Surface Water Supply of the United States 1955

Part 13. Snake River Basin

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1397

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

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

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Thomas B. Nolan, *Director*

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PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Idaho, Oregon, Utah, Washington, and Wyoming, and with other agencies, by personnel of the Water Resources Division, C. G. Paulsen, chief, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and B. J. Peterson, chief, Annual Reports Section.

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

F. M. Bell----------Denver, Colo.
Lynn Crandall----------Idaho Falls, Idaho
T. R. Newell----------Boise, Idaho
K. N. Phillips----------Portland, Oreg.
F. M. Veatch----------Tacoma, Wash.
M. T. Wilson----------Salt Lake City, Utah

CALENDAR FOR WATER YEAR 1955

OCTOBER 1954

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 1954

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 1954

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 1955

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 1955

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 1955

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 1955

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 1955

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 1955

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 1955

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 1955

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			

SETPEMBER 1955

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, 1955

SCOPE OF WORK

This volume is one of a series of 18 reports presenting measurements of stage, discharge, and content of streams, lakes, and reservoirs in the United States during the water year ending September 30, 1955. Since 1888, when the United States Geological Survey first studied streamflow in relation to problems of irrigation, similar measurements have been made at more than 13,250 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1955, the Geological Survey and cooperating organizations were maintaining 6,860 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1955 water year, most of which are published at the end of this report. The name of each stream measured at points other than gaging stations is not listed in the index to this report. Only the major river basins in which measurements were made are listed under the item "Discharge measurements" in the index.

COOPERATION

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

Idaho: Idaho Department of Reclamation, M. R. Kulp, State reclamation engineer; Idaho State Fish and Game Commission, Ross Leonard, director; Idaho Water District 7AB, M. H. Coffin, watermaster; and Crane Creek Administration Board, E. W. Horner, secretary.

Oregon: Office of the State Engineer, C. E. Stricklin, succeeded by L. A. Stanley, and State Highway Commission, B. R. Chandler, chairman.

Utah: Office of the State Engineer, J. M. Tracy.

Washington: State Department of Conservation and Development, W. A. Galbraith, director, through Division of Water Resources, M. G. Walker, supervisor.

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

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 12 were in Idaho, 3 in Oregon, and 4 in Wyoming.

Assistance was also furnished by the Forest Service and the Soil Conservation Service of the Department of Agriculture; by the Bonneville Power Administration, Office of Indian Affairs, 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, Big Wood, Little Wood, Boise, and Lake Fork Payette Rivers, and Mud Lake.

Oregon: Baker, Malheur, Union, and Wallowa Counties; 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	429 Federal Building.
Idaho b/	Idaho Falls	204 Federal Building.
Nevada c/	Salt Lake City, Utah	300 Federal Building.
Oregon d/	Portland	1001 NE. Lloyd Boulevard.
Washington	Tacoma	207 Federal Building.
Wyoming e/	Denver, Colo	Denver Federal Center.

a/ Except stations on Snake River between Irwin and Milner, stations on tributaries of Snake River above American Falls Reservoir, diversions from Snake River at and above Milner, and Clear Creek near Naf, but including Salmon Falls Creek above upper Vineyard ditch, near Contact, Nev., Salmon Falls Creek near San Jacinto, Nev., Snake River at Oxbow, Oreg., and Pacific Creek near Moran, Wyo., Buffalo Fork near Moran, Wyo., Gros Ventre River at Kelly, Wyo., and Hoback River near Jackson, Wyo.

b/ Stations on Snake River between Irwin and Milner, stations on tributaries of Snake River above American Falls Reservoir, diversions from Snake River at and above Milner, and Grassy Lake, Greys River above reservoir, near Alpine, Wyo., Jackson Lake, Salt River above reservoir, near Etna, Wyo., and Snake River at Moran and above reservoir near Alpine, Wyo.

c/ Except for Salmon Falls Creek above upper Vineyard ditch, near Contact and near San Jacinto, but including Clear Creek near Naf, Idaho.

d/ Except for Snake River at Oxbow.

e/ Except for Pacific Creek near Moran, Buffalo Fork near Moran, Gros Ventre River at Kelly, Hoback River near Jackson, Grassy Lake, Greys River above reservoir, near Alpine, Wyo., Jackson Lake, Salt River above reservoir, near Etna, Wyo., and Snake River at Moran and above reservoir near Alpine.

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

DEFINITION OF TERMS AND ABBREVIATIONS

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

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

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

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

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

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

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

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

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

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

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

DOWNSTREAM ORDER OF LISTING GAGING STATIONS

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

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

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base date in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of fluctuations. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and are also outlined in standard textbooks on the measurement of stream discharge. Typical structures in use at gaging stations are shown in figure 1.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curve are necessary to define the extremes of discharge, they are made on the basis of indirect determinations of peak discharge (such as slope-area or contracted-opening determinations, computation of flow over dams or weirs, and by other methods), velocity-area studies, and

A, SNAKE RIVER AT KING HILL, IDAHO

B, NORTH FORK PAYETTE RIVER NEAR BANKS, IDAHO

C, SNAKE RIVER NEAR CLARKSTON, WASH.

FIGURE 1.—GAGING-STATION STRUCTURES

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 and runoff of the stream. Records are published for the water year which begins on October 1 and ends on September 30. A calendar for the water year 1955 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 periods for which there are published records generally equivalent to those at the present site. Under "Gage" are given the type of gage currently in use and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum

discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the third or last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder, a crest-stage indicator, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

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

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

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

discharge corresponding to once-daily readings of the gage, or to the mean of twice-daily readings, or to the mean gage height determined from gage-height graphs based on gage readings. For periods of rapidly changing stage, the daily mean discharge is determined from gage-height graphs based on gage readings, the frequency of which is stated in the station description.

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

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

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

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

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

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is usually given in the first report in which data for the reservoir are published, but it is omitted from succeeding reports.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

The station description states the degree of accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor,"

probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more nearly accurate than the daily records.

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

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

PUBLICATIONS

To facilitate publication of the annual series of reports, the area of the United States is divided into 14 parts whose boundaries coincide with certain natural drainage lines. Formerly, the results of streamflow measurements were published in 14 volumes, one for each of the 14 parts. Beginning with the reports for 1951, the records are published in 18 volumes, there being 2 volumes each for Parts 1, 2, 3, and 6. The boundaries of the various parts are indicated by the following list and the map in figure 2.

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

2. South Atlantic slope and eastern Gulf of Mexico basins, in two volumes:
- A, South Atlantic slope basins, James River to Savannah River.
- B, South Atlantic slope and eastern Gulf of Mexico basins, Ogeechee River to Pearl River.

3. Ohio River basin, in two volumes:
- A, Ohio River basin except Cumberland and Tennessee River basins.
- B, Cumberland and Tennessee River basins.

4. St. Lawrence River basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River basin, in two volumes:
- A, Missouri River basin above Sioux City, Iowa.
- B, Missouri River basin below Sioux City, Iowa.

7. Lower Mississippi River basin.
8. Western Gulf of Mexico basins.
9. Colorado River basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River basin.
13. Snake River basin.
14. Pacific slope basins in Oregon and lower Columbia River basin.

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

1. Copies may be purchased from 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.

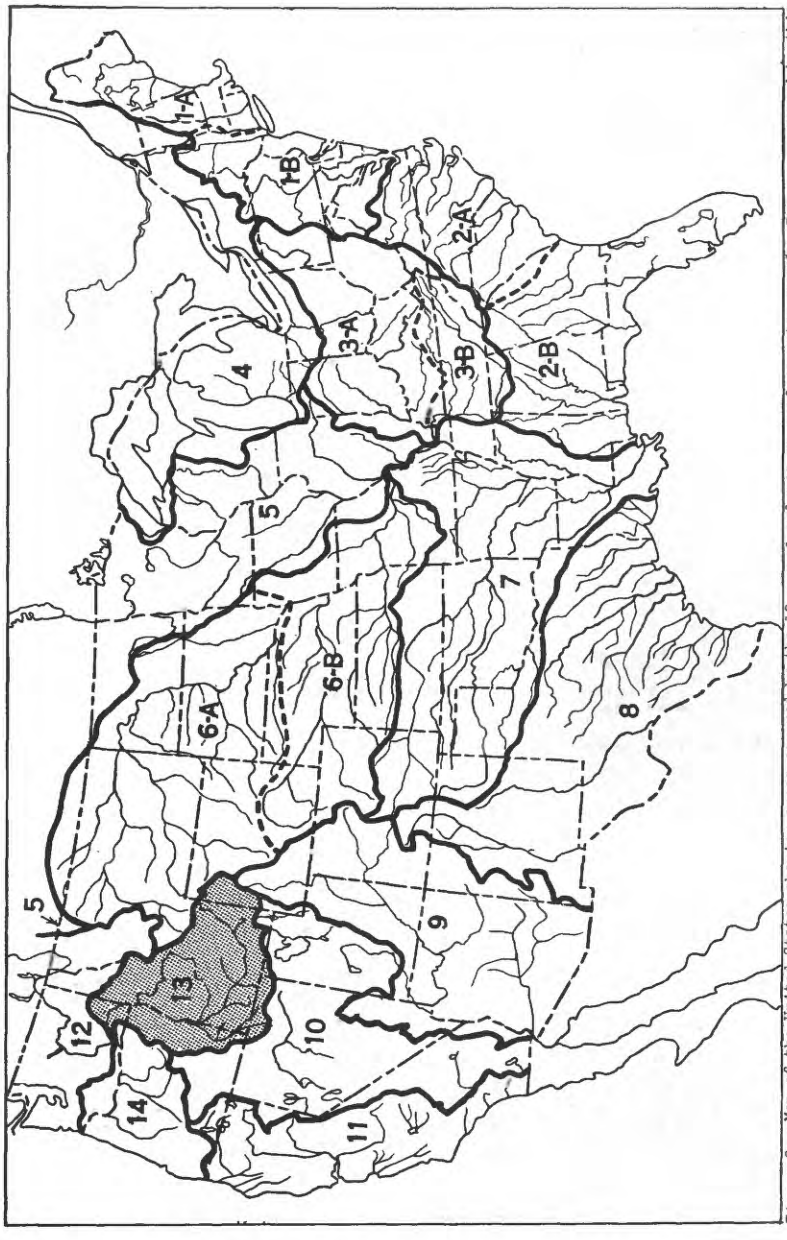

Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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

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

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

(A = Annual 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, 1899-1955

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

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

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

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.

Records of discharge have been published also in State reports. Most of these records are also compiled in Water-Supply Paper 1317; however some of them are not contained in the publications of the Geological Survey. The following table contains a list of these reports for the area covered by this report.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon..	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon..	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon..	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon..	Do.
Do.....	1936-41	Bull. 10, Water resources of the State of Oregon.	Do.
Utah.....	1889-1905	5th biennial report.....	Do.
Do.....	1906-10	7th biennial report.....	Do.
Do.....	1911-16	10th biennial report.....	Do.
Washington...	1878-1953	Bull. 6, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.

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

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

Report

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.

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 1954 to September 1955 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey, nor have they been published elsewhere.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Americal Falls Reservoir, inflow to.	Near American Falls, Idaho.....	1927-28, 1932-55	Idaho Water District 36.
Burnt River, South Fork..	SE¼ sec. 14, T. 13 S., R. 36 E., above Whited Reservoir, 3½ miles west of Unity, Oreg.	1951-55	Oregon State engineer.
Malheur River.....	SW¼ sec. 32, T. 20 S., R. 41 E., near Namorf, Oreg.	1931-55†	Do.
Snake River tributaries..	Near Irwin, Idaho.....	1940-55‡	Idaho Water District 36.
Teton basin tributaries..	Near Driggs, Idaho.....	1934-55‡	Do.
Wolf Creek.....	SE¼ sec. 11, T. 6 S., R. 38 E., 5 miles northwest of North Powder, Oreg. and 6½ miles upstream from mouth.	1953-55‡	Soil Conservation Service.

† 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 (including some to December 1936) are published in Bulletin 9 of the State engineer and those for 1937-41 in Bulletin 10; those for 1942-54 have not been published. Records for the stations operated by Idaho Water District 36 are published in the annual reports of that organization.

HYDROLOGIC CONDITIONS

During most of water year 1955 streamflow in the Snake River basin did not vary greatly from the median. Drought conditions continued in the extreme south portion of the basin; runoff of Owyhee River near Gold Creek, Nev., was the lowest of record and only 26% of the annual median. In March the runoff in the western half of the basin was deficient, being record-low in Clearwater, Salmon, Payette, and Boise River basins. By April the area of deficient runoff had spread to cover the entire basin; the flow of Snake River at Heise, Idaho, and that of several tributaries, was record-low for April. During July and August flow was generally above median in the western part of the basin as a result of snowmelt and rain; runoff of several tributaries was near record high for the respective months. For two key gaging stations in the area covered by this report, a comparison of the monthly and annual mean discharge during the 1955 water year with the median discharge for the 25-year period 1921-45 is shown in figure 3 below.

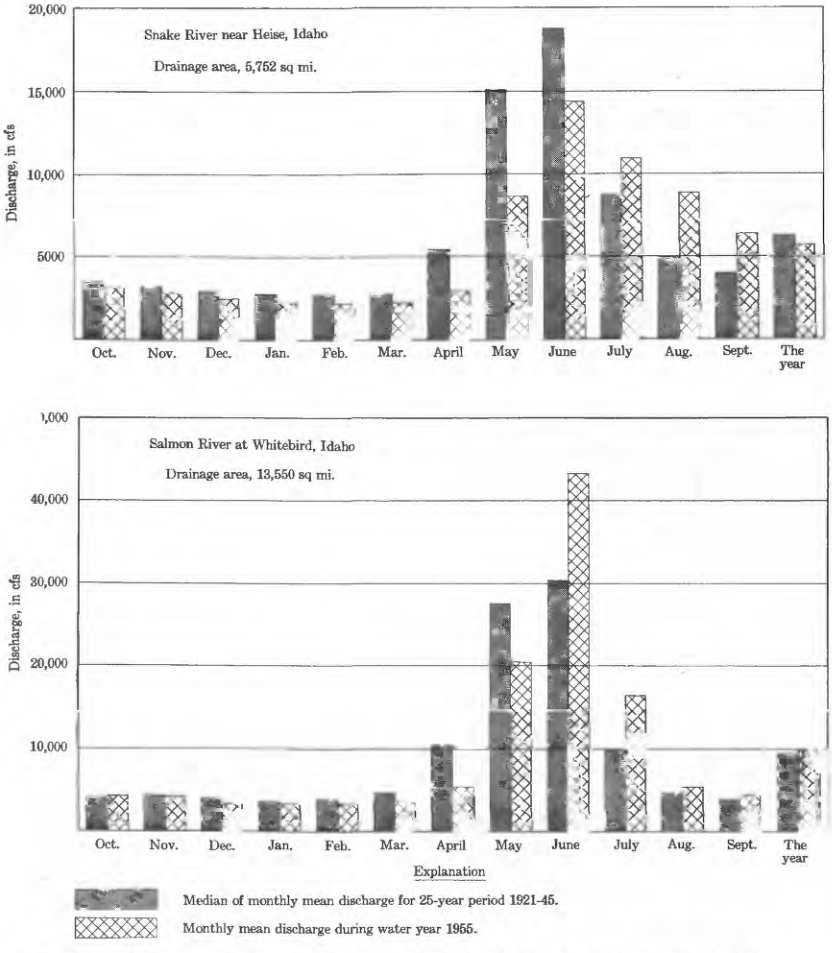

Figure 3. Comparison of discharge at two key gaging stations during 1955 water year with median discharge for 25-year period.

SNAKE RIVER MAIN STEM

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 1955 (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 851,330 acre-ft June 27 (elevation, 6,769.17 ft); minimum, 190,450 acre-ft Sept. 26 (elevation, 6,740.40 ft).
1908-55: Maximum contents, 857,220 acre-ft June 23, 1937 (elevation, 6,769.40 ft); no usable contents on 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 elevations 6,730 ft (top of baffles to sluices) and 6,769 ft (top of spillway gates). Water is used for irrigation in Snake River Valley, Idaho. Contents as given herein are for 8 a.m.; all available for release.

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

Revisions.--WSP 1217: Drainage area.

Contents, in acre-feet, at 8 a.m., water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	317,460	341,660	367,020	395,140	417,740	443,270	474,760	504,010	663,660	849,790	603,100	352,330
2	318,110	342,530	367,680	396,480	418,640	444,410	476,140	505,630	671,890	849,790	591,690	346,220
3	318,540	343,400	368,120	397,370	419,320	445,320	476,600	506,780	679,940	847,230	579,830	338,620
4	319,180	344,480	369,430	398,040	420,000	446,000	477,280	508,870	687,490	841,370	568,980	328,640
5	320,040	345,130	370,090	398,710	420,670	446,460	478,200	510,270	693,590	836,280	557,900	318,110
6	320,900	345,780	370,970	399,160	421,580	446,910	479,120	512,130	699,210	832,720	547,340	308,450
7	321,750	346,650	371,640	399,610	422,930	447,590	480,260	514,450	704,370	831,700	536,810	298,660
8	322,610	347,740	372,300	400,280	423,830	448,050	481,410	517,700	711,250	826,870	527,000	289,960
9	323,260	348,600	373,190	400,950	424,960	448,960	482,320	520,730	719,600	820,010	517,470	283,190
10	324,120	349,480	374,070	401,400	425,640	450,320	483,240	525,140	727,990	812,430	507,940	274,190
11	324,970	349,920	374,740	402,290	426,090	452,820	484,620	529,560	735,900	804,600	498,700	267,070
12	325;620	350,360	375,620	403,410	426,760	453,960	485,320	534,240	744,310	796,770	492,010	259,160
13	327,120	351,010	376,510	404,080	427,660	456,010	486,240	539,150	754,250	788,740	484,390	250,270
14	327,770	351,890	378,720	404,750	428,340	457,140	487,620	544,300	767,450	780,210	476,600	242,010
15	328,200	352,770	379,610	405,420	429,470	458,280	488,550	550,380	778,210	772,690	468,580	235,080
16	329,070	354,740	380,270	406,090	430,600	458,960	489,470	555,070	786,230	762,970	461,700	227,740
17	329,940	356,060	380,940	406,540	432,180	460,100	490,160	559,080	793,260	753,760	454,420	220,830
18	330,810	357,370	381,600	406,990	433,760	461,240	491,090	563,080	798,280	744,310	448,730	214,590
19	331,680	358,030	382,490	407,430	434,430	462,160	492,010	568,740	803,080	733,920	443,040	208,760
20	332,540	358,690	382,930	408,100	435,110	462,850	493,390	576,280	811,420	723,290	437,140	203,940
21	333,200	359,350	383,600	408,550	435,780	463,760	494,320	584,580	821,270	712,230	429,700	199,950
22	334,060	360,220	384,260	409,000	436,460	465,140	495,240	594,300	832,720	701,420	421,120	197,380
23	334,710	360,880	385,150	409,450	437,140	466,740	496,160	605,250	843,150	690,180	412,350	194,410
24	336,020	361,760	385,590	410,120	438,040	467,660	496,860	614,560	848,000	681,150	404,080	192,030
25	337,540	362,630	386,260	411,010	439,630	468,580	497,780	622,440	849,530	672,380	397,600	190,840
26	338,400	363,290	386,700	411,910	440,540	469,490	498,700	630,130	850,560	664,140	391,790	190,450
27	339,060	364,610	387,140	413,020	441,450	470,410	499,860	638,300	851,330	655,910	385,810	191,040
28	339,490	365,050	387,580	413,920	442,590	471,100	500,780	644,800	851,070	647,440	379,830	191,440
29	340,140	365,710	388,470	415,040	-	471,780	501,700	648,650	850,820	637,580	373,190	192,230
30	340,570	366,360	389,130	416,160	-------	472,700	502,630	653,000	850,300	626,280	366,140	192,820
31	341,010	-------	390,680	416,840	-------	473,840	-------	657,360	-------	614,320	358,690	-------
(†)	6,747.64	6,748.80	6,749.90	6,751.07	6,752.21	6,753.58	6,754.83	6,761.37	6,769.13	6,759.58	6,748.45	6,740.52
(‡)	+24,410	+25,350	+24,320	+26,160	+25,750	+31,250	+28,790	+154,730	+192,940	-235,980	-255,630	-165,870

Calendar year 1954: (‡) +87,350
Water year 1954-55: (‡) -123,780

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

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 1955. 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.--52 years, 1,433 cfs (1,037,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,470 cfs July 19 (gage height, 8.76 ft); minimum daily, 7 cfs Nov. 21 to Mar. 20.

1903-55: 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 during early June 1894 was probably 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 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 24 to Sept. 21)

1.0	3	3.5	860
1.1	8	4.0	1,210
1.3	28	5.0	2,110
1.6	70	6.0	3,250
2.0	168	7.0	4,670
2.5	345	8.0	6,300
3.0	580	9.0	8,050

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	21	7	7	7	7	16	19	923	2,310	7,050	3,680
2	29	21	7	7	7	7	20	19	50	2,940	7,080	4,300
3	29	21	7	7	7	7	23	19	48	5,190	7,050	5,220
4	29	21	7	7	7	7	23	22	48	5,980	*6,790	5,860
5	29	21	7	7	7	7	21	23	48	5,090	6,660	5,860
6	29	21	7	7	7	7	21	23	325	3,050	6,330	5,640
7	29	21	7	7	7	7	21	23	1,540	4,660	6,540	5,300
8	29	20	7	7	7	7	21	23	1,540	5,360	6,180	4,420
9	32	19	7	7	7	7	21	23	1,500	6,400	5,940	4,020
10	32	18	7	7	7	7	20	23	1,540	6,400	5,640	4,490
11	30	17	7	7	7	7	20	23	3,010	6,420	4,980	4,780
12	30	16	7	7	7	7	20	23	3,010	6,400	4,660	4,780
13	22	15	7	7	7	7	20	23	1,910	6,400	5,190	4,720
14	20	15	7	7	7	7	20	22	364	6,500	5,140	4,420
15	21	14	7	7	7	7	20	22	2,150	6,780	4,870	4,010
16	21	12	7	7	7	7	20	22	3,110	6,880	4,550	*4,080
17	21	11	7	7	7	7	20	22	3,130	6,960	4,040	3,860
18	21	10	7	7	7	7	20	22	3,160	7,120	3,370	3,750
19	21	9	7	7	7	7	20	22	1,940	7,260	3,650	3,370
20	21	8	7	7	7	7	20	22	565	7,380	4,460	2,690
21	21	7	7	7	7	25	20	22	157	7,330	5,010	2,200
22	21	7	7	7	7	25	19	22	365	7,330	5,190	1,910
23	21	7	7	7	7	25	19	22	3,110	6,980	5,140	1,690
24	21	7	7	7	7	25	19	22	5,220	6,440	4,580	1,580
25	21	7	7	7	7	25	19	22	4,480	5,980	3,780	1,200
26	21	7	7	7	7	25	19	22	4,070	5,700	3,700	315
27	21	7	7	7	7	14	19	22	4,140	5,790	3,940	27
28	21	7	7	7	7	14	19	182	*4,250	6,250	4,060	26
29	21	7	7	7	-	14	19	1,000	3,630	6,810	4,340	26
30	21	7	7	7	------	14	19	1,200	3,330	7,200	*4,400	26
31	21	------	7	7	------	14	------	1,750	------	7,290	4,000	------
Total	756	401	217	217	196	360	598	4,726	62,663	188,580	158,310	98,250
Mean	24.4	13.4	7.0	7.0	7.0	11.6	19.9	152	2,089	6,083	5,107	3,275
Ac-ft	1,500	795	430	430	389	714	1,190	9,370	124,300	374,000	314,000	194,900

Calendar year 1954: Max 9,700 Min 7 Mean 1,518 Ac-ft 1,099,000
Water year 1954-55: Max 7,380 Min 7 Mean 1,412 Ac-ft 1,022,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 3 to Apr. 2. Discharge computed from staff-gage readings Oct. 3 to May 27.

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 1955.

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.--11 years (1944-55), 274 cfs (198,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,290 cfs June 13 (gage height, 4.32 ft in gage well); minimum daily, 24 cfs Feb. 20-23.
1917-18, 1944-55: Maximum discharge, 3,470 cfs May 21, 1954 (gage height, 4.68 ft in gage well, about 5.45 ft from outside gage); minimum daily, 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	46	30	33	29	28	51	139	1,100	481	102	62
2	58	44	29	33	29	28	52	153	1,060	448	100	61
3	58	*44	*28	30	28	28	52	153	952	495	96	61
4	58	43	30	32	27	28	50	159	875	460	92	60
5	58	44	33	32	27	26	*50	200	775	430	88	60
6	56	44	30	31	26	26	50	267	785	388	88	60
7	56	43	33	30	28	29	55	381	1,040	345	94	58
8	56	43	30	28	28	28	60	462	1,350	303	97	58
9	56	43	28	30	28	30	66	469	1,430	273	91	59
10	58	44	26	34	25	33	68	495	1,470	250	85	60
11	58	46	34	*37	25	35	70	543	1,620	265	84	59
12	58	50	28	31	25	34	72	543	*1,800	265	80	59
13	63	48	29	30	26	35	76	595	1,940	225	81	58
14	56	48	30	32	25	34	79	685	1,710	202	86	57
15	53	50	30	30	25	32	76	694	1,520	*189	80	58
16	58	55	30	29	28	31	76	565	1,670	172	80	60
17	58	50	30	29	28	34	84	528	1,430	159	80	62
18	58	53	29	28	28	37	86	619	1,270	151	73	71
19	56	48	28	29	26	35	89	785	1,180	164	*72	64
20	56	46	29	28	24	35	81	950	1,300	161	73	64
21	56	50	28	27	24	33	79	1,150	1,310	156	72	70
22	55	48	29	26	*24	36	86	1,300	1,360	151	71	72
23	55	46	29	29	24	45	84	1,200	1,350	181	70	65
24	60	46	29	29	25	42	84	1,150	1,280	199	70	*64
25	56	46	30	29	27	40	84	1,100	1,080	169	72	66
26	55	48	32	29	28	43	86	1,000	930	154	71	66
27	50	48	30	28	29	55	81	*974	825	137	71	65
28	51	40	27	26	29	50	76	757	757	127	70	63
29	51	38	30	27	-	47	*86	775	721	115	66	60
30	50	35	32	28	------	50	*114	985	578	108	65	61
31	46	------	31	28	------	50	------	1,150	------	105	64	------
Total	1,731	1,377	921	922	745	1,117	2,203	20,926	36,468	7,428	2,484	1,863
Mean	55.8	45.9	29.7	29.7	26.6	36.0	73.4	675	1,216	240	80.1	62.1
Cfsm	0.349	0.287	0.186	0.186	0.166	0.225	0.459	4.22	7.60	1.50	0.501	0.388
In.	0.40	0.32	0.21	0.21	0.17	0.26	0.51	4.86	8.48	1.73	0.58	0.43
Ac-ft	3,430	2,730	1,830	1,830	1,480	2,220	4,370	41,510	72,330	14,730	4,930	3,700

Calendar year 1954: Max 3,350 Min 24 Mean 338 Cfsm 2.11 In. 28.63 Ac-ft 244,500
Water year 1954-55: Max 1,940 Min 24 Mean 214 Cfsm 1.34 In. 18.16 Ac-ft 155,100

Peak discharge (base, 1,300 cfs).--May 22 (time unknown) about 1,400 cfs; June 13 (1 to 3 a.m.) 2,290 cfs.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 28 to Apr. 12. No gage-height record Dec. 23 to Jan. 10, Jan. 27 to Apr. 4, May 20-26; discharge estimated on basis of weather records, 3 discharge measurements, and records for nearby Snake River tributaries and Snake River above reservoir near Alpine.

Buffalo Fork near Moran, Wyo.

Location.--Lat 43°50', long 110°31', in sec. 26, T. 45 N., R. 114 W., on right bank 30 ft below bridge on county road, half a mile upstream from mouth, 2¾ miles downstream from Lava Creek, and 4 miles southeast of Moran.

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 1955.

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.

Average discharge.--11 years (1944-55), 605 cfs (438,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,770 cfs June 25 (gage height, 5.43 ft); minimum daily, 110 cfs Jan. 7, 8; minimum gage height, 1.74 ft Nov. 24.
1917-18, 1944-55: Maximum discharge, 5,960 cfs June 27, 1954 (gage height, 6.71 ft); minimum recorded, 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 fair. No regulation or diversion.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	155	3.0	860
2.0	226	4.0	1,860
2.2	321	5.0	3,190
2.5	495	6.0	4,760

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	177	135	130	130	135	150	226	1,400	1,320	568	222
2	206	174	*145	130	125	135	160	244	1,280	1,280	554	214
3	203	*174	150	130	125	135	160	240	1,150	1,510	515	206
4	203	174	160	130	125	135	*160	226	1,080	1,790	489	203
5	203	175	170	125	130	120	150	258	945	1,880	464	199
6	203	170	160	120	125	125	145	370	868	1,780	439	195
7	199	170	160	110	135	135	150	495	1,210	1,660	427	191
8	199	170	160	110	135	130	160	652	1,930	1,400	439	187
9	199	171	145	120	135	140	170	703	2,170	1,320	410	187
10	199	171	145	130	130	150	170	780	2,200	1,320	398	187
11	199	174	150	*125	125	160	175	920	2,510	1,490	381	184
12	199	181	150	125	125	150	170	928	2,760	1,240	359	181
13	210	175	150	120	130	150	175	963	*2,940	1,180	348	177
14	206	174	150	130	125	145	180	1,040	2,780	1,240	359	174
15	206	174	150	125	130	135	185	1,160	2,450	*1,240	353	174
16	226	187	145	130	140	130	180	928	3,360	1,200	337	177
17	218	174	140	130	140	135	190	765	3,080	1,110	337	187
18	210	181	135	120	135	140	200	772	2,790	1,010	321	226
19	206	171	130	130	120	135	210	1,080	2,520	963	311	206
20	206	161	130	130	120	135	205	1,550	2,890	894	*311	222
21	203	177	135	130	120	130	200	2,180	2,720	945	296	226
22	203	177	140	125	*125	140	195	2,340	3,120	1,040	276	230
23	203	168	140	135	130	155	200	1,860	3,380	1,240	271	203
24	210	165	140	135	140	140	205	1,660	3,300	1,620	258	*195
25	199	168	140	135	140	130	205	1,340	3,360	1,240	271	199
26	195	168	130	135	140	140	210	1,080	2,530	1,000	276	195
27	184	184	120	135	145	170	210	1,040	2,300	868	271	195
28	187	161	115	125	140	155	205	860	2,180	772	258	187
29	191	155	120	120	-	145	195	902	2,120	696	244	184
30	184	140	130	120	------	160	*195	*1,180	1,570	637	235	177
31	177	-----	130	130	------	150	-----	1,530	------	616	226	------
Total	6,246	5,141	4,400	3,925	3,665	4,370	5,465	30,272	68,893	37,501	11,002	5,890
Mean	201	171	142	127	131	141	182	977	2,296	1,210	355	196
Cfsm	0.532	0.452	0.376	0.336	0.347	0.373	0.481	2.58	6.07	3.20	0.939	0.519
In.	0.61	0.51	0.43	0.39	0.36	0.43	0.54	2.98	6.78	3.69	1.08	0.58
Ac-ft	12,390	10,200	8,730	7,790	7,270	8,670	10,840	60,040	136,600	74,380	21,820	11,680

Calendar year 1954: Max 5,410 Min 100 Mean 651 Cfsm 1.72 In. 23.39 Ac-ft 471,500
Water year 1954-55: Max 3,380 Min 110 Mean 512 Cfsm 1.55 In. 18.38 Ac-ft 370,400

Peak discharge (base, 3,100 cfs).--June 16 (9 a.m.) 3,640 cfs (5.35 ft); June 25 (10 a.m.) 3,770 cfs (5.43 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice about Nov. 30 to about Apr. 25. No gage-height record Nov. 5-8, 13, Nov. 30, Dec. 1, Dec. 4 to Jan. 10, Jan. 13 to Feb. 21, Mar. 5 to Apr. 3, Apr. 19-29; discharge estimated on basis of weather records, 5 discharge measurements, and records for Hoback River near Jackson, Gros Ventre River at Kelly, and Snake River above reservoir, near Alpine.

Gros Ventre River at Kelly, Wyo.

Location.--Lat 43°37'20", long 110°37'30", in NW¼ sec. 11, T. 42 N., R. 115 W., on pier at former bridge site on private road, 0.3 mile south of Kelly Post Office and 3 miles downstream from Turpin Creek.

Drainage area.--622 sq mi.

Records available.--June to September 1918, October 1944 to September 1955.

Gage.--Staff gage read once daily. Altitude of gage is 6,750 ft (from topographic map). June 16 to Sept. 30, 1918, staff gage at site 1 mile upstream at different datum. Oct. 1, 1944, to Aug. 8, 1949, wire-weight gage on bridge 25 ft downstream at present datum. Aug. 9, 1949, to June 25, 1953, staff gage at site 10 ft upstream at present datum. Supplementary staff gage for high stages at site 300 ft downstream at datum 1.09 ft higher.

Average discharge.--11 years (1944-55), 469 cfs (339,500 acre-ft per year).

Extremes.--Maximum discharge observed during year, 2,160 cfs June 17 (gage height, 1.85 ft, supplementary gage); minimum observed, 116 cfs Mar. 5, 21; minimum gage height, 0.33 ft Feb. 21, Mar. 5.

1918, 1944-55: Maximum discharge observed, 6,220 cfs June 16, 1918 (gage height, 9.95 ft, site and datum then in use); minimum observed, 102 cfs Dec. 16, 1944.

Flood of May 18, 1927, was considerably higher than flood of June 16, 1918 (landslide about 2 miles upstream washed out and released about 60,000 acre-ft of impounded water); discharge not determined.

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

Revisions.--WSP 1043: Drainage area.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 21, June 29 to Sept. 30				May 22 to June 28	
0.3	105	2.0	588	0.0	640
.6	153	3.0	1,110	.5	990
1.0	239	4.0	1,860	1.0	1,410
1.5	385			2.0	2,410

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	169	125	144	140	133	132	205	1,070	703	271	173
2	198	167	129	146	130	133	139	237	1,210	560	261	167
3	194	*165	*135	148	132	132	142	261	1,050	496	246	175
4	192	165	146	146	129	130	137	268	1,010	539	258	171
5	194	165	161	142	137	116	*133	276	889	654	223	167
6	192	165	159	130	127	119	130	315	784	654	214	163
7	192	164	165	127	139	132	132	430	750	630	205	161
8	192	163	165	125	139	125	144	556	1,010	584	205	159
9	190	163	149	129	140	137	155	678	1,430	539	207	159
10	192	161	151	*148	124	140	155	723	1,610	496	203	159
11	190	163	155	144	124	148	167	799	1,610	476	196	159
12	188	167	159	144	124	140	163	883	*1,840	476	192	157
13	192	173	157	135	133	142	169	1,010	2,060	468	184	157
14	192	175	159	148	127	139	175	1,070	2,110	*456	190	159
15	188	177	159	135	137	125	181	1,100	2,010	476	192	161
16	186	181	157	146	142	119	179	1,010	1,860	464	192	159
17	190	184	146	140	142	125	184	825	2,160	456	192	161
18	192	181	140	129	139	133	188	804	1,910	456	192	163
19	192	177	142	146	119	129	196	804	1,640	418	188	167
20	190	173	137	139	119	129	194	1,070	1,470	400	*184	175
21	188	173	140	146	118	116	192	1,480	1,560	382	179	184
22	190	172	146	132	127	130	190	1,810	1,610	400	175	186
23	192	171	146	142	*124	144	194	1,760	1,710	418	166	181
24	192	170	148	144	135	132	198	1,470	1,710	400	173	179
25	192	169	151	142	137	118	196	1,290	1,610	437	171	*181
26	190	167	148	142	139	122	201	1,130	1,380	496	175	192
27	188	173	135	142	142	161	201	*982	1,210	456	184	196
28	181	171	125	137	139	139	194	882	1,050	400	188	196
29	177	159	135	124	-	130	*184	686	909	357	181	194
30	175	142	139	124	------	139	184	653	856	324	177	194
31	173	------	142	140	------	130	------	750	------	289	171	------
Total	5,870	5,065	4,551	4,306	3,704	4,087	5,129	26,217	43,088	14,760	6,135	5,155
Mean	189	169	147	139	132	132	171	846	1,436	476	198	172
Cfsm	0.304	0.272	0.236	0.223	0.212	0.212	0.275	1.36	2.31	0.765	0.318	0.277
In.	0.35	0.30	0.27	0.26	0.22	0.24	0.31	1.57	2.58	0.88	0.37	0.31
Ac-ft	11,640	10,050	9,030	8,540	7,350	8,110	10,170	52,000	85,460	29,280	12,170	10,220

Calendar year 1954: Max 3,910 Min 116 Mean 483 Cfsm 0.777 In. 10.53 Ac-ft 349,300
Water year 1954-55: Max 2,160 Min 116 Mean 351 Cfsm 0.564 In. 7.66 Ac-ft 254,000

* Discharge measurement made on this day.

Hoback River near Jackson, Wyo.

Location.--Lat 43°17'55", long 110°40'10", in sec. 32, T. 39 N., R. 115 W., on right bank at Camp Creek Camp, a quarter of a mile downstream from Willow Creek, 4 miles upstream from mouth, and 13½ miles southeast of Jackson.

Drainage area.--564 sq mi.

Records available.--July 1917 to September 1918 (published as "near Cheney"), October 1944 to September 1955. Monthly discharge only for October 1944, published in WSP 1317.

Gage.--Staff gage read once daily. Altitude of gage is 6,040 ft (from topographic map). July 9, 1917, to Sept. 30, 1918, at site 3¾ miles downstream at different datum.

Average discharge.--11 years (1944-55), 694 cfs (502,400 acre-ft per year).

Extremes.--Maximum discharge observed during year, 2,450 cfs June 16 (gage height, 4.92 ft); minimum observed, 137 cfs Mar. 27 (gage height, 2.22 ft).
1917-18, 1944-55: Maximum discharge observed, 6,160 cfs June 16, 1918 (gage height, 13.46 ft, site and datum then in use); minimum observed, 90 cfs Dec. 18, 1946 (gage height, 1.70 ft).

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	134	3.5	990
2.4	196	4.0	1,460
2.7	352	5.0	2,550
3.0	575		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	214	b155	209	182	164	150	465	1,460	990	503	276
2	261	200	175	209	175	161	161	591	1,580	939	495	276
3	256	*209	*200	196	168	168	158	559	1,420	1,010	465	276
4	250	205	214	214	172	156	150	495	1,380	1,170	450	256
5	261	209	222	209	175	b140	156	615	1,250	1,150	435	256
6	245	205	182	b195	158	148	*156	803	1,260	1,130	420	256
7	256	192	b180	b180	172	164	168	1,060	1,500	1,100	450	256
8	245	189	182	b175	175	158	172	1,190	2,110	990	458	256
9	236	186	b175	b185	164	164	189	1,120	2,290	939	420	250
10	250	209	161	*205	158	168	209	1,130	2,180	905	393	250
11	245	218	b165	222	b155	156	231	1,170	*2,160	905	379	240
12	256	227	172	189	164	164	192	1,250	2,330	905	372	236
13	266	236	178	182	172	164	222	1,280	2,270	854	400	231
14	245	227	192	205	164	156	256	1,340	2,410	*812	428	222
15	236	227	189	189	168	150	287	1,360	1,960	820	400	222
16	236	250	186	189	172	b145	276	1,120	2,450	820	386	222
17	236	231	192	196	168	153	322	990	2,290	820	400	222
18	236	236	182	b180	158	156	298	1,010	2,160	769	366	231
19	236	222	175	192	b155	161	352	1,230	1,830	703	359	240
20	236	222	182	186	b155	150	287	1,640	2,020	655	*359	240
21	227	231	175	178	156	b145	298	2,160	2,050	671	334	245
22	231	236	186	172	161	158	366	2,070	2,000	679	322	240
23	236	227	182	192	*156	153	328	2,000	1,960	671	322	240
24	240	222	189	192	161	164	340	1,850	1,890	695	310	250
25	245	209	200	186	156	148	372	1,700	1,870	862	322	*266
26	250	222	209	189	168	b140	406	1,520	1,620	760	359	266
27	231	231	b190	178	161	137	352	*1,390	1,540	695	346	266
28	231	196	b170	156	156	148	304	1,150	1,500	631	334	261
29	222	189	186	b155	-	161	*282	1,060	1,480	599	310	261
30	222	b170	205	b160	------	168	393	1,120	1,190	551	287	256
31	222	------	200	172	------	158	------	1,380	------	535	282	------
Total	7,495	6,447	5,751	5,837	4,605	4,826	7,833	37,818	55,410	25,735	11,866	7,465
Mean	242	215	186	188	164	156	261	1,220	1,847	830	383	249
Cfsm	0.429	0.381	0.330	0.333	0.291	0.277	0.463	2.16	3.27	1.47	0.679	0.441
In.	0.49	0.43	0.38	0.38	0.30	0.32	0.52	2.49	3.65	1.70	0.78	0.49
Ac-ft	14,870	12,790	11,410	11,580	9,130	9,570	15,540	75,010	109,900	51,040	23,540	14,810

Calendar year 1954: Max 5,900 Min 155 Mean 721 Cfsm 1.28 In. 17.35 Ac-ft 521,800
Water year 1954-55: Max 2,450 Min 137 Mean 496 Cfsm 0.879 In. 11.93 Ac-ft 359,200

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

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 Snake River above Greys River near Alpine), July 1953 to September 1955.

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.

Extremes.--Maximum discharge during year, 15,000 cfs June 24 (gage height, 8.57 ft); minimum, 946 cfs Mar. 25 (gage height, 2.38 ft).
1937-39, 1953-55: Maximum discharge, 26,800 cfs June 28, 1954 (gage height, 11.68 ft); minimum, 898 cfs Jan. 5, 1938 (gage height, 0.30 ft, site and datum then in use), caused by ice jam upstream.

Remarks.--Records excellent except those for period 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 and nine discharge measurements furnished by Bureau of Reclamation.

Rating tables, water year 1954-55, except period of ice effect (gage height, in feet, and discharge in cubic feet per second)

Oct. 1 to Mar. 11		Mar. 12 to Sept. 30			
2.5	940	2.4	970	6.0	7,220
3.0	1,560	3.0	1,540	7.0	10,100
4.0	3,150	4.0	2,900	8.0	13,200
		5.0	4,780	9.0	16,600

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,760	1,480	1,420	1,250	1,170	1,150	1,180	1,780	7,980	8,350	9,890	9,320
2	1,670	1,450	1,320	1,270	1,160	1,150	1,230	1,980	7,520	6,870	9,620	5,190
3	1,620	1,450	1,300	1,280	1,150	1,150	1,220	2,020	6,330	8,010	9,650	5,850
4	1,600	1,450	1,300	1,270	1,140	1,130	1,160	1,950	6,020	10,500	9,290	6,740
5	1,620	1,450	1,320	1,200	1,130	1,120	1,140	*2,080	5,510	10,900	9,140	7,270
6	1,600	1,450	1,250	1,100	1,130	1,120	1,160	2,490	5,230	9,950	8,780	7,140
7	*1,570	1,450	1,320	1,000	1,140	1,120	*1,200	3,050	*5,970	8,350	8,840	7,030
8	1,520	1,420	1,260	1,100	1,150	1,120	1,270	3,560	8,430	9,320	8,780	6,480
9	1,520	1,410	1,150	1,200	1,150	1,130	1,380	3,930	9,890	10,100	8,320	5,680
10	1,530	1,420	1,200	1,250	1,130	1,130	1,500	4,070	10,300	10,500	8,040	5,510
11	1,550	1,420	1,200	1,250	1,050	1,140	1,600	4,280	11,300	10,700	7,600	5,870
12	1,550	1,460	1,220	1,150	1,100	1,120	1,500	4,520	12,800	10,700	6,900	6,040
13	1,600	1,490	1,240	1,100	1,120	1,120	1,530	4,760	13,600	10,400	6,920	5,970
14	1,570	1,460	*1,250	1,150	1,150	1,100	1,620	5,100	12,300	10,300	7,220	5,940
15	1,590	*1,450	1,250	1,200	1,150	*1,050	1,660	5,390	11,000	*10,500	7,080	5,390
16	1,600	1,620	1,250	1,250	1,150	1,030	1,610	5,030	13,400	10,700	*6,770	5,280
17	1,600	1,570	1,200	1,250	1,150	1,060	1,740	4,340	*14,500	10,700	6,640	5,280
18	1,620	1,520	1,100	1,100	1,150	1,060	1,730	4,080	13,400	10,600	5,850	5,260
19	1,600	1,460	1,150	1,150	1,130	1,060	1,740	4,540	12,400	10,600	5,370	5,230
20	1,590	1,430	1,180	1,200	1,130	1,060	1,650	5,780	10,800	10,700	5,630	4,740
21	1,590	1,410	1,200	1,180	1,130	1,040	1,610	7,570	9,980	10,700	6,300	4,220
22	1,560	1,410	1,210	1,160	1,150	1,100	1,670	9,020	9,950	10,800	6,660	3,780
23	1,570	1,410	1,220	1,150	1,150	1,090	1,680	8,630	10,800	11,000	6,770	*3,470
24	1,690	1,380	1,220	1,150	1,150	1,090	1,650	7,730	14,100	11,100	6,660	3,300
25	1,690	1,370	1,210	*1,160	1,150	1,030	1,670	*7,080	14,700	10,900	6,020	3,340
26	1,640	1,370	1,180	1,180	1,150	1,030	1,720	6,300	13,100	10,000	5,560	2,870
27	1,620	1,380	1,160	1,180	1,150	1,060	1,660	6,000	11,800	9,560	5,540	2,160
28	1,570	1,300	1,060	1,150	1,150	1,070	1,570	5,280	11,400	9,350	5,560	1,780
29	1,550	1,250	1,150	1,100	-	1,100	1,510	4,910	11,100	9,620	5,680	1,690
30	1,530	1,330	1,170	1,140	------	1,180	1,620	5,750	9,860	9,860	5,850	1,640
31	1,490	------	1,200	1,170	------	1,170	------	7,140	------	10,100	5,870	------
Total	49,380	42,920	37,850	36,440	31,910	34,080	45,180	150,140	315,470	311,740	222,800	145,460
Mean	1,593	1,431	1,221	1,175	1,140	1,099	1,506	4,843	10,520	10,060	7,187	4,849
Ac-ft	97,940	85,130	75,070	72,200	63,290	67,600	89,610	297,800	625,700	618,300	441,900	288,500

Calendar year 1954: Max 25,400 Min 1,030 Mean 4,800 Ac-ft 3,475,000
Water year 1954-55: Max 14,700 Min 1,000 Mean 3,900 Ac-ft 2,823,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 9 to Mar. 11.

Greys River above reservoir, near Alpine, Wyo.

Location.--Lat 43°08'50", long 110°09'20", 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 1955. 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.

Extremes.--Maximum discharge during year, 2,010 cfs June 9 (gage height, 5.38 ft); minimum recorded, 139 cfs Dec. 11 (gage height, 2.76 ft), but may have been less during ice period.

1917-18, 1937-39, 1953-55: Maximum discharge observed, 5,200 cfs June 14, 1918 (gage height, 4.85 ft, former site and datum); minimum, that of Dec. 11, 1954.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Less than 500 acres irrigated by diversions from Greys River and tributaries above station.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge in cubic feet per second)

2.7	125	4.5	1,010
3.0	190	5.0	1,500
3.5	350	6.0	2,690
4.0	625		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	263	172				180	500	1,400	898	445	278
2	300	260	201				180	586	1,480	842	435	275
3	296	258	238				180	612	1,360	850	415	272
4	292	258	240				180	548	1,500	834	405	269
5	296	258	238				180	*725	1,420	818	400	266
6	292	255	221				182	1,060	1,440	802	385	266
7	289	252	229				193	1,250	*1,600	755	400	263
8	286	249	224				215	1,380	1,870	710	400	263
9	289	252	190				248	1,330	1,930	688	380	260
10	289	258	195				282	1,260	1,860	667	365	260
11	289	260	175				296	1,310	1,870	653	355	260
12	286	260	172				266	1,300	1,860	653	350	260
13	310	266	161				289	1,310	1,750	612	350	258
14	289	258	168				314	1,420	1,760	580	370	*258
15	*286	260	172				296	1,400	1,590	560	346	260
16	289	292	175	200	190	180	286	1,080	1,650	566	*346	260
17	289	278	165				342	962	1,540	566	342	260
18	286	263	170				346	978	1,490	536	330	266
19	278	255	180				334	1,190	1,420	512	326	278
20	278	255	185				289	1,430	1,390	495	318	282
21	272	258	190				*300	1,650	1,350	512	310	269
22	272	249	196				322	1,850	*1,410	*536	303	263
23	272	*252	196				310	1,720	1,410	512	300	260
24	282	252	207				296	1,640	1,390	566	300	272
25	289	249	205				318	1,510	1,300	606	314	275
26	282	258	200				326	1,430	1,180	530	326	278
27	272	255	221				306	1,400	1,120	500	310	272
28	266	224	229				282	1,190	1,060	475	303	263
29	266	196	232		-		289	1,130	1,020	460	292	260
30	263	172	*235		------		385	1,150	970	455	289	255
31	260	------	235		------		------	1,340	------	440	286	------
Total	8,805	7,575	6,217	6,200	5,320	5,580	8,210	37,641	44,390	19,189	10,796	7,981
Mean	284	252	201	200	190	180	274	1,214	1,480	619	348	266
Cfsm	0.630	0.559	0.446	0.443	0.421	0.399	0.608	2.69	3.28	1.37	0.772	0.590
In.	0.73	0.62	0.51	0.51	0.44	0.46	0.68	3.10	3.66	1.58	0.89	0.66
Ac-ft	17,460	15,020	12,330	12,300	10,550	11,070	16,280	74,660	88,050	38,080	21,410	15,830

Calendar year 1954: Max 3,720 Min 161 Mean 624 Cfsm 1.38 In. 18.76 Ac-ft 451,800
Water year 1954-55: Max 1,930 Min - Mean 460 Cfsm 1.02 In. 13.84 Ac-ft 333,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 10, 25, 26, Jan. 1 to Apr. 5.

Salt River near Smoot, Wyo.

Location.--Lat 42°36'20", long 110°55'10", in sec. 7, T. 30 N., R. 118 W., on left bank 1¼ miles south of Smoot, 1½ miles upstream from Willow Creek, and 4 miles upstream from Cottonwood Creek.

Drainage area.--47.8 sq mi.

Records available.--June 1932 to September 1955. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to Apr. 11, 1934, chain gage, and Apr. 11 to Oct. 1, 1934, water-stage recorder, at same site at datum 1.00 ft higher.

Average discharge.--23 years, 34.7 cfs (25,120 acre-ft per year).

Extremes.--Maximum discharge during year, 230 cfs June 12 (gage height, 2.60 ft); minimum daily, 3.5 cfs Nov. 29.

1932-55: Maximum discharge, 430 cfs May 15, 1936 (gage height, 3.15 ft), from rating curve extended above 200 cfs; maximum gage height, 3.76 ft June 9, 1944 (backwater from tree); no flow Jan. 25-28, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation of about 4,000 acres (for details on adjudication of diversions, see Remarks for this station in WSP 1217).

Revisions.--WSP 1123: Drainage area.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 10-19)

1.3	4.0	1.8	47
1.4	8.0	2.0	88
1.6	21	2.5	205

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	7.6	4.5	5.4	4.0	5.0	8.5	41	75	47	27	15
2	9.2	8.0	5.0	5.4	4.0	5.4	8.0	44	84	46	27	14
3	8.6	9.2	5.4	5.2	4.0	5.2	8.0	37	84	44	25	14
4	8.6	9.2	6.0	5.0	4.0	5.0	8.5	36	99	43	23	13
5	8.6	10	6.4	4.6	3.8	4.6	8.5	66	110	43	23	13
6	8.0	12	6.2	4.4	3.8	4.8	9.0	84	139	41	23	13
7	7.6	13	6.2	4.2	4.0	5.0	9.5	125	148	41	23	13
8	7.5	13	6.2	4.0	4.2	5.0	10	134	*150	39	*25	12
9	8.0	13	5.2	4.0	4.2	5.0	11	103	*170	37	22	12
10	8.0	11	5.8	4.0	4.0	5.2	11	92	178	37	21	12
11	8.0	10	6.0	4.2	4.0	5.6	12	99	190	36	21	12
12	8.0	*11	6.0	4.4	4.0	6.0	13	106	182	34	20	12
13	8.6	11	6.2	4.4	4.2	6.5	13	*103	175	33	20	12
14	8.6	10	6.0	4.4	4.4	7.0	13	103	*148	*31	20	12
15	9.2	10	5.6	4.4	*4.4	7.0	12	99	139	31	20	11
16	8.6	11	5.4	4.4	4.6	7.0	12	81	128	31	20	11
17	8.6	11	*5.0	4.0	4.6	7.0	12	73	123	29	20	11
18	8.6	10	4.8	3.9	4.6	6.5	12	70	108	29	19	10
19	8.6	11	4.8	4.0	4.4	6.5	12	79	95	27	19	12
20	8.0	10	4.8	4.2	4.2	6.5	13	112	97	27	18	12
21	8.0	10	4.8	4.0	4.2	6.5	14	134	95	28	18	12
22	*7.6	10	4.8	4.0	4.4	*7.0	16	150	88	28	18	12
23	7.2	10	4.8	4.0	4.6	7.0	17	144	86	27	17	12
24	7.2	10	5.0	4.2	4.6	7.0	19	139	86	28	18	11
25	7.2	10	5.4	**4.2	4.6	6.5	*20	117	73	28	19	10
26	7.2	9.2	5.2	4.2	4.6	7.0	18	92	64	27	19	10
27	7.2	9.0	4.7	4.2	4.6	7.0	15	86	60	25	18	*11
28	7.6	6.0	4.5	4.0	4.8	7.5	15	62	58	23	16	11
29	8.0	3.5	4.8	3.8	-	8.0	23	46	58	23	16	11
30	7.2	4.0	5.0	3.8	------	8.5	43	44	53	25	15	10
31	6.8	------	5.2	4.0	------	6.5	-----	64	------	26	15	------
Total	249.4	292.7	165.7	132.9	119.8	196.3	416.0	2,765	3,343	1,014	625	356
Mean	8.05	9.76	5.35	4.29	4.28	6.33	13.9	89.2	111	32.7	20.2	11.9
Ac-ft	495	581	329	264	238	389	825	5,480	6,630	2,010	1,240	706

Calendar year 1954: Max 235 Min 3.2 Mean 29.3 Ac-ft 21,230
Water year 1954-55: Max 190 Min 3.5 Mean 26.5 Ac-ft 19,190

* Discharge measurement made on this day.
** Field estimate made on this day.

Note.--Stage-discharge relation affected by ice Nov. 27 to Dec. 17. No gage-height record Dec. 18 to Apr. 24 (stage-discharge relation affected by ice during most of period); discharge estimated on basis of 3 discharge measurements, weather records, and records for nearby stations.

Cottonwood Creek near Smoot, Wyo.

Location.--Lat 42°36'40", long 110°53'30", in sec. 4, T. 30 N., R. 118 W., on right bank 0.3 mile upstream from headgate of highest diversion, 1¼ miles downstream from Porcupine Creek, 1½ miles southeast of Smoot, and 4½ miles upstream from mouth.

Drainage area.--26.3 sq mi.

Records available.--October 1932 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 6,750 ft (from topographic map). Prior to Apr. 8, 1934, staff gage at site a quarter of a mile downstream at different datum.

Average discharge.--23 years, 43.7 cfs (31,640 acre-ft per year).

Extremes.--Maximum discharge during year, 171 cfs June 11 (gage height, 2.18 ft); minimum daily, 7.3 cfs Mar. 25.
1932-55: Maximum discharge, 399 cfs June 18, 1951 (gage height, 3.07 ft), from rating curve extended above 250 cfs; minimum, 6.4 cfs Mar. 11, 1948; minimum gage height, 0.95 ft Jan. 19, 1950.

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

Revisions (water years).--WSP 933: Drainage area. WSP 1153: 1933.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	7.0	1.7	61
1.1	10	1.9	94
1.3	19	2.2	168
1.5	35		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	20	15	14	13	9.4	8.5	17	85	107	48	30
2	25	20	16	14	13	9.4	8.8	18	87	103	47	30
3	24	20	17	14	13	9.4	8.5	18	83	96	47	29
4	24	20	16	14	13	9.1	8.5	18	81	90	46	29
5	25	20	16	14	13	b9.2	8.8	21	83	90	45	28
6	24	19	16	14	13	b9.5	8.8	25	90	89	43	28
7	24	19	16	b14	13	9.7	8.8	29	103	87	43	28
8	24	19	16	b14	13	9.7	9.1	34	*126	87	*42	28
9	24	19	15	b14	13	9.4	10	37	147	83	41	28
10	24	19	16	14	b13	9.4	11	40	158	81	40	28
11	24	19	16	14	b13	9.1	11	42	163	80	39	28
12	24	*18	16	14	b13	9.1	11	42	168	78	37	28
13	24	18	16	14	13	8.8	10	*43	163	76	37	28
14	24	18	16	14	13	8.8	10	45	158	*70	37	27
15	23	18	16	14	*13	8.8	11	46	152	67	36	27
16	23	18	16	14	13	b8.7	11	43	152	66	37	26
17	22	18	*16	14	12	8.5	11	41	150	64	35	26
18	22	18	15	14	12	9.1	11	40	147	62	34	27
19	22	18	14	14	b11	8.8	11	42	145	61	34	28
20	22	18	14	14	b11	8.2	10	50	145	61	33	26
21	22	17	14	14	b11	b8.2	10	58	147	60	32	26
22	*22	17	14	14	b11	8.5	12	68	150	58	32	26
23	22	17	14	14	11	8.2	11	76	155	58	32	26
24	22	17	14	14	10	7.9	11	80	158	62	32	25
25	22	17	14	*14	10	7.3	*13	80	152	61	34	25
26	22	16	14	14	9.7	8.5	14	78	145	55	34	27
27	22	16	b14	14	9.4	8.2	14	74	137	54	33	*26
28	21	16	b14	14	9.4	7.6	14	70	124	53	31	25
29	20	15	b14	14	-	8.2	14	67	119	51	30	25
30	20	15	14	14	------	7.9	16	70	112	50	30	25
31	20	------	14	14	------	7.6	------	81	------	50	30	------
Total	708	539	468	434	335.5	270.2	326.8	1,493	3,985	2,210	1,151	813
Mean	22.8	18.0	15.1	14.0	12.0	8.72	10.9	48.2	133	71.3	37.1	27.1
Ac-ft	1,400	1,070	928	861	665	536	648	2,960	7,900	4,380	2,280	1,610

Calendar year 1954: Max 211 Min 12 Mean 40.9 Ac-ft 29,640
Water year 1954-55: Max 168 Min 7.3 Mean 34.9 Ac-ft 25,240

Peak discharge (base, 140 cfs).--June 11 (9 p.m.) 171 cfs (2.18 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 17 to Dec. 16; discharge estimated on basis of recorded range in stage and weather records.

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 1955. 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.--13 years, 88.7 cfs (64,220 acre-ft per year).

Extremes.--Maximum discharge during year, 306 cfs June 24 (gage height, 2.73 ft); minimum daily, 34 cfs Dec. 29, 30.
1942-55: Maximum discharge, 560 cfs June 10, 1948, from rating curve extended above 360 cfs; maximum gage height, 3.41 ft May 28, 1951; minimum daily discharge, 28 cfs Apr. 3, 4, 1945.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Diversions above station for powerplant above station and municipal use below (for details on adjudication of diversions, see Remarks for this station in WSP 1217).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.8	32	2.3	124
1.9	41	2.5	195
2.1	74	2.8	345

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	44	39	36	45	42	38	39	143	146	83	56
2	54	44	39	38	42	42	38	41	140	146	83	56
3	52	44	40	41	42	42	38	40	130	179	83	56
4	51	44	41	40	42	39	37	39	121	208	79	54
5	51	44	36	39	40	37	36	41	119	204	76	54
6	51	44	42	37	38	37	36	48	143	191	74	54
7	49	43	37	35	36	39	36	51	183	167	74	54
8	49	43	40	36	36	40	36	59	*240	159	*74	54
9	51	42	39	37	36	40	36	63	240	152	72	54
10	49	42	40	40	36	40	36	66	240	152	72	54
11	50	42	40	41	38	40	38	72	260	149	70	54
12	50	*42	39	41	39	40	38	74	245	140	68	54
13	50	42	40	40	39	40	38	*76	236	*130	70	54
14	49	39	39	40	39	40	39	81	236	133	70	52
15	49	39	40	40	*39	40	39	88	226	130	68	52
16	47	40	40	39	39	37	39	81	250	127	68	52
17	47	39	*36	39	39	37	39	72	250	119	66	52
18	47	38	39	39	39	36	39	72	255	110	66	54
19	47	39	36	39	39	36	38	83	250	108	66	58
20	47	40	36	39	39	36	37	110	255	105	64	54
21	47	39	36	40	39	36	37	146	255	100	63	52
22	*47	38	36	43	40	*38	38	152	280	97	63	50
23	47	39	36	44	42	40	39	152	280	97	63	50
24	45	40	36	*44	42	40	39	171	301	110	63	48
25	45	39	38	44	42	40	39	146	280	108	64	48
26	45	40	38	40	42	38	*39	136	270	95	63	*48
27	45	41	37	38	42	38	37	133	270	92	63	48
28	45	40	36	40	42	38	36	121	260	90	61	47
29	45	39	34	42	-	40	35	113	250	88	61	47
30	44	38	34	44	------	40	37	116	179	86	57	47
31	44	------	35	44	------	38	------	143	------	83	56	------
Total	1,493	1,227	1,174	1,239	1,113	1,206	1,127	2,825	6,787	4,001	2,123	1,567
Mean	48.2	40.9	37.9	40.0	39.8	38.9	37.6	91.1	226	129	68.5	52.2
Ac-ft	2,960	2,430	2,330	2,460	2,210	2,390	2,240	5,600	13,460	7,940	4,210	3,110

Calendar year 1954: Max 392 Min 32 Mean 81.7 Ac-ft 59,110
Water year 1954-55: Max 301 Min 34 Mean 70.9 Ac-ft 51,340

Peak discharge (base, 390 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--No gage-height record Oct. 11-21, Oct. 25 to Nov. 11, Dec. 19 to Apr. 25, Aug. 31 to Sept. 26; discharge estimated on basis of 4 discharge measurements, recorded range in stage, and weather records.

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 1955. 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.

Extremes.--Maximum discharge during year, 1,280 cfs May 9 (gage height, 3.31 ft); minimum, 354 cfs Mar. 28, 29 (gage height, 2.06 ft).
1917-18, 1953-55: Maximum discharge observed, 2,380 cfs June 17, 18, 1918; minimum, that of Mar. 28, 29, 1955.

Remarks.--Records excellent except those for periods of no gage-height record, which are fair. Water rights totaling 960.63 cfs (priorities 1886 to 1942) for irrigation of about 65,840 acres, 470.10 cfs (priorities 1889 to 1939) for industry and power, and 7.18 cfs (priorities 1887 to 1941) for domestic and municipal supply, adjudicated by Wyoming for diversions above station. Two small reservoirs above station in Wyoming for power and fish culture (total adjudication, 52.22 acre-ft per year).

Cooperation.--Water-stage-recorder graph and 12 discharge measurements furnished by Bureau of Reclamation.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 18-30)

2.0	326	2.6	630
2.2	406	3.0	950
2.4	500	3.4	1,290

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	567	588	485	450	410	390	366	630	698	530	536	554
2	567	581	536	450	410	385	366	729	958	524	530	548
3	554	581	524	441	410	385	366	745	1,020	524	524	548
4	554	581	518	446	410	385	362	705	1,180	524	506	542
5	560	581	512	428	410	380	*362	*777	1,130	524	500	530
6	567	574	512	419	410	385	358	950	1,110	530	500	524
7	*567	574	512	428	410	385	362	1,120	*1,050	536	506	524
8	574	567	*506	425	410	*390	374	1,200	942	518	536	518
9	574	*567	475	420	410	382	390	1,210	924	506	554	530
10	574	560	480	420	400	386	428	1,120	899	500	518	530
11	581	560	500	420	390	386	450	1,120	857	500	524	518
12	581	560	490	415	395	386	455	1,120	809	506	524	524
13	609	567	485	415	395	386	495	1,130	785	*512	530	*506
14	602	560	485	410	395	386	560	1,160	745	512	554	512
15	595	560	485	408	400	378	602	1,110	721	506	*554	500
16	588	588	470	406	400	382	616	992	713	506	560	500
17	581	581	446	*406	405	386	745	899	675	506	554	500
18	574	567	446	406	400	382	721	857	660	506	554	500
19	574	560	455	410	390	378	668	890	638	506	560	518
20	574	548	437	415	375	374	581	*958	630	506	554	518
21	567	542	432	415	375	374	581	1,040	609	490	554	530
22	567	536	437	415	375	386	588	1,120	*554	500	560	530
23	567	536	437	415	390	374	567	1,080	548	500	548	530
24	581	536	432	415	390	374	542	1,020	530	524	542	548
25	581	530	446	415	390	370	581	967	518	705	560	567
26	581	524	441	415	390	366	623	899	512	745	574	567
27	595	524	419	410	390	362	574	849	512	660	574	567
28	602	512	415	410	390	358	542	809	518	602	574	554
29	602	495	415	410	-	358	548	690	530	567	581	548
30	602	480	428	410	------	378	581	668	536	548	581	542
31	595	------	450	410	------	366	------	705	------	554	574	------
Total	17,957	16,620	14,511	12,978	11,125	11,743	15,354	29,269	22,511	16,677	16,900	15,927
Mean	579	554	468	419	397	379	512	944	750	538	545	531
Ac-ft	35,620	32,970	28,780	25,740	22,070	23,290	30,450	58,050	44,650	33,080	33,520	31,590

Calendar year 1954: Max 1,520 Min 400 Mean 620 Ac-ft 448,800
Water year 1954-55: Max 1,210 Min 358 Mean 552 Ac-ft 399,800

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 8-16, Jan. 31 to Mar. 7; discharge estimated on basis of weather records and records for Salt River at State line.

Salt River at Wyoming-Idaho State line

Location.--Lat 43°09'50", long 110°03'50", in sec. 16, T. 3 S., R. 46 E., on left bank 350 ft upstream from highway bridge, 400 ft downstream from Trout Creek, half a mile upstream from mouth, and three-quarters of a mile west of Wyoming-Idaho State line.

Drainage area.--890 sq mi.

Records available.--October 1933 to September 1955 (discontinued). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,580 ft (from topographic map).

Average discharge.--22 years, 702 cfs (508,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,330 cfs May 9 (gage height, 2.98 ft); minimum daily, 350 cfs Mar. 28, 29.
1933-55: Maximum discharge, 3,520 cfs May 6, 1936 (gage height, 4.64 ft); minimum, 216 cfs May 17, 1934 (gage height, 1.30 ft); minimum daily, 220 cfs May 17, 1934.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Some diurnal fluctuation at low flow caused by many small powerplants on tributaries. 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 1217).

Rating tables, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 15		Dec. 16 to Sept. 30	
1.8	455	1.4	340
2.2	690	1.7	420
3.0	1,350	2.0	575
		3.0	1,350

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	599	606	491	450	420	378	360	731	766	533	545	575
2	586	592	512	450	420	378	360	794	984	539	539	563
3	580	586	512	440	420	375	360	808	1,100	539	521	563
4	573	580	518	445	410	372	360	759	1,280	539	510	551
5	580	580	512	430	400	370	360	843	1,230	533	500	545
6	586	573	512	420	400	380	360	1,020	1,210	539	495	539
7	580	573	518	420	400	390	370	1,180	1,150	551	500	527
8	586	566	512	420	400	390	380	1,260	1,040	527	539	521
9	586	560	475	420	410	390	410	*1,270	*1,010	510	*563	539
10	586	560	480	430	400	390	440	1,200	984	500	510	539
11	592	560	500	420	380	390	470	1,180	913	500	515	527
12	606	*560	490	410	390	390	500	1,190	864	505	515	521
13	618	566	485	410	390	390	550	*1,180	829	*515	515	510
14	618	554	485	410	*390	390	600	1,220	766	515	545	515
15	606	554	485	400	393	380	650	1,180	745	510	551	510
16	599	606	*470	400	396	380	670	1,060	724	510	551	505
17	592	592	445	410	399	390	830	952	675	505	545	505
18	586	566	445	410	390	380	810	899	654	500	539	510
19	580	554	455	410	375	380	790	936	627	500	551	527
20	580	548	435	410	b360	380	750	992	620	500	545	533
21	*573	542	430	410	b370	*370	700	1,060	601	490	551	551
22	573	530	435	410	b370	372	696	1,160	557	495	557	551
23	573	524	435	400	381	369	668	1,130	539	500	557	551
24	580	518	430	*402	384	366	634	1,060	527	527	557	575
25	599	518	445	405	384	356	682	1,020	510	710	569	594
26	586	518	440	402	384	356	*717	960	505	752	594	588
27	606	518	420	405	384	354	654	913	505	654	594	588
28	612	518	415	399	378	350	620	885	510	601	594	582
29	606	496	415	390	-	350	620	766	533	575	601	551
30	612	491	430	400	------	366	668	738	545	551	594	563
31	612	------	450	410	------	360	-----	733	------	557	594	------
Total	18,351	16,609	14,482	12,848	10,978	11,632	17,039	31,119	23,503	16,782	16,956	16,319
Mean	592	554	467	414	392	375	568	1,004	783	541	547	544
Ac-ft	36,400	32,940	28,720	25,480	21,770	23,070	33,800	61,720	46,620	33,290	33,630	32,370

Calendar year 1954: Max 1,580 Min 410 Mean 641 Ac-ft 464,000
Water year 1954-55: Max 1,280 Min 350 Mean 566 Ac-ft 409,800

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 9 to Jan. 23, Jan. 29,to Feb. 14, Mar. 5-21, Mar. 31 to Apr. 21; discharge estimated on basis of 2 discharge measurements, weather records, recorded range in stage, and records for station above reservoir near Etna, Wyo.

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, and September 1953 to September 1955. 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.

Extremes.--Maximum discharge during year, 813 cfs May 6 (gage height, 4.80 ft); minimum, 8 cfs Mar. 25 (gage height, 1.30 ft).
1917-18, 1934, 1953-55: Maximum discharge, 813 cfs Apr. 28, 1954, May 6, 1955; maximum gage height, 4.82 ft Apr. 28, 1954; minimum discharge, 1 cfs on many days during 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.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second (Shifting-control method used Sept. 8-17)

1.4	11	3.0	175
1.5	13	3.5	305
1.7	17	4.0	476
2.0	35	4.5	674
2.5	90		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	17	15	13	13	11	14	188	*207	93	30	15
2	17	17	15	13	12	11	15	245	270	85	29	15
3	16	*17	16	12	12	11	14	226	279	81	*28	15
4	16	17	16	12	*12	11	14	*221	354	77	26	14
5	*17	17	16	12	12	11	22	357	299	72	26	14
6	17	18	*15	12	12	11	19	503	270	71	28	14
7	17	19	14	12	12	12	19	537	262	70	33	14
8	16	20	13	12	12	12	21	568	254	67	32	14
9	16	20	12	12	12	12	25	499	237	65	29	14
10	16	18	12	*12	12	12	32	411	216	61	28	13
11	16	16	12	12	12	12	30	408	202	61	26	13
12	16	17	13	12	12	12	29	397	207	61	26	*13
13	18	20	13	12	12	12	35	394	207	56	29	13
14	17	18	13	12	12	12	44	408	182	54	33	13
15	17	17	13	12	12	12	45	357	*173	51	27	14
16	17	29	12	12	12	12	51	282	173	50	*26	14
17	17	23	12	13	12	12	67	240	159	48	26	14
18	17	19	12	13	*12	12	69	243	147	46	25	15
19	17	18	12	13	12	12	64	276	139	45	26	15
20	17	17	13	13	12	12	53	327	133	44	22	15
21	16	17	13	13	12	12	60	357	130	43	21	15
22	16	16	13	12	12	12	71	377	121	44	19	15
23	17	16	13	12	12	12	69	321	117	45	19	15
24	19	16	13	12	12	12	58	299	112	62	19	17
25	21	16	13	12	12	12	66	265	106	51	23	27
26	19	16	12	12	12	12	84	245	104	46	23	20
27	17	16	12	11	11	12	71	240	100	42	21	17
28	17	16	12	11	11	12	62	197	95	38	19	16
29	17	15	12	12	-	13	76	186	102	37	17	15
30	17	14	12	13	------	*13	130	186	107	34	17	15
31	17	-----	13	13	-----	13	-----	219	------	33	16	------
Total	527	532	407	379	335	369	1,429	9,979	5,464	1,733	769	453
Mean	17.0	17.7	13.1	12.2	12.0	11.9	47.6	322	182	55.9	24.8	15.1
Cfsm	0.157	0.164	0.121	0.113	0.111	0.110	0.441	2.98	1.69	0.518	0.230	0.140
In.	0.18	0.18	0.14	0.13	0.12	0.13	0.49	3.44	1.89	0.60	0.27	0.16
Ac-ft	1,050	1,060	807	752	664	732	2,830	19,790	10,840	3,440	1,530	899

Calendar year 1954: Max 657 Min 11 Mean 79.6 Cfsm 0.737 In. 9.99 Ac-ft 57,620
Water year 1954-55: Max 568 Min 11 Mean 61.3 Cfsm 0.568 In. 7.73 Ac-ft 44,390

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 2, Dec. 6 to Jan. 16, Jan. 18, 27-29, Feb. 2, 4, 6, 10-14, 18-22, Mar. 4-6, 16-21, 25-28, Mar. 31, Apr. 1.

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 1955. 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.

Extremes.--Maximum discharge during year, 103 cfs June 23 (gage height, 2.86 ft); no flow for many days.
1917-18, 1953-55: 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 chart and four discharge measurements furnished by Bureau of Reclamation.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	1.7	13
1.2	1	2.0	8
1.3	2	2.4	6
1.5	6	2.8	97

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	14	33	1	1
2								0	13	30	5	1
3								0	13	31	3	1
4								0	13	34	*3	1
5								0	12	37	3	1
6								0	13	*30	2	1
7								0	18	24	3	1
8								1	*33	18	4	1
9								3	49	15	3	1
10								4	55	13	2	1
11								7	68	12	2	1
12								9	80	18	2	1
13								11	82	22	2	1
14								12	87	21	3	1
15								12	*87	20	2	1
16								*10	92	*18	2	1
17								10	84	10	1	*1
18								11	78	2	*1	1
19								13	74	1	1	1
20								18	78	0	1	1
21								24	80	0	1	1
22								28	*92	0	1	1
23								28	96	0	0	1
24								28	83	4	0	1
25								25	56	5	0	1
26								23	50	6	2	1
27								20	47	5	2	1
28								16	45	3	2	1
29								14	46	2	2	1
30					------			14	38	2	1	1
31		------			------		------	14	------	1	1	------
Total	0	0	0	0	0	0	0	355	1,676	417	58	30
Mean	0	0	0	0	0	0	0	11.5	55.9	13.5	1.9	1.0
Ac-ft	0	0	0	0	0	0	0	704	3,320	827	115	60

Calendar year 1954: Max 147 Min 0 Mean 17.2 Ac-ft 12,430
Water year 1954-55: Max 96 Min 0 Mean 6.9 Ac-ft 5,026

* Discharge measurement made on this day.

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, August 1953 to September 1955. 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 to September 1917, June to September 1918, staff gage at site 2¼ miles downstream at different datum.

Extremes.--Maximum discharge during year, 247 cfs June 8 (gage height, 3.66 ft); minimum, recorded, 15 cfs Apr. 14 (gage height, 1.87 ft), but may have been less during ice period.
1917-18, 1934, 1953-55: Maximum discharge observed, 870 cfs June 15, 1918; minimum, 5 cfs Dec. 15, 1953 (gage height, 1.46 ft).

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

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

Rating tables, water year 1954-55, except periods of ice effect (gage height in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 31		Apr. 1 to Sept. 30			
2.0	18	2.0	19	3.0	123
2.3	32	2.3	36	3.6	233
2.5	46	2.6	66		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	33	31	32	27	24	23	38	146	107	53	39
2	40	33	32	32	27	24	23	40	148	103	51	39
3	39	33	33	31	*27	24	23	*40	141	93	50	39
4	39	33	33	31	24	24	22	38	141	93	50	38
5	39	33	32	31	26	23	22	50	137	*92	48	38
6	38	33	31	31	26	24	24	75	149	90	43	38
7	38	33	*33	31	26	24	24	93	180	85	44	38
8	37	*33	33	31	25	24	25	112	*221	82	42	*38
9	37	33	33	31	20	24	27	116	227	79	42	38
10	37	33	32	31	23	*24	28	113	221	78	42	38
11	*37	33	32	31	25	24	25	116	225	78	41	37
12	38	34	32	31	25	24	25	118	223	82	41	37
13	39	33	32	31	25	24	26	126	219	79	45	37
14	37	33	32	31	25	24	27	135	215	76	49	37
15	37	34	32	31	25	24	25	131	*197	74	47	37
16	37	36	32	31	25	23	27	104	209	72	48	37
17	37	34	32	30	25	23	28	99	197	67	50	38
18	37	33	32	30	24	23	27	112	182	62	*46	38
19	36	33	32	30	24	23	27	146	178	59	45	40
20	36	33	32	30	23	23	26	180	178	58	44	38
21	36	33	32	29	23	22	26	205	180	56	43	39
22	36	33	32	29	24	22	27	215	185	56	42	38
23	36	33	32	29	24	22	27	197	187	*55	42	37
24	37	33	32	29	24	22	27	191	178	60	43	40
25	36	33	32	29	24	22	27	174	158	62	42	41
26	35	33	31	29	24	21	27	163	146	61	44	40
27	34	33	31	28	24	22	27	154	137	59	42	39
28	34	30	31	28	24	22	26	137	132	56	41	38
29	34	29	31	27	-	23	28	135	131	55	41	38
30	34	30	32	27	------	22	32	141	116	54	41	37
31	34	-----	32	27	------	*22	------	149	------	53	40	------
Total	1,141	986	991	929	688	716	778	3,843	5,284	2,236	1,382	1,146
Mean	36.8	32.9	32.0	30.0	24.6	23.1	25.9	124	176	72.1	44.6	38.2
Cfsm	0.622	0.556	0.541	0.507	0.416	0.390	0.438	2.09	2.97	1.22	0.753	0.645
In.	0.72	0.62	0.62	0.58	0.43	0.45	0.49	2.41	3.31	1.41	0.87	0.72
Ac-ft	2,260	1,960	1,970	1,840	1,360	1,420	1,540	7,620	10,480	4,430	2,740	2,270

Calendar year 1954: Max 402 Min 20 Mean 75.6 Cfsm 1.28 In. 17.36 Ac-ft 54,750
Water year 1954-55: Max 227 Min 20 Mean 55.1 Cfsm 0.931 In. 12.63 Ac-ft 39,890

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 3, Dec. 8 to Feb. 2, Feb. 5-8, Feb. 10 to Mar. 17. No gage-height record for much of ice period and Mar. 18-31; discharge estimated on basis of discharge measurement and weather records.

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. Published as Bear Creek near Irwin, 1917-18, 1934-36.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map). July 23 to Sept. 30, 1917, June 9 to Sept. 30,.1918, May 1 to July 31, 1934, Apr. 3 to Oct. 31, 1935, Apr. 7 to Oct. 31, 1936, staff gage at site 4 miles downstream at different datum.

Extremes.--Maximum discharge during year, 399 cfs May 8 (gage height, 4.03 ft); minimum, 7 cfs Feb. 8 (gage height, 1.85 ft).
1917-18, 1934-36, 1953-55: Maximum discharge observed, 784 cfs May 5, 1936; minimum, about 1 cfs Jan. 20 1954, result of freeze-up (gage height, 1.08 ft).

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

Cooperation.--Water-stage-recorder graph and 14 discharge measurements furnished by Bureau of Reclamation.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second

Oct. 1 to Mar. 30		Mar. 31 to Sept. 30			
2.1	14	2.1	14	3.0	95
2.4	30	2.3	24	3.5	197
		2.6	45	4.0	386

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	24	22	22	17	18	19	84	154	86	41	28
2	28	*24	22	22	17	18	20	*100	177	80	40	28
3	28	24	22	22	*17	18	20	98	180	79	39	28
4	28	24	22	*21	17	17	18	92	206	76	39	27
5	28	24	22	21	17	17	18	138	194	73	38	26
6	*28	23	22	21	17	17	18	206	190	70	38	26
7	27	23	22	21	17	17	20	270	*200	69	42	*26
8	27	23	22	21	17	17	22	300	209	66	39	26
9	27	23	22	21	17	18	26	292	192	64	37	26
10	27	23	22	21	17	18	29	234	168	63	36	26
11	26	23	22	21	17	*19	28	227	165	63	37	26
12	27	23	22	21	17	18	26	218	165	*64	*36	25
13	28	24	22	21	17	18	29	218	177	60	38	25
14	27	24	22	21	18	18	32	212	165	58	39	25
15	27	24	22	21	18	18	31	200	159	56	37	26
16	27	27	22	21	*19	17	32	172	*163	54	37	25
17	26	25	22	20	19	17	39	163	150	53	37	25
18	26	24	22	19	19	17	39	165	142	52	*36	26
19	26	23	22	19	18	17	39	184	138	51	37	26
20	26	23	22	19	17	17	35	212	134	49	36	26
21	26	22	22	19	17	17	35	212	128	49	34	26
22	26	22	22	19	17	18	40	221	*124	51	33	25
23	26	22	22	19	18	18	39	197	116	49	33	25
24	27	22	22	19	18	18	36	192	110	57	34	27
25	27	22	22	19	18	18	39	180	104	51	36	29
26	26	22	21	19	18	18	43	165	100	48	36	26
27	25	22	21	18	18	18	41	168	96	46	33	25
28	25	20	21	17	18	18	38	150	92	45	31	25
29	25	*22	21	17	-	18	40	144	96	44	31	24
30	25	22	22	17	------	*20	59	148	95	43	29	24
31	25	------	22	17	------	18	------	161	------	43	29	------
Total	826	693	678	616	491	550	950	5,721	4,489	1,812	1,118	778
Mean	26.6	23.1	21.9	19.9	17.5	17.7	31.7	185	150	58.5	36.1	25.9
Cfsm	0.345	0.300	0.284	0.258	0.227	0.230	0.411	2.40	1.95	0.759	0.468	0.336
In.	0.40	0.33	0.33	0.30	0.24	0.27	0.46	2.77	2.18	0.88	0.54	0.37
Ac-ft	1,640	1,370	1,340	1,220	974	1,090	1,880	11,350	8,900	3,590	2,220	1,540

Calendar year 1954: Max 414 Min 9 Mean 68.9 Cfsm 0.894 In. 12.12 Ac-ft 49,880
Water year 1954-55: Max 300 Min 17 Mean 51.3 Cfsm 0.665 In. 9.07 Ac-ft 37,110

*Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 1, Dec. 9-12, Dec. 16 to Jan. 1, Jan. 3, Jan. 5 to Feb. 15, Feb. 17-27, Mar. 4-9, 16-18, 21, 25-27.

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 1955. Published as "at Calamity Point, near Irwin" April to August 1934 and March 1939 to September 1941.

Average discharge.--6 years (1949-55), 6,849 cfs (4,958,000 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. 30, 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 1.9 ft higher.

Extremes.--Maximum discharge during year, 18,300 cfs June 17 (gage height, 10.47 ft); minimum, 1,210 cfs Jan. 7 (gage height, 4.51 ft).
1934-36, 1939-41, 1949-55: Maximum discharge, 31,200 cfs June 28, 1954 (gage height, 13.18 ft); minimum, that of Jan. 7, 1955.
Flood during early June 1894 was probably much higher than that of June 28, 1954.

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow partly regulated by Jackson Lake (see p. 13). About 93,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station.

Cooperation.--Gage-height record and 12 discharge measurements furnished by Bureau of Reclamation.

Revisions.--WSP 1217: Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,940	2,660	b2,150	b2,150	b1,950	b1,950	1,930	3,410	10,800	11,000	11,200	6,580
2	2,850	2,610	b2,210	b2,150	b1,950	b1,950	1,960	3,910	10,900	9,410	10,900	6,240
3	2,770	2,570	b2,270	b2,130	b1,930	b1,950	1,930	4,120	9,820	9,730	10,800	6,640
4	2,700	2,590	2,290	2,100	b1,900	b1,950	1,880	3,820	9,820	11,900	10,600	7,400
5	2,700	2,560	2,290	2,080	b1,870	b1,930	1,850	4,240	9,180	12,800	10,200	7,990
6	2,640	2,560	2,240	1,770	1,850	1,900	1,890	*5,250	*8,870	12,200	10,000	8,050
7	*2,680	2,560	2,260	1,480	1,900	b1,920	1,960	6,480	9,150	9,980	9,860	7,900
8	2,680	2,520	2,260	1,680	b1,930	b1,950	*2,050	7,230	11,600	11,100	9,980	7,630
9	2,680	2,520	1,940	1,740	b1,950	b1,950	2,200	7,600	13,400	11,500	9,630	6,920
10	2,680	*2,520	b2,000	1,900	1,890	b1,950	2,400	7,490	13,800	12,200	9,250	6,500
11	2,680	2,520	b2,040	2,040	1,720	b1,960	2,570	7,690	14,500	12,200	8,960	6,810
12	2,700	2,540	b2,060	2,070	1,850	b1,960	2,540	7,960	16,300	12,300	8,410	6,950
13	2,770	2,570	b2,090	1,800	b1,900	1,920	2,540	8,110	17,200	12,000	7,990	6,970
14	2,770	2,560	b2,110	*b1,940	b1,950	*1,880	2,700	8,620	16,500	11,800	8,560	6,830
15	2,730	2,560	2,120	1,920	b2,000	1,830	2,850	8,930	14,400	11,900	8,440	6,610
16	2,730	2,720	*b2,160	2,100	b2,000	1,780	2,810	8,230	16,100	12,000	8,110	*6,210
17	2,750	2,720	b2,050	2,110	b2,000	1,830	3,100	7,200	18,000	12,100	7,900	6,310
18	2,750	2,610	b1,800	1,780	b2,000	1,830	3,260	6,720	16,900	*12,000	*7,460	6,290
19	2,730	2,540	b1,900	1,920	b1,950	1,840	3,140	7,200	15,700	11,900	6,810	6,260
20	2,720	2,500	b2,000	2,100	b1,940	1,840	2,900	8,650	14,200	12,200	6,860	6,030
21	2,720	2,450	b2,050	1,980	1,920	1,790	2,810	10,600	13,300	12,200	7,370	5,480
22	2,700	2,420	2,110	2,010	b2,000	1,890	2,920	12,600	12,900	12,200	7,780	4,990
23	2,680	2,420	b2,120	1,890	b2,000	1,890	2,960	12,400	13,400	12,400	7,930	4,660
24	2,770	2,400	b2,130	b1,950	b2,000	1,880	2,850	11,400	16,300	12,600	7,870	4,430
25	2,830	2,390	b2,120	b2,000	b2,000	1,840	2,920	10,700	17,800	12,700	7,490	4,530
26	2,790	2,360	b2,070	b2,020	b2,000	1,800	3,060	9,660	16,300	12,000	6,920	4,240
27	2,730	2,390	b2,050	b2,020	b2,000	1,820	2,980	9,250	14,500	11,200	6,810	3,480
28	2,720	2,340	1,660	b1,900	b2,000	1,840	2,830	8,440	13,900	10,900	6,860	2,960
29	2,700	2,220	1,970	1,800	-	1,850	2,770	7,580	13,600	10,900	6,860	2,790
30	2,680	2,100	b2,040	b1,900	------	1,960	2,960	8,260	*12,700	11,100	7,000	2,700
31	2,680	------	b2,100	b1,950	------	1,960	------	9,500	------	11,300	6,970	------
Total	84,330	75,000	64,660	60,380	54,350	58,590	77,520	243,250	411,840	361,720	261,780	177,380
Mean	2,720	2,500	2,086	1,948	1,941	1,890	2,584	7,847	13,730	11,670	8,445	5,913
Ac-ft	167,900	148,800	128,300	119,800	107,800	116,200	153,800	481,500	816,900	717,500	519,200	351,800

Calendar year 1954: Max 30,100 Min 1,660 Mean 6,529 Ac-ft 4,727,000
Water year 1954-55: Max 18,000 Min 1,480 Mean 5,291 Ac-ft 3,830,000

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

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 about 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 1955. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as South Fork 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 present site at datum 2.65 ft higher. Sept. 30, 1922, to Oct. 5, 1933, water-stage recorder at present site at datum 2.0 ft higher than present datum.

Average discharge.--45 years, 6,841 cfs (4,953,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,800 cfs June 17 (gage height, 6.73 ft); minimum daily, 1,800 cfs Jan. 7.

1910-55: 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, 1,210 cfs Jan. 22, 1935 (gage height, 1.15 ft).

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

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow partly regulated by Jackson Lake (see p. 13). Station is above all irrigation diversions from main river except Riley ditch (5,280 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 1955 are given in WSP 1403.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 16 to Apr. 10, June 10 to Aug. 3)

1.4	1,830	4.0	7,840
1.8	2,340	5.0	11,000
2.0	2,680	6.0	14,900
2.5	3,780	7.0	19,500
3.0	5,040		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,500	2,920	2,400	2,300	2,150	2,150	2,140	3,690	11,400	12,000	11,600	7,170
2	3,340	2,900	2,460	2,350	2,100	2,160	2,160	4,260	11,600	10,200	11,200	6,630
3	3,280	2,880	2,550	2,350	2,100	2,150	2,190	4,670	10,800	9,570	11,000	6,750
4	3,190	2,840	2,630	2,300	2,100	2,130	2,160	4,540	10,500	11,600	10,900	7,550
5	3,190	2,820	2,640	2,200	2,100	2,100	2,110	4,640	10,100	13,300	10,500	8,190
6	3,170	2,860	2,640	2,100	2,100	2,080	2,110	5,800	9,660	13,000	10,400	8,420
7	3,170	2,860	2,610	1,800	2,080	2,180	2,120	7,200	9,600	10,900	10,000	8,250
8	3,140	2,820	2,520	1,950	2,130	2,200	2,160	8,190	11,700	10,700	10,300	8,160
9	3,100	2,800	2,300	2,050	2,150	2,180	2,320	8,680	13,800	11,500	10,000	7,520
10	3,100	2,800	2,320	2,100	2,100	*2,190	2,570	8,590	14,800	12,300	9,630	6,800
11	3,100	2,800	2,340	2,150	2,000	2,280	2,780	8,620	15,000	12,400	9,370	6,940
12	3,120	2,820	2,370	2,220	2,000	2,260	2,860	8,800	16,800	12,500	8,860	7,200
13	3,140	2,860	2,420	2,150	2,100	2,280	2,780	8,950	17,800	12,400	8,280	7,290
14	3,190	2,840	2,420	2,100	2,200	2,260	2,990	9,340	17,900	12,200	8,770	7,140
15	3,100	2,820	2,420	2,150	2,220	2,240	3,230	9,770	15,400	12,100	8,710	7,140
16	3,100	2,900	2,420	2,220	2,220	2,140	3,280	9,250	15,900	12,400	8,680	6,520
17	3,120	3,060	2,250	2,250	*2,250	2,110	3,370	8,220	18,500	12,500	8,300	6,610
18	3,120	2,950	1,900	2,150	2,240	2,140	3,710	7,610	18,000	12,400	8,100	6,580
19	3,100	2,880	2,050	2,200	2,200	2,110	3,730	7,810	16,900	12,300	7,230	6,580
20	3,080	2,800	*2,170	2,250	2,100	2,110	3,500	8,980	15,300	12,300	7,030	6,520
21	3,060	2,800	2,200	2,150	2,160	2,090	3,280	11,000	14,200	12,300	7,430	5,990
22	3,060	2,780	2,250	2,130	2,190	2,090	3,280	13,300	13,200	12,300	7,930	5,420
23	3,030	2,760	2,280	2,130	2,190	2,140	3,410	13,800	*13,700	12,500	8,100	5,040
24	3,100	2,720	2,300	2,170	2,200	2,110	3,340	12,700	15,400	12,700	*8,130	4,740
25	3,190	2,680	2,300	2,200	2,180	2,100	3,250	*11,800	18,200	13,000	8,070	4,770
26	3,170	*2,680	2,280	2,200	2,190	2,020	3,390	10,700	17,300	12,500	7,430	4,690
27	*3,100	2,680	2,200	2,150	2,190	2,010	3,460	10,100	15,400	*11,700	7,140	4,070
28	3,030	2,640	1,900	*2,120	2,180	2,020	*3,280	9,340	14,500	11,200	7,170	*3,440
29	3,010	2,520	2,050	2,050	-	*2,060	3,140	8,330	14,300	11,100	7,120	3,120
30	2,970	2,380	2,150	2,100	------	2,120	3,210	8,540	13,700	11,300	7,290	2,970
31	2,970	------	2,200	2,150	------	2,160	------	9,500	------	11,500	7,320	------
Total	97,040	83,870	71,940	66,890	60,120	66,370	87,310	266,720	431,360	370,670	271,990	188,210
Mean	3,130	2,796	2,321	2,158	2,147	2,141	2,910	8,604	14,380	11,960	8,774	6,274
Ac-ft	192,500	166,400	142,700	132,700	119,200	131,600	173,200	529,000	855,600	735,200	539,500	373,300

Calendar year 1954: Max 29,700 Min 1,900 Mean 6,902 Ac-ft 4,997,000
Water year 1954-55: Max 18,500 Min 1,800 Mean 5,651 Ac-ft 4,091,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 28 to Dec. 2, Dec. 8 to Feb. 14, Feb. 19, 20, 23, Mar. 3-6.

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 Lake.

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

Records available.--May 1920 to September 1955 (prior to October 1930, 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 benchmark). Prior to September 1922, staff gage at site 3 miles downstream and below mouth of Dry Creek.

Average discharge.--35 years, 49.3 cfs (35,690 acre-ft per year).

Extremes.--Maximum discharge during year, 461 cfs Aug. 4 (gage height, 3.72 ft); minimum daily, 8 cfs Oct. 28 to Dec. 25.
1920-55: 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. 43). Since 1923, floodwaters of Dry Creek have been diverted at times into Henrys Lake (no flow in Dry Creek at diversion point during 1955).

Revisions.--WSP 1217: Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	8	8	9	11	14	16	24	44	*140	*347	138
2	19	8	8	9	11	14	16	24	42	141	345	138
3	19	*8	8	9	11	14	17	25	45	144	339	138
4	19	8	8	9	11	14	17	26	48	141	377	138
5	*19	8	8	9	11	14	17	26	48	140	412	138
6	19	8	8	9	12	14	17	27	82	*127	404	138
7	19	8	8	9	12	14	17	28	112	110	400	138
8	19	8	8	9	12	14	17	30	115	107	392	138
9	19	8	8	10	12	14	17	31	108	107	387	138
10	19	8	8	10	*12	14	17	32	106	102	377	137
11	19	8	8	10	12	14	17	*33	104	100	374	136
12	18	8	8	10	12	14	18	32	107	98	336	136
13	17	8	*8	10	12	14	18	33	111	98	303	136
14	17	8	8	10	12	15	18	33	111	96	298	134
15	17	8	8	10	12	15	18	33	113	94	289	134
16	17	8	8	10	12	15	18	32	119	94	284	134
17	17	8	8	10	12	15	19	31	123	91	278	134
18	17	8	8	10	12	15	19	30	124	115	273	134
19	17	8	8	10	13	15	19	30	126	144	218	*95
20	16	8	8	10	13	15	20	28	138	144	167	59
21	16	8	8	10	13	15	21	28	147	144	164	40
22	16	8	8	10	13	15	22	30	148	*147	160	41
23	16	8	8	10	13	15	22	31	148	151	157	44
24	16	8	8	11	13	15	22	33	145	154	154	30
25	16	8	8	11	13	15	22	38	148	282	151	14
26	16	8	9	11	13	15	23	36	148	356	148	14
27	13	8	9	11	13	16	23	44	147	354	145	14
28	8	8	9	11	13	16	22	40	145	353	143	14
29	8	8	9	11	-	16	22	38	143	349	*140	14
30	8	8	9	11	------	16	22	38	141	347	140	14
31	8	------	9	11	------	*16	------	*44	------	347	140	------
Total	503	240	254	310	341	457	573	988	3,386	5,317	8,242	2,850
Mean	16.2	8.0	8.2	10.0	12.2	14.7	19.1	31.9	113	172	266	95.0
Ac-ft	998	476	504	615	676	906	1,140	1,960	6,720	10,550	16,350	5,650

Calendar year 1954: Max 162 Min 8 Mean 38.2 Ac-ft 27,630
Water year 1954-55: Max 412 Min 8 Mean 64.3 Ac-ft 46,540

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 7. No gage-height record Dec. 14 to Mar. 30 and May 6-10. Gates closed for these periods and discharge estimated on basis of 4 discharge measurements.

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.

Drainage area.--481 sq mi.

Records available.--November 1938 to September 1955.

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, 138,540 acre-ft May 12 (elevation, 6,303.41 ft), minimum, 26,715 acre-ft Sept. 25 (elevation, 6,280.45 ft).
1938-55: Maximum contents, that of May 12, 1955; minimum after first filling of reservoir in May 1939, 16,855 acre-ft Sept. 27, 1940 (elevation, 6,274.22 ft).

Remarks.--Reservoir is formed by earth-fill, rock-faced dam. Storage began Nov. 15, 1938. Capacity, 127,265 acre-ft between elevations 6,239 ft (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 prevents 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. Contents given herein are for 8 a.m.; all available for release.

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

Revisions.--WSP 1217: Drainage area.

Contents, in acre-feet, at 8 a.m., water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45,385	45,350	60,810	82,315	108,660	130,800	132,550	133,830	136,015	134,960	91,810	48,880
2	45,385	45,315	61,545	83,630	109,585	130,960	132,790	134,235	136,015	134,555	89,785	48,510
3	45,350	45,315	62,385	84,720	110,370	131,355	132,950	134,395	136,500	134,555	87,660	47,705
4	45,350	45,315	63,375	85,505	111,160	131,670	132,950	134,555	136,340	134,555	85,325	46,320
5	45,385	45,210	64,285	86,300	111,950	131,830	132,790	134,720	136,175	134,555	82,795	44,835
6	45,385	45,145	65,110	87,040	112,745	131,910	132,790	134,960	135,855	134,395	80,255	43,535
7	45,385	45,075	66,145	87,845	113,695	131,990	132,710	135,450	135,690	134,235	77,770	42,235
8	45,420	45,075	67,090	88,655	114,500	132,150	132,710	135,770	135,690	134,235	75,855	41,480
9	45,420	45,075	68,000	89,470	115,300	132,230	132,790	136,095	135,530	133,830	73,970	40,435
10	45,455	45,175	68,870	90,225	116,110	132,470	132,790	137,475	135,610	133,830	72,070	39,140
11	45,520	45,245	69,750	91,175	116,925	132,710	132,950	138,380	135,770	133,430	70,640	37,875
12	45,420	45,385	70,535	92,000	117,670	132,630	132,950	138,540	136,015	133,030	69,285	36,860
13	45,520	45,765	71,330	92,965	118,340	132,630	132,950	138,460	136,745	132,470	68,105	35,770
14	45,385	45,835	72,125	93,740	119,010	132,710	132,950	138,460	136,745	132,390	67,140	34,895
15	45,385	46,040	72,990	94,650	119,760	132,870	132,950	138,460	136,990	131,435	66,095	33,815
16	45,385	47,345	73,970	95,565	120,515	132,790	132,950	137,970	136,990	130,245	65,455	32,835
17	45,385	48,545	74,740	96,420	121,270	132,790	132,950	137,475	136,905	128,595	64,770	31,725
18	45,350	49,470	75,020	97,280	122,110	132,710	133,110	136,905	136,745	126,405	63,760	30,790
19	45,350	50,460	75,350	98,140	122,870	132,710	133,270	135,935	136,500	122,790	62,995	29,945
20	45,350	51,075	75,685	99,010	123,555	132,630	133,270	135,770	136,340	118,860	62,195	29,370
21	45,350	52,325	76,190	99,815	124,240	132,790	133,270	135,610	136,175	115,010	61,360	28,720
22	45,350	53,205	76,650	100,625	125,010	132,790	133,350	135,690	135,935	111,305	59,810	28,065
23	45,350	54,055	77,090	101,505	125,710	132,710	133,750	136,500	135,770	108,800	58,520	27,500
24	45,350	54,840	77,545	102,320	126,485	132,790	133,910	136,175	135,610	106,055	57,035	27,015
25	45,350	55,805	78,000	103,075	127,420	132,470	133,910	136,175	135,450	103,490	55,675	26,715
26	45,350	56,690	78,460	103,905	128,200	132,630	133,910	136,175	135,365	101,300	54,345	26,835
27	45,350	57,595	79,095	104,735	129,615	132,630	134,075	136,500	135,125	99,950	53,045	26,915
28	45,350	58,475	79,500	105,495	130,640	132,630	133,990	136,095	134,960	98,945	51,775	27,095
29	45,350	59,185	79,905	106,265	-	132,630	133,830	135,935	134,960	97,345	51,075	27,095
30	45,350	59,990	80,310	107,035	-------	132,870	133,750	135,935	135,205	95,365	50,460	27,115
31	45,350	-------	81,250	107,810	-------	132,630	-------	135,855	-------	93,545	49,660	-------
(†)	6,287.50	6,291.20	6,295.28	6,299.38	6,302.43	6,302.68	6,302.82	6,303.08	6,303.00	6,297.27	6,288.70	6,280.65
(‡)	0	+14,640	+21,260	+26,560	+22,830	+1,990	+1,120	+2,105	-650	-41,660	-43,885	-22,545

Calendar year 1954: (‡) +15,750
Water year 1954-55: (‡) -18,235

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

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.

Drainage area.--481 sq mi.

Records available.--January 1933 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 6,225 ft (from river-profile map). Prior to May 15, 1935, staff gage at site 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.--22 years, 544 cfs (393,800 acre-ft per year).

Extremes.--Maximum discharge during year, 2,560 cfs July 18 (gage height, 5.87 ft); minimum daily, 6 cfs Nov. 16-30.
1933-55: 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. 43) and Island Park Reservoir (see preceding page).

Cooperation.--Gage-height record and one discharge measurement furnished by Bureau of Reclamation.

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 15, Dec. 18-31, Feb. 27 to Apr. 25 and Aug. 26 to Sept. 30.

1.3	3	2.5	400
1.4	9	3.0	635
1.5	21	4.0	1,145
1.6	44	5.0	1,810
1.8	112	6.0	2,620
2.0	185		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	514	500	7	9	13	223	404	557	895	*723	1,870	1,000
2	509	500	7	9	13	235	409	601	915	674	1,870	992
3	504	*500	7	9	13	252	418	625	935	664	1,970	1,070
4	504	500	7	9	13	269	396	645	915	660	2,060	1,260
5	504	500	7	9	13	286	382	674	895	645	2,100	1,280
6	*504	500	7	9	13	295	378	728	860	645	2,130	1,250
7	504	500	7	9	13	299	382	777	851	615	1,940	1,240
8	504	476	7	9	13	308	391	846	841	596	*1,850	790
9	504	468	7	9	*13	321	400	930	831	586	1,850	1,250
10	500	468	7	9	13	342	414	1,050	856	758	1,700	1,190
11	500	468	7	9	13	360	432	*1,160	870	816	1,560	1,140
12	500	468	7	10	13	351	422	1,200	885	758	1,430	1,100
13	500	468	*7	10	13	355	422	1,190	966	718	1,420	1,110
14	500	468	8	10	13	364	427	1,190	992	846	1,410	1,110
15	500	208	8	10	14	373	427	1,180	992	1,070	1,360	1,140
16	500	6	8	10	14	368	422	1,110	1,010	1,200	1,200	1,210
17	500	6	8	10	14	368	436	1,030	1,010	1,500	1,180	1,080
18	500	6	153	10	14	364	450	950	976	2,100	1,180	1,080
19	500	6	256	11	14	368	463	900	935	2,490	1,120	*1,040
20	500	*6	235	11	14	368	459	865	895	2,490	1,110	940
21	500	6	235	11	14	373	459	851	865	*2,500	1,280	925
22	500	6	235	11	14	373	476	915	851	2,310	1,360	865
23	500	6	235	11	14	373	504	945	836	2,150	1,340	806
24	500	6	235	11	14	368	514	920	811	2,070	1,340	728
25	500	6	235	11	15	368	514	935	782	1,850	1,320	596
26	500	6	235	12	23	364	519	920	758	1,760	1,320	463
27	500	6	235	12	170	368	533	920	748	1,540	1,250	436
28	500	8	235	12	210	373	524	885	733	1,540	1,070	468
29	500	6	235	12	-	378	524	860	728	1,660	*981	486
30	500	6	235	12	------	404	528	846	728	1,750	1,010	504
31	500	------	235	12	------	*404	-----	*880	------	1,870	1,010	------
Total	15,551	7,082	3,352	318	740	10,615	13,429	28,085	26,165	41,554	45,571	28,549
Mean	502	236	108	10.3	26.4	342	448	906	872	1,340	1,470	952
Ac-ft	30,840	14,050	6,650	631	1,470	21,050	26,640	55,710	51,900	82,420	90,390	56,630

Calendar year 1954: Max 2,130 Min 6 Mean 555 Ac-ft 402,000
Water year 1954-55: Max 2,500 Min 6 Mean 606 Ac-ft 438,400

* Discharge measurement made on this day.

Henrys Fork near Ashton, Idaho

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

Drainage area.--1,040 sq mi, approximately.

Records available.--April 1890 to June 1891, August 1902 to June 1909, April 1920 to September 1955 (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 5,095 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 from present site at different datum.

Average discharge.--35 years (1902-8, 1926-55), 1,351 cfs (978,100 acre-ft per year).

Extremes.--Maximum discharge during year, 3,400 cfs July 19; maximum gage height, 7.99 ft Aug. 7; minimum discharge, 94 cfs Dec. 10 (gage height, 4.93 ft); minimum daily, 536 cfs Feb. 19.
1890-91, 1902-9, 1920-55: Maximum discharge, 6,220 cfs May 7, 1925 (gage height, 3.11 ft, site and datum then in use); minimum, 65 cfs Oct. 16, 1935 (gage height, 4.59 ft); minimum daily, 440 cfs Dec. 5, 1931.

Remarks.--Records good. Diurnal fluctuation caused by powerplant above station. Flow regulated by Henrys Lake (see p. 43) and Island Park Reservoir (see p. 33). About 18,000 acres irrigated by diversion 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	1,240	718	760	792	825	1,140	1,400	2,180	1,580	2,440	1,610
2	1,240	*1,230	676	781	707	904	1,160	1,440	2,240	1,470	2,470	1,610
3	1,120	1,210	792	676	646	940	1,130	1,480	*2,400	1,420	2,490	1,600
4	1,230	1,230	770	749	636	916	1,120	1,550	2,550	1,330	2,590	1,770
5	1,210	1,210	665	707	718	904	1,100	1,750	2,240	1,380	2,760	2,040
6	1,240	1,190	760	598	696	1,000	1,100	2,060	2,120	*1,340	2,760	1,980
7	1,170	1,170	728	598	707	1,030	1,080	2,320	2,040	1,340	2,800	1,860
8	1,260	1,210	665	760	718	1,040	*1,160	2,360	1,980	1,330	2,510	1,580
9	1,240	1,170	627	718	*718	1,100	1,170	2,490	1,920	1,260	2,550	*1,500
10	1,240	1,160	676	803	665	1,050	1,160	2,490	1,840	1,190	*2,470	1,900
11	1,260	1,160	676	781	608	1,080	1,210	2,570	1,900	1,550	2,280	1,860
12	1,230	1,170	707	*792	696	1,140	1,170	*2,680	1,920	1,480	2,120	1,720
13	1,300	1,230	749	686	738	1,090	1,140	2,680	1,940	1,420	2,160	1,660
14	1,240	1,200	686	728	665	1,140	1,190	2,630	2,080	1,360	2,180	1,700
15	1,280	1,190	*696	728	707	1,060	1,190	2,660	2,060	1,530	2,120	1,700
16	1,240	964	656	749	707	1,080	1,170	2,420	2,060	1,880	2,040	1,790
17	1,240	770	656	749	728	*1,160	1,190	2,280	2,040	1,920	1,860	1,790
18	1,210	770	904	696	676	1,100	1,210	2,140	1,960	2,490	1,900	1,680
19	1,230	770	869	738	536	1,090	1,210	2,180	1,840	3,190	1,900	1,680
20	1,230	718	869	749	665	976	1,210	2,260	1,840	3,060	1,730	1,610
21	1,240	770	858	760	686	1,100	1,200	2,260	1,840	3,060	1,810	1,500
22	1,240	760	814	676	707	1,130	1,130	2,300	1,790	3,040	2,160	1,440
23	1,260	770	836	707	738	1,100	1,330	2,360	1,730	2,660	2,200	1,330
24	1,240	770	869	728	718	1,060	1,300	2,320	1,730	2,720	2,140	1,330
25	1,260	760	892	749	707	1,050	1,260	2,320	1,660	2,530	2,160	1,260
26	1,260	749	858	728	707	1,050	1,300	2,260	1,600	2,360	2,180	1,090
27	1,240	718	760	718	760	1,080	1,300	2,320	1,600	2,200	2,120	1,030
28	1,240	707	665	718	836	1,090	1,300	2,200	1,580	2,000	1,940	916
29	1,200	665	869	707	-	1,160	1,230	2,000	1,560	2,060	1,660	1,000
30	1,200	618	988	665	------	1,160	1,280	1,960	1,660	2,220	1,610	1,120
31	1,240	------	940	696	------	1,130	------	2,180	------	2,340	1,630	------
Total	38,300	29,249	23,894	22,398	19,588	32,735	35,840	68,320	57,900	60,710	67,740	46,656
Mean	1,235	975	771	723	700	1,056	1,195	2,204	1,930	1,958	2,185	1,555
Ac-ft	75,970	58,010	47,390	44,430	38,850	64,930	71,090	135,500	114,800	120,400	134,400	92,540

Calendar year 1954: Max 2,990 Min 618 Mean 1,383 Ac-ft 1,001,000
Water year 1954-55: Max 3,190 Min 536 Mean 1,379 Ac-ft 998,300

* Discharge measurement made on this day.

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 1955. 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, 1955

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	0	272	265	125	11	0	268	196	119	21	207	265	173	77
2	0	256	276	134	12	0	264	196	119	22	229	268	169	36
3	0	259	276	134	13	150	270	185	96	23	239	268	180	36
4	0	264	264	104	14	150	274	161	97	24	253	265	168	50
5	0	280	250	128	15	150	270	141	96	25	257	259	159	52
6	0	280	256	126	16	167	277	131	95	26	263	256	145	52
7	0	260	244	118	17	183	270	128	91	27	266	251	138	52
8	0	266	224	116	18	183	268	133	90	28	268	252	114	50
9	0	284	215	127	19	183	276	148	78	29	272	262	111	52
10	0	257	195	127	20	192	267	173	78	30	271	268	119	52
										31	-	268	117	-
Total											3,883	8,264	5,650	2,707
Mean											129	267	182	90.2
Runoff in acre-feet											7,700	16,390	11,210	5,370

The season: Max - Min - Mean - Ac-ft 40,670

Note.--Records began May 1, 1955; no flow May 1 to June 12.

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 1955. 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 200 ft upstream from present site at different datum. Nov. 7, 1937, to Oct. 7, 1948, staff gage 100 ft downstream from present site at datum 0.29 ft lower than present datum.

Average discharge.--41 years (1904-8, 1918-55), 751 cfs (543,700 acre-ft per year).

Extremes.--Maximum discharge during year, 3,420 cfs June 23 (gage height, 4.52 ft); minimum, 239 cfs Mar. 5 (gage height, 0.68 ft).

1904-9, 1918-55: Maximum discharge observed, 6,440 cfs June 27, 1927; minimum observed, 72 cfs Feb. 9, 1930.

Remarks.--Records good. Flow since October 1939 partly regulated by Grassy Lake (see p. 43). About 16,000 acres irrigated from two diversions above station.

