	17	28	5.4	1.4	3.2
9	3.9	12.5	49	*b130	*122	103	32	14.5	24	5.4	1.4	3.2
10	3.6	15	48	150	129	134	30	12	*21	5.0	1.4	3.2
11	3.9	11.5	*211	171	122	110	29	11.5	18	5.0	1.4	2.8
12	3.6	14.5	*272	514	106	106	28	11.5	16	5.0	1.7	2.8
13	3.6	*42	99	174	90	93	28	9.4	14	4.6	1.7	2.8
14	3.2	45	69	116	98	85	28	7.9	12	4.6	1.4	2.8
15	2.8	19.5	52	94	105	84	42	43	11	4.2	*1.2	5.4
16	2.6	b6.0	47	93	135	87	52	94	10.5	4.2	1.2	4.6
17	2.6	b3.0	53	127	265	78	40	55	9.4	4.2	1.2	4.2
18	2.8	b5.0	58	166	190	*72	38	46	9.4	4.2	1.2	*3.9
19	3.6	40	65	162	170	78	33	39	8.9	4.2	1.4	4.2
20	3.9	40	51	110	190	63	29	35	7.9	4.2	4.2	4.6
21	3.6	51	47	97	222	60	27	33	7.4	3.9	5.4	4.2
22	3.6	41	49	88	208	62	27	29	7.0	*2.8	4.6	4.2
23	3.6	b36	47	168	152	61	29	25	6.6	2.2	3.9	4.2
24	3.6	b30	36	873	160	58	24	22	6.6	1.4	3.2	4.6
25	3.9	b20	42	*831	*271	54	23	20	6.6	2.0	2.8	4.6
26	3.9	b15	75	*343	362	72	26	20	6.6	2.0	2.6	6.2
27	3.6	b10	264	*633	232	76	36	22	6.6	1.7	2.6	6.6
28	3.6	b5.0	134	*892	258	67	23	22	6.6	1.7	2.6	6.2
29	3.6	b8.0	89	361	-	69	*21	21	6.6	1.7	2.8	6.2
30	3.2	b10	98	*260	------	62	21	20	6.6	1.7	2.8	6.2
31	2.8	------	94	265	------	66	------	17.5	------	1.7	3.6	------
Total	94.9	530.5	2,374	7,153	4,954	3,394	1,075	867.8	431.3	125.2	66.5	123.6
Mean	3.06	17.7	76.6	231	177	109	35.8	28.0	14.4	4.04	2.15	4.12
Cfsm	0.016	0.094	0.405	1.22	0.937	0.577	0.189	0.148	0.076	0.021	0.011	0.022
In.	0.02	0.10	0.47	1.41	0.97	0.67	0.21	0.17	0.08	0.02	0.01	0.02
Ac-ft	188	1,050	4,710	14,190	9,830	6,730	2,130	1,720	855	248	132	245

Calendar year 1958: **Max** 515 **Min** 0.4 **Mean** 43.9 **Cfsm** 0.232 **In.** 3.14 **Ac-ft** 31,750
Water year 1958-59: **Max** 892 **Min** 1.2 **Mean** 58.1 **Cfsm** 0.307 **In.** 4.15 **Ac-ft** 42,030

Peak discharge (base, 400 cfs).--Dec. 12 (8 a.m.) 414 cfs (5.81 ft); Dec. 27 (4 p.m.) 452 cfs (5.92 ft); Jan. 12 (1:30 p.m.) 982 cfs (6.96 ft); Jan. 25 (5 a.m.) 1,500 cfs (7.87 ft); Jan. 27 (9:30 p.m.) 1,730 cfs (8.04 ft); Feb. 26 (5:30 a.m.) 500 cfs (6.15 ft); Mar. 1 (11 p.m.) 645 cfs (6.49 ft).

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

3510. Palouse River at Hooper, Wash.

Location.--Lat 46°45'30", long 118°08'50", in SE¼ sec.27, T.15 N., R.27 E., on left bank 150 ft downstream from bridge on State Highway 11B at Hooper and 0.4 mile upstream from Cow Creek.

Drainage area.--2,540 sq mi, approximately.

Records available.--April to August 1897 (gage heights only), September 1897 to December 1899, April 1900 to April 1907, June 1908 to July 1912, March 1913 to March 1916, February 1951 to September 1959. Prior to 1904, sometimes published as "near Hooper."

Gage.--Water-stage recorder. Altitude of gage is 1,040 ft (from topographic map). Apr. 1 to Aug. 31, 1897, staff gage at site 2½ miles upstream at different datum. Sept. 9, 1897, to March 1916, various staff gages at site 1½ miles upstream from present site at different datums. Feb. 8 to Mar. 28, 1951, staff gage at present site and datum.

Average discharge.--21 years (1897-99, 1900-1906, 1908-11, 1913-15, 1951-59), 633 cfs (458,300 acre-ft per year).

Extremes.--Maximum discharge during year, 11,400 cfs Jan. 28 (gage height, 13.12 ft); minimum, 14.5 cfs Aug. 16 (gage height, 3.31 ft).
1897-1916, 1951-59: Maximum discharge, 29,800 cfs Mar. 2, 1910 (gage height, 22.00 ft, from graph based on gage readings, site and datum then in use); no flow for part of June 25, 1910.

Remarks.--Records good except those for periods of ice effect or for once-daily-telemark readings, which are fair, and those below 25 cfs, which are poor. No regulation. Diversions above station for irrigation and domestic and municipal use.

Revisions (water years).--WSP 1217: Drainage area. WSP 1287: 1897-1904, 1910(M), 1915-16(M). WSP 1447: 1906(M), 1910. WSP 1567: 1908-9(M).

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

3.3	14	5.0	270	8.0	2,040
3.5	26	5.5	425	9.0	3,150
3.7	44	6.0	640	11.0	6,360
4.0	80	7.0	1,240	13.0	11,000
4.5	160				

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	66	224	1,330	3,150	3,650	1,750	950	360	108	19	40
2	36	65	229	1,220	2,430	4,720	2,020	1,050	335	98	18.5	42
3	34	67	227	b700	2,080	3,400	2,190	1,160	297	102	19	45
4	34	77	248	b450	1,970	2,730	2,220	1,090	289	100	24	43
5	35	83	281	b350	2,160	2,170	1,880	962	284	88	23	44
6	*34	84	273	b350	1,660	2,000	1,660	884	289	88	19.5	48
7	33	100	273	b500	1,770	1,760	1,570	789	476	90	18.5	51
8	33	153	496	784	1,470	2,160	1,510	696	630	93	18	50
9	37	194	680	1,370	1,470	1,770	1,300	625	436	90	18.5	55
10	40	229	536	2,140	1,340	1,600	1,130	581	*360	88	19.5	57
11	45	204	574	1,930	1,330	1,780	1,010	581	351	86	18.5	54
12	54	194	1,760	3,020	1,310	1,550	944	532	335	79	16	60
13	61	198	*1,630	3,240	1,230	1,610	950	500	309	70	16.5	63
14	79	207	1,070	2,370	1,040	1,700	872	456	275	71	16.5	63
15	71	404	772	1,820	1,050	1,630	998	476	250	65	*16	68
16	75	329	600	1,490	1,140	1,370	1,090	762	218	59	15.5	66
17	65	220	536	1,800	1,200	*1,240	1,040	998	222	60	15	76
18	60	*181	550	2,260	1,420	1,320	986	830	215	55	15	76
19	63	164	558	2,160	1,650	1,360	980	728	204	53	15.5	77
20	66	202	540	1,890	1,560	1,440	1,030	706	192	51	25	76
21	66	314	514	1,410	1,580	1,310	836	675	177	50	47	77
22	67	354	496	1,060	1,610	1,330	830	635	170	44	50	84
23	72	300	500	1,080	1,680	1,300	818	600	155	34	55	87
24	80	351	484	7,670	1,500	1,280	914	536	144	30	61	86
25	97	464	468	*10,900	1,550	1,320	950	488	135	*31	57	88
26	87	492	595	*8,110	2,300	1,280	932	468	130	33	51	*108
27	79	b360	1,060	5,810	2,810	1,650	956	436	125	30	47	123
28	75	b240	2,080	9,640	2,330	1,780	944	436	127	27	43	123
29	74	b220	1,590	7,870	-	1,730	920	425	132	25	40	120
30	74	b210	1,220	5,200	-------	1,660	896	400	122	26	43	119
31	72	-------	1,340	3,500	-------	1,560	-------	374	-------	22	41	-------
Total	1,831	6,726	22,404	93,424	47,790	57,160	36,126	20,829	7,744	1,946	902.0	2,169
Mean	59.1	224	723	3,014	1,707	1,844	1,204	672	258	62.8	29.1	72.3
Ac-ft	3,630	13,340	44,440	185,300	94,790	113,400	71,650	41,310	15,360	3,860	1,790	4,300