Revisions (water years).--WSP 1217: Drainage area. WSP 1347: 1905.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	538	516	510	480	440	405	391	574	1,950	1,210	*425	386
2	562	*511	520	470	440	405	400	662	2,060	1,010	440	382
3	562	511	525	465	440	395	396	607	2,210	1,020	435	386
4	555	506	533	460	440	380	391	588	2,200	1,140	440	391
5	*555	506	533	455	440	365	386	685	1,790	1,470	435	386
6	550	506	516	445	440	350	386	902	1,620	*1,680	435	386
7	544	500	538	440	440	360	400	1,100	1,820	1,350	485	386
8	538	500	516	440	440	365	*415	1,310	2,060	1,120	465	386
9	538	500	500	445	435	365	435	1,420	2,210	1,100	465	391
10	533	500	505	445	430	365	460	1,540	2,280	1,000	460	391
11	533	500	500	448	435	365	445	1,620	2,440	1,000	455	391
12	533	522	490	*448	440	370	420	*1,570	2,560	895	450	396
13	562	550	*495	450	445	370	415	1,550	*2,680	778	440	396
14	538	522	485	450	448	370	415	1,610	2,640	792	470	396
15	544	550	485	450	449	370	410	1,630	2,460	724	465	405
16	550	640	480	450	*449	370	405	1,260	2,680	614	475	410
17	544	555	460	450	449	*370	420	1,270	2,440	550	435	410
18	538	533	470	450	440	370	430	1,480	2,210	516	410	425
19	533	522	475	450	425	370	450	1,720	2,180	528	391	*420
20	528	511	485	450	410	370	435	1,940	2,380	516	382	425
21	522	506	490	450	400	370	425	2,130	2,450	506	382	455
22	522	500	495	450	400	370	435	2,170	2,660	490	382	450
23	533	500	500	450	400	370	435	1,950	2,940	490	382	440
24	562	495	500	450	400	370	435	2,090	2,980	574	*386	430
25	544	495	490	450	400	370	430	1,970	2,800	528	396	435
26	533	495	475	450	400	370	435	1,860	2,320	506	396	440
27	528	495	460	445	405	370	430	1,940	1,920	495	420	440
28	528	485	465	445	405	375	420	1,610	1,930	470	410	425
29	522	485	475	440	-	375	425	1,500	1,960	455	400	420
30	516	495	480	440	------	380	485	1,700	1,590	440	391	420
31	516	------	485	440	------	391	------	2,140	------	425	386	------
Total	16,704	15,412	15,336	13,951	11,985	11,561	12,660	46,068	68,420	24,392	13,189	12,300
Mean	539	514	495	450	428	373	422	1,487	2,281	787	425	410
Ac-ft	33,130	30,570	30,420	27,670	23,770	22,930	25,110	91,410	135,700	48,380	26,160	24,400

Calendar year 1954: Max 3,320 Min 380 Mean 818 Ac-ft 592,400
Water year 1954-55: Max 2,980 Min 350 Mean 718 Ac-ft 519,600

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 3, Dec. 10, 13, 15, Dec. 18 to Mar. 30.

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 1955. 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, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	20	461	671	503	385	16	126	825	567	445	351
2	20	338	695	521	384	17	126	832	552	433	354
3	20	325	696	508	379	18	132	835	556	443	359
4	20	342	702	507	376	19	138	843	562	430	344
5	20	323	705	517	379	20	186	863	560	416	301
6	20	395	707	518	376	21	193	871	556	415	304
7	20	395	689	536	399	22	194	925	561	420	335
8	20	555	694	503	377	23	218	931	535	431	340
9	20	603	701	527	385	24	261	938	461	414	335
10	20	653	691	529	378	25	259	929	552	473	340
11	20	713	674	500	376	26	247	925	553	458	327
12	91	771	689	468	363	27	250	937	560	293	313
13	91	816	710	465	368	28	244	909	559	286	303
14	118	834	635	473	367	29	334	875	538	249	301
15	118	847	585	436	370	30	400	884	521	381	301
						31	421	-	496	380	-
Total							4,367	21,693	18,963	13,878	10,570
Mean							141	723	612	448	352
Runoff in acre-feet							8,660	43,030	37,610	27,530	20,970

The season: Max - Min - Mean - Ac-ft 137,800

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 1955 (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 season, 2,460 cfs June 4, 13, 23 (gage height, 4.28 ft); minimum, 19 cfs Aug. 1 (gage height, 0.97 ft).

1920-55: Maximum discharge recorded, 6,380 cfs June 27, 1927 (gage height, 6.60 ft); minimum recorded, 9 cfs Aug. 7, 1923 (gage height, 1.01 ft).

Remarks.--Records excellent except those for period of no gage-height record, which are good. Flow since October 1939 partly regulated by Grassy Lake (see p. 43). About 42,000 acres of land irrigated by diversions above station. Station is below all diversions from Fall River.

Revisions.--WSP 1217: Drainage area.

Rating table, Apr. 20 to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

0.9	17	2.5	515
1.2	48	3.0	900
1.6	127	4.0	1,990
2.0	265	5.0	3,560

Discharge, in cubic feet per second, 1955

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	714	1,980	690	21	83	16	-	1,430	2,200	162	178	133
2	-	828	2,030	541	27	77	17	-	1,440	1,850	102	144	141
3	-	802	*2,170	a530	25	77	18	-	1,620	1,690	68	104	158
4	-	770	2,170	a550	27	92	19	-	1,780	1,630	50	83	172
5	-	900	1,740	a850	26	81	20	*504	1,980	1,760	35	74	210
6	-	1,100	1,550	*1,100	33	72	21	498	2,210	1,790	33	68	253
7	-	1,350	1,670	846	74	65	22	522	2,260	1,950	26	46	241
8	-	1,570	1,850	615	89	72	23	528	2,050	2,200	27	30	*218
9	-	1,740	1,920	560	77	74	24	522	2,100	2,240	79	*25	218
10	-	1,810	1,910	488	74	83	25	534	2,000	2,140	141	46	225
11	-	1,900	2,030	482	87	94	26	548	1,890	1,690	92	67	241
12	-	*1,820	2,120	395	104	112	27	515	1,980	1,310	77	199	253
13	-	1,760	2,270	306	112	112	28	488	1,630	1,220	*40	265	253
14	-	1,800	2,170	270	144	112	29	498	1,510	1,240	25	265	245
15	-	1,860	1,990	245	152	120	30	587	1,630	1,030	23	206	221
							31	-	2,090	-	24	89	-
Total								-	50,324	55,510	9,472	2,961	4,508
Mean								-	1,623	1,850	306	95.5	150
Runoff in acre-feet								-	99,820	110,100	18,790	5,870	8,940

The season May to September: Max - Min - Mean - Ac-ft 243,500

* Discharge measurement made on this day.

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

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 1955. 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, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	688	1,260	1,130	1,420	561	16	940	1,280	1,360	878	477
2	652	1,150	1,040	1,430	562	17	891	1,190	1,370	846	458
3	489	1,170	1,060	1,490	642	18	968	1,160	1,420	836	414
4	545	1,120	1,040	1,510	685	19	965	1,250	1,540	839	376
5	626	988	1,080	1,560	707	20	1,060	1,320	1,630	878	358
6	763	1,040	1,150	1,580	706	21	1,170	1,330	1,680	857	358
7	735	1,040	1,170	1,280	683	22	1,210	1,410	1,580	963	351
8	759	1,040	1,160	1,200	637	23	1,270	1,470	1,410	972	347
9	764	1,170	1,150	1,090	566	24	1,290	1,590	1,340	931	326
10	769	1,220	1,160	879	630	25	1,270	1,550	1,340	928	320
11	833	1,440	1,130	874	622	26	1,290	1,430	1,300	900	320
12	963	1,560	1,120	901	594	27	1,290	1,390	1,270	785	312
13	983	1,560	1,130	963	575	28	1,280	1,360	1,300	669	323
14	988	1,300	1,100	1,000	604	29	1,290	1,350	1,370	698	333
15	967	1,280	1,130	961	553	30	1,320	1,350	1,380	685	348
						31	1,280	-	1,370	680	-
Total							30,308	38,768	39,410	31,483	14,748
Mean							978	1,292	1,271	1,016	492
Runoff in acre-feet							60,120	76,900	78,170	62,450	29,250

The season: Max - Min - Mean - Ac-ft 306,900

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 1955 (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, 1922, staff gages and May 8, 1922 to Aug. 14, 1931, water-stage recorder, at site 150 ft downstream at datum 0.075 ft lower.

Extremes.--Maximum discharge during season, 4,200 cfs June 4 (gage height, 5.12 ft); minimum, 301 cfs Sept. 9 (gage height, 2.46 ft).

1919-55: Maximum discharge, 9,030 cfs May 8, 1925 (gage height, 6.78 ft, present datum); minimum daily recorded, 413 cfs July 22, 1931.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Diversions above station for irrigation. Flow regulated by powerplant 17 miles above station and by Henrys Lake (see p. 43), Island Park Reservoir (see p. 33), and Grassy Lake (see p. 43).

Revisions.--WSP 1217: Drainage area.

Rating table, Apr. 27 to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

3.0	580
3.5	1,040
4.0	1,760
5.0	3,870

Discharge, in cubic feet per second, 1955

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	1,580	3,050	1,290	1,300	1,160	16	-	3,050	3,070	890	1,460	1,200
2	-	1,760	3,160	1,110	1,260	1,110	17	-	*2,810	3,030	785	1,290	1,240
3	-	1,790	3,510	1,030	1,280	1,090	18	-	2,860	2,690	*1,140	1,260	1,160
4	-	1,740	3,800	996	1,300	1,190	19	-	3,090	2,460	1,840	1,200	1,240
5	-	a1,750	3,140	1,200	1,420	1,400	20	-	3,320	2,420	1,830	1,100	1,290
6	-	a2,050	2,730	1,400	1,440	1,360	21	-	3,460	2,440	1,780	1,060	1,200
7	-	a2,500	2,690	1,200	1,790	1,290	22	-	3,490	2,370	1,840	1,190	1,170
8	-	a2,900	2,730	1,050	1,800	1,160	23	-	3,320	2,540	1,630	1,240	1,160
9	-	a3,250	2,750	910	1,680	*1,050	24	-	3,210	2,520	1,810	1,190	1,290
10	-	a3,450	2,600	803	1,790	1,410	25	-	3,180	2,390	1,780	1,240	1,200
11	-	a3,550	2,580	1,080	1,630	1,340	26	-	2,940	2,070	1,540	1,340	1,210
12	-	3,560	2,580	996	1,520	1,250	27	*1,380	3,050	1,710	1,460	1,580	1,200
13	-	3,530	*2,920	803	1,400	1,120	28	1,340	2,770	1,540	1,100	1,650	1,140
14	-	3,490	3,030	732	1,540	1,140	29	1,280	*2,310	1,550	1,100	1,420	1,110
15	-	3,610	2,920	776	*1,470	1,120	30	1,360	2,370	1,550	1,140	1,300	*1,250
							31	-	2,960	-	1,250	1,190	-
Total							-		88,700	78,540	38,291	43,130	36,250
Mean							-		2,861	2,618	1,235	1,391	1,208
Runoff in acre-ft							-		175,900	155,800	75,950	85,550	71,900

The season May to September: Max - Min - Mean - Ac-ft 565,100

* Discharge measurement made on this day.

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

Teton River near Tetonia, Idaho

Location.--Lat 43°51', long 111°15', in sec. 15, T. 6 N., R. 44 E., on right bank 1¾ miles downstream from highway bridge, 4 miles downstream from Packsaddle Creek, and 6 miles northwest of Tetonia.

Drainage area.--471 sq mi.

Records available.--October 1929 to December 1932, May to September 1934, July to September 1935, July to September 1936, July to September 1937, May to September 1940, and June 1941 to September 1955. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 5,910.3 ft above mean sea level, unadjusted. Since November 1941, supplementary staff gage at site 1¾ miles upstream.

Average discharge.--17 years (1929-32, 1941-55), 385 cfs (278,700 acre-ft per year).

Extremes.--Maximum discharge during year, 682 cfs July 16 (gage height, 1.50 ft); minimum daily, 150 cfs Feb. 10.
1929-32, 1934-35, 1940-55: Maximum discharge observed, 1,900 cfs June 28, 1945 (gage height, 2.97 ft); minimum observed, 62 cfs Jan. 16, 17, 1943.

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

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	144
.5	168
.7	230
1.0	364
1.5	668

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	296	292	b270	215	205	200	210	250	314	484	360	314
2	301	288	b280	215	200	200	220	255	397	443	375	310
3	296	283	b290	215	200	200	210	255	354	431	370	305
4	292	279	292	215	200	195	210	*258	419	431	359	301
5	301	279	292	215	200	195	210	246	349	431	354	296
6	292	279	b280	b215	200	180	220	242	*324	437	354	292
7	292	279	254	210	200	170	240	250	301	*431	364	*292
8	288	279	b240	205	200	185	270	254	288	414	364	283
9	288	279	223	205	180	*192	300	262	296	414	364	279
10	292	283	b220	200	150	195	400	262	301	419	*359	283
11	288	283	b220	200	160	195	400	254	296	425	349	279
12	288	296	b225	200	180	195	*403	254	359	454	349	274
13	296	319	b225	b200	190	195	400	258	490	448	364	274
14	310	305	b220	205	200	195	400	270	589	419	431	270
15	*301	305	b220	205	205	195	410	288	545	408	419	274
16	296	392	b220	205	205	190	400	296	583	425	402	279
17	292	375	b220	205	205	190	390	262	628	419	392	279
18	288	324	b220	206	205	190	380	246	545	414	386	292
19	288	334	b220	*b206	200	185	370	242	502	397	375	296
20	283	314	b220	b210	200	185	350	254	539	386	359	305
21	279	296	b225	210	200	185	300	270	577	392	349	310
22	279	283	b225	210	200	185	290	354	577	402	339	310
23	283	279	b230	210	200	180	280	339	615	408	329	296
24	314	*274	*b229	210	200	170	280	279	602	414	329	292
25	334	270	225	210	200	170	280	274	596	425	349	314
26	329	270	215	205	200	175	270	258	552	460	359	324
27	310	258	205	205	200	180	270	279	521	478	359	314
28	310	b265	200	205	200	190	260	329	484	431	349	296
29	314	b260	b200	205	-	200	250	270	466	414	339	288
30	310	b260	205	205	------	220	250	250	496	402	329	279
31	301	------	210	205	------	210	------	279	------	386	324	------
Total	9,231	8,782	7,220	6,434	5,485	5,892	9,123	8,339	13,905	13,142	11,223	8,800
Mean	298	293	233	208	196	190	304	269	464	424	362	293
Ac-ft	18,310	17,420	14,320	12,760	10,880	11,690	18,100	16,540	27,580	26,070	22,260	17,450

Calendar year 1954: Max 1,130 Min 170 Mean 350 Ac-ft 253,700
Water year 1954-55: Max 628 Min 150 Mean 295 Ac-ft 213,400

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 25-28, Dec. 30 to Jan. 5, Jan. 7-12, 14-18, Jan. 21 to May 3 (stage-discharge relation affected by ice during much of time); discharge computed on basis of occasional readings on supplementary staff gage, 2 discharge measurements, weather records, and records for station near St. Anthony.

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 1955 (seasonal records only, 1920-21, 1923-33). Monthly discharge only for some periods, published in WSP 1317. Published as "near Wilford" or "at Chasis 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 from present site 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 from present site at different datum.

Average discharge.--22 years (1933-55), 749 cfs (542,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,070 cfs June 13 (gage height, 4.48 ft); minimum, 217 cfs Mar. 23, 24 (gage height, 1.67 ft).
1890-93, 1903-9, 1920-55: Maximum discharge observed, 5,830 cfs June 13, 1893 (gage height, 6.90 ft, site and datum then in use); minimum, 215 cfs Mar. 12, 1906 (gage height, 1.00 ft, site and datum then in use).

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 during irrigation season from Henrys Fork through Cross Cut Canal to Teton River three-quarters of a mile above station (22,120 acre-ft diverted into river during 1955 irrigation season).

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 14 to Apr. 17)

1.6	230	3.0	965
2.0	380	4.0	1,750
2.5	635	5.0	2,610

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	518	523	410	370	350	330	407	482	1,330	1,110	818	513
2	487	518	425	375	350	330	453	503	1,220	1,010	812	498
3	498	*528	453	375	350	330	416	508	1,140	951	832	492
4	498	503	448	375	350	330	376	463	1,280	965	832	492
5	*523	487	412	370	350	320	350	458	1,310	1,020	818	508
6	523	487	407	365	350	300	371	523	1,080	1,040	846	492
7	518	482	390	360	350	280	430	595	1,080	*1,000	881	*492
8	513	467	376	355	350	290	a500	708	1,360	958	895	482
9	503	448	371	350	340	300	a600	792	1,450	937	832	467
10	508	463	380	350	290	*311	a700	825	1,380	895	*647	482
11	498	472	385	355	300	320	a650	853	1,480	818	624	477
12	508	487	390	360	315	325	*606	860	1,630	846	612	467
13	518	508	394	360	330	325	624	874	1,890	916	647	503
14	513	503	384	360	335	318	629	965	1,780	867	734	518
15	508	492	*371	360	335	322	708	1,050	1,610	839	760	540
16	503	550	367	360	340	286	584	951	1,660	874	734	556
17	503	595	365	360	340	307	659	*806	*1,610	979	702	578
18	498	513	365	360	340	311	647	728	1,450	944	647	589
19	482	487	370	*360	335	311	659	818	1,360	979	618	606
20	482	477	375	360	330	307	523	1,090	1,420	979	572	629
21	477	467	380	360	330	293	467	1,400	1,480	1,010	556	653
22	467	448	380	355	330	307	513	1,560	1,520	993	534	641
23	477	444	380	355	330	271	540	1,450	1,610	1,010	523	584
24	528	439	380	355	330	257	482	1,290	1,700	1,000	518	528
25	572	430	370	355	330	296	458	1,270	1,680	993	545	528
26	572	425	360	355	330	300	492	1,140	1,490	993	567	545
27	556	420	350	355	330	307	467	1,100	1,400	1,020	595	523
28	550	380	340	350	330	326	430	1,060	1,320	986	556	503
29	556	398	340	350	-	439	416	937	1,250	909	534	487
30	550	389	350	350	------	528	458	930	1,210	874	523	472
31	534	------	360	350	------	407	------	1,200	------	825	518	------
Total	15,941	14,230	11,828	11,130	9,370	9,984	15,615	28,189	43,180	29,540	20,832	15,845
Mean	514	474	382	359	335	322	520	909	1,439	953	672	528
Ac-ft	31,620	28,220	23,460	22,080	18,590	19,800	30,970	55,910	85,650	58,590	41,320	31,430

Calendar year 1954: Max 2,790 Min 286 Mean 704 Ac-ft 509,500
Water year 1954-55: Max 1,890 Min 257 Mean 618 Ac-ft 447,600

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage and records for nearby stations.
Note.--Stage-discharge relation affected by ice Dec. 1, 7, 10-12, Dec. 17 to Mar. 13.

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 1955. 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, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	41	729	1,010	774	561	16	494	1,200	900	674	617
2	47	675	898	790	555	17	451	1,190	1,040	671	571
3	44	663	888	789	565	18	415	1,150	985	602	599
4	43	611	892	775	550	19	435	1,090	991	668	610
5	44	646	936	822	552	20	618	1,160	971	607	660
6	70	669	990	796	547	21	675	1,220	1,010	591	663
7	51	754	973	850	550	22	762	1,200	995	584	625
8	87	783	946	834	556	23	862	1,350	954	564	587
9	104	909	923	792	536	24	845	1,440	942	564	578
10	127	1,030	875	674	557	25	831	1,290	974	552	554
11	302	1,140	851	617	566	26	796	1,270	967	557	546
12	315	1,210	846	655	554	27	781	1,220	1,010	595	505
13	302	1,310	942	674	549	28	739	1,150	903	549	527
14	402	1,250	936	705	570	29	701	1,090	848	510	493
15	443	1,250	966	679	575	30	639	1,040	864	528	475
						31	663	-	806	519	-
Total							13,129	31,689	29,032	20,561	16,953
Mean							424	1,056	937	663	565
Ac-ft							26,040	62,850	57,580	40,780	33,630

The season : Max - Min - Mean - Ac-ft 220,900

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 1955. 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, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	547	1,190	691	887	561	16	970	956	911	561	477
2	602	1,160	694	890	562	17	962	989	843	507	458
3	631	1,040	751	896	642	18	975	976	990	522	414
4	664	1,020	830	870	685	19	996	1,020	1,040	599	376
5	702	986	836	881	707	20	1,030	1,120	974	623	358
6	695	968	793	870	706	21	1,080	1,120	959	626	358
7	783	981	774	661	683	22	1,080	1,220	832	653	351
8	784	1,020	782	652	637	23	1,110	1,220	741	663	347
9	844	1,080	759	619	566	24	1,160	1,170	756	652	326
10	905	1,120	798	624	630	25	1,190	1,040	726	669	320
11	775	1,120	812	622	622	26	1,190	956	710	614	320
12	795	1,150	817	636	594	27	1,170	867	781	554	312
13	959	1,120	736	694	575	28	1,160	868	820	555	323
14	1,020	1,150	665	558	604	29	1,160	832	850	544	333
15	985	1,080	750	556	553	30	1,200	826	766	527	348
						31	1,220	-	855	521	-
Total							29,344	31,365	25,042	20,306	14,748
Mean							947	1,046	808	655	492
Ac-ft							58,200	62,210	49,670	40,280	29,250

The season : Max - Min - Mean - Ac-ft 239,600

Henrys Fork near Rexburg, Idaho

Location.--Lat 43°49'34", long 111°54'15", in sec. 30, T. 6 N., R. 39 E., on right bank 200 ft downstream from highway bridge, downstream from all tributaries and 7 miles west of Rexburg.

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

Records available.--April 1909 to September 1955. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as North Fork 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.--46 years (1909-55), 1,906 cfs (1,380,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,000 cfs June 5 (gage height, 7.19 ft); minimum, 590 cfs July 17 (gage height, 2.82 ft).
1909-55: 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. 33), and Grassy Lake (see following page). About 172,000 acres irrigated by diversions above station. Part of return flow escapes westward beneath the Snake River plains above gaging station.

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge in cubic feet per second)
(Shifting-control method used July 4-8)

2.7	570	6.0	2,920
3.0	720	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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,450	1,860	1,340	1,700	1,280	1,500	2,040	1,420	2,700	2,030	1,110	*1,240
2	1,530	*1,870	1,450	1,550	1,300	1,550	2,130	1,580	2,910	1,800	*1,050	1,160
3	1,560	1,820	1,530	1,500	*1,260	1,570	2,080	1,700	3,240	1,540	998	1,060
4	1,520	1,780	1,660	1,450	1,250	1,620	*1,980	1,680	3,660	1,410	968	998
5	1,470	1,730	1,630	1,300	1,250	1,590	1,960	1,690	3,890	*1,320	1,060	1,120
6	*1,470	1,720	*1,560	*1,170	1,300	1,580	1,950	1,890	3,410	1,440	1,140	1,210
7	1,520	1,680	1,630	1,200	1,330	1,650	2,030	2,320	2,910	1,520	1,440	1,170
8	1,520	1,690	1,610	1,400	1,330	*1,730	2,100	2,760	2,800	1,320	1,710	1,160
9	1,540	1,730	1,440	1,450	1,350	1,750	2,300	3,080	2,760	1,110	1,680	1,010
10	1,540	1,680	1,440	1,450	1,300	1,800	2,460	3,320	2,560	944	1,800	1,190
11	1,560	1,680	1,580	1,500	1,200	1,750	2,560	3,370	2,230	842	1,740	1,230
12	1,560	1,700	1,580	1,500	1,180	1,780	2,440	3,420	2,130	992	1,580	1,220
13	1,630	1,750	1,560	1,500	1,300	1,850	2,220	3,400	2,300	866	1,340	1,080
14	1,820	1,850	1,600	1,400	1,350	1,800	2,170	3,240	2,720	742	1,470	1,040
15	1,820	1,860	1,500	1,430	1,300	1,770	2,180	3,190	2,920	635	1,690	1,030
16	1,860	2,050	1,490	1,450	1,330	1,800	2,170	3,300	2,920	610	1,780	1,100
17	1,860	1,870	1,480	1,450	1,350	1,830	2,020	2,810	*3,290	610	1,710	1,260
18	1,830	1,600	1,190	1,450	1,370	1,830	2,100	2,510	3,230	615	1,610	1,300
19	1,850	1,550	1,330	1,400	1,250	1,750	1,960	2,460	2,880	950	1,490	1,310
20	1,830	1,510	1,510	1,420	1,180	1,700	1,910	2,590	2,510	1,470	1,350	1,420
21	1,830	1,440	1,640	1,430	1,300	1,750	1,740	2,860	2,300	1,410	1,130	1,410
22	1,820	1,430	1,700	1,440	1,340	1,780	1,640	3,050	2,080	1,520	1,080	1,390
23	1,820	1,420	1,650	1,450	1,370	1,820	1,590	3,140	1,980	1,750	1,130	1,380
24	1,870	1,420	1,700	1,400	1,380	1,750	1,660	2,850	2,090	1,700	1,150	1,450
25	1,940	1,400	1,730	1,370	1,380	1,720	1,600	2,760	2,170	1,890	1,160	1,490
26	1,900	1,420	1,730	1,370	1,380	1,750	1,510	2,640	2,290	1,800	1,270	1,510
27	1,860	1,380	1,650	1,370	1,390	1,780	1,520	2,440	2,100	1,610	1,460	1,530
28	1,870	1,400	1,500	1,350	1,420	1,800	1,470	2,560	1,820	1,330	1,720	1,510
29	1,900	1,270	1,400	1,300	-	2,050	*1,410	2,140	1,730	1,090	1,680	1,410
30	1,860	1,280	1,650	1,270	------	2,140	1,310	1,780	1,980	1,050	1,510	1,470
31	1,840	------	1,750	1,250	------	2,130	------	*1,920	------	1,050	1,360	------
Total	53,250	48,840	48,210	43,670	36,720	54,670	58,210	79,870	78,530	38,966	43,366	37,858
Mean	1,718	1,628	1,555	1,409	1,311	1,764	1,940	2,576	2,618	1,257	1,399	1,262
Ac-ft	105,600	96,870	95,620	86,620	72,830	108,400	115,500	158,400	155,800	77,290	86,020	75,090

Calendar year 1954: Max 4,870 Min 645 Mean 1,743 Ac-ft 1,262,000
Water year 1954-55: Max 3,890 Min 610 Mean 1,705 Ac-ft 1,234,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 22 to Mar. 29.

Smaller reservoirs in Henrys Fork basin

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 Lake, Idaho. Drainage area, 98 sq mi, approximately, including 6 sq mi of Dry Creek basin. Records available, June 1923 to September 1955 (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, 81,500 acre-ft June 20 (gage height, 15.34 ft); minimum observed, 50,800 acre-ft Sept. 19 (gage height, 10.32 ft). Maximum contents observed during period 1923-55, 84,500 acre-ft June 24, 1953; 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 ft (low-water level of Henrys Lake prior to construction of dam) and 15.0 ft (top of 5-ft flashboards on spillway). Floodwaters of Dry Creek are diverted into Henrys Lake at times (none diverted during water year 1955). 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.

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 1955. Mercury pressure gage. Datum of gage is mean sea level (levels by Bureau of Reclamation). Maximum contents observed during year, 15,200 acre-ft, July 8, 18; maximum elevation, 7,210.10 ft July 8; minimum contents observed, 11,200 acre-ft Aug. 16, 24, 30, Sept. 13, 23; minimum elevation observed, 7,196.60 ft Aug. 24. Maximum contents observed during period 1939-55, 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 ft (sill of trash rack) 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 or gage height and contents, water year October 1954 to September 1955

Date	Henrys Lake			Grassy Lake		
	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	-	a67,700	-	-	a11,600	-
Oct. 31	-	a68,000	+300	-	a11,500	-100
Nov. 30	-	a70,000	+2,000	-	a11,600	+100
Dec. 31	-	a72,000	+2,000	-	a11,800	+200
Calendar year 1954	-	-	+3,200	-	-	-200
Jan. 31	-	a73,800	+1,800	-	a11,900	+100
Feb. 28	-	a74,700	+900	-	a12,000	+100
Mar. 31	14.35	75,300	+600	-	a12,200	+200
Apr. 30	-	a77,800	+2,500	-	a12,300	+100
May 31	15.18	80,500	+2,700	-	a13,700	+1,400
June 30	-	a80,400	-100	-	a15,200	+1,500
July 31	-	a72,600	-7,800	-	a13,900	-1,300
Aug. 31	-	a56,600	-16,000	-	a11,200	-2,700
Sept. 30	-	a50,400	-6,200	-	a11,200	0
Water year 1954-55	-	-	-17,300	-	-	-400

a No gage-height record; contents interpolated.

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 1955. One of the canals is equipped with a water-stage recorder, 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, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	184	5,530	7,450	9,330	7,100	16	2,010	8,890	9,500	7,480	6,350
2	184	4,510	7,500	9,340	6,710	17	2,320	8,870	9,380	7,350	5,440
3	193	3,770	7,300	9,250	6,440	18	2,990	8,890	9,460	7,240	5,240
4	196	3,610	7,650	9,160	6,520	19	3,440	8,320	9,590	6,830	5,890
5	192	3,500	8,230	8,950	7,390	20	4,020	8,820	9,510	6,410	5,930
6	192	3,690	8,400	8,880	7,460	21	4,410	9,290	9,700	6,440	5,700
7	194	3,990	8,550	7,780	7,440	22	4,990	9,960	9,740	7,270	5,430
8	199	4,670	8,450	8,470	7,490	23	5,690	9,740	9,410	7,420	5,280
9	467	5,590	8,840	8,500	6,920	24	6,140	9,670	9,280	7,410	5,010
10	1,350	6,140	9,040	8,480	6,080	25	6,260	9,960	9,100	7,420	4,830
11	1,590	7,160	9,040	8,480	5,700	26	6,740	9,660	8,860	6,870	4,590
12	2,000	8,230	9,010	8,400	6,800	27	6,690	9,470	8,850	6,100	4,380
13	2,760	8,670	8,970	6,880	7,000	28	6,720	9,530	9,020	5,690	4,000
14	2,840	9,100	9,130	6,680	6,980	29	6,750	8,420	9,150	6,690	3,910
15	2,060	9,060	9,400	7,570	6,880	30	6,780	7,360	9,240	6,840	3,840
						31	6,530	-	9,200	7,080	-
Total							97,081	224,070	275,950	236,690	178,730
Mean							3,132	7,469	8,902	7,635	5,958
Runoff in acre-feet							192,600	444,400	547,300	469,500	354,500

The season: Max - Min - Mean - Ac-ft 2,008,000

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 1955 (summer months only for some years).
Gage.--Water-stage recorder. Datum of gage is 4,599.0 ft above mean sea level, datum of 1929.
Average discharge.--24 years (1931-55), 5,166 cfs (3,740,000 acre-ft per year).
Extremes.--Maximum discharge during year, 14,100 cfs June 18 (gage height, 9.16 ft); minimum, 1,780 cfs Sept. 15 (gage height, 5.01 ft).
1915-55: 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, 72,000 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 or no gage-height record, which are fair. Some regulation by Jackson Lake (see p. 13), Island Park Reservoir (see p. 33), Henrys Lake (see preceding page), and Grassy Lake (see p. 43). Many diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,610	3,610	2,630	2,800	2,750	2,800	3,700	3,870	7,160	9,120	4,470	2,830
2	2,610	3,660	*2,970	3,150	2,750	2,860	3,700	4,440	10,100	7,560	4,240	2,610
3	2,630	3,630	3,240	3,280	2,750	2,900	3,770	5,150	11,200	5,950	*3,910	2,650
4	2,630	3,560	3,540	3,260	2,740	2,850	3,720	5,630	11,000	5,790	3,770	2,460
5	2,590	3,520	3,660	3,100	2,700	2,970	3,560	5,440	11,500	7,160	3,750	2,580
6	2,520	3,500	3,610	2,850	2,680	2,970	3,540	5,760	11,000	7,330	3,630	2,830
7	2,460	3,500	3,470	2,530	2,700	2,790	*3,500	7,130	9,900	6,770	4,210	3,170
8	2,420	3,430	3,450	2,200	2,720	2,850	3,590	8,620	9,220	4,630	4,880	2,970
9	2,370	3,450	3,190	1,950	2,710	3,000	3,770	9,900	10,400	4,680	4,820	2,970
10	2,370	3,470	2,680	2,000	2,700	3,150	4,060	10,400	11,500	4,850	4,550	3,050
11	2,350	3,470	3,050	2,150	2,670	3,270	4,470	10,300	10,900	5,440	4,180	2,760
12	2,510	3,520	3,400	2,300	2,640	3,400	4,520	10,100	9,680	5,310	3,990	2,670
13	2,780	3,560	3,480	2,500	2,420	3,500	4,260	9,750	10,900	5,600	4,040	2,370
14	3,010	3,630	3,390	2,700	2,400	*3,500	4,010	9,500	*11,300	5,000	4,290	2,160
15	3,320	3,680	3,450	2,720	2,700	3,460	4,110	10,100	11,300	4,440	4,740	2,050
16	3,320	3,750	3,150	2,680	2,940	3,370	4,420	*11,300	10,100	4,080	4,440	2,270
17	a3,320	3,940	2,850	2,700	3,020	3,340	4,420	10,400	11,700	4,550	4,490	2,540
18	a3,220	3,890	2,550	2,780	2,900	3,300	4,490	8,560	13,500	4,490	4,260	3,150
19	*3,220	3,590	2,220	2,820	2,700	3,320	4,820	7,500	13,200	4,140	3,940	3,050
20	a3,200	3,500	1,970	2,830	2,740	3,250	4,790	7,600	11,600	4,420	3,610	2,830
21	a3,200	3,410	2,230	*2,750	2,650	3,300	4,520	8,520	8,700	4,710	3,360	3,030
22	3,200	3,320	2,360	2,650	2,500	3,280	4,240	10,500	6,900	4,850	*3,030	*2,680
23	3,300	3,320	2,450	2,850	2,500	3,300	4,210	12,100	5,760	5,310	2,910	2,370
24	3,430	3,280	2,470	2,830	2,650	3,350	4,290	11,300	6,340	6,150	3,170	2,370
25	3,560	3,220	2,510	2,830	2,800	3,440	4,240	9,790	9,010	6,830	3,360	2,460
26	3,720	3,130	2,460	2,900	2,870	3,480	4,080	8,730	11,000	7,160	3,470	2,930
27	3,700	3,130	2,520	2,900	2,860	3,450	4,240	7,670	10,300	6,400	3,790	2,890
28	3,660	3,070	2,330	2,900	2,860	3,470	4,240	7,060	8,590	5,310	3,910	2,560
29	3,660	3,150	2,120	2,800	-	3,540	4,040	6,210	8,380	4,340	3,820	2,260
30	3,660	2,830	2,000	2,750	------	3,700	3,790	4,760	9,680	4,080	3,410	2,120
31	3,630	------	2,120	2,750	------	3,650	------	4,790	------	4,240	3,130	------
Total	94,180	103,720	87,520	84,210	76,020	100,810	123,110	252,680	301,820	170,670	121,570	79,640
Mean	3,038	3,457	2,823	2,716	2,715	3,252	4,104	8,151	10,060	5,505	3,922	2,655
Ac-ft	186,800	205,700	173,600	167,000	150,800	200,000	244,200	501,200	598,700	338,500	241,100	158,000

Calendar year 1954: Max 26,800 Min 1,970 Mean 5,463 Ac-ft 3,955,000
Water year 1954-55: Max 13,500 Min 1,950 Mean 4,372 Ac-ft 3,166,000

* Discharge measurement made on this day. a No gage-height record; discharge interpolated.
Note.--Stage-discharge relation affected by ice Dec. 11 to Mar. 31.

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 1955 (summer months only 1913-31). 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.--24 years (1931-55), 153 cfs (110,800 acre-ft per year).

Extremes.--Maximum discharge during year, 535 cfs Oct. 30 (gage height, 5.19 ft); minimum observed, 0.3 cfs July 20 (gage height, 1.04 ft).
1913-55: Maximum discharge, 868 cfs May 21, 1921; no flow for many days.

Remarks.--Records good except those for periods of ice effect or no gage-height record, 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 1217: Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a85	*398	195		(*)		a100	117	103	*135	21	13
2	a80	394	*191				a100	*133	*221	221	4	5
3	a75	387	206			(*)	a100	164	214	178	4	4
4	a75	384	266				a100	231	167	128	6	4
5	a72	387	268	(*)			*102	234	152	94	*9	5
6	72	384	268				96	152	150	29	9	*2
7	79	376	282				96	126	102	10	51	4
8	*81	366	251				113	170	99	8	43	9
9	81	356	220				121	98	98	2	18	15
10	90	351	200				159	100	44	1	34	14
11	85	344	200				177	121	8	19	30	26
12	111	339	205				a165	75	4	28	33	7
13	152	335	210				a165	24	10	10	27	5
14	195	331	210				a165	65	7	1	78	4
15	271	325	210				a165	112	*5	4	59	2
16	267	358	195	117	83	78	a165	122	13	6	22	2
17	258	390	185				a165	53	28	19	25	3
18	274	394	170				159	24	92	9	*25	14
19	289	400	160				139	4	126	1	25	30
20	268	387	150				133	8	75	*1	22	16
21	249	376	150				126	4	15	*1	22	26
22	241	365	155				112	2	8	15	40	55
23	256	351	155				132	1	1	a20	28	37
24	390	306	160				144	1	1	a25	31	43
25	443	308	160				144	1	1	a30	29	65
26	474	290	160				135	6	39	a33	36	121
27	452	280	160				129	22	63	34	21	124
28	441	260	150				152	*25	50	53	28	115
29	359	240	140		-		152	12	106	42	32	111
30	494	200	140		- -		128	4	214	9	15	111
31	418	-	145		- -		-----	37	- - - -	14	17	- -
Total	7,177	10,360	5,917	3,627	2,324	2,418	4,041	2,248	2,216	1,180	844	992
Mean	232	345	191	117	83	78	135	72.5	73.9	38.1	27.2	33.1
Ac-ft	14,240	20,550	11,740	7,190	4,610	4,800	8,020	4,460	4,400	2,340	1,670	1,970

Calendar year 1954: Max 494 Min 4 Mean 131 Ac-ft 94,650
Water year 1954-55: Max 494 Min 1 Mean 119 Ac-ft 85,990

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage and records for nearby stations.
Note.--Stage-discharge relation affected by ice Nov. 27 to Dec. 2, Dec. 9-17 and for most of period of no gage-height record Dec. 18 to Mar. 31.

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 1955. 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, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	467	2,930	2,840	3,770	2,340	16	2,460	4,020	3,720	2,670	1,570
2	531	2,160	2,550	3,740	2,290	17	2,830	3,970	3,740	2,790	1,850
3	500	2,050	2,220	3,710	2,380	18	3,240	3,640	3,900	2,920	1,830
4	458	1,900	2,310	3,360	2,320	19	3,510	3,510	3,760	3,080	1,770
5	458	1,880	2,810	3,140	2,350	20	3,780	3,810	3,870	3,040	1,680
6	548	2,030	3,380	3,140	2,370	21	3,970	3,840	4,020	2,750	1,680
7	578	2,410	3,720	3,060	2,480	22	3,980	4,070	4,080	2,610	1,590
8	659	2,670	3,700	2,980	2,400	23	4,120	4,070	4,110	2,460	1,620
9	747	2,940	3,480	3,200	2,330	24	4,150	4,080	4,140	2,630	1,730
10	870	3,500	3,770	3,190	2,270	25	4,090	4,120	4,000	2,570	1,640
11	1,170	3,840	3,780	3,110	2,220	26	4,010	3,930	4,010	2,410	1,580
12	1,470	4,020	3,850	3,150	2,250	27	3,890	3,810	4,000	2,280	1,540
13	1,900	3,890	3,900	2,970	1,660	28	3,710	3,680	3,920	2,340	1,580
14	2,140	3,990	3,900	2,700	1,690	29	3,620	3,560	3,840	2,380	1,590
15	2,310	4,250	3,880	2,660	1,600	30	3,620	2,700	3,760	2,370	1,570
						31	3,340	-----	3,770	2,320	-----
Total							73,126	101,270	112,730	89,500	57,770
Mean							2,359	3,376	3,636	2,887	1,926
Runoff in acre-feet							145,000	200,900	223,600	177,500	114,600

The season: Max - Min - Mean - Ac-ft 861,600

Snake River near Blackfoot, Idaho

Location.--Lat 43°07', long 112°31', in SE¼ sec. 30, T. 3 S., R. 34 E., on right bank 1,000 ft downstream from highway bridge, a quarter of 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 1955. 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.--29 years (1926-55), 3,969 cfs (2,873,000 acre-ft per year).

Extremes.--Maximum discharge during year, 10,600 cfs June 19 (gage height, 6.65 ft); minimum, 304 cfs Sept. 6 (gage height, 0.49 ft).

1910-55: 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. Some regulation by Jackson Lake (see p. 13), Henrys Lake (see p. 43), Island Park Reservoir (see p.33), Grassy Lake (see p. 43), and Blackfoot Marsh Reservoir, having a combined capacity of 1,483,000 acre-ft. About 694,000 acres of land irrigated by diversion above station.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	*3,770	2,680	2,500	*2,530	2,530	3,880	3,080	2,720	*7,230	658	940
2	1,620	3,820	*2,560	3,090	2,500	*2,570	4,110	*3,320	*6,760	6,290	772	695
3	1,630	3,800	3,200	3,100	2,500	2,600	3,970	3,930	8,920	4,990	534	516
4	1,650	3,750	3,520	3,200	2,500	2,450	3,700	4,560	9,450	3,860	403	474
5	1,720	3,710	3,700	*3,020	2,460	2,600	*3,590	4,670	9,570	4,200	*540	403
6	1,660	3,660	3,620	2,660	2,380	2,610	3,500	4,500	9,660	4,270	680	*348
7	1,600	3,620	3,620	2,440	2,400	2,450	3,450	5,180	8,510	3,680	884	522
8	*1,530	3,590	3,540	2,050	2,440	2,400	3,470	6,410	6,780	2,670	1,680	748
9	1,570	3,540	3,350	1,730	2,400	2,540	3,640	7,780	6,980	1,070	1,860	632
10	1,520	3,520	2,760	1,650	2,360	2,820	3,880	8,570	7,850	1,250	1,620	732
11	1,530	3,500	2,960	1,890	2,380	2,960	4,220	8,890	7,390	1,600	1,360	710
12	1,610	3,500	3,210	1,930	2,300	3,090	4,420	8,430	5,620	1,770	1,050	620
13	1,900	3,540	3,570	2,270	2,040	3,160	4,460	7,720	6,310	1,830	1,080	534
14	2,290	3,570	3,420	2,440	2,010	3,140	4,110	7,030	7,060	1,520	1,560	680
15	2,680	3,640	3,550	2,490	2,300	3,090	4,060	7,100	*7,260	948	2,240	594
16	3,180	3,770	3,290	2,420	2,540	3,080	4,270	8,380	6,360	620	2,270	620
17	3,240	3,840	3,040	2,440	2,660	3,040	4,380	8,350	6,730	620	2,020	740
18	3,260	3,970	2,680	2,500	2,440	2,940	4,310	6,260	9,280	748	*1,800	1,100
19	3,270	3,800	2,360	2,600	2,370	2,980	4,560	4,580	10,400	706	1,400	1,820
20	3,150	3,620	2,020	2,610	2,450	2,860	4,690	3,730	9,110	*392	940	1,460
21	3,160	3,550	2,170	2,300	2,340	2,960	4,560	3,800	6,150	*540	688	1,560
22	3,120	3,470	2,330	2,360	2,140	3,030	4,270	4,940	3,930	672	900	1,560
23	3,120	3,430	2,440	2,560	2,120	2,880	4,090	6,730	2,270	836	582	1,340
24	3,470	3,350	2,440	2,510	2,250	3,040	4,110	7,260	1,830	1,620	632	1,030
25	3,660	3,340	2,540	2,510	2,410	3,100	4,160	6,040	3,060	2,440	892	1,040
26	3,860	3,290	2,460	2,530	2,510	3,180	4,040	5,180	6,360	2,900	1,130	1,420
27	3,890	3,240	2,580	2,630	2,490	3,100	3,980	4,370	7,230	2,910	1,420	1,830
28	3,800	3,240	2,460	2,640	2,500	3,120	4,090	*3,640	5,620	2,080	1,660	1,650
29	3,710	3,200	2,220	2,510	-	3,430	3,820	2,160	5,010	1,310	1,820	1,400
30	3,860	3,200	2,050	2,510	------	3,640	3,340	2,160	7,260	639	1,460	1,200
31	3,800	------	2,140	2,500	------	3,590	------	1,380	------	510	1,200	------
Total	81,550	106,840	88,480	76,590	66,720	90,980	121,130	171,120	201,440	66,621	37,735	28,918
Mean	2,631	3,561	2,854	2,471	2,383	2,935	4,038	5,520	6,715	2,149	1,217	964
Ac-ft	161,800	211,900	175,500	151,900	132,300	180,500	240,300	339,400	399,600	132,100	74,850	57,360

Calendar year 1954: Max 24,800 Min 359 Mean 4,061 Ac-ft 2,940,000
Water year 1954-55: Max 10,400 Min 348 Mean 3,118 Ac-ft 2,258,000

* Discharge measurement made on this day.

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, 1½ miles upstream from diversion dam of Portneuf-Marsh Valley Canal Co., and 4 miles west of Lava Hot Springs.

Drainage area.--420 sq mi, approximately (includes that of Bob Smith Creek).

Records available.--January 1913 to September 1915, July 1919 to September 1955. 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.--38 years (1913-15, 1919-55), 197 cfs (142,600 acre-ft per year).

Extremes.--Maximum discharge during year, 276 cfs June 2 (gage height, 3.05 ft); minimum, 88 cfs Sept. 12; minimum gage height, 2.14 ft Sept. 12, 23.
1913-15, 1919-55: Maximum discharge observed, 902 cfs Apr. 3, 1913 (gage height, 6.1 ft, site and datum then in use); minimum observed, 65 cfs Oct. 9, 1934 (gage height, 0.81 ft, site and datum then in use).

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Flow regulated by Portneuf-Marsh Valley Reservoir (capacity, 16,410 acre-ft) and Chesterfield Reservoir on Twentyfourmile 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).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.1	86
2.3	123
2.6	182
3.0	264

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	131	131	133	133	127	172	154	228	190	102	108
2	108	127	133	133	133	125	198	158	262	176	102	106
3	108	135	135	131	133	125	172	160	254	176	102	106
4	112	135	*139	133	130	123	162	156	241	152	100	100
5	114	135	137	133	130	123	151	156	220	151	100	99
6	112	137	137	130	130	123	151	162	200	149	100	95
7	112	137	143	128	131	125	156	172	190	168	100	91
8	110	137	139	125	131	123	162	184	182	170	99	91
9	110	133	131	130	131	125	166	190	178	170	100	93
10	110	133	135	133	131	129	172	184	170	166	99	93
11	112	133	137	*133	130	133	170	186	162	160	99	93
12	112	139	135	131	129	137	164	186	162	141	99	93
13	117	137	139	130	129	139	160	188	182	123	108	93
14	115	133	135	130	130	135	162	192	198	110	104	93
15	114	135	135	130	131	129	160	194	204	106	104	93
16	115	151	133	133	131	127	156	192	206	112	104	91
17	114	141	131	132	132	129	158	182	200	114	104	93
18	114	139	127	132	128	129	156	166	198	110	108	99
19	117	137	129	132	128	131	152	158	196	108	110	93
20	119	137	133	132	128	127	152	158	*194	110	106	93
21	121	137	133	132	129	125	152	166	188	110	106	93
22	115	133	131	132	129	129	154	204	188	108	110	91
23	119	133	131	133	129	125	154	*216	194	110	108	93
24	123	133	129	133	*129	129	154	218	194	114	102	95
25	125	131	131	133	131	129	158	220	192	*115	*106	100
26	125	131	130	133	131	*127	156	208	190	119	114	102
27	123	129	128	133	129	129	*154	200	188	115	115	100
28	124	129	125	132	127	137	151	202	188	108	119	100
29	*125	129	128	130	-	147	149	208	194	104	115	100
30	125	133	131	131	---	152	151	214	190	104	114	100
31	129	-	-	133	133	147	-----	220	- - - -	104	110	-- -
Total	3,607	4,040	4,124	4,079	3,643	4,040	4,785	5,754	5,933	4,073	3,269	2,890
Mean	116	135	133	132	130	130	160	186	198	131	105	96.3
Ac-ft	7,150	8,010	8,180	8,090	7,230	8,010	9,490	11,410	11,770	8,080	6,480	5,730

Calendar year 1954: Max 305 Min 90 Mean 165 Ac-ft 119,200
Water year 1954-55: Max 262 Min 91 Mean 138 Ac-ft 99,630

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 28, Dec. 26-30, Jan. 6-10, Jan. 13 to Feb. 22; discharge estimated on basis of weather records, discharge for adjacent periods, and records for station at Pocatello.

Marsh Creek near McCammon, Idaho

Location.--Lat 42°37'50", long 112°13'30", in NE¼ sec. 22, T. 9 S., R. 36 E., near center on 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 1955.

Gage.--Wire-weight gage read once or twice daily.

Extremes.--Maximum discharge observed during year, 147 cfs Mar. 13 (gage height, 4.10 ft); minimum observed, 29 cfs Feb. 3, July 24; minimum gage height observed, 2.00 ft Feb. 3 (result of ice jam upstream).

Remarks.--Records good except those for period June 25 to Sept. 30, which are fair. Diversions above station for irrigation. Part of Birch Creek (tributary to Marsh Creek) diverted into Devil Creek in Bear River basin.

Rating table, Sept. 27, 1954, to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 27 to Oct. 26, Oct. 29, Nov. 27, 1954, June 15 to Sept. 30, 1955)

2.0	26	3.5	106
2.5	49	4.1	146
3.0	76		

Discharge, in cubic feet per second, 1954

Sept. 27..... *79
28..... *74
29..... 74
30..... 72

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	77	73	72	74	62	81	64	50	46	44	55
2	72	76	80	77	75	67	75	64	75	47	42	53
3	71	77	81	78	29	69	69	66	75	46	40	52
4	69	76	*91	78	30	71	77	69	77	45	40	50
5	72	75	88	56	69	56	80	65	74	44	40	50
6	71	75	83	58	62	58	81	60	73	42	40	48
7	71	76	80	57	74	60	82	58	70	39	38	46
8	72	75	79	56	72	73	82	56	54	39	40	46
9	73	74	78	58	69	74	84	56	50	38	38	46
10	74	74	78	64	65	89	86	54	45	38	38	48
11	75	74	78	*71	64	110	77	52	43	41	38	50
12	74	74	78	75	57	119	75	52	43	41	38	50
13	78	75	78	75	58	140	77	51	42	40	38	50
14	78	75	78	75	61	105	75	52	43	36	54	48
15	78	80	77	56	61	90	73	52	43	34	51	48
16	78	84	78	68	68	79	70	48	44	33	49	48
17	78	84	75	66	72	79	76	46	44	33	49	48
18	77	78	76	68	62	78	78	46	46	32	51	50
19	77	75	76	71	37	77	71	46	42	30	52	50
20	78	75	77	70	54	60	69	44	*48	31	52	51
21	78	74	77	66	60	68	67	44	45	30	52	51
22	77	74	77	64	67	72	67	42	44	30	52	50
23	75	74	73	64	75	77	65	*46	42	30	52	50
24	77	74	70	66	*62	83	65	43	42	29	51	50
25	78	72	73	68	66	83	66	41	39	*42	*56	56
26	79	73	60	60	68	*84	71	40	40	39	84	56
27	80	73	59	59	65	83	*79	42	42	38	72	56
28	80	73	44	58	64	83	73	42	42	34	68	56
29	80	72	62	58	-	89	68	42	42	36	66	57
30	*81	72	68	69	------	99	67	40	46	36	63	58
31	76	------	70	73	------	87	------	43	------	40	63	------
Total	2,349	2,260	2,315	2,054	1,740	2,524	2,226	1,566	1,505	1,159	1,551	1,527
Mean	75.8	75.3	74.7	66.3	62.1	81.4	74.2	50.5	50.2	37.4	50.0	50.9
Ac-ft	4,660	4,480	4,590	4,070	3,450	5,010	4,420	3,110	2,990	2,300	3,080	3,030

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 140 Min 29 Mean 62.4 Ac-ft 45,190

* Discharge measurement made on this day.

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.--1,000 sq mi, approximately.

Records available.--May to September 1897, March 1898 to October 1899, August 1911 to September 1955.

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 14, 1927, and Oct. 13, 1927, to June 14, 1928, staff gages at sites near Carson Street Bridge 0.8 mile downstream at different datums. May 14, to Oct. 13, 1927, water-stage recorder at site 1.1 miles downstream at different datum. June 14, 1928, to Sept. 22, 1950, water-stage recorder at sites near Carson Street Bridge 0.8 mile downstream at same datum as former staff gage at this site.

Average discharge.--42 years (1912-16, 1917-55), 256 cfs (185,300 acre-ft per year).

Extremes.--Maximum discharge during year, 376 cfs Apr. 2 (gage height, 5.32 ft); minimum, 13 cfs July 22 (gage height, 3.52 ft).
1897-99, 1911-55: Maximum discharge, more than 2,000 cfs sometime during period May 13 to June 14, 1917; minimum, 5 cfs July 31, 1942, from rating curve extended below 40 cfs.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Portneuf-Marsh Valley Reservoir (capacity, 16,410 acre-ft) and Chesterfield Reservoir (capacity, 685 acre-ft). Diversions above station for irrigation of about 33,000 acres.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.5	13	4.6	155
3.7	22	5.0	256
3.9	40	6.0	616
4.2	78		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	125	212	240	245	230	a325	286	78	63	47	80
2	83	131	215	240	245	225	a360	283	105	72	37	74
3	81	133	225	240	240	220	a350	271	185	70	38	70
4	84	129	*242	235	220	220	a320	259	215	63	37	67
5	83	131	245	225	225	220	a300	234	192	58	41	64
6	84	131	250	200	225	225	296	218	183	59	39	61
7	83	129	250	175	230	225	a295	225	157	55	38	61
8	80	135	239	170	230	230	a300	a230	146	41	43	61
9	83	133	228	200	230	240	a310	a240	122	36	43	63
10	86	127	231	230	230	250	a330	a250	118	33	37	63
11	86	137	239	*240	225	270	a325	245	105	40	40	63
12	89	169	236	240	220	316	a320	a230	83	47	39	67
13	92	176	239	220	220	344	a315	a220	86	39	46	60
14	98	180	242	220	225	350	316	a200	83	40	44	58
15	103	178	242	210	a230	299	a315	a190	83	35	52	58
16	110	190	236	230	a230	a270	a310	a180	83	37	52	60
17	125	223	228	230	a235	a260	a305	a170	80	22	58	58
18	114	215	218	225	a220	a260	a300	a140	74	20	59	59
19	116	212	223	225	a220	a270	a300	a125	67	24	60	59
20	120	202	235	230	a220	274	a295	110	*67	15	64	65
21	112	197	240	230	a220	a265	a295	107	59	16	65	68
22	108	197	240	230	a225	a270	299	108	54	15	60	72
23	101	192	235	235	*235	a270	a295	*101	51	17	56	72
24	103	195	240	235	240	a275	a290	98	55	20	60	74
25	99	195	240	240	240	277	286	86	55	*35	*68	80
26	99	192	230	240	240	*271	*309	86	52	38	89	86
27	101	195	225	240	240	a270	312	71	43	41	165	91
28	99	195	195	230	240	a280	302	49	43	40	99	91
29	*103	197	220	210	-	a310	289	50	49	43	96	91
30	116	200	235	210	------	a315	286	51	67	43	91	80
31	118	------	240	240	------	a310	------	67	------	40	86	------
Total	3,043	5,141	7,215	6,965	6,445	8,311	9,250	5,180	2,840	1,217	1,849	2,076
Mean	98.2	171	233	225	230	268	308	167	94.7	39.3	59.6	69.2
Ac-ft	6,040	10,200	14,310	13,810	12,780	16,480	18,350	10,270	5,630	2,410	3,670	4,120

Calendar year 1954: Max 493 Min 22 Mean 180 Ac-ft 130,600
Water year 1954-55: Max 360 Min 15 Mean 163 Ac-ft 118,100

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station at Topaz.
Note.--Stage-discharge relation affected by ice Dec. 20 to Mar. 11.

Bannock Creek near Pocatello, Idaho

Location.--Lat 42°41'40", long 112°35'40", in NE¼SE¼ sec. 28, T. 8 S., R. 33 E., in Fort Hall Indian Reservation, on right bank 0.3 mile upstream from Rattlesnake Creek, 9½ miles north of Pauline, and 14 miles southwest of Pocatello.

Drainage area.--230 sq mi.

Records available.--May to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,710 ft (from topographic map).

Extremes.--Maximum discharge during period, 30 cfs June 3 (gage height, 2.45 ft); minimum, 7.3 cfs July 10 (gage height, 1.94 ft).

Remarks.--Records good except those for periods of no gage-height record, which are poor. Diversions for irrigation above station. Measurements of Rattlesnake Creek made about once a month to supplement this record (see p. 303).

Rating table, May 1 to Sept. 30, 1955 (gage height in feet, and discharge, in cubic feet per second)

1.9	6.4
2.0	8.6
2.1	12
2.3	20
2.5	33

Discharge, in cubic feet per second, May to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								a23	23	9.5	8.9	12
2								a23	26	9.5	8.9	12
3								a24	28	9.5	8.6	12
4								a24	26	9.5	8.6	11
5								*23	24	8.6	8.9	11
6								a22	21	8.4	9.8	11
7								a22	20	8.2	10	11
8								a21	18	8.4	10	11
9								a21	*16	7.7	10	12
10								a21	14	7.5	9.8	12
11								a21	14	7.7	10	12
12								a21	12	7.9	10	12
13								a22	10	7.9	11	10
14								a23	12	8.6	9.8	9.8
15								a24	12	8.6	9.2	9.8
16								a22	12	8.6	9.2	9.8
17								a21	15	8.2	8.9	11
18								a20	14	8.6	9.2	11
19								a19	14	8.9	9.5	12
20								a18	*14	9.2	8.9	14
21								18	13	9.2	8.6	11
22								*17	13	9.5	8.9	11
23								17	11	9.8	8.6	11
24								16	11	11	8.4	11
25								16	11	*11	9.5	11
26								16	10	10	*11	11
27								16	8.6	10	10	11
28								15	8.9	9.8	10	11
29								15	9.2	9.5	9.5	12
30					------			18	9.8	9.2	11	13
31		------			------		------	20	------	8.9	12	------
Total								619	450.5	278.9	296.7	339.4
Mean								20.0	15.0	9.00	9.57	11.3
Ac-ft								1,230	894	553	588	673

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

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

American Falls Reservoir at American Falls, Idaho

Location.--Lat 42°46', long 112°53', 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 1955.

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

Extremes.--Maximum contents during year, 1,719,000 acre-ft Apr. 4 (elevation, 4,354.84 ft); minimum, 257,000 acre-ft Sept. 28 (elevation, 4,316.33 ft).
1926-55: Maximum contents, 1,729,000 acre-ft June 26, 1951 (elevation, 4,355.02 ft); minimum since full capacity was attained on 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 ft (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.

Contents, in thousands of acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	630	807	992	1,171	1,340	1,548	1,708	1,705	1,563	1,434	990	541
2	635	811	995	1,177	1,346	1,555	1,708	1,700	1,555	1,435	975	528
3	643	816	999	1,184	1,351	1,561	1,713	1,699	1,555	1,433	956	514
4	651	820	1,004	1,191	1,359	1,566	1,715	1,705	1,560	1,424	939	499
5	655	825	1,015	1,197	1,366	1,573	1,715	1,707	1,562	1,417	922	483
6	659	832	1,026	1,203	1,373	1,581	1,713	1,707	1,567	1,409	904	468
7	663	844	1,029	1,210	1,380	1,589	1,711	1,710	1,569	1,399	888	451
8	668	853	1,039	1,214	1,386	1,595	1,710	1,707	1,569	1,391	872	436
9	670	856	1,047	1,217	1,393	1,601	1,710	1,711	1,566	1,377	859	422
10	679	859	1,050	1,221	1,401	1,607	1,707	1,715	1,558	1,358	847	409
11	683	862	1,054	1,225	1,409	1,615	1,711	1,717	1,553	1,341	832	395
12	688	864	1,064	1,229	1,417	1,622	1,713	1,716	1,545	1,328	817	380
13	693	869	1,071	1,233	1,424	1,629	1,715	1,710	1,535	1,313	800	368
14	699	881	1,080	1,238	1,431	1,637	1,712	1,699	1,526	1,297	785	355
15	701	889	1,085	1,243	1,438	1,644	1,712	1,695	1,521	1,280	773	342
16	702	892	1,090	1,249	1,446	1,650	1,713	1,695	1,518	1,261	760	331
17	709	897	1,096	1,254	1,455	1,655	1,712	1,694	1,515	1,242	750	319
18	715	904	1,102	1,260	1,464	1,660	1,709	1,692	1,515	1,223	739	310
19	716	909	1,110	1,265	1,472	1,664	1,704	1,687	1,517	1,205	726	301
20	721	913	1,117	1,271	1,479	1,670	1,715	1,679	1,521	1,186	711	295
21	725	924	1,120	1,274	1,488	1,675	1,717	1,666	1,521	1,171	696	290
22	728	935	1,123	1,281	1,497	1,678	1,714	1,652	1,515	1,154	680	287
23	731	941	1,127	1,287	1,502	1,683	1,715	1,649	1,501	1,136	664	284
24	751	946	1,132	1,292	1,512	1,686	1,715	1,641	1,483	1,117	649	281
25	756	951	1,135	1,298	1,517	1,693	1,715	1,637	1,472	1,102	636	277
26	761	953	1,140	1,304	1,525	1,696	1,710	1,627	1,461	1,087	624	271
27	765	958	1,146	1,310	1,534	1,699	1,706	1,615	1,455	1,070	610	268
28	771	971	1,151	1,315	1,541	1,702	1,711	1,609	1,451	1,056	596	262
29	776	983	1,155	1,321	-	1,704	1,710	1,599	1,439	1,040	583	263
30	784	985	1,161	1,328	-------	1,704	1,708	1,586	1,439	1,025	569	264
31	796	-------	1,164	1,334	-------	1,706	-------	1,575	-------	1,007	555	-------
(†)	4,335.25	4,340.03	4,344.06	4,347.57	4,351.59	4,354.60	4,354.65	4,352.24	4,349.65	4,340.55	4,328.00	4,316.61
(‡)	+169	+189	+179	+170	+207	+165	+2	-133	-136	-432	-452	-291

Calendar year 1954: (‡) -37
Water year 1954-55: (‡) -363

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

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 nontributary area on Snake River plains.

Records available.--March 1906 to September 1955. Monthly discharge 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 from present site and at datum 0.4 ft higher than present datum.

Average discharge.--29 years (1926-55), 6,718 cfs (4,864,000 acre-ft per year).

Extremes.--Maximum discharge during year, 14,400 cfs June 12 (gage height, 7.06 ft); minimum, 103 cfs Nov. 6 (gage height, 1.22 ft).
1906-55: 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 usable capacity of 3,200,000 acre-ft. About 740,000 acres of land irrigated by water diverted from river and tributaries upstream from station.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 26 to Aug. 8)

1.4	121	3.5	1,350
1.7	165	4.0	2,070
2.0	240	5.0	4,920
2.3	360	6.0	9,070
2.6	530	7.0	14,100
3.0	830		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,830	4,180	3,260	*2,470	2,170	1,730	6,040	7,460	10,800	*10,400	11,500	10,500
2	167	4,240	3,330	2,450	2,200	1,860	6,080	7,040	10,600	10,400	11,600	10,400
3	158	4,270	3,260	2,490	2,020	1,890	6,040	5,670	10,300	10,400	12,100	10,600
4	2,620	4,270	1,840	2,600	1,840	3,560	6,570	5,890	10,200	10,500	*12,400	10,700
5	2,620	4,270	153	2,520	1,830	383	7,210	6,650	10,400	10,700	12,400	*10,900
6	2,620	133	3,310	2,790	1,850	1,580	7,340	7,210	10,700	11,300	11,800	11,000
7	2,620	131	3,320	2,650	1,890	1,740	7,040	7,870	11,400	12,000	11,400	10,700
8	*2,640	4,750	3,280	2,570	1,000	1,990	6,240	8,420	11,800	12,100	11,100	10,400
9	144	4,710	3,280	2,580	1,020	1,990	5,890	8,880	12,100	12,200	10,900	10,400
10	131	4,710	*3,300	2,570	1,040	1,970	5,930	9,690	12,600	12,200	11,200	10,300
11	2,610	*4,710	1,890	2,560	1,020	2,560	5,890	11,100	12,900	*12,200	11,800	10,300
12	2,870	4,790	148	2,480	1,010	2,460	5,890	12,700	13,600	12,200	12,000	10,100
13	2,870	1,170	3,350	2,430	1,010	2,470	6,910	13,500	13,700	12,200	12,000	9,650
14	4,510	1,170	3,340	2,450	1,020	2,770	7,430	*13,100	*12,900	12,300	11,700	9,310
15	5,270	4,630	3,340	2,380	1,040	2,520	7,430	12,100	11,900	12,600	10,900	9,170
16	2,500	4,220	3,320	2,360	1,020	2,820	7,430	11,200	11,100	12,700	10,400	9,170
17	2,500	4,220	3,280	2,470	1,050	3,180	7,430	10,900	10,300	12,800	10,400	*8,840
18	5,260	4,220	1,860	2,470	1,030	3,240	7,430	11,000	10,400	12,500	*11,000	8,320
19	4,320	4,240	153	2,480	*1,040	3,270	6,040	10,800	10,600	11,900	11,500	7,560
20	4,300	2,080	3,300	3,470	1,050	3,270	5,380	11,300	10,700	11,500	11,800	6,780
21	4,320	151	3,280	1,660	1,060	3,300	7,040	11,700	10,700	11,600	11,800	6,280
22	4,320	3,320	3,280	*2,230	1,070	3,300	7,690	11,900	11,300	11,900	11,600	6,120
23	*138	3,200	3,120	2,540	1,220	3,330	*7,430	11,900	12,000	12,400	10,700	6,080
24	144	3,240	2,870	2,360	1,360	3,330	7,430	12,100	12,500	11,800	10,300	6,080
25	4,390	3,260	2,880	2,320	1,300	3,430	7,430	12,200	12,000	12,900	10,200	6,080
26	4,120	*3,350	2,860	2,340	1,330	*4,120	7,430	12,200	11,600	13,000	10,700	6,040
27	4,100	1,220	2,750	2,470	1,320	4,570	7,470	11,900	11,600	*13,000	11,200	6,040
28	3,880	1,210	2,730	2,340	1,330	4,570	7,470	11,300	11,600	12,500	11,100	5,520
29	3,820	3,640	2,650	2,140	-	5,490	7,470	11,000	11,400	12,600	11,300	4,540
30	142	3,350	2,580	2,090	------	6,040	7,510	10,900	10,800	12,000	11,400	4,540
31	126	------	2,590	2,140	------	6,040	------	*10,800	------	11,700	10,800	------
Total	83,060	97,055	83,904	75,870	37,140	94,773	206,010	320,380	344,500	370,500	351,000	252,420
Mean	2,679	3,235	2,707	2,447	1,326	3,057	6,867	10,330	11,480	11,950	11,320	8,414
Ac-ft	164,700	192,500	166,400	150,500	73,670	188,000	408,600	635,500	683,300	734,900	696,200	500,700

Calendar year 1954: Max 20,500 Min 126 Mean 6,754 Ac-ft 4,890,000
Water year 1954-55: Max 13,700 Min 126 Mean 6,347 Ac-ft 4,595,000

* Discharge measurement made on this day.

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.--182 sq mi.
Records available.--May to September 1955.
Gage.--Water-stage recorder. Altitude of gage is 4,720 ft (from topographic map).
Extremes.--Maximum discharge during period, 16 cfs Aug. 26 (gage height, 2.62 ft); no flow for long periods.
Remarks.--Records fair. Practically entire flow diverted for irrigation above station during growing season. Measurements of East Fork made about once a month to supplement this record (see p. 303).

Rating table, May 16 to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	1.4	1.6
1.1	.1	1.7	4.1
1.2	.5	2.0	7.1

Discharge, in cubic feet per second, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-	0	0	0.3	0.3	16	0.1	2.6	0	0	0
2	-	0	0	0	.3	17	0	0	0	0	0
3	-	0	0	0	.3	18	*0	0	.1	0	0
4	-	0	0	0	.4	19	0	0	0	0	0
5	†5.8	0	0	0	.3	20	0	0	0	0	0
6	-	0	0	.3	.2	21	0	*0	0	0	0
7	-	0	0	0	0	22	*0	0	0	0	0
8	-	0	0	0	0	23	0	0	0	0	0
9	-	0	0	0	0	24	0	0	.2	0	0
10	-	0	0	0	0	25	0	0	0	.5	0
11	-	0	0	0	0	26	0	0	*0	*1.0	0
12	-	0	0	0	0	27	0	0	0	.1	0
13	-	0	0	0	0	28	0	0	0	.2	0
14	-	0	0	0	0	29	0	0	.1	.1	0
15	-	3.6	0	0	0	30	0	0	0	.1	0
						31	0	-	0	.2	-
Total							-	6.2	0.4	2.8	1.8
Mean							-	0.21	0.01	0.09	0.06
Runoff in acre-feet							-	12	0.8	5.6	3.6

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

RAFT RIVER BASIN

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 to September 1955.
Gage.--Water-stage recorder. Altitude of gage is 4,980 ft (by barometer).
Average discharge.--7 years (1946-53), 23.4 cfs (16,940 acre-ft per year).
Extremes.--Maximum discharge during period, 107 cfs Aug. 26 (gage height, 2.40 ft); minimum, 6.7 cfs Sept. 5, 8, 9, 10 (gage height, 1.22 ft).
1946-53, 1955: 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 determination of peak flow; minimum, 1.2 cfs Jan. 13, 1950 (gage height, 0.90 ft), caused by ice jam upstream.
Remarks.--Records good except those for period of no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in cubic feet per second, 1955

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	a14	13	8.9	8.3	8.3	16	14	13	7.7	8.0	7.0
2	a14	13	8.6	19	8.0	17	13	12	7.7	7.7	7.4
3	a14	11	8.3	11	7.7	18	12	11	7.7	30	7.7
4	a14	12	8.6	9.9	7.7	19	11	*10	8.0	11	8.0
5	13	11	8.0	8.9	7.4	20	9.4	9.9	8.3	8.9	8.0
6	13	9.9	8.0	9.9	7.0	21	*9.4	8.9	8.3	8.3	8.0
7	12	9.4	8.0	9.9	7.0	22	10	8.9	9.4	7.7	7.7
8	13	9.4	8.0	8.9	7.0	23	9.9	8.6	*29	7.7	7.7
9	13	8.6	8.0	8.6	6.7	24	11	9.4	35	*7.7	7.7
10	13	8.6	8.6	8.6	7.0	25	12	8.6	30	15	7.4
11	13	8.9	8.9	8.3	7.4	26	11	8.6	11	37	7.0
12	*13	8.9	8.6	7.7	7.7	27	11	9.4	9.9	14	7.0
13	14	9.4	8.3	8.0	7.4	28	9.9	9.4	8.3	11	7.0
14	15	11	8.0	8.3	7.0	29	9.9	8.6	8.0	9.4	7.0
15	16	11	8.3	8.0	7.0	30	9.9	9.4	8.0	8.6	7.4
						31	12	-	8.3	8.6	-
Total							379.4	300.8	329.7	343.9	222.3
Mean							12.2	10.0	10.6	11.1	7.41
Runoff in acre-feet							753	597	654	682	441

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Marsh Creek and other nearby streams.
Note.--Result of discharge measurement Apr. 25, 18 cfs.

Clear Creek near Naf, Idaho

Location.--Lat 41°58'15", long 113°17'15", in NE¼SW¼ 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 (fragmentary), June to December 1912 (gage heights only), October 1944 to September 1955. Monthly discharge only for October 1944, published in WSP 1317.

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

Average discharge.--11 years (1944-55), 9.43 cfs (6,830 acre-ft per year).

Extremes.--Maximum discharge during year, 73 cfs June 9 (gage height, 1.81 ft); minimum, 0.3 cfs Aug. 11, 12 (gage height, 1.02 ft).
1910-11, 1944-55: Maximum discharge observed, 180 cfs May 13, 1910; minimum, 0.1 cfs several times during summers 1952-54.

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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	0.2	1.6	36
1.2	2.6	1.8	71
1.3	7.2	2.0	114
1.4	14		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	1.4	(*)				1.5	3.7	28	12	2.9	1.0
2	.9	1.4					1.6	3.7	26	11	2.9	*.9
3	.9	1.3					1.6	3.3	24	10	1.6	1.0
4	1.0	1.3			(*)	(*)	1.7	3.3	22	9.8	1.4	.9
5	*1.0	1.3					1.7	4.6	23	11	2.3	.9
6	1.0	*1.3					1.8	6.1	30	12	3.3	.7
7	.9	1.3	b1.0	(*)			1.8	7.8	44	11	2.9	.6
8	.9	1.3			1.0	0.8	1.9	10	65	*10	2.3	.7
9	.9	1.1					1.9	9.1	69	7.2	2.3	.8
10	.9	1.3					1.9	7.8	*67	6.1	*2.1	.7
11	1.0	1.4					2.0	8.5	65	9.1	1.1	.5
12	1.0	2.3					2.0	9.1	62	9.1	1.0	.5
13	1.1	1.6					2.1	13	58	7.8	3.3	.4
14	1.1	1.4	.9				2.1	15	56	7.2	3.3	.4
15	1.1	1.4	.9				2.3	14	50	6.6	2.3	.5
16	1.1	2.9	.9	1.0			2.3	13	47	6.6	3.7	.6
17	1.1	1.6					2.6	12	39	6.1	2.9	.9
18	1.1	1.4					2.6	11	33	4.6	2.6	1.3
19	1.1	1.3					2.1	*12	32	4.1	1.4	1.6
20	1.1	1.3				1.0	2.1	15	33	5.6	1.1	1.6
21	1.1	1.3					2.1	20	*35	5.1	1.6	1.1
22	1.0	1.3			.8		2.1	26	33	5.6	1.6	1.1
23	1.0	1.3					2.1	*33	31	5.6	1.6	1.1
24	1.3	1.1	1.0				2.1	41	28	6.1	1.6	1.1
25	1.4	1.1					*2.6	33	26	5.6	2.3	1.6
26	1.4	1.0				1.1	3.3	27	22	2.6	3.3	1.6
27	1.3	1.0				1.2	2.6	22	21	2.3	2.6	1.3
28	1.4	.7				1.3	2.3	20	17	4.1	2.9	.9
29	1.4	b.8			-	1.4	2.3	22	17	4.1	1.8	1.0
30	1.4	b.8			------	1.4	2.9	28	16	3.7	1.4	1.0
31	1.4	------			------	*1.5	------	32	------	3.3	1.1	------
Total	34.2	40.0	30.7	31.0	25.4	29.9	64.0	486.0	1,119	215.0	68.5	28.3
Mean	1.10	1.33	0.99	1.0	0.91	0.96	2.13	15.7	37.3	6.94	2.21	0.94
Ac-ft	68	79	61	61	50	59	127	964	2,220	426	136	56

Calendar year 1954: Max 38 Min - Mean 3.81 Ac-ft 2,760
Water year 1954-55: Max 69 Min - Mean 5.95 Ac-ft 4,310

Peak discharge (base, 70 cfs).--June 9 (7 to 9 p.m.) 73 cfs (1.81 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 1-4 and Dec. 17 to Apr. 13; discharge estimated on basis of 4 discharge measurements and weather records.

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 1955.

Gage.--Staff gage and glass tubes connected to lake through pipes; gage 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 at same datum.

Extremes.--Maximum contents during year, 99,040 acre-ft Aug. 23 (gage height, 45.32 ft); minimum, 35,500 acre-ft Oct. 14 (gage height, 39.57 ft).
1909-55: 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 began in 1906. Capacity, 107,240 acre-ft between gage heights 36.00 ft (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.

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85,290	37,260	70,180	71,830	69,740	69,190	73,620	92,160	95,180	93,320	96,990	95,910
2	80,830	39,960	70,730	72,050	69,520	70,070	72,260	93,090	94,950	94,140	95,310	95,550
3	72,940	42,920	71,500	72,260	69,300	70,290	73,840	94,020	93,440	94,490	94,020	94,840
4	66,880	46,090	71,280	72,720	68,970	70,840	74,520	95,180	94,490	94,490	94,250	94,490
5	64,800	49,570	69,960	72,720	68,640	72,720	77,450	94,720	93,090	94,840	94,720	94,250
6	63,150	51,820	66,550	72,830	68,530	69,850	80,830	94,250	93,670	92,740	95,670	94,720
7	60,200	47,040	66,770	72,720	68,090	69,410	85,400	95,310	93,090	91,920	95,910	95,430
8	57,190	43,340	70,290	72,830	68,310	69,520	88,660	92,620	93,550	92,620	95,670	95,180
9	53,750	47,990	71,170	72,720	67,870	70,180	90,410	92,160	92,160	92,160	95,180	94,600
10	46,510	51,280	70,510	72,720	67,870	70,510	90,290	91,460	90,990	91,920	94,950	95,180
11	39,130	55,470	70,950	72,720	68,310	70,840	92,160	90,880	91,230	91,460	94,720	95,670
12	37,080	58,910	68,750	72,490	68,090	70,510	94,490	90,990	90,760	92,160	95,430	95,430
13	35,920	62,600	65,230	71,940	68,200	70,730	95,430	91,460	93,090	93,320	95,790	95,910
14	36,020	59,770	66,770	72,260	68,310	69,630	95,180	92,160	95,070	93,320	96,870	95,550
15	38,400	57,410	66,990	72,260	68,310	69,850	95,310	94,720	94,720	94,140	96,630	94,720
16	41,650	60,100	69,190	72,160	68,090	69,850	95,670	96,390	94,600	93,670	96,150	94,020
17	38,510	64,360	70,840	71,830	68,310	70,290	95,670	96,390	94,840	94,720	94,720	94,250
18	38,820	67,870	70,730	72,050	68,530	70,510	93,550	96,030	94,370	95,790	93,320	94,840
19	41,020	70,730	69,520	71,830	68,420	70,950	92,970	95,670	94,250	96,390	93,320	94,600
20	43,550	72,490	66,220	71,830	68,200	71,170	94,600	95,180	94,250	95,790	94,370	94,720
21	45,450	71,280	67,430	73,500	68,530	71,390	93,900	94,140	94,250	94,370	96,630	92,860
22	47,140	67,650	68,750	71,720	68,750	71,170	93,440	94,020	93,790	94,020	98,320	93,550
23	46,720	68,860	69,630	71,390	68,970	71,830	93,900	94,140	92,620	93,790	98,920	93,200
24	41,230	70,070	70,070	71,720	68,970	71,830	94,490	92,740	92,390	94,720	98,080	92,160
25	36,330	71,170	70,290	71,830	69,300	72,380	94,720	93,550	94,370	93,550	96,270	92,160
26	38,720	71,170	70,730	71,830	69,410	72,490	94,140	93,900	94,490	95,910	93,550	92,620
27	40,800	68,750	70,950	71,390	69,630	72,490	93,090	94,720	94,950	96,030	93,900	93,440
28	42,390	68,970	71,390	71,390	69,630	72,490	94,250	96,750	94,140	97,230	94,250	92,390
29	44,820	67,430	71,280	71,500	-	72,720	94,020	97,350	92,740	97,590	94,950	92,860
30	45,980	68,750	71,170	70,730	-------	72,260	94,140	96,390	94,490	97,840	95,910	93,550
31	40,910	-------	71,940	70,070	-------	73,170	-------	96,390	-------	97,960	96,630	-------
(†)	40.09	42.68	42.97	42.80	42.76	43.08	44.91	45.10	44.14	45.23	45.12	44.86
(‡)	-48,220	+27,840	+3,190	-1,870	-440	+3,540	+20,970	+2,250	-1,900	+3,470	-1,330	-3,080

Calendar year 1954: (‡) +1,650
Water year 1954-55: (‡) +4,420

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

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 1955. 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 benchmark). April to November 1910 at datum 0.08 ft higher.

Average discharge.--14 years (1941-55), 611 cfs (442,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,780 cfs July 19 (gage height, 10.08 ft); no flow Oct. 26 to Apr. 17.
1909-55: Maximum discharge, 1,810 cfs July 9, 1953 (gage height, 10.19 ft); no flow during most winters.

Remarks.--Records excellent. Flow controlled by headgates. Canal diverts water from Snake River 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	686						0	306	*1,260	1,170	*1,620	1,380
2	670						0	358	1,170	1,160	1,590	1,410
3	646						0	382	1,060	1,150	1,590	1,400
4	630						0	417	1,030	1,150	1,590	1,380
5	640						0	546	1,060	1,250	1,580	1,380
6	666						0	728	1,140	1,450	1,490	1,380
7	666						0	826	1,320	1,530	1,410	*1,360
8	690						0	958	1,510	1,590	1,360	1,310
9	696						0	1,140	1,560	1,680	*1,320	1,250
10	664						0	1,290	1,580	1,690	1,350	1,170
11	630						0	1,480	*1,630	1,690	1,390	1,150
12	620						0	1,560	1,660	*1,690	1,460	1,110
13	*521						0	1,600	1,660	1,700	1,480	1,090
14	*363						0	1,620	1,630	1,700	1,450	1,080
15	314						0	1,640	1,370	1,710	1,380	1,050
16	320						0	1,640	1,120	1,740	*1,340	981
17	312						0	1,630	1,010	1,760	1,330	875
18	314						93	1,630	*979	1,770	1,370	720
19	320						159	1,620	979	1,770	1,350	600
20	324						233	1,620	1,010	1,760	1,260	564
21	329						269	1,610	1,070	1,760	1,230	556
22	331						227	1,610	1,270	1,760	1,290	556
23	329						208	1,620	1,380	1,730	*1,380	554
24	320						208	1,650	1,350	1,700	1,430	552
25	110						209	1,650	1,270	1,680	1,470	552
26	0						234	1,610	1,290	1,700	1,460	570
27	0						251	1,530	1,380	*1,700	1,440	582
28	0						*252	1,490	*1,470	1,690	1,420	602
29	0						251	1,490	1,370	1,660	1,400	*616
30	0				------		290	1,410	1,190	1,640	1,380	616
31	0	------			------		------	1,290	------	1,630	1,380	------
Total	12,111	0	0	0	0	0	2,884	39,951	38,778	49,760	43,990	28,396
Mean	391	0	0	0	0	0	96.1	1,289	1,293	1,605	1,419	947
Ac-ft	24,020	0	0	0	0	0	5,720	79,240	76,910	98,700	87,250	56,320

Calendar year 1954: Max 1,740 Min 0 Mean 629 Ac-ft 455,500
Water year 1954-55: Max 1,770 Min 0 Mean 591 Ac-ft 428,200

* Discharge measurement made on this day.

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 1955. 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 benchmark). Prior to 1910 at site 600 ft upstream at same datum.

Average discharge.--14 years (1941-55), 479 cfs (346,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,410 cfs July 19 (gage height, 6.10 ft); no flow Oct. 29 to Apr. 14.
1909-55: Maximum discharge, 1,410 cfs July 12, 1953, July 19, 1955; maximum gage height, 6.10 ft, July 24, 1954, July 19, 1955 (backwater from aquatic growth); no flow for long periods during nonirrigation seasons.

Remarks.--Records good. Flow controlled by headgates. Canal diverts water from Snake River 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	686						0	307	1,130	880	*1,250	1,160
2	634						0	341	1,050	854	1,240	*1,210
3	582						0	370	940	886	1,240	1,210
4	556						0	385	824	886	1,240	1,210
5	549						0	411	833	1,040	1,230	1,210
6	564						0	574	1,110	1,230	1,230	1,250
7	576						0	694	1,210	1,270	1,220	1,260
8	564						0	788	1,250	1,280	1,190	1,230
9	547						0	946	1,270	1,280	*1,190	1,210
10	511						0	1,060	*1,290	1,290	1,190	1,170
11	476						0	1,200	1,300	1,290	1,210	1,100
12	464						0	1,260	1,320	*1,300	1,240	*1,130
13	*425						0	1,260	1,330	1,310	1,230	1,080
14	*379						0	1,270	1,320	1,330	1,200	1,050
15	321						111	1,270	1,280	1,360	1,130	1,040
16	311						177	1,270	1,110	1,380	*1,050	949
17	237						210	1,270	989	1,390	1,060	851
18	193						248	1,260	*854	1,390	1,070	718
19	199						286	1,260	785	1,390	995	599
20	234						278	1,250	790	1,330	845	530
21	*265						296	1,250	833	1,330	827	487
22	273						311	1,280	1,010	*1,340	907	476
23	275						309	1,290	1,130	1,350	*1,080	439
24	258						305	1,280	1,180	1,350	1,180	385
25	*307						282	1,280	1,180	1,310	1,200	389
26	464						271	1,260	1,160	1,320	1,160	444
27	462						273	1,200	*1,160	1,310	1,130	446
28	172						*283	1,150	1,160	1,300	1,120	455
29	0						263	1,140	1,150	1,290	1,100	444
30	0				------		267	1,140	1,000	1,270	1,080	416
31	0	------			------		------	*1,150	------	1,260	1,100	------
Total	11,484	0	0	0	0	0	4,150	31,866	32,948	38,796	35,114	25,548
Mean	370	0	0	0	0	0	138	1,028	1,098	1,251	1,133	852
Ac-ft	22,780	0	0	0	0	0	8,230	63,210	65,350	76,950	69,650	50,670

Calendar year 1954: Max 1,310 Min 0 Mean 511 Ac-ft 370,000
Water year 1954-55: Max 1,390 Min 0 Mean 493 Ac-ft 356,800

* Discharge measurement made on this day.

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 1955. Monthly discharge only for some periods, published in WSP 1317. Prior to January 1902, published as "at Montgomery Ferry," as "at Montgomery Ferry near Minidoka" in 1902, and as "below Minidoka dam, at Howell's Ferry" in 1911.

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.--29 years (1926-55), 5,688 cfs (4,118,000 acre-ft per year).

Extremes.--Maximum discharge during year, 10,500 cfs May 22; maximum gage height, 8.61 ft July 27; minimum discharge, 274 cfs Feb. 27, Mar. 2 (gage height, 2.28 ft).
1895-1955: 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. 51), Lake Walcott (see p. 55), and other reservoirs, having a combined usable capacity of about 3,300,000 acre-ft; many diversions above station for irrigation.

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

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-18, June 17 to Sept. 30)

3.6	1,060	6.0	4,880
4.0	1,440	7.0	7,480
5.0	2,820	8.0	10,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,470	2,840	2,730	2,420	2,610	1,690	5,920	6,890	*8,780	8,730	*9,050	8,150
2	3,450	2,880	2,790	2,540	2,570	2,040	6,260	5,900	8,640	8,150	9,170	8,120
3	2,870	*2,720	2,820	2,570	2,260	1,950	6,030	5,000	8,670	7,900	9,360	8,260
4	3,050	2,650	*2,930	2,660	2,190	b1,860	5,640	4,540	8,610	8,150	9,510	8,380
5	2,490	2,630	2,610	2,690	2,200	b1,840	5,410	5,140	8,810	8,380	9,390	8,260
6	2,530	2,680	2,530	b2,700	2,120	b1,820	5,170	5,560	8,670	8,730	8,960	8,100
7	3,230	2,670	2,670	b2,700	2,150	1,770	4,900	6,260	8,840	9,200	8,810	*8,040
8	2,810	2,710	2,680	b2,700	1,390	1,850	4,900	7,020	9,230	8,870	8,930	8,070
9	2,960	2,730	3,390	b2,700	1,360	1,960	4,880	7,160	9,510	8,960	*8,760	8,010
10	2,960	2,690	2,770	b2,700	1,220	2,310	5,120	7,450	9,390	9,200	8,780	7,980
11	3,080	2,680	a2,730	b2,700	1,340	2,680	5,050	*8,120	*9,610	9,200	8,840	8,040
12	2,900	2,670	a2,700	b2,700	*1,280	2,610	5,000	8,900	9,800	*9,020	8,900	*8,210
13	*2,920	2,650	2,580	b2,700	1,170	2,550	6,130	9,610	9,640	9,080	8,930	7,900
14	*3,190	2,670	2,620	b2,700	1,140	2,800	7,210	9,770	9,570	9,110	8,810	7,680
15	2,910	*2,750	2,680	*2,680	1,220	2,680	7,240	8,900	9,390	9,230	8,550	7,680
16	2,860	2,860	2,770	2,660	1,210	2,710	7,210	8,260	9,140	9,230	*8,320	7,590
17	2,920	2,640	2,770	2,610	1,360	3,030	7,210	8,260	8,810	9,360	8,320	7,400
18	2,850	2,560	3,090	2,640	e1,150	3,050	7,340	8,550	*8,780	9,080	8,380	6,990
19	2,970	2,640	3,280	2,640	e1,150	3,190	6,320	8,380	8,990	8,960	8,610	6,620
20	2,820	2,820	2,980	b2,630	e1,150	2,970	4,980	8,700	9,020	8,930	8,760	6,080
21	2,840	2,680	2,900	b2,610	e1,150	3,160	*6,130	9,110	8,870	8,930	8,520	5,740
22	2,920	2,580	2,770	2,560	e1,150	3,340	7,260	9,480	8,870	8,900	8,520	5,410
23	2,960	2,520	2,840	2,610	e1,150	3,210	6,970	9,140	9,230	9,170	*8,290	5,360
24	2,880	2,680	2,730	2,570	e1,150	3,550	6,860	9,540	9,480	9,360	8,290	5,240
25	2,910	2,740	2,740	2,560	1,220	3,140	6,890	9,260	8,990	9,110	8,520	4,860
26	*2,870	2,990	2,820	2,620	1,160	3,810	7,020	9,080	8,870	9,140	8,610	4,560
27	2,830	2,810	2,520	2,540	1,210	4,420	7,160	9,170	8,990	*9,420	8,380	4,650
28	2,830	2,550	2,800	2,560	1,210	4,440	6,890	8,490	*9,200	9,390	8,150	4,510
29	2,820	2,700	*2,750	2,590	-	5,000	6,860	8,380	9,450	9,170	8,290	3,530
30	2,800	2,580	2,480	2,570	------	6,100	6,860	8,550	8,640	8,990	8,440	3,040
31	2,860	------	2,440	2,490	------	*5,950	------	8,780	------	8,960	8,260	------
Total	90,760	80,970	85,910	81,320	41,640	93,480	186,820	247,350	272,490	278,010	269,410	202,440
Mean	2,928	2,699	2,771	2,623	1,487	3,015	6,227	7,979	9,083	8,968	8,691	6,748
Ac-ft	180,000	160,600	170,400	161,300	82,590	185,400	370,600	490,600	540,500	551,400	534,400	401,500

Calendar year 1954: Max 17,000 Min 2,440 Mean 5,662 Ac-ft 4,099,000
Water year 1954-55: Max 9,800 Min 1,140 Mean 5,289 Ac-ft 3,829,000

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
e Gage heights affected by frequent power fluctuations; discharge computed on basis of powerplant records.

Goose Creek above Trapper Creek, near Oakley, Idaho

Location (revised).--Lat 42°07'10", long 113°56'20", in sec. 13, T. 15 S., R. 21 E., on right bank 5 miles upstream from Trapper Creek and 9 miles southwest of Oakley.

Drainage area.--600 sq mi, approximately.

Records available.--April 1911 to September 1916, March 1919 to September 1955. 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.--41 years (1911-16, 1919-55), 45.3 cfs (32,800 acre-ft per year).

Extremes.--Maximum discharge during year, 83 cfs May 13 (gage height, 2.49 ft); maximum gage height, 3.75 ft Mar. 6 (backwater from ice); minimum discharge, 2.0 cfs Sept. 10, 11, 12; minimum gage height, 1.17 ft Sept. 10, 11, 12, 15.
1911-16, 1919-55: 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 good except those for periods of ice effect, which are fair. Diversions above station for irrigation. Flow of artesian well, completed in 1935, enters below. Practically entire flow passing station is stored in Oakley Reservoir.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	1.3	2.0	32
1.3	3.6	2.3	55
1.5	8.4	2.6	91
1.7	16		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17	a18	13	21	28	36	38	45	13	11	6.2
2	11	17	*20	15	20	29	37	43	42	11	11	5.3
3	11	17	18	15	17	31	34	52	40	9.8	9.4	4.6
4	12	17	20	16	18	30	31	58	36	8.7	8.4	3.8
5	13	19	20	15	18	28	33	53	34	7.9	7.6	3.5
6	12	18	19	15	18	26	36	46	34	7.6	8.7	2.7
7	11	18	20	15	19	27	34	47	33	7.0	9.4	2.3
8	11	17	19	12	19	28	35	56	30	11	10	2.1
9	11	20	14	13	18	29	36	64	29	18	9.4	2.2
10	13	19	15	*12	a15	30	37	71	27	20	8.4	2.1
11	13	19	18	13	16	31	38	82	24	19	8.1	2.2
12	13	19	20	15	18	32	38	81	24	18	7.3	2.2
13	14	20	20	14	19	a35	37	81	25	17	6.8	2.2
14	15	20	19	16	19	a36	38	79	28	15	9.3	2.3
15	15	21	18	15	19	a36	38	79	31	14	9.1	2.2
16	15	22	15	16	22	a34	37	79	42	12	9.4	2.3
17	15	22	13	17	20	a33	38	76	46	11	10	2.8
18	15	22	12	17	17	a34	41	77	*31	11	11	3.6
19	15	21	15	17	a15	a35	45	71	23	9.8	12	4.9
20	15	21	15	18	a16	a36	46	63	20	8.7	11	6.5
21	15	21	15	18	a20	a34	44	*57	18	9.8	11	11
22	15	21	16	17	23	a35	42	57	16	*13	9.4	11
23	15	21	16	19	24	a36	42	65	15	17	7.9	10
24	16	20	16	21	23	a39	44	74	15	22	*7.3	9.8
25	16	20	15	22	23	*45	44	76	14	32	7.9	10
26	17	21	14	21	25	44	46	77	13	21	13	11
27	17	20	12	19	27	39	47	67	10	19	8.4	11
28	*17	19	9.0	19	27	38	*48	57	11	16	9.4	12
29	17	a18	9.5	18	-	36	46	53	13	14	9.4	11
30	17	a16	10	19	----	38	42	39	13	13	8.4	11
31	17	-	11	20	---	38	-----	39	-----	11	7.0	--
Total	439	583	491.5	512	556	1,050	1,190	1,957	782	437.3	286.4	173.8
Mean	14.2	19.4	15.9	16.5	19.9	33.9	39.7	63.1	26.1	14.1	9.24	5.79
Ac-ft	871	1,160	975	1,020	1,100	2,080	2,360	3,880	1,550	867	568	345

Calendar year 1954: Max 79 Min 1.4 Mean 20.8 Ac-ft 15,060
Water year 1954-55: Max 82 Min 2.1 Mean 23.2 Ac-ft 16,780

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, inflow to Oakley Reservoir, and records for nearby streams.
Note.--Stage-discharge relation affected by ice Dec. 9, 12, 14-17, 20-30, Jan. 1, Jan. 4 to about Mar. 22.

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.--32 sq mi, approximately.

Records available.--May 1911 to September 1916, March 1919 to September 1955. 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.--41 years (1911-16, 1919-55), 14.8 cfs (10,710 acre-ft per year).

Extremes.--Maximum discharge during year, 160 cfs Aug. 25 (gage height, 5.93 ft); minimum, 3.3 cfs Mar. 5 (gage height, 4.64 ft), caused by temporary storage behind ice jam upstream.
1911-16, 1919-55: 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.

Remarks.--Records excellent. 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 Oakely Canal Co.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

4.7	4.8
4.8	8.3
4.9	14
5.1	28

(2)

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10	12	11	11	10	11	16	19	15	8.8	8.3
2	10	11	11	11	11	10	12	16	19	15	8.8	8.8
3	10	11	*11	11	11	11	11	16	18	14	8.3	8.8
4	10	11	11	10	10	10	11	15	17	15	8.3	8.8
5	10	10	10	9.3	11	8.8	11	16	17	14	8.8	8.8
6	9.9	10	10	9.9	10	9.9	11	17	17	14	9.3	8.8
7	9.3	10	10	7.2	11	11	11	19	17	14	9.9	9.3
8	9.3	11	9.9	7.2	11	11	11	20	17	13	9.3	9.3
9	9.3	10	10	8.8	11	11	11	20	17	12	8.8	9.9
10	9.3	10	10	*12	8.0	12	12	19	18	12	8.8	9.3
11	9.3	10	10	12	9.3	12	12	19	18	13	8.8	8.8
12	9.3	11	10	11	11	12	12	20	18	12	8.8	8.8
13	10	11	11	11	11	12	12	21	18	11	8.8	8.8
14	9.3	11	10	10	10	11	12	21	18	11	11	9.3
15	9.3	11	10	10	11	11	12	21	19	10	12	9.3
16	8.8	12	7.6	11	11	11	12	20	20	9.9	10	9.9
17	9.3	11	8.0	10	11	11	14	20	18	10	10	11
18	9.9	11	8.8	10	9.9	11	14	18	*17	9.9	11	11
19	10	11	10	10	8.0	11	14	18	17	9.9	11	11
20	11	11	10	10	9.3	10	13	18	16	10	9.9	11
21	11	11	11	9.3	*12	11	12	*20	15	11	8.8	10
22	11	11	11	9.9	11	11	13	20	14	*11	8.8	10
23	10	11	11	10	11	11	12	20	14	12	8.3	10
24	11	11	11	9.9	11	12	13	21	14	12	*8.8	11
25	11	11	10	9.9	11	*12	14	21	15	10	21	11
26	10	11	9.9	9.9	11	11	14	20	15	9.9	12	11
27	10	11	6.2	9.9	11	11	14	20	14	9.9	9.9	10
28	*10	11	7.2	9.9	11	11	*13	20	14	9.3	9.3	9.9
29	10	10	12	9.9	-	11	13	19	16	9.3	9.3	9.9
30	10	8.3	13	11	-----	12	14	20	16	8.8	8.8	9.9
31	10	-----	12	11	-----	11	-----	20	-----	8.3	8.3	-----
Total	307.3	320.3	314.6	313.0	295.5	340.7	371	591	502	356.2	303.7	291.7
Mean	9.91	10.7	10.1	10.1	10.6	11.0	12.4	19.1	16.7	11.5	9.80	9.72
Ac-ft	610	635	624	621	586	676	736	1,170	996	707	602	579

Calendar year 1954: Max 23 Min 6.2 Mean 11.6 Ac-ft 8,390
Water year 1954-55: Max 21 Min 6.2 Mean 11.8 Ac-ft 8,540

* Discharge measurement made on this day.

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.--670 sq mi, approximately.

Records available.--October 1912 to September 1955.

Gage.--Staff gage read about once weekly. Altitude of gage is 4,630 ft (by barometer).

Extremes.--Maximum contents observed during year, 15,600 acre-ft May 8 (gage height, 62.9 ft); minimum observed, 765 acre-ft Sept. 30 (gage height, 14.0 ft).
1912-55: 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, 1949-50.

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 ft (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 herein represent usable contents.

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

Capacity table, water year 1954-55 (gage height, in feet, and contents, in acre-feet)

14.0	765	40.0	6,320
17.0	1,070	50.0	9,900
20.0	1,430	60.0	14,100
25.0	2,320	70.0	19,300
30.0	3,450		

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	6,420	-	-	-	15,300	-	10,500	-	-
2	-	3,110	-	-	8,100	-	-	-	-	-	-	-
3	-	-	5,010	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	5,330	2,880
5	-	-	-	-	-	-	-	-	13,700	-	-	-
6	1,490	-	-	-	-	-	12,900	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	15,600	-	-	-	-
9	-	-	-	-	8,510	10,200	-	-	-	-	-	-
10	-	-	5,360	6,880	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	9,860	-	-
12	-	-	-	-	-	-	-	-	12,700	-	3,940	1,890
13	-	-	-	-	-	-	13,400	-	-	-	-	-
14	-	-	5,630	7,040	-	-	-	-	-	-	-	-
15	2,050	3,810	-	-	8,880	10,900	13,600	15,200	12,200	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-		-	12,100	-	4,160	-
19	-	-	-	-	-	-	-	-	12,200	8,210	-	-
20	-	-	-	-	-	-	-	-	-	-	3,960	1,210
21	-	-	-	-	9,240	-	14,200	14,600	-	-	-	-
22	-	-	-	-	-	-	-	14,400	-	8,190	4,080	-
23	-	4,420	-	-	-	11,500	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	3,900	-
25	-	-	-	7,640	-	11,800	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	11,400	-	-	-
27	-	-	-	-	-	-	14,800	-	-	6,740	3,450	-
28	2,760	-	-	-	9,640	-	15,000	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	4,850	-	-	-------	-	a15,200	14,100	a10,700	-	-	765
31	a2,970	-------	a6,380	a7,980	-------	12,300	-------	a14,000	-------	a6,060	a3,170	-------
(†)	-	35.1	-	-	49.3	55.8	-	-	-	-	-	14.0
(‡)	+1,640	+1,880	+1,530	+1,600	+1,660	+2,660	+2,900	-1,200	-3,300	-4,640	-2,890	-2,405

Calendar year 1954: (‡) -15,220
Water year 1954-55: (‡) -565

† Gage height, in feet, at end of month.
‡ Change in contents in acre-feet.
a No gage-height record; contents interpolated or estimated on basis of inflow.

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 1955. Monthly discharge only for some periods, published in WSP 1317. Records collected by North Side Canal Co. 1916-18 (yearly summaries only published in WSP 883).

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

Extremes.--Maximum discharge during year, 73 cfs July 17-21, Aug. 10-21; maximum gage height, 1.50 ft July 17-22; no flow Oct. 1 to May 1.
1919-55: Maximum discharge, 75 cfs Aug. 24-31, 1953; no flow for many days.

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 furnished by North Side Canal Co.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	63	66	65	72
2								14	*63	66	*64	72
3								14	63	66	65	72
4								14	63	66	66	72
5								14	62	64	66	72
6								25	62	64	72	72
7								25	62	64	72	70
8								25	62	64	72	*59
9								28	61	64	72	59
10								42	61	64	73	59
11								53	61	64	73	59
12								58	61	64	73	59
13								*60	63	64	73	59
14								61	66	*69	73	59
15								61	66	69	73	59
16								61	66	69	73	59
17								61	64	73	73	59
18								61	66	73	73	59
19								61	66	73	*73	59
20								59	*65	73	73	59
21								63	64	73	73	59
22								63	64	72	72	59
23								63	64	71	72	59
24								63	66	71	*72	*46
25								63	66	71	72	46
26								63	66	67	72	46
27								63	66	71	72	42
28								63	66	71	72	31
29								63	66	71	72	31
30								63	*66	65	72	31
31								63		65	72	
Total	0	0	0	0	0	0	0	1,490	1,920	2,107	2,210	1,719
Mean	0	0	0	0	0	0	0	48.1	64.0	68.0	71.3	57.3
Ac-ft	0	0	0	0	0	0	0	2,960	3,810	4,180	4,380	3,410

Calendar year 1954: Max 74 Min 0 Mean 26.7 Ac-ft 19,360
Water year 1954-55: Max 73 Min 0 Mean 25.9 Ac-ft 18,740

* Discharge measurement made on this day.

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 1955. 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.--11 years (1944-55), 75.0 cfs (54,300 acre-ft per year).

Extremes.--1921-55: Maximum daily discharge, 256 cfs July 25-31, 1954; 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 11,700 acres of land in Milner low-lift irrigation district. Pumps rated by current-meter measurements.

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	212	203	233	182
2								0	212	203	235	182
3								0	206	178	235	182
4								0	200	178	235	182
5								0	184	180	235	182
6								28	*184	*222	233	182
7								57	207	217	223	182
8								57	207	206	*223	182
9								83	207	206	223	*182
10								105	228	206	223	182
11								132	236	206	223	182
12								132	236	221	223	182
13								168	*236	*221	223	182
14								181	236	224	223	182
15								181	233	230	223	182
16								181	220	230	221	181
17								181	216	235	212	173
18								181	203	235	212	173
19								213	203	*235	203	170
20								213	*203	235	190	155
21								*213	203	235	182	155
22								213	203	235	*182	155
23								218	203	235	182	145
24								232	203	235	182	*134
25								232	203	233	182	134
26								232	203	233	182	125
27								237	203	233	182	134
28								237	206	*233	182	134
29								237	208	233	182	134
30					------			228	203	233	182	134
31		------			------		------	225	------	233	182	------
Total	0	0	0	0	0	0	0	4,597	6,307	6,842	6,453	4,966
Mean	0	0	0	0	0	0	0	148	210	221	208	166
Ac-ft	0	0	0	0	0	0	0	9,120	12,510	13,570	12,800	9,850

Calendar year 1954: Max 256 Min 0 Mean 90.2 Ac-ft 65,280
Water year 1954-55: Max 237 Min 0 Mean 79.9 Ac-ft 57,850

* Discharge measurement made on this day.

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 1955. 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 below headgates and differential recorder on control gates of diversion 3 miles downstream from headgates.

Average discharge.--20 years (1935-55), total 981 cfs (710,200 acre-ft per year); Milner-Gooding project, 563 cfs; North Side Canal Co. project, 418 cfs.

Extremes.--Maximum daily discharge during year, 2,680 cfs June 15; no flow for many days. 1930-55: 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	580					0	1,730	2,390	2,470	2,480	2,200
2	0	520					0	1,800	2,410	2,480	*2,540	2,230
3	0	520					0	1,810	2,380	2,440	2,550	2,250
4	0	550					0	1,910	*2,380	2,400	2,570	2,260
5	0	570					0	1,950	2,350	2,410	2,570	2,250
6	0	570					0	1,990	2,420	2,370	2,550	2,240
7	0	590					0	2,060	2,430	*2,380	2,520	2,230
8	0	620					0	2,100	2,430	2,460	2,520	2,220
9	0	290					0	2,220	2,520	2,480	2,520	*2,230
10	0	0					0	2,260	2,590	2,470	*2,490	2,240
11	0	0					0	2,330	2,600	2,490	2,510	2,230
12	0	0					0	2,400	2,620	2,520	2,510	2,230
13	0	0					0	2,420	2,660	2,530	2,520	2,180
14	0	0					0	2,500	2,670	*2,530	2,520	2,220
15	0	0					0	2,430	2,680	2,540	2,520	2,200
16	440	0					300	2,390	2,670	2,530	2,470	2,210
17	900	0					510	2,380	*2,650	2,560	*2,440	2,170
18	900	0					700	2,350	2,610	2,550	2,460	*2,160
19	880	0					830	2,350	2,610	2,530	2,480	2,160
20	900	0					820	2,350	2,620	2,520	2,470	2,140
21	920	0					1,070	2,350	2,620	2,530	2,490	2,070
22	810	0					1,330	2,390	2,530	2,520	2,460	2,020
23	730	0					1,630	2,490	2,480	2,520	2,430	1,990
24	720	0					1,660	2,490	2,520	2,610	*2,410	1,990
25	720	0					*1,680	2,520	2,610	2,640	2,440	1,960
26	760	0					1,650	*2,500	2,570	*2,580	2,410	1,930
27	780	0					1,650	2,450	2,570	2,560	2,300	1,940
28	780	0					1,680	2,460	2,570	2,560	2,230	1,920
29	780	0			-		1,670	2,410	*2,550	2,560	2,250	1,430
30	*770	0			--------		1,680	2,380	2,550	2,550	2,260	650
31	650	--------			--------		--------	2,380	--------	2,510	2,190	--------
Total	12,440	4,810	0	0	0	0	18,860	70,550	76,260	77,800	76,080	62,150
Mean	401	160	0	0	0	0	629	2,276	2,542	2,510	2,454	2,072
Ac-ft	24,670	9,540	0	0	0	0	37,410	139,900	151,300	154,300	150,900	123,300
Distribution to projects in acre-feet												
(†)	0	0	0	0	0	0	13,800	79,680	93,600	96,810	96,200	78,740
(‡)	24,670	9,540	0	0	0	0	23,600	60,260	57,660	57,500	54,700	44,530

Calendar year 1954: Max 2,610 Min 0 Mean 1,129 Ac-ft 817,700
Water year 1954-55: Max 2,680 Min 0 Mean 1,093 Ac-ft 791,300

* Discharge measurement made on this day.
† To Milner-Gooding project, total for water year 458,800 acre-ft.
‡ To North Side Canal Co. project, total for water year 332,500 acre-ft.

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 1955. 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.--20 years (1935-55), 1,255 cfs (908,600 acre-ft per year).

Extremes.--Maximum discharge during year, 2,990 cfs Aug. 5 (gage height, 8.68 ft); no flow for several days.
1909-55: Maximum daily discharge, 3,200 cfs for several days in 1921, 1928-29; no flow at times when headgates were closed.

Remarks.--Records excellent except those for periods of ice effect, which are good. 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 furnished by North Side Canal Co.

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,640	0	580	401	389	395	389	514	2,660	2,720	2,860	2,760
2	1,630	0	*596	404	395	401	369	690	*2,660	2,710	2,900	2,760
3	1,640	0	662	404	b395	401	392	944	2,620	2,700	2,910	*2,780
4	1,630	0	679	407	b395	401	392	1,020	2,660	2,680	2,970	2,780
5	1,550	0	564	407	395	401	*374	1,010	2,640	2,700	2,980	2,780
6	1,480	0	573	401	b395	401	372	1,160	2,660	*2,660	2,960	2,720
7	1,490	0	577	b400	395	401	392	1,240	2,660	2,700	2,950	2,720
8	1,210	0	593	b400	395	401	413	1,550	2,660	2,700	*2,920	2,700
9	339	361	550	b400	389	398	145	1,760	2,820	2,650	2,860	2,650
10	0	577	527	b400	389	389	0	1,790	2,850	2,660	2,830	2,640
11	0	587	524	b400	386	380	0	2,040	2,840	2,660	2,830	2,640
12	0	580	524	b400	380	383	0	2,220	2,880	2,640	2,820	2,610
13	0	*587	527	b400	380	386	0	2,230	2,900	*2,640	2,820	2,580
14	0	567	511	b400	383	383	0	2,390	2,860	2,760	2,820	2,510
15	0	580	501	b400	377	*386	0	2,450	2,880	2,820	*2,800	2,470
16	0	587	492	b400	377	386	0	1,970	2,860	2,840	2,720	*2,460
17	0	580	504	b400	383	386	0	1,890	2,840	2,880	2,730	2,470
18	0	577	511	b400	395	389	0	2,040	2,820	2,920	2,740	2,380
19	0	577	521	b400	395	386	0	2,340	2,840	*2,920	2,770	2,300
20	0	583	527	b400	389	383	0	2,340	*2,840	2,920	2,780	2,220
21	0	583	517	*b388	395	366	0	2,580	2,820	2,920	2,780	2,040
22	0	577	517	b393	392	392	0	2,710	2,820	2,910	*2,770	1,970
23	0	583	479	398	392	377	0	2,740	2,820	2,880	2,780	1,860
24	0	583	469	395	389	355	0	2,530	2,810	2,920	2,780	*1,750
25	0	577	479	395	392	377	0	*2,490	2,840	2,900	2,780	1,570
26	0	567	488	398	*395	372	133	2,580	2,820	2,860	2,780	1,460
27	0	564	472	395	395	386	194	2,470	2,820	2,840	2,800	1,450
28	0	567	453	386	392	392	311	2,600	2,810	*2,860	2,770	1,440
29	0	530	*450	377	-	363	363	2,650	2,790	2,860	2,770	1,290
30	0	544	441	377	------	360	*464	2,620	*2,820	2,840	2,770	1,180
31	0	------	419	383	------	398	------	2,650	------	2,840	2,780	------
Total	12,609	12,418	16,227	12,309	10,919	11,975	4,703	62,208	83,620	86,510	87,530	67,940
Mean	407	414	523	397	390	386	157	2,007	2,787	2,791	2,824	2,265
Ac-ft	25,010	24,630	32,190	24,410	21,660	23,750	9,330	123,400	165,900	171,600	173,600	134,800

Calendar year 1954: Max 2,800 Min 0 Mean 1,336 Ac-ft 967,600
Water year 1954-55: Max 2,980 Min 0 Mean 1,285 Ac-ft 930,300

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

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 1955. 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.--29 years (1926-55), 1,757 cfs (1,272,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,810 cfs July 27 (gage height, 10.64 ft); minimum, 46 cfs Oct. 29 (gage height, 1.35 ft).
1909-55: 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.

Remarks.--Records excellent except those for periods 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used Oct. 1-11, May 9-25, July 7-23 and Aug. 12 to Sept. 12)

1.4	42	3.0	338	8.0	2,240
1.5	49	4.0	604	9.0	2,800
1.7	72	5.0	907	10.0	3,430
2.0	117	6.0	1,290	10.6	3,830
2.5	216	7.0	1,730		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,690	503	596	457	385	399	49	1,520	3,350	3,280	3,780	3,530
2	1,680	504	596	444	385	389	48	1,650	3,340	3,210	3,780	3,530
3	1,690	529	725	433	385	394	51	1,680	3,340	3,210	3,770	*3,500
4	1,630	477	750	*420	385	395	49	1,720	3,340	3,220	3,760	3,510
5	1,620	491	626	410	385	395	*134	1,910	3,340	3,300	3,750	3,470
6	1,540	527	587	385	385	396	316	2,160	*3,390	3,440	3,740	3,440
7	1,490	790	548	380	385	402	449	2,530	3,460	3,470	3,730	3,460
8	1,500	554	607	380	385	397	540	2,780	3,400	3,490	*3,730	3,450
9	1,480	513	568	370	385	392	596	2,910	3,550	3,520	3,730	3,460
10	1,460	619	565	370	385	358	660	3,080	3,580	3,540	3,690	3,440
11	1,410	727	554	370	385	338	701	3,400	3,580	3,550	3,650	3,440
12	*1,410	635	540	370	385	340	701	*3,760	3,560	3,540	3,630	3,450
13	1,020	*553	562	370	385	333	704	3,760	*3,530	*3,520	3,630	3,400
14	853	759	584	370	385	338	719	3,480	3,500	3,530	3,630	3,310
15	363	440	576	370	410	*336	695	3,310	3,440	3,560	*3,630	3,210
16	80	441	575	370	397	333	629	3,310	3,310	3,630	3,630	*3,210
17	76	415	575	370	405	336	604	3,360	3,330	3,650	3,650	3,140
18	76	400	575	370	400	338	584	3,450	3,320	3,650	3,650	3,060
19	318	422	575	370	400	298	565	3,450	3,360	*3,630	3,650	2,910
20	373	422	565	370	399	249	635	3,470	*3,360	3,660	3,640	2,610
21	381	738	554	370	399	234	772	3,440	3,380	3,670	3,620	2,350
22	1,030	542	556	370	389	232	930	3,460	3,360	3,670	*3,640	2,240
23	1,320	538	534	370	389	241	995	3,450	3,350	3,660	3,660	2,160
24	1,180	507	521	380	379	306	1,010	3,460	3,350	3,680	3,650	*2,000
25	487	818	521	384	389	340	1,040	*3,470	*3,360	3,730	3,630	1,800
26	635	463	520	384	*384	333	1,100	3,400	3,400	3,770	3,630	1,730
27	684	454	500	*384	384	290	1,120	3,370	3,440	3,790	3,610	1,730
28	543	543	500	*368	431	323	1,170	3,360	3,420	*3,780	3,590	1,720
29	*592	*518	500	358	-	389	1,290	3,360	3,390	3,790	3,590	1,700
30	501	596	502	363	------	200	*1,410	3,370	3,330	3,790	3,560	1,700
31	598	------	494	360	------	51	------	3,390	------	3,760	3,540	------
Total	29,710	16,438	17,551	11,840	10,945	10,095	20,266	94,220	102,260	110,690	113,570	85,660
Mean	958	548	566	382	391	326	676	3,039	3,409	3,571	3,664	2,855
Ac-ft	58,930	32,600	34,810	23,480	21,710	20,020	40,200	186,900	202,800	219,600	225,300	169,900

Calendar year 1954: Max 3,670 Min 29 Mean 1,838 Ac-ft 1,330,000
Water year 1954-55: Max 3,790 Min 48 Mean 1,708 Ac-ft 1,236,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 16-20, 26-29, Jan. 5 to Feb. 14, Feb. 18, 19, Mar. 4-6.

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 non-tributary area on Snake River plains.

Records available.--May 1909 to September 1955. 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.--29 years (1926-55), 2,039 cfs (1,476,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,550 cfs Apr. 17 (gage height, 10.97 ft); minimum, 5 cfs Sept. 29, 30 (gage height, 1.34 ft).
1909-55: 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. 51), Lake Walcott (see p. 55) and other reservoirs having a combined usable capacity of about 3,300,000 acre-ft. About 1,340,000 acres of land irrigated by diversions 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 5				Aug. 6 to Sept. 30			
1.6	7	5.0	748	1.3	5	2.0	25
1.8	13	6.0	1,400	1.6	11	2.5	71
2.0	22	7.0	2,390	1.8	16	3.0	134
2.5	68	8.0	3,580				
3.0	134	9.0	4,530	Note.--Same as preceding table above 3.0 ft.			
3.5	234	10.0	5,550				
4.0	373	11.0	6,670				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	2,940	1,790	2,070	1,990	670	5,730	3,300	441	199	23	10
2	161	3,370	1,830	1,990	1,990	960	5,330	2,470	455	212	8	8
3	176	3,570	948	1,890	1,980	1,130	5,820	614	452	197	*6	*8
4	170	3,260	*658	1,970	1,750	1,120	5,940	683	458	206	11	7
5	428	2,170	1,080	2,020	1,540	1,150	5,580	508	452	201	41	8
6	538	1,700	1,600	1,990	1,560	1,180	4,810	490	455	201	60	10
7	431	1,450	1,620	2,030	1,550	1,170	3,910	483	448	203	21	9
8	402	1,530	1,680	2,040	1,320	1,300	3,250	479	448	206	*14	9
9	1,930	1,710	1,740	1,990	575	1,320	2,560	490	465	206	12	8
10	2,490	1,970	2,010	2,010	602	1,310	2,540	497	455	206	11	8
11	2,380	1,980	2,890	2,060	595	1,600	4,050	494	452	206	10	9
12	*2,400	1,920	3,250	2,070	587	1,820	4,750	490	458	208	11	8
13	2,690	*1,950	2,860	2,070	599	1,990	4,850	504	*476	206	12	13
14	3,120	1,910	2,560	2,050	583	2,010	6,090	606	469	203	29	9
15	3,680	1,900	2,040	*2,060	568	2,160	6,430	1,060	476	*203	*58	8
16	3,580	1,880	1,440	2,070	553	*2,310	6,220	1,010	490	190	21	9
17	2,560	1,930	1,510	2,070	541	2,280	6,420	990	486	192	12	9
18	2,370	1,940	*1,510	2,050	545	2,350	6,440	771	448	199	10	13
19	2,120	1,950	1,580	2,000	553	3,150	5,880	445	438	192	9	11
20	1,950	1,970	1,620	2,010	545	3,740	4,300	438	445	195	10	8
21	1,960	1,980	1,710	1,990	545	3,470	3,470	*441	448	192	20	6
22	1,950	1,950	1,780	2,040	*545	3,470	4,880	441	445	192	18	6
23	1,880	1,930	1,810	2,030	560	3,590	4,680	438	476	192	15	6
24	1,850	1,910	1,870	2,010	630	3,160	4,710	435	367	201	8	*6
25	1,860	1,830	1,910	2,010	658	3,160	4,710	472	*220	201	9	6
26	1,920	2,200	1,930	2,010	654	3,070	4,600	501	217	188	9	6
27	1,940	3,070	2,040	2,020	654	3,590	4,340	476	215	210	11	6
28	1,970	3,180	2,070	1,990	654	4,030	4,360	700	217	*217	11	6
29	1,980	2,610	2,080	1,950	-	4,440	*4,100	462	215	206	9	5
30	*1,990	1,960	2,120	1,940	------	5,000	3,820	441	275	201	13	5
31	1,970	------	2,080	1,970	------	5,680	------	438	------	85	13	------
Total	55,001	65,620	57,616	62,470	25,426	77,380	144,570	22,067	12,262	6,116	527	240
Mean	1,774	2,187	1,859	2,015	908	2,496	4,819	712	409	197	17.0	8.0
Ac-ft	109,100	130,200	114,300	123,900	50,430	153,500	286,800	43,770	24,320	12,130	1,050	476

Calendar year 1954: Max 8,590 Min 35 Mean 1,555 Ac-ft 1,126,000
Water year 1954-55: Max 6,440 Min 5 Mean 1,450 Ac-ft 1,050,000

* Discharge measurement made on this day.

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.

Record available.--April 1950 to September 1955.

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.--5 years, 22.5 cfs (16,390 acre-ft per year).

Extremes.--1950-55: Maximum daily discharge, 27.5 cfs Oct. 3, 4, 1951; minimum daily, 18.5 cfs May 15, 1950.

Remarks.--Records excellent. No regulation or diversion above station. Discharge affected by variable surface waste from irrigation over rimrocks into springs above station and occasionally by runoff from snowmelt. Waste was reported not flowing Oct. 28, Dec. 2, Feb. 21, Mar. 25, Aug. 27, and estimated on Apr. 28 (0.5 cfs); May 24 (0.5 cfs); June 22 (1 cfs); July 20 (1 cfs). Flow at station is from principal outlet only. On Apr. 4, 1955, a discharge measurement of total spring flow of 23.7 cfs (adjusted for surface inflow) was made.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.0	17
1.1	21
1.2	26

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	23.5	23	22	22	21.5	20.5	19	19.5	20.5	20	22.5
2	25	23.5	*22.5	22	21.5	22.5	20.5	19	19	21.5	20	22.5
3	25	23.5	23	22	21.5	22	20.5	19	19	22	20.5	23
4	25	23.5	23	21.5	21.5	21.5	20.5	19	19	22	20.5	23
5	25	24	22.5	21.5	21.5	21	20	19	19	21	20.5	23
6	24.5	24	22.5	21.5	21.5	21.5	20	19	19	20.5	20	22
7	24.5	24.5	22.5	21.5	21.5	21.5	20	19	19	20	20	22
8	25	24	22.5	*21.5	22	22	20.5	19	19	20	20.5	22
9	24.5	24	22.5	21.5	21.5	21.5	20.5	19	19	20.5	20.5	22.5
10	24	23.5	22.5	21.5	21.5	21.5	20.5	19	19	20.5	20.5	22
11	24	23.5	22	21.5	21	22.5	20	19	19	20.5	20.5	22
12	24	23.5	22	21.5	21	22	20	19	19	20.5	20.5	22
13	24	23.5	22	21.5	21	22	20	19	19	20.5	20.5	22.5
14	24	23.5	22	21.5	21	22	20	19.5	19	20	20.5	23
15	24	24.5	22	21.5	21.5	21.5	20	19.5	19	20	20.5	23
16	23.5	24.5	22	22	21.5	21.5	20	19.5	19	20	20.5	23
17	23.5	24	21.5	22	22	21.5	20	19.5	19	20.5	20.5	23
18	24	23.5	21.5	22	22	22.5	20	19.5	19	20.5	20.5	23
19	24	23.5	21.5	22	22	22	20	19.5	19	20	20.5	23
20	23.5	23.5	21.5	22	22	21.5	20	19.5	19	*20.5	20.5	23
21	23.5	23.5	22	22	*22.5	22	19.5	19.5	19	20.5	20.5	23
22	24	23	22	21.5	22	23.5	19.5	19	*19	20.5	20.5	23
23	24	23	22	21.5	22	23.5	19.5	19	19	20.5	20.5	23.5
24	24	23	22	21.3	22	22.5	19.5	*19	19	20.5	21	23.5
25	24	23	22	21.5	22	*22	19.5	19	19	20.5	21	23.5
26	24	23	22	21.5	22	21.5	19.5	19	19.5	20.5	21	23.5
27	24	23	21.5	21.5	22	21.5	19	19	19.5	20	*21	23.5
28	*23.5	23	21.5	21.5	22	22	*19	19	20	20	21.5	23.5
29	23.5	23	21.5	21.5	-	22	19	19	20	20	21.5	23.5
30	23.5	23	22	21.5	------	21	19	19	20	20	22	23.5
31	23.5	------	22.5	22	------	20.5	------	19	------	20	22.5	------
Total	747.5	706.0	685.5	671.5	607.5	677.5	596.5	593.0	574.5	634.5	641.0	686.0
Mean	24.1	23.5	22.1	21.7	21.7	21.9	19.9	19.1	19.2	20.5	20.7	22.9
Ac-ft	1,480	1,400	1,360	1,330	1,200	1,340	1,180	1,180	1,140	1,260	1,270	1,360

Calendar year 1954: Max 25 Min 20 Mean 22.7 Ac-ft 16,400
Water year 1954-55: Max 25 Min 19 Mean 21.4 Ac-ft 15,500

* Discharge measurement made on this day.

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 1955.

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.--32 years 2,555 cfs (1,850,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,710 cfs Apr. 18 (gage height, 12.69 ft); minimum, 21 cfs Aug. 11 (gage height, 1.43 ft); minimum daily, 402 cfs Aug. 12.
1923-55: 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, 139 cfs July 4, 1941.

Remarks.--Records excellent. Flow regulated by Twin Falls powerplant and several reservoirs above station. 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

4.0	332	7.0	1,350
4.5	445	8.0	1,840
5.0	580	9.0	2,520
5.5	740	11.0	4,500
6.0	925	13.0	7,170

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	674	2,850	*2,160	2,470	2,370	1,040	5,960	3,520	824	689	537	431
2	674	3,660	2,180	2,420	2,400	1,170	5,540	3,260	869	635	495	431
3	711	3,720	2,040	2,270	2,370	1,600	5,890	1,580	889	635	430	472
4	705	3,650	1,100	2,280	2,270	1,540	6,120	1,080	824	607	434	470
5	671	2,880	1,230	2,430	1,950	1,540	5,870	993	845	648	430	468
6	905	2,300	1,950	2,400	1,930	1,580	5,110	897	845	616	436	438
7	981	1,920	1,990	2,430	1,940	1,640	4,270	897	824	*602	463	433
8	961	1,930	2,030	2,440	1,940	1,730	3,550	893	800	608	436	501
9	1,370	2,030	2,090	*2,400	1,260	1,730	3,020	893	820	619	465	481
10	2,880	2,320	2,180	2,410	989	1,730	2,730	893	800	600	431	441
11	2,790	2,460	2,830	2,460	997	1,790	3,680	905	803	609	431	469
12	2,800	2,390	3,440	2,460	997	2,190	4,910	905	810	608	402	475
13	2,770	2,330	3,110	2,470	989	2,370	4,930	889	817	608	460	469
14	3,250	2,350	2,630	2,460	997	2,380	5,990	917	834	608	464	469
15	3,680	2,320	2,160	2,460	997	2,370	6,580	1,350	873	595	435	471
16	4,010	2,320	1,970	2,460	945	2,610	6,470	1,540	921	562	465	472
17	3,130	2,310	1,760	2,460	965	2,590	6,540	1,480	897	606	493	474
18	2,780	2,320	1,860	2,440	953	2,620	6,650	1,480	897	611	468	476
19	2,740	2,330	1,930	2,350	921	3,090	6,170	1,080	865	609	429	474
20	2,340	2,350	1,950	2,460	845	4,010	4,920	796	897	606	427	509
21	2,380	2,360	2,030	2,440	941	3,620	3,380	842	873	591	435	479
22	2,420	2,320	2,080	2,460	913	3,560	4,990	834	747	*601	429	477
23	2,350	2,320	2,160	2,470	905	3,700	4,820	820	845	589	429	476
24	2,280	2,280	2,190	2,460	909	*3,400	4,860	*842	893	592	458	510
25	2,300	2,260	2,250	2,460	1,010	3,240	4,860	761	803	608	425	449
26	2,320	2,300	2,300	2,450	1,030	3,320	4,760	885	584	614	458	479
27	*2,370	2,980	2,370	2,440	1,040	3,480	4,540	925	764	559	460	479
28	2,390	3,560	2,480	2,420	1,030	4,260	4,480	1,020	651	627	*432	481
29	2,400	3,000	2,470	2,350	-	4,490	*4,240	1,030	635	666	463	488
30	2,390	2,620	2,500	2,320	------	4,990	4,020	775	657	594	434	488
31	2,390	------	2,510	2,330	------	5,760	------	917	------	586	464	------
Total	66,812	76,740	67,940	75,030	36,803	85,140	149,850	35,899	24,406	18,908	13,918	14,130
Mean	2,155	2,558	2,192	2,420	1,314	2,746	4,995	1,158	814	610	449	471
Ac-ft	132,500	152,200	134,800	148,800	73,000	168,900	297,200	71,200	48,410	37,500	27,610	28,030

Calendar year 1954: Max 8,930 Min 428 Mean 1,949 Ac-ft 1,404,000
Water year 1954-55: Max 6,650 Min 402 Mean 1,823 Ac-ft 1,320,000

* Discharge measurement made on this day.

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 1955.

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

Average discharge.--5 years, 232 cfs (168,000 acre-ft per year).

Extremes.--1950-55: Maximum daily discharge, 256 cfs Nov. 10, 11, 1951, Oct. 24 to Nov. 13, 1952, Sept. 29, 30, 1953; minimum daily, 208 cfs June 5, 8-23, 25-28, 1950, May 16 to June 7, 1955.

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

Rating table, water year 1954-55 (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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	244	*236	240	228	224	216	216	208	212	224	228
2	240	248	236	236	224	224	216	216	208	212	224	228
3	244	244	236	236	224	224	216	216	208	212	224	232
4	244	244	236	236	224	224	216	216	208	212	224	232
5	244	244	236	236	224	224	216	216	208	212	224	232
6	244	244	236	232	224	224	216	216	208	216	224	232
7	244	244	236	232	224	220	216	216	208	220	224	232
8	244	244	236	232	228	216	216	216	212	220	224	232
9	244	244	236	*228	228	216	216	216	212	220	224	232
10	244	244	236	228	224	216	216	216	212	220	224	240
11	244	244	236	224	224	216	216	216	212	220	224	240
12	244	244	232	224	224	216	220	212	212	220	228	240
13	244	244	232	224	224	216	220	212	a212	220	224	240
14	244	240	232	224	224	216	220	212	a212	220	224	240
15	244	240	232	224	224	216	220	212	a212	220	224	240
16	244	240	232	224	224	216	220	208	a212	220	224	240
17	244	240	232	224	*224	216	220	208	a212	220	224	240
18	244	240	232	224	224	216	220	208	a212	224	224	244
19	244	236	232	228	224	216	220	208	a212	224	228	244
20	244	236	232	228	224	216	220	208	a212	*224	228	244
21	248	236	228	224	224	216	220	208	a212	224	228	244
22	248	236	228	224	224	216	216	208	*212	224	228	244
23	248	236	232	224	224	*216	216	208	212	224	*228	244
24	248	236	240	224	224	216	220	208	212	224	228	244
25	*248	236	240	224	224	216	216	*208	212	224	228	244
26	248	236	240	224	224	216	216	208	212	228	228	244
27	248	236	240	224	224	216	216	208	212	228	228	244
28	248	236	240	224	224	216	216	208	212	228	228	244
29	248	236	240	228	-	216	216	208	212	228	228	244
30	244	236	240	228	------	216	*216	208	212	228	232	*244
31	244	------	240	228	------	216	------	208	------	228	228	------
Total	7,592	7,208	7,292	7,060	6,284	6,748	6,524	6,552	6,332	6,856	7,004	7,172
Mean	245	240	235	228	224	218	217	211	211	221	226	239
Ac-ft	15,060	14,300	14,460	14,000	12,460	13,380	12,940	13,000	12,560	13,600	13,890	14,230

Calendar year 1954: Max 248 Min 224 Mean 232 Ac-ft 168,300
Water year 1954-55: Max 248 Min 208 Mean 226 Ac-ft 163,900

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, records for other Snake River springs, and flow during adjacent periods.

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 1955.

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 than present datum.

Average discharge.--13 years (1910-12, 1944-55), 35.8 cfs (25,920 acre-ft per year).

Extremes.--Maximum discharge during year, 165 cfs May 9 (gage height, 1.94 ft); minimum, 4.5 cfs part of each day Sept. 2-8; minimum gage height, 0.36 ft Mar. 4.
1909-13, 1938-39, 1943-55: 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 or no gage-height record, which are fair. Small ranch diversions above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 30		May 1 to Sept. 30	
0.4	6.4	0.5	4.5
.5	9.6	.6	8.3
.6	14	.8	20
.7	18	1.0	33
.9	32	1.3	58
1.2	62	1.6	97
		2.0	165

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	9.3	9.0	10	10	10	16	56	72	25	7.8	5.0
2	7.7	9.3	*9.6	10	9.6	11	20	65	67	25	7.8	5.0
3	7.7	9.3	9.3	10	9.6	10	17	58	64	23	7.3	4.7
4	7.7	9.3	9.3	10	8.3	9.3	17	54	60	23	7.3	4.7
5	7.7	9.3	9.3	9.0	10	b7.5	16	64	57	21	7.3	4.7
6	7.4	9.3	9.0	8.5	9.6	b8.5	16	91	56	21	7.3	4.7
7	7.0	9.3	9.3	7.5	9.6	b11	16	108	55	21	7.3	4.7
8	7.4	9.3	8.0	*b8.0	10	12	18	144	56	20	6.1	4.7
9	7.7	9.3	8.0	b8.0	9.6	13	22	152	56	19	6.1	5.0
10	7.7	9.6	9.6	b7.5	7.7	14	26	144	54	19	6.1	5.3
11	7.4	9.6	8.6	b8.0	8.0	14	24	144	52	19	5.7	5.0
12	7.7	11	8.3	b8.5	10	13	23	144	52	17	5.7	5.0
13	8.6	10	9.3	9.3	10	13	22	138	51	16	6.5	5.0
14	8.3	9.6	9.0	9.3	10	12	23	133	49	15	10	5.3
15	8.0	10	8.6	9.0	10	12	22	108	54	14	6.9	6.1
16	8.0	11	7.4	9.6	10	10	23	96	54	13	6.1	6.5
17	7.7	10	7.0	9.3	*12	12	26	82	46	13	6.5	7.8
18	8.0	10	7.5	9.3	8.6	11	29	74	*43	13	6.5	8.8
19	8.3	10	8.0	9.3	b8.0	11	28	77	40	12	7.8	8.8
20	8.3	9.6	8.0	9.3	8.6	10	26	88	38	*13	6.1	8.8
21	8.6	9.6	8.0	9.0	10	12	24	*103	35	14	5.7	8.0
22	8.6	9.6	8.0	9.0	11	12	28	110	33	13	5.3	8.0
23	9.0	9.6	8.0	9.3	11	12	28	108	32	14	5.3	8.0
24	9.3	9.6	8.0	9.0	10	*15	28	113	32	13	5.3	8.0
25	9.3	9.6	8.0	9.3	10	13	29	103	31	11	5.7	8.2
26	9.0	9.6	8.0	9.0	10	12	39	94	29	10	*6.1	8.5
27	*8.6	9.6	7.5	8.0	10	12	40	88	27	10	6.1	8.2
28	9.0	9.6	7.0	8.0	10	12	*37	77	26	9.9	5.7	7.8
29	9.0	8.6	7.5	9.0	-	14	37	73	33	9.9	5.7	7.8
30	9.3	7.4	8.0	10	------	16	46	72	28	8.8	5.3	7.8
31	9.3	------	9.0	10	------	15	------	73	------	8.8	5.0	------
Total	254.7	286.9	259.1	279.0	271.2	369.3	766	3,034	1,382	484.4	199.4	195.9
Mean	8.22	9.56	8.36	9.00	9.69	11.9	25.5	97.9	46.1	15.6	6.43	6.53
Ac-ft	505	569	514	553	538	732	1,520	6,020	2,740	961	396	389

Calendar year 1954 : Max 74 Min 5.6 Mean 15.7 Ac-ft 11,350
Water year 1954-55 : Max 152 Min 4.7 Mean 21.3 Ac-ft 15,440

Peak discharge (base, 130 cfs).--May 9 (2 a.m.) 165 cfs (1.94 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 17 to Jan. 7, Sept. 18-29; discharge estimated on basis of recorded range in stage, weather records, and records for Salmon Falls Creek and other nearby streams.

Cedar Draw near Filer, Idaho

Location.--Lat 42°37'25", long 114°39'05", in SW¼SW¼ sec. 24, T. 9 S., R. 15 E., on left bank just upstream from county road bridge, 2¾ miles upstream from mouth and 4½ miles northwest of Filer.
Records available.--July to September 1955.
Gage.--Water-stage recorder. Altitude of gage is 3,525 ft (from topographic map).
Extremes.--Maximum discharge recorded during period, 78 cfs Sept. 18 (gage height, 1.14 ft); minimum, 33 cfs Aug. 1 (gage height, 0.65 ft).
Remarks.--Records good except those for period of no gage-height record, which are poor. Flow is prinicipally waste and return flow from irrigation and stock water delivered to adjacent lands by Twin Falls Canal Co., and is affected by operation of laterals and canals upstream.

Discharge, in cubic feet per second, 1955

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	37	55	9	-	47	62	17	-	50	70	25	43	52	(e)
2	-	37	57	10	-	49	62	18	-	49	73	26	*45	48	(e)
3	-	39	58	11	-	47	60	19	-	47	(e)	27	41	50	(e)
4	-	40	60	12	-	46	62	20	-	46	(e)	28	42	50	(e)
5	-	40	61	13	-	46	63	21	-	48	(e)	29	43	52	*67
6	-	40	62	14	-	48	66	22	-	50	(e)	30	39	51	70
7	-	43	63	15	-	49	64	23	-	*48	(e)	31	38	57	-
8	-	45	63	16	-	51	66	24	-	49	(e)				
Total													-	1,451	1,964
Mean													-	46.8	65.5
Runoff in acre-feet													-	2,880	3,900

* Discharge measurement made on this day.
e Average discharge Sept. 19-28, 70 cfs; no gage-height record during period; discharge estimated on basis of weather records and records for adjacent periods.

SNAKE RIVER MAIN STEM

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 1955.
Gage.--Water-stage recorder. Datum of gage is 2,952.9 ft above mean sea level, by stadia levels. Prior to Jan. 17, 1947, staff gage at same site and datum.
Average discharge.--8 years (1947-55), 5,090 cfs (3,685,000 acre-ft per year).
Extremes.--Maximum discharge during year, 8,270 cfs Apr. 17 (gage height, 4.88 ft); minimum, 2,260 cfs Aug. 6 (gage height, 0.83 ft).
1946-55: Maximum discharge, 23,100 cfs June 13, 1947 (gage height, 10.34 ft); minimum observed, 1,900 cfs May 5, 1947 (gage height, 0.38 ft).
Remarks.--Records excellent. 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 practically entire flow is diverted during irrigation season.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,890	4,430	3,980	4,280	3,940	2,570	7,290	*5,440	2,580	2,750	2,470	2,440
2	2,890	5,760	3,970	4,190	3,950	2,610	7,030	5,200	2,570	2,720	2,420	2,450
3	2,870	5,670	4,100	4,020	3,950	3,000	7,030	4,120	2,500	2,660	2,380	2,470
4	2,890	5,810	3,370	3,930	3,890	3,120	7,480	2,940	2,520	2,630	2,370	2,490
5	2,870	5,230	2,930	*4,060	3,620	3,070	7,340	2,720	2,510	2,600	2,340	2,510
6	3,010	4,400	3,360	4,030	3,500	3,070	6,660	2,540	2,490	2,540	2,340	2,490
7	3,120	3,970	*3,810	4,020	3,500	3,120	5,860	2,540	2,440	2,520	2,400	2,480
8	3,140	3,820	3,750	4,060	3,520	3,220	5,090	2,540	2,430	2,440	2,440	2,510
9	3,100	3,880	3,820	4,040	3,370	3,300	4,540	2,650	2,380	2,430	2,430	2,540
10	4,500	4,100	3,930	4,040	2,670	3,350	4,100	2,540	2,390	2,440	2,430	2,540
11	4,930	4,330	4,330	4,110	2,540	3,340	4,500	2,420	2,350	2,440	2,410	2,540
12	4,910	4,290	5,040	4,120	2,540	3,580	6,220	2,420	2,390	2,440	2,360	2,560
13	5,010	4,240	5,020	4,110	2,540	3,930	6,280	2,530	2,440	2,420	2,340	2,600
14	5,360	4,250	4,630	4,120	2,530	3,910	7,050	2,730	2,450	2,390	2,380	2,620
15	5,650	4,240	3,990	4,120	2,550	3,850	8,050	3,190	2,560	2,380	2,390	2,630
16	6,240	4,250	3,840	4,120	*2,540	4,030	8,000	3,460	2,700	2,380	2,390	2,630
17	5,550	4,200	3,490	4,110	2,540	4,080	7,910	3,320	2,730	2,380	2,380	2,680
18	4,700	4,210	3,530	4,060	2,550	4,080	8,160	3,110	2,780	2,390	2,380	2,730
19	4,690	4,230	3,630	3,980	2,490	4,200	7,870	2,950	2,800	2,350	2,380	2,750
20	4,370	4,230	3,680	4,020	2,460	5,390	6,850	2,610	2,790	*2,360	2,400	2,900
21	4,290	4,240	3,750	4,000	2,480	5,150	5,180	2,480	2,740	2,380	2,400	2,840
22	4,290	4,200	3,820	4,020	2,540	4,930	5,860	2,500	*2,690	2,400	2,410	2,740
23	4,290	4,160	3,890	4,060	2,500	*5,130	6,410	2,510	2,640	2,410	2,390	2,740
24	4,410	4,120	3,930	4,040	2,480	4,960	6,530	2,490	2,900	2,440	2,380	2,730
25	*4,450	4,190	3,980	4,040	2,540	4,570	6,540	*2,540	3,550	2,430	2,380	2,740
26	4,380	4,060	4,000	4,000	2,580	4,750	6,470	2,530	2,710	2,430	2,380	2,730
27	4,330	4,560	4,020	3,980	2,590	4,620	6,320	2,570	2,580	2,420	2,410	2,700
28	4,370	5,420	4,140	3,990	2,580	5,520	6,210	2,590	2,620	2,440	2,430	*2,680
29	4,370	4,930	4,190	3,950	-	5,720	6,010	2,730	2,710	2,460	*2,440	2,650
30	4,370	4,530	4,230	3,910	------	6,280	5,810	2,650	2,780	2,460	2,440	2,680
31	4,340	------	4,430	3,950	------	6,930	------	2,590	------	2,460	2,440	------
Total	130,580	133,950	122,580	125,460	81,480	129,380	194,650	90,150	78,700	76,390	74,330	78,770
Mean	4,212	4,465	3,954	4,047	2,910	4,174	6,488	2,908	2,623	2,464	2,398	2,626
Ac-ft	259,000	265,700	243,100	248,800	161,600	256,600	386,100	178,800	156,100	151,500	147,400	156,200

Calendar year 1954: Max 10,900 Min 2,260 Mean 3,756 Ac-ft 2,719,000
Water year 1954-55: Max 8,160 Min 2,340 Mean 3,607 Ac-ft 2,611,000

* Discharge measurement made on this day.

Deep Creek near Buhl, Idaho

Location.--Lat 42°37'05", long 114°50'40", in SE¼NW¼ sec. 29, T. 9 S., R. 14 E., on right bank 0.2 mile downstream from Twin Falls Canal Co. diversion dam, a quarter of a mile upstream from U. S. Highway 30, 4½ miles northwest of Buhl, and 5 miles upstream from mouth.
Records available.--July to September 1955.
Gage.--Water-stage recorder. Altitude of gage is 3,500 ft (by barometer).
Extremes.--Maximum discharge during period, 211 cfs Sept. 28 (gage height, 2.00 ft); minimum recorded, 1.3 cfs Aug. 4 (gage height, 0.08 ft).
Remarks.--Records good except those for periods of no gage-height record, which are poor. Flow is waste from irrigation and stock water delivered to adjacent lands by Twin Falls Canal Co. and is completely controlled by gates 0.2 mile upstream.

Discharge, in cubic feet per second, 1955

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	a7	28	9	-	29	32	17	-	13	62	25	*11	17	179
2	-	a6	31	10	-	43	33	18	-	14	102	26	13	13	152
3	-	a5	42	11	-	43	27	19	-	20	127	27	a12	19	161
4	-	4.7	32	12	-	45	38	20	-	14	158	28	a10	31	173
5	-	17	32	13	-	41	46	21	-	6.2	131	29	a9	31	160
6	-	18	31	14	-	45	52	22	-	6.3	110	30	a8	31	*155
7	-	26	24	15	-	38	51	23	-	*7.7	106	31	a8	19	-
8	-	27	32	16	-	22	48	24	-	14	167				
Total													-	672.9	2,522
Mean													-	21.7	84.1
Runoff in acre-feet													-	1,330	5,000

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

BOX CANYON SPRINGS BASIN

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 below a waterfall, about half a mile upstream from mouth, three-quarters of a mile below source, and 7½ miles southwest of Wendell.
Records available.--April 1950 to September 1955.
Gage.--Water-stage recorder. Altitude of gage is 2,950 ft (from topographic map).
Average discharge.--5 years, 422 cfs (305,500 acre-ft per year).
Extremes.--1950-55: Maximum daily discharge, 480 cfs Sept. 29, 1950; minimum daily, 372 cfs Apr. 12, 1951.
Remarks.--Records excellent. No regulation or surface diversion above station. Discharge affected by variable surface waste from irrigation canals over rimrocks into springs above station. This waste was reported not flowing Oct. 23, Jan. 6, Feb. 16, Mar. 22, June 23, July 19, and estimated on May 1 (1 cfs), May 25 (1 cfs), Aug. 30 (1 cfs), Sept. 28 (0.5 cfs).

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	466	435	422	a410	402	394	392	*387	400	422	430	440
2	466	435	422	a410	402	394	392	392	400	422	430	443
3	466	432	422	a410	402	392	392	390	400	422	430	443
4	466	435	422	a410	400	392	392	390	397	422	430	443
5	464	435	420	a410	400	394	390	387	397	424	430	440
6	464	435	420	*410	402	394	390	387	397	427	430	440
7	458	435	*420	410	402	394	390	384	397	422	430	443
8	458	435	420	410	402	394	390	387	397	422	430	445
9	458	432	420	410	402	394	390	384	400	422	432	445
10	458	432	420	410	400	394	390	384	402	420	430	445
11	458	432	417	407	400	394	392	384	404	417	432	443
12	456	432	417	404	400	394	390	384	407	422	435	443
13	453	430	417	404	400	394	390	384	410	424	437	445
14	450	430	414	404	397	394	390	387	407	422	435	448
15	450	430	417	404	397	392	390	387	407	422	437	450
16	450	432	414	404	*397	392	390	387	407	424	437	450
17	448	430	410	404	400	392	390	387	407	427	437	450
18	445	427	410	404	397	392	390	384	407	424	437	450
19	445	424	410	404	397	394	387	384	407	*424	440	450
20	445	424	410	404	394	392	387	387	407	424	437	450
21	445	424	410	404	394	392	387	387	410	424	437	450
22	445	424	410	404	397	*392	390	390	412	424	440	450
23	*445	422	412	404	394	392	387	390	*412	427	440	448
24	443	422	412	404	394	392	390	392	412	430	440	448
25	440	422	412	402	394	392	394	*392	412	430	440	450
26	440	422	412	400	394	390	394	397	414	430	440	450
27	440	422	410	402	394	390	392	397	414	432	440	450
28	440	a420	410	402	394	392	390	394	417	430	440	*453
29	437	a420	a410	402	-	392	390	394	417	430	440	453
30	435	422	a410	402	------	392	387	397	420	430	*440	453
31	435	------	a410	402	------	390	-----	397	------	430	440	------
Total	13,969	12,852	12,862	12,571	11,148	12,172	11,705	12,054	12,197	13,172	13,503	13,411
Mean	451	428	415	406	398	393	390	389	407	425	436	447
Ac-ft	27,710	25,490	25,510	24,930	22,110	24,140	23,220	23,910	24,190	26,130	26,780	26,600

Calendar year 1954: Max 472 Min 390 Mean 423 Ac-ft 306,400
Water year 1954-55: Max 466 Min 384 Mean 415 Ac-ft 300,700

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for adjacent periods and records for other Snake River springs.

Salmon Falls Creek above upper Vineyard ditch, near Contact, Nev.

Location.--Lat 41°44', long 114°53', near northwest corner of sec. 5, T. 44 N., R. 63 E., on left bank three-quarters of a mile above former diversion point for upper Vineyard ditch, 1¼ miles above present diversion dam, and 6 miles southwest of Contact.

Drainage area.--439 sq mi, approximately.

Records available.--May 1914 to July 1915, October 1948 to September 1955.

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.--7 years (1948-55), 91.3 cfs (66,100 acre-ft per year).

Extremes.--Maximum discharge during year, 323 cfs June 16 (gage height, 3.01 ft); minimum, 6.8 cfs Dec. 26 (gage height, 0.93 ft).
1914-15, 1948-55: Maximum discharge, 1,170 cfs May 4, 1952 (gage height, 4.82 ft); minimum, that of Dec. 26, 1954.

Remarks.--Records excellent except those below about 20 cfs, which are good, and those for periods of ice effect, which are fair. Many diversions above and below station for irrigation.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	12	2.1	108
1.2	17	2.5	184
1.4	30	3.0	330
1.7	58		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	24	b21	24	24	25	34	63	182	69	23	16
2	18	24	22	24	24	27	38	77	162	60	22	16
3	19	24	23	22	b22	27	35	73	148	52	22	16
4	19	24	25	b23	b22	26	32	67	150	56	21	16
5	19	24	24	b20	b23	b25	33	63	148	50	21	16
6	19	24	23	b19	b23	b25	33	88	158	47	21	16
7	19	24	24	*b17	23	26	34	116	194	43	21	16
8	19	24	b21	b18	24	26	36	135	227	40	21	17
9	19	24	b20	b18	25	28	38	138	250	38	20	16
10	19	24	23	b17	b24	28	43	131	253	41	20	16
11	19	25	22	b18	b23	30	44	128	241	52	19	17
12	19	25	b21	b20	b22	32	42	140	247	54	19	17
13	21	24	23	b19	24	34	42	144	213	44	18	17
14	21	24	22	b22	24	32	43	175	213	38	19	17
15	20	24	23	b21	24	28	43	180	259	34	19	17
16	21	25	b21	b22	24	28	43	158	302	30	20	17
17	21	24	b20	b22	24	28	47	160	*222	26	20	20
18	21	24	b21	22	*b22	29	56	140	184	24	21	22
19	21	24	b22	22	b20	30	58	124	154	27	21	22
20	21	24	b21	22	b21	27	52	*121	137	34	22	22
21	21	24	b22	22	24	27	50	138	122	*33	20	20
22	21	24	b22	b23	24	29	48	198	111	31	19	19
23	21	24	b22	24	24	30	48	211	101	35	18	19
24	21	24	b22	24	24	*31	50	224	98	71	18	19
25	21	24	22	24	25	34	52	235	94	54	20	21
26	*21	24	b21	24	26	30	60	196	91	41	19	22
27	22	24	b20	b22	26	31	61	173	82	34	*18	21
28	22	24	b19	b22	25	32	56	148	76	30	17	20
29	22	23	b20	b22	-	34	54	138	80	28	17	19
30	23	*b18	b21	b23	------	35	*54	148	82	25	16	20
31	24	------	23	24	------	34	-----	182	------	23	16	------
Total	632	716	676	666	660	908	1,359	4,412	4,981	1,264	608	549
Mean	20.4	23.9	21.8	21.5	23.6	29.3	45.3	142	166	40.8	19.6	18.3
Ac-ft	1,250	1,420	1,340	1,320	1,310	1,800	2,700	8,750	9,880	2,510	1,210	1,090

Calendar year 1954: Max 184 Min 15 Mean 41.1 Ac-ft 29,780
Water year 1954-55: Max 302 Min 16 Mean 47.8 Ac-ft 34,580

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

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 highway bridge, 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 September 1916, October 1918 to September 1955.

Gage.--Water-stage recorder. Prior to June 30, 1910, staff gage at nearby site at different datum.

Average discharge.--43 years (1910-16, 1918-55), 133 cfs (96,290 acre-ft per year).

Extremes.--Maximum discharge during year, 370 cfs May 10 (gage height, 5.22 ft); minimum, 11 cfs Aug. 30 to Sept. 5 (gage height, 3.15 ft).
1909-16, 1918-55: 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 excellent except those below about 20 cfs, which are good. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.1	5.5	4.0	113
3.3	22	4.5	212
3.6	52	5.2	370

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	42	36	45	46	49	64	204	231	75	34	11
2	31	42	50	45	45	55	69	252	225	68	32	11
3	31	42	53	39	38	55	66	265	210	62	30	11
4	31	43	53	41	38	52	64	231	194	57	26	11
5	30	43	48	36	41	44	62	206	188	56	24	11
6	27	43	46	36	42	44	61	225	180	56	22	13
7	28	44	48	36	45	53	62	278	196	56	22	14
8	29	44	37	*27	50	56	64	322	218	51	21	14
9	31	44	31	30	49	56	68	356	250	49	20	18
10	32	44	48	29	41	57	76	356	269	48	19	20
11	32	45	50	30	39	57	78	317	261	51	18	20
12	33	46	35	36	40	57	73	292	258	56	17	20
13	35	46	50	33	45	58	71	283	263	57	16	20
14	35	46	44	37	51	60	72	299	237	51	48	20
15	36	48	49	34	53	57	72	315	267	50	45	20
16	35	49	35	38	52	56	69	301	308	49	26	21
17	35	49	31	38	51	55	69	276	*299	46	20	26
18	35	48	33	37	*36	55	79	258	239	44	19	29
19	36	48	35	39	31	55	111	220	210	42	19	30
20	37	48	34	41	37	53	121	*194	182	43	18	32
21	37	48	37	41	43	50	119	192	154	*48	14	31
22	38	48	39	39	45	53	111	218	132	51	14	31
23	38	46	38	40	46	*56	111	269	108	55	13	32
24	40	48	39	44	44	58	121	281	95	57	13	32
25	42	48	42	45	48	61	128	308	93	76	15	34
26	*42	46	33	44	49	61	146	290	89	64	15	36
27	41	44	27	39	50	57	168	263	82	53	*13	36
28	42	43	24	39	49	57	164	248	76	46	12	36
29	40	35	29	37	-	58	*146	218	73	43	12	35
30	40	*31	36	39	------	62	156	200	72	40	11	35
31	41	------	45	44	------	64	------	208	------	37	11	------
Total	1,090	1,341	1,235	1,178	1,244	1,721	2,841	8,145	5,659	1,637	639	710
Mean	35.2	44.7	39.8	38.0	44.4	55.5	94.7	263	189	52.8	20.6	23.7
Ac-ft	2,160	2,660	2,450	2,340	2,470	3,410	5,640	16,160	11,220	3,250	1,270	1,410

Calendar year 1954: Max 194 Min 8.7 Mean 60.2 Ac-ft 43,540
Water year 1954-55: Max 356 Min 11 Mean 75.2 Ac-ft 54,440

* Discharge measurement made on this day.

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 (revised) west of Rogerson.

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

Records available.--January 1922 to September 1955.

Gage.--Wire-weight gage read once daily. Datum of gage is 4,945.6 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, 30,300 acre-ft June 5 (gage height, 20.2 ft); minimum not determined, occurred during period of doubtful gage-height record in October.
1922-55: 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 ft (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 1954-55 (gage height, in feet, and contents, in acre-feet)

2.0	2,500	15.0	21,500
5.0	6,550	20.0	30,000
10.0	13,800	25.0	39,100

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	13,250	17,700	29,200	24,400	13,100	4,740
2	-	-	-	-	-	-	13,320	18,200	29,300	24,400	13,100	4,700
3	-	-	-	-	-	-	13,410	18,600	29,700	24,600	13,100	4,650
4	-	-	-		-	-	13,500	19,100	30,000	24,600	12,500	4,610
5	-	-	-	6,550	-	-	13,610	19,400	30,300	24,700	11,900	4,570
6	-	-	-	-	-	-	13,710	19,900	30,000	24,700	11,300	4,520
7	-	-	-	-	-	-	13,790	20,200	29,800	24,700	10,800	4,480
8	-	-	-	-	-	-	13,890	20,900	28,800	24,900	10,200	4,430
9	-	-	-	-	-	-	14,040	21,300	28,100	24,900	9,600	4,380
10	-	-	-	-	-	-	14,130	22,000	28,300	24,900	9,320	4,340
11	-	-	-	-	-	-	14,240	22,500	28,000	24,200	9,320	4,300
12	-	-	-	-	-	-	14,370	23,200	27,400	23,400	9,320	4,260
13	-	-	-	-	-	-	14,460	23,700	26,900	22,700	9,320	4,240
14	-	-	-	-	-	-	14,600	24,200	26,800	21,800	8,590	4,230
15	-	-	5,600	-	-	-	14,700	24,900	26,400	20,900	8,010	4,200
16	-	-	-	-	-	-	14,800	25,600	26,600	20,100	7,430	4,170
17	-	-	-	-	-	11,790	15,000	26,100	27,100	19,300	6,840	4,150
18	-	-	-	-	9,460	11,790	15,200	26,600	27,600	18,600	6,280	4,150
19	-	-	-	-	-	11,820	15,300	27,100	28,100	17,800	5,740	4,170
20	-	-	-	-	-	11,850	15,400	27,400	28,500	17,100	5,340	4,200
21	-	-	-	-	-	12,080	15,600	27,800	28,600	16,800	5,060	4,240
22	-	-	-	-	-	12,200	15,800	28,100	29,000	17,100	5,060	4,260
23	-	-	-	-	-	12,340	15,900	28,500	29,200	17,100	5,060	4,280
24	-	-	-	-	-	12,420	16,000	28,800	28,500	17,200	5,060	4,280
25	-	-	-	-	-	12,550	16,200	29,300	27,600	16,600	5,060	4,300
26	-	-	-	-	-	12,650	16,400	29,800	26,900	16,000	5,060	4,320
27	-	-	-	-	-	12,770	16,600	29,800	25,900	15,400	5,060	4,340
28	-	-	-	-	e10,300	12,840	17,000	29,800	25,100	14,700	4,930	4,380
29	-	-	-	-	-	12,960	17,200	29,700	24,400	14,100	4,930	4,400
30	-	e4,930	-	-	-------	13,060	17,600	29,500	24,000	13,400	4,800	4,400
31	e3,580	-------	e6,280	e8,160	-------	13,130	-------	29,300	-------	13,100	4,800	-------
(†)	e2.8	e3.8	e4.8	e6.1	e7.6	9.54	12.5	19.6	16.5	9.5	3.7	3.41
(‡)	-140	+1,350	+1,350	+1,880	+2,140	+2,830	+4,470	+11,700	-5,300	-10,900	-8,300	-400

Calendar year 1954: (‡) -7,520
Water year 1954-55: (‡) +680

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
e Estimated on basis of inflow-outflow studies and adjacent records.

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 1955.

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.--1937-55: Maximum daily discharge, 660 cfs July 21-24, 1944; no flow during long periods in 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							0	170	0	0	
2	0							0	0	0	0	
3	0							0	0	0	191	
4	0							0	0	0	268	
5	0							0	201	0	274	
6	0							*0	278	0	272	
7	0			(*)				0	*327	0	274	
8	0							0	402	0	*270	
9	22							0	426	0	238	
10	179							0	455	236	0	
11	179							0	452	376	0	
12	127							0	431	398	0	
13	0							*0	413	425	182	
14	0							0	369	426	278	
15	0							0	272	430	286	
16	0							0	0	420	287	
17	0							0	*0	391	281	
18	0				(*)			0	0	390	261	
19	0							0	0	390	225	
20	0							*0	0	293	108	
21	0							0	0	*0	15	
22	0							0	0	0	13	
23	0					(*)		0	303	0	0	
24	0							0	425	193	0	
25	0							0	457	308	0	
26	*0							181	473	323	0	
27	0							252	457	352	*0	
28	0							262	432	357	0	
29	0				-		(*)	279	326	360	0	
30	0	(*)			------			264	0	279	0	
31	0	------			------		------	227	------	0	0	------
Total	507	0	0	0	0	0	0	1,465	7,069	6,347	3,723	0
Mean	16.4	0	0	0	0	0	0	47.3	236	205	120	0
Ac-ft	1,010	0	0	0	0	0	0	2,910	14,020	12,590	7,380	0

Calendar year 1954: Max 435 Min 0 Mean 49.2 Ac-ft 35,610
Water year 1954-55: Max 473 Min 0 Mean 52.4 Ac-ft 37,910

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

SALMON FALLS CREEK BASIN

Salmon Falls Creek near Buhl, Idaho

Location.--Lat 42°36', long 114°53', in SW¼ sec. 36, T. 9 S., R. 13 E., 5 miles northeast of Balanced Rock and Castleford crossing, 6 miles west of Buhl, and 9 miles upstream from mouth.

Records available.--July to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 3,230 ft (by barometer).

Extremes.--Maximum discharge during period, 159 cfs Sept. 20 (gage height, 2.19 ft); minimum, 94 cfs July 28, 30, Aug. 3, 4 (gage height, 1.83 ft).

Remarks.--Records good. Only leakage passes Salmon River Canal Co. Dam, where flow is diverted for irrigation. Flow at station is derived from seepage past dam, underground flow from adjacent irrigated land, and surface waste over rim of canyon.

Rating table, July 26 to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

1.8	91
2.0	114
2.2	162

Discharge, in cubic feet per second, July to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	101	113
2										-	99	114
3										-	100	116
4										-	99	116
5										-	108	116
6										-	109	109
7										-	111	108
8										-	108	109
9										-	105	109
10										-	105	108
11										-	108	108
12										-	109	111
13										-	108	114
14										-	109	118
15										-	110	137
16										-	111	140
17										-	110	134
18										-	116	140
19										-	124	148
20										-	114	148
21										-	111	137
22										-	110	137
23										-	110	134
24										-	108	134
25										-	108	142
26										*105	108	148
27										99	116	145
28										99	113	134
29										100	*114	*137
30					------					99	124	142
31		------			------		------		------	100	111	------
Total										-	3,397	3,806
Mean										-	110	127
Ac-ft										-	6,740	7,550

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

* Discharge measurement made on this day.

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.--320 sq mi, approximately.

Records available.--April 1925 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,780 ft (by barometer). Prior to Aug. 20, 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.--29 years (1926-55), 27.4 cfs (19,840 acre-ft per year).

Extremes.--Maximum discharge during year, 474 cfs May 7 (gage height, 4.78 ft); maximum gage height observed, 5.02 ft Mar. 28 (ice jam); no flow for long period.
1925-55: 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 during periods in many years.

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 and stock water.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 66.

Revisions (water years).--WSP 813: 1935. WSP 1123: 1947.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	0.3	2.3	29
1.5	.9	2.5	46
1.6	1.8	3.0	102
1.7	3.3	3.5	171
1.8	5.6	4.0	270
1.9	8.7	4.5	395
2.1	17		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	1.4	5					88	108	34	8.7	5.6
2	2.6	1.2	7					107	150	50	7.8	4.9
3	2.6	1.4	7.6				(*)	*136	142	41	7.2	4.7
4	2.8	*1.3	*7.4				1	*174	136	33	6.2	4.9
5	2.6	1.4	7		1			225	120	25	5.6	3.8
6	.8	1.5	7	(*)				337	98	17	5.4	3.8
7	1.0	1.5	7					340	89	13	4.9	3.3
8	1.2	1.8		4				295	83	14	5.6	3.0
9	.8	1.8						279	84	13	5.6	2.6
10	.8	2.6						223	91	12	5.6	2.6
11	.8	3.0				0		217	*90	11	6.8	2.2
12	.8	3.8					2	185	86	11	6.2	2.2
13	.9	3.5						142	89	*11	6.5	2.6
14	.8	6.5						122	106	12	7.5	2.0
15	1.3	7.5						143	142	14	6.8	1.6
16	1.6	7.8	5		(*)			162	149	12	8.7	1.7
17	2.0	12					3	164	174	11	*13	1.7
18	1.7	14					4	135	186	8.7	14	2.2
19	1.7	7.5		3	0		6	97	146	7.5	12	1.7
20	1.6	4.9					9	80	125	7.5	11	2.0
21	1.5	7.8					14	89	97	6.8	9.8	*2.6
22	1.5	9.1					20	114	82	5.9	9.5	4.2
23	1.0	8.5					27	199	68	5.9	8.1	5.1
24	.8	8.5					40	211	52	8.7	7.2	6.5
25	.9	8.5					58	160	39	9.5	7.2	6.8
26	1.6	8				1	90	*158	32	13	5.4	7.2
27	2.1	7		2			60	135	28	14	8.1	7.5
28	1.7	6					*48	132	22	12	6.5	9.1
29	1.4	5.5	4		-		70	112	19	10	5.6	7.8
30	1.3	4.5			------		69	86	24	8.7	6.2	7.2
31	1.4	------			------		------	84	------	8.7	5.9	------
Total	46.0	159.8	162.0	99	8	10	544	5,131	2,857	460.9	234.6	123.1
Mean	1.48	5.33	5.23	3.2	0.3	0.3	18.1	166	95.2	14.9	7.57	4.10
Ac-ft	91	317	321	196	16	20	1,080	10,180	5,670	914	465	244

Calendar year 1954: Max 266 Min - Mean 24.0 Ac-ft 17,380
Water year 1954-55: Max 340 Min 0 Mean 28.9 Ac-ft 19,510

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

Note.--Stage-discharge relation affected by ice about Nov. 23 to about Apr. 20. No gage-height record Dec. 12-14, 16-31, Jan. 2 to Mar. 27, Mar. 29 to Apr. 1, Apr. 4-6, 8-10, 12-14, 16-18, 20-24, 26, 27; discharge estimated on basis of weather records, 4 discharge measurements, and records for Beaver Creek at Dubois and other nearby streams.

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 1955.

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.--28 years (1921-24, 1928-29, 1931-55), 17.0 cfs (12,300 acre-ft per year).

Extremes.--Maximum discharge during year, 136 cfs May 6 (gage height, 1.91 ft); no flow most of year.
1921-55: Maximum discharge, 858 cfs Apr. 7, 1930 (gage height, 4.77 ft); no flow for long periods.

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

Cooperation.--Water-stage recorder inspected by employees of Water District No. 66.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.1	0	0.8	8.5
.2	.1	1.0	17
.3	.3	1.2	30
.4	.8	1.4	51
.5	1.8	1.7	98
.6	3.3	2.0	153
.7	5.5		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	102	25	18		
2							*0	107	28	9.3		
3							0	*98	47	5.5		
4		(*)	(*)				0	*81	39	4.4		
5							0	98	26	1.9		
6				(*)			0	116	20	.1		
7							*0	103	14	0		
8							0	84	8.5	0		
9							0	78	6.4	0		
10							0	59	*4.8	0		
11							0	47	2.1	0		
12							0	40	4.1	0		
13							0.3	36	25	*0		
14							4.4	34	51	0		
15							3.0	45	42	0		
16					(*)		3.5	52	54	0		
17							8.9	62	68	0	(*)	
18							9.6	44	47	0		
19							7.2	29	33	0		
20							9.8	22	22	0		
21							9.4	20	15	0		(*)
22						(*)	17	37	11	0		
23							14	35	5.5	0		
24							26	26	2.8	0		
25							29	35	2.0	1.3		
26							54	*28	.8	0		
27							39	29	1.1	0		
28							*28	25	.6	0		
29							20	17	.4	0		
30					------		29	12	25	0		
31		------			------		------	16	------	0		------
Total	0	0	0	0	0	0	312.1	1,617	631.1	40.5	0	0
Mean	0	0	0	0	0	0	10.4	52.2	21.0	1.31	0	0
Ac-ft	0	0	0	0	0	0	619	3,210	1,250	80	0	0

Calendar year 1954: Max 81 Min 0 Mean 8.52 Ac-ft 6,170
Water year 1954-55: Max 116 Min 0 Mean 7.13 Ac-ft 5,160

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

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 1955.

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.--34 years, 3.89 cfs (2,820 acre-ft per year).

Extremes.--Maximum discharge during year, 32 cfs May 6 (gage height, 1.95 ft); no flow most of year.
1921-55: 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. Flow affected by irrigation diversions above Dubois, 14 miles above station, and by heavy channel losses below Dubois.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	1.4	6.7
1.1	.8	1.5	9.8
1.2	2.2	1.7	18
1.3	4.2	2.0	35

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0				
2							(*)	6.2				
3	(*)							*25				
4	(*)	(*)	(*)		(*)			*14				
5								10				
6				(*)				22	(*)			
7								29				
8								18		(*)		
9								14				
10						(*)		7.9	(*)			
11								0.5				
12								0				
13								0		(*)		
14								0				
15								0				
16					(*)			*0				
17								0			(*)	
18								0				
19								0				
20								0				
21								0				(*)
22								0				
23								0				
24								0				
25							(*)	0		(*)		
26								*0				
27								0	(*)			
28							(*)	0				
29					-			0				
30					------			0	(*)			
31		------			------		------	0	------			------
Total	0	0	0	0	0	0	0	146.6	0	0	0	0
Mean	0	0	0	0	0	0	0	4.73	0	0	0	0
Ac-ft	0	0	0	0	0	0	0	291	0	0	0	0

Calendar year 1954: Max 22 Min 0 Mean 0.25 Ac-ft 182
Water year 1954-55: Max 29 Min 0 Mean 0.40 Ac-ft 291

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

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. Prior to Oct. 1, 1954, at site 2.7 miles southwest.

Drainage area.--1,050 sq mi, approximately, not including Medicine Lodge Creek.

Records available.--April 1921 to September 1955.

Gage.--Water-stage recorder. Datum of each 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, 30,600 acre-ft May 7, 8; maximum gage height, 7.02 ft Apr. 26 (affected by wind); minimum contents, 3,550 acre-ft Oct. 24 (gage height, 0.08 ft).

1921-55: 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 from 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 1955. 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 frequently disturb the recording of lake stages.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 66 and supplemental staff-gage readings furnished by Owsley Canal Co.

Revisions.--WSP 1247: Drainage area.

Capacity table, water year 1954-55 (gage height, in feet, and contents, in acre-feet)

0.0	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	8.0	37,900

Contents, in acre-feet, at 12 p.m., water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,030	4,090	8,180	13,700	19,000	22,800	26,400	30,500	f27,400	15,200	5,750	4,600
2	4,990	4,190	8,340	13,900	19,200	22,900	26,800	30,500	27,400	14,800	5,630	4,620
3	4,940	4,310	8,530	14,000	19,300	23,000	27,000	f30,500	27,300	14,400	5,460	4,660
4	4,900	4,410	8,660	14,200	19,500	23,100	27,100	30,500	27,300	14,200	5,250	4,710
5	4,830	4,520	8,820	14,400	19,600	23,200	27,300	30,500	27,300	14,100	5,080	4,770
6	4,730	4,620	8,990	14,500	19,800	23,400	27,400	30,500	27,300	f14,000	4,970	f4,810
7	4,660	4,730	9,150	14,800	20,000	23,500	27,600	f30,600	27,300	13,700	4,830	4,860
8	4,560	4,880	9,280	15,000	20,100	23,600	27,700	30,500	26,800	13,600	4,680	4,920
9	4,390	4,990	9,420	15,100	20,200	23,700	27,900	30,200	26,400	13,400	4,580	4,940
10	4,350	5,120	9,620	15,400	20,400	23,800	28,200	30,000	26,000	13,100	4,480	5,030
11	4,270	5,250	9,790	15,500	20,500	23,900	28,200	29,700	25,600	13,000	4,350	5,120
12	4,190	5,410	9,970	15,700	20,600	23,900	28,500	29,200	25,100	12,700	f4,310	5,250
13	4,070	5,510	10,100	15,900	20,700	24,100	28,500	28,900	24,600	12,400	f4,250	5,300
14	3,990	5,630	10,300	16,000	20,800	24,200	28,600	28,500	24,100	12,100	4,190	f5,340
15	3,970	5,850	10,500	16,200	20,900	24,200	28,800	29,000	23,600	11,600	4,130	5,390
16	3,890	6,000	10,700	16,300	21,000	24,300	28,900	29,200	23,200	11,100	4,010	5,510
17	3,860	6,150	10,800	16,500	21,100	24,400	29,200	29,200	22,700	10,700	3,990	5,580
18	3,860	6,280	11,000	16,700	21,200	24,500	f29,200	29,200	22,300	10,200	f4,070	5,630
19	3,840	6,430	11,200	16,900	21,400	24,600	f29,400	29,200	22,000	9,790	4,090	5,700
20	3,740	6,510	11,400	17,100	21,600	24,800	29,500	29,300	21,500	9,380	4,090	5,700
21	3,700	6,610	11,600	17,200	21,800	25,000	29,700	29,100	21,100	8,950	4,090	f5,700
22	3,680	6,790	11,800	17,400	22,000	f25,000	29,900	29,100	20,800	8,560	f4,170	f5,700
23	3,610	6,930	12,000	17,500	22,200	25,000	f30,100	28,900	20,400	8,240	4,190	f5,720
24	3,670	7,090	12,200	17,800	22,300	25,100	30,200	28,700	19,700	7,900	f4,210	f5,750
25	3,720	f7,230	12,400	17,900	22,400	25,200	f30,400	28,500	19,000	7,550	4,230	5,770
26	3,780	f7,400	12,600	18,100	22,500	25,400	30,400	f28,300	18,400	7,150	4,290	5,720
27	3,840	7,580	12,700	18,200	22,600	25,500	f30,400	28,100	17,900	6,980	4,350	f5,680
28	3,910	7,670	12,800	18,400	22,800	25,700	30,400	28,000	f17,200	6,690	4,410	5,630
29	3,970	7,810	13,100	18,500	-	25,900	30,400	27,900	16,500	f6,460	4,450	f5,560
30	3,990	8,000	13,300	18,700	-------	26,100	30,400	27,600	15,900	6,200	4,520	f5,510
31	4,010	-------	13,500	18,900	-------	26,200	-------	27,400	-------	5,950	4,580	-------
(†)	0.32	1.95	3.46	4.67	5.45	6.09	6.81	6.30	4.03	1.20	0.60	1.02
(‡)	-1,040	+3,990	+5,500	+5,400	+3,900	+3,400	+4,200	-3,000	-11,500	-9,950	-1,370	+930

Calendar year 1954: (‡) -1,300
Water year 1954-55: (‡) +460

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
f Recorder record affected by wind; contents computed from gage height estimated on basis of adjacent records.

Medicine Lodge Creek at Ellis Ranch, near Argora, Idaho

Location.--Lat 44°17', long 112°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 1955.

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.

Average discharge.--14 years (1941-55), 43.0 cfs (31,130 acre-ft per year).

Extremes.--Maximum discharge during year, 78 cfs Apr. 8 (gage height, 2.77 ft); minimum, 4.0 cfs Nov. 28 (gage height, 1.24 ft).
1940-55: 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.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	28	13	28	38	36	30	24	47	54	42	33
2	25	24	13	34	30	36	*30	36	48	51	42	33
3	25	22	16	38	16	38	17	34	50	52	41	33
4	24	*22	*18	30	13	31	15	32	51	55	40	33
5	24	22	24	30	15	23	17	36	50	53	40	33
6	24	21	32	*29	17	25	28	42	49	52	40	32
7	24	20	36	26	19	26	47	41	48	53	40	32
8	24	18	21	24	22	36	55	46	47	52	40	32
9	25	12	26	24	24	40	54	55	46	50	40	33
10	25	10	23	28	21	38	46	54	*47	49	39	32
11	26	7.4	20	28	18	36	38	53	50	50	40	32
12	25	7.4	20	28	22	35	37	52	56	50	39	32
13	26	5.4	22	30	22	34	38	51	67	49	38	31
14	26	5.7	20	29	25	34	38	51	66	*47	44	30
15	26	5.7	22	32	27	26	32	60	60	46	43	30
16	26	6.0	18	34	30	28	30	56	62	46	40	30
17	26	5.4	18	30	*35	35	30	56	61	46	*40	31
18	26	5.4	16	33	12	35	28	59	60	44	40	34
19	26	5.7	16	34	10	30	19	50	59	44	38	31
20	26	10	15	32	15	13	12	46	59	44	38	32
21	26	11	15	32	20	22	17	47	57	46	38	*32
22	26	12	16	33	24	32	18	50	56	49	38	31
23	27	12	18	34	27	34	18	47	57	50	36	31
24	28	8.2	20	35	29	34	22	48	57	53	37	31
25	28	9.7	20	36	31	30	22	54	56	52	38	31
26	28	10	22	36	34	28	22	*51	57	47	36	32
27	26	11	19	36	36	22	18	51	56	45	36	31
28	28	13	18	34	32	33	*18	50	55	44	36	*30
29	28	14	19	28	-	32	20	49	61	44	35	31
30	28	12	20	30	------	34	22	47	60	44	34	32
31	28	------	24	36	------	28	------	48	------	43	34	------
Total	805	376.0	620	971	664	964	838	1,476	1,655	1,504	1,202	951
Mean	26.0	12.5	20.0	31.3	23.7	31.1	27.9	47.6	55.2	48.5	38.8	31.7
Ac-ft	1,600	7.46	1,230	1,930	1,320	1,910	1,660	2,930	3,280	2,980	2,380	1,890

Calendar year 1954: Max 62 Min 5.4 Mean 33.5 Ac-ft 24,240
Water year 1954-55: Max 67 Min 5.4 Mean 32.9 Ac-ft 23,860

* Discharge measurement made on this day.

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, 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 1955.

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.--7 years (1910-11, 1921-22, 1950-55), 80.2 cfs (58,060 acre-ft per year).

Extremes.--Maximum discharge during year, 103 cfs Aug. 14 (gage height, 1.86 ft); maximum gage height, 2.21 ft Feb. 21 (backwater from ice); minimum discharge, 63 cfs Feb. 9; minimum gage height, 1.48 ft Mar. 25.
1910-12, 1921-23, 1950-55: Maximum discharge observed, 160 cfs Mar. 2, 1912 (gage height, 2.20 ft, site and datum then in use); minimum observed, 61 cfs Jan. 29, 1951; minimum gage height, that of Mar. 25, 1955.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	66
1.6	75
1.8	95

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	74	78	78	76	73	*76	80	79	75	75	75
2	73	73	78	78	b76	74	74	83	80	75	75	76
3	73	74	78	77	b76	73	b74	83	79	75	75	75
4	72	*75	*78	76	b76	73	76	84	79	75	75	74
5	72	75	77	76	b76	b73	74	84	78	74	75	74
6	73	75	77	76	b76	b74	74	84	78	74	74	74
7	73	75	76	*b77	77	74	74	84	78	74	74	74
8	73	75	76	b77	77	74	74	84	77	75	75	74
9	73	76	b76	b77	75	74	75	85	77	73	75	74
10	73	76	b76	77	b76	75	74	84	*77	73	75	74
11	73	76	76	b77	b76	75	74	85	77	73	75	74
12	73	78	76	b77	76	74	74	85	77	73	75	74
13	72	77	76	77	b76	75	74	85	78	*73	77	74
14	72	77	75	77	76	75	74	85	77	73	85	74
15	73	78	76	b76	76	b75	74	85	77	72	81	73
16	74	77	b75	76	*75	b76	74	85	78	72	79	73
17	74	76	b75	b77	74	76	74	84	77	72	*79	74
18	73	76	75	77	72	76	75	83	76	72	78	75
19	72	77	76	77	b74	75	75	82	76	71	78	75
20	72	78	76	b77	b74	b75	74	82	76	72	78	75
21	72	78	76	b76	b74	b75	74	82	76	77	78	*75
22	72	78	76	b76	73	75	75	83	75	76	78	74
23	72	78	76	76	b73	75	76	80	75	77	77	74
24	72	78	76	76	b74	75	76	80	75	81	77	74
25	72	78	76	77	74	b74	77	*80	75	76	77	74
26	73	77	76	76	73	b75	79	80	75	76	77	74
27	73	78	76	76	74	b75	*79	80	74	76	77	74
28	73	78	76	76	b73	75	77	80	75	76	76	74
29	73	79	76	b76	-	75	78	79	77	76	76	74
30	74	78	77	b76	------	74	78	79	78	75	76	74
31	73	------	77	76	------	75	------	79	------	75	76	------
Total	2,255	2,298	2,364	2,374	2,098	2,312	2,256	2,558	2,306	2,307	2,378	2,226
Mean	72.7	76.6	76.3	76.6	74.9	74.6	75.2	82.5	76.9	74.4	76.7	74.2
Ac-ft	4,470	4,560	4,690	4,710	4,160	4,590	4,470	5,070	4,570	4,580	4,720	4,420

Calendar year 1954: Max 91 Min 72 Mean 79.0 Ac-ft 57,200
Water year 1954-55: Max 85 Min 71 Mean 76.0 Ac-ft 55,010

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 6, 7, Dec. 18 to Jan. 6; discharge estimated on basis of weather records and records for adjacent periods.

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., 6 miles northwest of Berenice, and 7 miles northwest of Howe.

Drainage area.--685 sq mi.

Records available.--April 1921 to September 1955 (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.--15 years (1940-55), 69.2 cfs (50,100 acre-ft per year).

Extremes.--Maximum discharge during year, 228 cfs Aug. 14 (gage height, 4.30 ft); maximum gage height recorded, 6.25 ft Mar. 22, 23 (ice jam); minimum daily discharge, 13 cfs Jan. 5-8.

1921-55: Maximum discharge, about 450 cfs Aug. 11, 1936 (gage height, 3.1 ft, datum then in use, from floodmark), from rating curve extended above 100 cfs; maximum gage height observed, 6.50 ft during period Feb. 7 to Mar. 17, 1946, from floodmark (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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 14)

2.3	15	3.2	96
2.5	26	3.6	148
2.8	52	4.0	206

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	g55	30	20	22	35	26	57	114	109	64	49
2	58	g56	30	20	21	36	28	62	113	98	61	50
3	60	g56	30	20	20	34	28	61	112	91	58	50
4	59	g55	25	15	20	32	28	60	109	95	58	53
5	56	*54	*26	*13	19	30	28	58	98	94	56	56
6	55	54	26	13	19	33	27	58	100	90	55	56
7	54	54	25	13	23	35	28	64	103	89	55	52
8	52	56	25	13	25	38	31	65	109	84	53	44
9	51	57	25	14	22	40	31	69	121	77	52	45
10	53	59	30	14	22	41	31	70	*122	78	51	45
11	54	60	30	14	26	42	31	71	113	80	54	47
12	54	61	30	14	33	42	32	77	120	89	54	48
13	55	60	30	15	36	40	30	80	131	*82	52	48
14	55	59	28	15	36	38	32	81	140	74	104	48
15	g52	59	26	17	*g36	35	36	88	140	66	82	48
16	g52	60	25	18	35	36	45	91	145	64	62	51
17	52	60	25	16	33	39	44	88	145	64	*59	52
18	g51	58	25	16	30	40	41	84	144	69	60	55
19	g51	60	27	18	28	35	42	82	138	63	60	55
20	g51	60	30	17	27	31	42	86	130	62	56	*55
21	g52	61	30	16	27	33	46	94	126	66	54	53
22	g52	62	30	16	27	36	53	104	124	71	50	53
23	g53	61	30	17	28	37	55	113	122	75	51	54
24	g53	61	30	18	29	30	54	118	120	91	55	55
25	g54	61	25	19	30	29	54	*124	118	96	54	54
26	g54	60	20	18	31	29	57	117	117	75	51	54
27	g54	59	16	18	32	29	*60	114	112	69	53	52
28	g54	45	16	18	33	29	57	108	106	72	52	53
29	g54	40	16	19	-	35	57	98	103	78	50	53
30	g56	30	18	21	------	32	57	98	125	76	50	53
31	g55	------	20	22	------	*28	------	*108	------	68	49	------
Total	1,675	1,693	799	517	770	1,079	1,211	2,648	3,620	2,455	1,775	1,541
Mean	54.0	56.4	25.8	16.7	27.5	34.8	40.4	85.4	121	79.2	57.3	51.4
Ac-ft	3,320	3,360	1,580	1,030	1,530	2,140	2,400	5,250	7,180	4,870	3,520	3,060

Calendar year 1954: Max 157 Min 16 Mean 65.0 Ac-ft 47,030
Water year 1954-55: Max 145 Min 13 Mean 54.2 Ac-ft 39,240

* Discharge measurement made on this day.
g Discharge computed from once-daily staff-gage readings.
Note.--No gage-height record Jan. 10 to Feb. 14, Feb. 16 to Mar. 23; discharge estimated on basis of weather records and records for Medicine Lodge Creek and other nearby streams. Stage-discharge relation affected by ice Nov. 28 to Dec. 3, Dec. 8-12, 14, Dec. 16 to about Jan. 25, Mar. 25, 26.

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 1955 (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.--1924-55: Maximum daily discharge, 87 cfs May 24, 25, 1928; no flow during long periods in each year.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Canal diverts water 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 employees of Water District No. 9.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a0.8	9.5					0	12	27	33	8.0	0
2	5.5	9.5					0	12	29	26	7.0	0
3	9.5	9.5					0	12	28	20	7.0	0
4	9.5	9.5					0	12	28	20	6.2	0
5	9.5	*9.5	(*)	(*)			0	12	23	20	5.6	0
6	13	9.5					0	12	22	17	5.6	0
7	15	15					0	12	23	15	5.6	0
8	15	17					0	12	24	13	5.6	0
9	15	20					0	12	a33	11	5.6	0
10	15	19					0	13	*42	11	5.6	0
11	15	16					0	14	42	11	8.5	0
12	15	16					0	11	42	11	8.2	0
13	15	16					0	9.2	49	*11	1.8	0
14	13	16					0	9.5	54	9.8	0	0
15	9.9	16			(*)		0	a9.8	55	9.1	0	0
16	9.5	16					0	10	57	8.9	0	0
17	a9.5	20					0	10	59	8.4	*0	5.5
18	9.5	20					4.3	10	59	8.1	0	7.7
19	9.5	20					8.0	10	58	8.1	0	7.7
20	9.5	20					8.4	10	51	8.1	0	*7.7
21	9.5	20					9.4	10	43	8.5	0	7.7
22	9.5	19					11	16	40	9.0	0	7.7
23	9.5	19					12	23	37	10	0	7.7
24	9.5	19					12	26	35	10	0	7.7
25	9.5	19					12	*32	34	14	0	7.7
26	9.5	21					12	35	36	14	0	7.7
27	9.5	18					*12	31	33	10	0	7.7
28	9.5	0					12	27	31	9.5	0	7.7
29	9.5	0					12	20	27	10	0	7.7
30	9.5	0					12	17	30	10	0	7.7
31	9.5	------			------	(*)	------	20	------	10	0	------
Total	327.7	439.0	0	0	0	0	137.1	481.5	1,151	394.5	80.3	105.6
Mean	10.6	14.6	0	0	0	0	4.57	15.5	38.4	12.7	2.59	3.52
Ac-ft	650	871	0	0	0	0	272	955	2,280	782	159	209

Calendar year 1954: Max 45 Min 0 Mean 8.75 Ac-ft 6,330
Water year 1954-55: Max 59 Min 0 Mean 8.54 Ac-ft 6,180

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated.

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 dam site, and 16 miles southwest of Chilly.

Drainage area.--114 sq mi.

Records available.--March 1944 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 6,820 ft (from topographic map).

Average discharge.--11 years, 99.9 cfs (72,320 acre-ft per year).

Extremes.--Maximum discharge during year, 543 cfs June 12 (gage height, 4.20 ft); minimum, 7.6 cfs Mar. 16, 21 (gage height, 1.12 ft).
1944-55: Maximum discharge, 1,080 cfs June 7, 1952 (gage height, 5.41 ft); minimum, that of Mar. 16, 21, 1955; minimum gage height, 1.11 ft Mar. 23, 1951.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	14	2.5	118
1.5	24	3.0	207
1.7	37	3.5	327
2.0	61	4.2	543

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	24	b17	18	21	18	14	25	218	203	89	35
2	27	24	19	18	21	18	14	26	194	176	84	34
3	27	24	20	18	21	17	14	26	188	172	81	34
4	26	23	22	b17	b18	17	14	27	194	162	76	34
5	26	23	*20	*b19	b19	b15	14	32	243	157	73	32
6	26	22	20	b18	b19	b15	14	42	319	168	73	31
7	26	22	20	b17	21	b16	14	56	394	157	73	31
8	26	22	18	b17	21	17	16	84	460	150	68	31
9	26	22	b17	b17	21	17	18	134	500	152	66	31
10	26	23	19	b19	b18	16	20	138	490	157	62	31
11	26	23	b18	b18	b19	16	18	150	493	168	60	31
12	26	24	b18	b19	21	14	18	170	-525	180	58	30
13	26	24	20	b19	20	14	18	178	504	*180	56	29
14	26	24	20	b19	21	14	18	161	*460	192	58	29
15	26	25	20	b19	21	14	17	134	460	199	56	30
16	26	26	b19	b19	20	14	17	115	426	199	54	31
17	26	25	b18	b18	20	15	17	101	368	194	51	32
18	25	24	b18	b19	19	14	18	95	335	188	*50	34
19	25	25	b18	b19	19	14	18	112	322	172	48	34
20	25	25	b18	b18	*b18	14	16	184	351	155	46	34
21	25	25	b19	b19	19	14	18	281	382	162	44	33
22	25	25	20	b19	18	*16	18	304	405	174	43	*31
23	25	25	20	20	18	15	18	296	408	157	41	31
24	25	25	20	20	18	15	18	271	360	201	40	32
25	25	25	b18	20	18	15	18	225	296	164	40	35
26	25	24	b18	b19	18	14	20	199	264	142	40	34
27	25	23	b17	b19	18	14	*18	172	250	125	40	32
28	25	20	b17	b19	18	14	18	157	243	118	38	31
29	25	b17	b17	b19	-	14	20	168	304	108	37	31
30	*25	b17	18	20	------	14	22	*254	245	99	36	30
31	24	-----	18	20	-----	14	-----	259	------	93	35	------
Total	794	700	581	579	543	468	517	4,576	10,601	5,024	1,716	958
Mean	25.6	23.3	18.7	18.7	19.4	15.1	17.2	148	353	162	55.4	31.9
Cfsm	0.225	0.204	0.164	0.164	0.170	0.132	0.151	1.30	3.10	1.42	0.486	0.280
In.	0.26	0.23	0.19	0.19	0.18	0.15	0.17	1.49	3.46	1.64	0.56	0.31
Ac-ft	1,570	1,390	1,150	1,150	1,080	928	1,030	9,080	21,030	9,960	3,400	1,900

Calendar year 1954: Max 673 Min 17 Mean 91.0 Cfsm 0.798 In. 10.84 Ac-ft 65,860
Water year 1954-55: Max 525 Min 14 Mean 74.1 Cfsm 0.650 In. 8.83 Ac-ft 53,670

Peak discharge (base, 300 cfs).--May 22 (1 a.m.) 306 cfs (3.42 ft); June 12 (7 a.m.) 543 cfs (4.20 ft); June 23 (3 a.m.) 441 cfs (3.90 ft); June 29 (4 a.m.) 332 cfs (3.52 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1955 (no winter records prior to 1949).

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.--8 years (1904-5, 1948-55), 288 cfs (208,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,740 cfs June 12 (gage height, 3.78 ft); maximum gage height recorded, 4.64 ft Mar. 27 or 28 (ice jam); minimum daily discharge, 48 cfs Mar. 6.
1904-14, 1920-55: Maximum discharge, 3,960 cfs June 26, 1954 (gage height, 6.00 ft); minimum observed, 19 cfs (discharge measurement) Dec. 12, 1939.

Remarks.--Records excellent except those for period Nov. 1 to Apr. 25, which are poor. No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 cfs) diverts a quarter of a mile downstream.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	51	2.0	397
1.0	86	2.5	660
1.3	158	3.0	1,040
1.6	248	3.7	1,660

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	76	55	55	54	50	52	106	570	564	251	95
2	86	76	57	55	54	50	52	108	515	484	248	93
3	87	76	60	55	54	49	52	95	510	484	235	93
4	86	72	70	52	50	49	52	95	499	510	222	90
5	84	72	60	56	52	49	52	122	623	489	207	88
6	84	70	*60	54	52	48	53	169	883	499	198	88
7	82	70	60	52	54	52	57	213	1,200	465	207	88
8	82	70	55	52	54	55	62	265	1,460	441	192	86
9	82	70	52	52	54	57	70	333	1,590	451	183	84
10	82	72	56	56	50	57	76	322	1,550	465	175	86
11	82	72	55	52	52	57	70	337	1,520	484	169	84
12	84	75	55	*51	54	52	68	376	1,620	536	164	82
13	84	75	57	53	54	52	67	415	1,520	*541	158	78
14	80	75	60	53	54	52	66	401	*1,410	564	161	75
15	80	78	60	53	54	52	64	364	1,420	575	161	78
16	82	82	57	53	54	53	62	314	1,370	592	150	78
17	82	78	55	50	54	56	63	282	1,100	564	142	82
18	80	72	51	52	50	54	64	265	979	541	*137	86
19	80	75	55	52	50	52	64	282	923	494	137	82
20	80	75	55	50	*50	50	64	376	1,040	446	132	86
21	80	75	57	52	50	55	64	570	1,150	451	127	86
22	80	75	61	52	50	*65	64	687	1,200	505	120	*82
23	80	75	61	54	50	60	64	720	1,200	455	115	82
24	82	75	61	54	50	55	64	894	1,020	839	113	84
25	82	75	55	54	50	54	65	587	822	570	115	88
26	82	73	54	54	50	53	*75	520	720	441	113	86
27	76	70	52	52	50	53	65	460	707	361	113	80
28	80	60	52	52	50	53	67	406	687	352	108	78
29	76	55	52	52	-	53	69	415	899	326	106	78
30	*78	55	55	54	------	53	86	*610	714	282	101	76
31	76	------	55	54	------	52	------	673	------	268	97	------
Total	2,528	2,169	1,760	1,642	1,454	1,652	1,913	11,582	31,421	15,059	4,857	2,522
Mean	81.5	72.3	56.8	53.0	51.9	53.3	63.8	374	1,047	486	157	84.1
Ac-ft	5,010	4,300	3,490	3,260	2,880	3,280	3,790	22,970	62,320	29,870	9,630	5,000

Calendar year 1954: Max 2,310 Min 51 Mean 266 Ac-ft 192,600
Water year 1954-55: Max 1,620 Min 48 Mean 215 Ac-ft 155,800

Peak discharge (base, 900 cfs).--June 12 (5 to 8 a.m.) 1,740 cfs (3.78 ft); June 23 (3 a.m.) 1,360 cfs (3.38 ft); June 29 (10:30 a.m.) 971 cfs (2.89 ft); July 24 (8:30 a.m.) 1,250 cfs (3.22 ft).
* Discharge measurement made on this day
Note.--Stage-discharge relation affected by ice about Nov. 28 to Apr. 10. No gage-height record Nov. 1 to Dec. 4, Dec. 7 to Mar. 20, Mar. 27, Apr. 3-25; discharge estimated on basis of 4 discharge measurements, weather records, and records for station at Wild Horse.

Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho

Location (revised).--Lat 43°58'20", long 113°43'50", in NE¼ sec. 4, T. 7 N., R. 23 E., on right bank above flow line of reservoir, 3 miles upstream from Mackay Dam and 7½ miles northwest of Mackay.

Records available.--May 1919 to September 1955.

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.--36 years, 69.5 cfs (50,320 acre-ft per year).

Extremes.--Maximum discharge during year, 404 cfs June 13 (gage height, 3.87 ft); no flow for long period.
1919-55: Maximum discharge, 1,360 cfs June 7, 8, 1952; maximum gage height, 5.18 ft June 8, 1952; no flow for long periods in many years.

Remarks.--Records good except those below 10 cfs, which are fair, and those for periods of no gage-height record, which are poor. Diversions above station for irrigation. See page 93 for combination of surface flow into Mackay Reservoir.

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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	5	2					0	69	107	43	1
2	8	4	2					0	70	88	35	1
3	8	4	2					0	72	81	28	1
4	8	4	2					0	72	77	24	1
5	7	4	2					0	76	69	21	1
6	7	4	*2					0	90	67	18	2
7	7	4	2					0	116	72	17	2
8	7	4	2					0	169	77	16	2
9	7	4	b1					0	218	86	15	2
10	7	3	a1					0	241	92	13	2
11	7	3	a1					0	247	101	12	2
12	7	3	1					0	342	97	11	2
13	6	3	a1	(*)				0	376	*109	11	2
14	6	3	a1					0	372	109	11	2
15	6	3	a1					0	*369	111	11	2
16	6	3	a1					0	352	114	10	2
17	5	3	a1					0	268	114	9	3
18	6	2	a1					0	221	109	8	3
19	6	2	b1			(*)		0	174	105	*7	4
20	6	2	a1					0	174	101	6	4
21	6	2	a1		(*)			0	194	99	5	3
22	6	2	a1			(*)		0	213	105	5	2
23	6	2	a1					0	230	109	4	*3
24	6	2	a1					0	208	148	4	3
25	6	2	a1					0	169	174	3	4
26	6	2	b1					0	142	148	3	4
27	6	2	0				(*)	0	128	124	3	3
28	5	2	0					11	124	109	2	3
29	*5	2	0		-			*24	142	103	2	3
30	5	3	0		------			36	142	82	2	2
31	5	------	0		------		------	58	------	58	1	------
Total	197	88	34	0	0	0	0	129	5,780	3,145	360	71
Mean	6.4	2.9	1.1	0	0	0	0	4.2	193	101	11.6	2.4
Ac-ft	391	175	67	0	0	0	0	256	11,460	6,240	714	141

Calendar year 1954: Max 755 Min 0 Mean 44.5 Ac-ft 32,200
Water year 1954-55: Max 376 Min 0 Mean 26.9 Ac-ft 19,440

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

Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho

Location (revised).--Lat 43°58'10", long 113°44'00", in NW¼ sec. 4, T. 7 N., R. 23 E., on left bank above flow line of reservoir, 3 miles upstream from Mackay Dam and 7½ miles northwest of Mackay.

Records availalble.--May 1919 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 6,062.38 ft above mean sea level (unadjusted). Prior to May 26, 1919, staff gage and May 26, 1919, to May 13, 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.--36 years, 58.6 cfs (42,430 acre-ft per year).

Extremes.--Maximum discharge during year, 405 cfs June 13 (gage height, 4.00 ft); minimum, 5.8 cfs Feb. 18 (gage height, 1.79 ft).
1919-55: Maximum discharge, 1,200 cfs (estimated) about June 12, 1921 (gage height, 4.45 ft, from floodmark, site and datum then in use); minimum, that of Feb. 18, 1955.

Remarks.--Records good. Diversions above station for irrigation. See page 93 for combination of surface flow into Mackay Reservoir.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Rating table, water year 1954-55 (gage height, in feet. and discharge, in cubic feet per second)

1.8	6.0	2.5	64
1.9	9.0	3.0	160
2.0	13	3.5	270
2.1	18	4.0	405
2.3	35		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	13	12	11	9.4	8.1	7.5	6.6	42	136	21	9.8
2	17	13	12	11	9.0	8.1	7.5	6.6	44	109	17	9.4
3	17	13	12	11	9.0	7.8	7.5	6.6	45	92	14	9.4
4	17	13	12	11	9.0	7.8	7.5	6.6	44	90	13	9.4
5	17	13	12	9.4	9.0	7.8	7.5	6.9	45	80	12	9.0
6	17	13	*12	10	8.7	7.5	7.5	6.9	62	71	11	9.0
7	16	13	12	10	8.7	7.5	7.5	6.9	110	69	11	9.0
8	16	13	12	10	8.4	7.5	7.2	6.9	183	68	11	8.7
9	17	13	12	9.8	8.4	7.5	7.2	6.6	263	71	10	9.0
10	16	14	12	9.8	8.1	7.5	7.2	6.6	308	77	10	8.7
11	15	13	12	9.8	8.1	7.5	6.9	6.6	325	92	11	8.7
12	14	13	11	9.8	8.1	7.5	6.9	7.2	340	112	11	9.0
13	15	13	11	*9.8	8.1	7.2	6.6	6.9	375	*109	11	9.0
14	14	13	11	9.8	8.1	7.2	6.6	6.9	348	107	12	9.0
15	14	13	12	9.8	8.1	7.2	6.6	7.2	*330	110	13	9.0
16	16	14	12	9.8	8.1	7.5	6.9	7.2	340	110	13	9.0
17	15	13	12	9.4	8.1	7.5	6.6	6.9	290	110	12	9.0
18	14	14	12	9.4	7.8	7.5	6.9	6.9	242	107	11	9.4
19	16	13	11	9.4	8.1	7.5	6.9	6.9	204	99	*12	9.4
20	15	13	11	9.4	8.1	7.5	6.9	6.6	209	92	12	9.4
21	16	13	11	9.4	*8.1	7.5	6.9	6.9	236	88	11	9.4
22	17	13	11	9.4	8.1	*7.5	6.9	6.6	254	95	11	9.4
23	17	13	11	9.4	8.1	7.5	6.9	6.6	270	107	11	*9.0
24	16	13	11	9.8	8.1	7.5	6.9	6.6	249	150	11	9.4
25	16	13	11	9.8	8.1	7.5	7.2	7.2	206	187	11	9.4
26	16	13	11	9.4	8.1	7.5	7.8	8.1	173	142	11	9.4
27	15	13	11	9.4	8.1	7.5	*7.2	11	152	110	10	9.0
28	15	13	11	9.4	8.1	7.8	7.2	14	144	92	10	8.7
29	*14	13	11	9.4	-	7.8	6.9	*19	175	82	9.8	8.7
30	14	12	10	9.0	------	7.8	6.6	18	181	56	9.8	8.7
31	14	------	11	9.0	------	7.5	------	33	------	33	9.8	------
Total	485	392	355	302.8	233.2	234.6	212.4	273.5	6,189	3,053	363.4	273.4
Mean	15.6	13.1	11.5	9.77	8.33	7.57	7.08	8.82	206	98.5	11.7	9.11
Ac-ft	962	778	704	601	463	465	421	542	12,280	6,060	721	542

Calendar year 1954: Max 516 Min 10 Mean 48.2 Ac-ft 34,920
Water year 1954-55: Max 375 Min 6.6 Mean 33.9 Ac-ft 24,540

* Discharge measurement made on this day.

Warm Spring Creek (east channel) near Mackay, Idaho

Location (revised).--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 September 1955.

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.

Average discharge.--36 years, 30.1 cfs (21,790 acre-ft per year).

Extremes.--Maximum discharge during year, 137 cfs June 13 (gage height, 3.30 ft); minimum, 5.2 cfs Apr. 16 (gage height, 1.35 ft).
1919-55: Maximum discharge, 250 cfs June 27, 1954 (gage height, 4.38 ft); minimum, that of Apr. 16, 1955.

Remarks.--Records excellent except those below 20 cfs, which are good. Major portion of flow is return from irrigation, seepage from river channel upstream, and discharge of large spring. See page 93 for combination of surface flow into Mackay Reservoir.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	4.0	2.0	34
1.4	6.3	2.5	70
1.5	9.3	3.0	110
1.7	18	4.0	207

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	11	10	7.2	8.4	7.2	9.7	8.4	35	70	22	13
2	18	11	10	7.5	8.7	7.2	10	8.1	36	61	20	13
3	17	9.3	10	7.8	8.1	7.2	9.7	7.5	38	56	18	13
4	17	9.3	11	7.5	8.1	6.9	9.3	7.5	35	56	18	13
5	17	9.7	11	7.5	7.8	6.9	9.0	7.5	35	49	18	13
6	17	9.7	*11	7.5	7.5	6.9	9.0	7.5	43	44	18	13
7	15	9.7	11	7.2	7.5	6.9	8.7	7.5	59	44	17	14
8	13	9.7	10	7.2	7.5	7.5	9.0	7.8	87	44	17	13
9	13	10	10	7.5	7.5	8.7	8.4	7.8	103	45	15	14
10	13	10	10	7.5	7.2	8.7	8.4	8.1	112	48	14	14
11	12	10	9.3	7.5	7.2	8.7	8.1	8.7	116	54	14	14
12	13	9.7	9.0	7.5	7.2	9.0	7.2	9.3	118	58	13	14
13	13	9.7	8.7	*7.5	7.2	9.0	7.2	9.3	125	*56	13	14
14	12	9.7	8.4	7.5	7.2	9.3	7.2	9.3	117	56	14	14
15	12	10	8.4	7.8	7.5	9.3	6.6	9.7	*112	58	13	14
16	12	10	8.1	7.8	7.5	9.7	5.8	9.7	116	58	13	14
17	12	9.7	8.1	7.8	7.8	9.7	5.8	9.7	103	58	14	14
18	12	9.7	7.8	7.8	7.5	9.7	6.3	9.7	93	56	15	15
19	13	9.7	7.8	7.8	7.2	9.7	6.1	9.3	86	54	*15	15
20	14	9.0	8.1	8.1	7.5	9.7	5.8	9.3	88	52	15	15
21	14	9.3	7.8	8.1	*7.2	9.7	6.3	9.3	96	49	14	15
22	15	9.7	8.1	7.8	7.2	*9.0	6.9	9.3	101	52	14	15
23	15	9.7	8.1	8.1	7.2	9.0	8.4	9.3	105	55	14	*15
24	14	10	8.4	8.4	7.2	9.0	8.1	10	99	72	14	16
25	14	10	7.8	8.4	7.2	9.0	8.7	12	87	85	15	16
26	14	10	7.5	8.7	7.2	9.0	10	13	76	69	14	15
27	14	10	7.2	8.7	7.2	9.0	*8.7	16	70	58	14	15
28	14	9.7	7.2	8.7	7.2	9.3	8.4	18	67	53	14	15
29	*13	9.7	7.5	8.7	-	9.7	8.4	*21	81	50	14	15
30	13	9.7	7.2	8.4	------	9.7	8.4	22	86	40	13	15
31	12	------	7.2	8.4	------	9.3	------	29	------	27	13	------
Total	436	294.4	271.7	243.9	209.7	269.6	239.6	340.6	2,525	1,687	469	428
Mean	14.1	9.81	8.76	7.87	7.49	8.70	7.99	11.0	84.2	54.4	15.1	14.3
Ac-ft	865	584	539	484	416	535	475	676	5,010	3,350	930	849

Calendar year 1954: Max 211 Min 7.2 Mean 34.5 Ac-ft 25,000
Water year 1954-55: Max 125 Min 5.8 Mean 20.3 Ac-ft 14,710

* Discharge measurement made on this day.

Warm Spring Creek (west channel) near Mackay, Idaho

Location (revised).--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 September 1955.

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.

Average discharge.--36 years, 95.0 cfs (68,780 acre-ft per year).

Extremes.--Maximum discharge during year, 242 cfs June 13 (gage height, 2.74 ft); minimum, 76 cfs May 11; minimum gage height, 1.38 ft May 8, 9, 11.
1919-55: 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 periods of no gage-height record, which are good. Major portion of flow is return from irrigation, seepage from river channel upstream, and discharge of large spring. See following page for combination of surface flow into Mackay Reservoir.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1, Jan. 2-30, May 24 to June 20)

1.3	76	2.5	225
1.5	100	3.0	290
2.0	160		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	134	137	a124	a114	113	112	95	126	170	117	102
2	113	134	137	124	a114	112	112	89	130	169	113	101
3	113	135	137	a124	a113	112	111	84	129	165	108	102
4	112	135	136	a123	a113	112	111	82	130	166	106	102
5	114	135	136	a122	a113	113	111	81	131	165	106	102
6	117	135	*136	a121	113	113	111	81	137	163	105	104
7	119	135	137	a120	a113	113	111	80	153	163	104	105
8	118	135	136	a119	a113	111	108	78	180	161	104	104
9	119	135	136	119	a113	111	105	78	198	163	102	104
10	120	136	136	a119	a114	112	104	80	209	166	102	105
11	120	136	136	a119	a114	112	101	77	212	182	104	105
12	120	137	135	a120	a114	112	98	81	217	186	105	105
13	122	136	135	*120	114	112	98	82	226	*181	106	106
14	120	136	a135	118	a114	112	96	81	216	180	108	106
15	120	136	a134	a119	a114	112	93	80	*208	180	106	106
16	122	135	a133	120	a114	113	89	82	213	178	105	106
17	122	135	a132	a120	a113	113	89	82	198	178	106	106
18	125	134	a131	a120	a113	113	89	81	189	177	106	108
19	128	134	130	a120	a113	113	88	81	180	174	*106	108
20	129	135	a130	a119	113	113	88	81	180	169	106	108
21	128	135	a130	a119	*114	114	87	81	190	168	105	108
22	130	135	a129	a119	a114	*114	98	80	196	172	104	107
23	130	135	a129	119	a113	113	102	80	200	177	104	*107
24	130	135	a128	a119	113	113	101	83	198	199	104	107
25	131	135	a128	a118	113	113	102	95	186	208	102	108
26	132	135	128	a117	114	114	106	99	173	194	102	108
27	132	135	a128	a116	114	114	*102	105	168	181	102	107
28	132	135	a127	a115	114	114	101	106	164	174	102	107
29	*134	135	a126	a114	-	116	100	*112	183	170	101	107
30	134	136	a126	114	------	114	98	114	186	152	101	107
31	134	------	a125	a114	------	113	------	124	------	128	101	------
Total	3,831	4,054	4,099	3,694	3,178	3,499	3,022	2,715	5,406	5,359	3,253	3,168
Mean	124	135	132	119	114	113	101	87.6	180	173	105	106
Ac-ft	7,600	8,040	8,130	7,330	6,300	6,940	5,990	5,390	10,720	10,630	6,450	6,280

Calendar year 1954: Max 347 Min 70 Mean 122 Ac-ft 88,220
Water year 1954-55: Max 226 Min 77 Mean 124 Ac-ft 89,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of adjacent records, weather records, and records for other stations above Mackay Reservoir.

Surface inflow to Mackay Reservoir, near Mackay, Idaho

Drainage area.--766 sq mi.

Records available.--May 1919 to September 1955. Prior to October 1952, published with records of Big Lost River (west channel) above Mackay Reservoir, near Mackay.

Average discharge.--36 years, 253 cfs (183,200 acre-ft per year).

Extremes.--1919-55: 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	163	161	142	132	128	129	110	272	483	203	126
2	156	162	161	142	132	127	130	104	280	427	185	124
3	155	161	161	143	130	127	128	98	284	394	168	125
4	154	161	161	142	130	127	128	96	281	389	161	125
5	155	162	161	139	130	128	128	95	287	363	157	125
6	158	162	161	138	129	127	128	95	332	345	152	128
7	157	162	162	137	129	127	127	94	438	348	149	130
8	154	162	160	136	129	126	124	93	619	350	148	128
9	156	162	159	136	129	127	121	92	782	365	142	129
10	156	163	159	136	129	128	120	95	870	383	139	130
11	154	162	158	136	129	128	116	92	900	429	141	130
12	154	163	156	137	129	128	112	98	1,020	453	140	130
13	156	162	156	137	129	128	112	98	1,100	455	141	131
14	152	162	155	135	129	128	110	97	1,050	452	145	131
15	152	162	155	137	130	128	106	97	1,020	459	143	131
16	156	162	154	138	130	130	102	99	1,020	460	141	131
17	154	161	153	137	129	130	101	99	859	460	141	132
18	157	160	152	137	128	130	102	98	745	449	140	135
19	163	159	150	137	128	130	101	97	644	432	140	136
20	164	159	150	136	129	130	101	97	651	414	139	136
21	164	159	150	136	129	131	100	97	716	404	135	135
22	168	160	149	136	129	130	112	96	764	424	134	133
23	168	160	149	136	128	130	117	96	805	448	133	134
24	166	160	148	137	128	130	116	100	754	569	133	135
25	167	160	148	136	128	130	118	114	648	654	131	137
26	168	160	148	135	129	130	124	120	564	553	130	136
27	167	160	146	134	129	130	118	132	518	473	129	134
28	166	160	145	133	129	131	117	149	499	428	128	134
29	166	160	144	132	-	134	115	176	581	405	127	134
30	166	161	143	131	------	132	113	190	595	330	126	133
31	165	------	143	131	------	130	------	244	------	246	125	------
Total	4,949	4,832	4,758	4,235	3,618	4,000	3,476	3,458	19,898	13,244	4,446	3,938
Mean	160	161	153	137	129	129	116	112	663	427	143	131
Ac-ft	9,820	9,580	9,440	8,400	7,180	7,930	6,890	6,860	39,470	26,270	8,820	7,810

Calendar year 1954: Max 1,830 Min 105 Mean 249 Ac-ft 180,400
Water year 1954-55: Max 1,100 Min 92 Mean 205 Ac-ft 148,500

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.

Records available.--January 1919 to September 1955.

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, 28,250 acre-ft May 4-6 (gage height, 53.40 ft); minimum observed, 363 acre-ft Sept. 19, 23-28 (gage height, 9.00 ft).
1919-55: Maximum contents observed, 42,390 acre-ft May 30, 1951 (gage height, 65.04 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. Capacity is 38,400 acre-ft between gage heights 7.0 ft (bottom of outlet tunnel) and 62.0 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 employees of Water District No. 27.

Capacity table, water year 1954-55 (gage height, in feet, and contents, in acre-feet)

9.0	363	30.0	8,730
10.0	580	40.0	15,760
12.0	1,080	50.0	24,680
15.0	1,930	60.0	35,900
20.0	3,740		

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,740	2,840	11,320	17,530	21,900	24,630	26,800	28,110	24,480	23,490	19,580	2,950
2	3,740	3,420	11,530	17,740	22,000	24,680	26,910	28,140	23,980	23,200	18,630	2,660
3	3,820	3,740	11,780	17,880	22,140	24,760	26,960	28,200	23,490	22,910	17,860	2,390
4	4,080	4,160	12,020	18,080	22,240	24,890	26,960	28,250	23,000	22,520	17,040	2,190
5	4,340	4,380	12,310	18,200	22,350	24,940	26,960	28,250	22,520	22,330	16,230	1,990
6	4,510	4,690	12,490	18,370	22,470	24,990	27,050	28,250	22,140	22,140	15,440	1,780
7	4,600	5,050	12,670	18,540	22,620	25,090	27,180	28,200	21,760	21,860	14,670	1,560
8	4,600	5,280	12,990	18,710	22,710	25,140	27,240	28,140	21,300	21,580	13,770	1,350
9	4,640	5,560	13,190	18,890	22,810	25,190	27,340	28,030	21,110	21,390	13,100	1,180
10	4,640	5,820	13,400	19,020	22,910	25,300	27,390	28,030	21,220	21,220	12,450	1,030
11	4,640	6,140	13,620	19,150	23,000	25,350	27,440	27,920	21,390	21,110	11,740	870
12	4,640	6,440	13,860	19,280	23,100	25,400	27,440	27,870	21,580	21,020	11,180	721
13	4,600	6,700	14,070	19,410	23,200	25,500	27,470	27,710	21,670	20,930	10,680	673
14	4,600	6,910	14,250	19,580	23,290	25,600	27,500	27,600	21,950	20,880	10,310	603
15	4,470	7,230	14,440	19,720	23,340	25,710	27,520	27,580	21,950	20,570	9,980	470
16	4,340	7,500	14,670	19,890	23,490	25,760	27,550	27,580	21,860	20,480	9,600	448
17	4,210	7,780	14,860	20,030	23,590	25,810	27,580	27,600	22,520	20,570	9,130	405
18	4,080	8,070	15,060	20,160	23,690	25,910	27,580	27,620	23,100	20,390	8,610	384
19	3,910	8,370	15,290	20,300	23,740	25,960	27,600	27,600	23,930	20,340	8,010	363
20	3,820	8,610	15,440	20,430	23,840	26,020	27,620	27,550	24,530	20,470	7,560	405
21	3,660	8,790	15,610	20,570	23,900	26,070	27,650	27,440	25,500	20,310	7,280	394
22	3,500	9,100	15,760	20,700	23,980	26,120	27,650	27,410	25,690	20,160	7,010	374
23	3,420	9,340	15,990	20,840	24,080	26,220	27,670	27,180	25,910	20,130	6,590	363
24	3,420	9,600	16,150	20,930	24,180	26,280	27,690	26,860	26,170	20,430	6,190	363
25	3,260	9,860	16,350	21,070	24,280	26,330	27,770	26,750	26,140	20,660	5,700	363
26	3,030	10,050	16,550	21,210	24,380	26,380	27,820	26,330	25,960	21,110	5,210	363
27	2,880	10,280	16,710	21,320	24,480	26,430	28,010	26,710	25,300	21,220	4,770	363
28	2,740	10,640	16,870	21,410	24,530	26,540	28,010	25,910	24,530	21,210	4,340	363
29	2,660	10,880	17,040	21,580	-	26,590	28,030	25,600	24,080	21,070	3,990	384
30	2,460	11,050	17,200	21,670	-------	26,700	28,050	25,350	23,880	20,790	3,660	448
31	2,700	-------	17,360	21,810	-------	26,750	-------	25,090	-------	20,300	3,420	-------
(†)	17.54	33.83	42.11	47.21	49.91	52.03	53.25	50.04	48.94	44.88	18.45	9.40
(‡)	2,790	11,210	17,460	21,960	24,580	26,780	28,090	24,720	23,630	19,830	3,125	448
(††)	-970	+8,420	+6,250	+4,500	+2,630	+2,190	+1,310	-3,370	-1,090	-3,800	-16,705	-2,677

Calendar year 1954: (††) -10,280
Water year 1954-55: (††) -3,312

† Gage height, in feet, at 12 p.m. on last day of month (interpolated).
‡ Contents, in acre-feet, at 12 p.m. on last day of month.
†† Change in contents, in acre-feet.
Note.--Daily contents as given are computed from once-daily staff-gage readings made between 8 a.m. and 1 p.m.

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 1955 (seasonal records only 1912-14, 1919-20, 1923-26, 1930, 1937).

Gage (revised).--Water-stage recorder and sharp-crested weir. Altitude of gage is 5,980 ft (from topographic map). 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, 1919-55: Maximum daily discharge, 46 cfs May 30, 1951; no flow at times most years.

Remarks.--Records excellent except those for periods of no gage-height record, 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 60 acre-ft during year (34 in June and 26 in July).

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	3.0	0.9			0	1.8	4.0	7.9	17	17	25
2	3.8	.7	a.9			0	1.6	4.0	8.2	17	22	25
3	1.6	1.0	a.6			0	1.6	4.0	8.2	17	28	22
4	2.7	1.3	a.1			0	1.6	4.0	8.2	16	32	19
5	8.5	1.8	a.1			0	1.6	4.9	8.5	14	35	18
6	9.6	2.1	a.1			0	1.6	6.1	8.2	14	35	13
7	10	2.4	**.1			0	1.6	8.7	9.6	15	34	7.4
8	10	2.6	a.1			0	1.6	9.0	16	15	33	6.1
9	11	2.8	a.1			0	1.9	8.7	18	14	31	6.9
10	11	3.0	a.1			0	2.6	9.3	18	14	28	6.9
11	10	3.4	a.1	(*)		0	2.6	9.6	21	19	25	6.6
12	10	3.6	a.1			0	5.8	12	23	25	24	11
13	10	3.8	a.1			0	14	13	25	25	23	17
14	11	4.0	a.1			0	15	9.5	26	*24	20	20
15	11	4.2	a.1			0	15	5.8	25	24	22	27
16	11	4.2	0			0	15	5.4	*24	25	18	23
17	11	4.4	0			0	15	4.2	19	25	16	14
18	11	4.7	0			0	15	4.7	15	24	17	13
19	15	4.9	0			0	15	4.9	13	21	*14	14
20	17	4.9	0			0	15	3.2	12	21	10	14
21	17	5.4	0		(*)	*0	11	2.8	12	18	8.7	11
22	18	5.4	0			0	8.5	3.4	14	13	10	10
23	18	5.8	0			0	10	3.6	15	9.0	12	10
24	18	5.8	0			0	10	5.1	16	8.5	14	*7.6
25	14	6.1	0			0	10	5.8	16	7.1	15	5.1
26	8.2	6.4	0			0	5.4	4.9	14	5.6	18	5.1
27	8.2	6.6	0			0	*.8	3.6	16	7.4	18	5.1
28	8.2	6.9	0			a1.0	.8	3.6	19	8.5	19	8.3
29	8.2	4.9	0		-	1.8	2.1	*2.8	19	8.2	23	11
30	*7.1	.9	0		------	1.8	4.0	3.6	17	9.6	25	11
31	5.4	------	0		------	1.8	------	6.1	------	11	23	------
Total	319.7	117.0	3.6	0	0	6.4	207.5	180.3	471.8	491.9	667.7	393.1
Mean	10.3	3.90	0.12	0	0	0.21	6.92	5.82	15.7	15.9	21.5	13.1
Ac-ft	634	232	7.1	0	0	13	412	358	936	976	1,320	780

Calendar year 1954: Max 34 Min 0 Mean 8.07 Ac-ft 5,840
Water year 1954-55: Max 35 Min 0 Mean 7.83 Ac-ft 5,670

* Discharge measurement or observation of no flow made on this day.
** Field estimated made on this day.
a No gage-height record; discharge interpolated or estimated on basis of probable gate changes, discharge for adjacent periods, and records for Big Lost River below Mackay Reservoir.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 5,960 ft (from topographic map). 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.--39 years (1904-5, 1912-14, 1919-55), 277 cfs (200,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,130 cfs June 14 (gage height, 3.89 ft); minimum, 37 cfs Nov. 2-6 (gage height, 1.46 ft).
1903-6, 1912-15, 1919-55: 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. 94).

Cooperation.--Water-stage recorder inspected by employees of Water District No. 27.

Revisions (water years).--WSP 1347: 1904-6.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.4	33	2.1	194
1.5	44	2.5	350
1.6	60	3.0	610
1.8	100	4.0	1,250

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	229	43	60	a79	a100	a110	111	108	560	676	604	306
2	180	37	60	80	a100	a110	114	108	528	610	640	290
3	89	37	60	a81	a100	111	111	108	511	588	616	278
4	79	37	62	a82	a100	111	111	108	494	560	588	262
5	117	37	62	a83	a100	111	111	106	533	516	572	259
6	141	37	64	a84	100	111	111	120	599	494	572	270
7	163	38	*65	a85	a100	108	111	128	670	494	572	266
8	184	38	67	a86	100	108	111	128	772	494	538	259
9	201	40	67	87	100	108	108	120	820	494	506	248
10	204	41	67	a87	103	111	108	114	874	478	484	240
11	204	41	69	*87	a104	111	108	114	898	478	445	229
12	204	43	69	89	a105	111	106	160	998	511	425	208
13	201	43	69	89	106	111	100	174	1,080	522	391	201
14	233	44	69	89	a106	111	100	163	1,100	*528	359	198
15	259	46	69	89	a106	111	100	128	1,120	522	364	201
16	255	47	71	91	a107	111	100	103	*909	522	387	191
17	251	47	71	a92	a107	111	100	100	594	500	420	177
18	259	47	71	a92	a108	111	100	106	450	484	435	177
19	266	47	73	a93	a108	111	100	128	355	478	416	174
20	266	47	a73	a94	108	111	100	154	350	467	*368	177
21	274	49	a73	a94	*108	*111	106	157	440	489	328	180
22	270	49	a73	a95	a108	111	108	187	640	500	337	*184
23	262	49	a74	96	a108	111	103	222	670	467	373	180
24	259	49	a74	96	108	111	103	222	730	462	401	184
25	262	52	a74	96	a108	108	103	255	736	467	411	191
26	270	52	74	96	a108	111	108	310	790	478	401	187
27	270	52	a75	98	108	111	*111	274	850	500	373	187
28	266	52	a76	98	a109	111	111	282	868	500	346	180
29	262	54	a77	100	-	111	111	*319	832	516	319	177
30	148	58	a77	100	------	111	108	359	742	572	319	174
31	50	------	a78	a100	------	111	------	467	------	577	315	------
Total	6,578	1,353	2,163	2,806	2,933	3,427	3,191	5,532	21,513	15,944	13,825	6,435
Mean	212	45.1	69.8	90.5	105	111	106	178	717	514	440	214
Ac-ft	13,050	2,680	4,290	5,570	5,820	6,800	6,330	10,970	42,670	31,620	27,020	12,780

Calendar year 1954: Max 1,140 Min 37 Mean 284 Ac-ft 205,400
Water year 1954-55: Max 1,120 Min 37 Mean 234 Ac-ft 169,600

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

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 1955.