Calendar year 1958: Max 5,380 Min 6.6 Mean 697 Ac-ft 504,800
Water year 1958-59: Max 10,900 Min 15 Mean 819 Ac-ft 593,200

Peak discharge (base, 3,700 cfs).--Jan. 12 (4:30 p.m.) 4,040 cfs (9.65 ft); Jan. 25 (5 p.m.) 11,300 cfs (13.10 ft); Jan. 28 (1:30 p.m.) 11,400 cfs (13.12 ft); Mar. 2 (time unknown) about 5,000 cfs.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Discharge computed from once-daily-telemark readings Jan. 29 to Mar. 17.

3513. Silver Lake at Medical Lake, Wash.

Location.--Lat 47°34'20", long 117°39'20", in SE¼ sec.17, T.24 N., R.41 E., on west shore at Silver Lake Resort, 1 mile east of Medical Lake.

Drainage area.--10.6 sq mi.

Records available.--September 1958 to September 1959.

Gage.--Staff gage read once daily. Datum of gage is 2,296.57 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum gage height observed September 1958 to September 1959, 47.26 ft May 18, 19; minimum observed, 44.88 ft Oct. 18, 19, Oct. 28 to Nov. 3.

Remarks.--No known regulation. Small diversions for domestic use.

Daily gage height, in feet, 1958

Sept. 8	45.23	Sept.20	45.07
9	45.22	21	45.06
10	45.20	22	45.05
11	45.19	23	45.04
12	45.18	24	45.03
13	45.17	25	45.02
14	-	26	45.00
15	45.14	27	45.00
16	45.13	28	44.99
17	45.11	29	44.98
18	45.10	30	44.98
19	45.08		

Daily gage height, in feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44.97	44.88	45.09	45.41	46.26	46.80	47.24	47.16	47.22	46.86	46.20	45.70
2	44.96	44.88	45.10	45.43	46.28	-	47.25	47.17	47.21	46.84	46.17	45.68
3	44.95	44.88	45.11	45.44	46.30	-	47.24	47.17	47.20	46.82	46.15	45.67
4	44.95	44.93	45.12	45.45	46.33	-	47.23	47.18	47.19	46.80	46.12	45.66
5	44.94	44.93	45.13	45.46	46.35	-	47.22	47.19	47.18	46.78	46.10	45.66
6	44.93	44.93	45.15	45.46	46.37	-	47.21	47.19	47.17	46.76	46.08	45.65
7	44.92	44.95	45.17	45.46	46.39	-	47.21	47.20	47.16	46.75	46.06	45.64
8	44.91	44.97	45.18	45.48	46.41	-	47.20	47.20	47.15	45.74	46.03	45.63
9	44.91	-	45.19	45.54	46.43	46.99	47.19	47.20	47.15	46.72	46.00	45.63
10	44.91	-	45.19	45.59	46.45	47.00	47.18	47.20	47.14	46.71	45.98	45.62
11	44.91	-	45.20	45.62	46.47	47.01	47.18	47.15	47.13	46.69	45.96	45.61
12	44.90	-	45.21	45.67	46.48	47.04	47.17	47.14	47.12	46.66	45.96	45.60
13	44.90	-	45.22	45.71	46.49	47.07	47.16	47.14	47.11	46.64	45.94	45.59
14	44.90	-	45.22	45.74	46.51	47.09	47.15	47.14	47.10	46.63	45.92	45.58
15	44.89	-	45.22	45.76	46.52	47.10	47.14	47.21	47.09	46.62	45.90	45.62
16	44.89	-	45.22	45.79	46.52	47.11	47.14	47.23	47.08	46.61	45.88	45.62
17	44.89	-	45.23	45.80	46.55	47.12	47.13	47.23	47.06	46.59	45.86	45.62
18	44.88	-	45.24	45.81	46.57	47.14	47.13	47.26	47.03	46.57	45.84	45.61
19	44.88	45.05	45.24	45.82	46.60	47.15	-	47.26	47.03	46.56	45.84	45.61
20	44.92	45.06	45.24	45.84	46.63	47.15	47.13	47.25	47.02	46.55	45.89	45.62
21	44.92	45.08	45.24	45.85	46.65	47.15	47.14	47.25	47.01	46.53	45.89	45.62
22	44.91	45.09	45.24	45.86	46.66	47.15	47.14	47.25	47.01	46.50	45.88	45.62
23	44.91	45.10	45.24	45.90	46.67	47.14	47.14	47.25	46.99	46.47	45.86	45.61
24	44.90	45.10	45.25	45.99	46.68	47.14	47.15	47.24	46.98	46.44	45.84	45.62
25	44.90	45.10	45.27	46.07	46.70	47.13	47.15	47.23	46.96	46.41	45.82	45.62
26	44.89	45.10	45.29	46.11	46.72	47.13	47.15	47.22	46.94	46.37	45.80	45.62
27	44.89	45.10	45.32	46.15	46.75	47.14	47.15	47.21	46.92	46.34	45.78	45.62
28	44.88	45.10	45.35	46.17	46.78	47.14	47.15	47.24	46.91	46.30	45.76	45.62
29	44.88	45.10	45.37	46.20	-	47.14	47.15	47.24	46.89	46.27	45.75	45.62
30	44.88	45.09	45.38	46.23	-------	47.15	47.15	47.24	46.87	46.23	45.74	45.61
31	44.88	-------	45.39	46.25	-------	47.20	-------	47.23	-------	46.22	45.72	-------

3515. Williams Lake near Amber, Wash.

Location.--Lat 47°19'25", long 117°41'55", in NE¼SE¼ sec.12, T.21 N., R.40 E., on west shore at Bunker's Resort, 2 miles southeast of Amber.

Drainage area.--200 sq mi.

Records available.--September 1955 to September 1959.

Gage.--Staff gage read once daily at various times. Altitude of gage is 2,050 ft (from topographic map).

Extremes.--Maximum gage height observed during year, 4.20 ft Mar. 26-31; minimum observed, 1.68 ft Oct. 24, Nov. 1, 2, 4.
1955-59: Maximum gage height observed, 4.89 ft Apr. 5-7, 1956; minimum observed, 0.81 ft Oct. 4, 7, 1955.