Gage.--Water-stage recorder. Prior to Oct. 14, 1952, at site 800 ft upstream at different datum.

Average discharge.--9 years, 58.4 cfs (42,280 acre-ft per year).

Extremes.--Maximum discharge during year, 54 cfs Oct. 27, 31 (gage height, 3.46 ft); maximum gage height, 6.04 ft Mar. 15 (ice jam); minimum discharge, 0.4 cfs June 1, 2 (gage height, 2.10 ft).
1946-55: Maximum discharge, 698 cfs June 11, 1952 (gage height, 3.93 ft, site and datum then in use); maximum gage height, that of Mar. 15, 1955; minimum discharge, that of June 1, 2, 1955.

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. 94). About 42,000 acres of land irrigated by diversions from river and tributaries above station.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	50	32	25			17	11	0.6	14	6.2	4.5
2	25	45	34	25			17	11	.5	16	5.8	5.0
3	25	42	36	24			16	10	1.1	18	7.3	4.8
4	26	39	37	23			16	9.7	1.4	17	7.0	6.8
5	27	*38	36	*22			17	8.8	1.8	16	6.6	7.3
6	26	36	34				17	8.5	2.1	16	6.6	4.7
7	28	36	*35				17	8.5	2.1	15	7.3	4.8
8	27	36	34		20	18	17	8.5	1.5	15	7.6	5.2
9	25	36	33				*17	8.2	*1.2	14	7.9	5.2
10	23	36	33				17	7.9	2.0	14	7.6	6.0
11	21	36	33				15	7.9	2.6	13	6.8	6.0
12	20	37	34				9.7	7.9	2.8	*12	6.2	6.6
13	18	36	34	22			9.7	7.9	3.0	12	4.8	7.3
14	18	36	34				8.8	8.2	3.2	14	4.7	6.6
15	20	36	33				8.5	8.5	4.2	16	5.4	7.3
16	22	39	35				8.5	9.1	5.4	13	5.0	8.5
17	22	36	32				8.5	8.2	6.0	13	*4.8	9.7
18	21	31	31				8.8	7.3	6.8	12	4.7	14
19	21	29	30				9.4	6.8	7.9	11	4.8	15
20	22	28	30				10	6.6	7.3	9.7	4.7	*16
21	28	28	30				10	6.6	8.5	6.8	4.0	15
22	28	28	30		19		10	6.4	7.6	6.4	4.3	14
23	27	27	30		(*)	17	10	6.2	9.1	5.6	4.2	13
24	23	27	30				11	6.6	8.2	5.8	4.3	14
25	24	27	29				12	*7.3	9.7	5.0	4.8	12
26	32	26	28	21			14	7.0	13	4.5	5.6	12
27	39	25	27				*15	6.6	12	4.2	6.6	12
28	45	25	26				14	5.8	14	4.5	6.0	12
29	42	27	25		-		12	1.4	12	4.3	6.0	11
30	47	30	25		------		11	1.3	13	4.5	6.8	12
31	52	------	25		------	*17	-----	1.3	------	5.2	6.2	------
Total	848	1,008	975	680	547	542	383.9	227.0	170.6	337.5	180.4	278.3
Mean	27.4	33.6	31.5	21.9	19.5	17.5	12.8	7.32	5.69	10.9	5.82	9.28
Ac-ft	1,680	2,000	1,930	1,350	1,080	1,080	761	450	338	669	358	552

Calendar year 1954: Max 85 Min 6.4 Mean 33.0 Ac-ft 23,850
Water year 1954-55: Max 52 Min 0.5 Mean 16.9 Ac-ft 12,250

* Discharge measurement made on this day.
Note.--Stage discharge relation affected by ice Nov. 28 to Dec. 3, Dec. 8-11, Dec. 14 to about Mar. 28, Apr. 3, 4. No gage-height record Feb. 25 to Mar. 30; discharge estimated on basis of weather records and records for adjacent periods and for nearby streams.

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 September 1955.

Gage.--Water-stage recorder. Altitude of gage is 3,000 ft (from topographic map).

Extremes.--1951-55: Maximum daily discharge, 16 cfs June 23-26, July 19-26, 30, Aug. 19, 20, 1951; no flow at times during March, April, September, and October 1952.

Remarks.--Records good except those below 2 cfs, which are fair. Brailsford ditch diverts from Lewis Spring for irrigation.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec. *	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	2.8	2.5	2.9	2.2	5.4	5.4	*13	14	13	12	9.9
2	14	2.8	a2.5	2.8	2.2	5.2	5.4	13	14	13	12	9.9
3	14	2.6	a2.4	2.6	2.2	4.9	5.4	13	14	13	11	9.6
4	14	2.5	a2.4	2.5	2.2	4.7	5.4	13	14	13	11	9.3
5	12	2.5	a2.4	*2.6	2.3	4.5	5.4	13	14	13	12	9.3
6	12	2.5	a2.3	2.5	2.3	4.5	5.4	4.8	14	13	12	9.0
7	12	2.4	a2.3	2.4	2.3	4.3	5.4	.7	14	13	12	9.0
8	12	2.4	*2.3	2.4	2.3	4.7	5.6	.6	14	13	12	8.7
9	12	2.5	2.3	2.4	2.3	4.7	5.4	8.9	14	13	11	8.7
10	12	2.5	2.3	2.4	2.4	4.3	5.6	14	14	13	11	9.0
11	12	2.5	2.3	2.3	2.5	4.7	5.4	14	14	12	11	9.3
12	12	2.5	2.3	2.4	2.5	4.3	*5.4	14	14	12	11	9.3
13	8.1	2.5	2.4	2.4	2.6	4.3	5.8	14	6.0	12	11	9.0
14	3.2	2.5	2.4	2.4	2.8	4.3	5.6	14	8.3	12	11	8.7
15	3.0	2.5	2.5	2.4	*2.8	4.1	7.8	14	14	12	11	8.7
16	2.8	2.5	2.6	2.4	2.9	3.9	12	14	14	12	11	8.7
17	2.8	2.5	2.6	2.4	3.9	4.1	12	14	14	12	11	8.7
18	2.8	2.5	2.8	2.4	4.1	3.9	13	14	14	12	11	8.7
19	2.8	2.5	2.8	2.4	4.3	4.1	13	14	14	*12	11	9.0
20	2.9	2.5	2.8	2.4	4.3	3.9	13	14	14	12	11	8.7
21	2.8	2.5	2.8	2.4	4.3	3.7	13	14	14	12	10	8.7
22	2.9	2.5	2.6	2.3	4.3	*3.7	13	13	14	12	*10	8.4
23	*3.2	2.4	2.8	2.3	4.1	3.9	13	14	14	12	10	8.4
24	3.2	2.4	2.8	2.3	4.3	3.9	13	14	*13	11	10	8.4
25	3.2	2.4	2.6	2.3	4.5	4.1	13	*14	13	11	10	8.4
26	3.0	2.4	2.6	2.3	4.9	3.9	13	14	13	11	10	8.4
27	3.0	2.5	2.8	2.3	4.7	3.9	13	14	13	8.6	10	8.4
28	3.0	2.8	2.6	2.3	5.2	3.9	13	13	13	11	10	*8.2
29	3.0	2.6	2.8	2.2	-	3.9	13	14	13	12	10	8.2
30	3.0	2.6	2.9	2.1	-----	2.9	13	14	13	12	9.9	8.2
31	2.9	-----	3.0	2.2	------	5.2	-----	14	------	12	9.9	------
Total	213.6	75.4	79.5	74.4	91.7	131.8	277.4	386.0	399.3	374.6	335.8	264.9
Mean	6.89	2.51	2.56	2.40	3.28	4.25	9.25	12.5	13.3	12.1	10.8	8.83
Ac-ft	424	150	158	148	182	261	550	766	792	743	666	525

Calendar year 1954: Max 14 Min 0.4 Mean 7.14 Ac-ft 5,170
Water year 1954-55: Max 14 Min 0.6 Mean 7.41 Ac-ft 5,360

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for Riley Creek below Lewis Spring and other Snake River springs.

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. Prior to June 17, 1955, at site 1,200 ft downstream.

Records available.--June 1951 to September 1955.

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.

Extremes.--1951-55: Maximum daily discharge, 78 cfs Nov. 14, 15, 20-23, 1953; minimum daily, 51 cfs June 17, 20, 21, 23, July 7, 1955.

Remarks.--Records good. 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 20, Feb. 9 to Mar. 27, May 12 to June 16)

Oct. 1 to June 16		June 17 to Sept. 30	
1.5	50	1.4	46
1.6	55	1.5	54
1.7	60	1.6	61
1.8	67	1.7	69
2.0	84		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	74	73	a69	69	68	63	57	54	54	54	60
2	64	74	73	a69	69	68	63	*57	53	53	55	60
3	64	74	74	a69	69	68	63	57	53	53	55	60
4	65	74	73	*69	68	68	63	57	53	53	55	60
5	66	74	71	69	68	67	63	57	54	53	55	60
6	66	74	72	69	68	67	63	64	53	52	56	60
7	66	74	72	69	68	66	63	67	53	51	57	61
8	66	73	*70	69	68	66	63	68	52	53	57	61
9	66	73	70	69	68	66	63	60	52	54	57	61
10	66	72	71	69	68	66	63	56	52	54	57	60
11	66	73	72	69	68	66	63	56	52	54	57	60
12	67	72	70	69	68	66	*65	55	53	54	58	61
13	69	74	70	69	68	66	65	55	59	54	59	61
14	74	73	70	69	68	66	65	55	56	54	58	61
15	74	74	70	69	*68	66	63	55	53	55	59	61
16	74	73	69	69	68	66	60	55	52	55	59	62
17	74	73	69	69	68	66	59	55	51	55	59	62
18	74	73	70	69	68	65	59	55	52	55	59	61
19	74	74	69	69	68	65	59	55	52	*55	59	62
20	74	73	70	69	68	65	59	55	51	56	59	62
21	74	74	69	69	68	65	58	55	51	56	59	62
22	74	73	69	69	68	*65	58	55	52	56	59	62
23	*75	73	69	69	68	64	58	54	51	56	*59	62
24	74	73	69	70	68	64	58	54	*53	56	59	60
25	74	73	69	69	68	64	58	*54	54	56	60	60
26	74	73	69	68	68	64	58	54	54	56	60	60
27	74	74	69	68	68	64	58	54	54	57	60	60
28	74	73	69	69	68	63	58	53	54	55	60	*60
29	74	73	a69	69	-	63	58	54	55	55	60	60
30	74	73	a69	69	------	64	57	54	55	55	59	59
31	74	------	a69	69	------	63	-----	54	------	55	59	------
Total	2,188	2,200	2,177	2,138	1,907	2,030	1,826	1,746	1,593	1,690	1,798	1,821
Mean	70.6	73.3	70.2	69.0	68.1	65.5	60.9	56.3	53.1	54.5	58.0	60.7
Ac-ft	4,340	4,360	4,320	4,240	3,780	4,030	3,620	3,460	3,160	3,350	3,570	3,610

Calendar year 1954: Max 75 Min 60 Mean 67.7 Ac-ft 49,000
Water year 1954-55: Max 75 Min 51 Mean 63.3 Ac-ft 45,840

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

Snake River below Lower Salmon Falls, near Hagerman, Idaho

Location.--Lat 42°51'36", long 114°54'42", 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 1955. 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. Prior to Jan. 3, 1950, at site 340 ft upstream at same datum.

Extremes.--Maximum discharge during year, 18,200 cfs Oct. 14 (gage height, 11.60 ft); minimum, 490 cfs Mar. 23 (gage height, 2.40 ft); minimum daily, 5,790 cfs Aug. 21.
1937-55: 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. Practically entire flow at Milner diverted during irrigation season; only minor diversions below Milner.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

6.4	5,720
7.0	6,920
8.0	9,120
10.0	14,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,880	*9,020	8,980	9,280	8,390	6,700	10,800	9,480	6,380	7,240	6,440	6,970
2	7,840	10,200	8,500	8,830	8,340	6,720	12,300	9,630	6,390	7,370	6,940	6,600
3	7,820	10,700	8,900	8,480	8,290	7,180	11,000	*8,440	6,380	7,320	6,560	6,890
4	7,770	11,000	*8,580	8,460	8,220	7,430	11,800	7,260	6,700	6,910	6,660	6,610
5	7,810	10,000	7,570	*8,450	7,870	7,070	11,700	6,920	6,170	6,820	6,520	6,630
6	7,720	9,680	8,140	*8,730	7,700	7,070	11,000	6,720	6,520	6,890	6,140	6,920
7	7,980	8,620	8,430	8,370	7,880	7,340	10,200	6,740	6,340	6,800	6,870	6,810
8	7,980	8,560	8,340	8,480	7,900	7,260	8,980	6,400	6,240	6,620	6,250	6,970
9	7,710	8,650	8,450	8,250	8,010	7,410	8,710	6,930	6,220	6,720	6,530	6,670
10	8,800	8,880	8,480	8,380	6,850	7,510	7,840	6,580	6,160	6,520	6,610	7,130
11	9,640	9,230	8,910	8,440	6,820	7,590	9,130	6,400	6,070	6,680	6,680	6,620
12	10,200	9,310	9,370	8,370	6,850	7,740	10,200	6,430	6,250	6,690	6,730	6,840
13	9,840	9,230	9,910	8,350	6,800	7,280	10,500	6,180	6,330	6,450	6,540	7,340
14	10,400	9,030	9,500	8,470	6,800	8,430	11,100	6,670	6,510	6,700	6,630	7,000
15	10,300	9,090	8,730	8,500	*6,860	8,260	11,900	7,560	6,930	6,210	6,530	7,190
16	11,300	9,150	8,440	8,500	6,970	8,080	12,100	7,750	6,780	6,570	7,020	7,450
17	10,500	9,050	8,200	8,490	6,720	8,360	11,900	7,630	6,800	6,430	6,450	7,170
18	9,230	9,060	7,950	8,520	6,800	8,310	12,200	7,380	7,280	*6,610	6,710	7,450
19	9,520	9,020	8,030	8,350	6,900	8,540	12,300	6,960	6,830	6,240	6,790	7,430
20	9,310	9,020	8,400	8,150	6,580	8,820	11,500	7,070	7,160	6,400	6,550	7,990
21	8,310	9,070	8,470	8,500	6,510	9,680	9,400	6,430	7,080	6,460	5,790	8,000
22	9,450	9,190	8,500	8,300	6,740	9,440	10,400	6,680	7,050	6,290	*7,200	7,540
23	9,420	8,660	8,720	8,450	6,640	9,380	11,200	6,720	6,910	6,770	6,730	8,040
24	9,040	8,910	8,630	8,450	6,720	9,380	10,700	6,650	6,660	6,320	5,900	7,470
25	9,780	8,790	8,770	8,370	6,670	8,450	10,300	7,000	*7,170	6,580	7,130	6,950
26	9,660	8,950	8,540	8,570	6,740	9,170	11,300	*6,630	7,270	6,840	6,520	8,000
27	9,480	9,090	8,520	8,350	6,860	8,750	10,800	6,400	6,840	6,550	6,610	7,740
28	9,510	9,500	8,640	8,320	6,960	*9,780	10,500	6,660	6,740	6,850	*6,530	7,430
29	9,420	10,800	8,830	8,270	-	10,400	10,800	6,850	6,850	6,890	6,540	7,290
30	9,410	9,510	8,730	8,390	------	10,200	9,780	6,610	7,460	6,550	6,650	7,170
31	9,320	------	9,280	8,340	------	11,100	------	6,620	------	6,390	6,580	------
Total	282,350	278,970	267,420	261,940	201,390	258,810	321,740	218,380	200,230	205,880	204,330	216,310
Mean	9,108	9,299	8,626	8,450	7,192	8,349	10,720	7,045	6,674	6,641	6,591	7,210
Ac-ft	560,000	553,300	530,400	519,600	399,500	513,300	638,200	433,200	397,200	408,400	405,300	429,000

Calendar year 1954: Max 15,000 Min 5,950 Mean 8,239 Ac-ft 5,985,000
Water year 1954-55: Max 12,300 Min 5,790 Mean 7,994 Ac-ft 5,787,000

* Discharge measurement made on this day.

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 1955.

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.--7 years, 164 cfs (118,700 acre-ft per year).

Extremes.--Maximum discharge during year, 703 cfs June 12 (gage height, 4.44 ft); minimum, 17 cfs Dec. 8 (gage height, 1.86 ft), but may have been less during period of ice effect. 1948-55: Maximum discharge recorded, 1,240 cfs June 6, 1952; minimum recorded, 14 cfs sometime during period Jan. 1-22, 1951 (gage height, 1.52 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair. Minor diversions for nonconsumptive uses on Boulder Creek; water returned to stream above station. About 97 acre-ft of storage in ponds on Prairie Creek; diversion point below station for irrigation.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	26	3.5	337
2.2	46	4.0	521
2.5	91	4.5	730
3.0	192		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	58	b30	54	44	44	40	69	337	241	109	64
2	66	58	b40	53	36	43	40	71	307	222	105	64
3	66	58	b55	47	38	40	35	60	311	214	102	61
4	64	57	b54	b40	b40	39	39	66	317	204	102	61
5	64	57	b52	b38	b40	b33	37	102	376	202	98	61
6	63	57	52	*b41	b41	b37	39	158	464	225	98	60
7	64	56	52	b43	b43	b39	43	210	552	202	96	60
8	64	57	b30	b45	46	b38	48	276	628	194	93	58
9	63	60	b35	b46	44	b40	57	298	654	194	93	60
10	63	60	b50	b48	33	b40	63	292	*662	190	89	60
11	64	60	b45	b48	b38	b39	54	311	667	200	88	58
12	66	63	b44	b48	b43	b39	52	337	-667	*194	86	58
13	66	60	b50	b47	b42	b37	48	344	644	192	86	58
14	63	60	b42	b46	b42	b37	47	304	604	192	86	58
15	64	66	b44	b45	b42	b34	47	239	588	190	84	61
16	63	64	b32	b45	*b35	b32	47	207	537	185	82	60
17	61	61	b30	b42	b37	b37	45	192	491	180	81	63
18	*61	57	b35	b42	b33	b37	*45	197	453	171	*81	63
19	63	60	b40	b42	b32	b36	43	236	445	165	81	63
20	64	60	b45	b43	b37	b35	43	327	468	156	77	64
21	64	60	50	b44	b40	b37	44	441	491	165	72	*61
22	63	60	52	45	b42	b39	45	483	513	167	74	61
23	63	60	52	46	b40	*b37	44	441	510	163	72	61
24	63	60	53	46	b40	b37	45	404	453	161	72	61
25	61	58	46	46	b41	36	46	*358	383	148	71	64
26	60	58	b40	39	39	38	47	330	340	136	71	61
27	58	56	b37	42	42	37	43	292	314	128	69	60
28	60	b30	b35	43	38	b37	43	273	304	124	68	60
29	58	b26	48	40	-	b38	44	298	311	118	68	58
30	58	*b28	56	46	------	39	54	390	270	115	68	58
31	58	-----	54	46	-----	40	-----	390	------	113	68	------
Total	1,944	1,685	1,380	1,386	1,108	1,171	1,367	8,396	14,061	5,451	2,590	1,820
Mean	62.7	56.2	44.5	44.7	39.6	37.8	45.6	271	469	176	83.5	60.7
Cfsm	0.458	0.410	0.325	0.326	0.289	0.276	0.333	1.98	3.42	1.28	0.609	0.443
In.	0.53	0.46	0.37	0.38	0.30	0.32	0.37	2.28	3.82	1.48	0.70	0.49
Ac-ft	3,860	3,340	2,740	2,750	2,200	2,320	2,710	16,650	27,890	10,810	5,140	3,610

Calendar year 1954: Max 933 Min 26 Mean 156 Cfsm 1.14 In. 15.51 Ac-ft 113,300
Water year 1954-55: Max 667 Min 26 Mean 116 Cfsm 0.847 In. 11.50 Ac-ft 84,020

Peak discharge (base, 400 cfs).--May 21 (10 p.m.) 558 cfs (4.07 ft); May 30 (8 p.m.) 419 cfs (3.73 ft); June 12 (3 a.m.) 703 cfs (4.44 ft).

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

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 1/8 miles upstream from mouth and 2.2 miles west of Ketchum.

Drainage area.--96 sq mi, approximately.

Records available.--November 1940 to September 1955.

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.--14 years (1941-55), 83.7 cfs (60,600 acre-ft per year).

Extremes.--Maximum discharge during year, 289 cfs June 9 (gage height, 2.29 ft); minimum, 14 cfs Feb. 10 (gage height, 0.68 ft), but may have been less during period of no gage-height record.

1940-55: Maximum discharge, 696 cfs May 30, 1943 (gage height, 3.36 ft); minimum, 6 cfs Feb. 29, 1944 (gage height, 0.55 ft), result of ice jam upstream; minimum daily, 17 cfs Dec. 17, 1946.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Diversions above station for irrigation of about 200 acres. Small diversion from Guyer Hot Springs for recreational purposes bypasses station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	16	1.8	164
.8	22	2.3	301
1.0	38	3.0	560
1.4	88		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	33	24	33	a27	a29	28	51	162	90	42	28
2	35	33	28	32	22	a30	28	56	151	84	41	28
3	34	32	31	26	27	a26	27	50	151	81	40	28
4	34	31	31	23	26	a27	28	53	157	77	38	28
5	34	32	32	a22	28	a25	28	75	176	74	38	27
6	34	30	31	*21	27	a28	29	109	204	75	38	26
7	34	29	32	23	a28	30	33	134	233	71	40	25
8	34	29	25	26	a28	29	37	169	261	69	39	27
9	33	30	28	28	a25	30	45	171	276	68	38	26
10	33	29	33	31	21	30	55	162	*267	66	38	26
11	33	29	30	28	26	30	50	164	256	66	38	28
12	33	32	30	28	28	30	47	166	258	*62	37	28
13	34	31	34	30	27	29	45	171	256	62	37	28
14	33	29	30	30	27	29	42	157	233	61	36	28
15	35	32	33	30	a28	25	40	124	225	60	36	29
16	34	31	26	31	*26	26	39	108	201	57	35	30
17	34	29	28	26	28	30	38	99	178	56	*35	31
18	*34	28	32	a26	25	29	*37	106	164	54	34	31
19	34	29	34	a27	a22	28	36	130	155	51	34	32
20	35	29	33	28	a24	26	35	176	151	51	34	33
21	35	28	34	30	a27	27	37	222	151	51	33	*32
22	34	29	34	30	a29	30	38	244	146	57	32	31
23	35	30	33	29	a26	*28	37	222	142	59	32	31
24	35	30	32	a29	a28	28	39	206	134	54	32	31
25	34	29	30	a29	a28	27	40	*178	120	51	32	32
26	34	31	31	25	a27	27	42	166	115	49	32	32
27	34	31	22	28	a28	26	39	146	106	47	31	31
28	34	23	27	28	a27	27	39	138	101	46	31	31
29	34	23	34	28	-	28	38	149	106	46	31	31
30	34	*25	34	28	------	28	41	186	96	46	30	31
31	33	------	33	a29	------	27	------	181	------	44	29	------
Total	1,055	886	949	862	742	871	1,137	4,469	5,332	1,885	1,093	880
Mean	34.0	29.5	30.6	27.8	26.5	28.1	37.9	144	178	60.8	35.3	29.3
Ac-ft	2,090	1,760	1,880	1,710	1,470	1,730	2,260	8,860	10,580	3,740	2,170	1,750

Calendar year 1954: Max 402 Min 22 Mean 72.3 Ac-ft 52,350
Water year 1954-55: Max 276 Min 21 Mean 55.2 Ac-ft 40,000

Peak discharge (base, 300 cfs).--No peak above base.

* Discharge measurement made on this day.

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

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 1955.

Gage.--Water-stage recorder. Datum of gage is 5,301.17 ft above mean sea level, preliminary. Prior to Apr. 12, 1936, staff gages at or near highway bridge, at same datum.

Extremes.--Maximum discharge during year, 57 cfs May 6 (gage height, 3.32 ft); maximum gage height, 4.24 ft Jan. 11 (ice jam); minimum discharge, 1.9 cfs May 19 (gage height, 1.66 ft).

1915-55: 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 except those for periods of ice effect or no gage-height record, which are fair. 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.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	27	22	27	26	21	23	35	21	20	5.9	12
2	23	27	22	27	23	22	23	42	21	16	5.4	12
3	23	27	30	25	22	21	20	42	20	15	4.6	14
4	24	27	31	22	21	20	21	40	17	13	4.0	18
5	28	27	30	20	21	18	21	46	16	13	3.9	19
6	30	27	30	19	22	20	22	41	22	15	3.6	17
7	31	27	31	*b21	24	21	24	27	28	13	3.9	16
8	31	26	25	b22	24	21	28	7.5	30	12	3.6	17
9	31	26	b23	b23	24	21	34	6.5	29	12	3.5	19
10	30	27	26	b24	21	21	38	6.3	*20	12	20	18
11	29	27	27	b23	21	21	36	6.1	19	17	32	17
12	30	30	25	23	24	21	33	5.9	21	*20	30	17
13	30	30	27	25	23	20	32	5.9	21	19	29	16
14	29	30	27	b24	23	19	31	5.7	18	20	30	17
15	30	34	26	24	*22	17	29	5.7	17	18	29	21
16	30	37	b24	25	21	18	29	5.4	13	17	26	21
17	31	33	b22	22	22	19	27	5.0	11	16	*27	23
18	31	31	b22	22	19	19	27	3.8	10	14	26	24
19	*31	31	23	22	b19	19	*27	12	8.8	12	26	23
20	31	31	25	23	b20	19	26	23	8.0	10	25	*27
21	32	32	26	25	b21	21	26	28	8.5	9.5	23	25
22	32	32	27	26	22	*22	26	30	13	13	21	23
23	30	32	27	26	21	21	27	28	14	11	11	23
24	29	32	28	26	21	21	27	*27	11	20	18	23
25	29	32	26	26	21	20	28	25	13	13	18	23
26	27	32	b25	24	21	20	33	22	30	9.0	17	23
27	26	32	b22	22	21	19	30	21	29	7.1	16	23
28	28	29	b23	24	21	20	30	18	28	5.7	14	22
29	27	24	24	23	-	21	29	14	30	4.8	13	22
30	28	*23	26	25	------	21	30	17	26	5.8	14	21
31	27	------	26	26	------	22	------	22	------	6.7	13	------
Total	891	882	798	736	611	626	837	623.8	573.3	409.6	516.4	596
Mean	28.7	29.4	25.7	23.7	21.8	20.2	27.9	20.1	19.1	13.2	16.7	19.9
Ac-ft	1,770	1,750	1,580	1,460	1,210	1,240	1,660	1,240	1,140	812	1,020	1,180

Calendar year 1954: Max 69 Min 4.3 Mean 22.5 Ac-ft 16,320
Water year 1954-55: Max 46 Min 3.5 Mean 22.2 Ac-ft 16,060

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 18, Jan. 3-6, 12, 13, Jan. 15 to Feb. 4, Feb. 6-14, Feb. 22 to to Mar. 14; discharge estimated on basis of weather records and records for Big Wood River at Hailey.

Big Wood River at Hailey, Idaho

Location.--Lat 43°31', long 114°20', in SW¼ sec. 9, T. 2 N., R. 18 E., on 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 1955. Published as Wood River at Hailey in 1889.

Gage.--Water-stage recorder. Datum of gage is 5,298.00 ft above mean sea level, preliminary. Prior to Nov. 16, 1934, staff gages at bridge 35 ft upstream at different datums.

Average discharge.--Average combined discharge of Big Wood River and Big Wood Slough, 40 years, 419 cfs (303,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,870 cfs June 12 (gage height, 4.49 ft); minimum, 72 cfs Mar. 5, 16 (gage height, 1.12 ft), but may have been less during period of ice effect.

1915-55: (river only): Maximum discharge, 4,480 cfs June 7, 1938; maximum gage height, 8.66 ft June 12, 1921; practically no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.

1915-55 (combined): Maximum daily discharge, 4,500 cfs June 6, 7, 1938; minimum daily, 15 cfs Dec. 27, 1921.

Remarks.--Records excellent except those for periods of ice effect, which are 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 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	70	3.0	880
1.2	89	4.0	1,550
1.5	170	5.0	2,340
2.0	360		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	128	*98	125	117	104	107	170	760	620	322	117
2	154	131	100	122	104	107	109	204	695	565	310	114
3	148	131	136	117	104	104	98	201	685	540	302	117
4	151	131	136	b100	b100	100	102	197	690	525	294	122
5	151	131	133	b90	b100	87	102	226	808	515	282	122
6	154	131	128	b86	b105	b100	107	386	1,050	545	270	119
7	158	128	133	b82	117	b100	119	520	1,330	520	278	117
8	158	125	102	*b100	117	104	133	655	1,590	500	259	119
9	154	125	98	b105	117	102	164	784	1,690	510	248	122
10	154	125	102	b110	100	104	190	748	*1,700	505	211	122
11	151	125	107	b105	b100	104	180	790	1,720	510	190	122
12	158	142	100	b105	117	107	167	826	1,740	*535	184	119
13	158	142	104	b115	111	102	161	874	1,610	530	180	117
14	154	139	107	b110	111	98	154	856	1,520	540	177	119
15	154	154	107	b110	114	89	148	742	1,520	545	177	125
16	151	167	102	b115	*104	89	142	660	1,400	530	170	125
17	154	151	91	b100	109	98	139	610	1,250	520	*170	128
18	154	139	91	b100	98	98	136	610	1,140	505	161	128
19	*154	139	102	b100	b90	98	*133	640	1,090	475	161	131
20	158	136	104	b105	b95	91	128	784	1,190	450	158	142
21	164	136	111	b110	b100	93	128	982	1,260	445	151	*136
22	161	136	117	b115	107	*107	133	1,200	1,330	485	148	131
23	151	139	117	117	100	100	131	1,160	1,340	460	142	128
24	142	139	119	117	102	100	133	*1,070	1,180	585	139	125
25	139	136	114	117	102	93	136	940	976	480	136	131
26	131	139	109	109	102	98	161	874	832	422	136	133
27	125	139	b100	b100	104	93	145	778	796	382	131	125
28	136	119	b90	b110	102	100	142	685	772	364	125	122
29	136	102	104	b105	-	100	139	665	832	356	122	122
30	136	100	117	114	------	100	145	832	712	352	122	119
31	131	------	117	114	------	104	------	850	------	339	119	------
Total	4,638	4,005	3,396	3,340	2,949	3,074	4,112	21,519	35,208	15,155	5,975	3,722
Mean	150	134	110	108	105	99.2	137	694	1,174	489	193	124
Ac-ft	9,200	7,940	6,740	6,620	5,850	6,100	8,160	42,680	69,830	30,060	11,850	7,380

Calendar year 1954: Max 2,290 Min 90 Mean 380 Ac-ft 275,000
Water year 1954-55: Max 1,740 Min 86 Mean 293 Ac-ft 212,400

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

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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	155	120	152	143	125	130	205	781	640	328	129
2	177	158	122	149	127	129	132	246	716	581	315	126
3	171	158	166	142	126	125	118	243	705	555	307	131
4	175	158	167	122	121	120	123	237	707	538	298	140
5	179	158	163	110	121	105	123	272	824	528	286	141
6	184	158	158	105	127	120	129	427	1,070	560	274	136
7	189	155	164	113	141	121	143	547	1,360	533	282	133
8	189	151	127	122	141	125	161	662	1,620	512	263	136
9	185	151	121	128	141	123	198	790	1,720	522	252	141
10	184	152	128	134	121	125	228	754	1,720	517	231	140
11	180	152	134	128	121	125	216	796	1,740	527	222	139
12	188	172	125	128	141	128	200	832	1,760	555	214	136
13	188	172	131	140	134	122	193	880	1,630	549	209	133
14	183	169	134	134	134	117	185	862	1,540	560	207	136
15	184	188	133	134	136	106	177	748	1,540	563	206	146
16	181	204	126	140	125	107	171	665	1,410	547	196	146
17	185	184	113	122	131	117	166	615	1,260	536	197	151
18	185	170	113	122	117	117	163	614	1,150	519	187	155
19	185	170	125	122	109	117	160	652	1,100	487	187	154
20	189	167	129	128	115	110	154	807	1,200	460	183	169
21	196	168	137	135	121	114	154	1,010	1,270	454	174	161
22	193	168	144	141	129	129	159	1,230	1,340	498	169	154
23	181	171	144	143	121	121	158	1,190	1,350	471	153	151
24	171	171	147	143	123	121	160	1,100	1,190	605	157	148
25	168	168	140	143	123	113	164	965	989	493	154	154
26	158	171	134	133	123	118	194	896	862	431	153	156
27	151	171	122	122	125	112	175	799	825	389	147	148
28	164	148	113	134	123	120	172	703	800	370	139	144
29	163	126	128	128	-	121	168	679	862	361	135	144
30	164	123	143	139	------	121	175	849	738	358	136	140
31	158	------	143	140	------	126	------	872	------	346	132	--
Total	5,529	4,887	4,194	4,076	3,560	3,700	4,949	22,147	35,779	15,565	6,493	4,318
Mean	178	163	135	131	127	119	165	714	1,193	502	209	144
Ac-ft	10,970	9,690	8,320	8,080	7,060	7,340	9,820	43,930	70,970	30,870	12,880	8,560

Calendar year 1954: Max 2,300 Min 113 Mean 402 Ac-ft 291,400
Water year 1954-55: Max 1,760 Min 105 Mean 316 Ac-ft 228,500

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. Prior to Oct. 5, 1954, at site three-quarters of a mile downstream.

Drainage area.--823 sq mi.

Records available.--July 1911 to September 1955 (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 1/8 miles downstream at different datum, July 8, 1921, to Oct. 5, 1954, at site ¾ mile downstream at different datum.

Average discharge.--17 years (1915-16, 1921-22, 1939-41, 1942-55), 283 cfs (204,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,160 cfs June 12 (gage height, 4.38 ft); minimum, 25 cfs Mar. 2 (gage height, 1.66 ft), but may have been less during period of no gage-height record.

1911-55: Maximum discharge recorded, 3,660 cfs June 16, 1921 (gage height, 6.07 ft, site and datum then in use), from rating curve extended above 2,800 cfs; minimum 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 no gage-height record, which are fair. Diversions for irrigation of about 36,400 acres above station. Storage above station is negligible.

Cooperation.--Water-stage recorder inspected and four discharge measurements furnished by employees of Water District No. 7 AB.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-5)

1.7	28	2.5	231
1.9	52	3.0	438
2.1	85	3.5	655
2.2	110	4.0	910
2.3	149	4.5	1,220

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	76	85	55	45	39	67	54	198	334	64	67
2	57	76	*88	53	40	38	62	61	*145	268	67	66
3	68	76	92	50	37	36	52	60	95	252	72	61
4	76	74	74	47	36	35	51	55	95	223	71	64
5	77	74	71	44	35	33	52	52	108	174	78	66
6	78	74	71	45	36	33	55	74	210	161	90	62
7	74	74	69	46	37	33	55	206	493	182	92	62
8	76	72	66	46	39	34	54	313	780	157	98	71
9	74	72	62	48	40	34	51	455	*1,010	157	98	71
10	74	71	62	50	37	34	49	467	1,070	157	90	71
11	72	71	62	45	37	36	48	459	1,050	157	88	72
12	72	80	61	43	37	38	*54	*476	1,090	*174	81	71
13	78	78	61	42	38	37	56	497	1,050	182	90	72
14	81	72	60	42	40	36	58	548	994	178	85	67
15	90	78	60	*43	41	35	58	514	1,010	165	81	61
16	85	98	55	43	41	34	60	484	970	161	*74	67
17	83	78	50	42	37	33	61	434	800	149	76	76
18	85	74	53	41	*36	32	61	409	696	145	76	80
19	*83	71	56	41	36	32	60	392	610	141	74	78
20	81	71	58	41	36	32	*56	442	*624	137	74	*86
21	83	69	59	42	36	32	55	557	664	122	76	81
22	83	67	60	43	36	33	55	740	735	114	72	71
23	81	67	59	44	36	*34	54	775	811	108	76	66
24	83	67	58	45	36	35	54	*710	735	118	72	64
25	81	67	55	46	36	35	54	642	597	130	71	66
26	80	64	50	42	37	35	69	553	467	118	76	64
27	78	64	48	40	37	38	62	467	392	100	74	62
28	76	62	47	40	37	39	58	338	421	88	72	61
29	76	67	50	41	-	47	56	235	472	90	74	58
30	76	74	55	43	------	62	55	219	430	76	74	58
31	76	------	55	45	------	61	------	239	------	67	66	------
Total	2,392	2,178	1,912	1,378	1,052	1,145	1,692	11,927	18,822	4,785	2,422	2,041
Mean	77.2	72.6	61.7	44.5	37.6	36.9	56.4	385	627	154	78.1	68.0
Ac-ft	4,740	4,320	3,790	2,730	2,090	2,270	3,360	23,660	37,330	9,490	4,800	4,050

Calendar year 1954: Max 1,740 Min 46 Mean 221 Ac-ft 159,600
Water year 1954-55: Max 1,090 Min 32 Mean 142 Ac-ft 102,600

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 16 to Mar. 15; discharge estimated on basis of 2 discharge measurements, weather records, and records for other Big Wood River stations.

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, April 1923 to September 1955 (no winter records prior to 1945). Discharge measurements only for 1922.

Gage.--Water-stage recorder. Altitude of gage is 4,870 ft (by barometer).

Average discharge.--11 years (1944-55), 175 cfs (126,700 acre-ft per year).

Extremes.--Maximum discharge during year, 552 cfs Apr. 13 (gage height, 4.52 ft); minimum, 2.4 cfs Aug. 20, 21, 22 (gage height, 0.82 ft).
1912-55: Maximum discharge recorded, 9,780 cfs Apr. 8, 1943; maximum gage height, 15.48 ft about Apr. 18, 1938, from floodmark; minimum discharge recorded, 1.5 cfs Aug. 29, 1940.

Remarks.--Records excellent except those below 10 cfs, which are good, and those for periods of no gage-height record, which are poor. Water diverted for irrigation of about 9,300 acres 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 15		Feb. 16 to Sept. 30					
0.9	3.6	0.8	2.1	1.8	34	3.5	278
1.0	5.2	1.0	5.4	2.1	54	4.0	394
1.2	9.3	1.2	9.9	2.5	93	4.5	540
1.4	15	1.5	20	3.0	176		
1.6	23						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	9.1	10	13	14	14	51	234	153	12	4.1	2.8
2	4.2	8.9	10	13	14	14	53	240	148	13	3.8	2.8
3	4.2	8.9	10	14	13	14	40	242	130	18	4.7	2.8
4	4.4	9.1	11	12	13	13	45	228	116	20	4.5	2.8
5	4.4	9.1	11	12	13	13	50	212	106	22	4.3	3.0
6	4.2	9.1	11	13	13	14	60	206	100	26	4.1	2.8
7	4.4	9.6	11	13	14	15	75	220	89	25	4.0	2.8
8	4.4	9.3	10	13	14	17	100	232	103	20	4.1	2.8
9	4.6	9.8	9.3	12	14	19	140	236	101	16	3.8	2.8
10	4.6	9.6	12	12	13	22	180	232	101	14	3.6	2.8
11	4.6	9.6	12	13	13	24	250	220	91	*13	3.6	2.8
12	4.7	12	12	13	13	25	*372	206	80	12	3.4	2.8
13	4.9	13	13	*13	13	24	504	198	83	9.2	3.4	2.8
14	5.8	13	12	13	14	22	489	194	92	9.4	3.3	2.8
15	6.0	13	12	14	*14	21	394	236	106	8.0	*3.3	2.8
16	5.6	19	11	14	14	20	298	253	108	7.7	3.3	2.8
17	6.2	15	10	14	14	22	236	282	*88	6.4	3.0	2.8
18	6.0	13	11	14	13	23	212	307	72	6.0	2.7	3.0
19	5.4	12	11	14	12	23	218	289	58	5.2	2.7	*3.2
20	*6.0	12	11	14	12	25	236	255	50	5.0	2.7	3.2
21	6.3	11	12	14	13	23	*220	240	43	5.0	2.7	3.0
22	6.5	11	12	14	14	23	220	244	36	4.7	2.7	3.0
23	6.5	11	13	14	15	23	210	*251	30	4.5	3.0	3.1
24	6.9	11	13	14	15	24	204	244	23	4.3	3.0	3.3
25	7.1	11	14	14	15	25	194	238	21	4.0	3.2	3.5
26	7.1	11	12	14	15	27	216	226	21	5.2	3.0	3.8
27	7.5	11	11	13	15	30	255	208	18	6.0	3.0	3.6
28	8.0	10	11	12	14	34	272	186	14	5.2	3.0	3.5
29	8.2	*9.3	10	12	-	38	253	168	12	5.6	3.0	3.5
30	9.1	10	11	13	------	42	238	159	11	5.4	2.8	3.5
31	9.1	------	12	14	------	*46	------	157	------	4.9	2.8	------
Total	181.0	330.4	351.3	411	383	717	6,285	7,043	2,204	322.7	104.6	91.0
Mean	5.84	11.0	11.3	13.3	13.7	23.1	210	227	73.5	10.4	3.37	3.03
Ac-ft	359	655	697	815	760	1,420	12,470	13,970	4,370	640	207	180

Calendar year 1954: Max 2,280 Min 3.2 Mean 116 Ac-ft 83,950
Water year 1954-55: Max 504 Min 2.7 Mean 50.5 Ac-ft 36,540

Peak discharge (base, 500 cfs).--Apr. 13 (8 to 10 p.m.) 552 cfs (4.52 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Dec. 15 to Jan. 12, Jan. 14 to Feb. 14, Feb. 16 to Mar. 30, Apr. 4-11, Sept. 22-30; discharge estimated on basis of weather records, inflow-outflow studies for Magic Reservoir, and records for nearby streams.

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 and 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 1955.

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 gages or temporary staff gages at dam. Datum of gages prior to Oct. 1, 1942, was 4,800 ft lower.

Extremes.--Maximum contents observed during year, 138,900 acre-ft May 26, 27 (gage height, 119.8 ft); minimum observed, 24,740 acre-ft Sept. 30 (gage height, 65.3 ft).
1909-55: 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, 1928, 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 ft (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 yield table furnished by employees of Water District No. 7 AB.

Revisions.--WSP 1217: Drainage area.

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81,370	87,510	89,990	94,620	98,650	102,300	106,800	125,200	136,500	129,900	93,680	54,340
2	81,590	87,510	89,990	94,620	98,890	102,300	107,000	125,800	136,000	129,100	91,830	53,400
3	82,020	87,730	90,450	94,850	98,890	102,500	107,500	126,300	135,100	128,300	90,450	52,280
4	82,240	87,730	90,450	94,850	99,130	102,500	107,800	126,900	134,200	127,200	89,320	50,990
5	82,450	87,960	90,680	95,090	99,130	102,800	108,000	127,700	133,100	126,300	87,730	49,880
6	82,670	88,180	90,680	95,090	99,370	102,800	108,300	128,300	132,200	125,500	86,400	48,600
7	83,100	88,180	90,910	95,320	99,620	103,000	108,500	129,100	131,600	124,400	84,850	47,340
8	83,320	88,410	91,140	95,320	99,620	103,000	109,000	129,400	131,100	123,300	83,970	46,260
9	83,530	88,410	91,300	95,320	99,860	103,300	109,600	129,700	131,400	122,200	83,320	45,200
10	83,530	88,640	91,370	95,320	100,100	103,300	110,300	130,500	132,200	121,400	82,670	43,970
11	83,750	88,860	91,370	95,560	100,100	103,500	111,100	131,100	132,800	120,300	81,590	43,450
12	83,970	88,860	91,600	95,560	100,300	103,800	112,400	131,600	133,900	119,200	80,090	42,070
13	84,190	89,090	91,830	95,800	100,600	103,800	113,200	131,900	134,500	118,400	78,610	40,880
14	84,410	89,320	91,830	96,030	100,600	104,000	114,500	132,200	135,100	117,600	77,360	39,870
15	84,630	89,090	92,060	96,270	100,800	104,000	115,500	132,500	135,700	116,600	75,900	38,710
16	84,630	88,410	92,060	96,500	100,800	104,300	116,300	132,800	136,200	115,500	74,460	37,890
17	84,850	87,730	92,520	96,740	100,800	104,300	117,100	133,300	136,500	114,200	73,020	36,600
18	84,850	87,290	92,750	96,740	101,100	104,500	117,600	133,900	136,800	113,200	71,400	35,650
19	85,070	87,510	92,750	96,980	101,100	104,500	118,200	134,200	a136,600	111,900	70,190	34,560
20	85,290	87,730	92,980	97,220	101,300	104,800	118,700	134,800	136,500	110,600	68,980	33,480
21	85,290	87,960	93,220	97,220	101,600	105,000	119,200	135,100	135,700	109,300	67,780	32,720
22	85,510	88,180	93,220	97,460	101,600	105,000	119,800	135,400	135,700	108,000	66,590	31,530
23	85,730	88,410	93,450	97,690	101,600	105,300	120,300	136,500	134,800	106,500	65,400	30,510
24	85,730	88,640	93,450	97,930	101,800	105,300	120,900	137,100	134,800	105,300	64,010	29,640
25	85,950	88,640	93,680	97,930	101,800	105,500	121,400	138,000	134,500	103,800	62,830	28,930
26	86,170	88,860	93,680	97,930	101,800	105,500	121,900	138,600	133,900	102,300	61,660	28,230
27	86,400	98,090	93,920	98,170	102,000	105,800	122,500	138,900	a133,000	100,800	60,480	27,400
28	86,620	89,320	93,920	98,170	102,000	105,800	123,300	138,600	132,200	99,370	59,320	26,590
29	86,840	89,540	93,920	98,410	-	106,000	123,800	138,300	131,400	98,170	57,780	25,790
30	87,060	89,770	94,150	98,410	------	106,300	124,700	138,000	130,800	95,800	56,620	24,740
31	87,290	------	94,380	98,650	------	106,500	-------	137,100	-------	94,850	55,480	-------
(†)	99.8	100.9	102.9	104.7	106.1	107.9	114.8	119.2	117.0	103.1	84.2	65.3
(‡)	+5,920	+2,480	+4,610	+4,270	+3,350	+4,500	+18,200	+12,400	-6,300	-35,950	-39,370	-30,740

Calendar year 1954: (‡) -22,720
Water year 1954-55: (‡) -56,630

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

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 1955 (no winter record 1912).

Gage.--Water-stage recorder. Altitude of gage is 4,665 ft (by barometer).

Average discharge.--43 years (1912-55), 421 cfs (304,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,370 cfs June 11 (gage height, 5.34 ft); minimum, 6.4 cfs Nov. 27 (gage height, 1.91 ft).
1911-55: 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. Water diverted for irrigation of about 47,100 acres above station. Flow regulated by Magic Reservoir (see preceding page), Twin Lakes Reservoir on tributary of Camas Creek (capacity, 31,240 acre-ft), and minor reservoirs having combined capacity of about 680 acre-ft.

Cooperation.--Water-stage recorder inspected and one discharge measurement furnished by employees of Water District No. 7 AB.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.9	5	3.0	156
2.0	12	3.5	312
2.3	42	4.0	540
2.6	81	5.0	1,140

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	9.9	8.5	8.5	9.2	11	11	12	728	762	822	615
2	12	9.9	*8.5	8.5	9.2	11	11	12	728	750	816	635
3	12	9.9	8.5	8.5	9.2	11	11	12	728	750	822	630
4	12	9.9	8.5	7.8	9.2	11	11	12	728	750	828	630
5	11	9.9	8.5	8.5	8.5	11	11	12	728	734	846	625
6	11	9.2	8.5	8.5	8.5	11	11	12	734	722	852	625
7	11	9.2	8.5	9.9	8.5	11	11	135	780	690	551	620
8	11	9.9	8.5	9.2	8.5	11	11	231	810	662	401	620
9	11	9.9	8.5	9.2	9.2	11	11	247	810	673	374	615
10	11	9.9	8.5	9.2	9.2	11	11	301	852	690	*695	610
11	11	11	8.5	9.2	9.9	11	11	379	663	*678	816	605
12	11	11	8.5	8.5	9.2	11	11	480	792	673	810	605
13	11	9.9	8.5	*8.5	9.2	11	11	630	858	695	810	615
14	11	250	8.5	8.5	9.2	11	11	651	864	717	816	620
15	11	456	8.5	9.2	9.9	11	11	615	858	734	816	615
16	11	471	8.5	9.2	9.9	11	11	550	858	734	*798	600
17	9.9	342	8.5	9.2	9.9	11	11	520	*858	728	792	590
18	9.9	9.9	7.8	9.9	*9.9	11	11	520	882	744	768	590
19	9.9	8.5	7.8	9.2	9.9	11	11	520	900	756	756	585
20	*9.9	8.5	7.8	9.2	9.9	11	*11	565	870	756	739	*590
21	9.2	8.5	7.8	9.2	9.9	11	11	585	870	768	728	570
22	9.9	7.8	7.8	9.9	11	11	11	615	870	774	722	545
23	9.9	8.5	8.5	9.9	11	11	11	*630	876	780	722	535
24	9.9	8.5	8.5	9.9	11	*11	11	640	876	804	717	525
25	9.9	7.8	8.5	9.9	11	11	11	630	882	804	695	515
26	9.9	7.8	8.5	9.9	11	11	11	630	864	798	690	510
27	9.9	7.1	8.5	9.9	11	11	11	668	858	792	690	505
28	9.9	8.5	8.5	9.2	11	11	11	668	858	792	668	500
29	9.9	8.5	8.5	9.2	-	11	11	668	840	804	651	490
30	9.9	8.5	8.5	9.2	------	11	11	700	804	822	625	152
31	9.9	------	8.5	9.2	------	11	------	728	------	822	610	------
Total	327.8	1,756.9	260.0	283.8	273.0	341	330	13,578	24,627	23,158	22,446	17,087
Mean	10.6	58.6	8.39	9.15	9.75	11.0	11.0	438	821	747	724	570
Ac-ft	650	3,480	516	563	541	676	655	26,930	48,850	45,930	44,520	33,890

Calendar year 1954: Max 1,680 Min 7.1 Mean 391 Ac-ft 283,000
Water year 1954-55: Max 900 Min 7.1 Mean 286 Ac-ft 207,200

* Discharge measurement made on this day.

Little Wood River at Campbell Ranch, near Carey, Idaho

Location.--Lat 43°28', long 114°03', in SW¼NW¼ sec. 35, T. 2 N., R. 20 E., on left bank at Campbell Ranch, above flow line of Little Wood Reservoir, 1½ miles downstream from High Five Creek, 2½ miles downstream from Muldoon Creek, 11 miles east of Bellevue, and 12 miles northwest of Carey.

Drainage area.--267 sq mi.

Records available.--February 1920 to September 1926 (published as Little Wood River near Carey); March 1941 to December 1942, April 1944 to September 1955 (no winter records except 1921-24, 1926). Records for other years published as Little Wood River near Carey are at site 6 miles downstream and are not equivalent owing to diversion, inflow, and regulation.

Gage.--Water-stage recorder. Altitude of gage is 5,250 ft (by barometer). Prior to Apr. 5, 1944, at site 650 ft downstream at datum 3.50 ft lower.

Average discharge.--5 years (1920-24, 1925-26), 152 cfs (110,000 acre-ft per year).

Extremes.--Maximum discharge during year, 454 cfs June 10 (gage height, 2.53 ft); minimum recorded, 24 cfs Sept. 12, 13, 14, 15, but may have been less during period of no record in winter; minimum gage height recorded, 0.87 ft Sept. 12, 13, 14.
1920-26, 1941-42, 1944-55: Maximum discharge recorded, 2,350 cfs Apr. 27, 1952 (gage height, 5.44 ft); minimum recorded, 14 cfs Aug. 29, 30, 1926.

Remarks.--Records excellent. Flow slightly regulated by Campbell Reservoir (capacity, 125 acre-ft; 2,700 acre-ft prior to failure of dam in 1930), on tributary. Diversions above station for irrigation of about 5,250 acres.

Cooperation.--Water-stage recorder inspected by employees of Little Wood Reservoir Co. and Water District No. 11 C.

Revisions.--WSP 633: Drainage area.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 30		Apr. 1 to Sept. 30			
0.9	29	0.8	20	1.5	116
1.2	59	1.0	34	2.0	251
1.5	109	1.2	59	2.5	441

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	48					*61	125	232	152	51	28
2	37	47					68	144	214	132	48	28
3	36	46					56	128	211	139	45	27
4	36	45					58	118	203	146	43	26
5	37	45	†49				59	139	220	139	42	26
6	38	45					76	186	264	142	42	26
7	38	44					106	214	327	128	43	25
8	38	44					137	232	390	123	41	25
9	39	45					164	248	*420	123	38	26
10	38	45					175	220	402	125	37	26
11	38	47					142	217	378	121	36	26
12	38	66					116	217	390	*123	35	25
13	41	58					110	214	349	121	35	25
14	44	53					103	226	330	125	36	24
15	48	62					89	208	353	123	35	25
16	47	80					86	211	346	123	*34	26
17	47	82					87	217	288	112	34	28
18	45	57					89	223	261	103	33	29
19	44	55					*84	236	229	97	33	31
20	44	54					80	268	258	89	32	*32
21	44	54					80	323	268	84	32	30
22	45	55					84	338	271	95	32	30
23	47	55					84	346	268	84	31	30
24	49	54					84	*330	232	160	30	30
25	48	54					82	305	200	108	29	31
26	49	53					132	284	186	80	30	32
27	48	52					106	254	169	69	30	32
28	48	45					95	220	169	66	29	31
29	48	42					93	220	208	61	29	30
30	48	41			------		103	251	178	55	28	31
31	*48	------			------		------	261	------	53	28	------
Total	1,332	1,553	-	-	-	-	2,889	7,123	8,214	3,401	1,101	841
Mean	43.0	51.8	-	-	-	-	96.3	230	274	110	35.5	28.0
Ac-ft	2,640	3,080	-	-	-	-	5,730	14,130	16,290	6,750	2,180	1,670

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

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

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 1942 to September 1955. Monthly discharge only for some periods, published in WSP 1317. February 1920 to September 1926 at site 6 miles upstream; records not equivalent because of 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.--28 years (1926-42, 1943-55), 131 cfs (94,840 acre-ft per year).

Extremes.--Maximum discharge during year, 434 cfs June 10 (gage height, 4.14 ft); minimum daily, 2 cfs Jan. 18 to Mar. 8.
1904-5, 1926-55: 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; minimum, 1 cfs Jan. 26, 1945, Jan. 20, 1948.

Remarks.--Records excellent except those below 10 cfs, which are fair, and those for periods of no gage-height record, which are poor. Diversions above station for irrigation of about 6,450 acres. Storage in Little Wood Reservoir (capacity, 11,700 acre-ft) began Feb. 12, 1941. Flow 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	2	2.8	88
1.8	5	3.2	169
2.0	11	3.6	271
2.2	24	4.0	396
2.5	50	4.5	574

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	47	15	16	a2	2	a4	116	239	176	223	73
2	37	45	16	14	a2	2	a4	143	213	183	216	84
3	36	45	16	14	a2	2	a4	136	210	200	216	74
4	29	44	17	14	a2	2	a4	120	198	176	210	72
5	42	44	*18	14	a2	2	a4	128	208	151	203	67
6	37	43	18	12	a2	2	a4	167	241	132	167	59
7	38	43	19	9	a2	2	a5	216	303	128	179	52
8	37	43	18	a9	2	2	a6	244	360	124	191	43
9	38	43	18	a9	2	3	a7	263	*406	124	206	42
10	38	44	18	a9	2	3	a8	241	406	124	213	40
11	39	46	18	a9	2	3	a7	234	383	120	213	44
12	40	60	18	a9	2	3	a6	231	383	*118	213	49
13	39	58	18	a9	2	3	a5	228	357	122	176	45
14	40	54	18	*9	2	3	a5	241	328	130	147	40
15	44	57	18	9	2	3	a5	226	347	156	134	37
16	48	78	18	8	2	3	a6	231	357	158	*126	a31
17	46	64	18	6	*2	3	a10	223	297	160	124	26
18	45	58	18	2	2	3	a30	236	260	162	122	27
19	44	56	18	2	2	3	*54	239	239	191	112	28
20	44	54	18	2	2	3	79	258	252	206	104	*32
21	44	54	18	2	2	3	84	309	258	228	*101	32
22	44	54	18	2	2	3	85	334	260	234	99	32
23	47	54	18	2	2	3	85	347	263	208	97	32
24	48	55	18	2	2	3	84	*334	231	198	93	32
25	48	60	18	2	2	*3	84	312	203	213	92	33
26	48	58	18	2	2	3	136	294	186	206	88	33
27	48	43	18	a2	2	3	118	263	169	200	85	34
28	48	12	18	a2	2	4	101	223	181	249	80	33
29	48	14	18	a2	-	a4	95	213	206	249	79	31
30	48	15	18	a2	------	a4	101	234	193	241	76	31
31	*48	------	18	a2	------	a4	-----	255	------	228	74	------
Total	1,318	1,445	551	207	56	89	1,230	7,239	8,137	5,495	4,459	1,288
Mean	42.5	48.2	17.8	6.7	2.0	2.9	41.0	234	271	177	144	42.9
Ac-ft	2,610	2,870	1,090	411	111	177	2,440	14,360	16,140	10,900	8,840	2,560

Calendar year 1954: Max 585 Min 3 Mean 104 Ac-ft 75,250
Water year 1954-55: Max 406 Min 2 Mean 86.3 Ac-ft 62,500

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station at Campbell Ranch, other nearby streams, and reports of gate changes at Little Wood Dam.
Note.--Stage-discharge relation affected by ice Nov. 28 to Dec. 2, Dec. 8-29, Jan. 3 to Mar. 8, Mar. 21.

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 1955 (1923-35, irrigation seasons only).

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer).

Average discharge.--22 years (1920-22, 1935-55), 153 cfs (110,800 acre-ft per year).

Extremes.--Maximum discharge during year, 247 cfs Apr. 2 (gage height, 2.86 ft); maximum gage height, 3.92 ft Jan. 20 (ice jam); minimum discharge, 64 cfs Mar. 4 (gage height, 1.03 ft).

1920-55: Maximum discharge recorded, 317 cfs Apr. 15, 1952 (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 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	83
1.5	110
2.0	160
2.5	212
3.0	268

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	166	*164	155	140	145	224	146	89	106	109	112
2	158	159	163	155	140	147	237	153	89	103	106	114
3	157	162	166	150	135	146	224	164	91	108	108	117
4	157	168	172	145	135	130	198	154	89	117	109	117
5	156	170	173	140	140	130	196	145	90	122	112	118
6	158	165	174	135	140	135	204	134	92	121	111	116
7	160	162	176	120	135	141	215	130	92	115	112	113
8	160	160	172	110	140	141	218	129	88	115	113	112
9	159	161	168	120	140	140	213	120	87	120	114	110
10	158	164	168	120	140	140	210	112	86	122	112	110
11	160	166	164	120	130	144	196	111	88	124	113	113
12	159	173	163	125	135	142	181	103	87	*120	112	114
13	164	180	165	125	135	142	173	91	89	117	111	114
14	165	190	161	125	140	143	170	96	88	115	113	115
15	164	190	161	130	140	140	164	104	*92	114	116	117
16	165	195	145	140	140	140	157	125	96	112	*118	126
17	165	200	135	135	*140	137	156	167	92	111	118	127
18	167	205	130	140	140	140	157	157	96	112	115	125
19	167	195	145	140	135	141	*157	129	96	113	111	*130
20	167	185	153	135	130	142	152	120	98	116	110	137
21	167	180	152	130	135	140	158	115	97	114	110	137
22	170	180	151	135	140	144	156	116	96	114	108	135
23	170	180	151	140	140	146	154	*119	94	115	106	133
24	173	180	145	145	146	146	150	108	95	116	106	128
25	174	180	140	140	146	*140	147	107	94	117	105	128
26	174	180	135	140	146	141	165	110	97	114	106	127
27	173	175	130	140	147	142	168	105	99	109	108	125
28	172	175	125	135	145	148	158	96	98	110	107	127
29	171	170	115	140	-	165	155	96	105	110	111	134
30	172	170	130	140	------	204	149	94	108	112	113	143
31	*172	------	155	140	------	210	------	90	------	110	113	------
Total	5,108	5,286	4,747	4,190	3,895	4,532	5,362	3,746	2,800	3,544	3,436	3,674
Mean	165	176	153	135	139	146	179	121	93.3	114	111	122
Ac-ft	10,130	10,480	9,420	8,310	7,730	8,990	10,640	7,430	5,550	7,030	6,820	7,290

Calendar year 1954: Max 266 Min .87 Mean 156 Ac-ft 112,900
Water year 1954-55: Max 237 Min .87 Mean 138 Ac-ft 99,820

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 13-30, Dec. 24 to Jan. 13, Feb. 5-16; discharge estimated on basis of weather records and records for Little Wood River near Richfield and at Shoshone. Stage-discharge relation affected by ice Dec. 16-19, about Jan. 5 to Feb. 23, Mar. 4-6. Flow in bypass channel, which carries water around gage, measured 9.25 cfs Oct. 31; 1.40 cfs Dec. 1; 7.40 cfs Mar. 25; 0.87 cfs Apr. 19; 1.62 cfs May 23; 0.30 cfs June 15; 0.29 cfs July 12; 3.18 cfs Aug. 16; 0.11 cfs Sept. 19.

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 1955 (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.

Extremes.--Maximum discharge during year, 246 cfs Apr. 3 (gage height, 3.42 ft); maximum gage height, 6.32 ft Mar. 7 (ice jam); minimum discharge, 58 cfs June 10; minimum gage height, 2.23 ft May 13, June 10.
1911-55: Maximum discharge recorded, 868 cfs May 3, 1938 (gage height, 3.97 ft, site and datum then in use); minimum recorded, 7.6 cfs June 24, 25, 1920 (gage height, 0.52 ft, site and datum then in use).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 38,300 acres above station. Flow partly regulated by Little Wood Reservoir (capacity, 11,700 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 time, because of channel losses and irrigation diversions above Carey.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	56	2.8	124
2.3	62	3.1	178
2.5	80	3.4	241

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	161	155	145	130	125	221	134	65	71	72	79
2	114	155	155	150	125	125	232	134	70	69	71	79
3	116	154	*165	145	120	120	241	143	71	70	69	79
4	121	157	168	140	120	120	213	145	69	78	71	79
5	126	165	168	135	125	120	198	138	70	81	71	81
6	126	163	168	120	120	120	196	127	70	83	73	84
7	132	159	170	100	125	125	206	119	69	80	72	92
8	129	157	168	105	125	130	213	111	68	78	73	85
9	127	155	161	105	125	135	213	102	61	81	76	85
10	127	157	160	110	120	135	204	89	60	83	78	83
11	131	159	160	110	110	140	200	81	60	*86	76	78
12	134	165	158	110	115	145	186	77	61	80	75	78
13	138	172	157	110	120	150	174	64	60	76	73	74
14	150	180	157	*115	120	140	172	64	61	75	72	70
15	154	180	157	115	125	140	165	70	*62	75	*73	71
16	154	184	140	120	120	135	157	79	64	74	74	75
17	155	192	113	115	125	135	155	108	64	73	75	80
18	159	198	110	120	120	135	155	138	62	70	75	84
19	157	186	110	125	118	135	155	113	63	73	72	*89
20	157	176	140	120	115	135	*155	93	64	77	70	94
21	*157	174	140	115	120	*136	154	86	64	76	70	100
22	157	174	145	120	125	138	152	84	62	77	70	96
23	159	174	145	125	120	141	148	*89	64	83	70	100
24	159	172	140	130	120	138	141	94	63	80	70	102
25	161	172	135	130	130	134	132	89	64	84	70	100
26	161	172	130	125	125	129	141	89	64	81	73	100
27	161	170	120	125	130	132	154	93	68	79	79	99
28	161	168	115	120	125	134	148	78	66	75	76	99
29	159	160	110	120	-	146	143	74	70	81	77	98
30	161	160	115	125	------	190	138	73	71	73	79	93
31	161	------	140	125	------	211	------	69	------	73	80	------
Total	4,480	5,071	4,475	3,775	3,418	4,274	5,262	3,047	1,950	2,395	2,275	2,606
Mean	145	169	144	122	122	138	175	98.3	65.0	77.3	73.4	86.9
Ac-ft	8,890	10,060	8,880	7,490	6,780	8,480	10,440	6,040	3,870	4,750	4,510	5,170

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 241 Min 60 Mean 118 Ac-ft 85,360

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 2, Dec. 10-16, Dec. 18 to about Mar. 20 (no gage-height record Feb. 4-13, Mar. 13-20; discharge estimated on basis of weather records and records for station at Shoshone and Silver Creek near Picabo).

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 1955 (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, 554 cfs May 15 (gage height, 5.28 ft); minimum, 4.9 cfs Oct. 5.
1922-55: Maximum discharge recorded, 673 cfs Apr. 28, 1952 (gage height, 5.24 ft, datum then in use); practically no flow July 29, 1931, Oct. 3, 1938.

Remarks.--Records excellent except those below 40 cfs, which are fair and those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 52,200 acres 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 for Dietrich Canal via Little Wood River at Richfield.

Cooperation.--Two discharge measurements furnished by employees of Water District No. 11 AB.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1)

Oct. 1-17				Oct. 18 to Sept. 30			
-0.10	7	0.6	68	1.0	49	3.0	290
0.0	12	.8	102	1.5	87	3.5	273
0.2	25	1.0	144	2.0	132	4.0	429
.4	42	1.5	267	2.5	193	5.2	547

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	78	120	140	100	90	216	256	463	538	481	442
2	37	77	140	140	95	95	225	281	466	519	481	445
3	7.5	54	*150	139	90	90	218	288	465	520	483	451
4	8.0	60	142	120	85	85	223	285	466	520	484	453
5	8.0	65	142	100	95	80	195	315	459	509	481	456
6	10	71	145	90	85	75	187	318	456	500	479	456
7	10	60	142	80	90	90	180	339	466	492	481	451
8	14	64	134	80	95	100	186	339	461	497	473	451
9	13	62	130	85	95	120	188	379	457	492	477	445
10	12	61	135	86	90	135	186	403	469	490	480	446
11	16	63	140	85	75	150	177	*404	482	*494	478	447
12	a20	65	140	85	75	163	166	430	494	502	474	448
13	a25	67	140	85	85	175	135	444	486	495	474	447
14	a37	72	140	90	90	164	113	494	498	490	473	446
15	a42	76	138	90	90	137	118	530	503	492	*467	448
16	a42	92	125	90	85	135	128	535	*513	497	475	453
17	a50	132	105	90	95	140	123	539	508	498	472	455
18	52	158	100	95	90	140	118	526	511	495	470	442
19	52	123	110	95	85	142	121	524	514	495	477	*445
20	55	89	120	90	80	138	122	490	520	492	480	450
21	*63	82	125	82	85	137	*119	464	517	487	476	447
22	65	79	130	87	90	136	96	458	502	492	476	448
23	66	78	130	95	85	154	179	*496	497	485	467	430
24	68	78	125	100	85	*168	259	508	490	482	466	417
25	69	79	120	105	95	166	278	498	504	487	475	418
26	69	80	115	100	90	150	285	487	515	487	494	398
27	73	80	110	95	95	150	288	478	511	481	479	390
28	76	77	85	90	90	148	294	479	507	486	471	394
29	76	83	70	90	-	149	*292	484	522	487	472	399
30	76	110	90	95	------	159	274	468	544	488	465	272
31	76	------	115	100	------	203	------	465	------	486	456	------
Total	1,543.5	2,415	3,853	2,994	2,485	4,164	5,689	13,404	14,766	15,375	14,737	12,990
Mean	498	805	124	966	888	134	190	432	492	496	475	433
Ac-ft	3,060	4,790	7,640	5,940	4,930	8,260	11,280	26,590	29,290	30,500	29,230	25,770

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 544 Min 7.5 Mean 259 Ac-ft 187,300

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station near Richfield.
Note.--Stage-discharge relation affected by ice Nov. 30 to Dec. 2, Dec. 10-14, Dec. 16 to Jan. 2, Jan. 4-9, 11-20, Jan. 23 to Mar. 10, Mar. 26, 27.

Malad River near Gooding, Idaho

Location.--Lat 42°54', long 114°48', in 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 1955 (fragmentary 1923-37, 1942). 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.--23 years (1916-22, 1937-41, 1942-55), 225 cfs (162,900 acre-ft per year).

Extremes.--Maximum discharge during year, 738 cfs May 17 (gage height, 5.00 ft); minimum, 0.1 cfs Oct. 12 (gage height, 0.30 ft).
1916-55: Maximum discharge, 6,500 cfs Apr. 27, 1952 (gage height, 10.67 ft); no flow at times in many years.

Remarks.--Records excellent except those below 30 cfs, which are good, and those for periods of ice effect, which are fair. Diversions for irrigation of about 155,000 acres above station. Flow regulated by Magic Reservoir (see p. 108) 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	0.1	0.8	7.0	3.0	258
.4	.4	1.0	15	4.0	450
.5	1.2	1.3	33	5.0	752
.6	2.5	1.6	60		
.7	4.5	2.0	109		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	268	124	110	130	80	95	*172	266	127	200	46	27
2	87	96	172	130	80	110	182	265	129	201	39	25
3	20	90	*253	125	75	125	190	301	100	177	46	32
4	10	60	223	110	70	120	186	218	83	182	53	40
5	8.0	58	204	95	75	95	194	158	101	162	63	44
6	7.4	67	195	75	70	80	189	129	61	123	81	41
7	9.8	87	208	65	70	95	194	87	35	113	76	34
8	10	70	183	65	75	110	192	59	21	71	71	27
9	10	71	151	65	75	135	195	52	11	78	63	30
10	9.1	53	196	65	70	168	204	55	6.0	68	66	35
11	1.8	50	234	70	60	389	158	44	9.4	48	57	41
12	.3	61	188	*70	60	460	55	46	57	42	48	40
13	2.1	62	210	70	65	242	53	37	78	39	39	46
14	1.8	59	226	70	70	180	40	88	78	39	38	47
15	1.2	72	183	70	70	152	22	248	102	34	35	55
16	.7	93	244	70	70	138	33	353	*148	32	30	69
17	2.4	131	131	70	80	131	39	584	130	41	36	82
18	15	152	80	75	75	130	137	315	147	46	30	101
19	27	148	45	75	*75	129	223	328	170	34	41	113
20	90	147	60	70	70	122	247	280	171	27	61	126
21	*109	100	55	70	75	116	*228	212	161	25	62	123
22	115	91	40	70	85	144	171	151	140	21	64	150
23	115	88	25	75	80	130	164	155	113	22	61	178
24	105	84	29	80	85	172	235	188	91	18	53	174
25	99	83	35	85	95	150	508	190	92	18	49	165
26	100	88	40	80	95	*155	427	*99	124	*39	49	176
27	101	86	35	75	95	131	429	162	133	30	46	170
28	106	78	25	75	90	145	394	151	115	27	44	268
29	108	78	20	75	-	138	380	157	138	39	33	232
30	106	69	18	78	------	134	292	148	212	46	*35	239
31	106	------	120	80	------	148	------	123	------	49	31	------
Total	1,751.6	2,596	3,938	2,478	2,135	4,769	6,133	5,649	3,083.4	2,091	1,546	2,930
Mean	56.5	86.5	127	79.9	76.2	154	204	182	103	67.5	49.9	97.7
Ac-ft	3,470	5,150	7,810	4,920	4,230	9,460	12,160	11,200	6,120	4,150	3,070	5,810

Calendar year 1954: Max 933 Min 0.3 Mean 139 Ac-ft 100,800
Water year 1954-55: Max 584 Min 0.3 Mean 107 Ac-ft 77,550

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 18-23, 25-28, Dec. 31 to Mar. 9 (no gage-height record Jan. 2-11).

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 1955 (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.--1930-55: Maximum daily discharge, 344 cfs May 23, 24, 1954; no flow or small flow from leakage at headgate during nonirrigation seasons and other periods when gates were 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 in turn diverts from Malad River (Malad Springs water).

Cooperation.--Water-stage recorder graph for supplementary gage furnished by King Hill Irrigation District. Three discharge measurements furnished by Idaho Power Co.

Revisions (water years).--WSP 723: 1930.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	(*)				0	3	272	306	300	303	296
2	33					0	3	*270	308	300	304	296
3	3					0	0	270	308	306	306	297
4	3		(*)	(*)		0	110	270	309	297	308	297
5	3					0	172	270	312	297	310	300
6	2					0	178	269	318	296	316	302
7	1					0	236	269	310	292	320	302
8	0					0	243	286	304	294	322	304
9	0					0	242	312	306	296	324	303
10	0					0	242	*321	303	290	316	306
11	0					0	242	322	306	288	315	308
12	0					0	243	327	309	294	314	304
13	0					0	243	*328	316	300	315	309
14	0				(*)	0	333	333	309	298	315	312
15	0					0	333	339	309	298	316	310
16	0					0	334	340	*312	300	315	309
17	0					0	336	340	298	302	315	310
18	0					0	320	333	297	*303	309	298
19	0					0	302	330	298	303	310	310
20	0					0	302	328	297	303	306	310
21	0					*0	303	326	297	303	303	314
22	0					0	297	318	296	300	*304	316
23	0					0	292	316	294	292	298	309
24	0					0	274	315	284	290	300	296
25	0					0	274	314	*292	266	302	288
26	0					0	273	*312	298	3	297	286
27	0					0	274	310	298	62	290	*286
28	0					0	274	314	67	302	291	286
29	0				-	1	273	312	93	314	294	286
30	0				------	3	272	309	311	314	291	280
31	0	------			------	1	------	306	------	303	294	------
Total	143	0	0	0	0	5	7,223	9,581	8,665	8,706	9,523	9,030
Mean	4.6	0	0	0	0	0.2	241	309	289	281	307	301
Ac-ft	284	0	0	0	0	10	14,330	19,000	17,190	17,270	18,890	17,910

Calendar year 1954: Max 344 Min 0 Mean 148 Ac-ft 107,400
Water year 1954-55: Max 340 Min 0 Mean 145 Ac-ft 104,900

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

Snake River at King Hill, Idaho

Location.--Lat 43°00', long 115°11', 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 1955.

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 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, 18,400 cfs Apr. 2 (gage height, 9.63 ft); minimum, 1,540 cfs Mar. 23 (gage height, 2.24 ft); minimum daily, 7,140 cfs May 13.
1909-55: 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 except those for period of no gage-height record, which are good. Flow regulated by powerplants at Lower Salmon Falls and near Bliss and many reservoirs above station. Practically entire flow at Milner diverted during irrigation season; flow at King Hill is then derived largely from springs and seepage entering below Milner. About 1,590,000 acres of land irrigated by diversions from river and its tributaries above station. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1403.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,520	*10,700	10,600	10,500	10,100	8,240	12,400	11,200	8,040	8,780	7,800	8,420
2	9,300	11,700	10,400	9,820	9,900	8,180	13,900	11,000	7,780	9,020	8,100	7,720
3	9,290	12,200	10,400	9,780	9,800	8,690	12,600	*9,670	7,840	8,500	7,800	8,100
4	9,300	12,600	*10,300	*10,000	9,920	8,490	12,800	9,110	8,080	8,620	7,900	7,660
5	9,310	11,700	9,520	9,940	9,890	8,540	13,500	8,300	7,280	8,600	8,100	7,760
6	9,020	11,600	9,820	10,200	9,070	8,630	13,000	8,080	7,970	8,100	7,480	8,370
7	9,660	10,200	10,200	10,100	9,690	8,960	11,400	7,960	7,500	8,410	7,930	8,040
8	9,050	10,000	10,200	9,810	9,240	8,440	10,700	7,790	7,480	8,080	8,060	8,300
9	9,290	9,880	9,750	10,000	9,340	8,840	10,500	8,160	7,280	8,190	7,740	7,920
10	10,100	10,300	9,850	9,880	9,200	8,850	9,410	7,840	7,440	7,750	7,980	7,940
11	10,800	10,600	10,400	10,100	8,200	9,440	10,500	7,630	7,360	8,080	7,900	7,910
12	12,200	10,900	10,900	10,400	8,240	10,000	11,500	7,490	7,320	7,960	8,160	8,320
13	11,700	10,700	11,400	10,100	8,220	8,760	11,900	7,140	7,760	7,640	7,790	8,390
14	11,700	10,500	11,500	10,400	*8,640	10,200	12,500	7,590	7,350	8,180	7,880	8,240
15	11,600	10,500	10,400	10,400	7,920	10,100	12,900	8,970	8,280	7,720	7,950	8,110
16	11,400	10,700	9,940	10,200	8,620	9,650	13,400	9,200	8,720	7,900	8,200	8,370
17	12,700	10,800	10,300	10,500	8,340	10,300	13,100	9,260	8,060	7,640	8,000	8,440
18	10,900	10,800	9,420	10,300	8,200	9,900	13,800	9,160	8,770	7,910	7,620	8,620
19	11,300	10,700	9,140	10,000	8,210	10,200	13,700	8,100	8,240	*7,600	8,350	9,010
20	10,600	10,500	9,860	9,980	8,100	10,300	13,200	8,560	9,100	7,800	8,040	9,120
21	9,940	10,700	9,710	10,300	8,130	*12,000	12,000	8,220	8,680	7,700	7,360	9,000
22	11,200	10,600	9,550	9,770	8,060	11,100	11,600	7,720	8,860	7,600	8,340	9,000
23	11,200	10,500	9,920	9,960	8,440	10,600	11,800	7,900	8,370	8,100	7,840	9,460
24	10,200	10,400	9,700	10,000	8,040	11,200	12,000	7,940	7,710	7,700	7,220	8,740
25	11,500	10,400	9,560	10,100	8,400	9,930	12,300	8,080	*8,640	7,800	8,420	8,400
26	11,500	10,500	9,900	10,100	8,020	10,700	13,200	*8,200	9,000	8,100	8,000	9,580
27	11,100	10,600	9,500	10,100	8,460	10,100	12,200	8,100	7,940	8,000	7,860	*9,050
28	10,800	11,000	9,530	9,860	8,090	11,200	12,500	7,840	8,580	8,000	*7,830	9,000
29	11,100	12,500	9,840	10,000	-	12,000	12,100	8,200	8,280	8,000	8,010	8,900
30	11,100	11,400	9,780	9,700	------	11,300	11,500	7,960	8,970	7,900	7,900	8,900
31	10,900	------	10,300	9,740	------	12,400	------	8,090	------	7,800	7,570	------
Total	329,280	326,180	311,590	312,040	244,480	307,240	367,910	260,480	242,680	249,180	245,130	254,790
Mean	10,620	10,870	10,050	10,070	8,731	9,911	12,260	8,403	8,089	8,038	7,907	8,493
Ac-ft	653,100	647,000	618,000	618,900	484,900	609,400	729,700	516,700	481,300	494,200	486,200	505,400

Calendar year 1954: Max 15,800 Min 6,740 Mean 9,625 Ac-ft 6,968,000
Water year 1954-55: Max 13,900 Min 7,140 Mean 9,455 Ac-ft 6,845,000

* Discharge measurement made on this day.

Note.--No gage-height record July 19 to Aug. 5; discharge estimated on basis of records for station near Hagerman and records of output at Bliss powerplant of Idaho Power Co.

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 1955 (irrigation season 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, 1931-55: Maximum daily discharge, 182 cfs Jan. 1, 1943; no flow at times during most years.

Remarks.--Records excellent except those below 20 cfs, which are good, and those for periods of no gage-height record, which are poor. 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	1.2	1.0	2.3	2.1	3.0	15	55	75	27	15	2.4
2	2.4	1.4	1.2	2.2	2.0	3.1	18	54	75	24	8.0	2.0
3	2.0	1.4	1.4	1.9	1.9	2.9	18	48	75	23	6.0	1.7
4	2.0	1.4	1.5	1.8	1.9	2.6	17	46	73	23	4.6	1.2
5	2.0	1.4	1.4	1.6	1.9	2.2	18	46	73	23	3.8	.9
6	1.7	1.4	1.4	1.6	1.9	2.2	20	46	73	21	4.2	.7
7	1.7	1.4	1.4	*1.7	2.0	b3.0	26	44	73	25	5.6	.6
8	1.7	1.4	1.4	1.7	2.2	b7.0	34	42	*73	34	5.6	.5
9	1.5	1.2	1.4	1.7	2.0	*b6.5	38	38	71	48	*4.9	.5
10	1.5	1.2	1.5	1.7	1.8	b6.0	49	35	71	56	2.8	.5
11	1.4	1.4	1.4	1.7	1.7	b5.5	42	32	71	48	2.4	.5
12	1.5	1.7	1.7	1.7	1.8	5.3	37	30	72	*34	2.0	*.5
13	2.2	1.7	2.0	1.8	2.0	4.9	34	56	71	31	2.0	.5
14	2.0	1.5	1.7	1.9	2.2	4.6	34	59	70	37	1.7	.5
15	1.4	1.5	1.5	2.0	2.2	4.6	30	58	71	44	2.0	.6
16	1.2	1.5	1.5	2.0	2.2	4.6	28	60	70	44	2.2	.7
17	1.2	1.5	1.2	2.0	2.3	b4.5	26	61	69	44	4.2	.8
18	1.0	1.5	1.1	2.0	1.9	4.9	36	60	68	39	4.9	.9
19	1.2	1.4	1.1	2.0	2.0	4.9	34	57	68	38	6.0	.9
20	*1.2	1.4	1.2	2.0	2.1	5.3	38	56	68	29	6.0	.9
21	1.2	1.2	1.2	2.0	*2.3	b5.0	48	57	68	23	8.0	.8
22	1.2	1.2	1.3	2.0	2.7	5.3	78	70	67	22	8.0	.8
23	1.2	1.2	1.4	2.0	2.7	5.3	88	72	66	25	8.0	.8
24	1.2	*1.2	1.6	2.0	2.6	5.6	81	*69	64	23	8.0	.9
25	1.2	1.2	1.5	2.0	2.5	5.6	72	68	42	20	7.0	.9
26	1.2	1.2	1.4	1.9	2.5	5.6	*71	70	39	20	6.5	.9
27	1.4	1.2	1.4	1.8	2.5	6.0	63	69	39	19	7.0	.9
28	1.2	1.0	1.4	1.8	2.8	7.0	58	68	39	18	7.0	.9
29	1.2	1.0	1.4	1.9	-	*8.5	54	66	41	18	6.0	.9
30	1.2	.9	1.6	1.9	------	10	53	76	30	24	4.6	.9
31	1.2	------	1.8	2.9	------	12	------	76	------	26	3.5	------
Total	47.0	39.8	44.1	58.6	60.7	163.5	1,258	1,744	1,925	930	167.5	26.5
Mean	1.52	1.33	1.42	1.89	2.17	5.27	41.9	56.3	64.2	30.0	5.40	0.88
Ac-ft	93	79	87	116	120	324	2,500	3,460	3,820	1,840	332	53

Calendar year 1954: Max 96 Min 0.9 Mean 30.0 Ac-ft 21,690
Water year 1954-55: Max 88 Min 0.5 Mean 17.7 Ac-ft 12,820

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

Note.--No gage-height record Nov. 30 to Dec. 2, Dec. 17 to Mar. 6, Sept. 6-30; discharge estimated on basis of 3 discharge measurements, weather records, and records for Moore Creek near Arrowrock, Malad River near Gooding, and other nearby streams of similar runoff characteristics.

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 1955.

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.

Extremes.--Maximum discharge during year, 350 cfs June 8 (gage height, 4.61 ft); minimum, 1.6 cfs Nov. 30 (gage height, 2.29 ft).
1928-33, 1953-55: Maximum discharge, 584 cfs May 25, 1929, June 25, 1932 (gage height, about 5.1 ft, present datum); minimum, that of Nov. 30, 1954.

Remarks.--Records good except those below 10 cfs, which are fair. No regulation or diversion above station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(*Shifting-control method used June 9-15*)

Oct. 1 to June 15				June 16 to Sept. 30			
2.3	2.4	2.9	46	2.6	4.5	3.4	89
2.4	4.4	3.3	103	2.7	9.0	4.0	191
2.5	8.4	4.0	234	2.8	16	4.5	299
2.6	15	4.5	343	3.0	35		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	6.8	5.6	8.0	6.8	7.2	*15	51	123	90	23	8.1
2	6.0	6.8	7.6	7.6	6.0	7.2	19	45	103	83	22	7.6
3	5.6	6.4	8.0	6.4	5.6	7.2	15	38	100	82	20	7.6
4	5.6	6.4	7.2	6.4	5.6	6.4	14	38	101	80	20	7.6
5	5.6	6.4	5.6	8.0	6.4	4.4	14	60	117	78	20	7.2
6	5.6	6.4	6.8	*5.6	6.0	6.4	14	90	188	77	19	7.6
7	5.2	6.4	7.2	6.0	6.8	7.2	17	113	268	*74	19	7.2
8	5.2	6.4	3.6	7.2	6.4	7.2	21	124	305	68	*17	6.8
9	4.8	6.8	6.8	7.2	6.0	8.4	30	124	318	67	17	7.2
10	5.2	6.8	9.1	7.2	4.2	9.1	36	114	309	66	17	7.2
11	5.2	6.8	5.6	7.2	5.6	9.7	27	126	291	64	16	7.2
12	5.2	8.0	5.6	7.2	6.4	9.7	23	130	272	59	15	*6.8
13	6.4	7.2	8.0	6.8	6.0	9.7	22	*148	249	56	15	6.8
14	6.4	6.8	6.8	6.8	6.4	8.0	24	116	234	56	16	6.8
15	6.0	7.2	6.8	6.8	6.8	6.8	23	93	257	56	14	7.2
16	6.0	8.0	4.0	7.2	6.4	6.4	24	82	*261	55	13	7.6
17	5.6	7.6	5.6	7.2	6.8	9.1	31	74	213	54	13	8.1
18	5.6	6.4	5.6	7.2	3.8	6.8	32	68	187	48	14	10
19	5.6	6.4	6.0	7.2	6.0	5.6	27	74	187	47	14	12
20	6.0	6.8	6.4	7.2	6.8	6.0	24	105	197	50	12	12
21	6.0	6.4	6.8	6.8	6.4	9.1	22	157	201	47	12	9.7
22	6.4	6.4	6.8	6.8	6.4	8.4	24	166	199	55	10	9.7
23	6.4	6.4	7.2	7.2	*6.8	8.0	24	164	191	60	9.7	9.0
24	7.6	6.4	7.6	6.8	7.2	8.0	25	163	170	55	9.7	9.0
25	*7.6	6.0	7.2	6.8	7.2	8.0	26	133	149	45	12	9.7
26	7.2	6.4	6.0	6.0	7.2	8.0	38	109	132	39	11	10
27	6.4	6.8	5.2	6.0	7.2	7.2	*34	95	122	35	11	9.7
28	6.8	4.8	4.0	6.0	7.2	9.1	29	87	118	33	10	8.6
29	6.8	3.8	8.0	6.4	-	11	30	97	120	32	9.7	8.6
30	6.8	*3.6	7.6	6.8	------	14	39	146	104	28	9.0	8.1
31	6.8	------	8.0	6.8	------	14	------	148	------	27	8.1	------
Total	187.8	193.8	202.3	212.8	176.4	253.3	743	3,278	5,786	1,766	448.2	250.7
Mean	6.05	6.46	6.53	6.86	6.30	8.17	24.8	106	193	57.0	14.5	8.36
Ac-ft	372	384	401	422	350	502	1,470	6,500	11,480	3,500	889	497

Calendar year 1954: Max 234 Min 3.6 Mean 34.7 Ac-ft 25,150
Water year 1954-55: Max 318 Min 3.6 Mean 37.0 Ac-ft 26,770

Peak discharge (base, 200 cfs).--June 8 (11:30 p.m.) 350 cfs (4.61 ft).
* Discharge measurement made on this day.

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, and March to September 1955 (fragmentary).

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to Aug. 30, 1955, staff gage at site at Salls Ranch about 3 miles downstream at different datum.

Extremes.--1953: Maximum daily discharge during period May to September, 120 cfs June 8, 9; maximum gage height observed, 3.18 ft June 8, site and datum then in use; minimum observed, 1.3 cfs Sept. 15, 16.
1953-54: Maximum discharge during water year not determined; minimum observed, 1.2 cfs July 20.
1954-55: Maximum discharge during water year not determined; minimum recorded, 1.1 cfs Sept. 11, 12, 13 (gage height, 2.32 ft).

Remarks.--Records good except those for periods of no gage-height record, which are fair, and those for periods of ice effect, which are poor. 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 tables, May 28, 1953, to Sept. 30, 1955, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

May 28, 1953, to Aug. 29, 1955				Aug. 30 to Sept. 30, 1955	
0.8	1.3	1.6	21	2.3	1.0
.9	2.4	2.0	40	2.4	2.0
1.1	6.0	2.5	70	2.5	3.4
1.3	11	3.2	122		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									a60	23	-	a5
2									a50	a20	-	a5
3									a50	a15	-	*5.2
4									a60	13	-	a5
5									a70	a13	-	4.0
6									a100	12	-	4.0
7									a100	a12	-	4.0
8									*120	a12	-	4.0
9									a120	a 11	-	4.0
10									a110	*11	5.2	4.0
11									a100	11	-	3.8
12									*88	a10	1.1	3.8
13									a90	a9	-	3.7
14									84	8.8	-	a2
15									83	a8	-	1.3
16									a80	7.4	-	1.3
17									a80	a7	-	4.4
18									70	6.9	-	4.4
19									63	6.7	-	4.4
20									57	a6	-	4.8
21									57	a6	-	4.8
22									57	a7	-	4.8
23									*46	a7	-	4.8
24									40	a6	-	4.8
25									36	a6	*4.8	4.8
26									36	a5	-	a4.5
27									38	*5.2	-	4.0
28								*44	33	a5	-	a4
29									30	a4	-	*4.0
30					------				26	a4	-	a4.5
31		------			------		------		------	a3	-	------
Total									2,034	281.0	-	123.1
Mean									67.8	9.06	-	4.10
Ac-ft									4,030	557	-	244

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

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station near Hot Springs.

East Fork Bruneau River below Three Creek near Three Creek, Idaho--Continued

Discharge, in cubic feet per second, water year November 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	b8.0	a9	b12	b10	12	16				
2		-	a8	a9	b12	b9.5	12	17				
3		-	*b7.5	a9.5	a 11	a8	12	14				
4		-	a8	a9.5	b11	a8	11	14				
5		*8.1	a8	a9.5	b11	b7.5	a13	a12				
6		-	a9	a9.5	b12	a8	13	11				
7		-	a8	a9.5	b12	b9.0	16	10				
8		-	a8	a9.5	b12	a 11	a15	6.0				
9		-	a9	a8.5	b11	13	13	a6				
10		-	a9	a8.5	b11	11	13	6.0				
11		-	b8.5	a8.5	11	a10	a13	a6			*2.2	
12		7.8	a10	*b8.0	11	a10	13	*5.2				
13		-	a10	a8.5	14	a 11	13	a6				
14		-	a9	a8.5	13	b14	13	a7				
15		-	a10	b8.5	*12	b15	20	a9				
16		-	b10	b9.0	13	b14	21	a9	*28			
17		-	a10	a10	11	14	21	a9				
18		-	a 11	a9	b11	13	a22	a9				
19		-	a 11	a9	b12	a13	a22	a9				
20		-	b11	a9	12	13	21	a8		*1.2		
21		-	a10	b9.6	a12	14	a16	a7				
22		-	a8	a10	11	*13	*14	a6				
23		-	a6	a 11	a 11	a13	14	a6				*2.9
24		b9.0	b5	b9.0	a12	13	8.3	a7				
25		-	a4.5	b8.5	b11	13	6.9	a8				
26		-	a6	b8.5	a12	13	a9	a9				
27		-	a8	b9.0	a 11	13	12	a8.5				
28		-	a9	b10	b11	13	21	a9				
29		-	a9	b11	-	14	23	a10				
30		-	b8.5	b12	------	a13	21	a10				
31		------	a8.5	a12	------	13	------	a 11	------			------
Total		-	265.5	290.6	326	367.0	454.2	280.7	-	-	-	-
Mean		-	8.56	9.37	11.6	11.8	15.1	9.05	-	-	-	-
Ac-ft		-	527	576	647	728	901	557	-	-	-	-

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

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station near Hot Springs.
b Stage-discharge relation affected by ice.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	*16	16			-	3.4
2						-	16	24			-	3.4
3						-	17	28			-	3.4
4						-	13	24			-	3.4
5						-	16	a20			-	3.4
6				*b6.0		-	14	17			-	3.4
7						-	14	a17	28	*7.4	-	2.6
8						-	14	18			-	1.5
9						-	12	a16			3.7	1.9
10						-	12	a17			-	1.8
11						-	15	a15			-	1.4
12						-	16	a13			-	*1.3
13						-	16	*7.6			-	1.3
14						-	15	a8			-	1.4
15						-	14	a12			-	1.9
16						-	14	a15			-	1.8
17						-	13	22			-	1.5
18						-	15	23			-	2.4
19						-	16	a18			-	2.4
20						-	18	a13			-	2.5
21						-	17	a10			-	2.5
22						-	16	a 11			-	2.7
23						-	15	a18			-	2.2
24						-	15	a30			-	1.9
25	*4.4					-	15	38			-	1.8
26						-	15	a39			-	2.0
27						-	*16	a36			-	2.0
28						10	15	a28			-	2.1
29						13	14	a24			-	2.1
30		*b4.1			------	16	14	a20			*3.4	2.1
31		------			------	17	------	a21	------		3.2	------
Total	-	-	-	-	-	-	448	618.6	-	-	-	67.5
Mean	-	-	-	-	-	-	14.9	20.0	-	-	-	2.25
Ac-ft	-	-	-	-	-	-	889	1,230	-	-	-	134

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

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station near Hot Springs.
b Stage-discharge relation affected by ice.

East Fork Bruneau River near Hot Spring, Idaho

Location.--Lat 42°34', long 115°31', in SE¼NE¼ sec. 16, T. 10 S., R. 8 E., on right bank at Winter Camp Ranch, 7 miles upstream from mouth and 20 miles southeast of Hot Spring.
Drainage area.--620 sq mi, approximately.
Records available.--August 1910 to April 1915, December 1948 to September 1955.
Gage.--Water-stage recorder. Altitude of gage is 3,880 ft (by barometer). Prior to Dec. 10, 1948, at approximately present site at different datum.
Average discharge.--10 years (1910-14, 1949-55), 32.4 cfs (23,460 acre-ft per year).
Extremes.--Maximum discharge during year, 83 cfs June 17 (gage height, 3.64 ft); no flow for long periods during irrigation season.

1910-15, 1948-55: Maximum daily discharge, 450 cfs Mar. 7, 8, 1911, during period of ice effect; maximum gage height observed, 10.65 ft Mar. 8, 1911, datum then in use; no flow for long periods during irrigation seasons in 1954 and 1955.

Maximum stage known, 16.9 ft, from floodmark, datum then use, during spring of 1910.

Remarks.--Records good except those below 10 cfs, which are fair, and 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 East Fork, to Cedar Creek Reservoir in Salmon Falls Creek basin for irrigation.
Revisions.--Revised figures of discharge in cubic feet per second, for the water year 1949, superseding those published in WSP 1153, are given herewith:

Dec. 12	13	Dec. 19	14
13	12	20	15
14	11	21	14
15	10	22	12
16	10	23	10
17	10	24	10

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1948	‡363	16	10	‡11.7	‡720

‡ Not previously published; partly estimated.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 28

1.3	0	1.7	1.5
1.4	.1	1.8	2.7
1.5	.2	1.9	4.2
1.6	.7	2.0	6.3

Mar. 1 to Sept. 30

1.35	0	2.0	10
1.4	.1	2.3	22
1.5	.5	2.6	34
1.6	1.2	3.0	52
1.7	2.5	3.6	81
1.8	4.4		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.0	3.4	6	5.5	8	19	14	20	25	5.4	
2	0	2.1	3.4	6	5	8	17	19	22	25	4.2	
3	0	1.9	4.6	5.5	5	8	16	22	22	21	3.4	
4	0	2.2	6.1	5.5	4.5	7	15	25	20	18	2.5	
5	0	2.2	6	5	4.5	6.5	13	21	20	16	1.5	
6	0	2.5	6	5	4.5	7.5	12	17	22	15	.7	
7	0	2.6	5.5	*4.5	5	9	13	16	21	14	.4	
8	0	2.1	5	4.5	6	9	13	16	18	13	.2	
9	0	1.7	5	4.5	6	9	13	15	20	10	*0	
10	0	2.3	5	4	5	9	12	14	24	9.1	0	
11	0	2.5	4.5	4.5	5	9	12	16	25	9.4	0	
12	0	2.6	4.5	5	5.5	9	13	17	26	10	0	(*)
13	0	2.7	5	5	5.5	8	13	*14	30	13	0	
14	0	2.7	5	5	6	8	13	9.4	38	*14	0	
15	0	2.8	5	5	6.5	7	12	6.4	41	13	0	
16	0	2.7	5	5	7	7	12	7.5	*47	11	0	
17	0	2.8	4.5	5	7	8	12	11	77	9.4	0	
18	0	2.3	4	5	6.5	9	13	13	64	7.8	0	
19	.6	2.3	4	5	5.5	9	13	21	50	6.2	0	
20	.8	2.7	4	5	6	8	16	19	43	4.9	0	
21	.8	2.8	4.5	5	*7	9	17	15	36	4.0	0	
22	.8	3.0	4.5	5	7.5	10	16	13	30	3.3	0	
23	.4	3.4	5	5	8	11	16	10	25	2.7	0	
24	.5	3.4	5.5	5.5	8	11	15	12	21	2.5	0	
25	*.5	3.3	5.5	5.5	8	10	14	20	19	2.4	0	
26	.5	3.3	5	5.5	8	9.7	*15	31	18	4.4	0	
27	.8	3.4	4.5	5.5	8	11	15	32	18	13	0	
28	1.1	3.5	4	5	8	11	15	32	19	9.7	0	
29	1.3	*3.5	4.5	4.5	-	*15	14	29	20	8.4	0	
30	1.6	3.0	5	5	------	18	13	23	20	6.6	0	
31	1.7	------	5.5	5.5	------	22	-----	21	------	6.2	0	------
Total	11.4	80.3	149.0	157.0	174.0	300.7	422	551.3	876	328.0	18.3	0
Mean	0.37	2.68	4.81	5.06	6.21	9.70	14.1	17.8	29.2	10.6	0.59	0
Ac-ft	23	159	296	311	345	596	837	1,090	1,740	651	36	0

Calendar year 1954: Max 36 Min 0 Mean 6.63 Ac-ft 4,800
Water year 1954-55: Max 77 Min 0 Mean 8.41 Ac-ft 6,080

* Discharge measurement or observation of no flow made on this day.
Note.--Stage-discharge relation affected by ice Nov. 28-30, Dec. 5 to Mar. 22.

Bruneau River near Hot Spring, Idaho

Location.--Lat 42°46'00", long 115°43'30", 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 about 16 miles downstream from East Fork.

Drainage area.--2,010 sq mi, approximately.

Records available.--July 1909 to March 1915, October 1943 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 2,598.5 ft above mean sea level, datum of 1929 (surveyed by Topographic Branch). 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.--17 years (1909-14, 1943-55), 406 cfs (293,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,010 cfs June 10 (gage height, 5.97 ft); minimum, 41 cfs Dec. 11 (gage height, 3.47 ft).
1909-15, 1943-55: Maximum discharge observed, 5,660 cfs Mar. 1, 1910 (gage height, 10.6 ft, site and datum then in use), from rating curve extended above 1,200 cfs; minimum observed, 40 cfs Jan. 23, Nov. 29, 1911.

Remarks.--Records excellent. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 8,500 acres.

Revisions (water years).--WSP 1063: 1913.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.5	46	5.0	481
3.8	94	5.5	715
4.2	185	6.0	1,030
4.6	316		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	73	58	107	104	104	178	336	566	312	107	62
2	62	75	72	113	104	109	178	525	516	294	102	61
3	65	77	83	102	84	109	194	521	477	280	96	61
4	65	77	96	88	70	107	194	534	460	260	92	59
5	65	77	96	79	88	94	180	552	447	253	88	59
6	65	77	90	83	98	90	170	538	481	243	86	59
7	65	79	86	*90	107	94	165	695	630	236	84	59
8	65	79	84	86	111	102	168	806	782	230	83	59
9	65	79	70	77	109	124	194	824	928	217	*83	58
10	64	77	72	73	102	133	246	782	974	208	81	58
11	64	79	62	88	84	133	332	720	934	208	79	58
12	67	81	68	96	79	130	298	*710	869	214	77	*58
13	69	81	92	100	92	133	260	715	812	208	75	59
14	70	83	86	96	107	130	236	726	759	*194	73	59
15	70	86	94	92	104	119	230	640	*737	188	73	59
16	72	83	83	92	107	115	217	556	818	182	75	59
17	72	83	58	94	109	113	211	512	806	172	70	61
18	72	86	54	96	104	115	253	494	700	165	69	62
19	70	84	51	96	72	119	284	468	620	158	67	65
20	*72	83	55	96	79	102	263	460	588	146	70	72
21	72	83	64	96	*90	100	243	534	570	144	69	72
22	70	83	67	94	117	111	240	645	543	146	67	73
23	70	83	72	96	115	130	280	680	516	146	67	70
24	70	83	79	98	109	130	291	680	481	158	67	69
25	70	83	88	102	104	126	266	680	442	158	65	69
26	72	83	92	98	107	122	*260	635	400	144	64	69
27	73	81	88	96	109	119	302	579	363	133	65	69
28	75	81	70	88	104	126	320	516	343	130	65	70
29	75	*75	56	81	-	*133	287	481	339	126	65	67
30	75	61	88	92	------	146	270	485	336	119	64	65
31	75	------	104	102	------	160	------	566	------	111	64	------
Total	2,138	2,395	2,378	2,887	2,769	3,678	7,210	18,595	18,237	5,883	2,352	1,900
Mean	69.0	79.8	76.7	93.1	98.9	119	240	600	190	190	75.9	63.3
Ac-ft	4,240	4,750	4,720	5,730	5,490	7,300	14,300	36,880	36,170	11,670	4,670	3,770

Calendar year 1954: Max 716 Min 51 Mean 176 Ac-ft 127,400
Water year 1954-55: Max 974 Min 51 Mean 193 Ac-ft 139,700

* Discharge measurement made on this day.

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 1955. Remote registering water-stage recorder in channel leading to Grand View Irrigation District Canal. Datum of gage is at mean sea level (levels by 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 elevations and total contents at 12 p.m., October 1954 to September 1955

Date	Elevation (feet)	Contents (acre-feet)
Oct. 31, 1954	2,454.85	248,900
Nov. 30	2,455.03	250,200
Dec. 31	2,454.83	248,700
Jan. 31, 1955	2,455.06	250,500
Feb. 28	2,454.63	247,200
Mar. 31	2,453.25	237,200
Apr. 30	2,454.01	242,700
May 31	2,454.78	248,400
June 30	2,454.95	249,600
July 31	2,455.03	250,200
Aug. 31	2,454.21	244,200
Sept. 30	2,453.85	241,500

Snake River near Murphy, Idaho

Location.--Lat 43°18', long 116°26', in NE¼ sec. 35, T. 1 S., R. 1 W., on right bank 4¼ 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 1955.

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, 15,400 cfs Apr. 5 (gage height, 6.59 ft); minimum, 6,870 cfs Sept. 16 (gage height, 3.64 ft); minimum daily, 6,980 cfs May 30.
1912-55: 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.

Remarks.--Records excellent. Flow regulated by many reservoirs upstream. Between this station and station at King Hill, flow is regulated at Swan Falls and by C. J. Strike Reservoir (see preceding page) and by gravity and pumping diversions. About 1,630,000 acres irrigated by diversion from river and its tributaries above station.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,190	10,900	11,500	10,700	9,850	8,830	12,900	10,600	8,100	8,980	7,310	7,620
2	9,820	11,000	12,000	11,100	11,200	8,800	13,300	9,250	7,340	8,500	7,840	7,930
3	9,670	12,500	11,700	9,910	10,600	9,700	14,300	11,100	7,200	7,810	7,840	7,980
4	8,710	13,000	11,100	10,100	10,700	9,430	13,400	10,200	7,590	8,130	7,450	7,840
5	9,910	12,400	10,400	10,700	9,790	9,490	13,400	9,430	7,480	8,130	7,650	7,650
6	10,300	11,800	*11,000	10,500	9,220	8,710	13,300	8,590	7,340	8,160	7,480	7,930
7	11,100	12,600	11,500	11,500	8,980	8,040	13,000	8,560	7,670	8,440	7,420	7,620
8	11,400	11,400	10,500	11,500	10,200	8,980	9,040	8,270	7,650	8,470	7,450	7,980
9	9,820	9,850	11,200	9,400	9,970	8,800	9,250	8,270	7,010	8,040	7,510	7,900
10	8,950	9,310	10,400	8,980	9,190	9,280	9,610	9,100	7,790	7,450	7,870	7,700
11	9,580	12,000	9,280	*10,000	9,070	*8,130	9,640	8,010	7,980	7,370	8,040	8,180
12	8,950	11,400	9,550	10,500	8,650	9,010	12,000	8,390	7,340	7,280	7,980	8,070
13	13,100	11,200	9,790	9,490	8,240	10,400	12,800	8,330	7,480	7,590	7,760	7,700
14	11,600	11,900	11,400	10,500	8,420	9,970	13,400	7,730	7,590	7,870	8,010	8,040
15	11,900	11,600	11,900	10,900	8,390	10,400	*13,500	7,140	7,390	*7,730	7,450	8,040
16	13,900	10,900	11,700	9,310	8,390	10,400	13,600	7,170	8,440	7,390	7,510	7,950
17	11,800	11,500	12,100	9,700	8,440	10,100	12,700	8,470	9,160	7,370	7,390	8,440
18	9,160	12,000	11,600	11,600	8,590	14,000	11,700	*9,190	8,550	7,170	*7,900	8,470
19	10,500	11,500	9,880	11,900	9,100	14,600	12,700	8,890	8,240	7,200	7,760	*8,550
20	*12,500	11,000	8,330	9,940	8,860	13,100	12,300	8,330	*8,210	7,230	7,200	8,950
21	11,500	10,200	9,640	9,580	7,510	10,000	12,800	8,710	8,800	7,340	7,140	9,310
22	8,470	10,700	9,190	9,850	8,270	9,700	13,100	8,560	8,950	7,700	7,390	10,100
23	10,600	10,300	9,400	9,430	8,300	12,200	13,200	8,010	8,680	7,560	7,700	10,100
24	12,400	11,200	9,520	8,590	8,390	9,940	11,100	8,240	8,180	7,250	7,980	9,910
25	12,000	10,200	10,100	9,730	9,250	9,970	10,000	8,590	7,840	7,230	8,130	8,010
26	10,500	10,100	10,300	9,820	9,160	12,400	12,700	8,240	7,650	7,310	7,340	8,100
27	12,200	11,500	10,300	10,800	8,830	11,400	12,800	8,070	7,840	7,510	7,560	9,400
28	12,200	11,200	10,700	10,500	8,100	8,950	12,900	8,100	8,040	7,650	7,700	9,730
29	11,300	11,300	9,280	10,200	-	13,200	12,800	7,230	7,870	7,620	7,480	9,820
30	11,800	12,300	10,500	9,550	------	13,600	13,700	6,980	8,440	7,370	7,870	9,490
31	10,600	------	11,800	*10,200	------	13,100	------	7,390	------	7,280	7,840	------
Total	335,430	338,760	327,560	316,480	253,660	324,630	370,940	263,140	237,820	238,130	236,950	254,490
Mean	10,820	11,290	10,570	10,210	9,059	10,470	12,360	8,488	7,927	7,682	7,644	8,483
Ac-ft	665,300	671,900	649,700	627,700	503,100	643,900	735,700	521,900	471,700	472,300	470,000	504,800

Calendar year 1954: Max 15,800 Min 7,060 Mean 9,843 Ac-ft 7,126,000
Water year 1954-55: Max 14,600 Min 6,980 Mean 9,584 Ac-ft 6,938,000

* Discharge measurement made on this day.

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 1955 (fragmentary). Month-end contents for some periods, published in WSP 1317.

Gage.--Gage readings obtained about once a week 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, 8,710 acre-ft June 20 (gage height, 61.25 ft); minimum observed, 1,010 acre-ft Sept. 30.
1938-55: Maximum contents observed, 35,630 acre-ft Apr. 29, 1952 (gage height, 81.56 ft); no contents at times during 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 ft (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.

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	2,290	-	-	-	8,450	-	-	-
2	3,420	-	-	-	-	2,610	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	8,520	-	-	-
4	-	-	2,490	-	2,290	b2,650	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	2,650	-
6	-	2,770	-	-	-	-	-	6,420	-	-	-	-
7	-	-	-	-	-	-	-	-	8,520	-	-	-
8	-	-	-	b2,380	2,350	-	3,630	-	-	5,550	-	-
9	3,260	-	-	-	-	-	-	-	-	-	-	1,320
10	-	-	-	-	-	-	-	-	8,600	-	-	-
11	-	-	b2,460	-	2,400	2,790	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	4,520	2,330	-
13	-	2,670	-	-	-	-	-	7,280	-	-	-	-
14	3,180	-	-	-	-	-	-	-	-	-	-	-
15	-	-	b2,430	b2,360	-	-	4,110	-	-	3,770	2,130	-
16	3,150	-	-	-	-	-	-	-	-	-	-	1,200
17	-	-	-	-	-	-	-	7,610	8,670	-	-	-
18	-	2,590	b2,420	-	b2,460	b2,890	-	-	-	3,510	-	-
19	-	-	-	-	-	-	-	-	-	-	1,950	-
20	-	2,590	-	-	-	-	-	7,910	8,710	-	-	-
21	-	-	-	b2,340	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	4,620	-	-	3,070	-	-
23	3,020	-	-	-	-	-	-	-	-	-	-	1,080
24	-	-	b2,420	-	-	-	-	-	8,380	-	-	-
25	-	-	-	-	b2,560	b2,960	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	1,590	-
27	-	2,530	-	-	-	-	5,180	8,270	-	-	-	-
28	-	-	-	-	a2,590	-	-	-	-	-	-	1,020
29	2,890	-	-	-	-	-	5,320	-	-	2,960	-	-
30	-	a2,510	-	-	--------	3,110	a5,480	-	7,380	-	-	1,010
31	a2,860	-------	b2,400	2,290	-------	3,220	-------	a8,410	-------	a2,870	a1,490	-------
(†)	-	-	50.00	49.45	-	51.75	-	-	59.35	-	-	44.5
(‡)	-570	-350	-110	-110	+300	+630	+2,260	+2,930	-1,030	-4,510	-1,380	-480

Calendar year 1954: (‡) -13,200
Water year 1954-55: (‡) -2,420

† Gage height, in feet, at end of month.
‡ Change in contents, in acre feet.
a No gage reading; contents interpolated.
b Contents computed from gage readings corrected for ice cover.

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 1955. 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.--27 years (1917-25, 1936-55), 43.8 cfs (31,710 acre-ft per year).

Extremes.--Maximum discharge during year, 134 cfs July 7-9 (gage height, 3.10 ft); no flow Feb. 8 to June 19.
1916-25, 1936-55: 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 are closed.

Remarks.--Records excellent. Small diversions above station for irrigation. Flow regulated by Wild Horse Reservoir beginning Mar. 18, 1938 (see preceding page).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 22 to Feb. 7)

0.4	0	1.9	16
.5	.1	2.2	31
.6	.2	2.6	66
.9	.9	3.0	123
1.1	2.0	4.0	329
1.5	5.8		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.7	10	5.8	5.7	5.4				0	106	19	12
2	9.7	9.7	5.8	5.7	5.4	(*)			0	106	19	12
3	10	9.7	5.8	5.7	5.4				0	104	20	11
4	10	9.7	5.8	5.7	5.4				0	104	20	12
5	10	9.7	5.8	5.7	5.4				0	103	20	12
6	10	9.7	5.8	5.7	5.4				0	103	19	12
7	10	9.7	5.8	5.7	3.4				*0	120	20	12
8	10	10	5.8	5.7	0				0	134	21	12
9	10	9.7	5.8	5.7	0				0	134	23	12
10	10	9.7	5.8	5.7	0				0	132	23	12
11	5.3	9.3	5.8	5.7	0				0	132	26	12
12	5.5	9.5	5.8	5.7	0				0	*130	29	12
13	10	9.5	5.8	5.7	0				0	130	28	12
14	*10	9.5	*5.8	5.7	0				0	128	28	12
15	10	9.7	5.7	5.7	0				0	128	*28	11
16	10	9.5	5.7	5.5	0				0	127	28	11
17	10	9.5	5.7	5.5	0			(*)	0	127	28	11
18	10	*9.7	5.7	5.5	0				0	58	28	11
19	10	9.5	5.7	5.5	0				0	2.0	28	11
20	10	9.5	5.7	5.4	0				7.9	2.0	28	11
21	10	9.3	5.7	5.4	0				28	2.0	28	11
22	10	8.1	5.7	5.4	0				40	2.1	28	11
23	10	6.0	5.7	5.4	0				49	2.0	28	11
24	10	5.8	5.7	5.4	0				61	2.1	28	11
25	10	5.8	5.7	5.4	0				79	2.1	28	11
26	10	5.8	5.7	5.4	0				79	9.1	22	11
27	10	5.8	5.7	5.4	0		(*)		78	15	12	11
28	10	5.8	5.7	5.4	0				88	14	12	*11
29	10	5.8	5.7	5.4	-				108	16	11	11
30	10	5.8	5.7	5.4	------	(*)			106	19	12	11
31	10	------	5.7	5.4	------		------		------	19	12	------
Total	300.2	256.8	178.1	172.3	35.8	0	0	0	723.9	2,212.4	704	343
Mean	9.68	8.56	5.75	5.56	1.28	0	0	0	24.1	71.4	22.7	11.4
Ac-ft	595	509	353	342	71	0	0	0	1,440	4,390	1,400	680

Calendar year 1954: Max 180 Min 0 Mean 28.5 Ac-ft 20,660
Water year 1954-55: Max 134 Min 0 Mean 13.5 Ac-ft 9,780

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

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 1955.

Gage.--Water-stage recorder. Datum of gage is 5,425 ft above mean sea level, unadjusted.

Average discharge.--16 years, 146 cfs (105,700 acre-ft per year).

Extremes.--Maximum discharge during year, 356 cfs May 9 (gage height, 4.98 ft); minimum, 8.1 cfs Nov. 28.
1939-55: 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. 125).

Rating tables, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 6-8)

Oct. 1-31		Nov. 1 to Sept. 30			
1.0	11	1.0	9.3	3.0	140
1.2	23	1.3	22	4.0	240
1.4	34	1.6	38	5.0	359
		2.0	63		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	27	18			18	54	195	133	140	23	11
2	15	27				(*)	67	220	135	136	23	9.7
3	15	26					48	185	124	136	25	10
4	18	26					40	175	121	133	25	11
5	17	25	21			20	36	229	113	130	24	10
6	17	26					39	297	108	123	26	11
7	18	25					48	331	*94	117	26	10
8	18	24					64	345	92	138	24	10
9	18	26					87	345	86	144	23	11
10	18	24					114	307	83	143	24	11
11	18	24		(*)			79	301	84	161	23	11
12	18	26					63	309	98	*186	24	11
13	18	26					63	309	105	149	26	12
14	*14	25	(*)				58	264	97	144	27	11
15	22	25		18	18	23	54	225	102	137	*29	12
16	23	28					56	203	110	133	30	12
17	23	28					75	*192	88	127	28	12
18	22	*25					94	171	73	124	29	13
19	22	24	19				85	165	66	58	30	16
20	22	24					79	183	59	26	29	17
21	23	23					94	206	52	20	27	15
22	23	23					131	203	56	19	26	15
23	23	23					109	198	68	17	26	15
24	23	21					101	197	77	16	26	15
25	24	18				30	109	208	97	15	25	15
26	26	19					140	181	109	13	25	16
27	31	18					*121	168	109	12	26	15
28	28	16					113	148	103	15	17	*15
29	27	15			-	40	122	144	158	18	13	14
30	28	15			------	(*)	166	142	160	19	11	15
31	28	------			------	49	------	139	------	22	11	------
Total	655	702	598	558	504	813	2,509	6,885	2,960	2,751	751	381.7
Mean	21.1	23.4	19.3	18	18	26.2	83.6	222	98.7	88.7	24.2	12.7
Ac-ft	1,300	1,390	1,190	1,110	1,000	1,610	4,980	13,660	5,870	5,460	1,490	757

Calendar year 1954: Max 286 Min 7.9 Mean 62.0 Ac-ft 44,900
Water year 1954-55: Max 345 Min 9.7 Mean 55.0 Ac-ft 39,820

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 28 to Mar. 30 (no gage-height record Nov. 30 to Dec. 2, Dec. 6, 7, 11-13, Jan. 1 to Feb. 18, discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby stations).

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 below proposed dam site, 0.6 mile upstream from Morgan Ranch house, 1 mile downstream from Williams Creek, 4 miles upstream from Lone Tree Creek, and 9 miles southeast of Jordan Valley.

Drainage area.--440 sq mi, approximately; 450 sq mi, approximately, at site 2 miles downstream.

Records available.--April to September 1955. 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.--7 years (1945-52), 204 cfs (147,700 acre-ft per year).

Extremes.--Maximum discharge during period, 1,430 cfs May 9 (gage height, 6.85 ft); minimum, 2 cfs or less for long periods while stage was below intakes.
1945-53, 1955: Maximum discharge, 3,250 cfs Apr. 14, 1952 (gage height, 5.57 ft, site and datum then in use); no flow part of day Oct. 4, 5, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Diversions above station for irrigation.

Rating table, Apr. 1 to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

0.9	2	2.5	89
1.0	4	3.0	156
1.1	5	4.0	350
1.2	7	5.0	625
1.4	14	6.0	1,020
1.7	26	7.0	1,610
2.0	44		

Discharge, in cubic feet per second, April to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							170	580	370	69	6	2
2							190	667	350	60	6	2
3							160	535	*330	58	6	2
4							170	499	323	64	5	2
5							200	726	319	58	5	2
6							250	1,000	325	50	5	2
7							300	*1,050	319	44	5	2
8							350	1,170	307	44	4	2
9							450	1,230	287	42	4	2
10							500	1,050	269	41	4	2
11							450	1,060	247	50	4	2
12							320	1,030	237	36	4	2
13							300	1,000	237	28	3	2
14							280	900	222	28	3	2
15							g245	800	209	20	3	2
16							g232	700	184	14	3	3
17							g236	600	158	13	3	3
18							g313	540	137	12	3	2
19							g275	580	119	12	3	3
20							g299	700	108	11	3	2
21							g425	800	*95	8	3	2
22							g930	900	84	7	2	2
23							*684	800	74	6	2	2
24							619	740	68	15	2	2
25							565	660	62	6	2	2
26							541	640	58	6	2	2
27							430	620	55	5	2	2
28							375	500	*55	*5	2	2
29							355	460	108	5	2	2
30					------		430	430	89	6	*g2	2
31		------			------		------	400	------	7	2	------
Total							11,044	23,367	5,805	830	105	64
Mean							368	754	194	26.8	3.4	2.1
Ac-ft							21,910	46,350	11,510	1,650	208	127

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

* Discharge measurement made on this day.
g Computed from twice-daily staff-gage readings.
Note.--No gage-height record Apr. 1-14, May 13 to June 2, June 24-27, Aug. 1-29, Aug. 31 to Sept. 30; discharge estimated on basis of weather records, records for adjacent periods, and records for stations in Weiser River basin and Moore Creek above Robie Creek near Arrowrock.

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 1955.

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.--6 years, 917 cfs (663,900 acre-ft per year).

Extremes.--Maximum discharge during year, 5,200 cfs Apr. 11 (gage height, 6.88 ft); minimum, 45 cfs Sept. 4 (gage height, 0.56 ft).
1949-55: Maximum discharge, 27,800 cfs Apr. 14, 1952 (gage height, 15.60 ft); minimum, 42 cfs Aug. 12, 1954.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversion above station for irrigation. Flow regulated by Antelope Reservoir (capacity, 36,600 acre-ft), Wild Horse Reservoir (see p. 125), and numerous small reservoirs.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 2				Apr. 3 to Sept. 30			
0.8	71	3.0	780	0.5	34	4.0	1,510
1.0	116	4.0	1,450	1.0	132	5.0	2,450
2.0	365	4.5	1,920	2.0	410	7.0	5,400
				3.0	850		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	95	107	116	114	139	1,390	1,410	397	198	119	60
2	71	95	93	121	b115	141	1,600	1,810	404	195	114	62
3	73	95	91	b115	b115	144	1,990	2,590	369	188	106	60
4	75	98	107	b110	b118	141	1,450	*2,720	351	180	94	47
5	75	98	118	102	b116	139	1,020	2,610	342	192	86	52
6	*75	95	109	*b110	b115	134	780	2,230	333	190	84	56
7	75	98	114	104	118	139	*918	2,080	*321	195	82	56
8	78	98	109	100	121	141	1,690	2,040	312	185	82	56
9	78	98	114	b105	132	242	2,550	1,990	300	192	79	52
10	78	98	107	b110	*b138	285	3,860	1,950	280	172	*79	52
11	82	98	86	114	137	300	3,730	1,880	266	162	77	54
12	91	107	114	114	134	302	2,330	1,700	254	153	77	54
13	*91	111	102	114	132	245	1,720	1,610	257	134	77	52
14	91	114	107	114	121	272	1,660	1,500	268	*128	77	52
15	95	116	118	109	125	265	1,990	1,360	282	123	75	56
16	91	118	109	114	137	248	1,580	1,190	285	119	75	58
17	91	114	109	116	144	232	1,290	1,150	312	110	75	60
18	91	*111	100	114	b148	215	1,470	1,090	315	108	77	65
19	89	111	91	114	b135	205	1,640	1,000	342	134	77	63
20	91	111	84	116	128	205	1,390	868	300	148	75	63
21	91	111	91	116	b125	196	1,400	745	288	153	73	63
22	91	114	102	121	116	205	3,220	650	263	148	75	67
23	89	114	102	121	132	198	4,020	655	240	155	75	73
24	89	114	104	118	144	198	2,920	675	227	155	*71	77
25	86	114	107	118	141	*245	2,240	641	218	146	69	77
26	86	114	104	118	141	330	1,900	589	205	128	73	77
27	86	114	b100	118	139	400	1,700	549	195	128	75	77
28	86	114	84	121	139	554	1,490	537	195	128	75	79
29	100	114	98	b115	-	1,180	1,290	513	210	125	77	79
30	95	111	114	111	------	1,850	1,340	465	195	125	77	77
31	93	------	114	114	------	1,570	------	420	------	123	69	------
Total	2,644	3,213	3,209	3,523	3,620	11,060	57,568	41,217	8,526	4,720	2,496	1,876
Mean	85.3	107	104	114	129	357	1,919	1,330	284	152	80.5	62.5
Ac-ft	5,240	6,370	6,360	6,990	7,180	21,940	114,200	81,750	16,910	9,360	4,950	3,720

Calendar year 1954: Max 5,740 Min 53 Mean 296 Ac-ft 214,000
Water year 1954-55: Max 4,020 Min 47 Mean 394 Ac-ft 285,000

Peak discharge (base, 3,000 cfs).--Apr. 11 (1 a.m.) 5,200 cfs (6.88 ft); Apr. 22 (11 to 12 p.m.) 4,910 cfs (6.71 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Owyhee Reservoir at Owyhee Dam, near Nyssa, Oreg.

Location.--Lat 43°38'30" (revised) long 117°14'40" (revised), 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 1955.

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, 764,600 acre-ft May 14 (elevation, 2,637.60 ft); minimum observed, 474,400 acre-ft Sept. 30 (elevation, 2,601.23 ft).
1932-55: 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, that of Sept. 30, 1955.

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 ft (bottom of sluice gates) and 2,670 ft (top spillway gate), 715,000 acre-ft between elevations 2,590.2 ft (diversion tunnel) and 2,670 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 mile downstream.

Cooperation.--Record of elevations furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1954 to September 1955

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	2,610.40	538,300	-
Oct. 31.....	2,610.25	537,200	-1,100
Nov. 30.....	2,612.08	550,700	+13,500
Dec. 31.....	2,613.64	562,400	+11,700
Calendar year 1954..	-	-	-247,300
Jan. 31.....	2,615.46	576,300	+13,900
Feb. 28.....	2,617.06	588,700	+12,400
Mar. 31.....	2,620.05	612,400	+23,700
Apr. 30.....	2,633.65	728,200	+115,800
May 31.....	2,635.68	746,700	+18,500
June 30.....	2,628.05	678,900	-67,800
July 31.....	2,618.95	603,600	-75,300
Aug. 31.....	2,608.69	525,900	-77,700
Sept.30.....	2,601.23	474,400	-51,500
Water year 1954-55..	-	-	-63,900

† Hour of reading gage not known.

Owyhee River below Owyhee Dam, Oreg.

Location.--Lat 43°39'10" (revised), long 117°15'00" (revised), in sec. 17, T. 22 S., R. 45 E., on left bank three-quarters of a mile downstream from Owyhee Dam and 20 miles southwest of Nyssa.

Drainage area.--11,160 sq mi, approximately.

Records available.--February 1929 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 2,343.67 ft above mean sea level (levels by Bureau of Reclamation).

Average discharge.--23 years (1932-55), 365 cfs (264,200 acre-ft per year).

Extremes.--Maximum discharge during year, 310 cfs Aug. 16 (gage height, 1.90 ft); minimum daily determined, 1.7 cfs Apr. 1-11.
1929-55: 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 fair except those for periods of no gage-height record, which are poor. About 450,000 acre-ft diverted annually from Owyhee Reservoir for irrigation of lands below station and outside the basin. Many smaller diversions for irrigation above station. Flow regulated by Owyhee Reservoir since October 1932 (see p. by Wild Horse Reservoir since March 1938 (see p. 125), and by many smaller reservoirs.

Cooperation.--Water-stage recorder inspected and 11 discharge measurements made by Bureau of Reclamation.

Revisions (water years).--WSP 983: 1941-42. Revised figures of discharge, in cubic feet per second, for the water years 1930, 1933, and 1946, superseding those published in WSP 708, 753, and 1063, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1930		1930-Con.		1930-Con.		1930-Con.		1933-Con.	
July 1	137	July 21	106	Aug. 10	107	Aug. 30	109	Aug. 17	310
2	133	22	110	11	109	31	110	18	308
3	133	23	111	12	107			19	308
4	129	24	112	13	105	1933		20	308
5	125	25	113	14	106	Aug. 1	346	21	308
6	124	26	113	15	119	2	349	22	308
7	123	27	112	16	111	3	329	23	308
8	123	28	112	17	109	4	313	24	308
9	117	29	110	18	109	5	313	25	308
10	115	30	107	19	110	6	313	26	305
11	118	31	107	20	109	7	313	27	305
12	116	Aug. 1	107	21	107	8	310	28	305
13	115	2	107	22	109	9	310	29	305
14	113	3	105	23	103	10	310	30	305
15	113	4	105	24	105	11	310	31	305
16	111	5	102	25	105	12	310		
17	109	6	101	26	110	13	310	1946	
18	103	7	102	27	109	14	310	May 8	404
19	103	8	106	28	106	15	310		
20	109	9	109	29	107	16	310		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 1930	-	137	103	116	7,130
August	-	119	101	107	6,580
Water year 1929-30	-	1,780	101	341	247,000
Calendar year 1930	-	1,780	101	338	245,000
August 1933	-	349	305	312	19,200
Water year 1932-33	-	1,440	-	430	311,000
Calendar year 1933	-	1,440	-	411	298,000
May 1946	10,280	1,190	95	332	20,400
Water year 1945-46	214,835	6,840	-	589	426,200
Calendar year 1946	214,812	6,840	-	589	426,100

Owyhee River below Owyhee Dam, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							a1.7	37	g20	*32	66	50
2							a1.7	37	*g20	32	66	50
3				a2.5			a1.7	37	g20	32	58	42
4							a1.7	37	g20	32	53	36
5							a1.7	36	g20	32	53	36
6				*g2.3			a1.7	44	g20	31	53	35
7	a2.8						*g1.7	*38	*45	31	53	a23
8							a1.7	38	77	47	54	a20
9							a1.7	38	*91	*70	44	a20
10							a1.7	38	92	68	37	a20
11							a1.7	38	92	69	*37	a20
12							*a41	38	92	69	*37	a20
13	*g2.8						*69	38	93	62	37	a15
14							69	38	88	52	37	a10
15		a2.8	a2.8		a2.0	a2.0	71	38	80	52	37	a10
16							66	38	67	52	47	a10
17							36	38	56	52	38	a8
18							36	52	56	53	38	a5
19				a2.2			36	61	57	65	44	a5
20							36	68	57	77	50	a5
21							36	68	57	77	50	a5
22	a2.8						36	52	67	78	49	a5
23							36	g35	80	*79	*49	a5
24							37	g35	79	79	50	a5
25							37	g35	79	78	51	a5
26							37	g35	78	65	50	a5
27							37	g35	78	56	50	a5
28							37	g35	78	66	51	a5
29			*a2.8		-		37	g27	59	65	51	a5
30			a2.8		------		37	g20	37	65	51	a5
31		------	a2.7		------		------	g20	------	66	50	------
Total	86.8	84.0	86.7	69.8	56.0	62.0	845.7	1,224	1,855	1,784	1,491	490
Mean	2.80	2.8	2.80	2.25	2.0	2.0	28.2	39.5	61.8	57.5	48.1	16.3
Ac-ft	172	167	172	138	111	123	1,680	2,430	3,680	3,540	2,960	972

Calendar year 1954: Max 157 Min - Mean 40.6 Ac-ft 29,400
Water year 1954-55: Max 93 Min 1.7 Mean 22.3 Ac-ft 16,140

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated or based on regulation notes.
g Computed from daily staff-gage reading.

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 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 1955.

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.--44 years, 1,158 cfs (838,400 acre-ft per year).

Extremes.--Maximum discharge during year, 6,270 cfs June 10 (gage height, 6.49 ft); minimum daily, 160 cfs Nov. 30; minimum gage height, 1.63 ft Dec. 1.
1911-55: Maximum discharge, 10,300 cfs May 17, 1927 (gage height, 8.30 ft), from rating curve extended above 8,000 cfs; minimum, 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 or no gage-height record, which are fair.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	196	4.0	2,020
2.1	292	5.0	3,520
2.5	505	6.0	5,300
3.0	880	7.0	7,330
3.5	1,380		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	369	348	b165	b380	310	297	457	1,460	3,330	1,910	619	315
2	374	343	b350	b370	280	297	512	1,650	3,260	1,720	598	310
3	369	343	b430	b310	250	277	463	1,580	3,330	1,600	577	310
4	364	338	428	b290	280	281	445	1,540	3,280	1,660	564	301
5	364	338	374	288	310	235	457	2,160	3,680	1,660	550	301
6	359	333	359	*b310	300	238	538	3,180	4,160	1,570	531	297
7	354	329	369	270	330	306	720	3,390	4,840	1,520	524	292
8	348	333	310	300	360	354	916	3,990	5,650	1,480	512	288
9	348	348	248	340	329	380	1,100	4,300	5,850	1,480	499	288
10	348	348	374	380	275	380	1,420	3,800	5,810	1,430	487	292
11	354	343	333	350	240	396	1,100	3,950	*5,550	1,440	475	292
12	369	406	254	330	270	385	880	4,190	5,570	1,510	457	288
13	396	440	385	330	330	390	768	4,100	5,240	*1,420	451	*284
14	374	380	348	330	330	369	728	3,730	4,750	1,390	445	288
15	369	412	333	330	320	329	680	2,960	4,510	1,380	440	338
16	374	557	284	340	*324	315	640	2,460	3,950	1,310	*428	338
17	364	469	235	330	315	320	640	2,130	3,630	1,270	418	359
18	359	428	235	330	306	338	760	2,090	3,380	1,180	406	385
19	354	406	254	340	277	364	712	2,580	3,410	1,090	406	359
20	374	396	b300	330	265	338	672	*3,580	3,680	1,020	401	364
21	364	380	b300	320	288	324	720	4,880	3,850	970	385	354
22	359	374	b300	320	338	348	970	5,510	4,090	1,010	380	338
23	354	374	329	b330	333	329	1,030	4,900	4,090	925	369	333
24	348	369	b400	350	310	338	943	4,300	3,580	934	364	333
25	348	364	b380	b370	310	*343	898	3,660	2,840	872	369	348
26	*348	359	b340	b320	306	343	943	3,520	2,430	816	354	348
27	339	354	b275	280	301	364	889	3,140	2,310	768	343	338
28	343	310	265	280	292	401	816	2,780	2,300	736	338	333
29	343	217	b340	300	-	423	*784	2,830	2,480	728	333	333
30	343	*b160	b380	340	------	445	961	3,520	2,230	680	333	329
31	348	-----	b400	360	-----	434	-----	3,580	------	648	324	------
Total	11,120	10,899	10,077	10,148	8,479	10,681	23,562	101,440	117,060	38,127	13,680	9,676
Mean	359	363	325	327	303	345	785	3,272	3,902	1,230	441	323
Cfsm	0.433	0.437	0.392	0.394	0.365	0.416	0.946	3.94	4.70	1.48	0.531	0.389
In.	0.50	0.49	0.45	0.45	0.38	0.48	1.06	4.55	5.25	1.71	0.61	0.43
Ac-ft	22,060	21,620	19,990	20,130	16,820	21,190	46,730	201,200	232,200	75,620	27,130	19,190

Calendar year 1954: Max 7,860 Min 160 Mean 1,364 Cfsm 1.64 In. 22.32 Ac-ft 987,500
Water year 1954-55: Max 5,850 Min 160 Mean 1,000 Cfsm 1.20 In. 16.36 Ac-ft 723,900

Peak discharge (base, 3,700 cfs).--May 9 (1 a.m.) 5,090 cfs (5.89 ft); May 22 (2 to 3 a.m.) 6,110 cfs (6.41 ft); June 10 (4 to 5 a.m.) 6,270 cfs (6.49 ft); June 23 (5 a.m.) 4,530 cfs (5.59 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 7-22, 24, Jan. 27 to Feb. 8, Feb. 10-15; discharge estimated on basis of weather records and records for nearby streams.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,220 ft (from topographic map of Bureau of Reclamation).

Average discharge.--10 years, 793 cfs (574,100 acre-ft per year).

Extremes.--Maximum discharge during year, 3,890 cfs June 10 (gage height, 6.20 ft); minimum, 96 cfs Nov. 30, Dec. 1 (gage height, 1.45 ft).
1945-55: Maximum discharge, 5,530 cfs Apr. 28, 1952 (gage height, 7.47 ft); minimum, 30 cfs Feb. 10, 1949 (gage height, 0.60 ft), result of snowslide upstream.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. No regulation. Small ranch diversions above station.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	102	3.5	1,030
1.7	145	4.0	1,410
2.0	235	5.0	2,400
2.5	450	6.0	3,600
3.0	720	7.0	4,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	215	204	106	224	197	176	242	720	1,960	1,000	290	160
2	220	204	160	221	179	188	256	744	1,870	924	280	162
3	220	200	249	194	155	185	228	692	1,920	870	270	160
4	215	200	249	173	168	176	232	698	1,930	864	265	158
5	215	197	235	170	182	158	242	936	2,210	834	260	155
6	210	197	218	180	179	158	278	1,340	2,690	828	250	155
7	210	197	221	155	188	176	346	1,540	3,160	792	245	145
8	205	197	176	170	*197	197	435	1,810	3,490	756	240	148
9	205	204	138	190	191	204	538	2,030	*3,650	744	230	150
10	205	204	197	220	165	207	638	1,860	3,650	720	230	155
11	210	204	214	214	152	204	522	1,920	3,530	744	220	152
12	220	242	162	194	170	200	470	2,010	3,530	750	215	148
13	230	246	200	197	185	200	435	2,020	3,280	*687	215	148
14	220	224	207	200	188	191	410	1,870	2,960	660	210	*150
15	215	263	194	197	188	179	391	1,510	2,800	638	205	158
16	220	337	170	204	185	162	382	1,310	2,450	610	*200	173
17	215	274	b145	200	185	176	368	1,160	2,190	590	204	185
18	215	246	b130	194	176	194	420	1,160	2,020	560	200	188
19	210	232	b145	200	152	194	378	1,320	1,980	510	200	188
20	220	224	b150	197	155	182	373	1,770	2,060	480	197	210
21	*210	221	160	194	168	176	391	2,420	2,140	460	191	200
22	210	221	165	191	185	*191	460	2,830	2,170	470	185	191
23	207	*221	179	191	182	200	455	*2,590	2,100	440	185	188
24	207	221	210	200	179	197	465	2,330	1,860	440	185	185
25	207	218	200	204	182	204	465	2,020	1,520	410	182	197
26	207	218	191	185	179	204	*538	1,890	1,350	380	179	197
27	200	210	158	170	179	200	485	1,670	1,270	360	176	191
28	204	170	155	170	170	210	460	1,520	1,210	350	168	185
29	207	128	*182	179	-	221	450	1,570	1,260	340	173	188
30	204	108	214	188	------	218	522	1,990	1,110	325	168	188
31	207	-----	232	200	-----	224	-----	2,140	------	305	165	------
Total	6,565	6,430	5,712	5,966	4,961	5,952	12,275	51,390	69,320	18,841	6,583	5,158
Mean	212	214	184	192	177	192	409	1,658	2,311	608	212	172
Cfsm	0.334	0.337	0.290	0.302	0.279	0.302	0.644	2.61	3.64	0.957	0.334	0.271
In.	0.38	0.38	0.33	0.35	0.29	0.35	0.72	3.01	4.06	1.10	0.39	0.30
Ac-ft	13,020	12,750	11,330	11,830	9,840	11,810	24,350	101,900	137,500	37,370	13,060	10,230

Calendar year 1954: Max 5,080 Min 106 Mean 768 Cfsm 1.21 In. 16.42 Ac-ft 556,100
Water year 1954-55: Max 3,650 Min 106 Mean 546 Cfsm 0.860 In. 11.66 Ac-ft 395,000

Peak discharge (base, 2,000 cfs).--May 9 (2:30 a.m.) 2,280 cfs (4.87 ft); May 22 (5 a.m.) 3,040 cfs (5.51 ft); June 10 (4 a.m.) 3,890 cfs (6.20 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 1-20, Jan. 5-10, July 16 to Aug. 15; discharge estimated on basis of weather records and records for Boise River near Twin Springs and other nearby streams.

Lime Creek near Bennett, Idaho

Location.--Lat 43°25', long 115°16', in SW¼NE¼ sec. 16, T. 1 N., R. 10 E., on right bank 0.4 mile upstream from flow line of Anderson Ranch Reservoir, 2 miles upstream from mouth, and 12 miles northeast of Bennett.

Drainage area.--131 sq mi.

Records available.--June 1945 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,250 ft (from topographic map of Bureau of Reclamation).

Average discharge.--10 years, 86.0 cfs (62,260 acre-ft per year).

Extremes.--Maximum discharge during year, 310 cfs May 8 (gage height, 3.93 ft); minimum, 7.6 cfs Nov. 28 (gage height, 2.15 ft), but may have been less during period of ice effect.
1945-55: Maximum discharge, 1,180 cfs Apr. 19, 1946, Apr. 27, 1952; maximum gage height, 8.02 ft Feb. 15, 1949 (backwater from snowslide); minimum discharge, 2.5 cfs Feb. 11, 1949 (gage height, 1.67 ft), result of snowslide upstream.

Remarks.--Records excellent except those below about 100 cfs, which are good, and those for periods of ice effect or no gage-height record, which are fair. No regulation or diversion.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	10	2.8	59
2.3	15	3.0	89
2.4	21	3.5	192
2.6	37	4.0	328

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	24	b19	b29	26	26	37	167	160	47	16	10
2	24	24	27	b29	22	26	37	156	151	45	16	10
3	24	24	33	b25	b20	25	32	139	151	44	16	10
4	23	23	31	b23	b21	23	34	143	147	42	15	10
5	23	23	27	b23	b23	20	35	180	154	42	14	10
6	23	23	27	b24	b23	b24	41	224	156	40	14	10
7	23	24	27	b21	b24	b28	51	242	160	38	15	10
8	22	25	16	b23	*25	30	65	262	158	37	14	10
9	22	27	b26	b25	24	30	79	259	*151	36	14	10
10	22	26	32	b28	19	28	91	239	143	36	14	12
11	24	26	27	b28	b18	29	75	245	134	36	13	12
12	26	36	20	b26	b20	30	72	242	132	36	13	12
13	27	32	27	b26	b23	27	81	245	130	*32	13	11
14	26	28	25	27	24	27	84	229	122	30	13	*12
15	26	37	b25	26	25	22	79	197	113	28	13	13
16	26	47	b21	27	24	27	73	190	102	27	*12	14
17	26	34	b18	26	24	31	67	171	89	25	12	15
18	26	31	b16	b26	b21	28	91	167	84	24	12	16
19	26	30	b18	25	b21	30	75	174	79	23	12	17
20	26	28	b18	24	b23	24	72	204	73	24	12	19
21	*25	28	b19	25	27	30	78	245	67	22	12	17
22	25	29	b20	24	27	*30	100	262	65	24	12	16
23	25	28	b22	b25	26	27	94	*245	60	23	11	16
24	25	*28	b27	26	25	28	109	226	66	22	12	16
25	*26	27	26	26	25	27	109	206	62	21	12	17
26	24	27	b24	24	25	28	171	194	57	20	12	18
27	24	27	b20	b23	25	27	*122	176	53	19	12	16
28	24	b12	b20	b23	24	31	109	162	51	19	12	16
29	25	b12	b23	b24	-	32	122	160	57	19	12	16
30	25	b14	*29	b25	------	32	145	176	53	18	11	16
31	24	-----	b30	27	-----	33	-----	169	------	17	10	------
Total	761	804	740	783	654	860	2,430	6,296	3,180	916	401	407
Mean	24.5	26.8	23.9	25.3	23.4	27.7	81.0	203	106	29.5	12.9	13.6
Cfsm	0.187	0.205	0.182	0.193	0.179	0.211	0.618	1.55	0.809	0.225	0.098	0.104
In.	0.22	0.23	0.21	0.22	0.19	0.24	0.69	1.79	0.90	0.26	0.11	0.12
Ac-ft	1,510	1,590	1,470	1,550	1,300	1,710	4,820	12,490	6,310	1,820	795	807

Calendar year 1954: Max 460 Min 12 Mean 76.8 Cfsm 0.586 In. 7.96 Ac-ft 55,590
Water year 1954-55: Max 262 Min 10 Mean 50.0 Cfsm 0.382 In. 5.18 Ac-ft 36,170

Peak discharge (base, 230 cfs).--May 8 (11 p.m.) 310 cfs (3.93 ft); May 22 (1 a.m.) 278 cfs (3.79 ft).

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

Note.--No gage-height record Oct. 1-20, 22-24; discharge estimated on basis of recorded range in stage, weather records, and records for Fall Creek near Anderson Ranch Dam, South Fork Boise River near Featherville, and other nearby streams.

Fall Creek near Anderson Ranch Dam, Idaho

Location.--Lat 43°26'00", long 115°23'10", in SE¼ sec. 9, T. 1 N., R. 9 E., on right bank 1½ miles downstream from Mill Creek and 6 miles northeast of Anderson Ranch Dam.

Drainage area.--55.3 sq mi.

Records available.--April 1945 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,350 ft (from topographic map of Bureau of Reclamation).

Average discharge.--10 years, 68.8 cfs (49,810 acre-ft per year).

Extremes.--Maximum discharge during year, 438 cfs May 8 (gage height, 4.78 ft); minimum, 9.6 cfs Feb. 10 (gage height, 2.52 ft), but may have been less during periods of ice effect or no gage-height record.
1945-55: Maximum discharge, 948 cfs Apr. 27, 1952 (gage height, 6.25 ft); minimum, 1.6 cfs Feb. 9, 1949 (gage height, 1.94 ft), result of snowslide upstream.

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	13	b10	16	14	16	20	127	135	50	17	11
2	13	13	12	15	13	16	20	125	140	49	16	11
3	13	13	14	b15	12	16	18	111	131	45	16	11
4	13	12	14	b14	13	15	19	126	131	45	16	11
5	13	12	14	b14	14	b14	21	211	140	45	16	11
6	13	12	14	b14	14	b15	27	281	152	42	15	11
7	13	13	14	b13	15	b16	43	296	162	42	15	11
8	13	13	b13	b13	16	b17	64	332	*170	38	15	11
9	12	13	b12	b14	*15	18	92	308	168	36	14	11
10	12	13	14	15	b13	17	100	279	164	37	14	11
11	13	13	14	15	b13	17	73	276	162	39	14	11
12	14	20	14	14	b15	18	62	270	156	*35	14	11
13	14	16	15	14	b16	16	59	254	146	33	14	11
14	13	15	b14	15	b16	16	58	211	133	32	14	*11
15	13	21	14	14	16	b15	55	164	122	31	*14	12
16	13	21	b13	14	16	b16	50	136	107	30	13	12
17	13	18	b12	14	16	b16	53	118	97	27	13	14
18	13	16	b11	14	b15	16	54	125	89	26	13	15
19	13	16	b12	14	b14	16	45	156	84	26	13	14
20	13	16	b12	13	b15	b15	44	198	82	25	12	14
21	*13	16	b12	13	b16	b16	49	246	77	24	12	14
22	12	16	b13	13	b16	b15	59	238	74	24	13	13
23	12	*16	b13	13	b15	*b14	56	*214	70	24	12	13
24	12	16	b15	14	15	b15	56	185	76	22	12	13
25	12	15	b15	14	15	b15	*65	162	67	22	12	15
26	12	15	b14	13	15	b15	70	154	60	21	12	15
27	12	15	b13	13	15	b15	59	135	55	20	12	14
28	12	12	b13	13	b15	18	58	123	54	20	12	13
29	12	b11	*b14	13	-	17	60	129	63	20	12	13
30	12	b10	b15	14	------	17	84	144	55	18	12	13
31	12	-----	15	15	-----	18	-----	140	------	18	11	------
Total	394	441	414	432	413	496	1,593	5,974	3,322	966	420	371
Mean	12.7	14.7	13.4	13.9	14.8	16.0	53.1	193	111	31.2	13.5	12.4
Cfsm	0.230	0.266	0.242	0.251	0.268	0.289	0.960	3.49	2.01	0.564	0.244	0.224
In.	0.26	0.30	0.28	0.29	0.28	0.33	1.07	4.02	2.23	0.65	0.28	0.25
Ac-ft	781	875	821	857	819	984	3,160	11,850	6,590	1,920	833	736

Calendar year 1954: Max 422 Min 10 Mean 64.1 Cfsm 1.16 In. 15.73 Ac-ft 46,420
Water year 1954-55: Max 332 Min 10 Mean 41.7 Cfsm 0.754 In. 10.24 Ac-ft 30,230

Peak discharge (base, 300 cfs).--May 8 (9 p.m.) 438 cfs (4.78 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 10 to Feb. 8; discharge estimated on basis of weather records and records for Lime Creek near Bennett, South Fork Boise River near Featherville, and other nearby streams.

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, April 1924 to September 1955.

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, 1924-55: Maximum daily discharge, 77 cfs Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.--Records good except those below 5 cfs, which are poor. 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	18	50	46		
2							0	a24	49	44		
3							0	a24	49	36		
4							0	26	49	14		
5							0	a31	49	6		
6							0	35	48	4		
7							0	a39	48	a3		
8							0	39	47	a3		
9							0	a38	*46	a2		
10							0	42	47	a2		
11							0	a45	47	a2		
12							0	a45	47	a2		
13							0	50	47	*2		
14							0	55	48	a2		
15							0	55	49	a2		
16							0	52	49	a2		
17							0	a46	48	a2		
18							0	46	47	a1		
19							0	46	46	a1		
20							0	46	47	a1		
21							0	46	48	a1		
22							0	46	46	a1		
23							0	45	47	a1		
24							0	*45	47	a1		
25							0	45	46	a1		
26							0	45	46	a1		
27							*0	45	46	a1		
28							8	45	46	a0		
29							a14	45	46	a0		
30					------		a13	45	45	a0		
31		------			------		------	47	------	a0		------
Total	0	0	0	0	0	0	35	1,301	1,420	184	0	0
Mean	0	0	0	0	0	0	1.2	42.0	47.3	5.9	0	0
Ac-ft	0	0	0	0	0	0	69	2,580	2,820	365	0	0

Calendar year 1954: Max 60 Min 0 Mean 22.6 Ac-ft 16,340
Water year 1954-5: Max 55 Min 0 Mean 8.1 Ac-ft 5,830

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge interpolated between gate changes or estimated on basis of nearby streams.

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 1955.

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, 449,100 acre-ft July 7 (elevation, 4,192.78 ft); minimum observed, 221,000 acre-ft Feb. 10 (elevation, 4,131.80 ft).
1945-55: Maximum contents observed, 470,700 acre-ft June 27, 1954 (elevation, 4,197.37 ft); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 209,600 acre-ft Jan. 28, 29, 1953 (elevation, 4,127.9 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 of land in Boise Valley.

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

Contents, in acre-feet, at about 8 a.m., water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	279,100	232,800	242,000	-	233,100	224,400	234,800	265,900	321,700	441,100	408,600	329,900
2	275,500	233,000	242,300	-	233,100	224,500	235,400	267,700	324,500	443,000	406,200	327,800
3	271,400	233,500	242,300	-	231,800	224,800	235,800	269,700	327,200	444,800	403,900	325,600
4	267,200	233,600	242,500	238,300	230,800	225,000	236,200	270,900	330,400	446,400	401,300	323,300
5	263,000	233,900	242,600	-	-	225,300	236,700	273,300	334,800	448,100	398,900	323,400
6	259,200	234,200	243,200	238,800	-	-	237,200	274,600	340,000	448,300	396,500	323,400
7	255,100	234,500	243,700	238,900	-	225,400	237,800	275,900	344,700	449,100	394,200	321,300
8	251,200	234,800	243,900	-	222,800	225,800	238,500	277,600	350,400	448,200	392,400	319,600
9	247,200	235,000	244,000	-	221,200	-	239,800	280,100	356,600	447,400	390,000	317,300
10	242,800	235,400	244,200	237,300	221,000	227,400	241,400	282,500	362,700	446,300	387,500	315,100
11	237,700	235,700	244,300	236,600	-	228,100	243,000	284,800	368,800	445,600	385,300	313,900
12	235,100	236,100	244,200	-	-	228,800	244,200	287,200	375,900	444,600	382,700	314,100
13	231,100	236,700	244,500	235,600	-	229,200	245,100	289,400	382,600	443,500	380,100	311,900
14	227,500	237,100	244,700	235,700	221,200	229,800	246,500	291,900	387,700	442,400	377,700	309,900
15	227,200	237,400	244,800	235,700	-	-	247,300	293,600	392,300	441,100	375,800	307,600
16	227,500	238,200	245,000	-	221,500	-	248,300	294,700	396,400	439,700	372,900	305,200
17	228,000	238,800	244,900	235,700	221,600	230,500	249,300	295,100	399,500	437,900	370,000	302,700
18	228,300	239,200	244,400	235,100	221,800	230,500	250,500	295,300	402,400	436,300	367,500	300,500
19	228,600	239,600	-	234,500	-	231,000	251,400	295,400	406,000	434,500	364,900	300,000
20	228,900	241,000	-	233,900	-	231,300	252,500	296,800	410,000	432,800	361,900	298,600
21	229,300	240,400	239,100	232,100	-	231,500	253,400	299,000	412,900	430,800	359,400	295,700
22	229,600	240,600	-	231,400	222,300	-	254,700	302,800	416,600	429,300	357,100	293,000
23	229,900	241,000	237,600	-	222,400	231,900	255,800	306,300	420,400	427,300	354,300	290,200
24	230,300	241,200	237,200	230,800	222,700	-	257,000	309,500	424,800	425,500	351,400	287,400
25	230,500	241,300	237,600	231,100	223,200	-	258,200	312,200	428,300	423,600	348,700	284,900
26	230,900	241,600	237,900	231,400	-	232,300	259,600	314,100	431,300	421,600	345,800	282,100
27	231,100	241,800	238,100	231,600	223,900	232,700	260,900	315,100	434,000	419,600	342,900	279,400
28	231,600	241,900	237,400	231,800	224,200	232,900	262,300	316,200	435,700	417,200	340,400	277,800
29	231,700	242,100	237,000	-	-	233,500	263,300	317,000	437,000	415,200	338,100	275,200
30	232,000	241,900	-	-	-------	233,900	264,200	318,000	439,200	413,000	335,400	273,200
31	232,500	-------	a237,300	232,900	-------	234,300	-------	319,900	-------	410,800	332,800	-------
(†)	4,135.64	4,138.68	-	4,135.78	4,132.9	4,136.24	4,145.58	4,161.51	4,190.64	4,184.30	4,165.00	4,148.26
(‡)	-50,700	+9,400	-4,600	-4,400	-8,700	+10,100	+29,900	+55,700	+119,300	-28,400	-78,000	-59,600

Calendar year 1954: (‡) -8,100
Water year 1954-55: (‡) -10,000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents estimated on basis of weather records and records of inflow and outflow.

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 1955 (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.--12 years, 953 cfs (689,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,420 cfs Oct. 2 (gage height, 5.53 ft); minimum, 1 cfs Mar. 9 (gage height, 1.06 ft).
1943-55: Maximum discharge, 9,100 cfs Apr. 17, 1943 (gage height, 10.06 ft); minimum, 0.3 cfs Feb. 16, 1950 (gage height, 0.99 ft), but may have been less during period of ice effect.

Remarks.--Records excellent. Flow of Little Camas Creek stored in Little Camas Reservoir (no spill most years) and diverted through Little Camas Canal (see p. 137) 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 Bureau of Reclamation.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	2.6	276
1.2	5	3.0	450
1.4	16	3.5	730
1.7	42	4.0	1,050
2.0	88	5.0	1,890
2.3	168	6.0	2,930

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,010	115	121	124	222	137	132	126	1,290	106	1,550	1,440
2	2,320	115	173	124	645	140	132	126	793	99	1,560	1,290
3	2,360	110	161	124	1,060	156	129	126	674	101	1,560	1,250
4	2,360	118	124	138	1,270	174	129	165	121	103	1,570	366
5	2,230	118	124	128	984	207	129	580	115	718	1,570	115
6	2,330	124	120	178	1,230	146	124	1,490	735	626	1,480	1,120
7	2,170	121	146	270	1,240	54	115	1,410	780	825	1,160	1,100
8	2,330	126	170	699	1,350	5	118	1,480	*846	1,220	1,540	1,280
9	2,160	121	129	444	*562	4	124	1,490	972	1,310	1,560	1,340
10	2,320	118	164	635	172	4	126	1,500	928	1,200	1,540	1,060
11	2,320	118	403	442	214	5	129	1,500	540	1,260	1,360	118
12	2,010	121	140	662	188	4	124	1,510	113	*1,340	1,580	978
13	2,290	121	171	142	134	4	121	1,510	968	1,340	1,620	*1,120
14	928	121	180	242	235	128	121	1,520	938	1,350	1,170	1,240
15	126	124	204	466	222	156	121	1,530	896	1,420	*1,420	1,350
16	126	126	190	245	232	108	124	1,530	950	1,430	1,620	1,460
17	124	124	428	330	206	115	121	1,530	915	1,470	1,630	1,470
18	124	124	685	530	244	115	118	1,530	496	1,480	1,430	572
19	121	156	957	521	259	121	113	1,530	110	1,480	1,650	822
20	*118	166	1,180	716	134	124	115	1,530	976	1,490	1,650	1,140
21	115	121	1,060	1,020	160	378	126	1,530	515	1,500	1,430	1,510
22	115	194	566	515	137	129	126	1,510	160	1,340	1,480	1,580
23	115	*189	390	443	137	*296	126	1,540	216	1,510	1,650	1,580
24	113	211	154	319	137	152	124	*1,550	200	1,480	1,630	1,580
25	115	121	121	124	140	129	126	1,550	113	1,520	1,490	1,550
26	115	191	126	134	156	126	*126	1,550	110	1,520	1,610	1,580
27	115	230	415	126	137	126	126	1,520	679	1,530	1,480	1,130
28	115	118	510	124	192	126	126	1,550	653	1,530	1,460	1,380
29	115	234	264	124	-	129	126	1,510	139	1,520	1,580	1,230
30	115	150	*334	126	------	129	129	1,540	228	1,540	1,560	1,190
31	115	------	272	160	------	129	------	1,550	------	1,550	1,560	------
Total	32,140	4,246	10,182	10,375	11,999	3,756	3,726	40,613	17,169	36,908	47,150	34,921
Mean	1,037	142	328	335	429	121	124	1,310	572	1,191	1,521	1,164
Ac-ft	63,750	8,420	20,200	20,580	23,800	7,450	7,390	80,550	34,050	73,210	93,520	69,260

Calendar year 1954: Max 3,430 Min 110 Mean 991 Ac-ft 717,400
Water year 1954-55: Max 2,360 Min 4 Mean 694 Ac-ft 502,200

* Discharge measurement made on this day.

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 and 14 miles east of Boise.

Drainage area.--2,210 sq mi, approximately.

Records available.--October 1917 to September 1955.

Gage.--Staff graduated on face of dam read once daily. Datum of gage is at mean sea level (surveys of Bureau of Reclamation).

Extremes.--Maximum contents observed during year, 292,800 acre-ft May 22, June 6 (elevation, 3,218.0 ft); minimum observed, 12,360 acre-ft Oct. 15 (elevation, 3,051.0 ft).
1917-55: 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 ft (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 contents 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 ft to 5,000 acre-ft at elevation 3,085 ft and above. Water is used for irrigation of lands in Boise Valley.

Cooperation.--Gage readings and revised capacity table furnished by Bureau of Reclamation.

Contents, in acre-feet, at about 8 a.m., water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,210	33,920	69,540	117,300	163,400	207,800	216,300	265,900	288,800	128,800	49,600	83,940
2	15,210	34,360	70,240	118,400	164,900	208,800	215,600	270,300	288,500	124,500	54,280	76,500
3	15,210	35,710	71,920	119,400	166,800	209,800	216,100	274,500	287,800	119,500	58,640	69,400
4	15,210	37,060	73,600	120,300	169,200	209,500	215,600	278,400	290,000	114,700	62,800	62,670
5	15,210	38,410	74,720	121,400	172,100	208,800	215,300	282,900	292,200	110,400	67,090	52,960
6	15,160	39,500	75,750	123,000	174,900	208,200	215,000	289,400	292,800	107,000	71,360	44,380
7	15,260	40,400	76,800	124,100	178,000	208,000	215,000	291,200	291,900	103,600	75,600	38,320
8	15,260	41,400	78,150	125,000	181,200	207,200	217,400	290,900	290,900	99,170	79,050	32,640
9	15,310	42,500	79,350	126,000	184,700	206,000	220,500	291,900	285,400	95,940	83,140	27,690
10	15,310	43,500	80,250	129,000	186,700	205,500	223,900	291,900	281,100	92,540	87,460	27,100
11	15,310	44,490	81,450	131,000	187,400	204,500	227,800	291,600	276,300	89,540	91,690	26,080
12	15,310	45,700	83,140	133,200	188,600	205,200	229,100	291,900	270,900	85,540	95,430	23,330
13	15,160	46,910	84,100	135,200	189,700	206,200	229,300	291,900	264,400	82,350	99,510	22,000
14	15,210	48,120	85,540	136,600	190,900	207,000	229,600	291,600	259,800	79,350	103,800	21,360
15	12,360	49,360	86,980	138,000	192,100	208,200	229,900	290,900	253,200	74,860	108,000	20,920
16	14,120	50,680	88,100	139,200	193,600	209,000	229,900	290,300	250,100	70,800	111,800	21,040
17	15,980	52,480	89,060	140,600	194,500	210,500	229,900	289,400	234,300	66,830	116,000	21,420
18	17,310	54,040	90,500	142,200	195,500	211,500	230,400	288,800	218,200	63,320	119,700	21,550
19	18,590	55,260	92,540	144,600	196,700	212,800	231,700	288,800	201,300	58,250	123,700	20,170
20	19,870	56,430	95,430	146,400	198,100	214,000	234,000	289,700	185,100	54,760	128,000	19,160
21	21,170	57,860	98,660	148,300	199,100	215,000	236,100	291,200	172,100	51,400	132,200	18,880
22	22,470	59,160	101,400	150,200	200,100	216,600	238,700	292,800	159,900	47,900	135,800	19,510
23	23,680	60,460	103,100	151,900	201,300	218,200	242,200	291,900	152,900	44,820	139,400	19,870
24	24,860	61,630	104,800	154,800	202,200	219,200	245,900	290,900	146,200	42,000	136,000	20,540
25	25,790	62,950	106,100	156,500	203,500	219,200	249,000	290,300	139,600	39,500	130,000	20,980
26	26,730	64,250	107,500	157,600	204,800	219,500	251,800	289,700	137,200	36,700	123,900	21,480
27	28,370	65,400	109,300	158,600	205,800	218,900	254,900	289,100	135,800	34,000	118,200	22,070
28	29,530	66,830	110,900	159,200	206,500	217,900	257,800	288,500	134,800	32,000	112,000	21,480
29	30,720	68,000	112,500	160,300	-	216,300	260,100	288,500	134,000	36,250	106,500	21,420
30	31,760	69,120	114,200	161,300	-------	216,900	262,700	288,500	132,600	40,800	99,170	21,100
31	32,800	-------	116,000	162,600	-------	216,600	-------	288,800	-------	45,370	91,010	-------
(†)	3,083.5	3,115.8	3,144.7	3,167.9	3,187.0	3,191.0	3,208.0	3,216.7	3,153.3	3,096.7	3,130.3	3,087.5
(‡)	+16,980	+36,320	+46,980	+46,600	+43,900	+10,100	+46,100	+26,100	-156,200	-87,230	+45,640	-69,910

Calendar year 1954: (‡) -45,800
Water year 1954-55: (‡) +5,280

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

Boise River at Dowling Ranch, near Arrowrock, Idaho

Location.--Lat 43°35', long 115°58', in sec. 15, T. 3 N., R. 4 E., at Dowling Ranch, three-quarters of a mile upstream from Moore Creek and 4 miles downstream from Arrowrock.

Drainage area.--2,220 sq mi, approximately.

Records available.--March 1911 to April 1955 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 2,890 ft (from Corps of Engineers topography of Lucky Peak reservoir). Prior to Mar. 18, 1915, staff gages at same site and datum.

Average discharge.--43 years (1911-54), 2,311 cfs (1,673,000 acre-fet per year).

Extremes.--Maximum discharge during period October to April 1955, 3,960 cfs Oct. 5 (gage height, 5.23 ft); minimum, 1 cfs Dec. 17, 18; minimum gage height, 0.73 ft Dec. 18; minimum daily discharge, 2 cfs Nov. 1-3.
1911-55: Maximum discharge, 18,800 cfs Apr. 20, 1943 (gage height, 9.93 ft); minimum, 1 cfs Jan. 3, 1945, Jan. 13, 1948, Dec. 17, 18, 1954; minimum gage height, 0.62 ft Nov. 21, 22, 1935; minimum daily discharge, 2 cfs for many days in 1935-36, 1942, 1954.

Remarks.--Records good except those below 20 cfs, which are fair. Flow regulated by Arrowrock Reservoir (see preceding page) and Anderson Ranch Reservoir (see p. 138). Small diversions from tributaries above station for irrigation.

Revisions.--WSP 883: Drainage area.

Rating table, Oct. 1, 1954, to Apr. 30, 1955, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	2	2.0	210
.9	7	2.5	435
1.1	18	3.0	770
1.3	38	4.0	1,810
1.6	90	5.0	3,430

Discharge, in cubic feet per second, October 1954 to April 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*2,800	2	4	6	b7	6	890					
2	2,760	2	4	5	b7	6	882					
3	2,760	2	4	5	b7	b420	874					
4	2,780	3	4	5	b170	906	866					
5	2,740	3	4	6	a8	898	866					
6	2,740	3	4	6	a8	890	866					
7	2,760	3	4	*6	a8	890	406					
8	2,740	3	4	6	a7	*890	8					
9	2,740	3	4	b6	a7	882	6					
10	2,740	3	4	b6	a7	882	6					
11	2,740	3	4	b6	a7	449	453					
12	2,740	4	4	b6	a7	a5	890					
13	2,660	4	4	6	a7	a5	898					
14	2,610	4	4	6	a7	a5	898					
15	854	4	4	7	a7	a5	906					
16	6	4	4	b7	*7	a5	906					
17	5	4	3	7	7	a5	906					
18	4	4	3	7	b7	a5	632					
19	4	4	4	7	b6	a5	210					
20	4	4	4	b6	b6	5	14					
21	4	4	3	b6	b6	5	15					
22	4	4	4	b6	6	6	17					
23	4	4	4	b6	b6	6	17					
24	4	4	4	b6	6	*218	22					
25	4	4	4	b6	6	676	25					
26	*4	4	4	b6	b6	914	a24					
27	3	4	4	b6	6	906	a23					
28	3	4	6	b6	b6	1,000	*a21					
29	3	4	6	b6	-	1,060	a20					
30	3	*3	8	b7	------	1,000	a20					
31	3	------	8	b7	------	930	------		------			------
Total	39,226	105	133	190	352	13,885	12,587					
Mean	1,265	3.5	4.3	6.1	12.6	448	420					
Ac-ft	77,800	208	264	377	698	27,540	24,970					

Calendar year 1954: Max 8,870 Min 2 Mean 2,617 Ac-ft 1,895,000
Water year 1954-55: Max - Min - Mean - Ac-ft -

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

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 South Fork, 2¼ miles upstream from mouth, and 3 miles southeast of Idaho City.

Drainage area.--4.5 sq mi, approximately.

Records available.--January 1939 to November 1941, December 1950 to September 1955.

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.--6 years (1939-41, 1951-55), 1.93 cfs (1,397 acre-ft per year).

Extremes.--Maximum discharge during year, 9.0 cfs May 8 (gage height, 1.18 ft); minimum, 0.2 cfs all or part of each day Aug. 17 to Sept. 14; minimum gage height, 0.19 ft part of each day Aug. 31 to Sept. 7.

1939-41, 1950-55: Maximum discharge, 39 cfs Apr. 26, 1952 (gage height, 1.95 ft), from rating curve extended above 18 cfs; 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 or no gage-height record, which are fair. No regulation or diversion.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 31		Feb. 1 to Sept. 30			
0.4	0.5	0.2	0.2	0.6	1.6
.5	.9	.3	.3	.8	3.3
.6	1.4	.4	.6	1.0	5.9
		.5	1.0	1.2	9.4

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.5	0.6	0.8	0.7	0.8	1.0	5.5	3.8	0.9	0.4	0.2
2	.5	.5	.7	.8	.7	.8	1.0	6.4	3.7	.9	.4	.2
3	.5	.5	.7	.8	.7	.8	.9	6.1	3.5	.8	.4	.2
4	.5	.5	.7	*.7	a.6	.7	.9	5.9	3.2	1.0	.4	.2
5	.5	.5	.7	.7	a.6	b.7	1.0	6.9	3.1	.9	.3	.2
6	.5	.5	.7	.7	a.6	.8	1.2	7.5	3.0	.9	.4	.2
7	.5	.6	.6	.7	a.6	.8	1.4	7.7	2.8	.8	.4	.2
8	.5	.6	.6	.7	a.7	.8	1.5	8.3	2.7	.8	.4	.2
9	.5	.6	.6	.7	a.7	.9	1.9	*8.1	2.4	.8	.3	.2
10	.5	.6	.6	.7	a.6	.8	2.1	7.5	2.4	.8	.3	.2
11	.5	.6	.6	.7	a.6	.9	1.6	7.7	2.1	.8	.3	.2
12	.5	.9	.7	.7	a.6	1.0	1.4	7.9	2.0	.7	.3	.2
13	.6	.7	.7	.7	a.7	.9	1.5	7.5	*1.9	.7	.3	.2
14	.6	.7	.7	.7	*.8	.8	1.5	7.2	1.8	*.7	.3	*.3
15	.6	1.1	b.7	.7	.7	b.7	1.4	6.5	1.8	.6	.3	.3
16	.6	1.1	b.6	.7	.7	.8	1.4	6.4	1.6	.6	.3	.3
17	.6	.9	.6	.7	.7	.8	1.9	5.9	1.5	.6	*.3	.4
18	.5	.8	.6	.7	b.6	.9	2.1	5.6	1.4	.5	.3	.4
19	.6	.8	b.6	.7	b.6	b.8	1.8	5.8	1.2	.5	.3	.3
20	.5	.8	b.6	.7	b.6	b.8	1.7	6.1	1.2	.5	.3	.3
21	.5	.8	.6	.7	b.6	.9	2.4	*6.7	1.1	.5	.3	.3
22	.5	.7	.6	.7	b.7	.9	4.6	6.7	1.0	.5	.3	.3
23	.5	.7	.7	.7	.8	.8	3.7	6.4	1.0	.5	.3	.3
24	.5	.7	a.7	.7	.8	.8	3.2	6.1	1.5	.5	.3	.3
25	.5	.7	a.7	.7	.8	.8	3.1	5.8	1.2	.5	.3	.3
26	.5	.7	a.7	.7	.8	.8	3.5	5.8	1.1	.5	.3	.3
27	*.5	.7	a.6	.7	.8	.8	3.0	5.2	1.0	.5	.3	.3
28	.5	.5	a.6	.7	.8	.9	*2.9	4.8	1.0	.5	.3	.3
29	.5	*.5	a.7	.7	-	*.9	3.2	4.5	1.4	.4	.3	.3
30	.5	.6	a.7	.7	------	.9	4.1	4.4	1.0	.4	.2	.3
31	.5	-----	.8	.7	------	.9	------	4.0	------	.4	.2	------
Total	16.2	20.4	20.3	22.0	19.2	25.7	62.9	196.9	58.4	20.0	9.8	7.9
Mean	0.52	0.68	0.65	0.71	0.69	0.83	2.10	6.35	1.95	0.65	0.32	0.26
Cfsm	0.116	0.151	0.144	0.158	0.153	0.184	0.467	1.41	0.433	0.144	0.071	0.058
In.	0.13	0.17	0.17	0.18	0.16	0.21	0.52	1.63	0.48	0.17	0.08	0.07
Ac-ft	32	40	40	44	38	51	125	391	116	40	19	16

Calendar year 1954: Max 13 Min 0.5 Mean 2.13 Cfsm 0.473 In. 6.44 Ac-ft 1,540
Water year 1954-55: Max 8.3 Min 0.2 Mean 1.31 Cfsm 0.291 In. 3.97 Ac-ft 952

Peak discharge (base, 4.5 cfs).--Apr. 22 (4 to 5 a.m.) 5.2 cfs (0.94 ft); May 8 (7 p.m.) 9.0 cfs (1.18 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations at Moore Creek above Robie Creek, Robie Creek near Arrowrock, and other nearby streams.

b Stage-discharge relation affected by ice.

Moore Creek above Robie Creek, near Arrowrock, Idaho

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 3,120 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,170 cfs May 9 (gage height, 5.03 ft); minimum, 16 cfs all or part of each day Sept. 2-11; minimum gage height, 1.86 ft Sept. 6, 7. 1950-55: Maximum discharge, 3,620 cfs Apr. 27, 1952 (gage height, 8.23 ft); minimum, that of Sept. 2-11, 1955; minimum gage height, that of Sept. 6, 7, 1955.

Remarks.--Records excellent. Diversions above station and from Robie Creek for irrigation of about 900 acres.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	13	3.0	186
1.9	18	3.5	340
2.1	31	4.0	560
2.4	60	5.0	1,150
2.7	112		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	52	44	66	70	66	183	736	480	206	44	17
2	43	53	55	66	66	64	206	856	475	186	42	17
3	42	53	68	58	62	63	178	784	475	173	40	17
4	43	52	74	50	62	60	181	736	475	173	38	16
5	43	52	72	*55	62	55	200	856	485	178	37	16
6	44	52	69	60	63	55	246	1,030	495	153	36	16
7	44	52	69	66	64	60	315	1,040	520	148	35	16
8	44	52	53	64	72	75	404	1,080	535	138	33	16
9	45	53	51	63	60	85	480	*1,070	540	129	33	16
10	45	53	72	62	54	100	646	946	535	126	31	17
11	45	54	56	66	50	120	505	922	*515	129	29	17
12	48	72	58	64	54	115	376	934	505	119	28	18
13	54	89	70	62	60	110	326	904	495	*106	27	*18
14	51	76	64	66	68	102	329	796	465	98	26	19
15	52	92	62	68	*70	95	288	670	436	92	26	23
16	52	129	35	70	71	90	263	605	396	87	*25	28
17	52	114	32	70	72	90	315	535	356	78	25	31
18	51	104	33	68	57	92	*448	495	318	74	24	33
19	50	90	35	70	58	94	392	540	298	69	23	34
20	52	84	38	70	59	90	360	*670	285	69	22	33
21	54	78	43	68	62	100	408	832	269	66	22	32
22	53	75	50	68	74	112	*934	892	255	72	21	31
23	52	74	54	68	76	*102	916	802	240	69	22	32
24	51	72	60	69	72	108	712	706	266	62	21	32
25	51	68	56	70	71	112	605	628	275	59	20	33
26	52	68	52	67	70	112	590	610	231	56	20	34
27	*51	68	46	64	68	134	515	580	214	53	19	34
28	51	60	40	60	67	155	448	500	200	52	19	33
29	51	*38	50	62	-	155	448	495	240	51	19	33
30	52	35	58	66	------	158	550	530	249	49	19	33
31	52	-----	64	68	-----	163	-----	510	------	47	18	------
Total	1,512	2,066	1,683	2,014	1,814	3,092	12,767	23,290	11,523	3,167	844	745
Mean	48.8	68.9	54.3	65.0	64.8	99.7	426	751	384	102	27.2	24.8
Cfsm	0.122	0.173	0.136	0.163	0.162	0.250	1.07	1.88	0.962	0.256	0.068	0.062
In.	0.14	0.19	0.16	0.19	0.17	0.29	1.19	2.17	1.07	0.30	0.08	0.07
Ac-ft	3,000	4,100	3,340	3,990	3,600	6,130	25,320	46,200	22,860	6,280	1,670	1,480

Calendar year 1954: Max 1,680 Min 32 Mean 279 Cfsm 0.699 In. 9.51 Ac-ft 202,300
Water year 1954-55: Max 1,080 Min 16 Mean 177 Cfsm 0.444 In. 6.02 Ac-ft 128,000

Peak discharge (base, 800 cfs).--Apr. 22 (6:30 p.m.) 1,110 cfs (4.94 ft); May 9 (3 a.m.) 1,170 cfs (5.03 ft); May 22 (4:30 a.m.) 934 cfs (4.64 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 4, Dec. 16 to Mar. 20.

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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,080 ft (from topographic map).

Average discharge.--5 years, 8.82 cfs (6,380 acre-ft per year).

Extremes.--Maximum discharge during year, 56 cfs Apr. 22 (gage height, 2.07 ft); minimum, 0.1 cfs several days in August and September; minimum gage height, 0.58 ft Aug. 11, 30, 31.

1950-55: Maximum discharge, 118 cfs Jan. 18, 1953 (gage height, 2.43 ft); minimum, that of August and September 1955; minimum gage height, that of Aug. 11, 30, 31, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record and those below 1 cfs, which are fair. Small diversions above station for irrigation.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 31				June 1 to Sept. 30			
0.9	1.0	1.4	11	0.6	0.1	0.9	1.4
1.0	2.0	1.6	18	.7	.2	1.0	2.5
1.1	3.5	1.8	30	.8	.7	1.2	6.0
1.2	5.5	2.0	48				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.9	2.0	2.4	2.5	2.5	7.8	22	4.8	2.4	0.2	0.1
2	1.2	1.9	2.4	2.4	2.3	2.4	8.3	25	4.4	2.3	.1	.1
3	1.3	1.9	2.4	2.3	2.2	2.4	7.2	22	4.4	1.8	.1	.2
4	1.5	1.9	2.6	2.0	2.2	2.3	7.0	22	4.0	1.6	.2	.2
5	1.5	1.9	2.3	2.2	2.2	2.1	7.8	24	3.8	1.5	.2	.1
6	1.4	1.9	2.3	*2.2	2.2	2.1	9.2	28	3.4	1.3	.2	.1
7	1.4	1.9	2.3	2.4	2.3	2.5	11	26	3.4	1.3	.2	.2
8	1.4	1.9	1.9	2.3	2.6	2.8	12	27	3.2	1.4	.1	.2
9	1.5	1.9	1.9	2.3	2.2	3.2	13	*24	3.0	1.3	.1	.2
10	1.5	1.9	2.3	2.3	2.0	*3.7	16	22	2.8	1.3	.1	.2
11	1.6	1.9	1.8	2.4	1.8	4.9	13	20	*2.5	1.3	.1	.2
12	1.8	3.7	1.9	2.3	2.0	5.1	9.8	19	2.6	1.1	.2	.2
13	1.9	2.6	2.4	2.3	2.3	5.1	9.2	18	2.5	*1.0	.2	.2
14	1.7	2.3	2.2	2.4	2.5	4.5	8.9	16	2.4	1.0	.2	*.3
15	1.7	3.5	2.0	2.5	*2.9	b4.0	8.0	14	2.6	.9	.2	.4
16	1.7	3.5	1.4	2.5	2.9	b4.0	7.5	14	2.6	.6	*.2	.4
17	1.7	3.4	b1.4	2.5	b2.7	4.3	10	13	2.5	.7	.2	.5
18	1.7	2.9	b1.5	2.4	b2.3	4.7	*14	11	2.4	.5	.2	.5
19	1.8	2.6	b1.6	2.5	2.3	4.7	13	12	2.2	.4	.2	.5
20	2.2	2.4	b1.7	2.5	2.3	b4.2	12	12	1.3	.4	.2	.6
21	1.9	2.3	b2.0	2.5	2.5	b4.2	15	*12	1.1	.3	.2	.5
22	1.8	2.3	b2.0	2.4	2.8	4.3	*42	11	.9	.5	.2	.6
23	1.8	2.2	b2.2	2.4	2.8	*4.1	36	10	.9	.3	.2	.6
24	1.8	2.2	b2.2	2.4	2.6	5.1	24	9.5	2.5	.2	.2	.7
25	1.8	2.2	2.0	2.5	2.6	5.1	20	8.0	2.4	.2	.2	.7
26	1.9	2.0	1.8	2.4	2.5	5.5	20	8.6	2.2	.2	.2	.8
27	*1.9	2.0	1.7	2.3	2.5	6.2	17	8.0	2.0	.2	.2	1.0
28	1.9	1.9	1.8	2.2	2.5	7.0	17	7.0	2.0	.2	.2	1.0
29	1.9	*1.6	2.0	2.3	-	7.0	*16	6.2	4.2	.2	.2	1.1
30	1.9	1.6	2.2	2.4	------	6.5	18	6.2	3.4	.2	.1	1.2
31	1.9	-----	2.3	2.5	-----	6.8	-----	5.5	-----	.2	.1	-----
Total	52.2	68.1	62.5	73.4	67.5	133.3	429.7	483.0	82.4	26.8	5.4	13.6
Mean	1.68	2.27	2.02	2.37	2.41	4.30	14.3	15.6	2.75	0.86	0.17	0.45
Cfsm	0.106	0.144	0.128	0.150	0.153	0.272	0.905	0.987	0.174	0.054	0.011	0.028
In.	0.12	0.16	0.15	0.17	0.16	0.31	1.01	1.14	0.19	0.06	0.01	0.03
Ac-ft	104	135	124	146	134	264	852	958	163	53	11	27

Calendar year 1954: Max 34 Min 0.4 Mean 5.02 Cfsm 0.318 In. 4.32 Ac-ft 3,630
Water year 1954-55: Max 42 Min 0.1 Mean 4.10 Cfsm 0.259 In. 3.51 Ac-ft 2,970

Peak discharge (base, 35 cfs).--Apr 22 (11 a.m.) 56 cfs (2.07 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Dec. 25 to Jan. 4, Jan. 7 to Feb. 14, Feb. 19 to Mar. 9; discharge estimated on basis of weather records, records for Moore Creek near Arrowrock, and other nearby streams.

Moore Creek near Arrowrock, Idaho

Location.--Lat 43°35', long 115°59', in sec. 21, T. 3 N., R. 4 E., on right bank 150 ft downstream from bridge on Boise-Arrowrock highway, a quarter of a mile upstream from mouth, and 3 miles southwest of Arrowrock.

Drainage area.--426 sq mi.

Records available.--December 1915 to March 1955 (discontinued).

Gage.--Staff gage read once daily. Datum of gage is 2,896.11 ft above mean sea level, unadjusted. Prior to July 15, 1921, staff gage at site 1,100 ft upstream at different datum. July 15 to Oct. 24, 1921, staff gage at site 400 ft upstream at datum 0.87 ft higher. Oct. 25, 1921, to Sept. 30, 1948, staff gages at site 200 ft upstream at datum 0.50 ft higher prior to Aug. 3, 1935, and at datum 0.23 ft higher thereafter.

Average discharge.--38 years (1916-54), 302 cfs (218,600 acre-ft per year).

Extremes.--Maximum daily discharge during period October to March 1955, 180 cfs Mar. 30, 31; minimum daily, 34 cfs Dec. 17.
1915-55: Maximum discharge, 6,610 cfs Apr. 8, 1943 (gage height, 7.1 ft, site and datum then in use, from floodmark); minimum observed, 7.9 cfs Aug. 13-15, 17, 18, 1924.

Remarks.--Records good except those for periods of no gage-height record during period December to March, which are fair. Diversions for irrigation of about 900 acres above station.

Cooperation.--Gage readings furnished by Water District No. 12-A and Corps of Engineers.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.3	32	0.8	83
.4	38	1.0	125
.6	56	1.3	212

Discharge, in cubic feet per second, October 1954 to March 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*43	54	a50	a71	78	a72						
2	44	55	61	a70	76	a72						
3	46	55	76	67	67	a68						
4	44	55	a80	55	67	a68						
5	46	55	a78	62	a67	a60						
6	46	55	76	67	a67	a60						
7	46	a55	78	72	67	a70						
8	44	55	55	70	78	*83						
9	46	55	55	a68	74	a100						
10	48	55	76	*88	62	a130						
11	46	a62	a62	72	57	a140						
12	48	67	a65	70	a60	a140						
13	58	91	76	67	a70	a135						
14	53	a85	67	72	76	a120						
15	53	98	70	74	*78	a105						
16	53	136	39	a76	78	a100						
17	55	128	a34	76	82	a100						
18	55	114	a36	72	64	a110						
19	53	96	a38	76	a64	a115						
20	57	87	40	76	a64	107						
21	a58	a82	49	72	67	a115						
22	a58	78	55	a73	82	120						
23	a55	78	57	a75	a82	a120						
24	a54	78	66	76	a75	130						
25	53	a74	a64	76	a75	*125						
26	a55	70	a60	70	a74	a134						
27	*55	70	55	70	a74	a150						
28	a55	a62	44	64	a72	a170						
29	54	40	57	a66	-	a170						
30	a54	35	67	a72	------	a180						
31	a55	------	70	76	------	a180	------		------			------
Total	1,588	2,180	1,856	2,191	1,997	3,549						
Mean	51.2	72.7	59.9	70.7	71.3	114						
Cfsm	0.120	0.171	0.141	0.166	0.167	0.268						
In.	0.14	0.19	0.16	0.19	0.17	0.31						
Ac-ft	3,150	4,320	3,680	4,350	3,960	7,040						

Calendar year 1954: Max 1,750 Min 34 Mean 292 Cfsm 0.685 In. 9.30 Ac-ft 211,400
Water year 1954-55: Max - Min - Mean - Cfsm - In. - Ac-ft -

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

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 Moore Creek, and 9 miles southeast of Boise.

Drainage area.--2,680 sq mi, approximately.

Records available.--October 1954 to September 1955.

Gage.--Remote registering water-stage recorder. Datum of gage is at mean sea level (level by Corps of Engineers). Prior to May 13, 1955, staff gage at same site and datum.

Extremes.--Maximum contents during year, 305,130 acre-ft June 25 (elevation, 3,059.32 ft); minimum observed, 2 acre-ft Oct. 16 (elevation, 2,829.3 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 ft (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.--Gage-height record and capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and contents, in acre-ft)

2,826.0	0	2,845.0	393	2,870.0	7,450	2,950.0	77,850
2,830.0	3	2,850.0	1,240	2,880.0	12,210	2,980.0	125,090
2,835.0	10	2,855.0	2,380	2,900.0	24,910	3,020.0	205,580
2,840.0	27	2,860.0	3,790	2,920.0	42,160	3,060.0	307,040

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	708	1,020	5,560	9,600	14,520	11,380	10,420	27,190	131,650	295,670	247,930	109,280
2	-	1,160	5,600	-	14,760	9,600	10,520	26,880	132,300	295,590	244,760	110,850
3	-	1,280	5,750	9,940	14,870	8,450	10,620	26,650	131,560	295,340	241,440	112,180
4	691	1,400	5,970	10,080	15,040	8,320	10,670	25,960	127,080	295,040	238,120	114,620
5	708	1,530	-	10,230	-	8,100	10,620	25,580	125,240	294,540	234,670	115,470
6	691	1,680	6,360	10,370	-	7,920	10,670	29,170	126,870	293,910	231,110	115,770
7	691	-	6,480	10,570	15,690	7,750	11,320	38,970	130,870	293,720	224,410	115,740
8	691	1,890	6,600	10,720	15,870	7,620	12,370	47,900	139,340	293,660	216,810	115,430
9	691	2,030	6,710	-	16,050	7,450	13,180	57,780	148,680	293,740	208,720	112,590
10	-	2,150	6,840	11,020	16,170	7,370	13,120	65,230	157,550	293,990	200,490	108,360
11	660	2,300	6,920	11,170	-	7,330	12,800	71,460	166,170	294,130	192,200	104,070
12	660	2,430	-	11,320	-	7,620	13,010	76,880	174,580	294,050	183,800	99,830
13	660	2,510	7,240	11,430	-	7,880	13,070	82,230	182,900	293,740	175,480	95,580
14	582	-	7,450	-	-	8,190	13,290	86,240	191,200	294,020	167,180	91,540
15	535	2,690	7,540	-	17,150	8,410	13,790	88,620	197,480	294,490	158,850	87,900
16	2	3,140	7,670	-	17,340	8,680	14,010	90,370	210,000	294,680	150,370	84,490
17	-	3,400	7,750	-	17,520	8,900	14,240	92,160	226,820	294,570	141,880	81,330
18	12	3,640	7,840	-	17,710	9,130	14,870	93,300	242,400	295,170	133,500	78,430
19	16	3,860	-	-	17,280	9,370	15,750	94,210	257,340	294,820	125,120	75,670
20	22	4,010	7,970	-	-	9,550	16,290	96,320	271,120	293,800	116,960	73,030
21	30	-	8,050	12,800	17,030	9,650	16,900	100,660	284,030	292,810	108,890	70,620
22	59	4,370	8,190	-	16,290	9,890	18,670	107,760	292,670	291,630	100,380	68,310
23	101	4,500	8,320	-	15,930	10,180	20,720	113,870	297,990	290,240	96,660	66,130
24	174	4,670	8,450	13,230	15,520	10,030	22,240	118,300	303,140	288,790	97,170	64,100
25	268	-	-	13,400	14,930	9,940	23,440	121,370	303,840	287,240	98,310	62,190
26	368	4,950	-	13,510	14,350	9,840	24,680	123,540	301,630	285,430	99,310	60,340
27	464	5,120	8,900	13,680	13,840	9,790	25,880	125,540	299,550	283,460	100,350	58,430
28	582	-	8,950	13,730	12,960	9,890	26,490	125,790	297,580	277,250	101,200	56,580
29	675	5,410	9,090	-	-	10,180	26,650	126,990	296,100	268,710	103,010	54,700
30	792	5,520	9,220	-	-------	10,420	27,110	128,270	295,610	260,110	106,170	52,800
31	a906	-------	9,460	14,300	-------	10,420	-------	130,040	-------	251,620	107,430	-------
(†)	-	2,865.1	2,874.5	2,883.8	2,881.4	2,876.5	2,902.9	2,982.79	3,055.90	3,039.23	2,969.58	2,930.08
(‡)	+181	+4,614	+3,940	+4,840	-1,340	-2,540	+16,690	+102,930	+165,570	-43,990	-144,190	-54,630

Calendar year 1954: (‡) -
Water year 1954-55: (‡) +52,075

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Contents interpolated.
Note.--Daily contents as given are computed for staff-gage readings at 8:30 a.m. Oct. 1 to Feb. 19, and from elevations at 12 p.m. Feb. 21 to Sept. 30.

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 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 1955. 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.--18 years (1895-96, 1897-1903, 1905-6, 1907-16, 1954-55), 2,983 cfs (2,160,000 acre-ft per year).

Extremes.--Maximum discharge during year, 9,860 cfs June 23; no flow Oct. 17 to Feb. 18, Feb. 20, during building of gate structure at Lucky Peak Dam.
1895-1916, 1954-55: Maximum discharge observed, 35,500 cfs June 14, 1896; no flow Oct. 17, 1954, to Feb. 18, 1955, Feb. 20, 1955.

Remarks.--Records excellent except those based on engineers of watermaster's estimates, which are poor. Discharge measurements made 6 to 28 times per month. Daily discharge computed from gage ratings. Flow regulated by Lucky Peak Reservoir (see preceding page), Arrowrock Reservoir (see p. 140), and Anderson Ranch Reservoir (see p. 138). Small diversions from tributaries upstream for irrigation.

Cooperation.--Records of gage operation, stage in Lucky Peak Reservoir, and gate rating curves furnished by Corps of Engineers.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,840				0	882	1,120	789	4,760	4,290	1,920	4,390
2	2,800				0	1,050	1,130	1,000	4,730	4,290	1,630	4,420
3	2,810				0	1,090	1,140	1,000	4,740	4,290	1,710	4,390
4	2,820				0	1,120	1,140	988	4,730	4,350	1,700	4,360
5	2,790				0	1,110	1,140	1,200	4,800	4,440	1,690	4,330
6	2,790				0	1,110	1,140	1,400	4,840	4,400	1,750	4,360
7	2,810				0	1,110	404	1,740	4,900	4,400	3,440	4,380
8	2,780				0	1,110	1	2,000	4,930	4,480	3,940	4,310
9	2,790				0	1,100	116	2,260	5,020	4,550	4,180	4,260
10	2,790				0	1,110	663	2,880	5,080	4,580	4,250	4,220
11	2,790				0	652	1,170	3,500	5,100	4,580	4,290	4,160
12	2,790				0	1	1,310	3,910	5,110	4,600	4,330	4,140
13	2,720				0	1	1,310	4,260	5,080	4,640	4,360	4,080
14	2,660				0	1	1,200	4,600	5,010	4,660	4,400	3,970
15	1,180				0	1	1,040	4,720	4,860	4,520	4,370	3,740
16	30				0	1	1,150	4,390	4,700	4,550	4,430	3,610
17	0				0	1	1,210	3,950	4,560	4,610	4,440	3,510
18	0				0	1	763	3,940	4,640	4,630	4,390	3,390
19	0				315	40	259	4,140	4,650	4,580	4,390	3,270
20	0				0	10	141	4,310	4,610	4,520	4,290	3,150
21	0				330	1	154	4,450	4,590	4,500	4,290	3,050
22	0				428	1	64	4,660	4,640	4,520	4,510	3,010
23	0				262	1	1	4,790	4,740	4,510	4,660	2,960
24	0				305	606	1	4,900	4,700	4,480	4,640	2,900
25	0				337	965	1	4,900	4,690	4,560	4,460	2,840
26	0				357	1,120	1	4,920	4,680	4,520	4,430	2,820
27	0				354	1,120	1	4,810	4,680	4,530	4,380	2,830
28	0				528	1,120	199	4,760	4,570	4,610	4,360	2,830
29	0				-	1,120	346	4,770	4,350	4,510	4,380	2,840
30	0				------	1,130	347	4,780	4,290	4,430	4,390	2,850
31	0	------			------	1,130	-----	4,780	------	4,390	4,380	------
Total	40,190	0	0	0	3,216	19,815	18,662	109,497	142,780	139,520	118,780	109,370
Mean	1,296	0	0	0	115	639	622	3,532	4,759	4,501	3,832	3,646
Ac-ft	79,720	0	0	0	6,380	39,300	37,020	217,200	283,200	276,700	235,600	216,900

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 5,110 Min 0 Mean 1,923 Ac-ft 1,392,000

Note.--Discharge Oct. 1-16 computed on basis of records for Moore Creek near Arrowrock and Boise River at Dowling Ranch near Arrowrock; discharge Feb. 19, Mar. 12-23, Apr. 8, 23-27 computed on basis basis of watermaster's or engineer's estimates of flow.

Diversions from Boise River between near Boise and at Boise gaging stations, Idaho
(Formerly published as diversions from Boise River between Dowling Ranch and Boise gaging stations, Idaho)

Between near Boise and at Boise gaging stations (prior to October 1954, 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 1947-55, 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 1955 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 were: October, 60,880 acre-ft, February, 5,000 acre-ft; March, 38,090 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 1955.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							939	824	3,510	3,400	2,940	3,470
2							1,110	894	3,520	3,440	716	3,470
3							1,080	892	3,540	3,430	715	3,470
4							1,080	893	3,560	3,350	707	3,460
5							1,090	912	3,510	3,440	706	3,470
6							1,090	1,340	3,520	3,460	703	3,470
7							1,090	1,350	3,520	3,460	1,290	3,470
8							12	1,690	3,530	3,450	2,690	3,460
9							12	1,880	3,530	3,440	3,170	3,460
10							9	2,120	3,530	3,480	3,170	3,450
11							736	1,880	3,530	3,470	3,220	3,430
12							1,080	2,680	3,520	3,470	3,240	3,420
13							1,060	3,080	3,530	3,630	3,290	3,400
14							1,100	3,230	3,410	3,630	3,320	3,240
15							1,020	3,390	3,410	3,650	3,330	3,230
16							936	3,400	3,410	3,650	3,390	3,100
17							1,130	3,110	3,340	3,650	3,440	3,050
18							1,110	3,030	3,330	3,650	3,440	2,940
19							403	3,130	3,330	3,640	3,440	2,830
20							85	3,270	3,290	3,640	3,440	2,780
21							81	3,410	3,280	3,640	3,440	2,700
22							81	3,480	3,300	3,640	3,440	2,660
23							5	3,560	3,300	3,640	3,450	2,600
24							5	3,560	3,300	3,640	3,450	2,540
25							5	3,580	3,300	3,640	3,460	2,540
26							5	3,600	3,300	3,630	3,470	2,540
27							5	3,600	3,300	3,640	3,480	2,520
28							7	3,580	3,300	3,650	3,480	2,560
29							379	3,580	3,280	3,640	3,470	2,570
30					------		392	3,580	3,300	3,520	3,470	2,570
31		------			------		------	3,580	------	3,350	3,460	------
Total							17,137	82,065	102,330	110,060	88,427	91,870
Mean							571	2,647	3,411	3,550	2,852	3,062
Ac-ft							33,990	162,800	203,000	218,300	175,400	182,200

Calendar year : Max Min Mean Ac-ft
The period : Max - Min - Mean - Ac-ft 975,700

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 2 miles west and 5 miles south 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 1 mile south and 4 miles west of Nampa.

Records available.--October 1917 to September 1955. 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, 164,000 acre-ft May 10, 11 (gage height, 28.63 ft); minimum observed, 18,790 acre-ft Sept. 6.
1917-55: 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.

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 ft (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 here represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Board of Control for Boise project.

Capacity table, water year 1954-55 (gage height, in feet, and contents, in acre-feet)

6.0	16,650	20.0	93,040
8.0	24,380	25.0	132,000
10.0	33,180	30.0	177,200
15.0	59,960		

Usable contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74,980	98,350	101,900	104,500	106,700	112,200	143,900	160,600	148,400	94,120	57,690	18,880
2	76,430	98,500	102,000	104,800	106,800	113,600	145,500	160,200	147,500	93,900	55,690	18,880
3	77,830	98,570	102,100	104,800	106,900	115,300	147,100	161,200	146,200	93,900	53,890	18,880
4	79,170	98,650	102,100	104,800	107,100	117,100	148,600	161,900	144,600	94,330	51,780	18,840
5	80,800	98,790	102,100	104,800	107,100	120,200	150,000	162,100	143,100	94,700	49,760	18,830
6	82,160	99,020	102,200	105,100	107,300	120,600	152,200	162,200	141,400	94,990	47,780	18,790
7	83,400	99,020	102,400	105,200	107,300	122,900	153,900	162,800	139,900	94,990	45,830	18,820
8	85,050	99,160	102,400	105,200	107,400	124,900	155,300	163,100	137,400	95,060	43,920	18,820
9	86,090	99,160	102,400	105,200	107,400	126,800	155,300	163,700	135,200	94,920	42,310	18,820
10	87,630	99,380	102,500	105,200	107,400	128,700	154,900	164,000	132,200	94,120	40,160	18,820
11	89,040	99,380	102,600	105,300	107,400	130,600	154,800	164,000	129,400	93,180	38,290	19,090
12	90,390	99,680	102,600	105,400	107,400	132,300	154,900	163,700	127,100	91,890	36,330	19,360
13	91,670	100,100	102,800	105,500	107,400	132,700	156,200	162,900	124,400	90,170	34,190	19,940
14	93,110	100,100	102,800	105,600	107,600	132,600	157,100	161,900	122,600	88,340	31,960	20,330
15	94,840	100,300	103,000	105,700	107,600	132,500	157,900	161,300	120,600	86,440	29,980	21,140
16	96,880	100,500	103,000	105,900	107,600	132,300	158,300	160,800	118,100	84,150	28,020	22,000
17	97,250	100,600	103,000	106,000	107,700	132,200	159,300	160,400	116,700	82,300	26,060	23,150
18	97,470	100,700	103,000	106,000	107,700	132,100	160,600	160,000	115,400	80,050	24,350	24,990
19	97,470	100,800	103,000	106,000	107,700	131,900	162,300	159,600	114,500	78,030	22,680	26,870
20	97,470	101,000	103,100	106,000	107,700	131,800	162,300	159,300	114,000	75,970	21,730	28,990
21	97,620	101,100	103,200	106,100	107,800	131,600	162,300	159,200	112,400	73,800	20,700	30,540
22	97,620	101,100	103,300	106,100	107,900	131,500	162,400	158,600	110,900	71,970	20,010	32,400
23	97,690	101,200	103,300	106,100	108,200	131,500	162,400	158,100	108,900	69,910	19,720	34,590
24	97,760	101,300	103,400	106,100	106,700	131,400	162,400	157,000	106,600	68,130	19,540	36,610
25	97,840	101,300	103,400	106,100	109,100	131,300	162,300	155,700	104,700	66,550	19,410	38,520
26	97,840	101,400	103,400	106,100	109,900	132,100	162,000	154,000	102,400	65,170	19,280	40,440
27	97,980	101,500	103,600	106,200	110,400	134,000	161,700	152,800	100,500	63,620	19,210	42,010
28	97,980	101,500	103,600	106,200	111,100	136,300	161,500	151,900	98,280	62,020	19,130	43,650
29	97,980	101,800	103,900	106,200	-	138,100	161,300	151,000	96,440	60,620	19,070	45,190
30	98,130	101,800	104,200	106,700	-------	140,100	160,900	150,400	95,060	59,600	18,960	46,800
31	98,130	-------	104,500	106,700	-------	142,000	-------	149,800	-------	58,460	18,920	-------
(†)	20.70	21.20	21.56	21.84	22.41	26.18	28.29	27.06	20.28	14.75	(a)	12.70
(‡)	+23,940	+3,670	+2,700	+2,200	+4,400	+30,900	+18,900	-11,100	-54,700	-36,600	-39,540	+27,880

Calendar year 1954: (‡) +9,880
Water year 1954-55: (‡) -27,390

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Upper pool, 7.18 ft; lower pool, 5.94 ft.

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 at Boise.

Drainage area.--2,760 sq mi, approximately.

Records available.--March 1938 to September 1939 (gage height only), February 1940 to September 1955.

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, 1,880 cfs Aug. 1 (gage height, 4.75 ft); minimum, 1.3 cfs Feb. 3 (gage height, 2.21 ft); minimum daily, 6.8 cfs Feb. 3.
1940-55: Maximum discharge, 21,000 cfs Apr. 20, 1943 (gage height, 10.00 ft, site and datum then in use); minimum, that of Feb. 3, 1955; minimum daily, that of Feb. 3, 1955.

Remarks.--Records excellent except those below about 100 cfs, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Flow regulated by Arrowrock Reservoir (see p. 140) and Anderson Ranch Reservoir (see p. 138). New York, Ridenbaugh, and four smaller canals divert between Moore Creek and this station (see p.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	4.0	3.3	210
2.4	8.0	3.6	381
2.5	14	4.0	730
2.6	23	4.5	1,470
2.8	52	5.0	2,340
3.0	98		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*402	*18	*12	17	9.2	27	64	33	1,370	930	1,000	916
2	409	17	12	14	8.0	27	72	99	1,420	916	972	930
3	362	16	13	13	6.8	26	66	184	1,410	916	1,030	930
4	388	15	14	12	7.6	23	42	*175	1,360	930	1,030	916
5	402	15	13	12	7.6	24	35	151	1,420	960	1,040	888
6	381	14	13	11	7.6	24	32	143	1,470	916	986	888
7	381	13	13	11	8.0	26	28	166	1,490	888	944	916
8	388	13	13	b10	9.2	26	26	255	1,540	902	930	847
9	381	14	13	b10	9.2	27	24	294	1,610	944	986	808
10	381	14	12	*9.8	8.0	27	38	572	1,670	986	986	769
11	388	14	13	9.2	8.0	30	230	1,020	1,720	986	1,000	743
12	437	18	13	8.6	8.0	30	245	1,140	1,740	1,000	1,000	719
13	416	16	14	8.6	8.0	27	283	1,150	1,720	1,020	958	675
14	343	15	13	9.2	8.6	23	240	1,310	1,620	*1,100	902	686
15	*410	15	13	9.2	9.8	20	166	1,360	1,470	1,100	972	*631
16	381	14	12	9.2	10	13	162	1,360	1,330	1,140	958	548
17	151	15	12	9.2	*9.8	12	132	1,060	1,170	1,170	*986	514
18	*122	15	12	8.6	7.4	11	166	930	1,210	1,200	958	444
19	107	13	13	8.2	15	9.2	147	*1,040	1,250	1,170	930	409
20	98	13	13	9.2	27	8.0	98	1,090	1,210	1,100	874	409
21	93	13	12	8.6	26	38	104	1,090	1,180	1,080	808	368
22	85	12	12	8.0	33	55	158	1,180	*1,200	1,090	944	362
23	56	12	9.8	8.6	32	19	95	1,330	1,250	1,060	1,040	362
24	32	12	9.2	8.0	32	17	72	1,390	1,310	1,030	1,020	368
25	30	12	9.2	8.6	33	17	66	1,420	1,210	930	972	368
26	23	12	9.2	8.0	32	19	56	1,540	1,250	916	958	349
27	23	12	a9.0	8.0	26	19	47	1,410	1,210	916	930	349
28	*24	12	a9.0	7.6	22	*20	38	1,310	1,170	1,030	916	349
29	22	12	a14	8.0	-	22	35	1,310	1,060	1,000	930	336
30	20	12	a18	8.0	------	20	32	1,330	960	986	*930	330
31	18	------	19	8.6	------	21	------	1,360	------	944	930	------
Total	7,154	418	386.4	300.0	428.8	707.2	2,999	28,202	41,000	31,256	29,820	18,127
Mean	231	13.9	12.5	9.68	15.3	22.8	100	910	1,367	1,008	962	604
Ac-ft	14,190	829	766	595	851	1,400	5,950	55,940	81,320	62,000	59,150	35,950

Calendar year 1954: Max 6,030 Min 9.0 Mean 1,145 Ac-ft 828,800
Water year 1954-55: Max 1,740 Min 6.8 Mean 441 Ac-ft 318,900

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

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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,730 ft (from topographic map).

Extremes.--1954: No flow during period June to September.
1954-55: Maximum discharge during water year, 60 cfs Apr. 22 (gage height, 2.19 ft); no flow for long periods.

Remarks.--Records good except those below about 1.0 cfs, which are poor. No flow June 29 (beginning of record) to Sept. 30, 1954. Diversions above station for irrigation.

Rating table, June 29, 1954, to Sept. 30, 1955, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	1.5	5.3
1.1	.1	1.6	8.8
1.2	.6	1.7	13.6
1.3	1.3	1.8	20
1.4	2.9	2.0	38

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	2.6	0.6	*1.0	4.6	9.3	0.1			
2			0	1.5	b.5	1.7	5.6	14	*.1			
3			*0.1	.7	b.5	1.2	3.4	12.5	.1			
4	(*)		.2	.6	b.5	.8	2.9	*12	.1			
5			.2	.5	b.6	.6	2.6	11	.1			
6	(*)		.1	.5	b.5	1.1	2.4	10	.1			
7			*.1	.4	.8	1.6	2.7	9.8	0			
8			.1	.3	1.0	2.7	*2.9	8.4	0		(*)	
9			.1	a.5	b1.0	3.1	1.8	9.8	0		(*)	
10			.1	a.3	.7	*3.8	*1.4	8.4	0			
11			.1	a.3	.8	11.5	1.4	7.8	0			
12			.1	a.3	.9	20	.6	6.7	0			
13			.1	a.3	.8	7.0	.6	*4.8	0			
14			.1	*.3	1.0	4.1	.4	4.3	0	(*)		
15			.1	.3	1.2	2.7	.3	4.6	0			
16			.1	.3	1.2	2.6	.2	8.4	0			
17		(*)	.1	.3	1.3	2.4	2.8	7.0	.1			
18			.1	.4	.8	2.7	*9.3	5.6	0			
19			.1	.4	b.8	2.7	*11.5	4.6	0			
20			a.1	.3	b.8	1.9	11.5	3.4	0			
21			a.1	.3	b.8	1.8	13.5	1.2	0			
22			a.1	.4	1.2	2.3	*37	1.1	*0			(*)
23			a.1	.4	1.1	2.3	*28	.9	0			
24			a.1	.4	1.0	2.5	22	.8	0			
25			a.1	.4	1.2	2.3	17.5	.2	0			
26			a.1	.4	1.1	2.3	17	.2	0			
27			a.1	*.4	1.1	*2.4	13.5	.2	0			
28	(*)		a.1	b.4	a1.1	3.8	11	.1	0			
29			a.1	.5	-	6.7	12	.1	0			
30			a3.5	.6	------	*4.3	9.8	.1	0		(*)	
31		------	*3.9	.6	------	3.1	------	.1	------			------
Total	0	0	10.3	15.7	24.9	108.8	250.2	167.4	0.7	0	0	0
Mean	0	0	0.33	0.51	0.89	3.51	8.34	5.40	0.02	0	0	0
Ac-ft	0	0	20	31	49	216	496	332	1.4	0	0	0

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 37 Min 0 Mean 1.58 Ac-ft 1,150

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Dry Creek near Eagle.
b Stage-discharge relation affected by ice.

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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,700 ft (from topographic map).

Extremes.--1954: Maximum discharge during period June to September, 1.2 cfs Aug. 10 (gage height, 1.26 ft); minimum, 0.2 cfs on many days; minimum gage height, 1.08 ft Sept. 6. 1954-55: Maximum discharge during water year, 149 cfs Apr. 22 (gage height, 3.14 ft); minimum, 0.1 cfs Oct. 21-29; minimum gage height, 1.10 ft on many days.

Remarks.--Records good except those below about 1.0 cfs, which are fair, and those for periods of no gage-height record, which are poor. Diversions upstream for irrigation.

Rating table, June 29, 1954, to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 22)

1.0	0	1.6	12
1.1	.2	1.8	23
1.2	.7	2.0	38
1.3	1.8	2.3	68
1.4	4.1	2.6	104
1.5	7.4		

Discharge, in cubic feet per second, 1954

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	0.3	0.2	0.2	9	-	.6	.2	.2	17	-	.3	.2	.2	25	-	.3	.2	.2
2	-	.4	.2	.2	10	-	.6	.4	.2	18	-	.3	.2	.2	26	-	.2	.2	.2
3	-	.4	.2	.2	11	-	.4	.2	.2	19	-	.3	.2	.2	27	-	.2	*.3	.3
4	-	.4	.2	.2	12	-	.4	.2	.2	20	-	.2	.2	.2	28	-	.2	.3	.3
5	-	.4	.3	.2	13	-	.3	.2	.2	21	-	.2	.2	.2	29	0.3	*.2	.3	a.3
6	-	.3	.4	.2	14	-	.3	.2	.2	22	-	.3	.2	.2	30	.3	.2	.2	a.3
7	-	*.4	.4	.2	15	-	.3	.2	.2	23	-	.4	.2	.2	31	-	.2	.2	-
8	-	.4	.2	.2	16	-	.3	.2	.2	24	-	.4	.2	.2					
Total																-	10.1	7.2	6.4
Mean																-	0.33	0.23	0.21
Runoff in acre-feet																-	20	14	13

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a0.3	1.4	1.4	5.1	2.8	*4.4	9.5	42	0.6	0.2	0.2	0.2
2	a.3	1.6	1.4	3.1	2.4	8.5	9.9	55	*.4	.2	.2	.2
3	a.3	1.8	1.4	1.5	2.4	6.4	8.2	50	.3	.2	.3	.3
4	*.3	2.0	1.5	2.2	2.4	4.1	8.7	*45	.3	.2	.4	.4
5	.3	2.0	1.4	2.6	3.1	3.1	7.8	43	.3	.2	.3	a.4
6	.3	2.0	1.4	2.6	2.6	4.1	7.1	46	.3	.2	.3	a.3
7	.3	2.0	*1.6	2.4	3.8	5.4	8.2	45	.4	.2	.5	a.3
8	.3	2.2	1.8	2.2	4.4	7.4	*8.7	43	.4	.2	.4	a.3
9	.3	2.2	2.2	2.0	3.8	9.1	4.4	32	.4	.2	*.3	a.3
10	.3	2.0	2.4	2.0	2.8	*9.1	*7.2	17	.4	.2	.2	a.3
11	.3	2.2	2.6	2.2	2.6	24	4.4	13	.4	.2	.2	a.3
12	.5	2.4	2.6	2.2	3.4	33	3.1	9.9	.4	.2	.2	a.3
13	.9	2.2	2.6	2.2	3.4	18	3.4	*9.1	.4	.2	.2	a.3
14	.2	2.0	2.8	*2.0	3.8	12	2.8	7.8	.4	*.2	.2	a.4
15	.2	2.2	3.1	2.2	4.8	7.1	2.8	9.1	.4	.2	.2	a.4
16	.2	1.8	3.1	2.2	5.1	7.1	2.6	24	.4	.2	.2	a.4
17	.2	*1.6	3.1	2.0	5.4	7.4	5.4	20	.4	.2	.3	a.4
18	.2	1.6	3.1	2.0	2.8	7.8	*17	11	.4	.3	.4	a.4
19	.2	1.5	3.4	1.8	2.8	8.7	22	9.5	.4	.2	.3	a.4
20	.2	1.5	3.4	1.8	3.4	5.8	24	7.4	.4	.3	.2	a.3
21	.1	1.4	3.6	2.0	4.1	6.4	26	5.1	.4	.5	.2	a.3
22	.1	1.4	3.6	2.0	5.4	7.4	*101	5.8	*.4	.3	.4	*.3
23	.1	1.5	3.6	2.0	5.1	7.1	*93	4.8	.3	.2	.5	.3
24	.1	1.5	3.6	2.2	5.1	7.4	65	1.8	.4	.2	.4	.3
25	.1	1.5	3.6	2.4	5.4	7.4	*54	1.1	.3	.2	.2	.3
26	.1	1.5	3.4	2.0	5.4	6.7	50	4.9	.3	.2	.2	.2
27	.1	1.4	3.1	*2.0	5.1	*7.4	42	11	.3	.2	.2	.2
28	*.1	1.2	3.4	2.2	3.8	9.1	39	2.4	.3	.2	.2	.2
29	.4	1.2	3.4	2.2	-	13	39	.3	.3	.2	.2	.3
30	1.5	1.4	5.1	2.0	------	*11	37	.3	.3	.2	*.2	.3
31	1.5	------	*4.8	2.0	------	8.7	------	.3	------	.2	.2	------
Total	10.3	52.2	87.5	69.3	107.4	284.1	713.2	576.6	11.1	6.8	8.4	9.3
Mean	0.33	1.74	2.82	2.24	3.84	9.16	23.8	18.6	0.37	0.22	0.27	0.31
Ac-ft	20	104	174	137	213	564	1,410	1,140	22	13	17	18

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 101 Min 0.1 Mean 5.30 Ac-ft 3,830

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

Dry Creek at Eagle, Idaho

Location.--Lat 43°41'45", long 116°22'05", in SW¼ sec. 8, T. 4 N., R. 1 E., 40 ft downstream from State Highway 44, 0.4 mile upstream from mouth, and 0.7 mile west of Eagle.

Drainage area.--66.4 sq mi.

Records available.--June 1954 to September 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,555 ft (from topographic map).

Extremes.--1954: Maximum discharge during period June to September, 25 cfs June 28 (gage height, 3.43 ft); minimum, 0.2 cfs June 28 (gage height, 2.67 ft).
1954-55: Maximum discharge during water year, 136 cfs Apr. 22 (gage height, 4.12 ft); no flow for long periods.

Remarks.--Records good except those below about 1 cfs, which are fair, and those for periods of no gage-height record, which are poor. Diversion upstream for irrigation. Canals waste water into creek above station.

Rating table, June 28, 1954, to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

2.5	0	3.2	13.3
2.6	.1	3.4	24
2.7	.4	3.6	40
2.8	1.3	3.8	67
2.9	3.2	4.0	106
3.0	5.9		

Discharge, in cubic feet per second, 1954

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	9.0	6.6	5.0	9	-	5.6	8.3	5.3	17	-	6.9	4.7	12	25	-	5.3	9.0	6.6
2	-	9.3	6.2	5.0	10	-	5.0	7.9	5.9	18	-	6.2	5.0	10	26	-	5.3	8.6	5.3
3	-	7.3	7.3	5.3	11	-	4.2	7.3	3.9	19	-	5.3	8.6	6.2	27	-	8.3	*8.6	4.4
4	-	4.2	5.6	4.7	12	-	5.6	7.6	4.2	20	-	7.6	8.3	5.6	28	10	6.9	6.2	3.4
5	-	5.3	6.2	4.4	13	-	6.2	9.7	6.6	21	-	10.5	4.4	4.7	29	7.9	*8.3	7.6	4.4
6	-	6.9	6.6	5.3	14	-	7.6	9.0	8.3	22	-	10	3.4	5.6	30	9.0	7.9	5.3	a5.5
7	-	*5.3	6.9	4.7	15	-	7.6	6.6	4.4	23	-	7.6	5.3	6.2	31	-	7.9	5.0	-
8	-	6.2	7.3	4.4	16	-	7.9	5.0	8.8	24	-	5.0	7.3	6.9					
Total																-	209.6	211.4	173.0
Mean																-	6.76	6.82	5.77
Runoff in acre-feet																-	416	419	343

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a7.0	0.6	0.2	2.0	0	*0.1	3.9	32	6.2	7.3	4.4	3.7
2	a8.5	.6	.2	1.2	0	5.9	4.2	43	*3.2	9.2	4.7	4.4
3	a6.0	.6	.2	0	0	3.3	2.2	39	5.0	16.5	4.4	4.2
4	*5.9	.6	.2	0	0	.2	2.6	*33	5.3	17.5	4.7	7.3
5	6.9	.5	.2	0	0	.1	1.9	31	4.2	16	8.1	5.9
6	*5.3	.5	*.2	0	0	.1	.8	32	6.6	20.5	5.9	4.7
7	5.6	.4	.2	0	.3	.8	a2.0	32	6.6	26	6.2	4.2
8	5.6	.4	.2	0	.6	2.0	a3.5	29	5.0	23	5.3	3.0
9	4.7	.4	.2	0	.3	3.7	a.2	22	2.8	12	*3.4	3.2
10	3.7	.4	.2	0	0	*3.0	a3.0	15.5	3.0	5.3	4.7	3.0
11	3.4	.4	.2	0	0	14	a0	27	3.2	9.8	5.3	3.2
12	4.2	.4	.2	0	0	22	a0	23	3.9	5.0	4.2	3.2
13	5.0	.3	.2	0	0	14	a0	*19	5.0	6.9	3.4	3.4
14	3.9	.3	.2	0	0	6.6	a0	6.6	7.3	*9.0	3.0	6.2
15	3.0	.3	.2	0	.6	2.2	a0	13	5.6	9.0	3.7	9.0
16	2.6	.3	.1	0	.7	2.2	a0	42	12.5	9.0	6.2	7.6
17	1.2	*.3	.1	*0	1.3	2.3	a.8	49	11.5	7.3	6.6	7.3
18	1.0	.3	.1	0	0	2.5	*9.3	34	12	7.1	5.9	6.2
19	1.0	.3	.1	0	0	3.2	13.5	32	11.5	5.0	6.6	3.9
20	1.0	.3	.1	0	0	.6	17.5	23	12.5	3.7	6.9	3.2
21	.9	.3	.1	0	0	1.5	20	15.5	12.5	3.2	8.3	3.7
22	.8	.3	.1	0	.6	1.8	*83	10.5	*7.8	4.2	7.3	*4.7
23	.8	.2	.1	0	1.6	1.5	*91	8.5	5.9	3.7	5.0	5.0
24	.7	.2	.1	0	1.3	1.3	62	4.4	5.5	2.6	3.7	5.0
25	a.7	.2	.1	0	2.4	1.5	46	12.5	5.1	3.0	3.4	4.7
26	a.7	.2	.1	0	2.6	1.0	44	7.9	3.7	5.9	4.2	4.4
27	a.7	.2	.1	*0	.4	1.6	37	11.5	3.7	5.6	5.9	4.7
28	*.7	.2	.1	0	.1	1.6	32	10.5	3.4	6.2	4.7	3.9
29	.7	.2	.1	0	-	5.1	32	5.3	2.8	7.3	3.7	4.2
30	.7	.2	.9	0	------	*5.9	30	5.6	4.2	5.9	*3.4	3.4
31	.7	------	*3.7	0	------	3.2	------	6.9	------	5.3	3.2	------
Total	91.6	10.4	9.0	3.2	12.8	114.8	542.4	676.2	187.5	278.0	156.4	140.5
Mean	2.95	0.35	0.29	0.10	0.46	3.70	18.1	21.8	6.25	8.97	5.05	4.68
Ac-ft	182	21	18	63	25	228	1,080	1,340	372	551	310	279

Calendar year : Max Min Mean Ac-ft
Water year 1954-55: Max - Min - Mean - Ac-ft 4,410

* Discharge measuremant or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station near Eagle and nearby streams.

Diversions from Boise River between Boise and Notus gaging stations, Idaho

Between Boise and 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 diversion covering period April to September for years 1947-55 in reports of Geological Survey. Records of daily diversion for each canal from 1916 to 1955 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. Records fair.

Discharge, in cubic feet per second, April to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	390	2,300	2,170	2,180	2,100
2							0	428	2,300	2,170	2,120	2,080
3							0	436	2,300	2,140	2,150	2,100
4							0	456	2,320	2,130	2,120	2,080
5							0	526	2,330	2,140	2,090	2,070
6							0	683	2,360	2,130	2,090	2,050
7							82	749	2,380	2,150	2,060	2,050
8							171	769	2,450	2,180	2,080	1,980
9							190	828	2,480	2,180	2,080	1,960
10							197	959	2,500	2,220	2,100	1,940
11							298	1,140	2,510	2,260	2,130	1,910
12							403	1,520	2,520	2,260	2,130	1,840
13							488	1,720	2,500	2,270	2,190	1,820
14							528	1,900	2,440	2,260	2,140	1,790
15							501	1,900	2,390	2,220	2,180	1,710
16							514	1,920	2,440	2,310	2,160	1,610
17							507	1,820	2,330	2,320	2,160	1,550
18							494	1,790	2,350	2,340	2,170	1,470
19							483	1,890	2,320	2,340	2,120	1,420
20							443	1,940	2,350	2,320	2,110	1,350
21							401	1,990	2,340	2,310	1,950	1,310
22							444	1,990	2,380	2,290	2,130	1,290
23							429	2,070	2,400	2,260	2,150	1,260
24							415	2,110	2,440	2,240	2,070	1,240
25							426	2,140	2,400	2,200	2,080	1,240
26							434	2,200	2,350	2,200	2,070	1,210
27							413	2,240	2,360	2,160	2,140	1,230
28							402	2,240	2,370	2,250	2,140	1,230
29							392	2,230	2,290	2,220	2,130	1,210
30					------		383	2,250	2,250	2,200	2,140	1,200
31		-- --			------		------	2,290	------	2,220	2,120	------
Total							9,438	47,514	71,450	69,060	65,680	49,300
Mean							315	1,533	2,382	2,228	2,119	1,643
Ac-ft							18,720	94,240	141,700	137,000	130,300	97,790

Calendar year	: Max	Min	Mean	Ac-ft
The period:	: Max	Min	Mean	Ac-ft 619,800

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 1955 (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, 1,600 cfs Oct. 16 (gage height, 3.64 ft); minimum, 12 cfs May 10 (gage height, 0.75 ft); minimum daily, 15 cfs May 10.
1920-55: Maximum discharge, 20,500 cfs Apr. 20, 1943 (gage height, 10.43 ft); minimum observed, 10 cfs Aug. 18, 21, 1920.

Remarks.--Records excellent except those below 200 cfs and those for periods of no gage-height record, which are good. Diversions above station for irrigation of about 309,300 acres. Diversions between station and mouth for irrigation of about 5,300 acres. Flow regulated by Arrowrock Reservoir (see p. 140), Anderson Ranch Reservoir (see p. 138), and Lucky Peak Reservoir (see p. 146). Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1403.

Revisions (water years).--WSP 1347: 1930.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.8	13	2.0	288
.9	20	2.5	565
1.1	42	3.0	965
1.3	75	4.0	1,960
1.6	147		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	438	734	600	702	475	481	432	98	*184	358	228	96
2	462	726	600	642	462	512	481	103	147	297	194	90
3	450	718	*607	586	444	545	525	150	115	284	106	101
4	*405	*702	607	558	444	487	481	*171	108	320	77	150
5	405	695	600	552	468	456	450	156	88	353	106	187
6	422	702	593	539	444	450	416	90	98	328	120	171
7	394	688	586	532	444	450	324	64	86	240	103	177
8	383	688	586	525	450	462	333	42	66	150	77	207
9	376	672	579	499	462	462	236	20	46	118	70	200
10	576	672	586	525	462	462	131	15	86	106	92	214
11	588	680	572	*512	444	468	115	29	168	118	101	247
12	427	726	572	499	444	475	134	71	263	98	118	280
13	695	702	572	506	432	487	120	50	450	71	106	315
14	875	688	558	499	444	468	153	42	475	68	101	333
15	1,060	702	558	506	475	a455	144	135	512	*73	64	*493
16	1,360	695	552	506	532	444	83	455	481	59	81	621
17	1,130	680	539	493	*487	a460	77	621	388	68	*75	658
18	1,090	665	532	493	481	a480	162	302	259	113	81	642
19	1,050	672	525	493	438	a450	288	221	217	103	108	586
20	1,000	665	525	487	438	422	272	200	228	88	88	572
21	956	658	525	481	444	a430	214	134	*153	77	52	572
22	920	642	525	475	456	a490	313	71	94	86	75	539
23	893	642	525	475	481	468	378	96	86	134	86	487
24	858	635	552	475	493	438	297	88	110	197	168	450
25	832	635	519	475	481	422	232	96	217	207	203	438
26	807	628	519	468	512	a420	217	141	174	131	187	410
27	798	621	506	468	487	422	203	394	139	96	136	348
28	790	532	499	468	481	427	165	320	101	86	108	302
29	774	614	519	468	-	438	150	276	286	142	125	276
30	758	607	539	468	------	*450	125	276	438	214	110	268
31	750	------	798	475	------	432	------	228	------	210	96	------
Total	22,328	20,086	17,455	15,850	13,005	14,213	7,651	5,155	6,263	4,993	3,442	10,430
Mean	720	670	563	511	464	458	255	168	209	161	111	348
Ac-ft	44,280	39,840	34,620	31,440	25,800	28,190	15,180	10,220	12,420	9,900	6,830	20,690

Calendar year 1954: Max 5,230 Min 83 Mean 1,091 Ac-ft 789,600
Water year 1954-55: Max 1,360 Min 15 Mean 386 Ac-ft 279,400

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

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 crossing of Burns-Ontario highway, half a mile downstream from Cottonwood Creek, and 3 miles southeast of Drewsey.