Remarks.--Small diversions for irrigation. Minor regulation by fish screens at outlet.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.78	1.68	-	-	2.95	3.56	4.18	3.66	3.35	3.08	2.48	-
2	-	1.68	1.79	2.10	-	3.60	-	3.63	3.34	-	-	-
3	-	-	1.82	2.10	2.98	3.64	4.14	-	-	3.00	2.45	2.06
4	1.74	1.68	-	2.10	3.00	3.68	4.12	3.60	3.32	3.00	-	-
5	1.74	-	-	-	-	3.72	4.10	-	-	3.00	2.40	2.08
6	-	1.70	-	2.12	3.00	3.73	4.08	3.58	3.30	-	2.38	2.08
7	-	-	-	-	3.00	3.76	4.06	-	3.30	2.96	-	-
8	1.72	1.72	-	2.14	3.00	-	4.02	3.54	-	2.94	2.34	2.06
9	1.70	-	1.86	2.18	-	3.80	4.00	3.54	3.36	2.94	2.32	-
10	-	1.72	1.90	2.20	3.06	-	-	-	-	-	2.31	2.02
11	1.70	-	1.92	2.24	3.10	3.85	3.96	3.50	3.34	2.90	-	-
12	1.70	1.72	-	2.28	3.10	3.88	3.94	3.48	3.32	-	2.28	2.00
13	-	-	1.94	-	3.11	3.90	-	3.48	3.30	2.88	2.26	2.00
14	-	-	1.92	2.32	3.14	3.90	3.92	-	3.30	-	-	-
15	1.70	1.74	-	-	-	3.90	3.90	3.52	-	2.85	2.22	-
16	-	-	1.92	2.38	3.16	3.92	3.90	3.50	3.30	2.83	2.18	2.08
17	1.70	1.74	1.92	2.40	3.24	4.00	3.86	3.50	3.28	-	-	-
18	1.70	-	-	2.40	-	4.00	-	-	3.28	2.80	2.16	2.10
19	1.70	-	1.92	2.40	3.30	-	3.84	3.50	-	2.78	-	-
20	-	1.78	1.92	-	-	4.08	-	3.48	3.25	-	-	-
21	1.70	1.80	1.94	2.40	3.36	4.11	3.80	3.48	3.22	2.76	2.22	2.08
22	-	-	-	2.42	3.36	-	3.78	-	-	2.72	2.20	2.08
23	1.69	1.80	-	-	3.36	4.16	3.78	3.48	3.20	-	2.20	2.08
24	1.68	-	-	2.64	3.36	-	-	3.46	3.18	-	2.20	-
25	-	1.80	-	2.72	3.40	4.18	3.76	-	-	2.68	-	2.08
26	-	-	-	2.76	3.46	4.20	3.70	3.40	3.14	2.64	2.18	2.08
27	-	1.80	-	2.82	-	4.20	-	3.40	3.10	2.60	2.16	2.10
28	-	-	-	2.88	3.52	4.20	3.66	3.40	3.10	-	-	2.10
29	-	1.78	-	2.90	-	4.20	3.66	3.38	3.10	2.56	2.14	-
30	-	1.78	2.06	-	-------	-	-	3.36	-	2.52	2.10	2.08
31	-	-------	2.08	2.95	-------	4.20	-------	-	-------	2.50	-	-------

3518. Colville (Sprague) Lake near Sprague, Wash.

Location.--Lat 47°06'20", long 118°04'30", in NW¼ sec.6, T.20 N., R.38 E., on northwest shore at Griffith's Resort, 6 miles southwest of Sprague.

Drainage area.--120 sq mi, approximately.

Records available.--September 1958 to September 1959.

Gage.--Staff gage read once daily. Datum of gage is 1,865.53 ft above mean sea level, datum of 1929.

Extremes.--Maximum gage height observed September 1958 to September 1959, 14.40 ft Mar. 18; minimum observed, 11.25 ft Sept. 6, 8, 10-13.

Remarks.--Some regulation by small dam at outlet. No diversion.

Daily gage height, in feet, 1958

Sept. 11	11.38	Sept. 21	-
12	11.35	22	11.30
13	11.35	23	11.30
14	-	24	11.30
15	-	25	11.28
16	-	26	11.28
17	11.36	27	11.28
18	11.35	28	11.30
19	11.36	29	11.29
20	11.35	30	11.28

Daily gage height, in feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11.28	11.37	-	12.00	-	14.16	14.29	13.70	13.15	12.56	11.70	11.32
2	11.28	11.37	-	12.00	-	14.17	14.28	13.68	13.12	-	11.68	11.30
3	11.28	-	11.66	-	-	14.17	14.26	13.67	13.11	12.50	11.66	11.30
4	11.28	11.40	11.68	-	-	14.16	14.24	-	13.09	12.46	11.63	11.28
5	11.28	11.45	11.68	-	-	14.16	14.22	13.63	13.10	12.45	11.60	11.29
6	11.29	-	11.68	-	13.57	14.17	14.20	13.61	-	12.42	11.58	11.25
7	11.28	11.46	-	-	13.61	14.19	14.18	13.59	13.06	12.39	11.58	11.28
8	11.28	11.44	-	-	13.66	14.22	14.14	13.57	13.07	12.35	11.56	11.25
9	11.27	11.45	-	-	13.70	14.25	14.14	13.55	12.93	12.33	11.53	11.26
10	11.28	-	-	-	13.75	14.26	14.10	-	12.93	12.31	11.52	11.25
11	-	11.45	-	-	13.78	14.29	14.10	-	12.95	12.29	11.50	11.25
12	11.28	11.45	-	-	13.79	14.30	14.08	-	12.98	12.27	11.50	11.25
13	11.29	11.53	-	-	13.80	14.33	14.05	13.46	12.95	12.24	11.46	11.25
14	11.28	11.55	-	-	13.81	14.34	14.05	13.41	12.95	12.21	11.45	11.27
15	11.32	11.56	-	-	13.83	-	14.03	13.39	12.90	12.19	11.44	11.28
16	11.32	11.56	-	-	13.85	14.38	14.01	13.40	12.89	12.17	11.44	11.30
17	11.31	11.56	-	-	13.89	14.38	13.97	13.40	12.86	12.15	11.41	11.32
18	11.32	11.55	-	-	13.88	14.40	13.97	13.39	12.85	12.13	11.36	11.32
19	11.34	11.56	11.87	-	13.91	14.39	13.97	13.36	12.84	12.10	11.34	11.32
20	11.34	11.60	11.96	-	13.92	-	13.96	13.36	12.80	12.07	11.35	11.33
21	11.35	11.62	11.90	-	13.92	14.38	13.94	13.35	12.78	12.03	11.40	11.34
22	11.34	11.62	11.88	-	13.92	14.38	13.90	13.31	12.76	12.00	11.42	11.35
23	11.36	11.62	11.88	-	13.92	14.38	13.89	13.30	12.75	11.97	11.40	11.35
24	11.35	11.63	11.88	-	13.92	14.35	13.87	13.25	12.72	11.95	11.40	11.35
25	11.36	11.63	11.88	-	13.95	14.36	13.83	13.22	12.70	11.92	11.39	11.36
26	-	11.63	11.88	-	14.07	14.34	13.82	13.22	12.68	11.90	11.38	11.39
27	11.34	-	11.92	-	14.12	14.33	13.79	13.22	12.65	11.85	11.36	11.39
28	11.35	-	11.98	-	14.15	14.31	13.77	13.20	12.62	11.80	-	11.39
29	11.35	-	11.98	-	-	14.30	13.75	13.19	12.60	11.78	11.34	11.39
30	11.35	-	11.99	-	-------	14.30	13.75	13.18	12.58	11.75	11.34	11.40
31	11.35	-------	11.98	-	-------	14.30	-------	13.17	-------	11.72	11.32	-------