Drainage area.--910 sq mi, approximately. At site April 1923 to June 1939, 950 sq mi, approximately (revised).

Records available.--June 1920 to September 1921, November, December 1921, March, April 1922, April to September 1923, June 1926 to September 1955. 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 datums. Apr. 27, 1923, to June 6, 1939, water-stage recorder at site 7 miles downstream at different datums.

Average discharge.--29 years (1926-55), 164 cfs (118,700 acre-ft per year).

Extremes.--Maximum discharge during year, 509 cfs May 7 (gage height, 4.98 ft); minimum, 3.7 cfs Sept. 10-13 (gage height, 2.60 ft).

1920-21, 1923, 1926-55: Maximum discharge, 5,600 cfs Mar. 25, 1952 (gage height, 12.90 ft); no flow at times.

Revisions.--The maximum discharge for the water year 1929 has been revised to 746 cfs Mar. 11, 1929 (gage height, 3.99 ft) and that for the water year 1930 has been revised to "not determined," superseding figures published in WSP 693 and 708, respectively. Minimum discharge for the water year 1921 has been revised to 9 cfs Aug. 7, 1921, (gage height, 0.75 ft), superseding figure published in WSP 533.

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. Revised figures of discharge, in cubic feet per second, for the water years 1921, 1927-31, and 1937, superseding those published in WSP 533, 653, 673, 693, 708, 723, and 833, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1921		1921-Con.		1927-Con.		1929-Con.		1929-Con.	
July 3	77	July 29	14	Jan. 29	172	June 16	107	July 12	7
4	74	30	14	30	154	18	130	13	6
5	72	31	14			19	105	14	6
6	71	Aug. 1	14	1928		20	93	15	5
7	65	2	15	Jan.6-21	†105	21	84		
8	51	3-6	†12	Feb.16-29	†100	22	70	1930	
9	43	7	9	Dec.1-31	†32	23	63	Feb.1-28	†190
10	36	8-13	†10			24	56	Nov. 15	37
11	33	14	11	1929		25	43	16-30	†28
12	30	15-20	†11	Feb.1-28	†42	26	37	Dec.1-31	†26
13	26	21	11	Mar. 1-9	†150	27	35		
14	25	22-27	†11	June 1	86	28	34	1936	
15	22	28	11	2	96	29	31	Dec. 4	50
16	20	29-31	†11	3	96	30	27	5	54
17	16	Sept.1-3	†12	4	82	July 1	24	6	58
18	14	4	14	5	77	2	21	7	64
19	15			6	74	3	20	8	65
20	16	1926		7	73	4	18	9	56
21	16	Dec. 4	185	8	82	5	17	10	47
22	16			9	96	6	16	11	31
23	16	1927		10	107	7	14	12	33
24	16	Jan.1-20	†90	11	122	8	12	13	35
25	15	21-23	†46	12	105	9	10	14	35
26	15	26	85	13	90	10	9	15	36
27	14	27	150	14	78	11	8	16	34
28	14	28	176	15	80				

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 1921	-	100	14	34.2	2,100
August	-	15	9	11.1	682
December 1926	-	299	65	100	6,150
January 1927	-	176	-	93.9	5,770
Water year 1926-27	-	1,460	-	228	165,000
Calendar year 1927	-	1,460	-	231	168,000
January 1928	-	-	-	106	6,520
February	-	-	-	96.6	5,560
Water year 1927-28	-	2,040	2	195	142,000
December 1928	-	-	-	32	1,970
Calendar year 1928	-	2,040	-	185	134,000
February 1929	-	-	-	42	2,330
March	-	605	-	230	14,100
June	-	150	27	80.3	4,780
July	-	24	4	8.3	510
Water year 1928-29	-	605	-	78.3	56,600
Calendar year 1929	-	605	-	80.5	58,200
February 1930	-	-	-	190	10,600
Water year 1929-30	-	-	1	58.8	42,600
November 1930	-	-	-	31.4	1,870
December	-	-	-	26	1,600
Calendar year 1930	-	-	1	54.7	39,600
Water year 1930-31	-	475	0.4	54.2	39,200
December 1936	1,445	65	31	46.6	2,870
Calendar year 1936	50,477	1,500	0	138	100,100
Water year 1936-37	29,951	705	0	82.1	59,410

Malheur River near Drewsey, Oreg.--Continued

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 9		Feb. 10 to Sept. 30			
2.9	19	2.6	3.7	3.5	118
3.1	41	2.7	6.6	4.0	227
3.4	88	2.8	12	4.5	365
		3.0	32	5.0	515
		3.2	62		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	54	45	65	60	65	157	338	91	42	13	4.4
2	23	56	40	60	55	65	140	*368	86	42	14	4.4
3	24	56	64	*55	60	60	114	371	84	36	13	4.4
4	23	56	79	50	55	55	105	374	86	29	11	4.4
5	*22	54	77	50	60	55	97	401	78	38	8.8	4.4
6	23	54	75	46	65	55	97	440	*75	43	7.7	4.1
7	23	54	60	44	*70	60	116	479	95	36	7.7	4.1
8	22	57	55	46	70	65	144	470	110	33	7.7	3.9
9	22	57	55	48	60	70	172	446	128	31	*7.7	3.9
10	27	59	50	50	55	75	205	374	138	32	7.7	3.7
11	31	70	45	46	60	80	205	359	155	45	7.1	3.7
12	31	64	45	44	65	75	172	344	148	*35	6.6	3.7
13	36	64	45	48	65	70	159	329	144	30	5.8	3.9
14	39	60	45	50	70	65	176	313	134	28	5.8	4.1
15	37	*67	45	44	70	60	165	285	126	28	5.8	4.9
16	39	83	45	42	70	65	161	302	134	28	6.1	5.8
17	40	83	45	40	70	70	165	299	93	24	*7.7	4.9
18	37	72	45	50	65	70	174	248	84	25	7.7	5.2
19	33	70	38	50	55	65	157	196	75	22	6.6	5.5
20	39	67	40	46	50	60	148	185	64	17	6.1	5.8
21	40	65	44	50	55	70	203	189	56	17	6.1	5.5
22	44	65	50	55	60	*90	405	196	45	18	6.1	5.2
23	44	64	56	55	55	80	332	189	30	14	5.8	5.2
24	44	64	62	50	50	90	272	176	32	12	5.8	7.7
25	42	64	65	50	50	97	253	163	38	12	5.8	8.2
26	42	60	60	50	55	105	386	144	39	12	5.5	9.4
27	42	60	50	48	60	110	335	134	39	11	4.7	6.6
28	44	60	55	46	60	192	266	122	45	11	4.7	5.8
29	45	55	59	50	-	333	416	105	49	11	4.7	7.1
30	45	50	62	55	------	174	377	103	48	11	4.9	9.4
31	50	------	74	60	------	124	------	88	------	11	4.7	------
Total	1,074	1,864	1,675	1,543	1,695	2,770	6,274	8,530	2,549	784	222.4	159.3
Mean	34.6	62.1	54.0	49.8	60.5	89.4	209	275	85.0	25.3	7.17	5.31
Ac-ft	2,130	3,700	3,320	3,060	3,360	5,490	12,440	16,920	5,060	1,560	441	316

Calendar year 1954: Max 692 Min 2.0 Mean 123 Ac-ft 88,900
Water year 1954-55: Max 479 Min 3.7 Mean 79.8 Ac-ft 57,800

Peak discharge (base, 800 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 7, Nov. 26 to Dec. 1, Dec. 7-12, 14-19, 25-28, Jan. 1 to Mar. 21.

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 1955. Records 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 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 Water-Supply Paper 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). Prior to Dec. 9, 1914, staff or chain gage at several sites 3 miles downstream, 200 ft upstream from South Fork, at various datums. Dec. 9, 1914, to July 24, 1917, water-stage recorder at site 1 mile upstream and 500 ft upstream from dam site at different datum. Mar. 18, 1919, to Apr. 27, 1920, staff gage at site 1 mile upstream and 250 ft downstream from dam at different datum. Apr. 28, 1920, to Sept. 28, 1949, hook gage at different sites within 80 ft of present site and at present datum.

Average discharge.--36 years (1919-55), 162 cfs (117,300 acre-ft per year).

Extremes.--Maximum discharge during year, 530 cfs May 13 (gage height, 4.88 ft); no flow at times.

1909-10, 1915-17, 1919-55: Maximum discharge observed, 7,200 cfs (revised) 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.

Revisions.--The maximum discharge observed for the water year 1910 has been revised to 7,200 cfs Mar. 1, 1910 (gage height, 10.7 ft), superseding figure published in WSP 413.

Remarks.--Records good except those below 10 cfs, which are poor. Flow completely regulated since November 1919 by Warmsprings Reservoir (see p. 167). Diversions for irrigation of about 13,000 acres above station.

Revisions (water years).--WSP 833: 1936. WSP 1063: 1942-45. Revised figures of discharge, in cubic feet per second, for the water years 1909-10, and 1917, superseding those published in WSP 272, 292, and 463, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1909		1909-Con.		1910-Con.	
Jan. 3	250	Jan. 15	500	Feb. 28	4,880
8	300	17	1,980	Mar.1-31	2,300
9	250	20	1,840		
10	200	Dec.1-31	†45	1917	
11	200			Jan.1-31	†65
12	200	1910		Feb.1-28	†150
13	250	Jan.1-31	†85		

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1909	1,980	100	555	34,100
December	-	-	45	2,770
Calendar year 1909	1,980	2	211	153,000
January 1910	-	-	85	29,700
February	4,880	78	535	29,700
March	-	-	2,300	141,000
Water year 1909-10	-	0	351	254,000
January 1917	-	-	65	4,000
February	-	-	150	8,330

Malheur River below Warmsprings Reservoir, near Riverside, Oreg.--Continued

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 28				Mar. 1 to Sept. 30	
2.8	2	3.7	74	2.86	0
3.0	7	4.0	143	3.0	5
3.2	16	4.5	340	3.2	16
3.4	32	5.0	590		

Note.--Same as preceding table above 3.2 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195							0.1	455	331	180	1
2	167							.1	460	336	167	1
3	167							.1	460	350	170	1
4	164							.1	455	350	170	1
5	161						(**)	16	455	355	170	1
6	130							74	*460	355	167	1
7	112							155	460	313	167	0
8	112					0		199	460	290	161	0
9	112							254	465	290	155	0
10	112							360	465	295	152	0
11	110							445	465	304	135	0
12	84							465	465	304	96	1
13	3							485	460	304	56	1
14	0							500	445	295	34	1
15	0							500	380	290	22	2
16	0						0.1	370	304	308	*15	2
17	0							340	264	322	12	3
18	0							415	242	318	10	4
19	0							440	268	318	8	3
20	0							440	300	318	4	3
21	0							440	295	318	0	3
22	0							440	326	313	4	1
23	0							455	340	313	8	1
24	0					0.1		480	336	308	8	0
25	0							490	340	254	6	0
26	0							485	340	203	6	0
27	0							490	336	199	4	0
28	0							490	336	226	5	0
29	0							505	336	230	4	0
30	0				------			485	326	230	3	0
31	0	------			------		------	455	------	226	2	------
Total	1,629	0	0	0	0	1.6	3.0	10,673.4	11,499	9,166	2,101	31
Mean	52.5	0	0	0	0	0.05	0.1	344	383	296	67.8	1.0
Ac-ft	3,230	0	0	0	0	3.2	6.0	21,170	22,810	18,180	4,170	61

Calendar year 1954: Max 635 Min 0 Mean 223 Ac-ft 161,300
Water year 1954-55: Max 505 Min 0 Mean 96.2 Ac-ft 69,630

* Discharge measurement made on this day.
** Field estimate made on this day.
Note.--No gage-height record Oct. 14 to May 4, June 7-10, Sept. 24-30; discharge based on observers notes, field estimate or interpolated.

North Fork Malheur River above Agency Valley Reservoir, near Beulah, Oreg.

Location.--Lat 43°58', long 118°11', in sec. 33, T. 18 S., R. 37 E., on left bank about 3 miles upstream from Warm Springs Creek and 4 miles northwest of Agency Valley Dam and Beulah.

Drainage area.--355 sq mi.

Records available.--January to September 1914, June 1936 to September 1955. Published as "at Scott's Ranch, near Beulah" in 1914.

Gage.--Water-stage recorder. Altitude of gage is 3,350 ft (by barometer). Jan. 1 to Sept. 30, 1914, staff gage at same site at different datum.

Average discharge.--19 years (1936-55), 125 cfs (90,500 acre-ft per year).

Extremes.--Maximum discharge during year, 346 cfs Apr. 25 (gage height, 1.23 ft); maximum gage height, 1.69 ft Feb. 6, backwater from ice; minimum discharge, 26 cfs Jan. 4, but may have been less during periods of ice effect or no gage-height record.
1914, 1936-55: Maximum discharge, 1,300 cfs Mar. 25, 1952 (gage height, 4.17 ft), from rating curve extended above 530 cfs by logarithmic plotting; maximum gage height, 4.60 ft Mar. 26, 1940; minimum discharge recorded, 12 cfs Jan. 27, 1948, but may have been less at times during periods of ice effect.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 900 acres, of which about 50 acres are below station.

Revisions (water years).--WSP 883: 1938(M). WSP 1093: 1944(m). Revised figures of discharge, in cubic feet per second, for the water years 1914, 1937, 1941-42, 1944 1950, superseding those published in WSP 393, 833, 933, 963, 1013, and 1183, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1914		1914-Con.		1941		1941-Con.		1943-Con.	
July 1	91	July 21	56	Jan. 3	37	Jan. 30	58	Dec. 16	37
2	84	22	56	4	35	31	54	17	40
3	84	23	56	5	41			18	45
4	84	24	56	6	45	1942		19	48
5	84	25	56	7	48	Jan. 16	75	20	52
6	84	26	54	8	46	17	80	21	54
7	81	27	54	9	44	18	76	28	42
8	77	28	54	10	43	19	76	29	45
9	74	29	50	11	40	20	65	30	47
10	70	30	50	12	38	21	50		
11	70	31	50	13	36	22	60	1949	
12	68			14	42	23	80	Dec. 14-24	†54
13	67	1937		15	41	24	95	26	61
14	67	Jan. 3	30	16	40			27	64
15	63	4-31	†32	17	38	1943		28	55
16	63	Feb. 1-26	†52	18	36	Dec. 11	35	30	41
17	63	27	56	19	38	12	35	31	49
18	63	July 26	37	20	45	13	35		
19	60	27	60	21	41	14	35	1950	
20	60	28	36	22	44	15	40	Jan. 1-18	†43
								24-31	†44

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 1914	-	91	50	66.1	4,060
January 1937	990	-	-	31.9	1,960
February	1,453	-	-	51.9	2,880
July	1,232	60	34	39.7	2,440
Water year 1936-37	27,028	358	22	74.0	53,600
Calendar year 1937	29,815	715	22	81.7	59,130
January 1941	1,524	102	35	49.2	3,020
Water year 1940-41	61,049	759	30	167	121,100
Calendar year 1941	61,710	759	35	169	122,400
January 1942	2,422	114	45	78.1	4,800
Water year 1941-42	52,268	774	41	143	103,700
Calendar year 1942	51,757	774	35	142	102,600
December 1943	1,483	67	35	47.8	2,940
Calendar year 1943	68,655	867	35	188	136,200
Water year 1943-44	27,470	237	30	75.1	54,480
December 1949	1,638	64	-	52.8	3,250
Calendar year 1949	44,479	590	-	122	88,220
January 1950	1,476	80	-	47.6	2,930
Water year 1949-50	43,301	495	-	119	85,890
Calendar year 1950	43,883	495	-	120	87,050

North Fork Malheur River above Agency Valley Reservoir, near Beulah, Oreg.--Continued

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 31		Feb. 1 to Sept. 30			
-0.1	37	-0.2	31	0.5	134
0.0	47	0.0	55	1.0	265
.2	74	.2	81	1.1	300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	48	36	45	60	67	82	154	145	73	50	36
2	47	47	35	40	55	64	73	152	136	72	50	*36
3	47	47	40	38	50	59	68	*154	136	69	50	36
4	47	46	50	*35	50	50	64	163	145	69	46	36
5	*48	45	60	35	50	44	*67	200	163	71	46	36
6	48	46	60	35	50	50	76	268	*180	65	45	36
7	49	47	55	35	54	60	86	262	188	64	38	35
8	51	47	50	40	*55	63	96	282	188	63	38	36
9	52	47	50	45	52	63	109	255	188	62	*38	38
10	52	51	45	42	45	64	112	252	188	62	38	38
11	53	52	45	38	45	71	94	268	178	60	36	38
12	54	52	45	42	50	74	88	286	170	58	36	39
13	54	51	45	45	54	60	88	282	161	*55	34	39
14	*54	49	45	50	56	50	90	255	149	55	33	43
15	54	59	45	46	60	43	86	230	145	54	33	55
16	54	*71	45	45	58	47	86	216	130	55	*33	58
17	54	62	45	45	55	56	93	205	118	52	35	56
18	54	58	40	45	52	58	93	175	112	51	36	54
19	54	55	35	50	50	58	90	175	98	50	39	51
20	54	54	35	50	50	41	120	192	92	51	38	51
21	53	52	38	55	54	55	161	233	87	51	39	51
22	53	52	40	60	58	64	185	249	82	51	39	50
23	52	51	42	60	58	*56	149	222	81	55	38	48
24	51	51	45	60	54	59	136	200	82	55	38	48
25	49	49	50	60	50	62	149	180	81	52	36	48
26	49	47	46	55	54	60	205	173	78	51	38	47
27	48	46	44	50	56	62	141	163	77	50	36	46
28	48	44	40	52	60	72	132	145	77	50	36	46
29	51	42	42	56	-	78	163	138	88	48	36	46
30	49	40	46	60	------	71	145	149	80	48	36	45
31	48	------	50	65	------	71	-----	149	------	50	36	------
Total	1,578	1,508	1,389	1,479	1,495	1,852	3,327	6,427	3,823	1,772	1,200	1,324
Mean	50.9	50.3	44.8	47.7	53.4	59.7	111	207	127	57.2	38.7	44.1
Ac-ft	3,130	2,990	2,760	2,930	2,970	3,670	6,600	12,750	7,580	3,510	2,380	2,630

Calendar year 1954: Max 445 Min 35 Mean 103 Ac-ft 74,730
Water year 1954-55: Max 286 Min 33 Mean 74.4 Ac-ft 53,900

Peak discharge (base, 400 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--No gage-height record Nov. 29 to Jan. 3, Jan. 26-30, Feb. 3-7; discharge estimated on basis of weather records, records for Malheur River near Drewsey and computed inflow at Agency Valley Reservoir. Stage-discharge relations affected by ice Jan. 4-25, Jan. 31 to Feb. 3, Feb. 8-27, Mar. 4-7 and during parts of periods of no gage-height record.

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 (revised).

Records available.--June 1926 to September 1955. 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 1 mile (revised) downstream at different datum. Apr. 25, 1936, to Sept. 30, 1949, staff gage 20 ft downstream at present datum.

Average discharge.--20 years (1935-55), 131 cfs (94,840 acre-ft per year).

Extremes.--Maximum discharge during year, 358 cfs July 19 (gage height, 2.31 ft); minimum, 0.1 cfs Jan. 21, 22.

1926-55: Maximum discharge, 7,000 cfs May 7, 1942 (gage height, 8.4 ft, from floodmark), 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 poor. Flow regulated by Agency Valley Reservoir since December 1935 (see p. 167). Diversions for irrigation of about 3,000 acres above station. Prior to Apr. 25, 1936, station was below intake of 2 diversions for irrigation of about 120 acres below station.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1927-32, and 1934, superseding those published in WSP 653, 673, 693, 708, 723, 738 and 768, are given herein. Complete tables of daily discharge are given for the water years 1928-30, but only revised figures are given for the other water years.

1926
Dec. 4..... 105

1930
Dec. 1-31..... †28

1931
Dec. 9-25..... †38

1931-Con.
Dec. 29..... 45
30..... 35
31..... 43

1934
Jan. 1-31..... †50

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1926	-	156	-	64.5	3,970
Water year 1926-27	-	929	-	159	115,000
December 1930	-	-	-	28	1,720
Calendar year 1930	-	138	-	50.5	36,500
Water year 1930-31	-	173	-	48.3	35,000
December 1931	-	-	-	40.1	2,470
Calendar year 1931	-	173	-	47.5	34,400
Water year 1931-32	-	1,190	18	120	87,300
January 1934	1,550	-	-	50	3,070
Water year 1933-34	14,412	77	-	39.5	28,570
Calendar year 1934	13,394	77	-	36.7	26,550

Discharge, in cubic feet per second, water year October 1927 to September 1928

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	56	90		72	63	344	397	172	64	25	28
2	67	69	96		70	58	319	388	160	69	26	29
3	67	68	94		67	67	319	370	154	62	27	34
4	64	66	82	57	66	79	311	344	142	64	27	33
5	64	65	76		66	106	336	336	125	66	26	31
6	61	64	82		61	130	311	344	118	63	26	30
7	60	66	80	72	58	163	271	397	108	60	26	28
8	*60	68	80	71	56	174	263	452	101	59	26	28
9	60	79	80	67	52	325	263	*500	101	56	28	32
10	59	122	80	64	56	*310	263	530	104	50	28	34
11	59	84	86	66	64	*846	263	520	108	49	28	33
12	60	76	56	68	58	506	279	510	104	48	27	34
13	60	79		76	50	287	279	472	101	50	27	38
14	60	79		73	47	240	279	443	95	46	27	38
15	61	76	(*)		45	195	287	406	92	45	26	38
16	59	80			50	240	311	397	92	43	25	35
17	55	96			52	303	362	370	101	43	25	33
18	54	84			56	388	344	353	97	41	25	33
19	51	79			60	424	319	344	91	40	26	33
20	51	77		*67	56	452	303	336	88	36	27	33
21	50	79			53	443	287	328	90	34	27	32
22	51	67	56		59	415	279	328	82	36	26	32
23	53	60			62	434	311	311	76	37	24	32
24	*56	80			62	443	344	287	*73	29	23	34
25	60	83			63	388	370	271	70	25	28	35
26	64	91		87	53	353	379	263	66	26	30	36
27	64	86		88	56	740	406	255	61	*28	31	38
28	63	97		76	72	452	424	240	61	28	34	38
29	63	106		78	72	379	415	218	64	28	34	38
30	63	91		78	- - -	370	397	195	62	28	34	38
31	60	- -		75	- - -	388	- - - - -	188	- - - - -	27	33	- -
Total	1,839	2,373	2,046	2,118	1,714	10,161	9,638	11,093	2,959	1,379	852	1,008
Mean	59.3	79.1	66.0	68.3	59.1	328	321	358	98.6	44.5	27.5	33.6
Ac-ft	3,650	4,710	4,060	4,200	3,400	20,200	19,100	22,000	5,870	2,740	1,690	2,000

Calendar year 1927: Max 929 Min - Mean 161 Ac-ft 117,000
Water year 1927-28: Max 846 Min 23 Mean 129 Ac-ft 93,600

* Discharge measurement made on this day.

North Fork Malheur River at Beulah, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1928 to September 1929

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	53	61			70	108	218	160	60	*25	
2	40	53	38			81	116	195	154	57	28	
3	43	57	41			92	122	202	146	52	28	
4	45	60				98	129	218	134	48	24	
5	51	59				109	125	225	129	50	23	
6	48	56				108	108	202	121	48	23	
7	47	54				98	95	188	128	47	23	19
8	45	51				107	109	172	138	48	22	
9	44	58				147	102	165	144	47	23	
10	42	57				324	94	160	188	45	23	
11	44	56			45	171	108	153	174	40	24	
12	46	55				102	90	164	156	38	23	
13	48	54				106	101	180	144	37	23	20
14	50	58				101	111	195	138	34	22	18
15	51	55		45		104	135	202	195	32	22	18
16	56	52				127	124	202	202	32	22	18
17	54	48	40			133	129	202	160	32	22	18
18	49	36				135	131	195	146	31	23	18
19	48	39				132	150	195	131	28	23	18
20	48	49				138	177	202	111	28	23	20
21	48	52				202	180	218	106	25	23	20
22	48	*54			73	202	180	232	98	26	23	21
23	51	59			64	147	195	248	91	26	24	23
24	48	57			77	124	195	271	90	24	24	24
25	49	60			68	124	202	279	82	21	23	29
26	49	59			78	111	218	255	75	23	21	33
27	50	58			64	106	225	232	73	22	21	37
28	51	50			72	124	240	*202	64	22	17	35
29	51	43			-	127	240	188	62	24	18	33
30	51	43			------	114	225	172	62	25	19	31
31	55	------			------	111	------	154	------	26	19	------
Total	1,489	1,595	1,260	1,395	1,441	3,975	4,464	6,286	3,802	1,098	701	662
Mean	48.0	53.2	40.6	45	51.5	128	149	203	127	35.4	22.6	22.1
Ac-ft	2,950	3,170	2,500	2,770	2,860	7,870	8,870	12,500	7,560	2,180	1,390	1,320

Calendar year 1928: Max 846 Min 23 Mean 124 Ac-ft 89,800
Water year 1928-29: Max 324 Min 17 Mean 77.2 Ac-ft 55,900

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1929 to September 1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	50	49	40		67	97	65	67	33	22	31
2	30	50	45	46		62	93	64	72	33	22	32
3	27	48	43	52	54	72	83	66	69	32	24	34
4	25	45	40	51		75	86	68	66	32	23	34
5	23	48	38	56		81	90	*70	67	32	20	35
6	25	48	40		70	84	94	65	62	31	22	34
7	27	47	44		70	71	98	64	55	26	23	34
8	28	47	50		73	83	95	61	49	27	23	33
9	28	49	60		70	76	91	58	43	27	28	32
10	32	50	88		65	76	90	57	40	29	32	33
11	43	48	76		73	90	78	55	38	29	31	36
12	44	41	65		76	114	80	55	37	28	32	39
13	45	37	76		95	116	72	55	36	28	33	39
14	46	*34	65		138	97	95	58	34	28	33	39
15	47		73		111	93	96	118	*33	29	31	39
16	46		86		96	92	90	118	34	29	26	39
17	45		58		95	91	84	98	33	*29	26	39
18	47		61		84	90	78		34	27	23	38
19	48		47	34	84	93	71		33	25	18	36
20	48		62		104	99	71		33	25	18	37
21	47	37	58		99	100	66	78	37	25	23	39
22	47		61		100	108	63		37	25	25	40
23	46		53		97	105	65		35	25	20	42
24	46		56		71	100	71	59	35	23	*19	43
25	48		56		85	111	71	57	34	22	22	46
26	49		52		75	126	77	50	34	22	22	43
27	48	56			69	*126	77	50	34	20	25	39
28	50	32			60	118	75	47	35	19	30	37
29	48	50	38		-	117	72	44	36	*17	31	37
30	48	48			------	112	67	61	34	17	31	32
31	49	------			------	106	------	74	------	20	32	------
Total	1,262	1,292	1,692	1,129	2,230	2,951	2,436	2,105	1,286	814	790	1,111
Mean	40.7	43.1	54.6	36.4	79.6	95.2	81.2	67.9	42.9	26.3	25.5	37.0
Ac-ft	2,500	2,560	3,360	2,240	4,420	5,850	4,830	4,180	2,550	1,620	1,570	2,200

Calendar year 1929: Max 324 Min 17 Mean 76.9 Ac-ft 55,700
Water year 1929-30: Max 138 Min 17 Mean 52.3 Ac-ft 37,900

* Discharge measurement made on this day.

North Fork Malheur River at Beulah, Oreg.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

-0.1	0.1	0.7	44
0.0	.4	1.0	82
.1	2	1.5	170
.2	5	2.0	280
.3	10	2.5	410
.5	25		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	0.4	0.2	a0.2	0.4	0.3	0.7	37	206	180	280	*35
2	115	.4	.2	a.2	.5	.3	.7	37	206	190	278	34
3	115	.4	.2	a.2	.6	.3	.8	*37	222	198	278	34
4	115	.3	.2	*.2	.6	.3	.7	51	235	198	278	34
5	*115	.2	.2	.2	.6	.3	*.7	85	232	208	278	33
6	115	.2	.2	.2	.6	.3	.8	128	*232	216	278	32
7	113	.2	.2	.2	.6	.3	.8	148	232	196	275	32
8	113	.2	.2	.2	*.8	.3	.8	217	245	186	272	32
9	113	.2	.2	.2	.5	.3	.8	252	250	186	272	32
10	113	.2	.2	.2	.5	.4	.8	252	250	214	270	31
11	111	.2	.2	.2	.4	.3	32	250	250	224	268	31
12	79	.2	.2	.2	.4	.3	51	262	230	250	262	30
13	.9	.2	.2	.2	.3	.3	53	278	222	*265	260	31
14	*.8	.2	.2	.2	.3	.3	52	278	222	272	255	36
15	.8	.3	.2	.2	.3	.3	53	278	222	298	255	47
16	.8	*.2	.2	.2	.3	.4	53	247	222	302	*302	47
17	.8	.2	.2	.2	.3	.5	53	288	222	298	308	48
18	.8	.2	.2	.2	.3	.5	53	288	222	310	302	41
19	.8	.2	.2	.2	.3	.5	42	288	222	338	292	39
20	.8	.2	.2	.2	.3	.5	36	285	220	355	285	39
21	.8	.2	.2	.2	.3	.5	36	285	235	355	275	38
22	.8	.3	.3	.2	.3	.5	36	285	268	350	265	38
23	.8	.2	.3	.2	.3	*.5	36	285	280	345	255	39
24	.8	.2	.2	.2	.3	.5	36	288	298	342	240	39
25	.8	.2	a.2	.2	.3	.5	36	288	308	285	224	39
26	.8	.2	a.2	.2	.3	.4	13	288	308	272	198	39
27	.8	.2	a.2	.2	.3	.5	.8	285	308	285	154	40
28	.7	.2	a.2	.2	.3	.6	.8	262	305	282	41	41
29	.6	.2	a.2	.2	-	.6	.9	250	255	280	36	42
30	.5	.2	a.2	.2	------	.6	24	226	196	280	35	42
31	.5	------	a.2	.2	------	.6	------	208	------	280	35	------
Total	1,346.4	6.9	6.4	6.2	11.3	12.8	705.1	6,936	7,325	8,240	7,306	1,115
Mean	43.4	0.23	0.21	0.20	0.40	0.41	23.5	224	244	266	236	37.2
Ac-ft	2,670	14	13	12	22	25	1,400	13,760	14,530	16,340	14,490	2,210

Calendar year 1954: Max 358 Min 0.1 Mean 107 Ac-ft 77,470
Water year 1954-55: Max 355 Min 0.2 Mean 90.5 Ac-ft 65,490

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

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., on right bank 500 ft downstream from bridge at Little Valley, 8 miles southwest of Hope, and 14 miles (revised) southwest of Vale.
Drainage area.--3,010 sq mi, approximately.
Records available.--April 1949 to September 1955.
Gage.--Water-stage recorder. Datum of gage is 2,424.13 ft (revised) above mean sea level, datum of 1929, supplementary adjustment of 1947.
Average discharge.--6 years, 181 cfs (131,000 acre-ft per year).
Extremes.--Maximum discharge during year, 271 cfs May 17 (gage height, 2.77 ft); maximum gage height, 3.11 ft Feb. 8 (ice jam); minimum discharge, 13 cfs Apr. 5, 10, Sept. 13.
1949-55: Maximum discharge, 8,800 cfs Mar. 26, 1952 (gage height, 9.00 ft); minimum, that of Apr. 5, 10, Sept. 13, 1955.
The two greatest floods known occurred in March 1894 and March 1910.
Remarks.--Records good except those for periods of ice effect, which are fair. Vale-Oregon Canal diverts as much as 600 cfs at Namorf for irrigation of about 31,000 acres, mostly below station; no other large diversions above station, but many small ones. Flow regulated by Warmsprings and Agency Valley Reservoir (see p. 167).
Revisions (water years).--WSP 1217: 1949(M), 1950. Revised figures of discharge, in cubic feet per second, for the water year 1950, superseding those published in WSP 1183 are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1950		1950-Con.		1950-Con.	
Feb. 1	28	Feb. 9	62	Feb. 21	240
2	25	10	60	22	200
3	30	11	60	24	1,050
4	40	12	60	25	1,530
5	60	17	101	26	844
6	72	18	105	27	652
7	70	19	98	28	450
8	66	20	203		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
February 1950.....	6,542	1,530	25	234	12,980
Water year 1949-50.....	46,226	1,530	24	127	91,700
Calendar year 1950.....	46,549	1,530	20	128	92,340

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	7	2.0	74
1.5	14	2.5	190
1.7	34	3.0	350

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	45	b40	60	b38	46	31	33	143	124	104	16
2	59	45	45	72	b36	50	20	*34	133	95	91	17
3	59	49	45	*76	b32	46	16	32	126	102	71	18
4	*59	49	49	59	b32	42	14	26	133	114	71	18
5	58	49	50	56	36	40	13	25	148	130	68	18
6	55	50	49	52	b36	40	14	24	145	133	68	17
7	54	50	49	44	*b36	44	14	25	*143	124	65	17
8	52	49	46	42	b40	46	*14	31	143	97	64	17
9	49	50	b40	42	b44	45	14	49	145	76	60	17
10	50	51	b44	b40	b36	60	14	79	153	76	58	17
11	54	51	b40	b36	b36	128	15	126	158	86	*54	16
12	52	52	b38	42	b40	110	14	130	167	*82	51	15
13	52	52	b40	42	b44	91	15	148	161	99	45	13
14	55	52	44	b40	b48	77	17	184	143	117	39	14
15	45	*56	b42	38	52	65	24	187	135	117	*35	18
16	39	56	b42	38	49	58	23	214	121	126	26	18
17	36	56	b38	38	b48	51	19	181	91	145	22	35
18	32	55	b36	39	b46	38	20	133	72	156	24	35
19	31	52	b36	b40	b42	30	21	241	65	167	24	27
20	31	51	b38	b36	b42	35	27	235	62	170	23	25
21	28	50	b40	b38	b42	35	26	214	76	181	23	25
22	28	50	b42	b40	46	*35	27	199	84	187	24	25
23	27	49	44	42	46	33	38	199	97	190	23	25
24	26	49	44	b40	44	33	93	181	133	184	20	25
25	33	49	44	b42	44	32	102	211	145	167	18	25
26	44	47	b40	b40	46	32	89	226	170	128	16	28
27	44	46	b38	b36	46	32	84	226	178	91	19	27
28	45	45	b36	b34	39	33	72	214	181	102	20	26
29	45	44	38	42	-	36	46	220	214	104	19	25
30	45	41	40	47	------	31	33	223	173	110	18	25
31	44	------	51	40	------	33	------	187	------	110	16	------
Total	1,390	1,490	1,308	1,373	1,166	1,507	969	4,437	4,038	3,890	1,279	644
Mean	44.8	49.7	42.2	44.3	41.6	48.6	32.3	143	135	125	41.3	21.5
Ac-ft	2,760	2,960	2,590	2,720	2,310	2,990	1,920	8,800	8,010	7,720	2,540	1,280

Calendar year 1954: Max 336 Min 21 Mean 111 Ac-ft 80,260
Water year 1954-55: Max 241 Min 13 Mean 64.4 Ac-ft 46,600

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

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 about 7 miles upstream from mouth.
Drainage area.--602 sq mi.
Records available.--April 1933 to May 1936 (fragmentary), March 1937 to September 1955. 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 March 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 and concrete control at present site at datum 0.38 ft higher.
Average discharge.--19 years (1933-34, 1937-55), 39.4 cfs (28,520 acre-ft per year).
Extremes.--Maximum discharge during year, 53 cfs May 23 (gage height, 1.33 ft); maximum gage height, 1.88 ft sometime between Feb. 12 and Mar. 22 (ice jam); minimum discharge, 1.5 cfs May 8, 9.
1933-34, 1937-55: Maximum discharge, 3,400 cfs Feb. 27, 1940, from rating curve extended above 1,000 cfs; maximum gage height, 6.98 ft Mar. 26, 1952; no flow at times.
Remarks.--Records fair except 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 above station for irrigation of about 7,000 acres.
Revisions (water years).--WSP 1183: 1946-47. Revised figures of discharge, in cubic feet per second, for the water year 1948, superseding those published in WSP 1123, are given herewith:

1948		1948-Con.	
Jan. 7	15	Jan. 11	13
8	24	12	13
9	18	13	10
10	14		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1948	301	24	7	9.7	597
Water year 1947-48	3,471	24	4	9.5	6,880
Calendar year 1948	3,188	24	4	8.7	6,320

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet and discharge, in cubic feet per second)
(Backwater from moss or debris Oct. 1-27, July 4 to Sept. 1)

Oct. 1 to Feb. 2				Feb. 3 to Sept. 30			
0.4	3.5	0.8	18	0.2	1.5	0.8	18
.5	6.0	.9	24	.4	5.2	1.0	31
.6	9.0			.6	10	1.2	46

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	8.8	4.5	7	9	7.5	4.2	2.2	10	7.4	6.7	3.6
2	16	8.8	5.2	6.5	8	7	4.0	*2.1	7.0	7.2	6.7	3.4
3	16	8.8	6.0	*6.6	8.4	6	3.6	2.2	7.2	7.2	6.3	3.4
4	*18	8.5	6.6	6.6	7.5	6.5	3.8	1.8	7.4	8.2	6.5	3.4
5	17	8.2	6.9	7.5	7.4	5	10	1.8	7.2	8.2	6.5	3.4
6	16	7.8	7.2	6.9	7.4	5.5	14	1.6	7.4	8.2	6.3	3.4
7	16	7.2	7.2	7.2	*7.2	6	*15	1.8	*6.7	7.4	6.7	3.4
8	13	7.2	6.6	6.9	7.2	6.5	9.0	1.6	5.9	7.7	6.7	3.4
9	12	7.2	6.0	7.2	7.5	7	3.8	1.6	5.9	6.5	6.5	3.4
10	12	7.2	6.3	6.6	7	7	3.6	2.6	6.7	6.5	6.7	3.4
11	12	7.8	6.3	6.0	6.5	6.5	3.2	3.2	7.9	7.2	*6.7	3.8
12	12	9.4	6.6	6.2	7	6	3.0	3.6	7.9	*7.2	6.3	3.4
13	14	9.4	6.9	6.6	7	5.5	3.0	4.4	9.2	6.1	6.7	3.0
14	15	9.0	6.6	7	7.5	5	3.0	4.6	8.2	6.1	6.7	3.4
15	*14	*10	6.5	6.5	7.5	4.5	3.0	3.8	9.0	6.5	*6.1	3.0
16	12	9.4	6.5	6.5	7	5	2.8	5.2	9.5	5.9	5.9	3.0
17	11	9.0	6.5	6.5	6.8	5.5	3.2	5.6	8.4	6.1	5.2	3.0
18	9.8	8.2	6	7	6.6	6	3.4	7.2	7.9	6.3	5.2	3.2
19	9.8	7.8	5.5	7.4	6.4	5	3.2	6.3	7.2	5.9	5.4	3.0
20	9.4	7.5	5	7.6	6	4.5	3.2	5.6	7.2	6.3	5.6	3.4
21	9.4	7.2	5.5	8	6.5	5	3.4	9.5	7.0	5.6	5.4	3.4
22	17	6.9	6	8.5	7	*5.0	3.0	29	7.2	5.4	5.2	3.8
23	22	6.6	6.5	9	7	5.0	3.0	45	6.7	5.6	5.4	4.0
24	19	6.6	6	9	7	4.8	3.0	26	7.0	5.4	5.4	4.0
25	19	6.3	5.5	9	7	4.6	3.2	12	7.0	5.6	5.4	4.2
26	13	6.3	5.5	8	7	4.6	3.8	11	6.5	6.5	5.4	4.8
27	12	6.0	5.5	7.5	7.5	4.4	17	11	6.3	6.5	5.0	4.0
28	11	5.8	6	8	8	4.6	4.4	9.7	6.5	6.7	5.0	3.4
29	9.8	5.5	6.5	8.5	-	5.0	3.0	10	7.4	6.7	4.2	3.4
30	9.8	5.0	7	9	------	4.8	2.2	11	7.4	7.0	3.6	3.2
31	9.4	------	7.5	9.5	------	4.6	------	11	------	6.5	3.6	------
Total	421.4	229.4	192.4	230.3	201.9	169.9	148.0	254.0	222.8	205.6	179.0	104.6
Mean	13.6	7.65	6.21	7.43	7.21	5.48	4.93	8.19	7.43	6.63	5.77	3.49
Ac-ft	836	455	382	457	400	337	294	504	442	408	355	207

Calendar year 1954: Max 283 Min 2.6 Mean 18.8 Ac-ft 13,650
Water year 1954-55: Max 45 Min 1.6 Mean 7.01 Ac-ft 5,080

Peak discharge (base, 130 cfs):--No peaks above base.
* Discharge measurement made on this day.
Note.--No gage-height record Dec. 15 to Jan. 2, Jan. 12 to Feb. 2, Feb. 13 to Mar. 21; discharge estimated on basis of weather records at Vale, recorded range in stage, and records for North Fork Malheur River above Agency Valley Reservoir. Stage-discharge relation affected by ice Jan. 11, Feb. 3, 4, 6, 8-12 and at times during periods of no gage-height record.

Reservoirs in Malheur River basin, Oreg.

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 (revised) northwest of Riverside. Drainage area 1,100 sq mi, approximately. Records available, January 1920 to September 1955. Gage read once daily with some exceptions April to September, and about once each week October to April. Datum of gage is 3,327 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, 53,480 acre-ft May 10, 11 (elevation, 3,367.55 ft); minimum observed, 20 acre-ft Sept. 17 (elevation, 3,327.50). Maximum contents observed during period 1920-55, 196,000 acre-ft Apr. 7, 1942 (elevation, 3,407.08 ft); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935, Sept. 18 to October 11, 1950.

Reservoir is formed by concrete-arch dam; capacity, 191,000 acre-ft between elevations 3,327 (bottom of outlet tunnel) and 3,406 ft (top of 5-ft flashboards). Dead storage, 1,400 acre-ft below elevation 3,327 ft, not included in records presented. Records given herein represent contents above elevation 3,327 ft. Storage began in 1919. In 1926, a half interest in reservoir was purchased by the Federal Government for Vale project of Bureau of Reclamation. Water used to irrigate lands on both sides of river between Namorf and Ontario. Data for computing capacity table furnished by Bureau of Reclamation.

Agency Valley Reservoir.--Lat 43°55', long 118°09', in SE¼ (revised) 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 (revised), approximately. Records available, December 1935 to September 1955. Pressure gage with mercury column read once each day except Nov. 12-29 when no readings were made. Datum of gage is at mean sea level (surveys 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, 35,170 acre-ft May 8 (elevation, 3,325.10 ft); minimum observed, no contents Aug. 28 to Sept. 30. Maximum contents observed during period 1935-55, 62,770 acre-ft May 3, 1941 (elevation, 3,341.50 ft); no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Sept. 30, 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 ft (bottom of outlet tunnel) and 3,340 ft (top of 17-foot 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.

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.

Month-end elevation and contents, water year October 1954 to September 1955

Date	Warmsprings Reservoir			Agency Valley Reservoir		
	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	3,348.10	14,240	-	3,301.55	10,000	-
Oct. 31.....	-	a12,100	-2,140	3,302.28	10,500	+500
Nov. 30.....	-	a15,730	+3,630	3,306.55	13,790	+3,290
Dec. 31.....	-	a19,280	+3,550	3,309.95	16,900	+3,110
Calendar year 1954	-	-	-82,820	-	-	-200
Jan. 31.....	3,353.90	23,130	+3,850	3,313.35	20,400	+3,500
Feb. 28.....	3,356.26	27,520	+4,390	3,316.20	23,620	+3,220
Mar. 31.....	3,359.30	33,730	+6,210	3,319.55	27,680	+4,060
Apr. 30.....	3,364.80	46,400	+12,670	3,323.76	33,270	+5,590
May 31.....	3,363.35	42,840	-3,560	3,322.77	31,910	-1,360
June 30.....	3,353.58	22,590	-20,250	3,317.40	25,050	-6,860
July 31.....	3,340.28	5,480	-17,110	3,304.75	12,320	-12,730
Aug. 31.....	3,327.60	24	-5,460	-	0	-12,320
Sept.30.....	3,328.15	55	+31	-	0	0
Water year 1954-55	-	-	-14,180	-	-	-10,000

a No gage-height record; contents interpolated.

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 4,100 ft downstream from Clear Creek.

Drainage area.--456 sq mi.

Records available.--May 1941 to September 1955.

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.--14 years, 878 cfs (635,600 acre-ft per year).

Extremes.--Maximum discharge during year, 4,060 cfs June 13 (gage height, 6.15 ft); minimum, 176 cfs Nov. 30 (gage height, 2.51 ft), but may have been less during period of ice effect.
1941-55: Maximum discharge, 5,450 cfs May 21, 1954 (gage height, 6.83 ft); minimum, 148 cfs Dec. 9, 1944 (gage height, 2.40 ft).

Remarks.--Records excellent. No regulation. Several small diversions for irrigation and placer mining, the return flow from which enters river above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 10		Feb. 11 to Sept. 30			
2.5	173	2.5	199	4.0	1,110
2.6	203	2.6	225	4.5	1,630
2.8	277	2.8	288	5.0	2,250
3.0	370	3.0	372	6.2	4,150
3.5	680	3.5	680		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	*303	190	310	280	245	268	712	1,830	1,600	645	354
2	345	298	280	300	250	237	285	744	1,850	1,440	631	350
3	345	298	*340	280	250	234	268	720	1,890	1,370	617	345
4	340	294	307	250	250	242	261	712	1,920	1,480	596	340
5	340	294	298	230	250	222	264	1,020	2,130	1,440	575	336
6	335	294	294	260	260	242	288	1,380	2,490	1,380	561	336
7	330	290	294	260	270	254	350	1,500	2,990	1,330	547	332
8	330	290	261	270	280	271	428	1,750	3,500	1,290	540	332
9	325	294	246	270	280	271	509	1,820	3,760	1,300	528	332
10	325	294	303	300	240	268	624	1,700	3,880	1,270	521	332
11	330	294	258	300	*200	271	478	1,810	3,810	1,300	509	327
12	335	330	250	280	240	271	412	1,940	3,990	1,370	497	323
13	345	320	303	260	270	261	387	1,910	*3,930	1,330	484	319
14	330	303	281	270	260	261	377	1,740	3,620	*1,360	478	*323
15	330	335	281	260	270	242	358	1,450	3,360	1,370	472	363
16	330	398	220	280	260	245	350	1,250	2,960	1,350	461	377
17	325	345	200	280	260	261	372	1,130	2,650	1,320	*444	372
18	320	325	210	270	220	257	402	1,140	2,510	1,250	439	363
19	320	316	215	280	210	254	368	1,380	2,560	1,190	433	350
20	330	307	220	*270	225	237	350	1,820	2,750	1,080	422	354
21	320	303	240	270	240	251	358	*2,460	2,840	1,040	417	345
22	320	303	250	260	271	264	428	2,700	3,040	1,060	412	336
23	316	303	260	270	268	*248	417	2,450	3,100	993	407	332
24	311	298	280	280	268	254	407	2,180	2,800	1,010	402	332
25	311	298	300	280	264	248	402	1,940	2,290	939	397	340
26	311	298	270	260	254	248	417	1,860	2,000	867	387	336
27	307	294	230	250	254	254	397	1,690	1,910	808	382	327
28	307	265	240	240	245	261	*382	1,540	1,890	768	382	327
29	307	200	280	260	-	268	402	1,610	2,040	744	372	327
30	303	180	300	270	------	274	515	1,920	1,820	704	363	319
31	303	-----	325	280	-----	264	-----	1,950	------	666	358	------
Total	10,076	8,964	8,226	8,400	7,089	7,880	11,524	49,928	82,110	36,419	14,679	10,181
Mean	325	299	265	271	253	254	384	1,611	2,737	1,175	474	339
Cfsm	0.713	0.656	0.581	0.594	0.555	0.557	0.842	3.53	6.00	2.58	1.04	0.743
In.	0.82	0.73	0.67	0.69	0.58	0.64	0.94	4.07	6.70	2.97	1.20	0.83
Ac-ft	19,990	17,780	16,320	16,660	14,060	15,630	22,860	99,030	162,900	72,240	29,120	20,190

Calendar year 1954: Max 5,230 Min 180 Mean 955 Cfsm 2.09 In. 28.42 Ac-ft 691,200
Water year 1954-55: Max 3,990 Min 180 Mean 700 Cfsm 1.54 In. 20.84 Ac-ft 506,800

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 2, Dec. 17 to Feb. 21.

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.--108 sq mi.

Records available.--October 1935 to September 1955.

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, 5,334.3 ft July 15-17; minimum observed, 5,288.1 ft Oct. 1.
1935-55: Maximum elevation observed, 5,337.1 ft June 1, 2, 1943; minimum observed, 5,205.0 ft Sept. 18 to Oct. 11, 1951, reservoir 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 protection, 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. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir. Discharge measurements of Oct. 27, June 21, and Aug. 9 gave flow in this canal of 1.07, 47.5, and 2.24 cfs, respectively.

Cooperation.--Gage readings furnished by Bureau of Reclamation.

Elevation in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	288.10	290.65	293.10	294.70	296.80	298.50	300.40	303.20	316.05	332.75	329.15	305.80
2	288.20	290.70	293.10	294.80	296.60	298.60	300.50	303.30	316.50	332.95	329.20	304.95
3	288.30	290.75	293.15	294.80	296.65	298.70	300.50	303.40	316.90	333.20	329.25	304.10
4	288.40	290.80	293.15	294.80	296.65	298.80	300.55	303.50	317.45	333.40	329.15	303.20
5	288.50	290.90	293.20	294.90	296.70	298.80	300.60	303.60	317.95	333.75	328.85	302.40
6	288.60	291.00	293.20	295.00	296.75	298.90	300.70	303.75	318.50	333.85	328.35	301.60
7	288.70	291.10	293.25	295.10	296.80	299.00	300.80	304.10	319.20	334.00	327.80	300.80
8	288.80	291.15	293.30	295.20	296.85	299.10	300.90	304.60	319.95	334.05	327.05	300.10
9	288.90	291.20	293.35	295.30	296.90	299.20	301.00	304.85	320.80	334.00	326.30	299.35
10	289.00	291.25	293.40	295.40	296.90	299.30	301.10	305.20	321.70	333.95	325.55	298.70
11	289.10	291.30	293.45	295.50	297.00	299.40	301.20	305.60	322.60	333.90	324.70	298.10
12	289.20	291.40	293.50	295.60	297.10	299.50	301.30	305.90	323.45	334.05	323.90	297.40
13	289.30	291.50	293.55	295.70	297.20	299.60	301.40	306.50	324.35	334.15	322.95	296.78
14	289.40	291.60	293.60	295.75	297.30	299.70	301.50	307.00	325.20	334.25	322.00	296.10
15	289.50	291.70	293.65	295.80	297.40	299.80	301.60	307.35	326.00	334.30	321.05	295.55
16	289.60	291.80	293.70	295.85	297.50	299.80	301.70	307.60	326.70	334.30	320.05	295.14
17	289.70	291.90	293.70	295.90	297.60	299.80	301.80	307.90	327.25	334.30	319.05	294.70
18	289.80	292.00	293.70	295.95	297.60	299.85	301.90	308.20	327.80	334.15	318.00	294.35
19	289.90	292.10	293.80	296.00	297.70	299.90	302.00	308.60	328.20	333.90	317.05	293.80
20	290.00	292.20	293.90	296.05	297.70	299.90	302.10	309.00	328.70	333.55	316.15	293.42
21	290.10	292.30	294.00	296.10	297.80	299.95	302.20	309.70	329.20	333.10	315.25	293.10
22	290.20	292.40	294.10	296.15	297.90	300.00	302.30	310.60	329.65	332.50	314.40	292.74
23	290.30	292.50	294.20	296.20	298.00	300.00	302.40	311.30	330.10	331.80	313.55	292.42
24	290.40	292.60	294.30	296.25	298.05	300.05	302.50	311.90	330.55	331.20	312.97	292.19
25	-	292.70	294.40	296.30	298.10	300.10	302.60	312.50	330.95	330.40	311.85	291.97
26	290.40	292.80	294.50	296.35	298.20	300.10	302.70	313.10	331.30	329.60	311.00	291.74
27	290.40	292.90	294.50	296.35	298.30	300.15	302.80	313.60	331.60	329.10	310.10	291.50
28	290.45	292.95	294.50	296.40	298.40	300.15	302.90	314.10	331.85	328.90	309.20	291.25
29	290.50	293.00	294.50	296.45	-	300.20	303.00	314.50	332.20	328.95	308.30	291.04
30	290.55	293.05	294.60	296.50	------	300.25	303.10	315.10	332.50	329.00	307.50	290.80
31	290.60	------	294.70	296.55	------	300.30	------	315.60	------	329.10	306.65	------

Note.--Add 5,000 ft to obtain elevation above mean sea level. Gage read at irregular intervals.

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.--108 sq mi.

Records available.--October 1926 to September 1955. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to 1935.

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.--29 years (1926-55), 216 cfs (156,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,620 cfs Aug. 9 (gage height, 7.59 ft); minimum observed, 2 cfs many days during period when gates in dam were closed.
1926-55: Maximum discharge, 2,580 cfs July 14, 1953; maximum gage height, 7.79 ft, present datum, July 27, 1954, 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 200 cfs, which are fair. Flow regulated by Deadwood Reservoir (see preceding page).

Revisions (water years).--WSP 1123: 1943.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 3				Aug. 4 to Sept. 30	
0.6	2	2.0	159	3.5	229
.7	4	3.0	307	4.0	307
.8	10	4.0	552	5.0	552
1.0	31	5.0	911	6.0	911
1.5	92	6.0	1,340	7.0	1,340
				8.0	1,820

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	3	2	2	2	2	2	2	4	3	2	1,050
2	3	3	2	2	2	2	2	2	4	3	2	1,050
3	3	3	2	2	2	2	2	2	4	3	98	1,060
4	3	3	2	2	2	2	2	2	4	3	493	1,020
5	3	3	2	2	2	2	2	2	4	3	736	970
6	3	3	2	2	2	2	2	2	4	4	958	919
7	3	3	2	2	2	2	2	2	4	123	1,180	856
8	3	3	2	2	2	2	2	2	4	284	1,260	803
9	3	3	2	2	2	2	2	3	4	312	*1,120	747
10	3	3	2	2	2	2	2	3	4	318	1,380	697
11	3	3	2	2	2	2	2	3	4	128	1,380	693
12	3	3	2	2	2	2	2	4	4	4	1,440	697
13	3	3	2	2	2	2	2	4	4	22	1,490	690
14	3	3	2	2	2	2	2	4	4	75	1,520	668
15	3	3	2	2	2	2	2	3	4	172	1,540	519
16	3	3	2	2	2	2	2	3	4	234	1,540	490
17	3	3	2	2	2	2	2	3	4	316	1,570	485
18	3	3	2	2	2	2	2	3	4	471	1,480	468
19	3	3	2	2	2	2	2	3	4	627	1,380	398
20	3	3	2	2	2	2	2	4	3	784	1,290	370
21	3	3	2	2	2	2	2	4	3	*1,020	1,230	*347
22	3	3	2	2	2	2	2	4	*21	1,160	1,210	333
23	3	3	2	2	2	2	2	4	3	1,160	1,170	279
24	3	3	2	2	2	2	2	4	3	1,240	1,170	258
25	3	3	2	2	2	2	2	4	3	1,290	1,170	258
26	3	3	2	2	2	2	2	4	3	1,010	1,170	259
27	*3	3	2	2	2	2	2	4	3	537	1,170	260
28	3	2	2	2	2	2	2	4	3	101	1,170	259
29	3	2	2	2	-	2	2	4	3	2	1,100	259
30	3	2	2	2	------	2	2	4	3	2	1,060	259
31	3	------	2	2	------	2	------	4	------	2	1,060	------
Total	128	87	62	62	56	62	60	100	127	11,413	34,539	17,421
Mean	4.1	2.9	2.0	2.0	2.0	2.0	2.0	3.2	4.2	368	1,114	581
Ac-ft	254	173	123	123	111	123	119	198	252	22,640	68,510	34,550

Calendar year 1954: Max 1,550 Min 2 Mean 285 Ac-ft 206,400
Water year 1954-55: Max 1,570 Min 2 Mean 176 Ac-ft 127,200

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 2 to July 5, July 30 to Aug. 3 except staff-gage readings Oct. 27 and about once weekly Jan. 1 to Aug. 3; gates closed for entire period except Aug. 3; discharge estimated on basis of staff-gage readings, weather records, and records for South Fork Payette River near Garden Valley.

South Fork Payette River near Garden Valley, Idaho

Location.--Lat 44°04', long 115°56', in 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 1955. 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 same site at datum 0.98 ft higher. Aug. 3, 1926, to Dec. 5, 1933, staff gage at present site and datum.

Average discharge.--34 years (1921-55), 1,272 cfs (920,900 acre-ft per year).

Extremes.--Maximum discharge during year, 5,160 cfs June 13 (gage height, 5.36 ft); minimum, 200 cfs Nov. 30 (gage height, 1.41 ft), but may have been less during period of ice effect.
1921-55: 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. Practically no diversion above station. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 169).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	195	3.0	1,570
1.5	250	3.5	2,190
1.7	375	4.0	2,890
2.0	600	5.0	4,510
2.5	1,050	6.0	6,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	560	*403	b230	410	362	330	396	1,140	2,590	2,010	824	1,530
2	475	396	375	400	330	340	438	1,250	2,570	1,820	797	1,520
3	445	396	*482	382	b330	320	403	1,210	2,610	1,730	779	1,530
4	438	389	452	b340	b320	320	396	1,150	2,610	1,770	1,120	1,500
5	431	389	417	b310	b330	300	389	1,480	2,840	1,820	1,380	1,440
6	424	389	396	350	b350	300	438	2,110	3,220	1,700	1,580	1,370
7	424	382	403	350	356	330	552	2,240	3,840	1,670	1,760	1,340
8	417	382	356	360	362	350	676	2,590	4,460	1,820	1,880	1,270
9	417	396	298	350	368	360	815	2,770	4,820	1,910	1,750	1,250
10	410	396	403	*b400	b305	360	1,030	2,560	4,980	1,890	2,000	1,190
11	424	396	362	b390	b270	370	842	2,680	4,920	1,870	1,960	1,170
12	438	438	304	b370	b310	390	710	2,860	5,070	1,650	1,980	1,170
13	452	460	403	336	b360	400	634	2,840	4,980	*1,630	2,030	1,170
14	431	417	389	356	349	370	626	2,630	*4,640	1,640	2,030	1,170
15	431	445	375	349	368	340	584	2,160	4,330	1,700	2,070	1,140
16	431	592	310	368	356	330	552	1,870	3,800	1,790	2,050	1,080
17	424	512	b260	362	362	330	592	1,650	3,390	1,800	2,060	1,070
18	417	468	b270	349	b320	340	676	1,630	3,160	1,870	*2,030	1,050
19	424	438	b280	356	b290	350	626	1,940	3,160	1,970	1,920	964
20	452	431	b290	349	b300	330	584	2,630	3,320	2,000	1,860	*917
21	431	417	b320	356	b320	310	590	3,560	3,420	2,180	1,750	879
22	424	417	b320	b350	368	340	840	3,960	3,630	2,400	1,760	860
23	417	403	b340	356	349	330	880	3,610	3,680	2,330	1,700	815
24	410	396	b360	368	*349	340	760	3,240	3,390	2,390	1,690	736
25	410	403	b400	362	340	340	730	2,880	2,860	2,390	1,690	753
26	410	396	b370	349	340	340	730	*2,740	2,500	2,230	1,680	744
27	403	396	b310	b320	330	350	680	2,530	2,350	1,740	1,680	736
28	410	349	b320	b310	330	370	*642	2,270	2,290	1,270	1,670	728
29	410	268	370	b340	-	*396	651	2,320	2,460	936	1,630	728
30	403	b220	420	356	------	410	815	2,730	2,280	879	1,550	728
31	403	------	500	362	------	396	------	2,760	------	842	1,540	------
Total	13,296	12,180	11,085	11,066	9,424	10,782	19,277	73,990	104,170	55,647	52,200	32,548
Mean	429	406	358	357	337	348	643	2,387	3,472	1,795	1,684	1,085
Ac-ft	26,370	24,160	21,990	21,950	18,690	21,390	38,240	146,800	206,600	110,400	103,500	64,560

Calendar year 1954: Max 7,260 Min 220 Mean 1,595 Ac-ft 1,155,000
Water year 1954-55: Max 5,070 Min 220 Mean 1,111 Ac-ft 804,600

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 29 to Jan. 2, Jan. 6-9, Feb. 25 to Mar. 28, Apr. 21-27; discharge estimated on basis of weather records and records for stations upstream and downstream.

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 1955.

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.--34 years, 1,716 cfs (1,242,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,760 cfs June 13 (gage height, 7.18 ft); minimum, 288 cfs Dec. 1 (gage height, 0.08 ft, from partly estimated gage-height record).
1921-55: Maximum discharge, 13,800 cfs May 17, 1927 (gage height, 10.6 ft, from floodmarks); minimum, about 225 cfs Dec. 15, 1935, Jan. 26, 1936, Dec. 26, 1939.

Remarks.--Records excellent except those for periods of no gage-height record, which are good, and those for periods of ice effect, which are fair. Small diversions above station for irrigation. Flow regulated by Deadwood Reservoir (see p. 169).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second

0.2	335	4.0	3,030
.6	510	5.0	4,070
1.0	720	6.0	5,250
2.0	1,370	7.0	6,520
3.0	2,130	8.0	7,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	760	560	347	575	500	474	626	1,920	3,550	2,520	964	1,560
2	660	*560	492	570	470	483	698	2,150	3,550	2,280	944	1,560
3	630	560	*682	545	480	460	638	2,050	3,610	2,150	924	1,560
4	600	560	648	488	470	460	605	1,920	3,600	2,180	1,100	1,560
5	590	555	595	430	488	420	605	2,430	3,860	2,250	1,400	1,480
6	590	550	575	500	501	424	676	3,390	4,310	2,080	1,630	1,430
7	590	545	575	510	492	483	828	3,560	5,040	2,030	1,830	1,390
8	590	550	525	520	506	515	1,040	3,980	5,850	2,130	1,970	1,320
9	600	555	429	500	515	535	1,220	4,260	6,290	2,230	1,910	1,300
10	580	555	555	638	447	535	1,620	3,870	6,490	2,210	2,020	1,240
11	590	555	515	620	375	545	1,370	4,040	6,420	2,230	2,040	1,220
12	610	610	429	*565	465	570	1,080	4,340	6,550	1,960	2,040	1,200
13	630	676	560	515	535	595	964	4,300	6,480	*1,900	2,110	1,200
14	620	595	560	555	525	550	957	3,850	*6,040	1,890	2,110	1,200
15	650	626	530	540	510	496	892	3,180	5,600	1,940	2,130	1,170
16	590	822	452	550	501	488	834	2,770	4,940	2,030	2,110	1,120
17	570	726	363	550	501	510	912	2,480	4,410	2,030	2,120	1,110
18	570	665	b370	510	465	530	1,100	2,420	4,070	2,070	*2,110	1,090
19	580	626	b390	b500	411	535	1,050	2,880	4,020	2,170	1,960	1,040
20	610	610	b400	b500	429	501	957	3,810	4,160	2,200	1,910	*996
21	600	590	b450	b500	465	488	970	5,240	4,240	2,340	1,790	944
22	590	585	b450	b500	501	540	1,490	5,830	4,390	2,620	1,800	918
23	570	585	b470	b480	492	520	1,540	5,170	4,460	2,530	1,720	886
24	560	585	b500	550	*488	530	1,360	4,590	4,220	2,570	1,710	804
25	560	575	b560	530	488	530	1,240	4,090	3,600	2,590	1,710	822
26	560	570	b520	492	478	530	1,240	*3,930	4,110	2,460	1,700	816
27	560	565	b440	460	478	560	1,160	3,630	2,900	1,930	1,700	810
28	560	545	b440	440	474	595	1,070	3,240	2,800	1,520	1,690	804
29	560	424	b530	460	-	*621	*1,100	3,280	3,080	1,140	1,670	798
30	560	343	b640	480	------	654	1,360	3,810	2,900	1,050	1,580	798
31	560	------	726	500	------	626	------	3,810	------	1,020	1,570	------
Total	18,450	17,428	15,718	16,073	13,450	16,303	31,202	110,220	135,540	64,250	53,972	34,146
Mean	595	581	507	518	480	526	1,040	3,555	4,518	2,073	1,741	1,138
Ac-ft	36,600	34,570	31,180	31,880	26,680	32,340	61,890	218,600	268,800	127,400	107,100	67,730

Calendar year 1954: Max 9,460 Min 343 Mean 2,125 Ac-ft 1,539,000
Water year 1954-55: Max 6,550 Min 343 Mean 1,443 Ac-ft 1,045,000

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 1 to Nov. 1, Jan. 5-9, 11, 15-18, Jan. 28 to Feb. 3; discharge estimated on basis of weather records and station near Garden Valley, North Fork Payette River near Banks and Payette River near Horseshoe Bend.

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 1955 (fragmentary prior to Nov. 23, 1943).

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 7; minimum, 1.63 ft Feb. 23.
1921-55: 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 of lands in vicinity 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.71	5.57	5.81	1.99	1.75	1.72	1.72	2.01	4.08	6.82	6.73	6.11
2	5.70	5.57	5.77	1.97	1.74	1.74	1.72	2.02	4.05	6.85	6.73	6.10
3	5.69	5.58	5.72	1.93	1.72	1.73	1.71	2.03	4.12	6.88	6.68	6.08
4	5.67	5.58	5.51	1.91	1.72	1.72	1.70	2.04	4.25	6.95	6.66	6.05
5	5.67	5.58	5.06	1.90	1.71	1.70	1.69	2.06	4.40	6.94	6.64	6.03
6	5.66	5.58	4.70	1.88	1.72	1.70	1.69	2.13	4.65	6.99	6.62	6.01
7	5.65	5.58	4.36	1.86	1.72	1.69	1.69	2.19	5.02	7.00	6.61	6.00
8	5.64	5.58	4.07	1.84	1.71	1.68	1.69	2.27	5.38	6.89	6.60	6.00
9	5.62	5.58	3.81	1.81	1.71	1.67	1.71	2.35	5.69	6.89	6.59	5.98
10	5.61	5.58	3.58	1.81	1.70	1.71	1.75	2.44	5.89	6.90	6.56	5.96
11	5.61	5.58	3.36	1.80	1.69	1.70	1.77	2.56	6.05	6.89	6.54	5.95
12	5.63	5.62	3.18	1.79	1.69	1.73	1.77	2.73	6.17	6.91	6.53	5.93
13	5.63	5.62	3.07	1.79	1.68	1.73	1.80	2.91	6.20	6.85	6.49	5.90
14	5.62	5.63	2.92	1.78	1.67	1.73	1.81	3.00	6.13	6.82	6.47	5.97
15	5.61	5.67	2.80	1.80	1.66	1.72	1.81	3.02	5.89	6.77	6.46	5.96
16	5.61	5.68	2.69	1.80	1.67	1.72	1.85	3.01	5.60	6.76	6.44	6.06
17	5.61	5.73	2.60	1.79	1.66	1.70	1.89	2.98	5.46	6.72	6.41	6.11
18	5.61	5.75	2.50	1.79	1.68	1.70	1.90	3.01	5.53	6.72	6.39	6.14
19	5.63	5.75	2.42	1.78	1.65	1.70	1.91	3.16	5.68	6.72	6.38	6.16
20	5.61	5.76	2.36	1.77	1.64	1.69	1.91	3.50	5.90	6.77	6.36	6.22
21	5.62	5.78	2.29	1.77	1.64	1.69	1.93	3.92	6.13	6.80	6.34	6.27
22	5.62	5.78	2.24	1.77	1.64	1.70	1.97	4.23	6.31	6.87	6.33	6.27
23	5.61	5.79	2.19	1.77	1.63	1.70	1.98	4.33	6.37	6.87	6.31	6.27
24	5.60	5.80	2.15	1.76	1.65	1.69	1.98	4.30	6.30	6.87	6.30	6.26
25	5.60	5.81	2.10	1.75	1.65	1.67	1.99	4.21	6.25	6.83	6.25	6.24
26	5.58	5.81	2.08	1.74	1.67	1.67	2.01	4.20	6.46	6.79	6.24	6.23
27	5.58	5.82	2.03	1.73	1.69	1.66	1.99	4.10	6.77	6.80	6.21	6.22
28	5.58	5.82	2.00	1.72	1.68	1.68	1.98	3.99	6.97	6.81	6.20	6.23
29	5.58	5.82	1.99	1.71	-	1.70	1.97	4.03	6.97	6.79	6.17	6.22
30	5.57	5.81	2.03	1.70	------	1.70	1.98	4.16	6.81	6.77	6.15	6.21
31	5.57	------	1.99	1.74	------	1.69	------	4.13	------	6.75	6.13	------

Note.--Gage heights Dec. 15-30 estimated from gage heights for North Fork Payette River at McCall.

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 1955.

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.--44 years (1908-16, 1919-55), 354 cfs (256,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,820 cfs June 14 (gage height, 6.39 ft); minimum, 7 cfs Oct. 26-29, Nov. 29 to Dec. 2; minimum gage height, 1.29 ft Nov. 29 to Dec. 2.
1908-17, 1919-55: Maximum discharge, 4,260 cfs June 10, 1933, June 4, 1948; maximum gage height, 7.71 ft June 4, 1948; practically 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 100 cfs, which are good. Flow partly regulated by gates at outlet of Payette Lake (see preceding page) and several smaller lakes upstream. No diversion above station.

Cooperation.--Water-stage recorder inspected by employees of U. S. Forest Service.

Revisions.--WSP 963: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second

1.3	6	2.6	154
1.4	9	3.0	275
1.6	17	3.5	486
1.8	30	4.0	770
2.0	48	5.0	1,490
2.3	90	7.0	3,480

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	8	7	97	53	47	44	107	1,090	618	82	34
2	20	8	283	94	*53	52	48	108	1,080	310	78	33
3	20	8	17	87	52	51	47	115	1,080	286	75	32
4	20	8	506	83	51	50	46	117	1,140	438	72	32
5	20	8	1,090	*78	51	50	44	128	1,240	620	68	32
6	20	8	953	75	50	48	44	142	1,380	654	66	32
7	20	8	848	71	51	47	44	157	1,650	758	63	31
8	20	8	751	67	51	45	44	178	1,970	776	61	31
9	20	8	660	64	48	44	44	201	2,260	824	59	30
10	19	8	586	63	48	44	54	226	2,490	631	58	30
11	20	8	512	60	47	47	55	261	2,640	625	54	30
12	19	8	452	58	46	48	56	312	2,750	660	54	30
13	19	8	420	58	45	50	59	389	2,780	642	51	30
14	19	8	372	56	44	50	64	443	2,780	597	48	31
15	18	8	335	56	42	50	66	467	2,640	559	46	*30
16	18	8	297	58	42	*48	68	467	2,380	548	44	30
17	18	8	268	58	43	47	77	457	1,820	490	43	28
18	18	8	238	56	41	46	*85	462	1,340	348	43	24
19	18	8	213	56	40	44	85	512	1,390	182	42	22
20	18	8	193	56	39	42	88	625	1,470	*80	41	22
21	18	8	173	58	39	43	87	848	*1,620	88	40	22
22	18	8	157	56	39	45	99	1,090	1,770	150	*40	22
23	14	8	144	56	38	46	101	1,210	1,830	221	39	22
24	9	8	132	56	40	44	99	1,230	1,770	258	38	24
25	*8	8	124	54	40	42	97	1,170	1,340	255	38	21
26	7	8	115	53	41	41	103	*1,150	385	248	38	21
27	7	8	105	51	45	40	105	1,110	222	142	38	21
28	7	8	97	50	46	40	99	1,040	682	90	38	21
29	7	*8	92	48	-	43	101	1,020	1,350	92	37	21
30	8	7	95	47	------	45	99	1,090	1,320	88	36	21
31	8	------	99	48	------	45	-----	1,120	------	85	35	------
Total	495	239	10,334	1,928	1,265	1,424	2,152	17,952	49,639	12,163	1,563	810
Mean	16.0	8.0	333	62.2	45.2	45.9	71.7	579	1,655	392	50.5	27.0
Ac-ft	982	474	20,500	3,820	2,510	2,820	4,270	35,610	98,460	24,120	3,100	1,610

Calendar year 1954: Max 3,170 Min 7 Mean 393 Ac-ft 284,200
Water year 1954-55: Max 2,780 Min 7 Mean 274 Ac-ft 198,300

* Discharge measurement made on this day.

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 1955.

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.--10 years, 148 cfs (107,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,440 cfs June 11 (gage height, 7.75 ft); minimum recorded, 8.0 cfs Jan. 27 (gage height, 1.78 ft), but may have been less during period of ice effect or no gage-height record.
1945-55: 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 below 15 cfs, which are good, and those for periods of ice effect or no gage-height record, which are fair. No diversion above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	9.7	3.5	71	6.0	422
2.0	11	4.0	105	6.5	595
2.3	18	4.5	151	7.0	850
2.6	26	5.0	216	8.0	1,630
3.0	43	5.5	306		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	14	13	14	14	14	19	52	370	286	48	15
2	15	14	17	14	14	14	18	52	382	240	45	15
3	15	14	16	12	*14	14	17	49	444	237	42	14
4	15	13	16	10	12	14	17	49	481	240	40	14
5	15	14	16	12	14	12	17	82	587	237	38	14
6	14	13	15	13	13	14	18	124	757	249	36	13
7	14	13	15	12	14	14	20	147	978	237	35	13
8	14	13	14	13	15	14	22	193	1,040	214	34	13
9	14	13	13	13	14	14	24	201	1,090	224	32	13
10	14	14	14	13	12	14	28	224	1,060	227	31	13
11	14	14	12	13	13	14	27	282	1,090	253	29	13
12	16	16	13	13	14	14	26	354	1,100	226	28	12
13	17	18	14	13	15	14	25	374	1,060	214	27	12
14	16	16	13	13	15	14	24	256	876	207	26	19
15	16	19	13	13	15	*14	22	194	710	190	25	40
16	18	28	10	13	14	14	23	163	604	180	24	*42
17	18	22	11	12	14	14	24	155	512	163	23	48
18	17	19	11	13	13	14	*25	195	519	140	23	30
19	16	18	10	13	12	14	26	354	608	119	22	26
20	19	16	11	12	13	14	26	608	700	*107	21	24
21	18	17	11	11	14	13	26	908	762	99	21	22
22	18	17	11	11	14	15	26	725	*757	94	*20	20
23	19	18	12	12	14	16	26	570	667	99	19	20
24	17	17	12	13	14	16	26	456	581	107	18	19
25	*16	17	12	13	14	16	25	384	394	85	19	18
26	15	17	10	12	14	15	25	*417	349	75	18	18
27	14	16	10	11	14	16	24	342	372	68	18	18
28	14	13	*11	12	14	17	24	314	399	64	17	17
29	14	*12	12	14	-	17	25	406	459	60	16	18
30	14	11	13	15	------	17	33	512	329	55	16	17
31	14	------	13	15	------	18	------	396	------	52	15	------
Total	486	476	394	393	386	454	708	9,538	20,017	5,048	826	590
Mean	15.7	15.9	12.7	12.7	13.8	14.6	23.6	308	667	163	26.6	19.7
Cfsm	0.321	0.325	0.260	0.260	0.282	0.299	0.483	6.30	13.64	3.33	0.544	0.403
In.	0.37	0.36	0.30	0.30	0.29	0.35	0.54	7.25	15.22	3.84	0.63	0.45
Ac-ft	964	944	780	780	766	900	1,400	18,920	39,700	10,010	1,640	1,170

Calendar year 1954 : Max 1,310 Min 10 Mean 150 Cfsm 3.07 In. 41.58 Ac-ft 108,500
Water year 1954-55 : Max 1,100 Min 10 Mean 108 Cfsm 2.21 In. 29.90 Ac-ft 77,980

Peak discharge (base, 850 cfs).--May 21 (9 p.m.) 1,040 cfs (7.25 ft); June 11 (9 p.m.) 1,440 cfs (7.75 ft); June 21 (9:30 p.m.) 985 cfs (7.18 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 29 to Dec. 2, Dec. 8-29, Jan. 3 to Feb. 3, Feb. 5, Feb. 7 to about Apr. 15. No gage-height record Jan. 8-25, Jan. 31 to Feb. 2, Feb. 7 to Mar. 14, Mar. 21 to Apr. 17, Apr. 19-22; discharge estimated on basis of weather records, records for station below Lake Irrigation District Canal, Johnson Creek near Yellowpine, and other nearby streams.

Lake Fork Reservoir near McCall, Idaho

Location.--Lat 44°54', long 116°03', in NW¼NW¼ sec. 13, T. 18 N., R. 3 E., on Lake Fork Payette River, 3 miles east of McCall.

Drainage area.--64 sq mi, approximately.

Records available.--April 1926 to September 1955 (fragmentary).

Gage.--Staff gage and graduations on concrete gate-control structure of dam; gage read once daily during irrigation season. Datum of gage is at mean sea level (levels by Lake Irrigation District).

Extremes.--Maximum contents observed during year, 19,070 acre-ft July 14 (elevation, 5,118.34 ft); practically no storage at times during fall and winter.
1926-55: Maximum contents observed, 19,740 acre-ft June 19, 1941 (elevation, 5,118.75 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 ft (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 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. Stage in reservoir reported below 5,101.0 ft as follows: Nov. 29, 5,100.31 ft; Dec. 28, 5,099.56 ft; Feb. 3, 5,099.48 ft; Mar. 15, 5,099.37 ft; Apr. 4, 5,099.22 ft; Apr. 17, 5,100.98 ft. Storage figures from gage heights as observed.

Cooperation.--Elevation record and capacity table furnished by Lake Irrigation District.

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,530						-	-	-	18,830	14,520	3,310
2	-						-	-	-	18,810	14,140	3,030
3	-						-	-	14,620	18,810	13,770	2,760
4	-						-	1,400	-	18,830	13,360	2,520
5	-						-	-	-	18,850	12,960	2,290
6	-						-	-	-	18,850	12,590	2,040
7	-						-	-	16,160	18,940	12,230	1,850
8	-						-	-	17,030	18,910	11,870	1,680
9	-						-	3,400	17,290	18,910	11,510	1,560
10	-						-	-	17,570	18,910	11,120	1,460
11	-						-	-	17,630	18,990	10,790	1,360
12	-						-	-	17,710	19,060	10,390	1,260
13	-						-	-	17,790	19,060	10,010	1,180
14	-						-	7,340	17,760	19,070	9,610	1,140
15	-						-	-	17,570	19,010	9,220	1,080
16	-						-	-	-	18,970	8,840	1,070
17	-						-	-	16,850	18,890	8,430	1,090
18	-						-	-	16,990	18,750	8,030	-
19	-						154	-	17,190	18,520	7,650	1,040
20	-						-	10,600	17,540	18,320	7,310	-
21	-						-	-	17,980	18,050	6,900	-
22	-						-	-	18,330	17,790	6,540	-
23	-						-	14,110	18,520	17,510	6,140	843
24	-						355	-	18,440	17,320	5,770	-
25	471						-	-	18,280	17,030	5,390	-
26	-						-	-	18,000	16,720	5,080	-
27	-						-	14,180	18,110	16,390	4,760	-
28	-						-	-	18,350	16,010	4,450	-
29	-						-	-	18,750	15,660	4,170	-
30	-				-------		-	14,120	18,850	15,290	3,880	a608
31	-	-------			-------		-	a14,250		14,890	3,570	
(†)	-						-	a5,115.26	5,118.20	5,115.68	5,106.95	a5,102.26
(‡)	-						-	-	+4,600	-3,960	-11,320	-2,962

a Interpolated.

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 1955 (irrigation seasons only 1927-34, 1942, 1946).

Gage.--Staff gage read once or twice daily. Altitude of gage is 5,090 ft (from topographic map). Prior to May 1947, staff gage at same site at different datum.

Extremes.--1926-55: Maximum daily discharge, 205 cfs July 18, 1953; no flow or small amount of leakage through headgate during nonirrigation seasons.

Remarks.--Records good except those of 10 cfs or less, which are poor. No diversion between head 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	a1							0	175	162	107
2	a1	a1							0	175	162	105
3	a1	a1			(*)				0	174	160	102
4	a1	a1							0	174	159	101
5	a1	a1							0	174	156	98
6	a1	a1							0	170	150	72
7	a1	a1							35	163	145	59
8	a1	a1							61	157	142	55
9	a1	a1							75	153	141	52
10	a1	a1							102	151	141	43
11	a1	a1							118	150	144	40
12	a1	a1							127	149	150	36
13	a1	a1							142	148	153	34
14	a1	a1							153	148	153	34
15	a1	a1				(*)			157	147	153	34
16	a1	a1							159	148	151	*26
17	a1	a1							163	149	150	23
18	a1	a1							171	150	147	a24
19	a1	a4					(*)		176	*150	146	24
20	a1	a10							177	153	146	a24
21	a1	a10							183	158	146	a23
22	a1	a5							190	160	147	a23
23	a1	a1							*191	160	*143	23
24	a1	a4							188	160	139	a23
25	*1	a10							189	158	126	a22
26	a1	a5							185	156	116	a22
27	a1	a0						(*)	184	159	112	a22
28	a1	a0	(*)						188	162	112	a22
29	a1	*0							181	163	114	a21
30	a1	0			------				175	166	115	a21
31	a1	------			------		------		------	165	109	------
Total	38	67	0	0	0	0	0	0	3,670	4,925	4,390	1,315
Mean	1.2	2.2	0	0	0	0	0	0	122	159	142	43.8
Ac-ft	75	133	0	0	0	0	0	0	7,280	9,770	8,710	2,610

Calendar year 1954: Max 176 Min 0 Mean 42.5 Ac-ft 30,770
Water year 1954-55: Max 191 Min 0 Mean 39.5 Ac-ft 28,580

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of record of gate changes and record for Lake Fork Payette River below Lake Irrigation District Canal.

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 1955.

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

Average discharge.--15 years, 129 cfs (93,390 acre-ft per year).

Extremes.--Maximum discharge during year, 1,100 cfs June 12 (gage height, 5.66 ft); minimum, 2.3 cfs Apr. 23-25, 27, 28 (gage height, 1.92 ft).
1940-55: 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 except those below 50 cfs, which are good, and those for period of no gage-height record, which are poor. Flow regulated by Lake Fork Reservoir (see p. 176). Lake Irrigation District Canal diverts above station for irrigation of about 6,800 acres.

Revisions (water years).--WSP 963: 1941.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	2.0	2.6	23	4.0	275
2.0	3.4	2.8	41	4.5	490
2.2	6.8	3.0	67	5.0	740
2.4	12	3.5	152	5.7	1,120

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	29	32	b15	b16	b16	20	3.1	346	144	76	53
2	48	29	29	b15	b16	b16	20	3.1	350	100	74	53
3	48	29	28	b15	*b16	b16	20	3.0	372*	82	74	52
4	48	28	27	b15	b16	b16	14	2.6	395	80	73	49
5	47	28	25	b15	b16	b16	7	2.8	426	82	72	48
6	47	33	25	b15	b16	b16	7	3.0	490	85	70	63
7	47	27	24	b15	b16	b16	7	3.0	565	93	68	64
8	46	26	22	b15	b16	b16	7	3.3	760	92	67	42
9	45	26	21	b15	16	b16	7	3.7	1,020	85	67	32
10	45	25	21	b15	b16	16	7	4.2	1,050	78	66	32
11	43	25	20	15	b16	16	7	4.5	1,040	78	64	33
12	43	25	19	15	b16	16	7	4.7	1,070	92	67	33
13	42	25	20	15	b16	b16	7	4.7	1,040	82	67	33
14	41	25	19	15	b16	b16	7	6.5	1,000	79	66	32
15	41	26	19	b15	16	*b16	7	9.1	878	84	66	31
16	40	27	b19	16	16	b16	7	9.4	630	79	64	*35
17	39	26	b18	16	16	b16	7	9.4	335	79	63	37
18	39	26	18	16	b16	b16	7	9.4	296	84	59	35
19	38	22	17	16	b16	b16	*7.0	9.8	310	*87	60	34
20	38	17	17	16	b16	16	7.3	37	354	82	57	34
21	37	16	17	b16	b16	17	7.3	165	426	84	57	33
22	37	19	16	b16	b16	17	5.9	318	505	82	56	32
23	36	24	16	16	b16	17	2.4	408	*540	80	57	30
24	35	20	15	16	b16	17	2.3	440	470	79	*57	29
25	*34	14	15	15	b16	17	2.3	436	386	78	52	29
26	34	30	b15	b15	b16	17	2.6	440	203	79	57	27
27	33	52	b15	b15	b16	18	2.3	*436	100	82	59	26
28	32	45	*b15	b15	b16	18	2.3	408	113	84	56	25
29	31	*41	b15	b15	-	19	2.6	395	194	82	51	24
30	31	36	b15	16	------	19	2.7	377	194	79	51	24
31	30	------	b15	16	------	19	------	334	------	78	52	------
Total	1,234	821	609	476	448	515	219.0	4,293.3	15,858	2,634	1,945	1,104
Mean	39.8	27.4	19.6	15.4	16.0	16.6	7.30	138	529	85.0	62.7	36.8
Ac-ft	2,450	1,630	1,210	944	889	1,020	434	8,520	31,450	5,220	3,860	2,190

Calendar year 1954: Max 1,350 Min 14 Mean 126 Ac-ft 91,260
Water year 1954-55: Max 1,070 Min 2.3 Mean 82.6 Ac-ft 59,820

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Mar. 20 to Apr. 18; discharge estimated on basis of weather records and records for Lake Fork Reservoir, Lake Fork Payette River above Jumbo Creek, and records for nearby streams.

Cascade Reservoir at Cascade, Idaho

Location.--Lat 44°31'30", long 116°03'00", 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 1955.

Gage.--Staff gage read once daily. Datum of gage is at mean sea level (preliminary, unadjusted levels of U. S. Coast and Geodetic Survey).

Extremes.--Maximum contents observed during year, 404,900 acre-ft July 2, 9-14 (elevation, 4,815.00 ft); minimum, 113,300 acre-ft Feb. 26-28, on basis of inflow-outflow studies.
1948-55: Maximum contents observed, 405,100 acre-ft June 20, 1953 (elevation, 4,815.01 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 ft (4.0 ft above sill of outlet tunnel) and 4,828 ft (top of spillway gates). Figures herein show 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 1954-55 (elevation, in feet, and contents, in acre-feet)

4,795.0	108,900
4,800.0	165,200
4,805.0	233,500
4,810.0	313,500
4,815.0	404,900

Contents, in acre-feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	208,500	137,000	132,600	137,900	120,400	113,700	114,600	140,100	265,600	403,500	375,200	279,100
2	204,200	135,600	132,200	138,400	120,000	114,000	114,700	143,600	268,800	404,900	370,900	275,400
3	201,000	133,400	131,800	138,400	119,500	114,200	114,800	146,600	272,000	404,500	366,400	271,800
4	197,700	132,300	131,300	138,200	119,000	114,400	114,900	147,400	275,200	403,300	361,800	268,300
5	194,300	132,300	131,000	138,100	118,400	114,600	115,100	155,300	280,100	402,900	358,000	264,800
6	191,000	132,200	131,000	137,900	117,900	114,200	115,300	160,200	285,000	402,900	354,300	261,400
7	187,200	132,200	133,200	137,700	117,400	113,800	115,600	166,400	289,900	402,900	351,100	258,000
8	184,100	132,000	135,400	137,300	116,900	113,600	115,800	171,500	296,600	403,900	348,200	254,200
9	181,000	132,100	137,700	137,000	116,500	113,700	116,000	176,600	304,100	404,900	345,700	250,400
10	177,100	131,900	140,000	136,300	116,100	113,800	116,900	181,100	312,600	404,900	343,800	246,400
11	173,800	131,000	140,300	135,500	115,800	113,900	118,300	185,000	321,300	404,900	341,400	242,500
12	170,200	132,000	140,900	134,800	116,000	114,000	118,900	188,300	330,900	404,900	339,100	238,600
13	167,400	132,200	141,800	133,800	116,100	114,100	119,400	192,300	341,400	404,900	336,800	234,500
14	164,800	131,700	142,800	132,800	116,100	114,100	120,900	195,000	351,300	404,900	334,600	230,400
15	162,100	131,700	143,200	131,700	116,100	114,100	123,000	196,400	361,200	404,100	332,100	226,300
16	160,300	131,700	143,200	130,900	116,000	114,100	124,100	200,400	370,500	402,900	329,600	222,200
17	158,500	132,000	143,200	130,200	115,900	114,100	124,800	203,200	377,000	402,400	327,200	219,300
18	157,200	132,300	143,200	129,500	115,800	114,100	125,700	206,000	380,800	401,800	324,700	216,400
19	155,400	132,600	142,800	128,800	115,700	114,100	126,800	208,800	382,700	400,800	322,000	213,800
20	154,300	132,600	142,300	128,100	115,600	114,100	127,800	211,000	385,600	399,000	318,800	211,300
21	152,600	133,400	141,800	127,400	115,000	114,000	128,900	213,800	386,500	398,100	315,600	208,700
22	151,300	133,500	141,400	126,700	114,600	113,900	130,000	218,900	389,400	397,700	312,300	206,200
23	150,300	133,600	140,900	125,900	114,200	113,800	131,100	223,900	392,800	396,500	309,200	203,500
24	148,600	133,600	140,400	125,300	113,800	113,700	132,200	229,800	397,100	396,100	306,200	200,800
25	146,800	133,600	140,000	124,600	113,400	113,600	133,300	235,000	398,100	395,700	303,100	198,200
26	145,300	133,600	139,500	123,900	113,300	113,500	134,400	239,500	399,000	395,000	300,100	195,700
27	143,600	133,500	139,000	123,200	113,300	113,700	135,000	244,700	399,000	393,200	296,900	192,900
28	142,300	133,500	138,600	122,500	113,300	113,900	135,500	250,100	396,100	390,300	293,600	190,100
29	140,700	133,500	138,200	122,000	-	114,100	136,700	253,200	398,100	386,500	290,200	187,300
30	139,200	133,100	137,900	121,500	-------	114,400	137,800	257,800	401,000	382,700	286,600	184,500
31	138,000	-------	137,600	120,900	-------	114,600	-------	260,900	-------	378,900	282,800	-------
(†)	4,797.69	4,797.30	4,797.72	-	-	-	-	4,806.91	4,814.90	4,813.50	4,808.00	4,801.35
(‡)	137,300	133,000	137,700	e120,700	e113,400	e114,600	e138,600	262,600	402,900	376,100	280,100	182,400
(††)	-72,100	-4,300	+4,700	-17,000	-7,300	+1,200	+24,000	+124,000	+140,300	-26,800	-96,000	-97,700

Calendar year 1954: (††) +11,800
Water year 1954-55: (††) -27,000

† Elevation, in feet, at 12 p.m. on last day of month (interpolated).
‡ Contents, in acre-feet, at 12 p.m. on last day of month.
†† Change in contents in acre-feet.
e Contents interpolated to midnight.

Note.--Daily contents as given are computed from once-daily staff-gage readings made about 6:30 a.m. Oct. 1 to Nov. 2, about 4 p.m. Nov. 3 to June 2, and about 6 a.m. June 3 to Sept. 30.

North Fork Payette River at Cascade, Idaho

Location.--Lat 44°31', long 116°02', in NE¼ sec. 36 T. 14 N., R. 3 E., on right bank at Cascade, 285 ft downstream from Halleck and Howard milldam, half a mile upstream from Beaver Creek, and 1½ miles downstream from Cascade Dam.

Drainage area.--626 sq mi.

Records available.--May 1941 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,730 ft (from topographic map of Bureau of Reclamation). Prior to Jan. 28, 1947, staff gages at present or nearby sites at present datum.

Average discharge.--14 years, 1,022 cfs (739,900 acre-ft per year).

Extremes.--Maximum discharge during year, 3,150 cfs Aug. 2 (gage height, 3.38 ft); minimum, 10 cfs May 13 (gage height, 0.02 ft).
1941-55: Maximum discharge recorded, 7,320 cfs May 10, 1947 (gage height, 6.29 ft); minimum, 2 cfs or less in January 1948 when stage was below intake.

Remarks.--Records excellent except those from about 1,000 to 2,500 cfs, which are good. Flow regulated by Cascade Reservoir (see preceding page), Payette Lake (see p. 173), Lake Fork Reservoir (see p. 176), and occasionally by milldam at Cascade. Diversions above station for irrigation of about 37,000 acres.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 16 to July 8, July 27 to Aug. 5)

0.7	135	2.0	1,040
1.0	264	2.5	1,720
1.5	578	3.0	2,640

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,000	930	541	235	424	230	244	269	269	1,120	2,180	1,820
2	2,000	930	511	235	456	230	244	264	269	1,420	2,410	1,820
3	1,910	940	511	380	511	230	244	225	275	1,380	2,300	1,820
4	1,840	587	490	541	*436	230	244	249	275	1,160	2,070	1,890
5	1,890	249	240	534	417	296	244	249	275	1,040	1,910	1,930
6	1,890	254	220	*534	405	424	244	244	275	1,040	1,740	1,930
7	1,890	249	225	534	430	424	249	244	280	1,000	1,440	2,000
8	1,870	249	235	611	430	351	249	244	280	822	1,210	2,000
9	1,860	235	235	687	417	230	259	244	280	970	1,210	2,030
10	1,860	254	240	696	430	235	264	249	285	1,070	1,210	2,070
11	1,820	254	244	696	374	240	254	249	285	1,170	1,210	2,070
12	1,770	259	317	696	235	244	249	254	290	1,300	1,210	2,050
13	1,740	259	424	696	230	244	254	190	386	1,260	1,210	2,050
14	1,520	244	354	696	230	244	259	158	578	1,330	1,210	2,050
15	980	259	526	627	230	230	351	254	768	1,300	1,210	2,030
16	1,000	264	424	578	235	235	249	254	1,210	1,270	1,210	1,930
17	1,000	259	497	578	235	235	244	254	1,500	1,220	1,210	1,770
18	990	254	541	578	235	235	249	254	*1,750	1,130	1,400	1,620
19	980	249	541	578	235	235	244	254	1,750	*1,060	1,580	1,520
20	980	249	541	578	290	230	240	254	1,770	950	1,670	1,520
21	950	235	540	578	430	230	244	254	1,620	777	1,700	1,500
22	910	244	540	578	430	*240	259	254	1,520	732	1,700	*1,520
23	910	244	545	571	430	244	254	254	1,820	732	1,690	1,500
24	910	244	545	571	430	254	254	259	2,430	732	*1,690	1,500
25	910	230	548	571	357	244	249	*264	2,640	696	1,690	1,500
26	*910	240	548	578	235	244	249	269	2,640	950	1,690	1,480
27	910	240	548	578	235	244	249	269	2,000	1,350	1,690	1,480
28	910	230	548	497	235	244	*244	269	950	1,790	1,690	1,480
29	940	240	541	424	-	249	259	269	930	1,820	1,770	1,520
30	940	*334	548	424	------	249	269	269	900	1,910	1,840	1,520
31	940	------	368	424	------	249	------	269	------	2,130	1,840	------
Total	41,930	9,888	13,676	17,082	9,667	7,943	7,608	7,755	30,500	36,631	49,790	52,920
Mean	1,353	330	441	551	345	256	254	250	1,017	1,182	1,606	1,764
Ac-ft	83,170	19,610	27,130	33,880	19,170	15,750	15,090	15,380	60,500	72,660	98,760	105,000

Calendar year 1954: Max 3,890 Min 67 Mean 1,059 Ac-ft 766,600
Water year 1954-55: Max 2,640 Min 158 Mean 782 Ac-ft 566,100

* Discharge measurements made on this day.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 3,081.13 ft above mean sea level, preliminary unadjusted elevation.

Average discharge.--8 years, 1,348 cfs (975,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,940 cfs June 25 (gage height, 8.98 ft); minimum, 167 cfs Mar. 5, 6 (gage height, 3.87 ft).
1947-55: 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 except those for periods of ice effect, which are good. Flow regulated by Payette Lake (see p. 173), Lake Fork Reservoir (see p. 176), Cascade Reservoir (see p. 179), and occasionally by milldam at Cascade. Many diversions from tributaries above station for irrigation.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.1	216	6.0	915
4.4	294	7.0	1,460
4.8	416	8.0	2,120
5.3	596	9.0	2,960

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*1,990	995	416	416	492	245	344	1,310	840	1,100	2,250	1,850
2	1,990	*995	631	329	471	294	353	1,310	840	1,360	2,290	1,850
3	1,970	1,000	612	286	566	300	332	*1,250	850	1,620	2,460	1,850
4	1,880	990	616	423	464	283	338	1,150	840	1,540	2,240	1,860
5	1,950	436	517	612	507	253	335	1,220	855	1,310	2,080	1,950
6	1,970	326	326	627	450	323	341	1,250	915	1,250	1,940	1,950
7	1,960	314	308	*592	474	551	356	1,150	970	1,230	1,650	1,970
8	1,950	308	*280	612	507	507	372	1,100	1,030	1,120	1,440	2,020
9	1,940	308	286	760	499	419	394	1,060	1,060	1,030	1,280	2,020
10	1,940	303	320	815	457	335	478	1,000	1,100	1,260	1,290	2,070
11	1,930	311	266	785	454	300	496	995	1,100	1,310	1,280	2,060
12	1,900	341	283	775	375	326	478	1,020	1,120	1,470	1,270	2,060
13	1,850	353	416	785	300	317	489	1,030	1,120	*1,470	1,270	2,060
14	1,820	347	474	785	314	308	577	850	1,220	1,450	1,260	2,070
15	1,310	353	460	780	314	300	566	835	*1,370	1,480	1,260	2,080
16	1,060	419	499	675	314	291	663	845	1,510	1,410	1,260	2,090
17	1,090	390	454	655	306	297	540	825	1,750	1,380	1,260	1,940
18	1,080	362	b560	651	269	306	585	755	2,110	1,300	*1,280	1,800
19	1,060	344	b590	651	238	308	573	815	2,160	1,180	1,540	1,620
20	1,060	335	b590	643	266	294	551	945	2,190	1,140	1,650	1,590
21	1,050	329	b590	643	368	297	562	1,220	2,170	920	1,710	*1,590
22	985	311	b590	623	540	*300	815	1,270	1,940	820	1,720	1,580
23	970	323	b590	647	482	297	925	1,150	1,900	800	1,710	1,580
24	965	320	b590	655	*499	300	875	1,050	2,230	780	1,710	1,570
25	965	320	b590	655	474	314	830	965	2,920	755	1,720	1,570
26	965	308	585	647	384	311	770	965	2,890	745	1,710	1,560
27	965	317	543	639	286	320	675	*960	2,790	1,140	1,720	1,560
28	960	308	b560	631	297	329	623	875	1,680	1,760	1,710	1,550
29	980	277	b600	496	-	338	707	850	1,230	1,890	1,730	1,560
30	995	274	b580	468	------	338	1,040	925	1,200	2,000	1,830	1,600
31	995	------	b580	507	------	329	------	900	------	2,120	1,840	------
Total	44,495	12,617	15,302	19,268	11,367	10,030	16,983	31,845	45,900	40,140	51,360	54,480
Mean	1,435	421	494	622	406	324	566	1,027	1,530	1,295	1,657	1,816
Ac-ft	88,250	25,030	30,350	38,220	22,550	19,890	33,690	63,160	91,040	79,620	101,900	108,100

Calendar year 1954: Max 4,240 Min 186 Mean 1,375 Ac-ft 995,600
Water year 1954-55: Max 2,920 Min 238 Mean 969 Ac-ft 701,800

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

Payette River near Horseshoe Bend, Idaho

Location.--Lat 43°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 1955. 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, preliminary. Prior to Nov. 23, 1912, staff gage at site 1¼ 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.--46 years (1906-16, 1919-55), 3,167 cfs (2,293,000 acre-ft per year).

Extremes.--Maximum discharge during year, 8,030 cfs May 22 (gage height, 9.66 ft); minimum daily, 630 cfs Nov. 30.
1906-16, 1919-55: 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 (see p. 169), Payette Lake (see p. 173), Lake Fork Reservoir (see p. 176) and Cascade Reservoir (see p. 179). Diversions from tributaries above station for irrigation of about 50,000 acres.

Revisions.--WSP 533: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	655	6.0	2,800
2.6	730	7.0	3,910
3.0	860	8.0	5,230
4.0	1,330	10.0	8,770
5.0	1,950		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*2,780	1,580	840	1,120	1,020	794	1,040	3,460	4,620	3,720	3,250	3,420
2	2,670	*1,580	1,100	960	988	842	1,140	3,780	4,600	3,720	3,250	3,420
3	2,610	1,570	1,300	904	960	825	1,030	3,610	4,640	3,870	3,430	3,420
4	2,500	1,570	1,280	888	996	808	996	3,330	4,620	3,800	3,460	3,420
5	2,560	1,100	1,150	1,060	1,000	775	988	3,920	4,820	3,670	3,590	3,440
6	2,580	904	920	1,160	1,000	782	1,060	5,010	5,300	3,400	3,660	3,380
7	2,560	884	900	1,130	976	1,100	1,240	5,120	6,050	3,320	3,550	3,370
8	2,560	884	*836	1,170	1,020	1,080	1,490	5,450	6,910	3,320	3,480	3,330
9	2,560	884	751	1,290	1,020	1,010	1,690	5,760	7,430	3,320	3,240	3,340
10	2,540	888	860	1,500	956	908	2,170	5,340	7,710	3,520	3,260	3,320
11	2,540	892	832	1,440	856	924	2,100	5,400	7,610	3,610	3,370	3,310
12	2,530	956	754	1,360	b850	968	1,670	5,680	7,730	*3,480	3,350	3,300
13	2,510	1,050	940	*1,330	850	976	1,530	5,660	7,690	3,440	3,420	3,300
14	2,460	968	1,040	1,380	846	908	1,620	5,090	7,320	3,380	3,410	3,310
15	2,000	980	976	1,350	839	853	1,560	4,360	*7,000	3,460	3,420	3,370
16	1,680	1,250	1,010	1,260	842	814	1,600	3,910	6,490	3,500	3,410	3,310
17	1,690	1,160	814	1,220	832	842	1,560	3,550	6,210	3,450	3,400	3,200
18	1,670	1,060	b850	1,180	811	872	1,830	3,380	6,190	3,430	3,400	2,990
19	1,660	980	b930	1,180	739	880	1,790	3,910	6,170	3,380	3,460	2,700
20	1,700	964	b980	1,170	751	842	1,680	4,920	6,320	3,380	3,560	2,600
21	1,670	940	b1,000	1,170	794	822	1,700	6,590	6,430	3,280	3,500	*2,550
22	1,600	924	b1,050	1,140	1,040	868	2,610	7,400	6,350	3,500	3,540	2,520
23	1,560	932	b1,050	1,140	1,030	868	2,810	6,660	6,370	3,380	*3,450	2,490
24	1,550	924	b1,150	1,200	*952	868	2,460	6,000	6,460	3,380	3,440	2,410
25	1,550	920	b1,150	1,190	1,000	884	2,280	5,370	6,590	3,410	3,440	2,400
26	1,550	908	1,160	1,180	980	884	2,230	5,170	6,040	3,310	3,420	2,400
27	1,550	908	1,040	1,150	828	916	2,060	*4,880	5,760	3,060	3,430	2,380
28	1,540	892	b1,000	1,100	811	972	1,870	4,370	4,730	3,280	3,420	2,360
29	1,560	730	b1,150	1,000	-	*1,020	*1,990	4,340	4,410	3,070	3,410	2,360
30	1,580	630	b1,200	992	------	1,060	2,560	4,890	4,250	3,070	3,410	2,400
31	1,580	------	1,320	1,040	------	1,020	------	4,950	------	3,150	3,420	------
Total	63,650	30,812	31,333	36,354	25,587	27,985	52,354	151,260	182,820	106,060	106,250	89,520
Mean	2,053	1,027	1,011	1,173	914	903	1,745	4,879	6,094	3,421	3,427	2,984
Ac-ft	126,200	61,110	62,150	72,110	50,750	55,510	103,800	300,000	362,600	210,400	210,700	177,600

Calendar year 1954: Max 12,400 Min 630 Mean 3,574 Ac-ft 2,588,000
Water year 1954-55: Max 7,730 Min 630 Mean 2,477 Ac-ft 1,793,000

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

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 2,400 ft (from topographic map).

Average discharge.--30 years, 2,953 cfs (2,138,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,740 cfs June 14 (gage height, 7.12 ft); minimum, 50 cfs Jan. 30 (gage height, 0.00 ft); minimum daily, 434 cfs Dec. 1.
1925-55: Maximum discharge, 22,800 cfs May 1, 1938 (gage height, 12.90 ft); minimum daily, 3 cfs Jan. 10-14, Feb. 2, 22-25, 1938, when gates in dam were closed.

Remarks.--Records excellent. Diversions above station for irrigation of about 135,000 acres. Flow regulated by diversion at and operation of gates in Black Canyon Dam and by Cascade Reservoir (see p. 179), Deadwood Reservoir (see p. 169), Payette Lake (see p. 173), and Lake Fork Reservoir (see p. 176).

Cooperation.--Gage-height record collected in cooperation with Bureau of Reclamation.

Revisions (water years).--WSP 1153: 1946(m), 1948(m).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.8	430	4.0	2,770
2.0	550	5.0	4,150
2.3	790	6.0	5,700
3.0	1,540	7.0	7,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*1,820	1,610	434	1,400	1,100	912	1,330	3,610	3,400	2,460	1,660	1,840
2	1,900	1,620	810	1,090	1,050	830	1,540	4,280	3,370	2,320	1,650	1,840
3	1,880	*1,650	1,260	968	1,010	976	1,380	*4,000	3,330	2,470	1,840	1,830
4	1,820	1,590	1,490	890	978	875	1,320	3,660	3,360	2,390	1,820	1,830
5	1,820	1,270	1,330	916	1,070	723	1,200	4,090	3,580	2,360	2,060	1,800
6	1,820	1,130	1,060	1,070	901	640	1,330	5,360	4,150	2,000	2,100	1,900
7	1,820	861	868	1,140	995	1,130	1,360	5,540	4,950	1,900	2,010	1,770
8	1,880	919	*883	1,070	1,030	1,170	1,400	5,600	5,800	1,880	1,980	1,770
9	1,840	740	852	1,090	1,160	1,230	1,770	5,850	6,460	1,790	1,770	1,780
10	1,800	834	876	1,360	1,170	1,060	2,420	5,200	6,790	2,000	1,640	1,780
11	1,800	948	915	1,390	850	1,340	2,340	5,110	6,640	2,140	1,800	1,790
12	1,840	954	754	1,300	919	1,550	1,680	5,240	6,820	*2,020	1,770	1,780
13	1,880	1,170	946	1,320	838	1,800	1,540	5,280	6,860	1,960	1,820	1,800
14	1,860	1,040	1,020	1,460	917	1,170	1,340	4,630	6,530	1,860	1,800	1,840
15	1,790	962	1,100	1,370	818	1,050	1,450	3,850	6,110	1,900	1,830	2,020
16	1,700	1,100	1,050	1,370	870	904	1,280	3,260	*5,560	1,910	1,800	*2,120
17	1,720	1,310	768	*1,240	954	1,050	1,440	2,820	5,200	1,880	1,770	2,140
18	1,760	1,270	800	1,270	892	1,100	2,390	2,500	5,000	1,850	1,790	1,970
19	1,720	1,020	924	1,320	728	1,200	2,470	2,820	5,090	1,780	1,850	1,910
20	1,720	967	928	1,170	679	997	2,180	3,800	5,190	1,790	2,000	1,770
21	1,770	958	1,020	1,080	742	1,010	2,120	5,570	5,360	1,680	1,920	1,680
22	1,720	984	1,010	1,310	986	817	4,110	6,660	5,220	1,850	1,970	1,710
23	1,710	986	1,150	1,170	1,100	1,090	3,890	5,680	5,220	1,790	*1,910	1,740
24	1,670	834	1,200	1,210	*1,100	1,050	3,270	4,900	5,190	1,770	1,890	1,720
25	1,580	779	1,210	1,200	975	1,190	2,850	4,300	5,520	1,790	1,890	1,660
26	1,580	1,140	1,330	1,330	1,120	1,080	2,870	4,000	4,840	1,720	1,890	1,700
27	1,560	921	1,050	1,140	882	1,110	2,730	3,890	4,540	1,460	1,850	1,670
28	1,580	878	926	1,150	920	1,210	2,360	3,220	3,610	1,560	1,880	1,700
29	1,580	746	1,050	1,050	-	1,420	2,020	3,060	3,150	1,550	1,890	1,670
30	1,590	802	1,150	820	------	*1,440	2,680	3,610	3,130	1,490	1,860	1,730
31	1,610	------	1,480	1,330	------	1,300	------	*3,790	------	1,580	1,860	------
Total	54,140	31,993	31,642	36,994	26,754	34,424	62,060	135,160	149,970	58,900	57,570	54,260
Mean	1,746	1,066	1,021	1,193	956	1,110	2,069	4,360	4,999	1,900	1,857	1,809
Ac-ft	107,400	63,460	62,760	73,380	53,070	68,280	123,100	268,100	297,500	116,800	114,200	107,600

Calendar year 1954: Max 11,400 Min 434 Mean 3,152 Ac-ft 2,282,000
Water year 1954-55: Max 6,860 Min 434 Mean 2,011 Ac-ft 1,456,000

* Discharge measurement made on this day.