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are generally presented in two tables. However, no records at low-flow partial-record stations are available for the 1959 water year. A table of annual maximum discharge at crest-stage stations is given first, followed by a table of measurements made at miscellaneous sites for both low flow and high flow.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Grande Ronde River basin							
3192	Mill Creek at La Grande, Oreg.	Center sec.8, T.3 S., R.38 E., at culvert at intersection of 14th and H streets in La Grande.	a5.0	1958-59	12-11-58	18.03	(†)
3204	Little Creek near Union, Oreg.	SE¼ sec.14, T.4 S., R.40 E., at bridge on county road, 4 miles east of Union.	15.1	1952-53, 1957-59	6-17-59	10.37	127
3213	Ladd Canyon near Hot Lake, Oreg.	W½ sec.24, T.4 S., R.38 E., at culvert on U. S. Highway 30, 4 miles southwest of Hot Lake.	a14	1958-59	1-26-59	18.42	59
Tucannon River basin							
3444	Smith Gulch tributary near Pataha, Wash.	SE¼ sec.29, T.12 N., R.43 E., at Eureka Road, about 4.5 miles northeast of Pataha.	1.85	1955-59	1959	1.21	10
Palouse River basin							
3484	Missouri Flat Creek tributary near Pullman, Wash.	NE¼ sec.29, T.15 N., R.45 E., at county road 2 miles north of Pullman.	1.14	1955-59	1-27-59	5.16	80
3493	Palouse River tributary at Colfax, Wash.	SE¼SW¼ sec.10, T.16 N., R.43 E., at State Highway 295, about 1 mile west of Colfax.	2.10	1955-59	1-24-59	3.22	52
3493.5	Hardman Draw tributary (formerly West Branch North Pine Creek tributary) at Plaza, Wash.	SW¼ sec.16, T.21 N., R.43 E., at U. S. Highway 195, 0.7 mile south of Plaza.	1.64	1955-59	1-24-59	2.21	43
3522	Cow Creek tributary near Ritzville, Wash.	SE¼ sec.32, T.20 N., R.31 E., at county road crossing 9.5 miles northeast of Ritzville.	1.51	1951, 1955-59	1-24-59	4.16	98
3525	Stuart Canyon tributary near Riparia, Wash.	SE¼ sec.2, T.13 N., R.37 E., at county road 4½ miles northwest of Riparia and 8 miles south of Hooper.	1.27	1959	12-14-58	1.90	18
Smith Canyon basin							
3529.5	Smith Canyon tributary near Connell, Wash.	SE¼NW¼ sec.9, T.12 N., R.32 E., at county road about 8½ miles south of Connell.	1.71	1955-59	1959	-	(b)

† Discharge not determined.
a Approximately.
b No evidence of any flow during the water year.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger(†).

Discharge measurements made at miscellaneous sites during water year 1959

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Buffalo Fork basin						
Buffalo Fork..	Snake River...	Sec.25, T.45 N., R.113 W., ¼ mile below Blackrock ranger station, ¼ mile above Blackrock Creek, and 11½ miles east of Moran, Wyo.	-	1957-58	10-29-58	*105
Hoback River basin						
Hoback River..	Snake River...	SW¼ sec.2, T.38 N., R.115 W., at U. S. Forest Service camp ground 4 miles above Willow Creek and 11 miles northwest of Bondurant, Wyo.	-	1957-58	10-29-58	*177
Greys River basin						
Blind Bull Creek.	Greys River...	Sec.8, T.34 N., R.116 W., at mouth 11.5 miles northeast of Bedford, Wyo.	-	1958	10-30-58	*2.41
Deadman Creek.	....do.....	Sec.5, T.34 N., R.116 W., at mouth 11 miles northeast of Bedford, Wyo.	-	1957-58	10-30-58	*8.07
Greys River...	Snake River...	Sec.6, T.34 N., R.116 W., below Deadman Creek and 11 miles northeast of Bedford, Wyo.	-	1957-58	10-30-58	*156
Henrys Fork basin						
North Boone Creek (formerly North Fork Boone Creek).	Boone Creek...	Sec.19, T.48 N., R.117 W., above Loon Lake tributary, at road bridge, 2 miles south of Yellowstone National Park boundary, and 6 miles southeast of Bechler River ranger station, Wyo.	-	1957-58	10-30-58	*3.55
Middle Boone Creek (formerly Middle Fork Boone Creek).	....do.....	Sec.25 (revised), T.48 N., R.118 W., at road bridge 3 miles south of Yellowstone National Park boundary, 4 miles (revised) east of Idaho-Wyoming State line, and 5¾ miles southeast of Bechler River ranger station, Wyo.	-	1957-58	10-30-58	a.10
Overflow Channel of Middle Boone Creek (formerly South Fork Middle Fork Boone Creek).	....do.....	Sec.35 (revised), T.48 N., R.118 W., at road bridge ½ mile north of the South Boone Creek (formerly South Fork Boone Creek) measuring point, 3½ miles east of Idaho-Wyoming State line, and 5¾ miles southeast of Bechler River ranger station, Wyo.	-	1957-58	10-30-58	0
South Boone Creek (formerly South Fork Boone Creek).	....do.....	Sec.35, T.48 N., R.118 W., at road bridge 3 miles (revised) east of Idaho-Wyoming State line, 6 miles southeast of Bechler River ranger station, Wyo.	-	1957-58	10-30-58	*6.48
Squirrel Meadow Creek.	Squirrel Creek (formerly Conant Creek).	Sec.4, T.47 N., R.118 W., on bridge 500 ft below Squirrel Meadow guard station and 6¼ miles south of Bechler River ranger station, Wyo.	-	1957-58	10-30-58	.96
Teton River...	Henrys Fork...	On line between secs. 19 and 30, T.3 N., R.46 E., 100 ft below Moose Creek, 200 ft above String Canal, and 3½ miles southeast of Victor, Idaho.	47.6	1946-52‡, 1953-58	6- 1-59 7-10-59 7-22-59 8-13-59	79.5 123 *91.1 *74.0
Teton Creek...	Teton River...	1½ miles above Mill Creek, 1.6 miles west of Boy Scout Camp, 4.2 miles east of Wyoming-Idaho State line, and 7½ miles northeast of Driggs, Idaho.	33.8	1946-52‡, 1953-58	7-24-59	*140
Horseshoe Creek.	....do.....	Sec.27, T.5 N., R.44 E., 90 ft above bridge on old railroad grade, 4 miles above mouth, and 7½ miles west of Driggs, Idaho.	11.7	1946-52‡, 1954-58	6-23-59	8.8
Big Springs...	Henrys Fork...	Sec.32, T.14 N., R.44 E., at site of former gaging station, ¼ mile below road bridge and ½ mile southeast of railroad station at Big Springs, Idaho.	-	1924-25‡	9- 3-59	*181
Bannock Creek basin						
Rattlesnake Creek.	Bannock Creek.	NE¼ sec.26, T.8 S., R.33 E., 2 miles above mouth and 12 miles southwest of Pocatello, Idaho.	b77	1955-58	10-29-58	*2.78

* Base flow. ‡ Operated as a continuous-record gaging station. a Estimated.
b Approximately.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Rock Creek basin						
East Fork Rock Creek.	Rock Creek....	SE¼ sec.4, T.10 S., R.31 E., 2¾ miles east of Rockland, Idaho, and 3¼ miles above mouth.	21.2	1955-58	10-29-58	*17.3
					12- 9-58	*19.8
					1-15-59	*19.4
					2-20-59	*18.5
					3-28-59	7.55
					4-29-59	15.9
					5-26-59	10.5
					6-23-59	8.50
					8- 8-59	10.0
					9- 9-59	8.41
Tributaries between Snake River at Milner, Idaho, and Salmon Falls Creek						
Dry Creek.....	Snake River...	SE¼ sec.6, T.11 S., R.20 E., 70 ft above mouth and left bank of Snake River, and 1 mile northeast of Murtaugh, Idaho.	-		9-15-58	14.4
					3- 4-59	3.61
					8- 3-59	15.6
Devils Washbowl Springs.	....do.....	NE¼NE¼ sec.4, T.10 S., R.18 E., near mouth on right bank of Snake River, ½ mile above the Twin Falls and powerplant of Idaho Power Co. and 3½ miles north of Kimberly, Idaho.	-	1902, 1917, 1923-24, 1950-58	4- 9-59	*20.4
Devils Corral Spring (upper outlet).	....do.....	NE¼SE¼ sec.32, T.9 S., R.18 E., on right bank of Snake River, 100 ft above point where spring cascades down to river and 4 miles north of Kimberly, Idaho.	-	1902, 1923-24, 1939, 1950-58	4- 9-59	*41.0
Devils Corral Spring (lower outlet).	....do.....	SE¼NW¼ sec.32, T.9 S., R.18 E., on right bank of Snake River, 1/8 mile above mouth of creek and 4½ miles north of Kimberly, Idaho.	-	1902, 1923, 1950-58	4- 9-59	*8.43
Unnamed spring.	....do.....	Near center of sec.31, T.9 S., R.18 E., on right bank of Snake River, ½ mile above Shoshone powerplant and 5 miles northeast of Twin Falls, Idaho.	-	1950-58	4- 9-59	*2.00
Do.....	....do.....	Outlet in NW¼SW¼ sec.31, T.9 S., R.18 E., on right bank of Snake River just above Shoshone Falls on D. T. Heter's property, 4½ miles northeast of Twin Falls, Idaho.	-	1950-58	4- 9-59	*4.29
Blue Lakes Outlet.	....do.....	SW¼SW¼ sec.28, T.9 S., R.17 E., at point of entry to right bank of Snake River, 4 miles north of Twin Falls, Idaho.	-	1902, 1913-14, 1917-47, 1950-58	3-26-59	*226
Warm Creek (formerly Sunnybrook Spring).	....do.....	NW¼NW¼ sec.29, T.9 S., R.17 E., 0.6 mile above point of entry to right bank of Snake River and 4½ miles north of Twin Falls, Idaho.	-	1950-58	3-26-59	*12.9
Rock Creek....	....do.....	SW¼ sec.36, T.9 S., R.16 E., at highway bridge 3 miles above mouth and 4 miles northwest of Twin Falls, Idaho.	-	1922-47‡c	9-23-58	304
					3-25-59	152
					8- 6-59	282
Trail Springs (upper outlet).	....do.....	SW¼SW¼ sec.14, T.9 S., R.16 E., near entry to right bank of Snake River, 1 mile below Rock Creek and 6 miles northwest of Twin Falls, Idaho.	-	1917, 1950-58	4- 6-59	*2.45
Crystal Springs.	....do.....	Sec.12, T.9 S., R.15 E., at entry to right bank of Snake River, 6½ miles above Devils Washboard Falls in Snake River and 7 miles northeast of Buhl, Idaho.	-	1902, 1917, 1919, 1924-25, 1931, 1950-58	4- 7-59	*478
Cedar Draw....	....do.....	S½ sec.11, T.9 S., R.15 E., 0.3 mile above mouth and entry to left bank of Snake River and 7 miles northwest of Filer, Idaho.	-		9-18-58	113
					3-25-59	33.4
					8- 7-59	129
Clear Lakes Outlet.	....do.....	SW¼SE¼ sec.2, T.9 S., R.14 E., at Clear Lakes powerplant of Idaho Power Co., 4½ miles north of Buhl, Idaho.	-	1902, 1913-14, 1917-21‡, 1924, 1926-27, 1937, 1950-58	4- 8-59	*514
Mud Creek.....	....do.....	SW¼NW¼ sec.11, T.9 S., R.14 E., at road bridge 0.8 mile above mouth and 4½ miles northwest of Buhl, Idaho.	-		9-18-58	129
					3-26-59	59.8
					8-10-59	65.7
Deep Creek....	....do.....	NW¼SW¼ sec.10, T.9 S., R.14 E., at road bridge 0.3 mile above mouth and 5 miles northwest of Buhl, Idaho.	-		9-19-58	229
					3-26-59	274
					8-10-59	77.6

* Base flow.
‡ Operated as a continuous-record gaging station.
c At site 2 miles upstream; records comparable except occasionally when irrigation waste between sites may be considerable.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Tributaries between Snake River at Milner, Idaho, and Salmon Falls Creek--Continued						
Briggs Creek..	Snake River...	NW¼SE¼ sec.4, T.9 S., R.14 E., 2 miles below Clear Lakes Outlet and 5½ miles northwest of Buhl, Idaho.	-	1902, 1913, 1917-20, 1924-25, 1931, 1950-58	4- 7-59	*d110
Banbury Springs.	....do.....	SE¼NW¼ sec.33, T.8 S., R.14 E., at footbridge over outlet to right bank of Snake River, 7 miles northwest of Buhl, Idaho.	-	1902, 1913, 1917, 1919-20, 1924-25, 1950-58	4- 7-59	*123
Unnamed spring.	....do.....	SE¼SW¼ sec.28, T.8 S., R.14 E., on right bank of Snake River, 0.35 mile south of Blind Canyon Spring and 7 miles northwest of Buhl, Idaho.	-	1950-58	4- 7-59	*4.72
Blind Canyon Spring.	....do.....	NE¼SW¼ sec.28, T.8 S., R.14 E., at entry to right bank of Snake River just upstream from Box Canyon, 7½ miles northwest of Buhl, Idaho.	-	1902, 1917, 1919, 1950-58	4- 7-59	*d14.7
Salmon Falls Creek basin						
Salmon Falls Creek.	Snake River...	NE¼ sec.30, T.8 S., R.14 E., 150 ft above U. S. Highway 30 and 9 miles northwest of Buhl, Idaho.	-	1932, 1953-55	9-19-58 3-26-59 8-10-59	147 155 125
Mud Lake-Lost River basins						
Summit Creek..	Little Lost River.	NE¼NW¼ sec.8, T.11 N., R.25 E., 100 ft below Summit Lake and dam and 9 miles southeast of Goldburg, Idaho.	9.04		9- 1-59	1.23
Summerhouse Canyon Creek.	Summit Creek..	About center of sec.3, T.11 N., R.25 E., just above point at junction with unnamed tributary from left, 10 miles southeast of Goldburg, Idaho.	3.15		9- 1-59	*.40
Summit Creek..	Little Lost River.	Near north end of line between secs.22 and 23, T.11 N., R.25 E., just below road bridge above Barney Hot Springs, 12 miles southeast of Goldburg, Idaho.	31.05		9- 1-59 9-17-59	8.29 10.2
Do.....	....do.....	SW¼ sec.33, T.11 N., R.26 E., at Sawmill Canyon road crossing, 2 miles below Sawmill Creek canal and 10 miles northwest of Clyde, Idaho.	e75.0	1923f	9-17-59	33.9
Squaw Creek...	Sawmill Creek.	SW¼ sec.27, T.12 N., R.26 E., 100 ft above road crossing at Fairview guard station and 15 miles north of Clyde, Idaho.	10.56		9- 3-59	*3.82
Sawmill Creek.	Little Lost River or Summit Creek.	NE¼ sec.3, T.11 N., R.26 E., at narrows ¼ mile above road crossing at mouth of canyon and 13 miles north of Clyde, Idaho.	73.40		9- 3-59	*19.6
Do.....	....do.....	SE¼ sec.3, T.11 N., R.26 E., 100 ft above road crossing at canyon mouth, 13 miles north of Clyde, Idaho.	74.67	1911, 1914, 1923, 1935	9-17-59	*20.4
Warm Creek....	Sawmill Creek.	NW¼NW¼ sec.12, T.11 N., R.26 E., in canyon mouth 1/8 mile above gully on left bank and 12 miles north of Clyde, Idaho.	3.67		9-15-59	*8.71
Do.....	....do.....	NE¼NE¼ sec.11, T.11 N., R.26 E., just above gully on left bank, 12 miles north of Clyde, Idaho.	3.76		9- 3-59	*10.8
Do.....	....do.....	Near SE corner sec.3, T.11 N., R.26 E., 100 ft above mouth and 12½ miles north of Clyde, Idaho.	4.76	1923, 1935	9-17-59	*5.84
Meadow Creek..	....do.....	On east line sec.24, T.11 N., R.26 E., at canyon mouth 10 miles north of Clyde, Idaho.	3.14		9- 3-59	*a.5
Sawmill Creek Canal.	Summit Creek..	Sec.29, T.11 N., R.26 E., at point 300 ft above confluence with Summit Creek and 12 miles northwest of Clyde, Idaho.	-		9-17-59	20.7
Little Lost River.	Big Lost River.	At center sec.12, T.10 N., R.26 E., in two channels at Bell Mountain road crossing, 6 miles northwest of Clyde, Idaho.	199	1923	9-17-59	*29.5