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 at highway bridge, 1¾ miles south of Payette.
Drainage area.--3,240 sq mi, approximately.
Records available.--August 1935 to September 1955. Records for January 1895 to July 1897, published as "at Payette" in 18th and 19th Annual Reports, 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.--20 years (1935-55), 3,095 cfs (2,241,000 acre-ft per year).
Extremes.--Maximum discharge during year, 7,030 cfs May 22; maximum gage height, 8.08 ft June 13; minimum discharge, 516 cfs Feb. 18 (gage height, 4.61 ft); minimum daily, 800 cfs Dec. 1.
1935-55: Maximum discharge, 23,400 cfs May 2, 1938 (gage height, 11.90 ft); minimum, 180 cfs Oct. 13, 20, 1935 (gage height, 2.04 ft); minimum daily, 220 cfs Oct. 5, 1935.
Revisions.--The figures of minimum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1153	1949	Dec. 27, 1948	371	4.14
1247	1952	Jan. 21, 1952	290	3.92
1287	1953	Nov. 12, 1952	490	4.56
1347	1954	Jan. 14, 1954	586	4.73

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Diversions above station for irrigation of about 188,000 acres. Flow regulated by Black Canyon Dam and reservoirs on tributary streams.
Revisions (water years).--See Records available. Revised figures of discharge, in cubic feet per second, for low-water periods in the water year 1952, superseding those published in WSP 1247, are given herewith:

1952
Jan. 9..... 348
20..... 348
21..... 310
22..... 320

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1952.....	45,407	2,460	310	1,465	90,060
Water year 1951-52.....	-	16,500	310	4,262	3,094,000
Calendar year 1952.....	-	16,500	310	4,030	2,925,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,940	1,970	a800	b1,800	1,450	1,250	1,640	3,460	3,020	2,410	1,110	1,510
2	*1,940	1,990	a1,100	b1,500	1,570	1,350	1,840	4,560	2,790	2,090	1,200	1,490
3	1,950	*1,990	a1,500	1,510	1,480	1,560	1,840	4,650	2,710	2,110	1,230	1,460
4	1,940	2,010	a1,800	1,170	a1,400	1,270	1,560	*4,210	2,790	2,170	1,360	1,510
5	1,900	1,970	a1,700	1,190	a1,450	1,170	1,650	3,990	2,810	2,130	1,380	1,540
6	1,940	1,490	a1,500	1,440	a1,300	920	1,550	5,100	3,170	1,840	1,510	1,540
7	1,920	1,330	a1,300	1,360	a1,300	1,260	1,700	5,730	3,860	1,710	1,560	1,510
8	1,920	1,340	a1,100	1,380	a1,350	1,630	1,840	5,700	4,760	1,520	1,510	1,470
9	1,940	1,280	*1,230	a1,400	a1,450	1,750	1,820	5,930	5,630	1,440	1,460	1,490
10	1,940	1,130	1,140	a1,500	a1,450	1,590	2,330	5,390	6,130	1,410	1,290	1,520
11	1,920	1,210	1,480	1,700	a1,150	1,770	2,870	4,810	6,260	1,630	1,330	1,540
12	1,950	1,320	1,180	1,750	a1,200	1,930	2,130	4,880	6,280	1,700	1,380	1,520
13	2,070	1,620	1,160	1,470	a1,150	2,390	1,880	4,980	6,510	1,560	1,330	1,590
14	2,050	1,450	1,310	*1,800	a1,200	1,750	1,730	4,460	6,280	*1,360	1,410	1,680
15	2,090	1,670	1,510	b1,740	1,180	1,440	1,860	3,660	5,760	1,290	1,410	1,920
16	1,940	1,400	1,350	1,740	1,190	1,380	1,750	3,120	*5,310	1,230	1,430	2,030
17	1,860	1,690	1,310	1,690	1,230	1,160	1,790	2,690	4,760	1,250	1,430	2,190
18	1,840	1,750	985	1,600	1,240	1,400	2,940	2,330	4,510	1,260	1,470	2,070
19	1,840	1,460	b1,200	1,590	1,080	1,630	3,120	2,230	4,560	1,200	1,520	1,990
20	1,860	1,310	b1,300	1,560	1,040	1,430	2,750	2,870	4,560	1,150	1,460	1,970
21	2,030	1,440	b1,300	b1,500	1,070	1,550	2,550	4,120	4,720	1,150	1,540	1,840
22	1,970	1,370	b1,440	b1,500	1,090	1,160	4,240	6,180	4,580	1,120	1,540	*1,800
23	1,970	1,370	b1,420	1,540	1,360	1,270	4,710	5,700	4,530	1,290	1,560	1,790
24	1,950	1,310	1,320	1,490	1,400	1,490	3,880	4,650	4,490	1,250	1,520	1,770
25	1,950	1,190	1,760	1,540	*1,420	1,490	3,250	3,990	4,930	1,290	*1,490	1,700
26	1,950	1,350	1,610	b1,550	1,330	1,520	3,310	3,480	4,460	1,320	1,460	1,710
27	1,950	1,290	b1,550	1,580	1,450	1,430	3,120	3,550	4,010	1,220	1,470	1,700
28	1,940	1,300	b1,400	a1,500	1,190	1,610	2,770	2,960	3,480	1,070	1,470	1,680
29	1,950	1,050	b1,350	a1,400	-	1,710	2,590	2,630	2,830	1,250	1,470	1,660
30	1,940	1,000	b1,400	a1,300	------	*1,920	2,670	2,830	2,980	1,120	1,470	1,680
31	1,940	------	b1,800	a1,600	------	1,710	------	*3,250	------	1,070	1,470	------
Total	60,290	44,050	42,305	47,390	36,170	46,890	73,680	128,090	133,450	45,610	44,240	50,870
Mean	1,945	1,468	1,365	1,529	1,292	1,513	2,456	4,132	4,448	1,471	1,427	1,696
Ac-ft	119,600	87,370	83,910	94,000	71,740	93,000	146,100	254,100	264,700	90,470	87,750	100,900

Calendar year 1954: Max 11,100 Min 800 Mean 3,165 Ac-ft 2,291,000
Water year 1954-55: Max 6,510 Min 803 Mean 2,063 Ac-ft 1,494,000

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

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 1936 to September 1955.

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.--19 years, 43.1 cfs (31,200 acre-ft per year).

Extremes.--Maximum discharge during year, 392 cfs May 5 (gage height, 4.40 ft); minimum, 1.1 cfs Jan. 25 (gage height, 0.97 ft).
1936-55: Maximum discharge observed, 775 cfs Mar. 27, 1940 (gage height, 6.00 ft, site and datum then in use); minimum observed, 1.0 cfs Sept. 2, 1947 (gage height, 0.55 ft, site and datum then in use).

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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used Apr. 8 to May 24, Sept. 27-30)

1.1	2.1	2.2	54
1.2	3.8	2.6	92
1.3	6.0	3.0	152
1.4	8.8	3.5	250
1.6	17	4.0	350
1.9	33		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	6.0	b4.8	6.3	a5.6	4.9	*8.0	278	73	13	6.0	4.5
2	6.3	6.0	b5.0	5.8	a5.6	5.6	8.0	290	68	12	6.3	4.7
3	6.3	6.3	b5.5	b5.5	a5.2	5.8	7.7	288	64	12	6.0	4.5
4	6.6	6.0	6.3	6.0	a5.2	5.8	7.7	284	61	12	6.0	4.5
5	6.8	6.3	6.3	6.0	a5.2	b5.0	8.2	312	58	11	5.8	4.5
6	6.0	6.3	6.6	6.0	a5.6	5.1	9.5	344	53	11	5.8	4.2
7	6.3	6.6	6.0	5.8	a5.7	5.3	12	324	50	12	5.8	4.2
8	6.8	7.1	*5.8	5.8	5.8	5.8	20	308	46	9.5	5.6	4.5
9	6.0	6.8	5.6	5.8	5.8	6.3	34	278	*42	9.2	4.9	4.5
10	6.0	7.1	6.3	5.8	b5.4	6.6	52	252	38	9.5	4.5	4.9
11	6.3	7.1	b5.5	5.8	b5.0	6.6	54	242	32	*10	4.2	4.9
12	6.6	8.0	5.6	*5.6	5.3	6.6	42	*246	31	11	3.8	4.9
13	7.7	7.7	5.8	5.6	5.3	6.8	42	248	29	10	3.8	4.7
14	6.0	7.4	5.8	5.6	5.6	7.1	50	198	26	9.2	3.8	5.6
15	5.8	10	5.8	5.8	5.6	b6.6	43	152	24	8.8	4.2	*8.9
16	6.3	12	b5.6	5.8	5.6	b6.6	35	120	23	8.8	6.0	8.2
17	6.8	9.9	5.6	5.8	5.6	7.4	36	103	20	8.8	*5.6	9.9
18	6.6	7.4	5.3	5.8	b5.2	7.7	38	99	18	8.2	5.3	7.4
19	6.8	7.7	5.3	6.0	b5.0	8.8	37	115	17	7.7	5.6	5.8
20	6.6	7.1	5.8	5.8	b5.0	b6.4	37	162	16	7.7	5.3	5.3
21	6.8	7.1	5.8	6.0	*b5.0	6.8	57	202	15	7.7	5.3	5.6
22	6.8	6.8	5.8	5.8	5.6	7.1	154	202	13	7.4	5.3	5.3
23	6.3	6.8	5.8	12	5.6	6.8	167	167	12	7.7	5.1	5.1
24	6.3	6.6	5.8	7.4	5.6	6.6	136	134	13	8.0	5.1	5.1
25	6.3	6.6	5.8	4.0	5.6	6.6	112	115	15	8.0	4.9	5.1
26	6.3	6.6	5.8	3.1	5.8	6.6	134	112	14	7.1	4.9	6.3
27	6.0	7.4	b5.6	b5.0	5.8	6.3	108	108	12	6.8	4.9	6.0
28	*5.9	6.8	5.3	5.1	5.6	7.4	94	92	13	6.6	4.7	7.1
29	6.0	5.8	5.3	5.3	-	6.3	*126	88	17	6.3	4.9	7.7
30	5.8	b4.8	5.6	a5.4	------	7.4	198	84	14	6.3	4.9	8.2
31	5.8	------	5.8	a5.6	------	8.2	------	81	------	6.0	4.9	------
Total	196.8	214.1	176.1	181.1	152.9	200.9	1,867.1	5,986	927	279.1	159.2	172.1
Mean	6.35	7.14	5.68	5.84	5.46	6.48	62.2	193	30.9	9.00	5.14	5.74
Ac-ft	390	425	349	359	303	398	3,700	11,870	1,840	554	316	341

Calendar year 1954: Max 476 Min 4.8 Mean 46.3 Ac-ft 33,520
Water year 1954-55: Max 344 Min 3.1 Mean 28.8 Ac-ft 20,840

* 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 nearby stations.
b Stage-discharge relation affected by ice.

Lost Valley Reservoir near Tamarack, 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 1955 (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, 26.4 ft June 13; minimum observed, 6.18 ft Nov. 29.
1924, 1926-55: Maximum gage height observed, 26.90 ft May 14, 1940; no storage at times during 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.--Seventeen gage readings furnished by Lost Valley Reservoir Co.

Revisions.--WSP 833: Drainage area.

Gage height, in feet, October 1954 to September 1955

Date	Gage height	Date	Gage height	Date	Gage height	Date	Gage height
Oct. 28	8.86	June 2	24.1	July 10	26.31	Sept.24	10.36
Nov. 29	6.18	6	25.2	15	26.29	25	10.06
Jan. 13	6.93	9	26.08	Aug. 17	20.05	26	9.76
Mar. 16	7.42	11	26.38	25	17.94	28	9.16
May 13	20.0	13	26.4	Sept. 6	14.8	29	8.46
27	24.5	20	26.1	12	13.22		
31	24.2	25	26.1	15	12.64		

Note.--Gage-height readings obtained only on days listed above.

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 September 1955 (seasonal records only prior to 1931).

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.--25 years (1930-55), 38.5 cfs (27,870 acre-ft per year).

Extremes.--Maximum discharge during year, 264 cfs May 23 (gage height, 2.77 ft); minimum, 0.4 cfs Nov. 9 (gage height, 0.84 ft).
1910-14, 1920-21, 1924-55: Maximum discharge, 688 cfs May 17, 18, 1921 (gage height, 4.29 ft); practically no flow at times when gates in dam were closed.

Remarks.--Records good except 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.1	3.2	2.0	63
1.2	5.4	2.3	112
1.3	8.5	2.6	190
1.5	18	2.9	300
1.7	32		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	57	4.7	5.0	5.5	5.0	5.5	7.0	166	18	71	77
2	30	55	4.7	5.0	5.5	5.0	5.5	7.5	63	17	71	77
3	30	51	4.7	5.0	5.5	5.0	5.5	7.5	14	17	70	76
4	30	48	4.7	5.5	5.5	5.0	5.5	7.5	32	18	70	76
5	30	43	4.7	5.5	5.5	5.0	5.5	7.5	50	18	71	76
6	30	32	4.5	5.5	5.5	5.0	5.5	7.5	34	18	71	76
7	30	14	4.5	5.5	5.5	5.0	5.5	8.0	14	19	71	76
8	30	8.9	4.5	5.5	5.5	5.0	5.5	8.0	31	19	71	74
9	30	6.0	4.5	5.5	5.5	5.0	5.5	8.0	*49	18	71	74
10	29	3.8	4.5	5.5	5.5	5.0	5.5	8.0	69	*18	79	74
11	29	3.9	4.5	5.5	5.5	5.0	6.0	8.0	79	18	88	73
12	29	4.3	4.5	5.5	5.5	5.0	6.0	8.0	85	17	87	73
13	40	4.3	4.5	*5.5	5.5	5.0	6.0	*8.5	85	16	87	71
14	71	4.1	4.5	5.5	5.0	5.0	6.0	8.5	83	16	87	71
15	71	4.1	4.5	5.5	5.0	5.0	6.0	8.5	80	36	85	*71
16	71	4.3	4.5	5.5	5.0	*5.0	6.0	8.5	76	59	85	70
17	73	4.3	4.5	5.5	5.0	5.0	6.0	8.5	71	56	*85	69
18	73	4.3	4.5	5.5	5.0	5.0	6.0	9.3	66	55	85	69
19	76	4.3	4.5	5.5	5.0	5.0	6.0	26	61	53	85	67
20	74	4.3	4.5	5.5	5.0	5.0	6.5	80	48	53	83	67
21	73	4.3	4.5	5.5	5.0	5.0	6.5	157	37	53	83	69
22	71	4.3	4.5	5.5	5.0	5.0	6.5	232	36	61	83	69
23	70	4.3	4.5	5.5	5.0	5.0	6.5	260	35	76	82	67
24	69	4.5	4.5	5.5	5.0	5.0	6.5	250	33	76	82	70
25	66	4.5	4.5	5.5	5.0	5.0	6.5	232	26	74	82	71
26	64	4.5	5.0	5.5	5.0	5.0	7.0	218	9.7	74	80	71
27	63	4.5	5.0	5.5	5.0	5.0	7.0	208	11	74	80	71
28	*63	4.5	5.0	5.5	5.0	5.0	7.0	194	13	73	79	88
29	62	*4.7	5.0	5.5	-	5.0	7.0	184	18	73	79	95
30	59	4.7	5.0	5.5	------	5.0	7.0	178	18	71	77	93
31	58	------	5.0	5.5	------	5.0	------	175	------	71	77	------
Total	1,624	405.5	143.5	169.0	146.5	155.0	183.0	2,538.3	1,492.7	1,335	2,457	2,221
Mean	52.4	13.5	4.63	5.45	5.23	5.00	6.10	81.9	49.8	43.1	79.3	74.0
Ac-ft	3,220	804	285	335	291	307	363	5,030	2,960	2,650	4,870	4,410

Calendar year 1954: Max 272 Min 3.6 Mean 45.5 Ac-ft 32,970
Water year 1954-55: Max 260 Min 3.6 Mean 35.3 Ac-ft 25,520

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 16 to Jan. 12, Jan. 14 to Mar. 15, Mar. 17 to May 12; discharge estimated on basis of weather records, records of gate openings at Lost Valley Reservoir, and records for nearby streams.

Mesa Orchards Canal near Mesa, Idaho

Location.--Lat 44°38', long 116°25', in sec. 14, T. 15 N., R. 1 W., on left side of flume 1,500 ft upstream from lower end, 1½ miles northeast of Mesa, and 3 miles downstream from headgates.

Records available.--1924, 1928-55 (irrigation seasons only, prior to 1947).

Gage.--Staff gage read twice daily. Prior to May 20, 1938, staff gages in flume at sites within 600 ft of present site at different datums. May 20, 1938, to Sept. 30, 1953, staff gage at present site at datum 0.10 ft lower.

Extremes.--1924, 1928-55: Maximum daily discharge, 42 cfs July 20, 21, 1952; no flow during nonirrigation seasons.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Canal diverts from Middle Fork Weiser River in SE¼NW¼ sec. 9, T. 15 N., R. 1 E., for irrigation of Mesa orchards and for domestic supply of Mesa. Flow regulated by gates in diversion dam and waste gates in flume above gage.

Cooperation.--Gage readings furnished by The Mesa Co.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a22						(*)	0		28	35	22
2	a17							0		28	35	22
3	a17							0		28	35	*21
4	a14							0		28	35	a21
5	a12							0	a25	30	33	a20
6	a12							a10		31	33	20
7	a12									31	32	20
8	a12		(*)							*30	32	19
9	a10						(*)	a15	*29	31	32	19
10	a9	a4								30	32	*19
11	a7									31	33	a19
12	a5							*15		30	33	19
13										31	33	19
14				(*)						31	32	19
15									a30	32	31	*23
16								a16		34	30	23
17										34	*28	25
18										34	29	a22
19										34	28	20
20	a4									34	28	20
21		0								34	a27	21
22		0							a35	35	26	22
23		0								35	26	21
24		0								34	26	21
25		0								35	26	a21
26		0						a20	34	35	25	21
27	*3.8	0							34	34	25	21
28		0							35	35	a24	20
29		0					(*)		29	35	24	20
30	a4	0			------				26	35	23	19
31		------			------		------		------	35	23	------
Total	224.8	80	0	0	0	0	0	448	897	1,002	914	619
Mean	7.25	2.67	0	0	0	0	0	14.5	29.9	32.3	29.5	20.6
Ac-ft	446	159	0	0	0	0	0	889	1,780	1,990	1,810	1,230

Calendar year 1954: Max 39 Min 0 Mean 13.4 Ac-ft 9,720
Water year 1954-55: Max 35 Min 0 Mean 11.5 Ac-ft 8,300

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of reported gate operations, weather records, and records for other nearby canals and Weiser River near Cambridge.

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 2¼ miles northeast of Cambridge and 2½ miles upstream from Rush Creek.

Drainage area.--605 sq mi.

Records available.--March 1939 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 2,660 ft (by barometer). Prior to Apr. 23, 1939, staff gage at same site and datum.

Average discharge.--16 years, 655 cfs (474,200 acre-ft per year).

Extremes.--Maximum discharge during year, 3,300 cfs Apr. 22 (gage height, 5.68 ft); minimum, 36 cfs sometime between Nov. 30 and Dec. 6 (gage height, 0.53 ft).
1939-55: Maximum discharge, 6,670 cfs Mar. 31, 1940 (gage height, 8.30 ft); minimum, 23 cfs Oct. 1, 1943; minimum gage height, 0.46 ft Aug. 2, 1954.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Lost Valley Reservoir (see p. 186) and other reservoirs. Diversions above station for irrigation of about 9,200 acres.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 27-29, Dec. 23, Dec. 25 to Jan. 2, Jan. 4-7, 9-20, 23, 24, Feb. 6-8, 15, 24, 26, 27, Mar. 1)

Oct. 1 to Feb. 21		Feb. 22 to Sept. 30			
0.5	40	0.5	70	3.0	1,080
.7	57	.7	97	4.0	1,780
1.0	92	1.0	149	6.0	3,610
1.2	122	1.5	298		
1.5	188	2.0	517		
2.0	354				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	141	a45	100	b98	114	859	1,700	1,360	455	91	74
2	63	139	a70	105	b96	b115	919	1,780	1,310	410	84	75
3	63	137	a85	b100	b98	b120	665	1,700	1,200	379	80	76
4	67	135	a90	93	b90	b120	579	1,610	1,160	371	78	76
5	68	130	a97	93	b90	b110	598	1,840	1,230	362	75	76
6	69	124	96	96	100	b105	720	2,210	1,360	333	74	73
7	68	117	96	95	98	b125	802	2,190	1,460	362	74	71
8	68	103	*84	b94	103	b130	883	2,250	1,520	321	75	70
9	69	93	66	a94	b105	b140	931	2,120	1,570	*287	75	73
10	71	91	65	93	b100	b145	1,350	2,000	*1,570	273	76	74
11	74	89	75	93	b85	156	1,120	2,040	1,540	255	78	73
12	79	105	a75	92	b100	177	847	2,150	1,520	239	82	73
13	92	122	70	92	b105	b230	698	2,180	1,480	214	83	73
14	93	103	74	*93	b100	b230	780	*1,760	1,360	186	83	*78
15	128	120	77	93	106	b220	698	1,420	1,190	167	84	110
16	132	191	b80	93	b100	b205	660	1,190	1,030	165	*83	115
17	133	163	b75	93	b105	b220	1,130	1,060	907	170	83	139
18	135	141	b90	93	b100	b250	2,040	1,040	830	156	80	110
19	139	122	b85	95	b90	b270	1,720	1,340	780	135	82	106
20	161	114	b90	95	b95	b255	1,880	1,880	758	124	80	104
21	156	106	b100	b95	*b100	255	2,120	2,460	725	119	80	104
22	154	105	b95	b95	b98	269	2,950	2,560	681	120	79	102
23	148	103	96	95	b105	318	2,400	2,220	634	120	76	100
24	152	100	b95	98	109	379	1,830	1,940	639	141	76	98
25	154	100	96	b96	b105	401	1,480	1,690	618	135	76	100
26	148	100	98	b95	110	460	1,610	1,680	512	122	75	103
27	*150	100	96	b80	114	567	1,320	1,550	446	117	75	103
28	152	96	a95	b90	b114	639	*1,100	1,410	441	115	74	103
29	150	86	96	b90	-	889	1,220	1,460	628	110	74	112
30	148	54	98	b90	------	859	1,320	1,550	522	104	74	122
31	145	------	98	b90	------	*796	------	1,460	------	96	75	------
Total	3,489	3,430	2,648	2,909	2,819	9,268	37,229	55,440	30,981	6,663	2,434	2,766
Mean	113	114	85.4	93.8	101	299	1,241	1,788	1,033	215	78.5	92.2
Ac-ft	6,920	6,800	5,250	5,770	5,590	18,380	73,840	110,000	61,450	13,220	4,830	5,490

Calendar year 1954: Max 3,580 Min 45 Mean 607 Ac-ft 439,300
Water year 1954-55: Max 2,950 Min 45 Mean 439 Ac-ft 317,500

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

Pine Creek near Cambridge, Idaho

Location.--Lat 44°35', long 116°44', in SW¼ sec. 32, 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 1955.

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.--17 years, 38.4 cfs (27,800 acre-ft per year).

Extremes.--Maximum discharge observed during year, 199 cfs June 11 (gage height, 2.91 ft); maximum gage height, 3.06 ft Jan. 1 (ice jam); minimum discharge observed, 1.2 cfs Aug. 20-22, Sept. 8, 10, 12; minimum gage height observed, 1.37 ft Oct. 9, 10.
1938-55: Maximum discharge observed, 505 cfs May 27, 1948 (gage height, 3.60 ft), from rating curve extended above 200 cfs by logarithmic plotting, but may have been more when gage was overtopped June 3, 1948; 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, which are poor. Several diversions above station for irrigation.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 10)

Oct. 1 to June 9		June 10 to Sept. 30	
1.2	2.7	1.5	1.0
1.3	5.2	1.6	3.5
1.5	12	1.7	8.2
1.7	24	1.9	20
2.0	52	2.1	43
2.3	92	2.3	76
3.0	205	3.0	219

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	7.2	6	13	11	14	29	68	69	23	4.0	5.8
2	4.7	6.8	8	12	10	12	28	59	69	22	3.0	7.2
3	5.2	7.2	10	12	10	12	28	55	73	24	2.0	5.3
4	5.2	7.8	9.7	11	10	12	28	60	84	25	1.6	5.8
5	5.9	8.5	9.3	11	11	10	31	59	112	22	2.0	5.8
6	5.5	8.5	10	10	11	12	31	61	138	24	2.3	5.8
7	5.2	8.5	9.3	11	12	12	32	61	173	21	2.3	2.6
8	5.0	8.5	*8.9	11	12	12	33	62	171	20	2.3	1.2
9	4.7	8.5	8.5	11	12	12	35	66	169	*19	2.6	1.6
10	4.7	8.9	9.3	10	10	13	50	70	*150	19	2.6	1.2
11	4.7	9.3	9.3	10	10	12	42	72	167	19	2.6	1.4
12	5.5	10	8.9	11	11	13	34	69	158	18	2.0	1.2
13	5.2	10	14	11	12	12	32	68	129	15	2.6	1.6
14	4.7	10	12	*10	12	12	31	*61	102	13	2.3	*2.6
15	5.2	14	12	10	12	12	30	56	73	12	2.3	3.5
16	5.2	11	8	11	12	12	37	51	59	12	*2.0	4.4
17	5.5	14	7	11	12	15	47	46	48	11	2.0	4.8
18	5.9	10	7	11	12	15	51	48	45	8.8	2.0	4.4
19	5.9	9.7	8	11	11	17	54	49	43	7.2	1.6	4.4
20	5.9	9.7	8	11	10	17	70	56	43	7.2	1.4	4.4
21	5.9	9.7	9	11	*10	14	94	88	43	7.2	1.6	3.5
22	6.2	9.7	10	11	12	16	101	89	40	6.2	1.6	4.0
23	5.9	9.7	11	11	12	16	85	84	34	5.8	1.6	3.5
24	6.5	8.9	12	11	12	16	77	60	33	5.8	1.6	4.4
25	6.5	9.7	12	11	12	16	70	61	28	5.3	2.0	4.4
26	6.8	9.3	11	10	13	19	72	74	24	6.2	2.3	4.4
27	*7.2	9.7	10	10	13	19	69	58	21	5.8	2.6	4.4
28	7.2	9.7	9	10	12	28	*60	60	22	6.2	3.0	4.4
29	7.2	9.7	10	10	-	32	59	74	25	6.2	4.4	4.4
30	7.2	8	11	11	------	28	54	68	22	5.3	5.3	4.4
31	7.2	------	12	11	------	*25	------	69	------	4.4	5.3	------
Total	178.3	282.2	300.2	336	319	487	1,494	1,982	2,367	406.6	76.8	116.8
Mean	5.75	9.41	9.68	10.8	11.4	15.7	49.8	63.9	78.9	13.1	2.48	3.89
Ac-ft	354	560	595	666	633	966	2,960	3,930	4,690	806	152	232

Calendar year 1954: Max 144 Min 0.7 Mean 27.4 Ac-ft 19,820
Water year 1954-55: Max 173 Min 1.2 Mean 22.9 Ac-ft 16,540

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30 to Dec. 2, Dec. 15 to Jan. 29, Feb. 2-24, Mar. 5-8.

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 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, April 1938 to September 1955.

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.--20 years (1924-27, 1938-55), 104 cfs (75,290 acre-ft per year).

Extremes.--Maximum discharge during year, 588 cfs Apr. 22 (gage height, 3.32 ft); minimum, 3.0 cfs sometime during period Nov. 21 to Dec. 7 (gage height, 0.18 ft).
1920-21, 1923-27, 1938-55: Maximum discharge observed, about 1,840 cfs Feb. 4, 1925; minimum recorded, that during period Nov. 21 to Dec. 7, 1954.

Remarks.--Records excellent except those below 20 cfs, which are good, and those for periods of no gage-height record, which are fair. One small ranch 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.3	4.5	1.5	84
.4	6.4	2.0	173
.6	12	2.5	315
.8	21	3.0	482
1.0	34		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	12	6	17	13	13	61	214	231	115	25	7.6
2	11	12	9	18	12	14	65	203	240	106	23	7.6
3	10	12	11	19	10	13	49	178	245	98	24	7.6
4	10	12	12	15	11	11	44	180	245	93	23	7.6
5	10	12	13	13	13	10	46	245	275	89	23	7.2
6	10	11	13	12	12	15	65	287	312	87	19	7.2
7	10	11	12	13	13	14	84	287	366	83	18	6.9
8	10	11	*10	13	13	14	96	300	419	78	20	7.2
9	10	12	9.2	13	12	15	111	275	*457	73	19	7.4
10	10	12	16	12	11	16	198	269	471	*71	20	7.2
11	11	12	8.2	12	11	20	110	290	460	69	16	6.9
12	12	20	9.5	12	13	35	83	315	464	65	15	6.4
13	14	18	15	12	13	28	77	300	457	61	14	6.4
14	12	14	14	*12	13	25	84	*220	415	57	14	*8.2
15	13	19	14	12	13	20	74	171	363	55	13	19
16	14	24	7.9	12	13	21	76	157	300	53	*13	15
17	14	19	6.9	12	13	23	166	144	266	54	12	15
18	12	16	9.5	12	13	27	263	152	248	48	12	12
19	12	17	9.9	12	12	26	171	228	245	46	10	11
20	14	16	11	12	12	22	148	318	237	45	10	10
21	13	15	13	12	*13	21	168	429	228	42	10	10
22	12	14	12	12	13	21	373	379	212	43	10	10
23	12	14	13	12	13	20	214	321	190	45	10	10
24	12	13	14	12	13	22	159	278	190	47	11	10
25	11	13	14	12	13	23	127	240	159	41	12	9.9
26	12	13	13	11	13	27	135	257	142	39	12	10
27	*11	13	11	11	13	33	109	214	127	38	12	10
28	11	13	11	11	13	44	*98	198	129	37	11	9.9
29	12	12	12	12	-	83	126	231	164	35	11	10
30	12	8	13	12	------	55	152	260	129	32	9.9	11
31	12	-----	15	13	-----	*47	-----	245	------	27	7.9	------
Total	360	420	358.1	395	350	778	3,732	7,785	8,386	1,872	459.8	284.2
Mean	11.6	14.0	11.6	12.7	12.5	25.1	124	251	280	60.4	14.8	9.47
Cfsm	0.142	0.171	0.142	0.155	0.153	0.306	1.51	3.06	3.42	0.737	0.181	0.116
In.	0.16	0.19	0.16	0.18	0.16	0.35	1.69	3.54	3.81	0.85	0.21	0.13
Ac-ft	714	833	710	783	694	1,540	7,400	15,440	16,630	3,710	912	564

Calendar year 1954: Max 592 Min 6 Mean 104 Cfsm 1.27 In. 17.16 Ac-ft 75,050
Water year 1954-55: Max 471 Min 6 Mean 69.0 Cfsm 0.842 In. 11.43 Ac-ft 49,930

Peak discharge (base, 400 cfs).--Apr. 22 (4:30 a.m.) 588 cfs (3.32 ft); May 21 (10 p.m.) 504 cfs (3.13 ft); June 9 (11 p.m.) 566 cfs (3.30 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Nov. 21 to Dec. 7, Jan. 1-13, Feb. 14-20; discharge estimated on basis of weather records, recorded range in stage, and records for nearby streams.

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 1955 (fragmentary).

Gage.--Staff gage. Altitude of gage is 3,190 ft (by barometer).

Extremes.--Maximum gage height observed during year, 48.8 ft Apr. 30; minimum observed, 31.52 ft Oct. 27.
1923-55: 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. Capacity is reported to be about 60,000 acre-ft between bottom of outlet gates (6.56 ft gage height) and spillway crest (54.92 ft gage height). No usable contents below about 7 ft gage height. Water is used for irrigation of lands in lower Weiser Valley.

Cooperation.--Gage readings furnished by Crane Creek Reservoir Administration Board.

Revisions.--WSP 833: Drainage area.

Gage height, in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-		-			-	-	-	-	-	-	-
2	31.7		-			-	-	-	-	-	-	-
3	-		-			-	-	-	-	-	-	-
4	-		-			-	-	-	-	-	-	-
5	-		-			-	-	48.7	-	46.5	42.5	-
6	-		-			-	-	-	47.5	-	-	-
7	-		-			-	40.7	-	-	-	-	-
8	-		-			-	-	-	-	46.4	-	-
9	-		31.76			-	-	48.0	-	46.34	-	34.0
10	-		-			-	-	-	47.45	-	-	-
11	-		-			-	-	-	-	-	-	-
12	-		-			-	-	-	-	-	-	-
13	-		-			-	-	-	-	-	-	-
14	31.61		-	32.2		-	-	-	-	-	-	32.9
15	-		-			-	-	-	-	46.2	-	-
16	-		-			34.5	-	48.0	-	-	40.10	-
17	-		-			-	-	-	-	-	-	-
18	-		-			-	-	48.0	-	-	-	-
19	-		-			-	45.0	-	-	-	-	-
20	-		-			-	-	-	-	-	39.2	-
21	-		-		32.6	-	-	-	-	-	-	-
22	-		-			36.15	46.5	-	-	-	-	-
23	-		-			36.5	-	-	-	-	-	32.50
24	-		-			-	-	-	-	45.0	-	-
25	-		-			37.40	48.0	-	46.8	-	-	32.5
26	-		-			37.70	-	-	-	-	37.7	-
27	31.52		-			-	48.50	-	-	-	-	-
28	-	31.7	-			38.00	-	-	-	-	-	-
29	-		-			-	-	-	-	-	-	-
30	-		-		-------	-	48.8	-	-	-	-	-
31	-	-------	32.0		-------	39.5	-------	-	-------	-	-	-------

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 1955.

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.--34 years (1912-15, 1924-55), 71.9 cfs (52,050 acre-ft per year).

Extremes.--Maximum discharge during year, 348 cfs Apr. 30 to May 4 (gage height, 4.02 ft); no flow for long period.
1910-16, 1924-55: Maximum discharge observed, 4,240 cfs Dec. 3, 1910 (gage height, 8.9 ft, site and datum then in use), from rating curve extended above 3,500 cfs; no flow at times in many years when gates in dam were closed.

Remarks.--Records good except those below 1 cfs, which are fair, and those for period Oct. 3-31, 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 10		Nov. 11 to Sept. 30			
1.5	0	1.5	0	2.3	42
1.6	.2	1.6	.4	2.6	69
1.7	2.8	1.7	3.3	3.0	114
1.8	7.0	1.8	7.3	3.5	193
2.0	18	1.9	12	4.0	340
2.3	43	2.1	26	4.5	560
3.0	124				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35					0	0.1	348	26	26	176	164
2	17					0	.1	348	26	27	174	164
3	.4					0	.1	348	26	27	184	162
4	.4					0	.1	348	26	28	200	184
5	.3					0	.1	344	26	28	178	202
6	.3					0	.1	344	27	28	180	200
7	.3					0	.1	344	27	28	193	178
8	.3					0	.1	344	27	26	191	160
9	**.3		(*)			0	.1	108	27	*11	191	159
10	.3	(*)				0	.1	30	*28	10	189	159
11	.2					0	.1	29	27	10	189	157
12	.2					0	.1	29	27	10	189	146
13	.2	(*)				0	.1	28	27	10	187	108
14	.2			(*)		0	.1	28	28	10	187	*96
15	.2					0	.1	28	28	18	187	72
16	.1					0	.1	*28	28	89	*187	39
17	.1					0	.1	28	28	89	187	20
18	.1					0	.2	27	28	92	187	2.4
19	.1					0	.1	27	28	123	187	1.2
20	.1					0	.1	27	28	145	197	1.5
21	.1				(*)	0	.1	27	28	195	206	1.5
22	0					*0	.2	27	28	213	206	*1.5
23	0					0.1	.1	26	28	213	204	2.1
24	0					.1	.1	26	28	193	204	1.2
25	0					.1	31	26	28	178	191	1.2
26	0					.1	122	26	26	178	167	1.2
27	*0					**.1	*122	26	25	178	167	1.5
28	0					.1	123	26	25	176	167	1.8
29	0					.1	123	26	25	176	167	2.1
30	0				------	.1	264	26	25	176	166	2.1
31	0	------			------	.1	-----	26	------	176	166	------
Total	56.2	0	0	0	0	0.9	787.6	3,473	809	2,887	5,751	2,391.3
Mean	1.81	0	0	0	0	0.03	26.3	112	27.0	93.1	186	79.7
Ac-ft	111	0	0	0	0	1.8	1,560	6,890	1,600	5,730	11,410	4,740

Calendar year 1954: Max 218 Min 0 Mean 38.9 Ac-ft 28,200
Water year 1954-55: Max 348 Min 0 Mean 44.3 Ac-ft 32,040

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

Note.--No gage-height record Oct. 3-31; discharge estimated on basis of 2 field estimates and record of gate changes; no gage-height record June 20-24; discharge estimated on basis of records for station at mouth, near Weiser, and records for adjacent periods.

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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,240 ft (by barometer).

Average discharge.--34 years (1921-55), 80.1 cfs (57,990 acre-ft per year).

Extremes.--Maximum discharge during year, 494 cfs Apr. 22 (gage height, 4.86 ft); minimum, 1.3 cfs Sept. 22 (gage height, 1.60 ft); minimum daily, 1.5 cfs Sept. 21.
1920-55: Maximum discharge, 2,350 cfs about Feb. 7, 1925 (gage height, 6.80 ft, from high-water marks on gage), from rating curve extended above 1,000 cfs; minimum, 0.2 cfs May 26, 1931; minimum daily, 1 cfs or less at times during many years; minimum gage height, 1.30 ft Jan. 21, 1922.

Remarks.--Records good except those for periods of ice effect, which are poor. Flow regulated since 1911 by Crane Creek Reservoir (see p. 192). Several small ditches divert above station for irrigation.

Revisions.--WSP 833: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 23-30, Apr. 19, 20, 22, 23, Apr. 26 to May 9, July 16 to Sept. 15)

1.6	1.3	2.2	24
1.7	2.5	2.5	54
1.8	4.2	2.8	95
1.9	7.0	3.1	146
2.0	11	3.5	233
2.1	16	4.0	380

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	3.7	4.8	b15	5.0	5.6	29	362	16	26	150	144
2	33	3.7	5.0	12	5.0	6.4	36	380	16	26	152	139
3	9.4	3.9	5.3	6.7	5.0	6.7	19	371	19	24	158	135
4	4.5	3.9	5.9	b5.0	b4.8	6.4	11	365	19	23	179	150
5	3.9	3.9	5.6	b5.0	4.8	5.6	8.6	362	21	27	160	170
6	3.7	3.9	5.6	b5.0	5.0	6.2	6.4	359	21	*25	154	168
7	3.7	3.9	5.6	b5.5	4.8	5.9	6.4	*359	19	25	172	160
8	3.7	3.9	5.6	5.6	5.0	5.9	6.4	359	12	24	170	135
9	3.5	3.9	5.3	b5.0	5.3	6.4	5.0	181	14	15	170	137
10	3.7	4.0	*5.3	b5.0	5.0	6.7	6.7	34	21	6.4	168	141
11	3.7	4.0	5.0	b5.0	b4.8	7.0	9.8	32	*22	5.3	166	141
12	3.7	4.8	5.0	b5.0	b5.0	11	6.7	29	23	6.2	162	*137
13	3.9	4.5	5.9	5.0	5.3	16	5.6	25	24	4.5	166	105
14	3.7	4.2	5.3	5.3	5.0	12	5.3	26	25	3.5	166	94
15	3.7	5.0	5.3	*5.0	4.8	10	5.3	30	26	3.7	*164	86
16	3.5	5.3	4.5	5.0	4.8	9.0	5.6	*34	25	46	*164	39
17	3.7	5.6	b4.0	4.5	4.8	9.0	20	31	22	69	160	35
18	3.7	5.3	b4.0	4.5	4.2	11	159	31	25	73	154	10
19	3.7	5.0	b4.0	4.5	5.0	16	55	28	29	95	156	5.0
20	3.7	5.0	b4.5	4.5	5.0	12	62	24	28	106	164	*2.5
21	3.7	4.8	b4.8	4.8	4.8	10	35	24	28	160	174	1.5
22	3.7	4.8	b5.0	4.2	*5.0	15	265	24	25	181	176	1.9
23	3.5	4.8	b5.5	4.2	5.0	30	54	20	23	181	179	2.8
24	3.5	4.8	b6.0	4.2	5.0	23	29	16	19	170	179	3.2
25	*3.4	4.8	b6.5	4.2	5.0	34	*18	18	21	150	174	3.2
26	3.4	5.0	b6.0	4.5	5.3	37	161	21	21	152	144	3.0
27	3.5	5.0	b5.5	4.8	5.3	49	142	20	20	154	141	3.2
28	3.7	4.8	b5.5	b4.7	5.3	*59	133	19	22	152	142	3.2
29	3.7	4.8	b8.0	4.8	-	114	184	20	30	150	144	3.2
30	3.7	4.5	b12	5.0	------	53	240	19	28	146	144	2.4
31	3.7	------	b20	5.0	------	33	------	14	------	150	144	------
Total	180.6	135.5	186.3	168.5	139.1	631.8	1,729.8	3,637	664	2,379.6	4,996	2,161.1
Mean	5.83	4.52	6.01	5.44	4.97	20.4	57.7	117	22.1	76.8	161	72.0
Ac-ft	358	269	370	334	276	1,250	3,430	7,210	1,320	4,720	9,910	4,290

Calendar year 1954: Max 313 Min 1.9 Mean 42.6 Ac-ft 30,870
Water year 1954-55: Max 380 Min 1.5 Mean 46.6 Ac-ft 33,740

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

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 December 1904, October 1910 to December 1914, October 1952 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 2,220 ft (by barometer). Prior to October 1952, staff gages at several sites downstream within about 2½ miles of present site at various datums.

Average discharge.--12 years (1895-96, 1898-99, 1900-1904, 1911-14, 1952-55), 1,216 cfs (880,300 acre-ft per year).

Extremes.--Maximum discharge during year, 6,170 cfs Apr. 22 (gage height, 6.77 ft); minimum, 88 cfs Dec. 1 (gage height, 1.58 ft).
1890-91, 1894-1904, 1910-14, 1952-55: Maximum discharge observed, 16,900 cfs Mar. 8, 1904 (gage height, 10.5 ft, site and datum then in use), from rating curve extended above 4,000 cfs; 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 for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Crane Creek Reservoir (see p. 192), Lost Valley Reservoir (see p. 186), and other small reservoirs. Diversions above station for irrigation of about 22,000 acres.

Revisions (water years).--WSP 1347: 1895-1905, 1953(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	92	3.5	988
1.8	138	4.0	1,460
2.0	194	5.0	2,740
2.3	300	6.0	4,470
2.6	434	7.0	6,620
3.0	642		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	194	110	160	160	180	1,380	2,490	1,820	a800	254	236
2	136	191	138	170	160	190	1,560	2,780	1,750	a700	250	226
3	110	191	165	170	160	190	1,230	2,660	1,710	a660	247	223
4	101	191	180	150	150	200	964	2,520	1,670	a630	258	230
5	101	188	188	160	150	190	892	2,590	1,710	a600	230	258
6	105	182	182	160	160	190	988	3,050	1,910	*582	213	254
7	107	180	177	160	160	220	1,110	*3,150	2,100	598	233	240
8	103	171	171	160	160	240	1,220	3,180	2,260	571	233	210
9	103	157	*138	160	170	260	1,280	2,950	2,370	503	233	210
10	110	146	*133	160	160	280	1,640	2,820	2,440	458	265	223
11	110	143	141	150	140	320	1,800	2,590	*2,380	439	236	223
12	116	152	140	150	150	360	1,300	2,700	2,340	396	230	216
13	133	174	128	150	160	420	1,050	2,820	2,320	351	247	*177
14	152	182	130	150	160	450	1,020	2,440	2,180	300	250	174
15	152	177	135	150	160	450	1,060	1,980	1,930	236	*244	185
16	185	223	130	160	160	430	915	*1,680	1,680	254	244	197
17	185	261	a125	*160	160	450	1,410	1,480	1,440	280	244	220
18	191	250	a160	160	150	500	3,910	1,320	1,320	277	247	207
19	194	213	a150	160	140	550	3,750	1,480	1,210	273	244	165
20	200	191	a160	160	140	540	3,380	2,050	1,170	258	247	143
21	216	182	a160	160	150	520	3,820	2,840	1,120	284	258	133
22	210	174	a160	160	*150	560	5,380	3,300	1,060	304	258	131
23	197	174	160	160	170	700	4,150	2,920	980	317	254	131
24	191	171	160	160	170	850	3,150	2,530	915	317	254	133
25	*194	168	160	160	170	900	*2,390	2,230	1,010	329	250	126
26	194	171	160	160	175	972	2,660	2,130	832	317	216	126
27	*197	165	150	140	175	1,100	2,270	2,090	732	300	216	126
28	194	165	140	150	180	*1,280	1,870	1,860	677	284	223	126
29	197	160	140	150	-	1,670	2,060	1,820	877	280	226	126
30	197	138	150	150	------	1,810	2,080	1,990	a970	277	223	143
31	194	------	160	150	------	1,370	------	1,970	------	265	230	------
Total	4,903	5,425	4,681	4,860	4,450	18,342	61,689	74,190	46,883	12,440	7,457	5,518
Mean	158	181	151	157	159	592	2,056	2,393	1,563	401	241	184
Ac-ft	9,720	10,760	9,280	9,640	8,830	36,380	122,400	147,200	92,990	24,670	14,790	10,940

Calendar year 1954: Max 5,150 Min 98 Mean 886 Ac-ft 641,600
Water year 1954-55: Max 5,380 Min 101 Mean 687 Ac-ft 497,600

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station near Cambridge and Crane Creek near Weiser.
Note.--Stage-discharge relation affected by ice Dec. 1, 12, 14-16, Dec. 23 to Mar. 11, Mar. 14-25.

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 1955 (winter records fragmentary prior to 1950).

Gage.--Water-stage recorder. Altitude of gage is 2,160 ft (by barometer).

Extremes.--1920-55: Maximum daily discharge, 220 cfs June 27, July 1, 1954; no flow at times when gates were closed.

Remarks.--Records excellent except those below 20 cfs, which are good, and those for periods of ice effect 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, 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122	18	b13				1.9	100	197	210	201	176
2	122	18	13				1.9	100	196	210	194	170
3	105	18	13				1.9	94	198	210	190	156
4	88	18	14				1.9	92	203	209	184	154
5	85	18	14			1.2	1.9	104	204	208	182	179
6	85	18	14				1.7	124	207	209	163	178
7	96	18	14				1.7	*124	212	*209	181	178
8	90	18	13	2			1.7	124	214	208	182	154
9	*88	18	*10				1.5	133	214	208	183	167
10	99	18	13				1.4	142	216	209	202	181
11	102	18			1.2	1.5	1.3	156	*216	208	190	185
12	108	18	b12				58	179	216	203	180	*182
13	116	18					103	126	217	196	194	156
14	105	18					103	12	216	206	198	137
15	56	18		*b2			110	27	216	180	*194	149
16	17	18	b8				116	*65	214	160	190	144
17	19	19					118	84	214	206	190	127
18	19	19					125	126	212	210	190	121
19	20	18				1.8	122	153	212	210	190	114
20	20	18					121	166	212	204	184	110
21	20	20					121	168	212	199	193	103
22	19	16			*1.2	2.1	83	169	214	209	195	114
23	19	16		2		*2.1	25	175	213	208	197	116
24	19	17				2.1	21	184	212	208	194	119
25	*18	17	6			2.1	*19	191	215	204	196	115
26	18	17			1.2	2.1	19	199	212	204	168	112
27	*18	17				2.1	18	197	212	203	164	102
28	18	16				2.1	18	194	216	203	171	100
29	18	b15			-	2.1	58	197	216	205	175	100
30	18	b13			------	2.1	99	199	212	204	171	108
31	18	------			------	1.9	------	197	------	202	174	------
Total	1,765	530	291	62	33.6	52.0	1,473.8	4,301	6,342	6,322	5,760	4,207
Mean	56.9	17.7	9.4	2.0	1.20	1.68	49.1	139	211	204	186	140
Ac-ft	3,500	1,050	577	123	67	103	2,920	8,530	12,580	12,540	11,420	8,340

Calendar year 1954: Max 220 Min 0 Mean 97.5 Ac-ft 70,560
Water year 1954-55: Max 218 Min - Mean 85.3 Ac-ft 61,750

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 20 to Jan. 14, Jan. 16 to Mar. 21, Apr. 9-11; discharge estimated on basis of 2 discharge measurements, records for adjacent periods, and records for Weiser River below Crane Creek.

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 1955.

Gage.--Staff gage read twice daily. 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.--20 years (1911-13, 1937-55), 41.0 cfs (29,680 acre-ft per year).

Extremes.--Maximum discharge observed during year, 372 cfs Apr. 22 (gage height, 2.70 ft); minimum observed, 0.4 cfs Sept. 2, 4-8; minimum gage height, 0.53 ft Sept. 5, 7, 8. 1911-13, 1920, 1937-55: 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 determination 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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	0.3	1.2	16
.6	.7	1.4	30
.7	1.7	1.6	55
.8	3.3	1.9	113
.9	5.4	2.2	194
1.0	8.1	2.6	335

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	3.3	2.3	b4.5	5.0	5.2	27	123	65	9.8	3.7	0.6
2	3.0	3.3	4.4	b5.0	b4.8	5.9	25	113	58	8.8	3.5	.5
3	2.7	3.3	4.6	b4.0	b5.0	5.7	25	95	52	10	3.9	.5
4	2.7	3.5	5.0	b3.7	b4.6	b5.4	28	104	47	12	4.1	.4
5	2.7	3.3	3.5	b4.3	b5.0	b5.0	25	142	49	11	4.4	.4
6	2.5	3.3	4.4	b4.7	b4.9	b5.5	30	164	49	11	5.2	.4
7	2.5	3.3	4.1	b5.0	5.2	b6.0	40	*148	42	*9.5	3.9	.4
8	2.5	3.3	3.0	b5.0	5.2	b6.0	42	156	40	8.8	3.9	.4
9	2.5	3.3	*3.5	b4.8	b5.0	7.3	52	148	39	8.4	2.7	.5
10	2.5	3.3	4.4	b5.0	b4.5	7.3	65	148	*37	8.4	2.3	.7
11	2.3	3.3	3.3	b5.2	b4.5	7.3	45	153	36	9.8	2.0	.7
12	2.5	4.8	4.6	5.2	b5.0	8.8	38	156	34	10	1.4	.7
13	3.3	4.4	5.4	5.2	b5.5	11	38	148	32	8.8	1.1	.9
14	3.3	3.9	5.9	5.0	b5.7	9.8	33	109	29	8.1	1.4	*1.4
15	3.3	5.2	4.6	*5.2	5.7	7.8	32	91	28	7.6	1.6	5.0
16	3.7	7.3	b3.0	5.4	5.2	8.8	33	*85	26	7.3	*1.7	1.4
17	3.3	5.4	b2.7	5.4	5.2	11	37	76	24	7.6	1.3	3.7
18	3.3	5.7	b2.6	5.0	b5.0	12	55	76	22	7.0	*1.2	2.7
19	3.3	4.6	b2.7	5.4	b4.8	15	62	78	21	*8.2	1.0	1.7
20	3.3	5.0	b3.0	5.2	b4.8	15	106	115	20	5.2	1.3	2.3
21	3.1	4.8	b3.2	5.0	b4.8	11	188	159	*19	5.7	1.0	2.3
22	3.1	4.6	b3.5	5.0	5.2	11	335	150	18	5.7	1.0	2.3
23	3.1	4.6	b4.0	5.0	*5.2	11	127	125	18	5.4	.9	2.3
24	3.0	4.4	b4.2	5.0	5.2	12	100	106	18	5.4	1.0	2.0
25	3.0	4.4	b3.6	5.0	b5.0	12	82	100	18	5.4	.9	2.0
26	3.1	4.6	b3.2	b4.8	5.2	12	78	102	16	5.0	1.0	2.0
27	*3.1	4.6	b2.9	b4.6	4.8	16	*65	83	15	4.8	.9	2.0
28	3.3	3.5	b2.6	b4.5	5.2	21	65	80	15	4.8	.8	2.0
29	3.1	2.7	b3.2	b4.6	-	38	65	80	18	4.6	.8	2.0
30	3.1	2.7	b3.7	b4.8	------	*28	78	80	13	4.4	.7	2.0
31	3.1	------	b4.1	b5.0	------	28	------	72	------	3.9	.6	------
Total	92.3	123.7	115.2	151.5	141.2	365.8	2,021	3,565	918	230.4	61.2	46.2
Mean	2.98	4.12	3.72	4.89	5.04	11.8	67.4	115	30.6	7.43	1.97	1.54
Ac-ft	183	245	228	300	280	726	4,010	7,070	1,820	457	121	92

Calendar year 1954: Max 504 Min 0.6 Mean 26.3 Ac-ft 19,020
Water year 1954-55: Max 335 Min 0.4 Mean 21.5 Ac-ft 15,530

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

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 1955. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895.

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 at site 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, 28,000 cfs Apr. 23 (gage height, 6.83 ft); minimum, 9,220 cfs July 20, 21 (gage height, 2.91 ft).
1910-55: 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 15.7 ft on old U. S. Weather Bureau gage (discharge, about 100,000 cfs). Flood in June 1894 was considerably higher.

Remarks.--Records excellent. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. About 2,456,000 acres (revised; 1946 determination) of land irrigated by diversion from river and its tributaries above station.

Revisions (water years).--WSP 1317: 1918.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 13-24)

2.9	9,080
4.0	13,300
5.0	17,800
6.0	23,000
7.0	28,700

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,000	15,200	15,100	16,400	13,100	10,900	17,100	21,000	13,000	13,900	9,860	10,600
2	14,100	14,700	14,400	14,900	13,000	12,000	17,600	20,300	13,600	13,500	9,860	10,400
3	14,000	15,400	15,200	14,400	13,800	12,200	17,800	18,000	13,200	13,700	9,970	10,600
4	14,600	16,200	15,400	13,700	13,900	12,200	17,800	19,200	12,600	12,700	10,300	10,700
5	13,400	17,200	15,200	13,000	13,500	12,600	17,100	18,500	13,000	12,900	10,200	10,800
6	14,100	16,200	13,800	14,200	13,100	11,800	17,100	18,800	13,600	12,500	10,400	10,600
7	14,700	15,400	14,100	13,600	12,100	12,100	17,000	18,700	*13,900	*12,200	10,400	10,800
8	15,400	15,800	14,500	14,800	11,700	10,800	17,200	18,300	14,800	11,900	10,400	10,400
9	15,700	14,900	13,900	15,000	13,200	12,300	13,500	18,200	16,100	11,800	*10,100	10,800
10	14,700	13,100	*14,000	13,300	13,600	12,200	13,700	16,800	16,200	11,200	10,000	10,800
11	13,800	12,900	13,500	12,300	12,300	12,700	15,500	17,000	16,800	10,900	10,200	10,700
12	13,100	14,300	12,600	13,400	11,900	12,200	13,500	16,000	17,600	10,300	10,400	*11,100
13	16,400	15,400	12,200	14,100	11,700	12,900	15,800	16,500	17,300	10,100	10,400	11,300
14	18,300	14,400	12,700	13,300	11,000	14,100	16,000	15,600	17,200	9,820	10,400	11,200
15	17,400	15,800	14,300	13,900	11,300	13,400	17,600	14,500	17,000	10,100	10,600	11,700
16	17,200	14,900	15,200	14,600	11,300	13,500	17,200	13,300	15,800	9,930	10,200	12,700
17	19,600	14,700	14,800	13,500	11,300	13,300	17,800	13,100	15,800	9,780	10,000	12,800
18	17,800	15,100	14,700	12,700	11,100	13,200	20,700	13,000	17,000	9,590	9,820	13,100
19	14,600	15,700	14,900	*15,000	11,100	16,800	20,700	13,600	15,600	9,300	10,400	12,900
20	14,300	14,900	13,400	15,400	11,800	18,000	21,000	14,300	15,500	9,260	10,700	12,900
21	17,400	14,500	11,500	13,700	11,500	17,100	20,700	15,800	14,900	9,260	9,970	13,100
22	16,800	13,900	12,500	12,900	*10,200	13,100	23,400	18,200	15,300	9,370	9,930	13,100
23	15,300	13,900	12,800	13,300	10,900	12,900	25,900	18,800	15,300	10,000	9,970	14,100
24	14,200	13,900	12,100	13,200	11,300	15,600	23,100	15,400	15,200	10,200	10,200	13,900
25	16,600	14,100	13,500	11,800	11,500	13,400	19,400	15,600	15,300	10,000	10,600	13,700
26	*16,400	13,700	13,200	13,300	11,900	13,400	18,000	14,700	14,500	9,820	11,300	12,500
27	15,300	13,700	13,800	12,700	12,600	15,600	*19,600	15,000	13,700	9,630	10,100	11,300
28	15,800	14,400	13,200	14,000	11,800	*15,800	19,800	14,300	13,100	9,590	10,200	12,700
29	16,600	14,700	13,900	13,700	-	12,800	19,200	13,900	13,900	10,000	10,600	12,900
30	15,400	13,900	13,300	13,200	------	17,600	18,800	13,400	14,100	10,100	10,200	13,300
31	16,000	------	14,100	13,100	------	17,800	------	13,300	------	9,900	10,500	------
Total	481,000	442,900	427,800	426,400	337,500	424,300	549,600	503,100	450,900	333,250	318,180	357,500
Mean	15,520	14,760	13,800	13,750	12,050	13,690	18,320	16,230	15,030	10,750	10,260	11,920
Ac-ft	954,000	878,500	848,500	845,800	669,400	841,600	‡1,090	997,900	894,300	661,000	631,100	709,100

Calendar year 1954: Max 28,900 Min 9,970 Mean 16,360 Ac-ft 11,840,000
Water year 1954-55: Max 25,900 Min 9,260 Mean 13,840 Ac-ft 10,020,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

Unity Reservoir near Unity, Oreg.

Location.--Lat 44°30'20", long 118°11'00", in SW¼SE¼ (revised), sec. 21, T. 12 S., R. 37 E., at Unity Dam on Burnt River, 500 ft downstream from Job Creek, half a 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 1955.

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 benchmark (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 during year, 17,150 acre-ft May 16-19 (elevation, 3,810.6 ft); no contents Sept. 5-30.
1938-55: Maximum contents, 25,770 acre-ft Apr. 13, 1942 (elevation, 3,820.6 ft); no contents Sept. 5-30, 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 ft (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 of lands in Burnt River Irrigation District near Hereford and Bridgeport. Contents computed from capacity table based on surveys by Bureau of Reclamation.

Month-end elevation and usable contents, water year October 1954 to September 1955

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,789.6	3,840	-
Oct. 31	3,783.0	1,320	-2,520
Nov. 30	3,785.2	2,030	+710
Dec. 31	e3,786.5	2,520	+490
Calendar year 1954	-	-	+490
Jan. 31	3,786.5	2,520	0
Feb. 28	3,788.0	3,120	+600
Mar. 31	3,790.6	4,310	+1,190
Apr. 30	3,805.1	13,030	+8,720
May 31	3,808.3	15,370	+2,340
June 30	3,800.2	9,730	-5,640
July 31	3,791.9	4,950	-4,780
Aug. 31	3,778.0	222	-4,730
Sept.30	3,776.0	0	-222
Water year 1954-55	-	-	-3,840

e Estimated.
Note.--Gage read at or within 1 hour of 8 a.m., Oct. 1 to Apr. 30, and at or within 1 hour of 5 p.m., May 1 to Sept. 30.

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, 5 miles upstream from Camp Creek, and 7 miles west of Hereford.

Drainage area.--309 sq mi.

Records available.--March 1915 to September 1916 (irrigation seasons only), October 1928 to September 1955. 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 half a mile downstream from present site at different datum. June 29, 1932, to Sept. 16, 1937, water-stage recorder at site 300 ft upstream from present site at different datum. Sept. 17, 1937, to Sept. 30, 1943, water-stage recorder at present site at datum 3.29 ft higher. Mar. 5, 1939, to Apr. 15, 1943, control was sharp-crested weir.

Average discharge.--27 years (1928-55), 78.3 cfs (56,690 acre-ft per year).

Extremes.--Maximum discharge during year, 235 cfs May 10 (gage height, 3.44 ft); minimum, 0.1 cfs Oct. 29, Apr. 14-16.

1915-16, 1928-55: Maximum discharge, 2,220 cfs Apr. 17, 1943 (gage height, 7.35 ft, present datum), caused by opening of automatic spillway gates, 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.

Revisions.--The maximum discharge for the water year 1933 has been revised to about 700 cfs Apr. 29 or 30, 1933 (gage height, 5.30 ft), superseding figure published in WSP 753.

Remarks.--Records good. Diversions for irrigation of about 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. Flow regulated by Unity Reservoir (see preceding page) and partly regulated by reservoir (capacity, about 700 acre-ft) on South Fork Burnt River, 3 miles above mouth.

Revisions (water years).--WSP 903: 1939. Revised figures of discharge, in cubic feet per second, for the water years 1916 and 1930, superseding those published in WSP 443 and 708, are given herewith:

Apr. 25, 1916	778
Apr. 26, 1916	850

1930

Jan. 1-31	†25

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
April 1916	1,000	484	824	49,000
January 1930	-	-	25.0	1,540
Water year 1929-30	322	5	42.2	30,600
Calendar year 1930	322	5	40.4	29,300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	49	22	26	26	3.9	0.2	1.2	135	72	65	67
2	100	44	22	26	26	3.9	.2	1.5	*131	72	76	53
3	99	41	23	26	17	*3.9	.2	1.6	126	61	80	41
4	105	39	23	26	11	3.9	.2	1.8	119	36	76	30
5	108	38	24	26	11	3.9	.2	2.0	116	41	75	24
6	106	35	*24	26	11	3.9	.2	2.1	113	41	80	20
7	104	38	24	26	11	4.1	.2	6.0	121	41	90	16
8	99	38	24	26	11	4.1	**.2	59	128	41	91	14
9	98	*39	24	26	11	4.1	.2	126	128	41	91	12
10	97	40	25	26	11	2.1	.2	129	128	41	88	10
11	100	40	25	a26	11	.3	.2	77	126	41	86	9.0
12	99	39	26	a26	11	.3	.2	65	121	41	*81	7.7
13	85	38	26	a26	11	.3	.2	60	117	55	78	7.2
14	67	38	26	a26	11	.3	.1	69	116	*62	86	6.6
15	*55	38	26	a26	11	.3	.1	85	114	77	102	6.4
16	46	40	26	a26	11	.3	.1	83	114	85	102	6.4
17	40	39	26	a27	11	.3	.2	84	114	84	101	6.4
18	35	39	27	a27	11	.3	.2	93	114	82	98	6.1
19	32	40	27	a27	11	.3	.2	112	113	81	99	4.0
20	30	40	26	a27	11	.3	.2	132	113	79	102	*3.3
21	29	27	26	a27	11	.3	*.2	131	113	78	105	3.1
22	58	16	26	27	12	.3	.2	114	113	82	105	3.1
23	83	20	26	27	12	.3	.2	128	112	92	114	3.0
24	74	20	26	*27	12	.3	.2	140	110	85	113	3.0
25	53	21	26	26	6.2	.3	.2	138	108	67	112	3.0
26	40	21	26	26	3.9	.3	.2	136	107	66	113	3.0
27	51	22	27	26	3.9	.3	.3	136	104	66	106	3.0
28	23	22	27	26	3.9	.3	.4	152	91	66	99	2.8
29	.1	22	18	26	-	.3	.5	153	74	65	92	2.8
30	43	22	7.5	26	------	.2	.7	147	73	65	86	3.0
31	56	------	16	26	------	.2	------	142	------	65	81	------
Total	2,117.1	1,005	747.5	814	320.9	43.9	6.8	2,707.2	3,412	1,971	2,873	379.9
Mean	68.3	33.5	24.1	26.3	11.5	1.42	0.23	87.3	114	63.9	92.7	12.7
Ac-ft	4,200	1,990	1,480	1,610	636	87	13	5,370	6,770	3,910	5,700	754

Calendar year 1954: Max 190 Min 0.1 Mean 64.0 Ac-ft 46,350
Water year 1954-55: Max 153 Min 0.1 Mean 44.9 Ac-ft 32,520

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

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, June 1926 to September 1955. Monthly discharge only for some periods in WSP 1317. Published as "near Baker City" December 1903 to December 1905, and as "at Salisbury" January 1906 to August 1914, June 1926 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 from present site at different datum.
Average discharge.--38 years (1904-13, 1926-55), 110 cfs (79,640 acre-ft per year).
Extremes.--Maximum discharge during year, 422 cfs June 10 (gage height, 3.43 ft); minimum, 3.6 cfs Sept. 7, 8, 11-13 (gage height, 1.11 ft).
1903-14, 1926-55: Maximum discharge, 1,820 cfs Mar. 20, 1910 (gage height, 7.05 ft, site and datum then in use), from rating curve extended above 660 cfs; no flow Aug. 31, 1909, Sept. 7, 1931.
Revisions.--The maximum discharge for the water year 1930 has been revised to 250 cfs Apr. 27, 1930 (gage height, 1.98 ft), superseding figure published in WSP 708.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.
Revisions (water years).--WSP 813: 1935. WSP 1093: Drainage area. Revised figures of discharge, in cubic feet per second, for scattered periods in the water years 1904-13, 1929-31, 1940, 1942, and 1949-50, superseding those published in WSP 135, 178, 214, 252, 272, 292, 312, 332, 362, 693, 708, 723, 903, 963, 1153, and 1183, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1904		1905-Con.		1907-Con.		1908-Con.	
Jan. 1-31	†50	Feb. 23	60	Feb. 1	90	Feb. 22	50
Mar. 14	209	24	54	2	85	23	60
19	209	25	43	3	90	24	66
24	110	26	54	4	94	25	72
25	100	27	79	5	252	26	72
26	90	28	60	6	350	27	66
27	80	Nov. 1-30	†22	7	273	28	66
Dec. 1-10	†17	Dec. 1-31	†22	8	196	29	54
1905		1906		9	196	1909	
Jan. 1	34	Jan. 1-31	†24	10	196	Jan. 23	150
2	26	Feb. 1-12	†21	11	184	24	110
3	19	28	27	12	223	25	130
4	22	Mar. 1	25	13	196	26	150
5	22	2	24	1908		27	110
6	22	3	27	Jan. 2	35	28	90
7	22	4	30	5	34	29	70
8	19	5	28	6	26	30	80
9	16	6	30	7	26	31	90
10	16	13	25	8	26	Mar. 14	110
11	16	14	21	9	30	16	110
12	16	15	20	10	26	17	130
13	16	16	19	11	26	18	150
14	16	17	24	12	30	20	100
15	16	18	30	13	30		
16	22	19	37	14	26	1910	
17	26	20	45	15	26	Jan. 1-31	†22
18	43	Dec. 19	35	16	34	Feb. 1-28	†25
19	54	20	45	17	34	Dec. 1-31	†35
20	43	21	42	18	38		
21	54	22	40	19	43	1911	
22	54	23	60	20	43	Jan. 1-31	†20
23	60	24	72	21	43	Feb. 1-28	†18
24	48	25	86	22	34		
25	66	26	92	23	34	1912	
26	54	27	92	24	34	Jan. 1-31	†50
27	54	28	78	25	38	Feb. 1-17	†60
28	38	29	66	26	35	Dec. 6	35
29	34	30	66	27	33	7	26
30	38	31	60	28	35	8	26
31	34	1907		29	37	9	30
Feb. 1	25	Jan. 1	40	30	30	10	33
2	27	2	30	31	25	19	42
3	29	3	37	Feb. 1	23	20	32
4	30	4	48	2	27	21	35
5	28	5	37	3	32	22	35
6	26	6	31	4	43	23	35
7	34	7	27	5	48	24	40
8	38	8	22	6	43	25	40
9	34	9	23	7	37	26	35
10	26	11	33	8	32	27	30
11	22	12	29	9	34	28	30
12	16	14	20	10	34	29	40
13	20	15	22	11	38	30	50
14	25	16	21	12	38	31	50
15	25	17	20	13	32		
16	28	20	31	14	35	1913	
17	31	21	40	15	39	Feb. 18	37
18	34	22	30	16	42	19	37
19	37	28	40	17	40	20	33
20	40	29	50	18	38	22	28
21	43	30	70	19	36	23	27
22	48	31	102	20	38	24	27
				21	43	25	31

† Average for period indicated

Powder River near Baker, Oreg.--Continued

Revised figures of discharge, in cubic feet per second, 1904-13, 1929-31, 1940, 1942, 1949-50--Continued

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1913-Con.		1929-Con.		1929-Con.		1931-Con.	
Mar. 6	120	Aug. 13	4	Sept. 30	6	Apr. 8	238
7	160	14	4	Nov. 1-30	†10	9	200
8	194	15	4			10	200
9	227	16	4	1930		11	188
10	271	17	4	Jan. 1-31	†15	12	188
11	205	18	4	Apr. 1	143	13	188
		19	4	2	143	14	175
1929		20	3	3	153	15	153
Mar. 1-8	†85	21	3	4	143	16	153
June 1	300	22	3	5	143	17	164
2	250	23	4	6	153	18	175
3	225	24	4	7	175	19	164
4	200	25	5	8	188	20	153
5	200	26	6	9	212	21	153
6	188	27	6	10	200	22	143
7	188	31	6	11	188	23	143
8	262	Sept. 1	6	12	188	24	129
9	288	2	6	13	188	25	117
10	275	3	6	14	200	26	117
11	262	4	5	15	175	27	121
12	250	5	5	16	153	28	143
13	250	6	5	17	133		
14	250	7	5	18	113	1939	
15	262	8	5	19	113	Nov. 16-30	†6.5
16	375	9	4	20	117		
17	262	10	4	21	109	1940	
18	238	11	5	22	113	Jan. 6-27	†25
19	200	12	4	23	143		
20	175	13	4	24	212	1942	
21	164	14	4	25	212	Jan. 4-22	†70
22	153	15	4	26	225	27-31	†80
23	133	16	4	27	250		
24	113	17	4	28	200	1948	
25	105	18	4	29	175	Dec. 12-31	†20
26	97	19	4	30	153		
27	89	20	4			1949	
28	85	21	4	1931		Jan. 1-31	†18
29	63	22	4	Apr. 1	300		
30	57	23	5	2	275	1950	
Aug. 8	6	24	5	3	225	Jan. 28-31	†11
9	6	25	5	4	225	Feb. 1-17	†26
10	6	27	6	5	175	18	36
11	5	28	6	6	175	19	39
12	4	29	6	7	212	20	40

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1904	-	-	50	3,070
March	267	60	145	8,920
December	34	-	23.7	1,460
Calendar year 1904	1,590	2	203	147,000
January 1905	66	16	32.9	2,020
February	79	16	36.3	2,020
Water year 1904-5	316	3.5	78.3	56,700
November 1905	-	-	22	1,310
December	-	-	22	1,350
Calendar year 1905	316	3.5	77.1	55,900
January 1906	-	-	24	1,480
February	66	-	37.2	2,070
March	656	19	109	6,700
Water year 1905-6	810	-	112	81,000
December 1906	92	25	45.5	2,800
Calendar year 1906	810	-	114	82,300
January 1907	102	20	34.0	2,090
February	478	85	237	13,200
Water year 1906-7	878	7	166	120,000
Calendar year 1907	878	11	166	120,000
January 1908	43	25	32.3	1,990
February	72	23	44.1	2,450
Water year 1907-8	588	0.1	117	84,700
Calendar year 1908	588	0.1	119	86,000
January 1909	198	8	56.6	3,480
March	361	46	137	8,420
Water year 1908-09	630	0	102	73,800
Calendar year 1909	630	0	107	77,800
January 1910	-	-	22	1,350
February	-	-	25	1,390
Water year 1909-10	1,660	-	166	120,000
December 1910	-	-	35	2,150
Calendar year 1910	1,660	-	160	116,000
January 1911	-	-	20	1,230
February	-	-	18	1,000
Water year 1910-11	-	-	107	77,400
Calendar year 1911	454	1	106	77,000
January 1912	-	-	50	3,070
February	-	-	67.8	3,900
Water year 1911-12	970	-	177	129,000

Powder River near Baker, Oreg.--Continued

Revised figures of monthly discharge, in cubic feet per second, 1904-13, 1929-31, 1940, 1942, 1949-50--Continued

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1912	-	54	26	38.1	2,340
Calendar year 1912	-	970	15	177	129,000
February 1913	-	46	21	33.3	1,850
March	-	271	18	113	6,950
Water year 1912-13	-	941	3	153	111,000
Calendar year 1913	-	941	3	153	111,000
March 1929	-	-	-	144	8,850
June	-	375	57	199	11,800
August	-	17	3	7.1	437
September	-	8	4	4.9	292
Water year 1928-29	-	550	-	78.2	56,600
November 1929	-	-	-	10	595
Calendar year 1929	-	550	-	77.5	56,200
January 1930	-	-	-	15	922
April	-	250	109	167	9,940
Water year 1929-30	-	250	3	48.0	34,800
Calendar year 1930	-	250	-	47.3	34,300
April 1931	-	300	117	179	11,800
Water year 1930-31	-	300	0	45.3	33,800
Calendar year 1931	-	300	0	45.8	34,000
November 1939	196.8	-	-	6.56	390
Calendar year 1939	26,420.7	645	0.3	72.4	52,400
January 1940	878	57	23	28.3	1,740
Water year 1939-40	34,829.0	630	1.7	95.2	69,080
Calendar year 1940	37,453.0	630	1.7	102	74,290
January 1942	2,232	-	47	72.0	4,430
Water year 1941-42	52,200.6	760	9.3	143	103,500
Calendar year 1942	49,256.1	760	9.3	135	97,700
December 1948	710	32	25	22.9	1,410
Calendar year 1948	47,407	1,040	90	130	94,050
January 1949	558	-	-	18	1,110
Water year 1948-49	44,313.6	834	6.8	121	87,900
Calendar year 1949	44,296.6	834	6.8	121	87,870
January 1950	589	-	-	19.0	1,170
February	1,085	96	26	38.8	2,150
Water year 1949-50	39,852.8	482	6.8	109	79,050
Calendar year 1950	41,004.8	482	6.8	112	81,340

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	9.2	14	b13	a15	a25	67	100	182	81	18	4.0
2	9.2	9.8	15	b12	a14	a24	57	113	*164	78	18	4.0
3	9.2	11	16	b11	a13	*b22	55	117	156	70	17	4.0
4	8.6	11	17	a10	a14	a21	48	113	178	69	15	4.0
5	9.2	11	18	a9	a15	b20	52	120	*236	72	13	4.0
6	9.2	11	*18	a 11	a16	b22	67	160	287	64	12	4.0
7	9.2	11	b16	a13	a17	b25	86	172	338	72	11	4.0
8	8.6	11	b15	a15	b18	b28	*100	180	368	66	9.8	4.0
9	8.6	*11	b13	a14	a16	b30	120	180	392	63	8.6	4.0
10	8.6	14	b11	a12	a14	31	131	176	400	66	7.3	4.0
11	9.2	14	b11	a14	a15	31	118	194	392	59	6.1	3.8
12	10	15	b12	a15	a15	30	104	229	370	56	5.7	3.8
13	9.8	14	b13	a14	a15	25	99	229	342	51	5.3	3.6
14	7.9	14	b13	a14	a16	b24	95	198	297	*48	5.3	4.4
15	10	17	b13	a13	a17	b23	84	178	273	42	5.3	6.7
16	11	17	b10	a14	a16	b23	80	164	222	41	5.0	7.3
17	11	16	b9	a15	a15	b23	95	150	190	39	4.4	7.9
18	11	17	b8	a15	a15	b22	90	131	170	38	4.4	7.3
19	11	17	b9	a16	a15	b20	80	131	156	32	4.2	6.7
20	11	18	11	a17	a15	b20	78	213	144	30	4.2	*6.7
21	11	17	11	a16	a17	b22	*81	362	133	25	4.2	7.3
22	11	17	9.8	a15	b20	b24	90	350	126	26	4.2	8.6
23	11	16	9.2	b16	a22	b25	97	311	118	30	4.0	8.6
24	11	16	9.2	a17	a21	b25	97	268	109	36	4.0	8.6
25	11	17	8.6	*b18	a20	b25	104	220	102	30	4.0	8.6
26	11	18	7.9	b16	a21	b30	117	198	95	26	4.0	8.6
27	9.8	17	a9	a15	a22	35	93	182	91	24	4.0	8.6
28	9.8	17	a10	a15	a24	41	88	160	90	23	4.0	8.6
29	9.8	b15	a 11	a15	-	50	86	162	104	22	4.0	8.6
30	9.8	b10	a13	a16	------	51	84	180	88	21	4.0	8.6
31	9.2	------	a15	a17	------	53	-----	182	------	19	4.0	------
Total	305.9	429.0	375.7	443	473	870	2,643	5,823	6,313	1,417	224.0	182.9
Mean	9.87	14.3	12.1	14.3	16.9	28.1	88.1	188	210	45.7	7.23	6.10
Ac-ft	607	851	745	879	938	1,730	5,240	11,550	12,520	2,810	444	363

Calendar year 1954: Max 408 Min 7.9 Mean 76.6 Ac-ft 55,490
Water year 1954-55: Max 400 Min 3.6 Mean 53.4 Ac-ft 38,680

Peak discharge (base, 300 cfs).--May 21 (2 p.m.) 388 cfs (3.29 ft); June 10 (10 to 11 a.m.) 422 cfs (3.43 ft).

* Discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Powder River near Robinette, Oreg.

Location.--Lat 44°46'10", long 117°04'10", in E½ sec. 22, T. 9 S., R. 46 E., on left bank 2¼ miles northwest of Robinette and 2½ miles upstream from mouth.

Drainage area.--1,660 sq mi, approximately.

Records available.--September 1928 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 1,937.01 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Aug. 24, 1936, staff gage at site half a mile upstream at different datum. Aug. 24, 1936, to Oct. 31, 1948, staff gage at site 50 ft upstream at present datum.

Average discharge.--27 years, 514 cfs (372,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,870 cfs June 12 (gage height, 3.37 ft); minimum, 64 cfs Sept. 1 (gage height, 0.07 ft).

1928-55: Maximum discharge, 5,320 cfs May 28, 1948 (gage height, 6.6 ft, from floodmark, site then in use); minimum observed, 18 cfs Sept. 2-10, 1931.

The date of occurrence of the maximum discharge for water year 1947 has been corrected to May 8, 1947, superseding date published in WSP 1093.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Many diversions above station for irrigation; none below. One canal with capacity of about 5 cfs diverts around station on left bank. Flow partly regulated by several reservoirs, the largest being Thief Valley Reservoir near North Powder (capacity, 17,400 acre-ft).

Revisions.--WSP 1217: Drainage area. Revised figures of discharge, in cubic feet per second, for the water years 1929-1936, and 1949, superseding those published in WSP 693, 813, and 1153, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1929		1929-Con.		1929-Con.		1949-Con.		1949-Con.	
Feb. 1	278	Feb. 14	140	Dec. 23	60	Feb. 7	220	Feb. 20	400
2	263	15	140	24	70	8	230	21	450
3	240	16	160	25	90	9	240	22	520
4	200	17	170	26	110	10	250	23	550
5	140	18	140	27	120	11	230	24	650
6	110	19	130	28	110	12	220	25	800
7	90	20	150			13	210	26	900
8	100	21	160	1949		14	230	27	800
9	100	22	160	Feb. 2	210	15	240	28	760
10	110			3	220	16	250		
11	120	1935		4	220	17	300		
12	120	Dec. 21	45	5	230	18	350		
13	140	22	50	6	210	19	400		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
February 1929.....	-	278	90	156	8,660
Water year 1928-29....	-	2,810	33	364	263,000
Calendar year 1929....	-	2,810	33	358	259,000
December 1935.....	2,473	120	40	79.8	4,910
Calendar year 1935....	100,439	1,610	28	275	199,200
Water year 1935-36....	138,479	3,010	31	378	274,700
February 1949.....	10,500	900	210	375	20,830
Water year 1948-49....	236,848	3,440	59	649	469,800
Calendar year 1949....	230,583	3,440	59	632	457,400

Powder River near Robinette, Oreg.--Continued

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.1	67	2.0	760
.4	115	3.0	1,540
.9	245	4.0	2,520
1.5	485		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	143	154	111	b220	154	157	308	515	694	515	126	71
2	152	154	b150	b200	b140	175	308	575	664	454	109	74
3	164	157	b170	b160	b130	*152	256	570	*802	431	86	75
4	159	154	b180	b130	b130	132	233	545	942	426	94	76
5	157	152	180	b160	b140	107	239	585	1,150	444	102	79
6	154	152	172	b140	162	117	262	712	1,290	454	93	79
7	145	152	167	b150	169	143	298	724	1,430	444	98	80
8	148	152	157	b160	175	159	335	748	1,480	422	94	83
9	141	*152	145	b140	175	159	379	706	1,500	418	83	83
10	134	157	159	b160	b140	159	476	658	1,500	436	85	82
11	134	159	*b120	b150	b130	164	431	682	1,530	404	82	85
12	132	164	b130	b160	b140	177	367	774	1,580	400	76	82
13	134	164	b140	b170	b130	177	331	788	1,450	391	76	74
14	132	167	b130	b150	b140	180	315	646	1,240	*367	74	104
15	132	188	b130	b160	148	150	294	560	1,020	375	79	152
16	136	221	134	b140	141	154	273	505	823	363	76	169
17	134	197	100	b150	136	164	308	454	748	371	79	162
18	132	188	b95	b160	134	167	343	444	718	315	91	143
19	136	180	b110	157	134	177	371	555	795	252	*90	134
20	141	175	b110	152	143	162	422	914	879	230	80	119
21	148	175	b120	157	145	162	*449	1,290	1,010	200	112	*113
22	150	175	b130	159	152	164	575	1,270	1,070	215	93	117
23	145	175	b150	154	150	169	560	1,070	949	206	85	109
24	143	172	b200	*154	148	177	525	886	724	290	83	104
25	145	169	b150	157	143	172	480	781	612	242	83	98
26	150	172	b160	150	145	164	467	802	560	218	83	102
27	152	172	b140	138	150	169	458	688	520	200	83	96
28	157	167	b160	136	138	191	431	676	646	175	85	94
29	154	152	b200	141	-	284	431	748	676	172	85	91
30	154	126	b200	159	------	339	440	774	575	164	85	88
31	154	------	b280	164	------	280	------	748	------	141	83	------
Total	4,492	4,994	4,650	4,838	4,062	5,403	11,365	22,393	29,577	10,135	2,733	3,018
Mean	145	166	150	156	145	174	379	722	986	327	88.2	101
Ac-ft	8,910	9,910	9,220	9,600	8,060	10,720	22,540	44,420	58,670	20,100	5,420	5,990

Calendar year 1954: Max 1,500 Min 95 Mean 386 Ac-ft 279,800
Water year 1954-55: Max 1,580 Min 71 Mean 295 Ac-ft 213,600

Peak discharge (base, 1,100 cfs).--May 22 (1 a.m.) 1,500 cfs (2.95 ft); June 12 (1:30 a.m.) 1,870 cfs (3.37 ft); June 22 (1:30 a.m.) 1,260 cfs (2.66 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Snake River at Oxbow, Oreg.

Location.--Lat 44°57', long 116°51', in NW¼ sec. 16, T. 7 S., R. 48 E., on left bank at Oxbow, five-eighths of a mile upstream from intake of diversion tunnel for former Oxbow powerplant and 2½ miles upstream from Indian Creek.

Drainage area.--72,800 sq mi, approximately.

Records available.--May 1923 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 1,696.71 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Dec. 20, 1923, staff gage at same site and datum.

Extremes.--Maximum discharge during year, 28,400 cfs Apr. 23 (gage height, 12.60 ft); minimum, 9,370 cfs July 21 (gage height, 7.84 ft).
1923-55: Maximum discharge, 89,700 cfs Apr. 28, 1952 (gage height, 23.10 ft); maximum gage height, about 29 ft (ice jam), from floodmark, sometime during period Jan. 17-27, 1949; minimum discharge, 4,890 cfs Aug. 6, 1924 (gage height, 6.30 ft).

Remarks.--Records excellent. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. About 2,594,000 acres (revised) of land irrigated by diversions from river and its tributaries above station.

Revisions (water years).--WSP 1347: 1925.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 20 to Apr. 10, July 23 to Sept. 30)

7.9	9,280	10.0	16,500
8.5	11,100	11.0	20,600
9.0	12,800	13.0	30,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,200	16,000	14,500	15,100	13,000	11,800	18,000	20,700	14,000	14,700	10,100	10,500
2	14,300	14,900	15,000	15,900	13,300	11,600	18,100	21,800	13,900	14,400	9,980	10,500
3	14,100	15,300	14,600	14,500	13,200	12,300	18,300	19,900	14,600	14,300	9,860	10,400
4	14,900	15,400	15,500	14,500	14,000	12,400	17,800	19,300	13,800	14,000	10,200	10,700
5	14,300	16,700	15,600	13,000	13,600	12,900	17,800	19,900	13,900	13,400	10,500	10,800
6	13,600	17,100	14,300	13,600	13,900	12,300	17,700	19,600	14,600	13,500	10,300	10,800
7	14,700	15,900	14,100	14,000	12,700	12,300	17,600	20,000	15,300	13,000	10,600	10,700
8	15,100	15,500	14,200	14,200	12,100	11,900	17,700	19,600	*16,000	*12,700	10,600	10,800
9	15,800	15,800	14,700	14,900	12,400	11,500	16,700	19,300	17,300	12,400	10,300	10,500
10	15,800	14,500	13,700	14,400	13,500	12,700	14,300	18,700	18,200	12,000	*10,200	10,900
11	14,600	*13,000	*13,800	12,800	13,000	12,600	15,300	18,100	18,300	11,600	10,100	10,900
12	13,300	12,800	13,700	12,700	12,300	13,200	15,300	17,900	19,100	11,300	10,400	10,800
13	14,500	15,700	12,500	13,900	12,000	12,800	15,000	17,300	19,300	10,700	10,400	*11,500
14	17,400	14,900	12,600	13,700	11,700	14,000	16,200	17,300	18,900	10,300	10,600	11,800
15	18,200	15,100	13,300	13,400	11,300	14,500	17,500	16,200	18,400	10,300	10,500	11,800
16	17,200	15,900	15,000	14,500	11,400	13,800	17,700	14,800	17,700	10,300	10,700	12,600
17	18,300	15,200	14,900	14,300	11,500	14,000	17,900	13,900	16,700	10,300	10,100	13,200
18	19,300	14,700	14,700	*12,500	11,400	13,900	19,100	13,500	17,300	10,100	10,100	13,400
19	16,300	15,400	14,900	13,900	11,200	14,400	21,700	14,200	17,400	9,830	9,980	13,500
20	14,200	15,500	14,400	14,900	11,500	18,300	21,500	15,000	16,700	9,540	10,500	13,400
21	16,000	14,900	12,800	14,900	11,900	18,300	21,600	16,600	16,500	9,480	10,600	13,300
22	17,400	14,600	11,600	13,300	11,400	16,100	22,100	18,200	16,400	9,510	10,000	13,500
23	15,700	13,800	12,900	13,000	*10,400	13,500	26,600	20,600	16,300	9,860	10,000	13,900
24	13,300	14,300	12,400	13,400	11,400	14,200	24,500	18,300	16,100	10,000	10,100	14,300
25	15,100	13,800	12,900	12,500	11,500	15,700	22,100	16,900	15,800	10,500	10,400	14,300
26	*16,700	14,200	13,100	12,300	11,800	14,100	*19,000	16,200	16,000	10,300	10,800	14,000
27	16,300	13,800	13,500	12,800	12,700	14,500	18,900	15,800	15,000	10,100	11,100	12,200
28	14,900	13,500	13,400	13,200	12,600	16,400	20,500	15,800	14,300	9,860	10,100	11,900
29	16,500	14,900	13,700	13,900	-	*15,500	19,700	15,000	14,300	9,950	10,400	13,100
30	16,300	14,100	14,000	13,500	------	15,200	19,600	14,800	14,700	10,500	10,600	13,500
31	15,600	------	13,200	13,500	------	18,700	------	14,200	------	10,300	10,300	------
Total	483,900	447,200	429,500	427,000	342,700	435,400	565,800	539,400	486,800	349,630	320,420	363,500
Mean	15,610	14,910	13,850	13,770	12,240	14,050	18,860	17,400	16,230	11,280	10,340	12,120
Ac-ft	959,800	887,000	851,900	846,900	679,700	863,600	‡1,122	‡1,070	965,600	693,500	635,500	721,000

Calendar year 1954: Max 30,100 Min 9,890 Mean 16,910 Ac-ft 12,240,000
Water year 1954-55: Max 26,600 Min 9,480 Mean 14,220 Ac-ft 10,300,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

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 mile 53.2 from Lewiston, at China Gulch, a quarter of a mile downstream from Mountain Sheep dam site, 0.7 mile upstream from Imnaha River, 0.9 mile downstream from Divide Creek, 13 miles west of Joseph, and 22 miles west of Whitebird.

Drainage area.--73,800 sq mi, approximately.

Records available.--April to September 1955.

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 period, 31,800 cfs Apr. 24 (gage height, 9.11 ft); minimum, 9,940 cfs Aug. 19 (gage height, 1.29 ft); but may have been less during period of fragmentary gage-height record.

Remarks.--Records excellent except those for periods of backwater from Imnaha River and those for periods of fragmentary or no gage-height record, which are good. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. About 2,613,000 acres of land irrigated by diversions from river and its tributaries above station.

Discharge, in cubic feet per second, April to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	22,200	15,900	16,000	f10,400	10,500
2							-	24,700	15,500	15,700	*f10,200	10,600
3							-	24,000	16,000	15,200	10,200	10,500
4							-	21,300	16,000	15,500	10,200	10,600
5							-	22,800	15,800	14,600	10,600	10,800
6							-	23,000	16,600	14,500	10,600	11,000
7							-	23,300	17,500	14,300	10,600	*10,800
8							-	23,200	18,300	13,900	10,700	10,900
9							-	22,400	19,500	13,600	10,700	10,700
10							-	22,000	20,700	13,500	10,400	10,800
11							-	20,800	21,200	13,000	10,300	11,000
12							-	21,100	21,800	12,700	10,300	10,900
13							-	20,500	22,500	12,000	10,400	11,200
14							-	20,200	21,800	11,600	10,600	11,700
15							-	19,100	21,100	11,000	10,700	12,000
16							-	17,500	20,300	11,300	10,600	12,200
17							-	16,000	19,000	11,000	10,500	13,300
18							-	15,800	18,600	11,000	10,200	13,300
19							f22,600	*15,600	19,600	f10,500	10,100	13,700
20							*f22,500	17,400	18,600	f10,300	10,300	13,600
21							23,100	19,600	18,600	f10,100	10,600	13,400
22							24,600	21,200	18,100	f10,100	10,300	13,600
23							27,500	22,600	18,300	a10,400	10,100	13,600
24							29,500	23,100	17,900	f10,900	10,100	14,500
25							26,200	19,000	17,600	11,000	10,300	14,300
26							22,500	19,000	17,400	f10,700	10,500	14,300
27							*20,200	17,700	16,800	f10,600	11,300	13,500
28							21,300	17,800	*15,600	f10,400	10,400	11,700
29							*21,900	17,300	15,600	a10,200	10,300	12,800
30					------		21,500	16,800	16,200	a10,700	10,600	13,300
31		------			------		------	16,300	------	f10,700	10,400	------
Total							-	623,300	548,400	377,000	323,500	365,100
Mean							-	20,110	18,280	12,160	10,440	12,170
Ac-ft							-	‡1,236	‡1,088	747,800	641,700	724,200

		Max	Min	Mean	Ac-ft
Calendar year	:				
Water year	:	Max	Min	Mean	Ac-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 station at Oxbow.
f Frementary gage-height record; gage height partly estimated on basis of recorder graph for station at Oxbow and readings on Bureau of Reclamation staff gage upstream.
Note.--Stage-discharge relation affected by backwater from Imnaha River about May 5 to July 2.

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 Sheep Creek.

Drainage area.--640 sq mi, approximately.

Records available.--June 1928 to September 1955.

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.--27 years, 473 cfs (342,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,740 cfs May 21 (gage height, 5.05 ft); minimum, 45 cfs Jan. 4.

1928-55: Maximum discharge, 5,700 cfs May 28, 1948 (gage height, 7.06 ft); minimum observed, 16 cfs Nov. 22, 1931.

Revisions.--The maximum discharge for the water year 1932 has been revised to 4,030 cfs May 21, 1932 (gage height, 5.32 ft, from graph based on gage readings), superseding figure published in WSP 738.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversions for irrigation of about 4,000 acres above station. Water is diverted above station from Sheep Creek and Little Sheep Creek to Grande Ronde River basin for irrigation of about 6,500 acres (revised) in Wallowa Valley.

Revisions (water years).--WSP 883: 1938. WSP 1217: Drainage area. Revised figures of discharge, in cubic feet per second, for the water years 1929 and 1949, superseding those published in WSP 693 and 1153, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1928		1929-Con.		1929-Con.		1948-Con.		1949-Con.	
Dec. 4	50	Jan. 23	55	Feb. 12	80	Dec. 26	90	Jan. 12	80
5	55	24	70	13	100	27	90	13	75
6	60	25	80	15	110	28	100	14	80
7	65	26	120	16	120	29	120	15	95
8	60	27	110	17	130	30	174	16	120
21	60	28	105	18	120	31	171	17	100
22	55	29	110	20	120			18	110
23	60	30	90	21	120	1949		19	90
24	80	31	110	22	110	Jan. 1	171	20	90
25	155	Feb. 1	140			2	110	21	90
26	250	2	150	1948		3	90	22	95
27	175	3	140	Dec. 14	120	4	70	23	100
28	185	5	110	15	140	5	80	24	90
		6	80	16	110	6	110	25	80
1929		7	50	21	150	7	161	26	100
Jan. 19	90	8	55	22	120	8	149	27	110
20	50	9	60	23	95	9	112	28	130
21	55	10	70	24	85	10	70	29	120
22	60	11	80	25	90	11	75	30	150
								31	150

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1928	-	250	50	110	6,760
January 1929	-	140	50	100	6,150
February	-	150	50	107	5,940
Water year 1928-29	-	2,330	50	390	282,000
Calendar year 1929	-	2,330	50	393	284,000
December 1948	3,918	174	37	126	7,770
Calendar year 1948	266,231	4,560	37	727	528,000
January 1949	3,253	171	70	105	6,450
Water year 1948-49	163,557	2,430	37	448	324,400
Calendar year 1949	161,868	2,430	70	443	321,000

Imnaha River at Imnaha, Oreg.--Continued

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 20				May 21 to Sept. 30			
1.4	58	3.0	615	1.7	98	3.5	935
1.6	96	3.5	930	2.0	170	4.0	1,390
2.0	197	4.0	1,390	2.5	350	5.0	2,670
2.5	372	5.0	2,670	3.0	615		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	132	62	152	125	120	235	946	1,240	735	249	118
2	142	130	b90	145	*120	128	244	1,010	1,130	657	235	118
3	140	130	b130	116	114	118	238	930	1,230	621	228	118
4	140	130	b140	87	69	111	231	888	1,310	609	218	120
5	145	130	142	b85	b85	b80	225	1,140	1,470	627	214	120
6	142	128	142	b80	b100	b100	248	1,630	1,580	615	207	120
7	142	128	140	b110	b120	b120	333	1,600	1,810	669	204	118
8	150	128	118	123	147	147	500	1,690	1,910	609	200	118
9	142	128	116	105	128	147	670	1,540	2,000	609	194	122
10	140	140	140	120	86	147	902	1,500	2,040	657	188	120
11	142	140	107	120	76	*150	760	1,640	2,130	651	*182	118
12	158	137	105	b120	128	150	*615	1,870	2,160	651	173	116
13	155	140	147	125	135	135	530	1,820	2,080	645	170	111
14	147	137	142	128	128	145	500	1,460	1,850	645	170	*140
15	145	160	142	123	128	125	451	1,150	1,510	639	168	214
16	142	258	86	128	118	123	428	1,010	1,290	639	160	162
17	142	191	58	123	120	147	428	1,010	1,130	627	162	160
18	*142	171	b70	123	105	137	437	1,110	1,070	533	162	150
19	142	163	74	123	74	147	419	1,480	1,100	472	152	142
20	147	158	b85	123	b80	137	423	2,080	1,180	430	148	138
21	142	152	b100	120	b100	135	485	2,610	1,320	405	145	138
22	142	150	b120	116	b130	147	766	2,420	1,400	415	142	138
23	145	150	b130	128	125	140	839	2,070	*1,350	395	140	135
24	140	150	b140	130	120	145	790	1,780	1,090	450	138	132
25	137	147	135	125	111	137	718	*1,600	914	382	135	132
26	135	147	125	118	123	137	682	1,620	839	342	128	132
27	135	147	90	107	116	145	598	1,430	800	314	130	128
28	135	150	b80	98	105	152	540	1,300	886	298	128	128
29	132	*137	*b90	111	-	197	525	1,390	965	286	125	128
30	132	98	b120	120	------	219	598	1,510	806	278	122	128
31	132	------	160	125	------	212	------	1,410	------	263	120	------
Total	4,394	4,387	3,526	3,637	3,116	4,380	15,358	46,644	41,570	16,168	5,257	3,962
Mean	142	146	114	117	111	141	512	1,505	1,386	522	169	132
Ac-ft	8,720	8,700	6,990	7,210	6,180	8,690	30,460	92,520	82,450	32,070	10,390	7,860

Calendar year 1954: Max 2,070 Min 103 Mean 451 Ac-ft 326,200
Water year 1954-55: Max 2,610 Min 58 Mean 417 Ac-ft 302,200

Peak discharge (base, 1,300 cfs).--May 13 (3:30 a.m.) 2,000 cfs (4.51 ft); May 21 (3 a.m.) 2,740 cfs (5.05 ft); June 12 (4 a.m.) 2,390 cfs (4.80 ft); June 23 (2:30 a.m.) 1,640 cfs (4.22 ft).

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

Valley Creek at Stanley, Idaho

Location.--Lat 44°13', long 114°56', in 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.--176 sq mi.

Records available.--December 1910 to October 1913, May 1921 to September 1955. 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.--36 years (1911-13, 1921-55), 194 cfs (140,400 acre-ft per year).

Extremes.--Maximum discharge during year, 930 cfs June 13 (gage height, 2.97 ft); minimum, 52 cfs Nov. 29 (gage height, 0.79 ft).
1910-13, 1921-55: Maximum discharge observed, 1,950 cfs May 29, 1921 (gage height, 4.4 ft), from rating curve extended above 1,300 cfs; minimum, 40 cfs (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversion for irrigation of about 590 acres above station.

Revisions (water years).--WSP 362: 1911-12.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	55	1.8	299
1.0	79	2.1	433
1.2	114	2.5	648
1.5	191	3.0	990

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	79	b62	87	b78	69	75	*149	419	400	146	74
2	97	76	b68	85	b76	70	76	162	419	354	139	74
3	97	76	79	b80	b74	71	74	144	424	328	134	74
4	95	76	81	b78	b71	b67	75	146	419	377	129	72
5	93	78	82	b75	b73	b62	76	194	453	386	129	72
6	93	75	81	*b80	b74	b72	76	276	509	350	125	72
7	95	74	82	b80	b77	76	79	316	602	333	123	74
8	92	76	75	b80	b78	74	82	400	723	303	116	72
9	92	82	74	b80	76	75	87	428	789	295	110	71
10	92	85	78	b80	b75	75	90	453	838	295	103	72
11	95	85	76	b80	b75	70	84	519	*845	341	101	72
12	99	97	76	b80	b76	74	84	557	880	341	101	71
13	99	99	81	b80	b79	72	87	525	908	316	97	72
14	93	93	79	b80	b82	b72	87	410	873	316	97	81
15	95	101	b75	b80	*b82	b72	82	320	831	320	97	93
16	95	125	b70	b80	82	b74	87	287	730	316	97	104
17	95	108	b67	b80	81	b74	89	276	631	324	92	108
18	92	97	b66	81	b76	b74	92	324	579	*307	89	110
19	95	95	b66	82	b69	b72	90	395	562	291	89	103
20	97	89	b69	82	b73	b70	87	473	590	268	87	106
21	93	92	b72	82	b76	b72	89	636	607	256	85	99
22	93	90	b75	81	b75	72	95	636	636	260	84	95
23	92	87	b78	84	75	b72	93	596	679	260	81	95
24	90	85	b85	81	74	71	95	552	673	260	81	103
25	90	84	b80	75	75	72	95	*499	579	231	*82	127
26	89	85	b76	74	75	b73	97	483	504	208	81	116
27	*84	82	b73	b72	74	*b73	97	428	468	191	78	*106
28	84	b65	b70	b76	74	72	95	372	458	179	78	104
29	82	b60	b74	b76	-	75	101	400	525	168	78	103
30	82	*b60	b80	b76	------	75	121	488	478	162	76	101
31	81	-----	87	b78	-----	75	-----	463	------	152	75	------
Total	2,856	2,556	2,337	2,465	2,125	2,237	2,637	12,307	18,631	8,888	3,080	2,696
Mean	92.1	85.2	75.4	79.5	75.9	72.2	87.9	397	621	287	99.4	89.9
Cfsm	0.523	0.484	0.428	0.452	0.431	0.410	0.499	2.26	3.53	1.63	0.565	0.511
In.	0.60	0.54	0.49	0.52	0.45	0.47	0.56	2.60	3.94	1.88	0.65	0.57
Ac-ft	5,660	5,070	4,640	4,890	4,210	4,440	5,230	24,410	36,950	17,630	6,110	5,350

Calendar year 1954: Max 1,200 Min 60 Mean 229 Cfsm 1.30 In. 17.66 Ac-ft 166,000
Water year 1954-55: Max 908 Min 60 Mean 172 Cfsm 0.977 In. 13.27 Ac-ft 124,600

Peak discharge (base, 600 cfs).--May 12 (7 p.m.) 782 cfs (2.75 ft); May 22 (12:30 a.m.) 749 cfs (2.71 ft); June 13 (12 m.) 930 cfs (2.97 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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.--535 sq mi.

Records available.--July 1925 to September 1955.

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.--30 years, 646 cfs (467,700 acre-ft per year).

Extremes.--Maximum discharge during year, 3,070 cfs June 13 (gage height, 3.41 ft); minimum daily, 270 cfs Jan. 5, Feb. 20.
1925-55: Maximum discharge, 5,020 cfs June 27, 1927 (gage height, 4.41 ft); from rating curve extended above 4,000 cfs; minimum, 100 cfs (estimated) Nov. 20-30, 1929.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation of about 6,000 acres.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	240	2.0	1,170
1.0	320	3.0	2,450
1.2	430	4.0	4,020
1.5	660		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376	365	*b290	b340	320	310	300	*458	1,440	1,440	556	292
2	370	360	b330	330	300	310	310	480	1,400	1,270	508	292
3	365	365	355	320	290	310	300	472	1,400	1,190	493	292
4	360	365	355	280	280	310	300	493	1,390	1,240	472	288
5	365	370	360	270	280	280	300	604	1,460	1,210	465	284
6	360	365	360	290	300	300	300	760	1,640	1,200	451	284
7	365	360	365	*b300	310	310	300	850	1,930	1,150	430	280
8	360	360	335	b310	310	330	310	1,060	2,320	1,050	418	280
9	365	376	335	315	310	330	330	1,130	2,600	1,030	400	280
10	360	376	360	320	290	335	360	1,140	2,760	1,030	388	284
11	370	376	355	320	290	330	340	1,280	*2,820	1,140	382	284
12	382	400	345	320	300	335	320	1,390	2,940	1,190	376	276
13	376	394	355	340	310	330	320	1,350	3,000	1,150	365	276
14	365	382	360	330	310	330	310	1,210	2,920	1,140	365	284
15	382	418	360	310	310	315	290	1,050	2,840	1,140	365	296
16	388	472	335	325	*312	320	310	983	2,620	1,140	355	312
17	382	424	b310	310	320	320	320	950	2,300	1,140	350	325
18	376	406	b315	310	290	312	330	983	2,110	*1,100	340	350
19	382	406	325	315	280	304	320	1,080	2,030	1,070	340	350
20	388	388	330	315	270	296	310	1,220	2,100	1,020	340	355
21	382	394	335	315	290	296	310	1,520	2,180	994	340	345
22	376	388	335	305	300	304	330	1,690	2,310	1,000	335	340
23	382	382	340	315	300	300	320	1,690	2,460	994	325	340
24	382	382	350	320	310	304	320	1,600	2,390	1,020	316	355
25	376	376	345	315	310	304	320	*1,500	2,130	940	*316	368
26	376	376	350	300	310	*304	330	1,460	1,870	860	304	370
27	*365	370	325	290	310	304	320	1,380	1,730	780	304	*355
28	365	330	b300	310	310	310	320	1,250	1,640	741	300	355
29	365	290	b300	315	-	310	320	1,260	1,770	705	300	355
30	360	280	b310	315	------	305	360	1,520	1,640	652	300	350
31	365	-----	b330	320	-----	300	-----	1,560	------	604	296	------
Total	11,531	11,296	10,455	9,690	8,422	9,658	9,530	35,373	64,140	32,330	11,595	9,517
Mean	372	377	337	313	301	312	318	1,141	2,138	1,043	374	317
Cfsm	0.695	0.705	0.630	0.585	0.563	0.583	0.594	2.13	4.00	1.95	0.699	0.593
In.	0.80	0.79	0.73	0.67	0.59	0.67	0.66	2.46	4.46	2.25	0.81	0.66
Ac-ft	22,870	22,410	20,740	19,220	16,700	19,160	18,900	70,160	127,200	64,130	23,000	18,880

Calendar year 1954: Max 4,140 Min 280 Mean 797 Cfsm 1.49 In. 20.23 Ac-ft 577,100
Water year 1954-55: Max 3,000 Min 270 Mean 612 Cfsm 1.14 In. 15.55 Ac-ft 443,400

Peak discharge (base, 1,700 cfs).--May 23 (2 to 3 a.m.) 1,800 cfs (2.52 ft); June 13 (11 a.m.) 3,070 cfs (3.41 ft).

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

Note.--No gage-height record Nov. 28-30, Jan. 2-6, Jan. 9 to Feb. 15, Feb. 17 to Mar. 17, Mar. 28 to Apr. 30, May 2; discharge estimated on basis of weather records and records for other Salmon River stations.

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.--841 sq mi.

Records available.--October 1921 to September 1955. 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.--34 years (1921-55), 961 cfs (695,700 acre-ft per year).

Extremes.--Maximum discharge during year, 5,090 cfs June 13 (gage height, 8.02 ft); minimum, 291 cfs Feb. 19 (gage height, 2.06 ft).
1921-55: Maximum discharge, 8,000 cfs (estimated) June 27, 1927; minimum, 160 cfs (estimated) Nov. 25-30, 1929.

Remarks.--Records excellent except those for periods of ice effect, which are good. Diversions for irrigation of about 6,000 acres above Stanley.

Revisions (water years).--WSP 1347: 1931.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 7-23)

2.1	317	4.0	1,410
2.5	508	6.0	3,070
3.0	773	8.0	5,180

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	534	508	*b340	448	409	400	409	*638	2,350	1,970	778	414
2	528	503	b380	438	386	404	424	669	2,270	1,750	746	409
3	523	503	b430	414	376	404	400	632	2,230	1,640	707	409
4	513	498	b440	367	362	404	400	632	2,230	1,660	686	409
5	518	503	468	b330	b380	362	400	873	2,440	1,670	686	404
6	513	488	468	b350	381	b380	400	1,200	2,870	1,640	659	400
7	513	483	478	*b390	404	b400	409	1,400	3,510	1,590	638	395
8	513	488	424	b400	400	429	429	1,680	4,160	1,470	622	390
9	513	513	409	b400	390	429	453	1,840	4,580	1,420	595	390
10	513	523	463	b410	362	434	498	1,800	4,730	1,420	575	390
11	518	513	438	b410	367	429	463	1,980	4,800	1,540	564	395
12	534	539	429	419	b380	438	448	2,140	*4,960	1,600	559	390
13	534	544	463	443	b390	434	448	2,130	5,040	1,530	544	381
14	513	523	453	424	400	434	438	1,860	4,800	1,500	539	390
15	528	539	453	404	404	404	409	1,580	4,540	1,490	549	419
16	539	638	b400	424	386	409	429	1,410	4,100	1,470	528	443
17	534	569	b360	404	*409	424	434	1,330	3,570	1,470	513	473
18	518	539	b360	395	376	414	453	1,380	3,260	*1,420	503	513
19	523	534	b370	404	353	414	434	1,600	3,120	1,370	503	503
20	534	518	b390	404	b350	400	424	2,010	3,210	1,300	503	518
21	523	518	b410	404	b360	395	429	2,770	3,290	1,310	508	498
22	518	508	b420	395	b380	414	453	3,180	3,460	1,300	493	488
23	513	498	b430	409	390	409	443	2,940	3,570	1,270	483	483
24	513	493	b450	419	395	409	448	2,680	3,440	1,320	*468	503
25	513	483	b430	409	404	*400	443	2,390	3,000	1,210	458	564
26	508	493	b420	386	400	400	453	*2,270	2,640	1,120	448	539
27	*498	488	b400	376	404	400	438	2,080	2,420	1,040	438	513
28	513	424	b340	400	400	409	434	1,890	2,260	971	434	*503
29	508	376	b360	404	-	414	443	1,980	2,420	930	434	503
30	513	362	b400	404	------	409	508	2,510	2,240	873	434	493
31	513	-----	434	409	-----	409	-----	2,610	------	822	424	------
Total	16,089	15,109	12,910	12,493	10,798	12,714	13,094	56,084	101,510	43,086	17,019	13,522
Mean	519	504	416	403	386	410	436	1,809	3,384	1,390	549	451
Cfsm	0.617	0.599	0.495	0.479	0.459	0.488	0.518	2.15	4.02	1.65	0.653	0.536
In.	0.71	0.67	0.57	0.55	0.48	0.56	0.58	2.48	4.49	1.91	0.75	0.60
Ac-ft	31,910	29,970	25,610	24,780	21,420	25,220	25,970	111,200	201,300	85,460	33,760	26,820

Calendar year 1954: Max 6,470 Min 340 Mean 1,176 Cfsm 1.40 In. 18.98 Ac-ft 851,300
Water year 1954-55: Max 5,040 Min 330 Mean 889 Cfsm 1.06 In. 14.35 Ac-ft 643,400

Peak discharge (base, 2,350 cfs).--May 12 (11 p.m.) 2,510 cfs (5.44 ft); May 22 (3:30 a.m.) 3,410 cfs (6.41 ft); June 13 (5 a.m.) 5,090 cfs (8.02 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 5,163.99 ft above mean sea level, datum of 1929.

Average discharge.--27 years, 1,402 cfs (1,015,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,140 cfs June 13 (gage height, 7.65 ft); minimum, 253 cfs Jan. 5 (gage height, 1.38 ft).
1928-55: Maximum discharge, 10,600 cfs May 28, 1951 (gage height, 8.74 ft); minimum, 160 cfs Dec. 14, 1940.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Diversions for irrigation of about 10,000 acres above station.

Revisions.--WSP 1043: Drainage area.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 21 to July 17)

1.7	385	5.0	3,200
2.0	540	6.0	4,600
2.5	835	7.0	6,210
3.0	1,190	8.0	8,010
4.0	2,070		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	816	764	445	698	570	560	562	822	3,120	2,870	1,320	**650**
2	816	746	*516	704	550	560	590	921	2,970	2,580	1,260	639
3	809	740	698	639	530	560	546	907	2,930	2,400	1,210	628
4	790	734	734	507	520	560	546	861	2,930	2,350	1,150	628
5	790	734	710	415	530	530	546	1,050	3,110	2,440	1,130	622
6	776	722	692	b580	540	530	546	1,490	3,670	2,440	1,110	612
7	776	710	728	b600	560	560	568	1,810	4,570	2,450	1,080	612
8	770	704	622	*b540	560	590	595	2,140	5,600	2,250	1,050	600
9	770	728	507	b550	550	600	628	2,520	6,260	2,200	1,020	595
10	770	746	639	590	520	610	698	2,410	6,460	2,190	984	606
11	790	746	650	590	520	600	668	2,560	6,590	2,270	956	600
12	816	752	590	590	540	610	634	2,790	*6,910	2,480	942	595
13	822	790	668	620	560	620	644	2,880	7,020	2,410	921	584
14	790	758	692	600	570	590	622	2,670	6,620	2,390	914	590
15	802	758	668	580	570	580	578	2,290	6,330	2,400	914	622
16	835	874	568	580	540	580	595	2,030	5,700	2,370	894	650
17	828	842	534	560	*580	580	600	1,870	5,000	*2,390	861	710
18	809	776	529	560	530	573	628	1,820	4,540	2,320	835	764
19	802	764	546	570	510	529	622	2,000	4,340	2,240	816	776
20	816	746	568	580	485	480	595	2,500	4,500	2,120	809	802
21	809	740	584	560	510	507	595	3,300	4,630	2,060	790	776
22	802	734	612	560	540	600	628	4,120	4,880	2,040	783	752
23	790	722	617	570	560	568	622	3,870	5,160	2,020	758	740
24	790	704	680	580	560	590	622	3,550	4,840	2,230	*740	758
25	783	698	639	550	560	*562	617	3,190	4,260	2,040	740	848
26	783	698	617	540	560	562	650	*2,980	3,730	1,890	716	*835
27	*752	704	524	550	560	546	622	2,780	3,450	1,750	704	796
28	758	617	465	560	560	578	600	2,520	3,250	1,630	698	770
29	758	529	595	570	-	584	612	2,530	3,380	1,570	686	770
30	752	410	698	570	------	568	*650	3,120	3,250	1,470	680	758
31	758	-----	728	580	-----	568	------	*3,430	------	1,410	674	------
Total	24,528	21,690	19,065	17,843	15,245	17,635	18,229	73,711	140,000	67,670	28,145	20,688
Mean	791	723	615	576	544	569	608	2,378	4,667	2,183	908	890
Cfsm	0.439	0.402	0.342	0.320	0.302	0.316	0.338	1.32	2.59	1.21	0.504	0.383
In.	0.51	0.45	0.39	0.37	0.31	0.36	0.38	1.52	2.89	1.40	0.58	0.43
Ac-ft	48,650	43,020	37,810	35,390	30,240	34,980	36,160	146,200	277,700	134,200	55,820	41,030

Calendar year 1954: Max 9,300 Min 410 Mean 1,680 Cfsm 0.933 In. 12.67 Ac-ft 1,216,000
Water year 1954-55: Max 7,020 Min 410 Mean 1,272 Cfsm 0.707 In. 9.59 Ac-ft 921,200

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 10 to Mar. 17; discharge estimated on basis of 1 discharge measurement, weather records, and records for station below Yankee Fork, near Clayton.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 5,369.3 ft (surveyed by Topographic Division). Prior to Sept. 27, 1944, staff gage, and Sept. 27, 1944, to Nov. 10, 1948, water-stage recorder, 350 ft downstream at present datum.