* Base flow.
a Estimated.
d Discharge represents actual net spring flow adjusted for diversions and surface flow.
e Does not include drainage area of Sawmill Creek, flow of which enters about 1 mile upstream.
f Measurements in 1923 did not include flow in Sawmill Creek canal.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Mud Lake-Lost River basins--Continued						
Bell Mountain Creek.	Little Lost River.	NW¼ sec.4, T.10 N., R.27 E., just above Telford pipeline intake at canyon mouth, 6 miles north of Clyde, Idaho.	5.39		9- 3-59	*a1.06
Telford inflow channel.	....do.....	SW¼ sec.7, T.10 N., R.27 E., 50 ft below end of pipeline and pump and 5 miles northwest of Clyde, Idaho.	-		9-17-59	g7.26
Dry Creek.....	....do.....	Near center of west side of sec.31, T.10 N., R.25 E., at old road crossing ¼ mile below old damsite and 15 miles west of Clyde, Idaho.	42.2	1911-12, 1914, 1921, 1923, 1926, 1928-29, 1931-32, 1935-36, 1938	9- 1-59	*19.1
Do.....	....do.....	NE¼SE¼ sec.16, T.10 N., R.25 E., at canyon mouth about 4.5 miles below old damsite and 12 miles west of Clyde, Idaho.	56.0	1936	9-15-59	46.4
Dry Creek canal.	Wet Creek.....	NW¼ sec.19, T.10 N., R.26 E., at point where canal leaves Dry Creek valley, about ¼ mile below head and 9 miles west of Clyde, Idaho.	-	1936, 1938	9-15-59	28.8
Black Creek-Deep Creek inflow.	Little Lost River.	NW¼ sec.20, T.10 N., R.27 E., at service road crossing near mouth, 4 miles north of Clyde, Idaho.	8.16		9-17-59	*1.09
Cedar Run Creek.	....do.....	SW¼ sec.25, T.10 N., R.27 E., at ditch diversion at canyon mouth, 3 miles northeast of Clyde, Idaho.	5.35		9- 3-59	*a.38
Coal Creek....	Wet Creek.....	SW¼ sec.2, T.8 N., R.25 E., at mouth 12 miles southwest of Clyde, Idaho.	1.39		9- 1-59	*a.30
Wet Creek.....	Little Lost River.	SW¼ sec.2, T.8 N., R.25 E., 50 ft above Pass Creek road crossing and 12 miles southwest of Clyde, Idaho.	11.2		9- 1-59 9-15-59	*4.60 *5.26
Big Creek.....	Wet Creek.....	NW¼ sec.35, T.9 N., R.25 E., at road ford 11½ miles southwest of Clyde, Idaho.	10.8		9- 1-59	*9.04
Squaw Creek...	....do.....	NW¼ sec.23, T.9 N., R.25 E., at old homestead 1½ miles above Chicken Creek and 10½ miles west of Clyde, Idaho.	8.40		9- 1-59	*.83
Chicken Creek.	Squaw Creek...	N½ sec.26, T.9 N., R.25 E., at dim road crossing 2 miles above mouth and 10½ miles southwest of Clyde, Idaho.	.97		9- 1-59	*a.01
Reed diversion.	Wet Creek.....	NE¼ sec.5, T.9 N., R.27 E., at road crossing ½ mile below point of diversion and ½ mile west of Clyde, Idaho.	-	1921, 1923, 1926, 1928, 1931-33, 1935	9-18-59	4.31
Wet Creek.....	Little Lost River.	NW¼ sec.4, T.9 N., R.27 E., at road crossing near mouth at Clyde, Idaho.	-	1928‡, 1931-32, 1935	9-17-59	6.13
Clyde diversion.	....do.....	Sec.4, T.9 N., R.27 E., in field east of Little Lost River station at Clyde, Idaho.	-		9-18-59	3.42
Little Lost River.	Big Lost River.	NE¼ sec.33, T.9 N., R.27 E., 100 ft above Knollin diversion, 0.6 mile above Deer Creek, and 4½ miles south of Clyde, Idaho.	485	1921	9-18-59	46.6
Deer Creek....	Little Lost River.	SW¼NE¼ sec.11, T.8 N., R.26 E., at canyon mouth 8 miles southwest of Clyde, Idaho.	6.88		9- 4-59	*2.97
Do.....	....do.....	SE¼ sec.33, T.9 N., R.27 E., at dim road crossing ¼ mile above mouth and 5½ miles south of Clyde, Idaho.	18.4	1921, 1923, 1926, 1928, 1931-33, 1935	9-18-59	1.90
Badger Creek..	....do.....	SW¼ sec.20, T.9 N., R.28 E., at canyon mouth 5 miles above mouth and 6 miles southeast of Clyde, Idaho.	15.2	1911	9- 4-59	*9.30
Do.....	....do.....	SW¼ sec.34, T.9 N., R.27 E., at highway crossing 1/3 mile above mouth and 5½ miles south of Clyde, Idaho.	17.8	1921, 1923, 1926, 1928, 1931-33, 1935	9-18-59	4.68

* Base flow.
‡ Operated as a continuous-record gaging station.
a Estimated.
g Includes flow of Bell Mountain Creek and pump discharge.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Mud Lake-Lost River basins--Continued						
Little Lost River.	Big Lost River.	NW¼SW¼ sec.3, T.8 N., R.27 E., ¼ mile upstream from end of dim road at springs, ½ mile below Badger Creek, and 6 miles south of Clyde, Idaho.	525	1921	9-18-59	50.5
Big Springs Creek.	Little Lost River.	SE¼SW¼ sec.11, T.8 N., R.27 E., 100 ft below forks and 8 miles south of Clyde, Idaho.	-		9-18-59	*15.7
Uncle Ike Creek.	....do.....	SW¼ sec.24, T.8 N., R.28 E., at mouth of canyon, 200 ft above diversion and 13 miles southeast of Clyde, Idaho.	7.44		9- 4-59 9-14-59	*3.51 *2.90
North Creek...	....do.....	Sec.31, T.8 N., R.29 E., at canyon mouth above diversion, 14 miles north of Howe, Idaho.	3.95		9-14-59	*1.37
Little Lost River.	Big Lost River.	NE¼ sec.20, T.7 N., R.28 E., 300 ft upstream from road crossing near Fallert and 12 miles northwest of Howe, Idaho.	-		9-18-59	67.8
Teeney Creek..	Little Lost River.	NE¼ sec.28, T.7 N., R.28 E., at road crossing near Fallert, 11 miles northwest of Howe, Idaho.	-	1921, 1923, 1926, 1928, 1931-33, 1935	9-18-59	*7.41
Wiseman diversion.	....do.....	In sec.3, T.6 N., R.28 E., at point of diversion, 8½ miles northwest of Howe, Idaho.	-		9-18-59	1.44
East Spring Creek.	....do.....	SE¼ sec.21, T.7 N., R.28 E., at highway crossing 11 miles north of Howe, Idaho.	-		9-18-59	3.06
South Creek...	....do.....	NE¼ sec.30, T.7 N., R.29 E., at canyon mouth above diversion, 9½ miles north of Howe, Idaho.	9.70		9- 2-59	*a1.6
East Fork Big Lost River.	Big Lost River.	Sec.36, T.7 N., R.20 E.,3 miles upstream from Wild Horse Creek, Idaho.	-	1957-58	11- 1-58	*50.0
North Fork Big Lost River.	....do.....	Sec.23, T.7 N., R.19 E., 0.5 mile downstream from Burnt Creek, 0.8 mile upstream from Bartlett Creek, and 6.1 miles upstream from Big Lost River near Wild Horse, Idaho.	-	1957-58	11- 1-58	*9.66
Cedar Creek...	....do.....	Sec.35, T.8 N., R.24 E., 20 ft above forks, 800 ft above old powerplant intake, and 6 miles northeast of Mackay, Idaho.	4.1	1912-14‡	9-16-59	12.4
Do.....	....do.....	Sec.35, T.8 N., R.24 E., 300 ft above old powerplant intake, 500 ft below forks and 6 miles northeast of Mackay, Idaho.	6.1	1912-14‡	9-16-59	43.9
Pass Creek....	....do.....	Sec.13, T.7 N., R.25 E., 5½ miles northwest of Leslie, Idaho, and 12 miles above mouth.	23.6	1920-22‡	9-16-59	3.67
Antelope Creek	....do.....	Sec.29, T.5 N., R.25 E., 8 miles southwest of Darlington, Idaho, and 10 miles above mouth.	210	1913-16‡, 1920-22‡	9-16-59	21.3
Tributaries to Snake River from Thousand Springs to Malad River						
Sand Springs Creek.	Snake River...	SE¼ sec.17, T.8 S., R.14 E., 100 ft upstream from Henry Berkowitz' house and 7 miles southeast of Hagerman, Idaho.	-	1902, 1912-13, 1917-21, 1924-25, 1931, 1954-58	4-10-59	88.9
Thousand Springs.	....do.....	Springs enter right bank of Snake River between mile 154.05 on river profile near line between secs.17 and 20, T.8 S., R.14 E., and mile 151.15 on river profile about 200 ft upstream from line between sec.1, T.8 S., R.13 E., and sec.6, T.8 S., R.14 E., 6 miles southwest of Hagerman, Idaho.	-	1920, 1950-58	4-10-59	*h1,220
Riley Creek...	....do.....	SW¼NE¼ sec.6, T.8 S., R.14 E., at Hagerman Hatchery of U.S. Fish and Wildlife Service, 100 ft below small unnamed spring entering from right, 100 yards below mouth of Lewis Creek, and 5 miles southeast of Hagerman, Idaho.	-	1950-58	3-27-59	61.8
Billingsley Creek.	....do.....	Near line between secs.31 and 32, T.7 S., R.14 E. (spring heads in SW¼NW¼ sec.32), at F. W. Bean farm, 1/8 mile below head of creek and 3½ miles southeast of Hagerman, Idaho.	-	1950-58	3-27-59	*47.6

* Base flow. ‡ Operated as a continuous-record gaging station. a Estimated.
h Discharge obtained by measuring Snake River above and below spring outlets and adjusting for surface inflow.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Tributaries to Snake River from Thousand Springs to Malad River--Continued						
Billingsley Creek.	Snake River...	SW¼ sec.11, T.7 S., R.13 E., at mouth 1½ miles north of Hagerman, Idaho.	-	1956-58	3-27-59	205
Birch Creek...	....do.....	SE¼SE¼ sec.34, T.6 S., R.13 E., on Bud Smith's property ¾ mile south of Malad River and 2½ miles north of Hagerman, Idaho.	-	1950-58	3-27-59	8.90
Malad Springs.	Malad River...	Springs head in SE¼ sec.24, T.6 S., R.13 E., and continue to accumulate to Malad River until it enters the right bank of Snake River in NW¼ sec.34, T.6 S., R.13 E., 3 miles north of Hagerman, Idaho.	-	1899, 1910-11, 1913, 1917, 1919, 1924, 1950-58	4- 6-59	*d1,270
Clover Creek basin						
Dry Creek (formerly Dry Canyon Creek).	Clover Creek..	SW¼ sec.32, T.5 S., R.12 E., 1.3 miles above mouth and 7 miles northwest of Bliss, Idaho.	-	1958	11- 4-58	0
					12- 8-58	0
					1- 5-59	0
					2- 9-59	0
					3-16-59	2.44
					4-20-59	2.53
					6- 2-59	0
					7- 6-59	0
					8-25-59	0
					9-28-59	0
Owyhee River basin						
Jack Creek....	Harrington Creek.	Sec.35, T.42 N., R.52 E., 16 miles northeast of Tuscarora, Nev.	b31	1913-25‡, 1926	8-19-59	*2.20
South Fork Owyhee River.	Owyhee River..	Near Crutchers Crossing, Idaho, above East Fork Owyhee River, 1 mile above mouth.	-	1956, 1958	6-18-59	*j18.2
East Fork Owyhee River.	South Fork Owyhee River.	At Crutchers Crossing, Idaho, about 2 miles above mouth.	-	1956, 1958	6-17-59	*j53.0
South Fork Owyhee River.	Owyhee River..	At Three Forks, Oreg., 500 ft above North Fork Owyhee River.	-	1956, 1958	6-17-59	*j105
North Fork Owyhee River.	....do.....	At Three Forks, Oreg., 200 ft below bridge, above Middle Fork Owyhee River.	-	1956, 1958	6-17-59	*j117
Middle Fork Owyhee River.	North Fork Owyhee River.	At Three Forks, Oreg., 500 ft above mouth.	-	1956, 1958	6-17-59	*j7.49
Crooked Creek.	Owyhee River..	Sec.6, T.32 S., R.41 E., 6 miles southwest of Rome, Oreg.	b1,700	1946, 1950-52‡, 1953-58	11-12-58	*26.6
					12-26-58	*23.9
					3- 4-59	*26.9
					4-10-59	*26.0
					7-24-59	*24.0
Boise River basin						
Sheep Creek...	Boise River...	NE¼SE¼ sec.25, T.3 N., R.3 E., 2 miles above maximum flow line of Lucky Peak Reservoir and 9 miles southeast of Boise, Idaho.	0.40		8-20-59	†210
Highland Valley Gulch.	....do.....	SE¼SW¼ sec.23, T.3 N., R.3 E., at old homestead 3 miles above mouth and 7.4 miles southeast of Boise, Idaho.	.39		8-20-59	†2,100
Do.....	....do.....	SE¼NW¼ sec.34, T.3 N., R.3 E., at Seelye Ranch ¼ mile above mouth and 7.2 miles southeast of Boise, Idaho.	1.69		8-20-59	†3,370
Maynard Gulch.	....do.....	NW¼SE¼ sec.28, T.3 N., R.3 E., 0.5 mile above mouth and 6.2 miles southeast of Boise, Idaho.	2.25		8-20-59	†9,540
Squaw Creek...	....do.....	NW¼SW¼ sec.21, T.3 N., R.3 E., 1.6 miles above mouth and 5.3 miles southeast of Boise, Idaho.	1.47		8-20-59	†7,320
Warm Springs Creek.	....do.....	SE¼SW¼ sec.17, T.3 N., R.3 E., at power line crossing 1.6 miles above mouth and 4.2 miles southeast of Boise, Idaho.	3.84		8-20-59	†9,390
Orchard Gulch.	Cottonwood Creek.	SE¼SW¼ sec.34, T.4 N., R.3 E., at mouth 6 miles east of Boise, Idaho.	.73		8-20-59	†1,500
Picket Pin Creek.	....do.....	NE¼NE¼ sec.7, T.3 N., R.3 E., at Oberbillig Ranch 0.5 mile above mouth and 3.5 miles east of Boise, Idaho.	2.50		8-20-59	†8,540
					9-26-59	†649
Cottonwood Creek.	Boise River..	NE¼NW¼ sec.12, T.3 N., R.2 E., at Aldape Ranch 1 mile above Curlew Gulch and 1.9 miles east of Boise, Idaho.	12.0		8-20-59	†1,510
					9-26-59	†503

* Base flow. † Peak flow. ‡ Operated as a continuous-record gaging station.
b Approximately. d Discharge represents actual net spring flow adjusted for diversions and surface flow. j Measurement furnished by U. S. Soil Conservation Service.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Boise River basin--Continued						
Curlew Gulch..	Cottonwood Creek.	NE¼SE¼ sec.2, T.3 N., R.2 E., at military cemetery 0.5 mile above mouth and 1.4 miles east of Boise, Idaho.	3.95		8-20-59	†2,300
Malheur River basin						
Warm Springs Creek.	North Fork Malheur River.	Near line between secs.1 and 2, T.19 S., R.37 E., 2.5 miles northeast of Beulah, Oreg.	b90	1936, 1938, 1941, 1944, 1946-58	3- 2-59 5-12-59 7-21-59	4.89 1.45 *1.00
Payette River basin						
Black Canyon Canal.	Payette River.	SE¼ sec.22, T.7 N., R.1 W., ¼ mile downstream from Black Canyon Dam and 5 miles northeast of Emmett, Idaho.	-	1955, 1957-58	10- 9-58 4-20-59 5-20-59	539 1,100 1,200
Weiser River basin						
Mesa Orchards Canal.	Middle Fork Weiser River.	Sec.14, T.15 N., R.1 W., 1,500 ft upstream from lower end of flume, 1½ miles northeast of Mesa, Idaho, and 3 miles downstream from headgate.	-	1924‡, 1928-55*, 1956-58	11- 3-58 12-16-58	6.75 0
Sunnyside Ditch Co. canal.	Weiser River..	Sec.35, T.11 N., R.4 W., near head of canal, 9½ miles east of Weiser, Idaho.	-	1940	6-17-59	61.6
Burnt River basin						
North Fork Burnt River.	Burnt River...	SW¼ sec.3, T.11 S., R.36 E., 0.1 mile below Trout Creek and 1 mile southeast of Whitney, Oreg.	102	1952-55, 1957	9- 9-59	*1.06
Powder River basin						
Powder River..	Snake River...	SW¼ sec.21, T.7 S., R.39 E., 1 mile below Rock Creek and 1.7 miles north of Haines, Oreg.	572	1947-53*, 1954-58	8- 7-59	*3.09
Wolf Creek....	Powder River..	SE¼ sec.11, T.6 S., R.38 E., 5 miles northwest of North Powder, Oreg.	32.9	1946-53*, 1954-58	8- 7-59	*1.53
Salmon River basin						
Salmon River..	Snake River...	Sec.7, T.9 N., R.14 E., 3.7 miles above Redfish Creek and 8 miles southeast of Stanley, Idaho.	-	1927, 1957-58	10-28-58	*244
Redfish Creek.	Salmon River..	Sec.35, T.10 N., R.13 E., at bridge crossing 1.1 miles downstream from store at Redfish Lake and 5½ miles south of Stanley, Idaho.	-	1957-58	10-28-58	*33.7
Valley Creek..	....do.....	Sec.25, T.11 N., R.12 E., just below bridge on Stanley-Bear Valley road, 5.2 miles northwest of Stanley, Idaho.	-	1957-58	10-27-58	*60.3
Diversion from Big Gulch to Little Lost River.	Big Gulch.....	Near west line sec.36, T.12 N., R.24½ E., at Pahsimeroi Road crossing 6 miles southeast of Goldburg, Idaho.	-		9- 1-59	1.27
Salmon River..	Snake River...	Sec.8, T.24 N., R.4 E., 100 ft below Fall Creek, 2½ miles northeast of French Creek Post Office, and 16 miles east of Riggins, Idaho.	12,270	1944-56‡, 1957-58	11- 5-58 12-18-58 1-19-59 2-25-59 4-11-59 5-19-59 6-18-59 7-20-59 8-24-59	4,540 *5,070 *4,250 *3,810 8,300 25,600 50,200 *8,450 4,410
Grande Ronde River basin						
Grande Ronde River.	Snake River...	Sec.36, T.3 S., R.35 E., above Meadow Creek 2 miles northeast of Starkey, Oreg.	208	1952-55, 1957-58	8- 3-59	*16.0
Do.....	....do.....	Near center sec.11, T.3 S., R.36 E., at former gaging station 3 miles southwest of Hilgard, Oreg.	489	1938-56‡, 1957-58	8- 3-59	*19.1
Lookinglass Creek.	Grande Ronde River.	Sec.29, T.3 N., R.40 E., at mouth at Palmer Junction, Oreg.	b95	1953-57	7-14-59	84.8
Prairie Creek.	Wallowa River.	NE¼ sec.8, T.2 S., R.45 E., 2 miles southeast of Enterprise, Oreg.	b77	1957	8-12-59	*47.8
Minam River...	....do.....	SW¼ sec.29, T.2 N., R.41 E., at Minam, Oreg.	b240	1912-14‡, 1953-54, 1957-58	8-12-59	*140

* Base flow.
† Peak flow.
‡ Operated as a continuous-record gaging station.
b Approximately.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Palouse River basin				
Union Flat Creek.	Palouse River.	NW¼SE¼ sec.35, T.13 N., R.45 E., 250 ft below railroad bridge and 1 mile southeast of Colton, Wash.	96		10- 7-58	*1.0
Rock Creek....	....do.....	Sec.13, T.19 N., R.40 E., at former gaging station site near Ewan, Wash.	520	1903-5$, 1914-17$	1-27-59 1-24-59	1,510 †1,870
Cow Creek.....	....do.....	NW¼SE¼ sec.14, T.20 N., R.37 E., at highway bridge ¾ mile below Colville (Sprague) Lake and 10 miles southwest of Sprague, Wash.	120		10-22-58	*.28

* Base flow.
† Peak flow.
$ Operated as a continuous-record gaging station.

Inventory of inflow to South bank of Snake River between gaging stations at Milner and below Lower Salmon Falls, near Hagerman, Idaho.

Flow at gaging station at Milner is regulated by storage in reservoirs having a combined usable capacity of about 4,700,000 acre-ft and by diversions above station for irrigation of about 1,340,000 acres of land. At times practically entire flow is diverted. Three canals, South Side Minidoka, Milner low lift, and South Side Twin Falls divert from left bank of Snake River and contribute to the return flow entering Snake River from south bank between at Milner and below Lower Salmon Falls gaging stations. They irrigate a combined area reported at 268,170 acres.

Three sets of measurements of all measurable flows entering the river from the south bank were made near their mouths during periods Sept. 15-24, 1958, Mar. 24 to Apr. 9, 1959, and Aug. 3-10, 1959. Some subsurface flow enters below water surface and cannot be measured or estimated directly. Results are summarized in table below. Flows measured in principal inflow channels are listed separately in the preceding table, "Measurements at miscellaneous sites." Measurements in each of the individual return flow channels are on file in Boise district office, U. S. Geological Survey, Surface Water Branch.

Reach along main stem Snake River	Measured inflow in cubic feet per second		
	Sept. 15-24, 1958	Mar. 24 to Apr. 9, 1959	Aug. 3-10, 1959
Between gaging stations Snake River at Milner and near Kimberly, Idaho.	a45	a17	a50
Between gaging stations Snake River near Kimberly and near Buhl, Idaho.	b619	b269	b583
Between gaging stations Snake River near Buhl and below Lower Salmon Falls, near Hagerman, Idaho.	c524	c492	c281
Totals	1,188	778	914

a Includes flow of 2 springs, Dry Creek, 3 wasteways, and several small estimated flows.

b Includes flow of 4 springs, Rock Creek, Cedar Draw, 19 wasteways and drains, and several small estimated flows.

c Includes flow of Mud Creek, Deep Creek, Salmon Falls Creek, three wasteways, and several small estimated flows.

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