Average discharge.--12 years, 43.7 cfs (31,640 acre-ft per year).

Extremes.--Maximum discharge during year, 202 cfs June 14 (gage height, 5.43 ft); minimum recorded, 7.6 cfs Apr. 20, but may have been less during period of ice effect.
1943-55: Maximum discharge, 418 cfs June 4, 1948 (gage height, 2.30 ft, site then in use); minimum, 5.7 cfs Mar. 11, 29, 1950.

Remarks.--Records excellent May to September and good October to April, except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 4 to Nov. 28, Apr. 9-30, May 21 to June 19)

3.2	7.6	4.0	55
3.3	10	5.0	162
3.5	17	6.0	289
3.7	30		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	17	9	13	10	9	10	12	93	76	50	34
2	21	17	*13	13	10	9	10	12	92	75	50	34
3	20	17	14	12	9	9	9	12	93	78	48	32
4	20	17	14	11	8	8	9	12	94	88	50	31
5	20	17	14	11	9	8	9	13	97	78	50	30
6	19	17	14	12	9	9	10	30	108	83	49	32
7	19	16	15	12	9	10	10	34	132	75	48	32
8	18	16	14	12	9	10	11	39	151	70	45	30
9	18	17	13	*12	9	10	11	43	161	68	44	30
10	17	16	15	12	8	10	12	43	166	67	43	30
11	18	16	13	12	8	10	11	45	169	67	43	28
12	19	17	14	12	8	10	11	51	*180	63	43	27
13	19	14	15	12	9	9	11	55	194	60	43	22
14	18	14	15	12	9	9	11	60	194	*62	43	20
15	19	15	15	12	9	9	10	58	196	61	45	21
16	19	16	13	12	9	9	11	56	191	60	44	22
17	19	15	13	12	9	10	11	51	174	59	43	23
18	19	15	13	11	*8	10	11	50	163	60	43	25
19	18	15	13	11	8	9	11	51	151	58	43	24
20	20	15	13	11	8	9	11	58	146	60	43	24
21	20	15	14	11	8	10	11	76	140	61	42	22
22	20	15	14	11	9	10	12	88	139	58	41	22
23	19	15	14	11	9	*10	12	87	122	57	39	22
24	19	15	14	11	9	10	12	86	120	58	*38	*24
25	19	15	14	11	9	9	12	81	117	53	37	23
26	18	15	14	11	9	9	13	*76	113	50	36	24
27	18	15	12	10	9	9	11	69	107	50	34	23
28	*17	13	12	9	8	10	11	68	97	52	37	23
29	17	11	13	9	-	11	11	75	88	50	38	22
30	18	8	14	9	------	10	*11	85	83	50	38	22
31	17	------	14	10	------	10	------	92	------	50	37	------
Total	582	456	421	350	245	294	326	1,668	4,071	1,957	1,327	778
Mean	18.8	15.2	13.6	11.3	8.8	9.5	10.9	53.8	13.6	63.1	42.8	25.9
Ac-ft	1,150	904	835	694	486	583	647	3,310	8,070	3,880	2,630	1,540

Calendar year 1954: Max 196 Min 8 Mean 36.1 Ac-ft 26,150
Water year 1954-55: Max 196 Min 8 Mean 34.2 Ac-ft 24,730

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to about Apr. 6, Apr. 12, 15. No gage-height record Dec. 9 to Jan. 8, Jan. 28 to Feb. 17, Feb. 21 to Mar. 12, Mar. 17-19, 21, 22, Mar. 26 to Apr. 8; discharge estimated on basis of weather records, 3 discharge measurements and records for other nearby streams in Salmon River basin.

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 1955.

Gage.--Staff gage read once daily. Datum of gage is 4,636.95 ft above mean sea level, adjustment of 1912.

Average discharge.--26 years (1929-55), 209 cfs (151,300 acre-ft per year).

Extremes.--Maximum discharge observed during year, 296 cfs Apr. 3 (gage height, 2.57 ft); minimum observed, 74 cfs May 19 (gage height, 1.66 ft).
1929-55: Maximum discharge observed, 454 cfs May 30, 1943 (gage height, 2.81 ft); maximum gage height observed, 3.21 ft June 4, 1948 (backwater from Salmon River); minimum discharge observed, that of May 19, 1955.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Diversions for irrigation of about 12,500 acres above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-4, Aug. 7 to Sept. 30)

1.6	66
1.8	97
2.0	136
2.4	247
2.8	400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	244	254	241	232	232	288	216	106	168	a140	138
2	184	247	250	244	232	232	292	216	110	163	a140	138
3	213	a250	*247	235	228	235	296	210	111	163	a135	138
4	207	254	254	232	232	228	278	204	108	160	a135	138
5	207	254	257	235	232	225	267	160	108	155	a130	141
6	204	257	257	238	232	228	264	158	110	184	a130	143
7	207	254	267	235	235	228	264	148	110	184	126	148
8	210	250	271	235	235	232	267	148	113	179	123	148
9	207	250	281	*235	232	235	267	136	106	174	123	148
10	210	254	254	235	232	247	261	128	110	171	126	150
11	207	250	250	232	228	250	254	123	111	168	126	150
12	207	254	250	228	228	254	254	117	113	174	130	150
13	204	257	250	232	228	267	250	106	*121	174	134	150
14	204	250	250	232	228	261	250	108	136	171	136	153
15	210	250	250	232	232	254	247	102	148	174	136	155
16	213	257	250	232	232	247	213	101	165	174	136	158
17	216	257	244	228	232	261	216	99	163	*165	141	163
18	213	254	238	232	*225	257	235	95	153	165	143	165
19	213	257	238	232	232	254	225	74	146	160	143	174
20	216	257	235	232	228	254	225	75	141	a165	138	182
21	232	257	235	232	228	250	222	78	141	168	*138	184
22	228	257	235	232	232	257	228	80	138	160	141	182
23	228	257	238	232	232	*254	225	81	136	160	141	182
24	225	254	241	235	232	261	219	81	128	163	141	176
25	235	257	238	235	232	264	216	84	128	160	136	184
26	241	257	232	232	228	267	228	84	130	165	132	*193
27	*244	257	225	232	232	264	225	*89	132	165	132	193
28	244	254	225	232	232	264	219	89	130	165	134	190
29	244	254	225	228	-	271	216	92	179	160	136	190
30	244	254	232	225	------	267	*219	95	171	158	136	193
31	244	------	238	228	------	281	------	*106	------	a150	138	------
Total	6,740	7,615	7,591	7,220	6,463	7,781	7,330	3,683	3,902	5,165	4,176	4,897
Mean	217	254	245	233	231	251	244	119	130	167	135	163
Ac-ft	13,370	15,100	15,060	14,320	12,820	15,430	14,540	7,310	7,740	10,240	8,280	9,710

Calendar year 1954: Max 311 Min 84 Mean 211 Ac-ft 153,000
Water year 1954-55: Max 296 Min 74 Mean 199 Ac-ft 143,900

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

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 1955. 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.--40 years (1912-16, 1919-55), 1,881 cfs (1,362,000 acre-ft per year).

Extremes.--Maximum discharge during year, 8,060 cfs June 13 (gage height, 6.33 ft); minimum, 714 cfs Jan. 6 (gage height, 2.48 ft).
1912-16, 1919-55: Maximum discharge observed, 16,400 cfs June 12, 1921 (gage height, 9.35 ft, site and datum then in use); minimum, 242 cfs Jan. 8, 1937 (gage height, 1.50 ft).

Remarks.--Records excellent except those for periods 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	730	5.0	4,600
2.8	1,010	6.0	7,100
3.2	1,460	7.0	10,200
4.0	2,610		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	1,260	800	1,320	1,080	960	1,070	980	3,600	3,700	1,630	811
2	1,120	1,270	780	1,260	1,060	970	1,080	1,120	3,350	3,350	1,510	793
3	1,130	1,280	*1,020	1,220	1,000	990	1,030	1,220	3,250	3,090	1,420	793
4	1,130	1,270	1,220	1,000	930	930	970	1,180	3,240	2,980	1,360	784
5	1,120	1,260	1,230	800	910	870	960	1,110	3,250	3,010	1,300	784
6	1,120	1,240	1,210	750	910	850	960	1,330	3,640	3,090	1,260	793
7	1,110	1,230	1,210	920	990	870	970	1,720	4,460	3,250	1,220	793
8	1,070	1,220	1,210	1,000	1,050	980	990	2,010	5,650	3,010	1,210	784
9	1,060	1,210	1,020	920	1,060	1,020	1,020	2,380	6,650	2,890	1,160	784
10	1,070	1,230	900	960	960	1,040	1,060	2,520	7,070	2,850	1,110	793
11	1,090	1,260	1,050	*1,040	900	1,030	1,090	2,440	7,210	2,850	1,100	793
12	1,090	1,260	1,110	1,060	870	1,050	1,060	2,640	7,440	3,100	1,080	793
13	1,110	1,280	1,000	1,010	950	1,060	1,030	2,820	*7,880	3,000	1,070	793
14	1,120	1,290	1,150	950	1,030	1,040	1,040	2,870	7,940	2,900	1,060	793
15	1,100	1,260	1,200	1,050	1,030	1,000	1,000	2,660	7,610	*2,830	1,070	811
16	1,130	1,280	1,120	1,060	1,030	960	950	2,360	7,270	2,820	1,070	838
17	1,130	1,360	890	1,050	1,010	960	950	2,120	6,390	2,780	1,050	874
18	1,200	1,330	800	1,030	*980	1,020	970	1,970	5,750	2,800	1,030	920
19	1,180	1,290	760	1,010	900	1,030	1,010	1,940	5,330	2,880	1,010	970
20	1,160	1,270	740	1,040	840	910	980	2,180	5,240	2,580	980	1,040
21	1,160	1,260	800	1,040	860	874	960	2,870	5,310	2,490	960	1,050
22	1,180	1,240	870	1,030	920	960	960	4,150	5,360	2,460	*960	1,030
23	1,160	1,230	930	1,030	960	*1,040	980	4,370	5,600	2,410	910	1,020
24	1,160	1,210	950	1,060	970	1,020	970	4,060	5,530	2,440	892	1,030
25	1,200	1,210	1,040	1,040	970	1,010	970	3,720	5,140	2,520	856	*1,030
26	1,220	1,190	1,040	1,020	970	1,000	1,020	3,330	4,550	2,360	838	1,090
27	1,210	1,200	910	1,010	970	1,020	1,020	3,180	4,170	2,190	829	1,120
28	*1,200	1,200	870	1,000	980	1,050	*970	*2,920	3,890	2,060	829	1,090
29	1,230	1,110	780	960	-	1,070	950	2,700	3,910	1,970	829	1,070
30	1,260	980	940	1,000	------	1,120	950	2,890	4,110	1,850	829	1,070
31	1,270	------	1,220	1,060	------	1,070	------	*3,640	------	1,750	820	------
Total	35,570	37,180	30,770	31,700	27,090	30,774	29,940	77,400	159,790	84,060	33,252	27,137
Mean	1,147	1,239	993	1,023	968	993	998	2,497	5,326	2,712	1,073	905
Ac-ft	70,550	73,750	61,030	62,880	53,730	61,040	59,390	153,500	316,900	166,700	65,950	53,830

Calendar year 1954: Max 9,480 Min 740 Mean 2,057 Ac-ft 1,489,000
Water year 1954-55: Max 7,940 Min 740 Mean 1,657 Ac-ft 1,199,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30 to Dec. 6, Dec. 9-11, 13, 14, 16-30, Jan. 4 to Feb. 27, Mar. 4-7.

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 above county road bridge, and 6½ miles south of Leadore.
Drainage area.--73 sq mi, approximately; 74 sq mi, approximately (revised) at former site.
Records available.--June to September 1955. November 1938 to July 1939 at site half a mile downstream; records during irrigation season not equivalent owing to diversions for irrigation between sites.
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 discharge during period, 53 cfs June 29 (gage height, 3.41 ft); minimum, 4.3 cfs Aug. 31 (gage height, 2.72 ft).
1938-39, 1955: Maximum discharge observed, 70 cfs Mar. 24-27, 1939, from rating curve extended above 30 cfs; maximum gage height observed, 2.62 ft Feb. 4, 1939 (ice jam), site and datum then in use; minimum discharge recorded, that of Aug. 31, 1955.
Remarks.--Records good except those for period of no gage-height record, which are fair. Several diversions for irrigation above station.

Discharge, in cubic feet per second, 1955

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	a12	14	11	7.0	11	14	13	6.4	11	21	10	12	9.4	7.0
2	a12	12	8.2	8.8	12	13	13	6.7	9.4	22	9.4	11	*8.8	7.0
3	12	12	7.0	9.4	13	18	11	6.7	9.4	23	8.8	12	7.0	7.6
4	12	13	6.4	8.2	14	*14	11	9.4	9.4	24	8.8	12	7.0	*7.6
5	*13	12	6.4	8.8	15	14	*9.4	12	7.0	25	7.6	12	8.8	10
6	12	11	7.0	8.8	16	16	8.2	11	7.0	26	8.8	10	10	11
7	9.4	12	6.4	8.8	17	14	9.4	9.4	8.2	27	9.4	8.8	12	8.8
8	12	12	9.4	8.8	18	12	10	9.4	11	28	8.2	11	12	8.8
9	12	13	11	10	19	9.4	8.8	9.4	8.8	29	26	12	11	8.2
10	14	12	7.6	12	20	9.4	8.8	9.4	7.0	30	22	12	6.4	7.0
										31	-	11	4.9	-
Total											373.2	349.4	267.5	261.8
Mean											12.4	11.3	8.63	8.73
Runoff in acre-feet											740	693	531	519

* Discharge measurement made on this day.
a No gage-height record; discharge estimated.
Note.--Result of discharge measurement Apr. 29, 1955, 24 cfs.

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 to September 1955.
Gage.--Staff gage read once daily; crest-stage indicator since Apr. 1, 1955. Datum of gage is 4,971.71 ft above mean sea level, adjustment of 1929 (levels by Corps of Engineers).
Extremes.--Maximum discharge during period, 845 cfs June 29 (gage height, 3.17 ft); minimum observed, 93 cfs Sept. 3-7 (gage height, 1.52 ft).
1938-39, 1955: Maximum discharge, that of June 29, 1955; minimum observed, that of Sept. 3-7, 1955; minimum gage height observed, 1.41 ft Aug. 27, 1939.
Revisions.--The maximum discharge for the water year 1939 has been revised to 542 cfs May 31, 1939 (gage height, 2.42 ft), superseding figure published in WSP 883 and 1317.
Remarks.--Records good. Many diversions upstream for irrigation.
Revisions.--Revised figures of discharge, in cubic feet per second, for high-water periods in the water year 1939, superseding those published in WSP 883 and 1317, are given herewith:

1939	1939-Con.	1939-Con.	1939-Con.
Mar. 19..... 413	Mar. 26..... 413	May 31..... 542	June 23..... 377
20..... 425	May 23..... 451	June 1..... 438	24..... 389
21..... 438	29..... 470	21..... 354	
22..... 413	30..... 536	22..... 354	

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
March 1939	8,040	438	145	259	15,950
May	10,457	542	218	337	20,740
June	10,224	438	302	341	20,280

Discharge, in cubic feet per second, 1955

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	206	199	374	165	99	16	-	202	598	245	129	111
2	-	212	182	342	144	97	17	-	196	491	231	129	107
3	-	206	165	318	144	93	18	-	190	464	238	120	115
4	-	199	159	310	144	93	19	-	187	428	252	111	129
5	-	212	165	302	139	93	20	-	199	464	238	107	159
6	-	218	182	302	139	93	21	-	245	473	252	111	182
7	-	224	224	310	129	93	22	-	322	500	245	*113	182
8	-	224	338	302	124	97	23	-	302	500	224	107	193
9	-	215	354	280	129	97	24	-	272	428	231	107	*196
10	-	209	382	266	124	101	25	-	245	386	252	115	190
11	-	209	424	272	124	101	26	-	212	338	231	111	190
12	-	209	464	280	124	103	27	-	212	346	235	111	168
13	-	196	628	258	115	99	28	-	*184	306	193	115	165
14	-	196	*810	266	115	95	29	202	182	530	193	111	165
15	-	202	586	*245	115	103	30	*199	206	446	187	103	182
							31	-	*212	-	176	103	-
Total								-	6,705	11,760	8,050	3,777	3,891
Mean								-	216	392	260	122	130
Runoff in acre-feet								-	13,300	23,330	15,970	7,490	7,720

* Discharge measurement made on this day.

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 1955.

Gage.--Staff gage read once daily. Altitude of gage is 3,280 ft (from river-profile map).

Average discharge.--11 years, 248 cfs (179,500 acre-ft per year).

Extremes.--Maximum discharge observed during year, 1,250 cfs June 13, 14 (gage height, 2.78 ft); maximum gage height observed, 2.80 ft Dec. 24, 25 (backwater from ice); minimum daily discharge, 50 cfs Nov. 30, Mar. 5.
1944-55: Maximum discharge observed, 2,640 cfs June 13, 1953 (gage height, 4.30 ft); maximum gage height observed, 4.4 ft Jan. 6, 1947 (backwater from ice); minimum discharge observed, 30 cfs Feb. 10, 1953 (gage height, -0.21 ft).

Remarks.--Records good except those for periods of ice effect or doubtful gage-height record, which are fair. Diversions above station for irrigation of about 1,000 acres.

Revisions (water years).--WSP 1063: 1945.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.0	45	1.6	495
.2	70	2.0	715
.4	106	2.5	1,030
.8	198	3.0	1,410
1.2	326		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	84	55	75	70	65	75	133	646	505	215	102
2	95	84	65	75	70	70	75	150	635	477	204	98
3	95	84	90	70	65	65	75	146	646	505	193	98
4	87	84	*95	60	60	65	75	150	612	477	188	98
5	87	84	91	75	75	50	72	160	623	467	182	95
6	85	84	91	75	70	55	72	229	646	477	177	95
7	85	80	91	75	70	55	69	235	727	477	172	95
8	82	80	67	75	70	60	69	253	1,030	467	158	95
9	82	80	70	75	70	60	72	280	1,140	458	158	91
10	82	80	80	*75	60	65	82	308	1,140	449	158	91
11	85	80	65	75	70	70	85	322	1,170	440	153	87
12	85	80	70	75	75	70	75	330	1,190	516	153	87
13	93	84	80	75	70	70	75	349	*1,240	449	148	87
14	93	84	75	75	70	65	78	356	1,250	431	148	91
15	93	84	75	75	70	65	82	349	1,110	414	144	91
16	93	d95	60	75	70	60	78	270	1,130	*405	144	91
17	93	84	62	72	70	70	82	263	962	380	139	106
18	91	84	65	75	70	68	85	270	910	356	130	106
19	84	84	65	75	*65	66	82	283	785	341	130	114
20	91	84	65	72	65	69	85	414	797	341	126	114
21	91	80	70	72	65	72	89	727	785	334	126	110
22	91	80	70	72	65	75	100	d880	785	326	122	110
23	91	80	70	72	65	75	93	d800	773	319	*116	106
24	91	80	75	74	65	*70	89	d700	785	312	118	106
25	91	80	75	72	65	75	93	d550	785	290	114	*100
26	91	78	75	70	65	75	96	547	623	270	114	98
27	91	75	65	65	70	72	89	*500	612	263	114	98
28	*91	70	70	67	65	72	*85	477	547	250	110	98
29	91	65	75	70	-	75	89	590	505	238	110	102
30	91	50	75	72	------	75	100	612	505	232	106	102
31	84	-----	75	72	-----	72	-----	692	------	220	102	------
Total	2,770	2,405	2,272	2,252	1,900	2,091	2,466	12,325	25,094	11,886	4,472	2,962
Mean	89.4	80.2	73.3	72.6	67.9	67.5	82.2	398	836	383	144	98.7
Cfsm	0.169	0.152	0.139	0.137	0.128	0.128	0.155	0.752	1.58	0.724	0.272	0.187
In.	0.19	0.17	0.16	0.16	0.13	0.15	0.17	0.87	1.76	0.84	0.31	0.21
Ac-ft	5,490	4,770	4,510	4,470	3,770	4,150	4,890	24,450	49,770	23,580	8,870	5,880

Calendar year 1954: Max 1,600 Min 50 Mean 209 Cfsm 0.395 In. 5.36 Ac-ft 151,400
Water year 1954-55: Max 1,250 Min 50 Mean 200 Cfsm 0.378 In. 5.12 Ac-ft 144,600

* Discharge measurement made on this day.
d Doubtful gage-height record; discharge estimated on basis of weather records and records for Big Creek near Big Creek, Johnson Creek at Yellow Pine, and other nearby streams.
Note.--Stage-discharge relation affected by ice Nov. 16, Nov. 26 to Dec. 4, Dec. 9 to Mar. 19.

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 1955.

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 present datum.

Average discharge.--11 years, 2,973 cfs (2,152,000 acre-ft per year).

Extremes.--Maximum discharge during year, 11,600 cfs June 14 (gage height, 8.11 ft); minimum daily, 1,050 cfs Dec. 20.
1944-55: Maximum discharge observed, 16,900 cfs June 4, 1948 (gage height, 7.90 ft, site and datum then in use); minimum daily, 800 cfs Jan. 31, Feb. 1, 1951 (corrected).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of about 88,000 acres above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	1,070	4.0	3,590
2.1	1,280	5.0	5,190
2.5	1,640	7.0	9,150
3.0	2,200	9.0	13,700

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,500	1,760	1,290	2,000	1,700	1,500	1,500	1,500	5,020	5,590	2,160	1,140
2	1,540	1,750	1,330	1,900	1,650	1,500	1,500	1,620	4,700	5,020	1,960	1,140
3	1,590	1,760	1,430	1,800	1,600	1,500	1,550	1,740	4,540	4,630	1,830	1,140
4	1,590	1,770	*1,690	1,400	1,500	1,400	1,480	1,760	4,490	4,500	1,750	1,140
5	1,580	1,760	1,800	1,250	1,400	1,300	1,420	1,710	4,490	4,440	1,670	1,140
6	1,560	1,740	1,750	1,150	1,400	1,300	1,460	1,830	4,880	4,580	1,610	1,140
7	1,560	1,740	1,770	1,450	1,500	1,300	1,500	2,200	5,920	4,850	1,580	1,130
8	1,520	1,720	1,750	1,550	1,600	1,400	1,540	2,630	7,510	4,620	1,560	1,130
9	1,500	1,720	1,590	1,400	1,600	1,500	1,600	2,940	9,000	4,280	1,530	1,130
10	1,500	1,730	1,500	1,500	1,500	1,500	1,680	3,290	9,740	4,180	1,470	1,130
11	1,520	1,750	1,460	1,600	1,400	1,500	1,680	3,250	10,100	4,200	1,430	1,130
12	1,560	1,760	1,500	1,650	1,400	1,600	1,630	3,300	10,400	4,570	1,410	1,130
13	1,590	1,770	1,560	1,600	1,500	1,600	1,570	3,540	*11,000	4,500	1,400	1,120
14	1,600	1,800	1,500	1,500	1,600	1,600	1,580	3,800	11,400	4,260	1,390	1,130
15	1,610	1,770	1,720	1,650	1,600	1,500	1,540	3,590	11,100	4,070	1,390	1,170
16	1,620	1,780	1,640	1,650	1,550	1,400	1,500	3,260	10,900	*4,010	1,390	1,240
17	1,660	1,840	1,480	1,650	1,500	1,400	1,460	2,910	9,790	3,860	1,360	1,300
18	1,690	1,870	1,350	1,600	1,500	1,500	1,500	2,690	8,580	3,890	1,340	1,350
19	1,690	1,810	1,200	1,600	1,400	1,500	1,500	2,690	7,870	3,760	1,320	1,400
20	1,660	1,770	1,050	1,600	1,300	1,400	1,500	3,050	7,570	3,580	1,310	1,450
21	1,640	1,760	1,150	1,600	1,300	1,400	1,470	4,040	7,610	3,480	1,290	1,500
22	1,660	1,740	1,150	1,600	1,400	1,400	1,470	5,440	7,570	3,340	1,260	1,500
23	1,650	1,740	1,300	1,600	1,500	1,600	1,470	6,150	7,670	3,230	*1,260	1,500
24	1,640	1,720	1,400	1,700	1,500	*1,550	1,480	5,770	7,790	3,160	1,250	1,500
25	1,650	1,700	1,600	1,650	1,500	1,550	1,450	5,260	7,270	3,300	1,240	*1,490
26	1,670	1,700	1,600	1,600	1,500	1,550	1,500	4,760	6,410	3,160	1,200	1,510
27	1,680	1,700	1,500	1,600	1,500	1,550	1,530	*4,460	5,880	2,930	1,180	1,550
28	*1,680	1,690	1,300	1,600	1,500	1,600	*1,500	4,170	5,410	2,730	1,170	1,540
29	1,670	1,660	1,300	1,500	-	1,600	1,460	3,920	5,500	2,590	1,170	1,500
30	1,710	1,490	1,500	1,600	------	1,600	1,450	4,120	5,980	2,460	1,160	1,500
31	1,750	------	1,800	1,600	------	1,650	------	4,800	------	2,290	1,160	------
Total	50,040	52,270	45,960	49,150	41,900	46,250	45,470	106,190	226,090	120,060	44,200	38,870
Mean	1,614	1,742	1,483	1,585	1,496	1,492	1,516	3,425	7,536	3,873	1,426	1,296
Ac-ft	99,250	103,700	91,160	97,490	83,110	91,740	90,190	210,600	448,400	238,100	87,670	77,100

Calendar year 1954: Max 12,000 Min 1,050 Mean 2,751 Ac-ft 1,992,000
Water year 1954-55: Max 11,400 Min 1,050 Mean 2,374 Ac-ft 1,719,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 14, Dec. 18 to Apr. 2. No gage-height record Aug. 28 to Sept. 24; discharge estimated on basis of recorded range in stage, weather records, and records for station at Salmon.

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 1955. 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.--27 years (1928-55), 231 cfs (167,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,570 cfs June 11, 12 (gage height, 5.58 ft); minimum, 42 cfs Nov. 29 (gage height, 2.25 ft), but may have been less during period of ice effect.

1928-55: Maximum discharge, 2,340 cfs June 9, 1933, about May 31, 1943, June 3, 1948; maximum gage height, 6.26 ft June 9, 1933, June 3, 1948; minimum discharge 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 table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	48	3.5	350
2.5	80	4.0	560
2.8	140	5.0	1,140
3.0	190	6.0	1,940

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	87	60	75	70	60	60	87	650	482	167	94
2	100	87	65	75	68	65	60	89	640	446	159	94
3	98	84	75	70	65	60	60	78	655	426	157	94
4	94	84	75	65	60	60	60	85	675	510	152	93
5	94	84	75	70	65	55	60	110	778	466	150	93
6	94	84	75	70	65	55	60	138	946	430	147	93
7	93	82	75	70	65	60	*62	154	1,160	406	145	93
8	93	84	70	70	65	60	63	198	1,340	378	140	91
9	93	85	70	70	65	60	72	233	1,450	366	138	91
10	91	87	75	70	60	60	75	264	1,470	362	136	91
11	94	84	70	70	65	60	63	314	*1,490	390	133	91
12	98	96	70	70	65	60	63	358	1,530	362	129	91
13	98	94	75	70	65	60	65	378	1,500	328	129	89
14	89	89	75	70	65	60	63	339	1,400	314	127	94
15	93	104	70	70	65	55	62	287	1,310	297	125	108
16	94	112	65	70	65	55	60	248	1,150	287	122	122
17	93	98	62	70	65	60	63	230	994	274	118	112
18	91	91	62	70	65	60	65	261	916	258	116	106
19	93	89	62	70	55	60	66	339	892	*248	114	102
20	94	84	65	70	55	60	63	470	922	242	112	104
21	93	87	68	70	60	60	63	745	940	236	110	100
22	91	85	70	70	60	60	66	886	970	239	108	98
23	89	84	72	70	60	60	62	832	964	251	106	96
24	89	82	75	70	60	60	62	735	928	248	106	100
25	87	80	75	70	60	60	60	685	760	218	*106	108
26	*87	82	70	68	60	60	60	635	670	204	104	104
27	89	78	65	65	65	60	58	545	610	196	104	*98
28	89	65	65	65	60	60	57	560	580	190	102	100
29	87	60	70	68	-	60	62	645	630	185	100	98
30	89	*55	75	70	- - - -	60	73	735	550	177	100	94
31	89	- - - -	75	70	- - - -	60	- - - -	665	- - - -	172	96	- - - -
Total	2,864	2,547	2,171	2,161	1,763	1,845	1,888	12,328	29,470	9,588	3,858	2,942
Mean	92.4	84.9	70.0	69.7	63.0	59.5	62.9	398	982	309	124	98.1
Cfsm	0.670	0.615	0.507	0.505	0.457	0.431	0.456	2.88	7.12	2.24	0.899	0.711
In.	0.77	0.69	0.59	0.58	0.48	0.50	0.51	3.32	7.94	2.58	1.04	0.79
Ac-ft	5,680	5,050	4,310	4,290	3,500	3,660	3,740	24,450	58,450	19,020	7,650	5,840

Calendar year 1954: Max 1,840 Min 55 Mean 262 Cfsm 1.90 In. 25.79 Ac-ft 189,800
Water year 1954-55: Max 1,530 Min 55 Mean 201 Cfsm 1.46 In. 19.79 Ac-ft 145,600

Peak discharge (base, 930 cfs).--May 22 (6:30 p.m.) 1,080 cfs (4.91 ft); June 11 (10 p.m.) 1,570 cfs (5.58 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 28 to about Mar. 28. No gage-height record Feb. 14 to Apr. 6; discharge estimated on basis of weather records and records for Johnson Creek at Yellow Pine, Valley Creek at Stanley, and Bear Valley Creek near Cape Horn.

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.

Records available.--September 1921 to September 1928 (fragmentary), October 1928 to September 1955. 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.--27 years (1928-55), 283 cfs (204,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,560 cfs June 12 (gage height, 3.83 ft); minimum recorded, 50 cfs Nov. 28 (gage height, 1.04 ft), but may have been less during period of ice effect.
1921-55: Maximum discharge, 3,450 cfs June 9, 1933 (gage height, 5.49 ft), from rating curve extended above 2,000 cfs; 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	58	2.4	500
1.3	92	3.0	875
1.5	135	4.0	1,670
1.9	263		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	98	75	100	95	85	85	110	896	522	156	100
2	114	96	85	100	95	90	85	121	975	467	151	100
3	114	94	100	95	90	85	85	124	990	456	145	98
4	112	94	100	90	85	85	85	130	975	533	143	98
5	112	94	100	95	90	75	85	158	1,070	597	140	98
6	110	92	100	95	90	80	85	218	1,100	456	140	98
7	110	92	100	95	90	85	*85	252	1,200	425	138	96
8	110	94	95	95	90	85	90	328	1,320	386	135	96
9	108	100	95	95	90	85	90	395	1,400	362	133	96
10	108	102	100	95	85	85	90	450	1,450	362	130	96
11	110	98	95	95	90	85	90	494	1,470	362	128	96
12	117	112	95	95	90	85	90	561	1,470	339	126	94
13	119	128	100	95	90	85	92	597	1,470	308	124	92
14	112	110	100	95	90	85	90	544	1,430	288	121	96
15	112	117	95	95	90	80	90	430	1,350	271	121	128
16	114	151	90	95	90	80	88	357	1,190	255	119	145
17	114	126	85	95	90	85	88	330	1,040	244	117	153
18	112	110	85	95	90	85	88	381	945	233	114	128
19	110	112	85	95	80	85	88	516	903	*218	117	117
20	117	104	90	95	80	85	88	694	903	218	112	112
21	117	108	95	95	85	85	88	1,040	896	208	110	110
22	114	104	95	95	85	85	92	1,330	*889	233	104	106
23	112	104	100	95	85	85	88	1,280	861	229	108	104
24	106	102	100	95	85	85	87	1,120	847	248	106	104
25	106	102	100	95	85	85	88	1,040	786	218	108	112
26	*100	98	95	95	85	85	90	990	663	194	*106	110
27	100	102	90	90	90	85	90	798	609	182	104	*106
28	100	81	90	90	85	85	88	779	567	176	104	106
29	98	*70	95	95	-	85	88	982	701	173	104	108
30	98	70	100	95	------	85	96	1,200	663	167	104	106
31	98	-----	100	95	-----	85	-----	998	------	161	102	------
Total	3,398	3,067	2,930	2,940	2,465	2,615	2,652	18,745	31,029	9,491	3,770	3,209
Mean	110	102	94.5	94.8	88.0	84.4	88.4	605	1,034	306	122	107
Cfsm	0.611	0.567	0.525	0.527	0.489	0.469	0.491	3.36	5.74	1.70	0.678	0.594
In.	0.70	0.63	0.61	0.61	0.51	0.54	0.55	3.87	6.41	1.96	0.78	0.66
Ac-ft	6,740	6,080	5,810	5,830	4,890	5,190	5,260	37,180	61,550	18,830	7,480	6,360

Calendar year 1954: Max 2,680 Min 70 Mean 354 Cfsm 1.97 In. 26.68 Ac-ft 256,100
Water year 1954-55: Max 1,470 Min 70 Mean 236 Cfsm 1.31 In. 17.83 Ac-ft 171,200

Peak discharge (base, 1,200 cfs).--May 22 (7 p.m.) 1,440 cfs (3.70 ft); May 30 (7 to 8 a.m.) 1,270 cfs (3.48 ft); June 12 (3 p.m.) 1,560 cfs (3.83 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Apr. 8, Apr. 12 (no gage-height record Dec. 20 to Apr. 6; discharge estimated on basis of weather records and records for Valley Creek at Stanley, Middle Fork Salmon River near Cape Horn, Johnson Creek at Yellow Pine and other nearby streams).

Big Creek near Big Creek, Idaho

Location.--Lat 45°07', long 114°55', in NE¼ sec. 36, T. 21 N., R. 12 E., on left bank three-quarters of a mile downstream from Cabin Creek, 1¾ miles southeast of Wallace Ranch, and 19 miles east of Big Creek Post Office.

Drainage area.--470 sq mi, approximately.

Records available.--September 1944 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 3,950 ft (from river-profile map). Prior to Oct. 22, 1948, staff gage at site a quarter of a mile downstream at different datum.

Average discharge.--11 years, 495 cfs (358,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,580 cfs June 13 (gage height, 5.68 ft); minimum recorded, 78 cfs Dec. 1 (gage height, 1.52 ft), but may have been less during period of ice effect.

1944-55: Maximum discharge, 5,800 cfs June 3, 1948 (gage height, 7.12 ft, from floodmark, former site and datum), from rating curve extended above 3,000 cfs by logarithmic plotting; minimum observed, 66 cfs Dec. 17, 1946 (discharge measurement).

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

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 13-22, July 15 to Aug. 25)

Oct. 1 to June 12				June 13 to Sept. 30			
1.4	73	2.6	490	2.1	153	3.0	681
1.7	113	3.0	790	2.3	229	4.0	1,620
2.0	185	4.0	1,720	2.6	385	6.0	3,840
2.3	315	6.0	3,840				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	154	95	130	115	105	130	240	1,150	1,320	373	181
2	176	151	120	125	115	110	130	250	1,040	1,200	382	178
3	173	151	140	120	105	100	125	260	1,010	1,150	350	174
4	170	151	140	100	95	110	125	*269	1,070	1,150	344	170
5	168	151	140	115	130	80	125	335	1,200	1,130	333	170
6	168	149	139	130	110	90	130	539	1,470	1,090	322	174
7	165	149	139	125	115	90	140	623	2,030	1,100	311	170
8	162	146	119	125	115	95	150	766	2,600	1,020	306	167
9	162	151	115	125	110	100	170	814	2,820	1,000	296	181
10	165	151	140	125	95	105	190	798	2,860	1,020	285	174
11	168	149	105	125	110	110	180	879	2,940	1,040	270	174
12	173	151	120	125	120	115	175	1,000	3,210	1,020	261	170
13	170	151	130	120	120	110	175	1,150	3,290	986	266	167
14	165	149	125	120	110	105	175	1,010	3,230	959	257	170
15	168	151	125	120	110	100	170	838	2,870	932	257	221
16	168	170	105	120	110	95	170	702	2,430	887	243	221
17	168	156	105	115	110	110	170	616	2,080	842	254	247
18	165	151	110	120	110	110	170	609	1,920	770	254	213
19	162	149	110	120	95	110	170	790	1,970	717	229	200
20	168	146	115	115	95	110	170	1,260	2,140	648	225	192
21	165	146	120	115	100	110	170	1,960	2,250	615	217	192
22	165	146	120	115	110	120	190	1,980	*2,370	583	213	188
23	165	146	120	120	105	120	180	1,870	2,370	598	*204	184
24	162	144	130	120	110	120	170	1,450	2,230	623	204	184
25	162	144	130	115	105	120	170	1,240	1,840	552	200	188
26	*156	144	120	110	110	120	180	1,140	1,620	507	204	184
27	156	142	*105	100	115	120	170	1,010	1,590	471	200	178
28	159	134	115	110	105	120	170	924	1,570	450	198	174
29	156	130	130	110	-	130	180	978	1,600	430	192	181
30	156	90	130	120	------	130	200	1,310	1,420	404	188	178
31	156	-----	130	120	-----	130	-----	1,280	------	385	184	------
Total	5,118	4,393	3,787	3,675	3,055	3,400	4,920	28,690	62,190	25,599	7,960	5,545
Mean	165	146	122	119	109	110	164	925	2,073	826	257	185
Cfsm	0.351	0.311	0.260	0.253	0.232	0.234	0.349	1.97	4.41	1.76	0.547	0.394
In.	0.40	0.35	0.30	0.29	0.24	0.27	0.39	2.27	4.92	2.03	0.63	0.44
Ac-ft	10,150	8,710	7,510	7,290	6,060	6,740	9,760	56,910	123,400	50,770	15,790	11,000

Calendar year 1954: Max 3,790 Min 90 Mean 499 Cfsm 1.06 In. 14.43 Ac-ft 361,500
Water year 1954-55: Max 3,290 Min 80 Mean 434 Cfsm 0.923 In. 12.53 Ac-ft 314,100

Peak discharge (base, 2,000 cfs).--May 22 (1 a.m.) 2,150 cfs (4.41 ft); June 13 (2 a.m.) 3,580 cfs (5.68 ft); June 23 (2 a.m.) 2,610 cfs (4.84 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 30 to Dec. 5, Dec. 9 to about Apr. 10. No gage-height record Jan. 7 to May 3; discharge estimated on basis of weather records and records for Johnson Creek at Yellow Pine, Panther Creek near Shoup and other nearby streams.

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 bank 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 1955.

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.--27 years, 141 cfs (102,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,040 cfs June 13 (gage height, 5.40 ft); minimum, 15 cfs Oct. 27 (discharge measurement), result of freeze up, but may have been less during other period of ice effect.
1928-55: Maximum discharge observed, 1,560 cfs June 9, 1933 (gage height, 2.60 ft, present datum, site then in use), from rating curve extended above 1,000 cfs; 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	20	3.5	227
2.4	28	4.0	384
2.6	48	5.0	817
3.0	116	6.0	1,340

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	38	30	35	34	33	45	101	388	280	69	37
2	42	39	36	35	*34	34	46	105	391	254	65	37
3	41	38	41	33	32	32	45	105	402	246	64	37
4	41	38	40	27	28	31	44	106	424	243	64	37
5	40	39	40	33	36	27	45	149	474	227	61	36
6	40	39	39	34	33	28	46	217	546	214	59	34
7	39	37	39	34	35	31	51	246	675	207	58	34
8	39	38	35	34	35	33	56	289	782	190	58	34
9	39	39	32	34	34	34	64	289	867	184	56	35
10	39	39	38	34	28	35	84	280	897	179	54	35
11	41	39	30	33	33	35	76	302	917	186	52	35
12	42	48	34	33	36	35	64	329	942	168	51	34
13	44	47	38	33	35	34	59	329	952	155	49	33
14	41	42	36	33	34	*34	59	271	917	149	48	38
15	42	52	36	33	34	33	55	222	802	140	48	64
16	44	67	29	33	34	33	54	200	699	130	46	70
17	42	49	30	32	34	33	55	188	615	124	45	67
18	41	45	31	33	33	38	58	202	567	118	45	49
19	41	45	30	33	28	38	55	268	576	112	44	45
20	45	41	31	32	29	37	54	384	589	*108	44	*44
21	44	41	32	32	31	40	56	589	*611	103	42	42
22	42	41	32	33	33	41	67	546	602	105	41	41
23	41	41	34	34	32	41	65	485	563	99	40	41
24	40	40	36	34	33	41	62	431	542	90	40	41
25	39	40	35	34	32	41	61	*384	431	92	*39	42
26	37	40	34	33	33	41	59	380	374	86	40	42
27	*37	37	27	29	34	42	56	342	352	83	40	40
28	38	32	26	32	32	44	55	315	335	83	40	40
29	39	29	*28	34	-	45	59	363	402	79	40	40
30	39	*27	34	36	------	45	74	431	322	76	39	39
31	39	-----	35	36	-----	46	-----	402	------	72	38	------
Total	1,260	1,227	1,048	1,028	921	1,135	1,729	9,250	17,956	4,582	1,519	1,243
Mean	40.6	40.9	33.8	33.2	32.9	36.6	57.6	298	599	148	49.0	41.4
Cfsm	0.441	0.445	0.367	0.361	0.358	0.398	0.626	3.24	6.51	1.61	0.533	0.450
In.	0.51	0.50	0.42	0.42	0.37	0.46	0.70	3.74	7.26	1.85	0.61	0.50
Ac-ft	2,500	2,430	2,080	2,040	1,830	2,250	3,430	18,350	35,620	9,090	3,010	2,470

Calendar year 1954: Max 1,210 Min 26 Mean 169 Cfsm 1.84 In. 24.96 Ac-ft 122,500
Water year 1954-55: Max 952 Min 26 Mean 118 Cfsm 1.28 In. 17.34 Ac-ft 85,100

Peak discharge (base, 600 cfs).--May 21 (10 p.m.) 638 cfs (4.60 ft); June 13 (2 a.m.) 1,040 cfs (5.40 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Oct. 26 to Nov. 8, Nov. 28 to Dec. 4, Dec. 8 to Mar. 21, Mar. 25-27, Apr. 3 (no gage-height record Dec. 26-28, Jan. 5 to Feb. 1, Feb. 5 to Mar. 13; discharge estimated on basis of weather records, 3 discharge measurements, and records for Johnson Creek at Yellow Pine and other nearby streams).

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 1955.

Gage.--Water-stage recorder. Datum of gage is 4,657.70 ft above mean sea level, datum of 1929 (preliminary).

Average discharge.--27 years, 330 cfs (238,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,930 cfs June 11 (gage height, 5.59 ft); minimum, 21 cfs Nov. 30 (gage height, 0.66 ft).
1928-55: Maximum discharge, 5,150 cfs June 9, 1933 (gage height, 7.62 ft), from rating curve extended above 2,800 cfs; minimum, that of Nov. 30, 1954.

Remarks.--Records excellent except those below 100 cfs, which are good, and those for periods of no gage-height record, which are fair. Small diversion from Johnson Creek basin to Deadwood River basin (see Remarks for Deadwood Reservoir near Lowman).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.8	30	2.0	284
1.0	50	3.0	770
1.2	77	4.0	1,420
1.5	135	6.0	3,390

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	77	40	71	65	62	65	114	1,180	781	162	79
2	84	76	62	70	64	64	65	116	1,140	698	154	79
3	82	74	74	64	61	60	62	116	1,120	693	147	77
4	80	74	72	54	52	58	62	118	1,180	704	145	77
5	80	77	71	68	71	50	62	147	1,360	704	140	76
6	80	74	71	71	62	52	64	203	1,610	639	135	74
7	79	71	72	68	65	58	66	232	1,990	623	133	72
8	77	72	66	70	66	62	71	304	2,260	571	133	72
9	76	79	62	70	64	63	79	357	2,380	546	129	72
10	76	77	74	70	52	64	87	388	2,410	566	124	72
11	79	77	57	68	61	64	79	453	2,430	556	120	72
12	84	80	64	68	68	65	79	541	2,460	517	116	71
13	86	87	72	68	66	62	79	628	2,420	478	114	70
14	79	84	70	68	64	60	80	623	2,280	449	110	76
15	87	87	70	68	64	56	74	507	1,960	420	110	102
16	87	102	56	68	64	54	76	439	1,700	398	108	118
17	87	92	60	66	64	*61	79	406	1,500	366	104	140
18	86	84	60	68	62	61	80	449	1,400	332	102	114
19	84	84	58	68	52	61	77	602	1,420	304	100	102
20	87	77	62	66	54	57	76	867	1,480	*284	98	*94
21	87	79	65	65	58	61	*77	1,450	1,530	266	96	91
22	87	82	65	65	62	62	87	1,570	*1,550	266	92	86
23	86	79	66	68	60	62	80	1,400	1,430	252	91	82
24	82	79	71	68	62	62	79	1,230	1,480	255	89	80
25	80	77	70	66	60	61	77	1,060	1,160	235	*87	80
26	77	77	68	64	62	61	79	1,060	1,000	212	87	82
27	*74	77	58	57	64	61	76	903	951	200	86	79
28	76	62	*64	62	60	62	76	*843	909	194	86	79
29	76	50	71	64	-	65	84	1,060	1,060	182	86	79
30	77	*34	71	68	------	64	91	1,390	909	177	84	79
31	77	-----	71	68	------	64	-----	1,190	------	167	82	------
Total	2,521	2,301	2,033	2,067	1,729	1,879	2,268	20,766	47,659	13,035	3,450	2,526
Mean	81.3	76.7	65.6	66.7	61.8	60.6	75.6	670	1,589	420	111	84.2
Cfsm	0.382	0.360	0.308	0.313	0.290	0.285	0.355	3.15	7.46	1.97	0.521	0.395
In.	0.44	0.40	0.35	0.36	0.30	0.33	0.40	3.63	8.32	2.28	0.60	0.44
Ac-ft	5,000	4,560	4,030	4,100	3,430	3,730	4,500	41,190	94,530	25,850	6,840	5,010

Calendar year 1954: Max 3,670 Min 34 Mean 397 Cfsm 1.86 In. 25.29 Ac-ft 287,200
Water year 1954-55: Max 2,460 Min 34 Mean 280 Cfsm 1.31 In. 17.85 Ac-ft 202,800

Peak discharge (base, 1,800 cfs).--June 11 (9:30 p.m.) 2,930 cfs (5.59 ft).
* Discharge measurement made on this day.

Salmon River near French Creek, Idaho

Location.--Lat 45°26', long 115°59', in sec. 8, T. 24 N., R. 4 E., on left bank 100 ft downstream from Fall Creek, 2½ miles northeast of French Creek Post Office, and 16 miles east of Riggins.

Drainage area.--12,270 sq mi, approximately.

Records available.--October 1944 to September 1955.

Gage.--Staff gage read once daily. Datum of gage is 1,908.92 ft above mean sea level, unadjusted. Since Jan. 31, 1952, supplementary staff gage 3 miles upstream.

Average discharge.--11 years, 10,230 cfs (7,406,000 acre-ft per year).

Extremes.--Maximum discharge during year, 56,700 cfs June 13 (gage height, 26.18 ft, from graph based on gage readings); minimum daily, 2,050 cfs Dec. 21.
1944-55: Maximum discharge observed, 75,300 cfs May 29, 1948 (gage height, 33.50 ft); minimum observed, 1,790 cfs Dec. 27, 1952 (gage height, -1.30 ft, supplementary gage).

Remarks.--Records excellent except those for periods of ice effect or doubtful or no gage-height record, which are good. Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 7 to Sept. 23)

1.5	2,410	6.0	8,550
2.0	2,920	10.0	16,500
4.0	5,370	28.0	56,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,680	3,920	a3,050	3,580	b3,050	b3,100	3,700	5,230	23,300	22,000	a7,400	a3,600
2	3,680	3,940	a3,000	3,820	b3,150	b3,100	*3,700	6,350	22,500	20,700	a7,100	3,570
3	3,830	3,920	b2,400	3,840	b3,150	3,140	3,700	6,780	22,500	20,000	a6,800	a3,500
4	3,750	3,920	b2,900	b3,400	b3,100	3,150	3,560	6,650	22,700	a18,500	a6,400	3,490
5	a3,800	3,890	b3,500	b3,100	b3,000	2,950	3,340	6,940	24,000	a18,000	a6,200	a3,450
6	a3,800	3,920	3,920	b2,950	b2,900	2,810	3,270	8,870	27,700	a18,000	a6,000	3,430
7	a3,800	3,820	*3,800	b2,800	b2,900	2,850	3,510	11,000	34,800	a18,500	5,720	a3,430
8	a3,800	3,800	3,800	b2,800	b3,050	b2,900	3,890	12,600	*42,900	a18,000	5,500	3,430
9	a3,750	3,750	3,720	b2,900	b3,250	b3,100	4,330	13,800	49,600	17,000	5,360	a3,420
10	a3,700	3,890	3,100	3,030	b3,300	b3,300	4,950	14,500	52,200	16,900	5,270	3,420
11	a3,700	3,870	b2,800	*3,210	b3,100	b3,450	5,570	14,800	53,600	a17,000	4,990	a3,400
12	a3,850	3,890	b3,100	3,210	b2,650	3,470	4,950	16,700	54,900	a17,000	4,850	3,390
13	a3,900	3,940	b3,100	3,140	b2,600	3,470	4,500	19,500	55,900	a16,500	4,760	3,270
14	a3,900	4,010	b2,900	3,030	b2,900	3,380	4,440	18,700	56,000	a16,000	4,640	3,470
15	a3,900	3,990	b3,400	3,120	*3,250	3,320	4,380	16,500	53,900	a15,000	4,570	3,630
16	a3,900	4,060	3,540	3,200	3,320	3,270	4,140	14,300	48,900	14,300	4,470	3,840
17	a3,900	4,300	3,540	3,360	3,320	3,180	4,360	13,200	43,000	14,000	4,440	4,170
18	a3,950	4,230	a3,000	3,210	3,270	3,230	4,520	12,900	38,100	*13,200	*4,340	4,050
19	a4,000	4,230	a2,700	3,120	b3,050	3,270	4,510	13,400	36,700	a12,500	4,360	3,760
20	a4,000	a4,050	a2,350	b3,000	b2,800	3,290	4,400	18,400	37,100	a12,000	a4,250	*3,920
21	a4,000	a3,900	a2,050	b3,000	b2,550	3,080	4,280	27,100	38,700	a11,500	4,220	3,940
22	a4,000	a3,900	a2,300	b3,100	b2,750	3,180	4,520	36,100	39,800	a11,000	a4,100	3,960
23	a4,000	a3,900	a2,300	3,160	b2,900	3,180	4,950	34,100	38,600	10,800	4,010	3,940
24	a4,000	a3,900	a2,600	3,270	b3,050	3,210	4,790	28,800	36,900	10,500	a3,900	3,890
25	a3,900	a3,800	a2,800	3,470	b3,100	3,210	4,530	27,100	34,700	10,400	3,840	3,900
26	a3,850	a3,750	a3,200	3,450	b3,100	3,230	4,760	25,400	30,000	10,300	a3,800	3,900
27	a3,900	a3,700	a3,200	3,370	b3,100	3,210	4,590	23,000	28,400	a9,400	3,770	3,900
28	a3,900	a3,700	b2,900	b3,150	b3,100	3,180	4,480	*20,500	27,600	a8,400	a3,750	3,930
29	*3,890	a3,700	b2,600	b2,850	-	3,360	*4,230	20,600	25,800	a8,200	3,710	3,950
30	3,870	a3,400	b2,700	b2,800	------	3,560	4,500	24,000	23,900	a8,000	a3,650	3,940
31	3,860	-----	b3,100	b2,950	-----	3,720	------	25,300	------	a7,800	3,640	------
Total	119,760	116,990	93,370	98,390	84,760	99,850	129,350	543,120	‡1,124.7	441,400	149,810	110,890
Mean	3,863	3,900	3,012	3,174	3,027	3,221	4,312	17,520	37,490	14,240	4,833	3,696
Cfsm	0.315	0.318	0.245	0.259	0.247	0.263	0.351	1.43	3.06	1.16	0.394	0.301
In.	0.36	0.35	0.28	0.30	0.26	0.30	0.39	1.65	3.41	1.34	0.45	0.34
Ac-ft	237,500	232,000	185,200	195,200	168,100	198,000	256,600	‡1,077	‡2,231	875,500	297,100	219,900

Calendar year 1954: Max 61,000 Min 2,050 Mean 10,030 Cfsm 0.817 In. 11.10 Ac-ft 7,263,000
Water year 1954-55: Max 56,000 Min 2,050 Mean 8,527 Cfsm 0.695 In. 9.43 Ac-ft 6,173,000

* Discharge measurement made on this day.
‡ Expressed in thousands.
a Doubtful or no gage-height record; discharge estimated on basis of weather records and records for station at Whitebird and Little Salmon River at Riggins.
b Stage-discharge relation affected by ice.

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 1940 (incomplete), September 1945 to September 1955.

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.--10 years (1945-55), 18.7 cfs (13,540 acre-ft per year).

Extremes.--Maximum discharge during year, 138 cfs May 6 (gage height, 3.78 ft); maximum gage height recorded, 5.05 ft Apr. 8 (backwater from ice); minimum discharge recorded, 0.8 cfs Nov. 1, 29 (gage height, 2.23 ft).
1937-38, 1945-55: Maximum discharge, 395 cfs Apr. 27, 1952 (gage height, 5.00 ft); minimum, 0.2 cfs Nov. 19, 20, 1952.

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

Revisions (water years).--WSP 1153: 1948.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 13

2.3	1.5	2.7	12
2.4	3.3	2.8	17
2.5	5.8	3.0	34
2.6	8.8		

Apr. 14 to Sept. 30

2.3	0.6	2.9	28
2.4	1.8	3.2	58
2.5	3.9	3.5	100
2.6	7.2	4.0	189
2.7	12		

Discharge, in cubic feet per second, water year october 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	1.7	1.7	2.2	2.0	1.7	2.7	71	44	5.7	2.9	1.1
2	1.9	2.0	1.8	2.0	2.0	1.9	2.7	74	40	5.0	3.0	1.1
3	1.9	2.0	2.0	1.9	1.9	1.9	2.6	72	38	5.0	2.8	1.1
4	1.9	2.0	2.3	2.0	1.8	1.9	2.6	75	35	5.0	2.7	1.0
5	1.7	2.0	2.5	2.0	1.8	1.7	2.8	102	33	5.0	2.4	1.0
6	1.7	2.0	2.7	2.0	1.9	1.7	3.5	123	31	4.4	2.2	1.1
7	1.7	2.0	*2.6	2.0	1.9	1.8	4.0	121	29	5.7	2.1	1.1
8	1.7	1.9	2.5	2.0	2.0	1.9	6.0	124	27	4.4	2.1	1.1
9	1.7	1.9	2.5	1.9	2.0	2.1	*13	121	*24	3.9	1.9	1.4
10	1.7	1.9	2.5	1.9	1.9	2.2	15	116	21	3.9	1.7	1.5
11	1.9	1.9	2.3	1.9	1.7	2.2	16	119	18	*4.2	1.6	1.4
12	2.4	2.0	2.2	*1.8	1.8	2.2	13	*124	16	4.2	1.5	1.2
13	2.6	2.4	2.3	1.8	1.8	2.3	12	121	13	3.6	1.5	1.2
14	2.4	2.0	2.3	1.8	1.9	2.4	13	92	12	3.4	1.5	2.1
15	2.4	2.4	2.3	1.9	1.9	2.2	11	75	12	3.4	1.5	*3.2
16	2.4	5.0	2.2	1.9	1.9	2.2	9.0	64	11	3.4	1.5	3.6
17	2.6	3.1	2.2	1.9	1.9	2.5	9.0	58	9.5	3.6	*1.4	3.2
18	2.4	2.9	2.1	1.9	1.8	2.6	11	61	9.0	3.6	1.5	2.0
19	2.4	2.9	2.0	2.0	1.7	2.3	9.5	81	8.1	3.4	1.5	1.8
20	2.9	2.6	2.1	1.9	*1.7	2.2	9.0	103	7.2	2.9	1.4	1.8
21	2.8	2.4	2.1	2.0	1.7	2.3	16	116	6.8	2.9	1.4	1.8
22	2.6	2.2	2.0	1.8	1.9	2.4	36	113	6.4	2.9	1.5	1.8
23	2.6	2.0	2.0	1.9	1.9	2.3	40	97	6.0	2.7	1.2	1.8
24	2.2	2.0	2.0	2.0	1.9	2.2	36	81	7.2	2.7	1.1	1.8
25	2.2	2.0	2.1	2.0	1.9	2.2	32	71	7.6	2.9	1.1	1.8
26	2.2	2.0	2.1	1.9	2.0	2.2	36	67	6.4	3.4	1.1	1.8
27	1.9	2.4	2.0	1.8	2.0	2.2	29	70	6.0	2.9	1.2	1.7
28	*2.0	2.2	1.9	1.8	1.9	2.4	27	56	6.8	2.9	1.2	1.7
29	2.0	2.0	1.8	1.8	-	2.2	*34	53	9.0	2.7	1.2	1.7
30	2.0	1.7	1.9	1.9	------	2.5	49	55	6.4	2.9	1.2	1.7
31	2.0	-----	2.0	2.0	-----	2.8	-----	50	------	2.7	1.1	------
Total	66.5	67.5	67.0	59.6	52.5	67.6	502.4	2,726	506.4	115.3	52.0	50.6
Mean	2.15	2.25	2.16	1.92	1.88	218	16.7	87.9	16.9	3.72	1.68	1.69
Cfsm	0.136	0.142	0.137	0.122	0.119	0.138	1.06	5.56	1.07	0.235	0.106	0.107
In.	0.16	0.16	0.16	0.14	0.12	0.16	1.18	6.42	1.19	0.27	0.12	0.12
Ac-ft	132	134	133	118	104	134	996	5,410	1,000	229	103	100

Calendar year 1954: Max 186 Min 1.4 Mean 18.7 Cfsm 1.18 In. 16.09 Ac-ft 13,560
Water year 1954-55: Max 124 Min 1.0 Mean 11.9 Cfsm 0.753 In. 10.20 Ac-ft 8,590

Peak discharge (base, 100 cfs).--May 6 (5 p.m.) 138 cfs (3.78 ft); May 21 (7 a.m.) 121 cfs (3.65 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Oct. 27 to Nov. 8, Nov. 26, Nov. 29 to Apr. 13. No gage-height record Dec. 19-30, Jan. 4, 5, Feb. 22-27, Mar. 5-27, Aug. 2-16; discharge estimated on basis of weather records and records for Weiser River at Tamarack, Deer Creek near Winchester, and other nearby streams.

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 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,760 ft (from topographic map).

Extremes.--Maximum discharge during period Oct. 1 to Feb. 28, 1955, 356 cfs Nov. 16 (gage height, 2.27 ft); minimum, 116 cfs Feb. 20 (gage height, 1.57 ft).
1951-55: Maximum discharge, 5,650 cfs June 13, 1953 (gage height, 7.39 ft); minimum, that of Feb. 20, 1955.
Flood about June 1, 1948, reached a discharge of 9,200 cfs (slope-area determination).

Remarks.--Records excellent. Diversions for irrigation of about 13,600 acres above station.

Rating table, Oct. 1, 1954, to Feb. 28, 1955 (gage height, in feet, and discharge, in cubic feet per second)

1.6	126
1.7	154
2.0	250
3.0	694

Discharge, in cubic feet per second, October 1954 to February 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	206	184	151	178	166							
2	203	184	178	175	166							
3	203	184	181	166	163							
4	203	184	181	137	154							
5	200	181	184	169	163							
6	200	181	*187	175	157							
7	200	178	187	166	166							
8	200	178	178	163	163							
9	200	181	157	154	166							
10	197	187	175	166	146							
11	203	184	157	166	148							
12	210	190	166	*166	166							
13	219	203	172	166	166							
14	213	200	175	166	163							
15	210	226	175	163	*157							
16	210	313	154	163	157							
17	206	250	143	163	157							
18	203	233	146	163	154							
19	197	219	148	166	137							
20	203	206	160	166	140							
21	200	200	160	166	a150							
22	200	197	163	166	a160							
23	200	197	166	166	a155							
24	197	194	172	169	a160							
25	194	190	166	172	a155							
26	190	190	166	169	a160							
27	187	184	143	163	a165							
28	*187	184	137	163	a155							
29	184	175	160	163	-							
30	187	140	175	166	------							
31	187	------	178	166	------		------		------			------
Total	6,199	5,897	5,141	5,126	4,415							
Mean	200	197	166	165	158							
Ac-ft	12,300	11,700	10,200	10,170	8,760							

Calendar year 1954: Max 4,290 Min 137 Mean 812 Ac-ft 587,600
Water year 1954-55: Max - Min - Mean - Ac-ft -

Peak discharge (base, 2000 cfs).--No peak above base.
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Johnson Creek near Yellow Pine and other nearby streams.

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 1955.

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.--43 years, 10,710 cfs (7,756,000 acre-ft per year).

Extremes.--Maximum discharge during year, 67,500 cfs June 14 (gage height, 27.93 ft); minimum, 2,210 cfs probably on Dec. 21 (gage height, 11.12 ft).
1910-17, 1919-55: Maximum discharge, 103,000 cfs June 3, 1948 (gage height, 32.95 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 except those for period Nov. 21 to Dec. 20, which are good. Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Revisions (water years).--WSP 753: 1932. WSP 1043: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 21 to Aug. 20)

11.0	2,150	17.0	14,800
12.0	3,360	21.0	30,500
13.0	5,060	28.0	69,800
15.0	9,290		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,120	4,170	g3,340	3,850	3,260	3,450	4,200	6,810	28,300	27,100	8,260	3,830
2	4,220	4,190	g3,280	4,170	3,450	3,460	*4,270	8,240	26,300	24,400	7,900	3,770
3	4,260	4,150	g2,530	4,140	3,590	3,460	4,290	8,810	25,900	22,100	7,480	3,700
4	4,290	4,140	a3,300	3,780	3,390	3,450	4,100	8,740	26,600	21,300	7,120	3,670
5	4,270	4,150	a4,000	3,460	3,280	3,180	3,850	8,910	27,600	21,300	6,850	3,640
6	4,240	4,150	*4,410	3,280	3,140	3,220	3,770	10,600	30,700	21,200	6,620	3,620
7	4,200	4,140	4,260	3,040	3,180	2,980	3,980	13,000	39,100	21,700	6,380	3,590
8	4,170	4,080	4,190	3,180	3,300	3,280	4,500	14,800	49,400	21,000	6,240	3,570
9	4,100	4,070	g4,190	3,300	3,570	3,460	5,170	16,300	*56,400	19,700	6,100	3,820
10	4,030	4,140	g3,750	3,320	3,620	3,670	6,360	17,200	60,600	19,700	5,960	3,650
11	4,020	4,200	a3,100	*3,390	3,400	3,800	7,060	17,800	62,300	19,900	5,780	3,640
12	4,120	4,220	a3,500	3,450	2,900	3,750	6,580	19,600	64,900	19,800	5,590	3,640
13	4,270	4,310	g3,440	3,450	2,860	3,780	5,860	22,000	66,400	19,400	5,420	3,610
14	4,310	4,340	a3,300	3,420	3,170	3,720	5,760	21,900	66,100	18,500	5,330	3,650
15	4,290	4,380	g3,970	3,280	3,480	3,610	5,690	19,600	61,000	17,600	5,210	4,070
16	4,270	4,610	g3,920	3,440	*3,570	3,530	5,380	16,900	54,500	16,700	5,140	4,360
17	4,360	4,720	g3,640	3,450	3,560	3,440	5,170	15,100	49,300	16,000	5,040	4,970
18	4,430	4,740	a3,300	3,610	3,560	3,420	5,230	14,100	43,700	*15,100	*4,950	5,210
19	4,450	4,630	a3,000	3,450	3,340	3,560	5,550	15,200	41,800	14,300	4,860	4,840
20	4,450	4,470	a2,600	3,260	3,070	3,610	5,540	20,200	42,200	13,400	4,750	*4,590
21	4,430	a4,300	g2,290	3,270	2,890	3,460	5,480	29,800	44,300	12,700	4,700	4,500
22	4,410	g4,270	g2,520	3,440	3,080	3,220	6,100	39,700	45,600	12,200	4,570	4,610
23	4,480	g4,260	g2,520	3,420	3,180	3,330	7,170	40,700	45,600	11,900	4,500	4,560
24	4,430	g4,260	a2,800	3,450	3,360	3,480	6,810	36,800	43,500	12,200	4,390	4,450
25	4,320	a4,200	a3,100	3,690	3,420	3,590	6,400	32,200	40,100	12,200	4,320	4,410
26	4,260	g4,120	a3,500	3,730	3,460	3,460	6,180	29,400	34,100	11,500	4,290	4,410
27	4,240	a4,100	a3,500	3,700	3,460	3,440	6,160	26,900	30,800	10,700	4,220	4,390
28	4,220	a4,100	g3,200	3,460	3,460	3,440	5,740	*23,800	29,500	10,000	4,140	4,410
29	*4,200	g4,120	g2,810	3,150	-	3,690	5,540	22,800	29,800	9,430	4,050	4,430
30	4,170	g3,750	g2,960	3,100	------	3,900	*5,900	26,200	29,300	9,070	4,030	4,410
31	4,140	-----	3,450	3,210	-----	4,190	-----	29,000	------	8,720	3,930	------
Total	132,170	127,480	103,670	107,320	93,000	108,990	163,790	633,110	‡1,295.7	510,820	168,120	123,820
Mean	4,264	4,249	3,344	3,462	3,321	3,516	5,460	20,420	43,190	16,480	5,423	4,127
Cfsm	0.315	0.314	0.247	0.255	0.245	0.259	0.403	1.51	3.19	1.22	0.400	0.305
In.	0.36	0.35	0.28	0.29	0.26	0.30	0.45	1.74	3.56	1.40	0.46	0.34
Ac-ft	262,200	252,900	205,600	212,900	184,500	216,200	324,900	‡1,256	‡2,570	‡1,013	333,500	245,600

Calendar year 1954: Max 70,500 Min 2,290 Mean 11,410 Cfsm 0.842 In. 11.43 Ac-ft 8,263,000
Water year 1954-55: Max 66,400 Min 2,290 Mean 9,775 Cfsm 0.721 In. 9.79 Ac-ft 7,077,000

* **Discharge measurement made on this day.**
‡ **Expressed in thousands.**
a **No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for station at Salmon and Clearwater River at Spalding.**
g **Computed from once-daily Telemark or staff-gage reading.**

Deer Creek near Winchester, Idaho

Location.--Lat 46°07', long 116°45', in SE¼ sec. 18, T. 32 N., R. 3 W., on right bank 300 ft downstream from proposed dam site, an eighth of a mile downstream from West Fork, 4½ miles upstream from East Fork, and 10 miles southwest of Winchester.

Drainage area.--14.5 sq mi, approximately.

Records available.--October 1951 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 4,380 ft (by barometer).

Extremes.--Maximum discharge during year, 175 cfs May 13 (gage height, 3.48 ft); maximum gage height recorded, 5.03 ft Apr. 9 (backwater from ice); minimum daily discharge, 0.3 cfs Feb. 3-5, 9-12, 18-20, Mar. 5-8.
1951-55: Maximum discharge, that of May 13, 1955; maximum gage height, that of Apr. 9, 1955; minimum discharge recorded, 0.2 cfs Sept. 23, Oct. 4, 1952 (gage height, 1.62 ft).

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

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 19		Feb. 20 to Sept. 30			
1.6	0.2	1.6	0	2.2	14
1.7	.8	1.7	.5	2.4	26
1.8	2.3	1.8	1.4	2.7	56
1.9	4.6	1.9	2.9	3.0	97
2.0	7.7	2.0	5.4	3.5	178
		2.1	9.1		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.8	*0.5	0.5	0.4	0.4	0.6	60	37	4.8	1.3	0.5
2	.8	.8	.5	.4	.4	.4	.7	55	33	4.8	1.2	.5
3	.8	.8	.6	.4	.3	.4	.6	60	32	4.0	1.2	.5
4	.8	.8	.7	.4	.3	.4	.6	80	31	5.1	1.1	.5
5	.9	.8	.8	.4	.3	.3	.6	*110	28	6.9	1.0	.5
6	.8	.8	.8	*.4	.4	.3	.7	140	26	6.1	1.0	.5
7	.8	.8	.7	.4	.4	.3	.8	150	24	10	.9	.5
8	.8	1.0	.7	.4	.4	.3	*1.5	161	22	10	.9	.5
9	.8	1.1	.7	.4	.3	.5	2.5	144	20	10	.9	.5
10	.8	1.3	.6	.4	.3	.5	4.0	144	17	10	.9	.6
11	.8	1.3	.6	.4	.3	.5	4.0	152	16	8.7	.9	.6
12	.9	1.2	.6	.4	.3	.4	3.5	170	14	7.2	.8	.4
13	1.0	1.6	.6	.4	.4	.4	3.5	170	*11	5.8	.6	.4
14	.8	1.8	.6	.4	.4	.4	4.0	126	11	5.1	.9	1.6
15	.8	2.5	.6	.4	.4	.4	3.5	85	11	4.5	.6	1.8
16	.9	2.3	.5	.4	.4	.4	3.5	70	10	*4.0	.6	1.1
17	1.0	1.6	.4	.4	.4	.4	3.5	55	9.1	*4.2	.6	1.2
18	1.0	1.3	.4	.4	.3	.4	3.5	50	8.0	3.5	.6	1.0
19	1.0	1.2	.5	.4	*.3	.4	3.5	60	7.2	2.9	.6	.8
20	1.0	1.2	.5	.4	.3	.4	3.5	90	6.1	2.7	.6	.7
21	1.0	1.1	.5	.4	.4	.4	6.0	*106	5.4	2.3	.6	.8
22	1.0	1.2	.5	.4	.4	.4	15	92	5.1	2.3	*.5	1.0
23	1.0	1.2	.5	.4	.4	.4	20	78	4.8	2.3	.5	.9
24	1.0	1.2	.5	.4	.4	.4	18	72	5.4	2.0	.5	*.6
25	1.0	1.1	.5	.4	.4	.4	17	*62	5.8	2.0	.5	.6
26	1.0	1.2	.4	.4	.4	.4	17	57	5.1	1.8	.6	.6
27	.9	1.3	.4	.4	.4	.4	17	52	4.8	1.6	.5	.6
28	.9	1.1	.4	.4	.4	.4	17	48	7.6	1.6	.5	.7
29	.9	.9	.5	.4	-	.4	22	46	9.6	1.6	.5	.7
30	*.9	.6	.5	.4	------	.5	45	44	5.8	1.6	.5	.6
31	.9	-----	.5	.4	-----	.5	-----	42	------	1.4	.5	------
Total	27.8	35.9	17.1	12.5	10.2	12.5	242.6	2,831	432.8	140.8	22.9	21.8
Mean	0.90	1.20	0.55	0.40	0.36	0.40	8.09	91.3	14.4	4.54	0.74	0.73
Cfsm	0.062	0.083	0.038	0.028	0.025	0.028	0.558	6.30	0.993	0.313	0.051	0.050
In.	0.07	0.09	0.04	0.03	0.03	0.03	0.62	7.26	1.11	0.36	0.06	0.06
Ac-ft	55	71	34	25	20	25	481	5,620	858	279	45	43

Calendar year 1954: Max 60 Min 0.4 Mean 6.60 Cfsm 0.455 In. 6.17 Ac-ft 4,780
Water year 1954-55: Max 170 Min 0.3 Mean 10.4 Cfsm 0.717 In. 9.76 Ac-ft 7,560

Peak discharge (base, 50 cfs).--May 13 (2 p.m.) 175 cfs (3.48 ft); May 21 (10 a.m.) 110 cfs (3.09 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Oct. 30, 31, Nov. 1, 3, 5, 8, 9, 22, 23, Nov. 25 to May 7. No gage-height record Oct. 2-29, Nov. 26-30, Feb. 10-18, Feb. 20 to Apr. 7, May 15-20; discharge estimated on basis of weather records and records for Mud Creek near Tamarack, Weiser River near Tamarack and other nearby streams.

Grande Ronde River near Hilgard, Oreg.

Location.--Lat 45°19', long 118°16', near center of sec. 11, T. 3 S., R. 36 E., on right bank half a mile upstream from lower reservoir site of Bureau of Reclamation, three-quarters of a mile upstream from Spring Creek and 3 miles southwest of Hilgard.

Drainage area.--489 sq mi.

Records available.--December 1937 to September 1955. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,058.05 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 16, 1946, at site 800 ft upstream at different datum.

Average discharge.--17 years (1938-55), 263 cfs (190,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,730 cfs Apr. 10 (gage height, 4.26 ft); minimum, 6.2 cfs Nov. 30 (gage height, 0.66 ft), result of freezeup, but may have been less during periods of ice effect.
1938-55: Maximum discharge, 3,780 cfs Mar. 25, 1952 (gage height, 5.82 ft); minimum, 6 cfs Aug. 10, 12-29, Sept. 1-4, 1940.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Several small diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 cfs for municipal use at Beaver Creek Reservoir (capacity, about 900 acre-ft).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	8	1.5	147
.8	14	2.0	330
.9	22	3.0	840
1.0	33	4.0	1,520
1.2	67		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	24	*10	29	34	28	360	894	*545	147	40	14
2	24	23	11	25	32	28	340	846	485	135	38	14
3	24	24	21	23	29	26	300	858	510	123	36	15
4	24	24	31	21	26	25	250	888	570	129	34	14
5	24	25	33	24	24	21	300	1,150	660	135	33	13
6	23	26	30	26	22	25	500	1,330	720	147	32	13
7	23	30	*24	26	27	36	900	1,200	762	187	31	*13
8	23	29	17	23	38	44	1,100	1,180	774	141	*31	13
9	23	31	19	23	29	48	1,250	984	762	132	29	14
10	23	*33	18	23	23	55	1,400	918	732	154	28	14
11	23	33	17	25	26	55	1,000	960	684	129	25	13
12	25	31	18	27	28	55	750	996	615	*109	24	13
13	26	32	19	28	30	55	800	882	545	98	22	13
14	25	30	22	25	30	50	700	702	460	93	22	18
15	24	30	25	23	32	55	500	645	402	85	19	32
16	24	31	*18	23	32	55	460	762	354	90	19	31
17	24	32	17	23	29	55	460	780	310	78	19	31
18	23	33	16	21	27	60	420	762	286	69	18	29
19	23	36	18	20	25	50	*370	810	262	65	18	25
20	23	32	22	21	25	40	350	966	246	59	18	23
21	24	30	21	23	27	50	420	1,060	232	56	18	21
22	24	29	24	23	30	55	640	996	215	61	17	21
23	25	28	30	25	31	60	625	876	198	74	16	*21
24	24	28	27	26	34	70	655	762	177	104	16	20
25	23	26	23	27	32	80	620	655	164	76	16	20
26	20	28	20	*27	30	80	590	605	160	61	16	20
27	18	30	16	28	28	100	480	580	167	58	16	20
28	21	26	18	28	*32	140	435	525	167	54	15	22
29	21	23	22	31	-	180	470	575	190	52	15	23
30	22	11	26	34	------	250	650	645	164	48	15	23
31	24	------	28	30	------	300	------	630	------	45	14	------
Total	722	848	661	781	812	2,231	18,095	26,422	12,518	2,994	710	576
Mean	23.3	28.3	21.3	25.2	29.0	72.0	603	852	417	96.6	22.9	19.2
Ac-ft	1,430	1,680	1,310	1,550	1,610	4,430	35,890	52,410	24,830	5,940	1,410	1,140

Calendar year 1954: Max 1,180 Min 10 Mean 185 Ac-ft 133,900
Water year 1954-55: Max 1,400 Min 10 Mean 185 Ac-ft 133,600

Peak discharge (base, 1,500 cfs).--Apr. 10 (about 3 a.m.) 1,730 cfs (4.26 ft); May 6 (1:30 a.m.) 1,600 cfs (4.10 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 1, 7-12, 14-26, Jan. 26 to Feb. 7, Feb. 9-22, 24-28, Mar. 3, 4, and during parts of periods of no gage-height record. No gage-height record Dec. 27 to Jan. 25, Mar. 5 to Apr. 18; discharge estimated on basis of recorded range in stage, weather records, and records for station at La Grande.

Grande Ronde River at La Grande, Oreg.

Location.--Lat 45°21', long 118°08', in sec. 36, T. 2 S., R. 37 E., on left bank 2 miles northwest of La Grande and 5 miles (revised) 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 1955. 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 gages at site about 5 miles (revised) 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 gages at site 1 mile downstream from present site at various datums.
Average discharge.--47 years (1903-15, 1918-23, 1925-55), 376 cfs (272,200 acre-ft per year).
Extremes.--Maximum and minimum discharges for the water years 1904, 1906-8, 1913, 1915, 1926, 1930, 1939, and 1955, some of which have been revised, are shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Maximum			Minimum		
		Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
370	1904	Apr. 14, 1904	*a6,300	7.5	-	-	-
370	1906	Mar. 31, 1906	4,940	g7.0	Dec. 23, 1905	*†25	-
370	1907	Mar. 21, 1907	a2,960	6.1	(b)	†18	-
370	1908	Mar. 16, 1908	6,300	g7.5	(c)	†12	-
362	1913	Apr. 15, 1913	‡a4,040	5.3	-	-	-
413	1915	Apr. 3, 1915	*a1,300	3.1	-	-	-
633	1926	Mar. 14,16,1926	a1,830	3.70	Aug. 16, 1926	22	0.34
723	1930	Mar. 26, 1930	1,590	3.50	(d)	e8	.35
883	1939	Mar. 13, 1939	4,480	6.68	Aug. 18, 1939	5	1.26
-	1955	Apr. 10, 1955	2,760	5.70	Dec. 1, 1954	f12	-

* Revised.
† Minimum daily.
‡ Not previously published.
a Maximum observed.
b Aug. 21-23, 27-29, 1907.
c Aug. 24-28, 1908.
d Jan. 19, 23, 1930.
e Minimum recorded.
f Minimum observed.
g From graph based on gage readings.

1903-15, 1918-23, 1925-55: Maximum discharge, 8,880 cfs Mar. 18, 1932 (gage height, 8.90 ft); minimum, 3.9 cfs Aug. 26, 1940 (gage height, 1.23 ft).
Remarks.--Records good except those for period of ice effect, which are fair. Some small diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 cfs for municipal use at Beaver Creek Reservoir (capacity, about 900 acre-ft).
Revisions (water years).--WSP 768: 1933. Revised figures of discharge, in cubic feet per second (complete daily tables), for the water years 1904, 1906-8, 1926, 1930, and 1939, superseding figures published in WSP 135, 214, 252, 633, 723, and 883, are given herein. Also, revised figures of dicharge, in cubic feet per second, for scattered periods in the water years 1905, 1909-11, 1913, 1915, 1919-20, 1922-23, 1929, 1931, 1936-37, and 1942, superseding figures published in WSP 178, 272, 292, 312, 362, 413, 513, 553, 573, 693, 723, 813, 833, and 963, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1905		1909-Con.		1911-Con.		1914		1915-Con.	
May 4	970	Dec. 17	190	Jan. 30	40	Dec. 9	28	Jan. 22	18
5	1,170	18	160	31	40	10	28	23	18
6	1,280	19	130	Feb. 1	50	11	28	24	18
7	1,280	20	110	2	50	12	28	25	18
8	1,280	21	90	3	40	13	25	26	19
9	1,400	22	80	4	30	14	23	27	21
10	1,500	23	80	5	35	15	22	28	24
11	1,450	24	90	6	35	16	20	29	27
12	1,280	25	100	7	30	17	19	30	30
13	1,070	26	110	8	30	18	18	31	34
14	875	27	90	9	30	19	18	Feb. 1	37
15	700	28	70	10	35	20	18	2	37
		29	70	11	35	21	18	3	33
1909		30	60	12	30	22	18	4	30
Jan. 4	55	31	60	13	40	23	18	5	33
5	70			14	35	24	18	6	33
6	60	1911		15	30	25	18	7	38
7	50	Jan. 1	58	16	30	26	19	8	45
8	40	2	58	17	30	27	21	9	50
9	33	3	58	18	40	28	20	10	45
10	25	4	58	19	60	29	19	11	45
11	30	5	58	20	60	30	19	12	45
12	35	6	58	21	55	31	20	13	45
13	50	7	58	22	50			14	50
14	70	8	58	23	50	1915		15	60
15	90	9	58	24	45	Jan. 1	20	16	80
16	80	10	58	25	40	2	20	17	100
17	90	11	58	26	40	3	20	18	80
18	110	12	58	27	35	4	20	19	80
19	170	13	40	28	35	5	20	20	90
20	220	14	40			6	22		
21	300	15	40	1913		7	24	1919	
22	350	16	26	Feb. 13	40	8	25	Jan. 17	60
23	200	17	26	14	55	9	23	18	42
24	150	18	26	15	90	10	24	19	75
25	190	19	40	16	120	11	25	Nov. 1	245
26	110	20	40	17	150	12	24		
Dec. 8	230	21	40	18	175	13	25	1921	
9	210	22	26	19	150	14	26	Nov. 18	115
10	180	23	26	20	120	15	24	19	136
11	180	24	26	21	100	16	22	20	115
12	220	25	26	22	80	17	22	21	136
13	270	26	40	23	65	18	23		
14	210	27	40	24	55	19	22	1922	
15	160	28	40			20	21	Oct. 1	19
16	170	29	40			21	20	2	17

Grande Ronde River at La Grande, Oreg.--Continued

Revised figures of discharge, in cubic feet per second, 1905, 1909-11, 1913, 1915, 1919-20, 1922-23, 1929, 1931, 1936-37 and 1942--Continued

Date	Discharge	Date	Discharge	Date	Discharge
1922-Con.		1936-Con.		1942-Con.	
Oct. 3	17	Nov. 26	14	Jan. 13	230
		27	12	14	210
1929		28	11	15	200
Mar. 3	80	29	10	16	180
		30	12	17	200
1931		Dec. 1-31	†20	18	190
Jan. 1-17	38			19	170
21-29	†35	1937		20	150
		Jan. 1-31	†12	21	120
1935		Feb. 1-28	†25	22	130
Nov. 1-24	†28			23	160
Dec. 2-11	†24	1942		24	150
		Jan. 4	200	25	140
1936		5	160	26	130
Jan. 1-31	†95	6	200	27	150
Feb.10-29	†100	7	250	28	230
Nov. 24	18	11	300	29	220
25	15	12	250	30	210
				31	200

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1905	-	1,500	398	807	49,600
Water year 1904-5	-	1,500	-	220	159,000
Calendar year 1905	-	1,500	3	219	158,000
January 1909	-	350	25	95.2	5,850
Water year 1908-9	-	1,080	5	246	178,000
December 1909	-	270	60	152	9,350
Calendar year 1909	-	1,080	5	264	191,000
Water year 1909-10	-	-	-	635	461,000
January 1911	-	58	26	43.8	2,690
February	-	60	30	39.5	2,190
Water year 1910-11	-	1,370	16	217	158,000
Calendar year 1911	-	1,370	-	212	154,000
February 1913	-	175	32	68.6	3,810
Water year 1912-13	-	3,870	14.8	571	413,000
Calendar year 1913	-	3,870	14.8	582	421,000
December 1914	-	49	18	26.4	1,620
Calendar year 1914	-	2,210	15	362	262,000
January 1915	-	34	18	22.5	1,380
February	-	100	30	60.0	3,330
Water year 1914-15	-	1,240	15	153	111,000
January 1919	-	180	20	61.5	3,780
Water year 1918-19	-	3,440	14	346	251,000
November 1919	-	920	180	454	27,000
Calendar year 1919	-	3,440	14	397	288,000
Water year 1919-20	-	3,450	-	506	367,000
November 1921	-	1,220	9	139	8,270
Calendar year 1921	-	4,350	6	726	526,000
Water year 1921-22	-	4,750	4	590	427,000
October 1922	-	39	17	24.5	1,510
Calendar year 1922	-	4,750	4	540	391,000
Water year 1922-23	-	2,330	17	397	288,000
March 1929	-	2,970	51	646	39,700
Water year 1928-29	-	2,970	15	307	223,000
Calendar year 1929	-	2,970	10	307	223,000
January 1931	-	-	-	35.5	2,180
Water year 1930-31	-	6,150	8	237	172,000
Calendar year 1931	-	6,150	-	235	170,000
November 1935	836	-	-	27.9	1,660
December	960	-	-	31.0	1,900
Calendar year 1935	79,965	2,870	7	219	158,600
January 1936	2,945	-	-	95	5,840
February	2,385	-	-	82.2	4,730
Water year 1935-36	113,979	3,520	8	311	226,100
November 1936	753	38	10	25.1	1,490
December	620	-	-	20	1,230
Calendar year 1936	113,453	3,520	8	310	225,000
January 1937	372	-	-	12	738
February	700	-	-	25	1,390
Water year 1936-37	101,853	2,860	-	279	202,000
Calendar year 1937	107,438	2,860	11	294	213,100
January 1942	6,665	400	120	215	13,220
Water year 1941-42	190,170	2,730	22	521	377,200
Calendar year 1942	170,175	2,730	22	466	337,500

Grande Ronde River at La Grande, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1903 to September 1904

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		50	450	140	230	390	1,560	2,220	720	140		
2		50	450	150	200	240	1,890	1,970	799	135		
3		50	340	140	180	340	2,490	1,850	720	135		
4		50	240	150	270	340	2,490	1,720	720	135		
5		*55	200	160	260	390	2,360	1,380	720	135		
6		*40	200	140	240	510	2,490	*1,500	720	120		
7		55	200	120	230	1,010	2,620	1,280	720	120		
8		40	200	140	210	2,260	2,620	2,220	720	140		
9		55	160	150	190	1,610	3,520	1,380	645	180		
10		80	160	160	180	1,250	4,380	1,280	645	180		
11	80	80	160	200	220	1,010	4,930	1,380	574	180		
12		105	160	160	230	930	5,730	1,070	507	180		
13		105	160	160	240	850	6,160	974	507	153		
14		130	160	160	290	780	6,300	1,070	444	153		
15		150	160	160	340	1,010	6,020	1,280	386	*153		
16		140	160	200	340	930	4,940	1,280	386	153	25	25
17		110	160	130	290	1,090	4,430	1,170	333	130		
18		90	160	110	240	1,250	4,190	1,280	284	120		
19		75	160	80	280	1,610	3,960	1,170	284	100		
20		160	160	120	340	1,340	3,330	1,170	238	80		
21		250	160	150	390	1,010	2,790	1,280	194	80		
22		340	160	150	570	850	2,470	1,280	194	80		
23		*340	160	150	710	780	2,340	1,170	194	*80		
24		340	160	180	640	710	2,220	1,170	194	74		
25		450	160	170	570	640	2,220	1,070	194	66		
26	60	570	160	150	510	570	2,340	883	194	60		
27		510	160	145	1,090	510	2,590	799	194	55		
28		390	160	140	340	780	2,720	720	194	50		
29		340	160	135	390	1,090	2,590	799	194	55		
30		390	160	140	----	1,610	2,470	799	194	48		
31		----	160	150	----	1,090	------	799	------	42		------
Total	2,260	5,590	5,960	4,590	10,210	28,780	101,160	39,413	13,012	3,512	775	750
Mean	72.9	186	192	148	352	928	3,370	1,270	434	113	25	25
Ac-ft	4,480	11,100	11,800	9,100	20,200	57,100	201,000	78,100	25,800	6,950	1,540	1,490

Calendar year 1903: Max - Min - Mean - Ac-ft -
Water year 1903-4: Max 6,300 Min - Mean 590 Ac-ft 424,000

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1905 to September 1906

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	48	38	50	70	157	2,140	510	1,980	108	49	28
2	37	38	48	50	70	157	1,980	510	1,980	108	49	28
3	48	38	38	60	65	192	*1,240	482	1,980	174	40	28
4	26	38	38	60	60	210	1,160	510	1,840	174	40	28
5	26	38	32	60	60	157	920	570	1,700	174	40	28
6	26	38	32	50	55	157	840	510	1,700	174	40	28
7	28	32	38	50	50	350	1,160	510	1,340	140	40	28
8	26	38	35	50	45	500	1,009	510	1,230	250	40	28
9	32	48	30	50	45	700	1,240	840	1,280	140	40	28
10	32	48	27	50	50	*745	840	510	1,130	95	40	28
11	32	48	27	50	50	500	1,240	510	860	82	40	28
12	32	32	27	45	55	350	840	510	950	82	49	34
13	32	26	29	45	60	200	920	510	860	82	70	40
14	32	*26	31	45	70	150	1,240	660	765	82	70	49
15	32	38	33	45	80	120	570	400	695	82	58	58
16	38	38	35	50	85	100	1,240	*660	800	82	49	58
17	48	38	38	55	95	90	1,200	400	700	82	49	40
18	48	43	38	55	108	90	1,160	400	620	82	49	49
19	48	48	38	50	157	100	1,160	350	550	82	40	28
20	38	38	38	50	174	150	1,160	360	500	82	40	28
21	38	38	35	50	210	250	1,240	650	420	58	40	28
22	48	32	30	60	230	350	1,240	720	350	58	40	28
23	38	32	25	65	230	482	1,460	650	320	58	49	28
24	48	38	30	70	210	1,100	1,240	650	280	58	49	28
25	48	38	35	70	210	1,200	1,690	650	250	49	49	28
26	48	38	40	65	230	1,300	1,240	510	230	49	40	28
27	48	48	50	60	174	1,500	630	895	210	49	40	28
28	48	48	50	55	192	1,800	510	950	210	49	34	28
29	38	48	50	60	-	2,120	510	1,300	180	49	28	28
30	32	48	50	65	----	3,050	510	1,700	140	49	28	28
31	32	----	50	70	----	4,190	------	1,900	------	49	28	------
Total	1,151	1,187	1,135	1,710	3,190	22,317	33,520	20,597	26,050	2,932	1,357	972
Mean	37.1	39.6	36.6	55.2	114	720	1,120	664	868	94.6	43.8	32.4
Ac-ft	2,280	2,360	2,250	3,390	6,330	44,300	66,600	40,800	51,600	5,820	2,690	1,930

Calendar year 1905: Max 1,500 Min 3 Mean 219 Ac-ft 158,000
Water year 1905-6: Max 4,190 Min 25 Mean 318 Ac-ft 230,000

* Discharge measurement made on this day.

Grande Ronde River at La Grande, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1906 to September 1907

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	40	66	295	510	1,200	900	1,080	695	345	40	40
2	28	40	66	250	510	1,000	950	840	630	345	40	58
3	28	40	66	250	510	850	1,000	765	600	400	40	140
4	40	58	*66	455	510	630	1,200	765	510	455	40	108
5	40	58	66	295	2,790	630	1,300	765	482	82	40	82
6	40	49	66	250	1,980	630	1,600	765	455	95	40	82
7	40	40	108	200	1,230	630	1,980	765	428	108	40	82
8	40	49	108	150	950	630	2,450	840	400	108	40	82
9	40	40	108	170	860	630	2,120	840	400	108	40	82
10	40	58	108	160	860	630	2,120	840	345	108	40	82
11	40	70	108	160	860	630	1,840	765	400	108	40	108
12	40	174	108	140	860	630	1,840	840	400	140	40	157
13	28	108	108	140	860	630	1,840	840	345	140	40	*157
14	40	140	124	125	860	600	1,700	840	428	82	40	140
15	40	157	108	110	860	540	1,980	765	345	82	40	140
16	49	124	108	110	860	500	1,980	765	345	82	34	140
17	49	108	108	110	860	450	1,450	920	345	82	34	140
18	49	95	108	110	860	500	1,450	1,000	295	82	34	108
19	49	108	108	110	1,050	900	1,450	1,040	295	82	28	82
20	49	108	108	110	1,200	1,600	1,340	1,000	250	82	28	58
21	49	108	108	110	1,340	2,540	1,340	1,000	250	82	18	40
22	40	108	124	110	1,500	1,700	1,340	840	*250	82	18	40
23	40	108	400	110	1,700	1,500	1,340	765	250	82	18	40
24	40	108	400	110	1,800	1,400	1,280	695	250	82	140	40
25	40	108	510	110	1,900	1,300	1,130	662	295	82	28	40
26	49	108	1,080	100	1,700	1,200	1,130	630	272	58	28	40
27	49	40	840	90	1,500	1,050	1,100	630	295	58	18	40
28	40	40	570	120	1,400	1,000	1,000	600	295	58	18	40
29	40	40	510	170	-	950	950	630	295	58	18	40
30	40	82	455	250	- - - - -	900	850	630	295	58	40	40
31	40	- - -	295	350	- - - - -	900	- - - - -	600	- - - - -	40	40	- - - - -
Total	1,264	2,514	7,216	5,330	32,680	28,880	43,950	24,722	11,140	3,856	1,142	2,468
Mean	40.8	83.8	233	172	1,170	932	1,460	797	371	124	36.8	82.3
Ac-ft	2,510	4,990	14,300	10,600	65,000	57,300	86,900	49,000	22,100	7,620	2,260	4,900

Calendar year 1906: Max 4,190 Min 28 Mean 339 Ac-ft 245,000
Water year 1906-7: Max 2,790 Min 18 Mean 452 Ac-ft 327,000

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1907 to September 1908

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	40	40	120	50	174	500	1,420	338	205	50	20
2	40	40	40	110	55	170	500	1,420	338	165	50	20
3	40	40	40	100	60	150	500	1,250	338	165	50	20
4	40	40	40	100	70	150	500	1,080	338	165	50	20
5	34	40	40	100	75	140	540	1,080	390	165	50	20
6	34	40	40	100	82	140	580	1,080	520	130	50	20
7	34	40	40	100	82	135	580	910	520	130	33	20
8	34	40	40	100	82	130	580	830	520	130	20	20
9	34	40	40	110	82	130	580	750	520	100	20	20
10	34	40	58	140	82	150	700	670	520	73	20	20
11	40	40	58	140	82	150	900	670	520	50	20	20
12	40	40	58	120	82	250	1,200	670	520	50	20	20
13	40	40	58	100	82	600	1,500	750	520	73	20	20
14	40	40	58	90	82	700	1,600	830	520	73	20	33
15	40	40	58	90	82	1,500	1,700	830	450	73	20	33
16	40	40	58	90	108	3,500	1,840	830	520	100	20	33
17	40	40	58	90	108	4,000	1,840	750	520	165	20	33
18	40	40	58	90	108	3,200	1,840	750	520	245	20	33
19	40	40	58	90	108	2,500	2,120	750	450	165	20	33
20	40	49	58	90	82	1,800	2,450	750	450	100	20	20
21	40	49	58	80	82	1,500	2,790	750	390	50	20	20
22	40	49	108	70	82	1,200	2,450	750	390	50	20	20
23	40	58	140	70	82	1,000	2,120	750	338	50	20	20
24	40	70	174	70	82	900	1,840	590	338	50	12	20
25	40	70	210	70	82	800	1,840	450	290	50	12	20
26	40	40	250	70	108	700	1,700	450	245	50	12	20
27	40	40	295	80	140	600	1,700	338	245	50	12	20
28	40	40	260	80	174	550	1,700	338	245	33	12	20
29	40	40	200	70	174	520	1,570	338	245	50	20	20
30	40	40	170	60	- - - - -	500	1,570	338	245	50	20	20
31	40	- - -	140	50	- - - - -	500	- - - - -	*290	- - - - -	50	20	- - - - -
Total	1,204	1,305	3,003	2,840	2,650	28,439	41,830	23,452	12,303	3,055	773	678
Mean	38.8	43.5	96.9	91.6	91.4	917	1,390	757	410	98.5	24.9	22.6
Ac-ft	2,390	2,590	5,960	5,630	5,260	56,400	82,700	46,500	24,400	6,060	1,530	1,340

Calendar year 1907: Max 2,790 Min 18 Mean 437 Ac-ft 317,000
Water year 1907-8: Max 4,000 Min 12 Mean 332 Ac-ft 241,000

* Discharge measurement made on this day.

Grande Ronde River at La Grande, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1925 to September 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	56	41	32	44	640	760	*640	125	23	12	42
2	40	42	47	34	44	700	670	580	120	24	11	31
3	45	40	53	38	44	760	700	490	105	33	12	31
4	39	37	41	38	56	850	820	490	100	32	12	27
5	39	37	54	40	205	700	950	580	96	30	12	24
6	39	35	60	46	405	550	1,020	460	88	18	11	22
7	39	37	45	47	610	580	950	430	84	29	11	30
8	39	35	45	46	670	580	1,020	405	73	37	11	30
9	39	42	26	45	640	610	1,190	375	62	35	10	30
10	39	45	41	39	790	950	1,190	322	67	30	10	27
11	39	46	66	38	670	550	1,280	245	62	24	11	26
12	39	47	62	32	460	730	1,190	265	62	24	10	24
13	40	47	56	30	322	1,710	1,190	270	62	30	11	24
14	40	47	47	30	245	1,830	1,600	285	59	27	10	24
15	40	41	22	29	306	1,480	1,190	255	66	24	11	24
16	39	42	41	29	229	1,830	1,280	245	67	22	10	25
17	45	45	41	30	237	1,380	1,380	270	62	20	11	28
18	40	45	54	30	213	1,100	1,280	270	62	19	23	28
19	40	45	45	30	213	*950	1,280	237	66	18	30	28
20	41	42	45	31	*260	985	1,100	245	*110	17	41	26
21	41	40	41	32	237	850	985	295	90	17	41	28
22	40	41	45	32	229	820	880	225	76	16	30	28
23	35	35	110	35	221	915	760	205	62	16	23	*30
24	35	24	130	35	245	820	700	205	56	15	20	32
25	35	33	100	37	760	760	640	180	53	14	18	32
26	35	54	67	37	520	670	640	163	47	15	17	30
27	40	54	60	35	550	640	640	163	41	15	17	29
28	41	47	45	40	640	580	640	163	35	14	17	30
29	42	45	50	42	-	520	640	135	33	14	16	28
30	50	43	52	42	----	550	760	135	22	12	28	28
31	52	----	47	43	----	730	------	98	----	12	47	--
Total	1,242	1,269	1,679	1,124	10,065	27,320	29,325	9,326	2,113	676	554	842
Mean	40.1	42.3	54.2	36.3	359	881	978	301	70.4	21.8	17.9	28.1
Ac-ft	2,470	2,520	3,330	2,230	19,900	54,200	58,200	18,500	4,190	1,340	1,100	1,670

Calendar year 1925: Max - Min - Mean - Ac-ft -
Water year 1925-26: Max 1,830 Min 10 Mean 234 Ac-ft 170,000

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1929 to September 1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	26	18	57	51	280	830	395	420	85	*23	16
2	24	26	18	46	30	240	760	420	550	82	22	16
3	24	28	15	38	24	200	760	520	550	78	22	16
4	23	26	19	44	32	208	730	420	580	75	22	16
5	23	*26	32	50	101	370	700	370	520	70	21	16
6	23	28	32	18	105	470	760	370	520	62	21	16
7	23	28	31		122	320	830	320	520	58	20	18
8	22	24	28		200	495	910	300	445	56	21	20
9	24	27	35		212	420	870	280	395	54	25	22
10	25	26	43	19	200	420	730	264	370	56	32	21
11	26	32	59		470	520	700	260	320	54	35	25
12	25	25	62		420	760	700	260	280	52	29	30
13	24	14	81		320	670	700	260	252	47	25	*29
14	24	18	85		990	580	700	272	272	47	22	25
15	24	22	89	*24	1,380	520	640	420	252	45	22	22
16	23	18	110		830	*420	*580	245	182	35	27	22
17	24	21	74	13	800	370	520	*320	165	35	28	20
18	23	25	36		990	345	470	300	190	33	25	20
19	23	20	43	8	1,080	420	470	300	144	34	25	19
20	23	15	59	8	1,280	610	445	300	172	33	41	19
21	24	27	48		910	730	495	320	240	30	30	19
22	24	21	46		700	1,280	520	300	172	30	25	18
23	24	20	64	8	580	990	550	280	148	29	24	18
24	24	18	44		420	1,380	670	260	125	28	22	19
25	24	24	51	11	420	1,480	580	232	112	28	19	19
26	24	30	38		370	1,590	550	232	105	28	19	19
27	28	32	39	14	320	1,380	580	216	99	28	18	19
28	34	25	10	14	200	1,180	520	212	99	26	18	22
29	24	18	15	14	-	1,280	470	200	93	25	16	35
30	28	18	48	19	----	1,130	420	300	85	24	16	39
31	25	----	48	19	----	990	------	445	------	23	16	--
Total	758	708	1,420	621	13,557	22,048	19,160	9,693	8,377	1,390	731	635
Mean	24.5	23.6	45.8	20.0	48.4	711	639	313	279	44.8	23.6	21.2
Ac-ft	1,510	1,400	2,820	1,230	26,900	43,700	38,000	19,200	16,600	2,750	1,450	1,260

Calendar year 1929: Max 2,970 Min 10 Mean 307 Ac-ft 223,000
Water year 1929-30: Max 1,590 Min - Mean 217 Ac-ft 157,000

* Discharge measurement made on this day.

Grande Ronde River at La Grande, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	50	60	75	45	70	2,180	*960	166	54	13	7
2	20	54	65	80	a45	75	2,130	960	152	52	12	7
3	23	80	65	75	a50	80	1,910	960	139	53	*11	10
4	25	102	80	70	a55	70	1,760	890	130	59	11	10
5	24	97	100	65	a55	65	1,480	774	136	60	9	10
6	24	65	80	55	a50	70	1,240	678	136	56	8	10
7	24	46	*127	55	a46	70	1,160	612	136	52	8	10
8	24	68	223	60	a44	70	1,200	576	130	45	9	10
9	23	65	220	65	a40	70	1,240	552	130	38	10	11
10	22	56	187	70	a50	70	1,120	*516	133	36	9	11
11	28	46	133	65	a70	150	1,080	482	118	34	10	11
12	35	a38	106	60	a70	225	1,120	450	105	32	10	14
13	38	a54	70	60	65	301	1,000	425	93	29	9	18
14	32	a70	60	65	70	237	869	420	87	27	9	27
15	31	68	70	70	70	225	820	410	84	a26	7	29
16	31	76	65	65	80	306	781	410	95	a25	7	25
17	33	94	64	60	90	*869	794	*466	105	a24	6	19
18	32	86	62	65	85	1,400	862	425	112	*23	6	21
19	31	74	64	60	80	1,860	1,040	380	130	22	6	18
20	32	80	64	55	70	*2,410	1,080	355	136	21	6	18
21	32	54	64	55	60	2,900	1,120	332	126	21	6	17
22	*32	40	62	52	70	3,300	1,200	332	108	21	6	17
23	32	30	66	60	65	*3,440	1,160	306	93	19	7	15
24	31	35	64	60	70	3,520	1,080	261	87	16	8	*14
25	31	40	62	66	75	3,600	960	233	80	17	10	13
26	32	45	58	62	75	3,160	862	241	78	15	9	12
27	32	45	60	*62	70	2,350	834	229	76	14	9	12
28	32	45	66	60	70	1,980	925	214	*71	13	8	15
29	37	50	70	54	-	1,760	1,120	210	64	12	7	14
30	42	55	65	52	- -	1,620	1,080	214	57	14	7	16
31	52	- -	70	48	- -	1,910	-----	187	------	13	6	-- -
Total	938	1,808	2,672	1,926	1,785	38,213	35,207	14,460	3,293	943	259	441
Mean	30.3	60.3	86.2	62.1	63.8	1,233	1,174	466	110	30.4	8.4	14.7
Ac-ft	1,860	3,590	5,300	3,820	3,540	75,800	69,830	28,680	6,530	1,870	514	875

Calendar year 1938: Max 2,230 Min 12 Mean 285 Ac-ft 206,400
Water year 1938-39: Max 3,600 Min 6 Mean 279 Ac-ft 202,200

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station near Hilgard.
Note.--Stage-discharge relation affected by ice Nov. 22-30, Dec. 1-6, Dec. 13 to Mar. 11.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	30	*14	30	36	38	480	1,490	*770	219	47	16
2	26	29	20	28	34	36	440	1,400	692	202	42	16
3	26	29	25	26	32	32	367	1,390	710	184	40	16
4	26	29	32	24	29	30	315	1,400	782	178	39	18
5	24	28	36	25	28	24	342	1,850	905	187	37	16
6	24	29	32	27	25	30	673	2,090	968	190	35	16
7	24	30	*22	27	29	36	1,290	1,910	*1,020	244	34	*14
8	23	*30	20	25	38	42	1,750	1,870	1,030	193	*33	15
9	23	30	23	25	32	50	2,080	1,560	1,020	166	31	16
10	23	39	21	25	26	55	2,310	1,450	996	187	30	16
11	24	45	19	26	27	*60	1,510	1,540	933	163	28	16
12	28	41	20	28	29	60	1,130	1,630	828	*135	27	15
13	32	41	22	30	32	60	1,190	1,400	734	120	26	15
14	31	38	24	28	32	55	1,020	1,110	620	112	26	20
15	29	38	27	25	34	60	794	982	566	102	25	29
16	29	38	*19	25	34	60	698	1,150	510	108	22	37
17	29	44	18	25	32	60	710	1,160	450	95	23	34
18	29	44	17	23	30	65	626	1,150	401	82	22	35
19	29	48	22	22	29	60	*550	1,270	374	74	22	30
20	29	45	25	23	29	46	520	1,580	347	70	21	27
21	31	41	25	25	30	60	602	1,680	329	65	21	25
22	31	39	26	25	34	65	1,030	1,510	308	67	20	24
23	34	38	32	27	36	70	1,000	1,290	284	84	19	*24
24	34	37	29	28	38	80	1,060	1,110	260	112	19	24
25	32	37	27	30	34	90	989	933	240	91	18	24
26	29	37	23	*32	32	90	968	884	233	72	20	24
27	26	39	19	30	30	140	770	828	240	65	20	24
28	28	37	21	30	*32	180	710	756	240	61	19	26
29	29	34	23	32	-	230	• 794	835	272	58	18	27
30	29	26	26	34	- ----	*280	1,100	954	240	54	18	27
31	30	- -	29	32	----	320	-----	898	------	52	17	---
Total	868	1,090	738	842	883	2,564	27,818	41,062	17,302	3,792	819	666
Mean	28.0	36.3	23.8	27.2	31.5	82.7	927	1,325	577	122	26.4	22.2
Ac-ft	1,720	2,160	1,460	1,670	1,750	5,090	55,180	81,450	34,320	7,520	1,620	1,320

Calendar year 1954: Max 2,000 Min 14 Mean 255 Ac-ft 184,700
Water year 1954-55: Max 2,310 Min 14 Mean 270 Ac-ft 195,300

Peak discharge (base, 1,900 cfs).--Apr. 10 (4 a.m.) 2,760 cfs (5.70 ft); May 6 (2 a.m.) 2,510 cfs (5.48 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30 to Apr. 1.

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 1955. 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 benchmark). 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 from present site at datum 4.29 ft lower.
Average discharge.--32 years (1911-12, 1918-19, 1925-55), 119 cfs (86,150 acre-ft per year).
Extremes.--Maximum discharge during year, 655 cfs June 10 (gage height, 3.05 ft); minimum, 6.5 cfs Feb. 4 (gage height, 0.44 ft), result of freezeup.
1906-7, 1911-12, 1915, 1918-19, 1925-55: Maximum discharge, 1,740 cfs May 27, 1948 (gage height, 4.57 ft); minimum, that of Feb. 4, 1955.
Revisions.--The figures of maximum discharge for some water years have been revised as shown in the following table. They supersede figures published in water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
513	1919	May 26, 1919	†825	5.2
738	1932	May 13, 1932	†1,080	3.36
903	1940	May 10, 1940	565	3.07

† Maximum observed

Remarks.--Records excellent except those for period of backwater from leaves, which are good, and those for periods of ice effect, which are fair. Diversions above station for irrigation of about 130 acres; since 1937, some water diverted to Big Creek, in Powder River basin, for irrigation of up to 3,300 acres. No known regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for periods in the water years 1912, 1913, 1919, 1926, 1928-33, 1937, 1939, 1941-43, and 1950, superseding those published in WSP 332, 362, 513, 633, 673, 693, 708, 723, 738, 753, 833, 883, 933, 963, 983, and 1183, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1912		1929		1933-Con.		1940-Con.	
Jan. 13	50	Jan. 1-31	†25	Mar. 2	30	Dec. 16	40
14	70	Feb. 1-28	†27	3	35	17	45
15	80	Mar. 23	187	4	33	18	54
16	70	Nov. 1-30	†20			19	60
17	60	Dec. 1-14	†20	1936		20	58
18	50			Nov. 27	14	21	65
Dec. 20	27	1930		28	14		
21	27	Jan. 1-31	†12	29	14	1942	
22	27	Feb. 1	20	30	14	Jan. 1-24	†50
23	25	2	23	Dec. 1	14		
24	25	3	25	2	15	1943	
25	25	Nov. 9-30	†12	3	15	Jan. 22	73
26	28			4	15	23	60
27	31	1932		5	15	24	52
28	38	May 1	595	6	20	25	56
29	42	2	640	7	25	26	64
30	40	3	595	8	24	27	64
31	38	4	550	9	22	28	52
1919		5	550	10	20	29	52
May 28	660	6	740	11	18	30	52
29	465	7	795	12	18	31	50
30	465	8	795	13	20		
31	465	9	910			1950	
		10	910	1938		Jan. 20	32
1926		11	910	Nov. 21	30	21	35
Jan. 9	29	12	1,040	22	30	22	40
10	25	13	1,040	23	35	23	40
11	22	14	970	24	40	25	25
12	22	15	795	25	40	26	25
13	22	16	640	26	40	27	25
14	22	17	595	27	45	28	25
15	24	18	740	28	50	29	20
25	22	19	690	29	55	30	20
26	22	20	795	30	60	31	17
27	22	21	740				
Mar. 5	93	22	550	1940			
		1933		Dec. 12	45		
1927		Feb. 1-28	†22	13	40		
Dec. 1-31	†105	Mar. 1	30	14	40		
				15	40		

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1912	-	85	22	45.9	2,820
Water year 1911-12	-	1,240	22	185	135,000
December 1912	-	42	25	33.9	2,080
Calendar year 1912	-	1,240	22	187	135,000
May 1919	-	825	174	475	29,200
Water year 1918-19	-	825	-	103	74,600
January 1926	-	36	18	25.8	1,590
March	-	200	57	111	6,820
Water year 1925-26	-	675	8	73.5	53,200
Calendar year 1926	-	675	13	77.9	56,300
December 1927	-	-	-	105	6,460
Calendar year 1927	-	895	15	160	116,000
Water year 1927-28	-	1,200	24	175	127,000

Catherine Creek near Union, Oreg.--Continued

Revised figures of discharge, in cubic feet per second, 1912, 1913, 1919, 1926, 1928-33, 1937, 1939, 1941-43, and 1950--Continued

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1929	-	-	-	25	1,540
February	-	-	-	27	1,500
March	-	313	30	105	6,460
Water year 1928-29	-	1,000	-	125	90,600
November 1929	-	-	-	20	1,190
December	-	48	-	20	1,250
Calendar year 1929	-	1,000	-	122	88,600
January 1930	-	-	-	12	738
February	-	76	15	34.5	1,920
Water year 1929-30	-	335	-	66.8	48,400
November 1930	-	24	-	14.2	845
Calendar year 1930	-	335	-	66.3	48,100
Water year 1930-31	-	525	-	79.4	57,600
May 1932	-	1,040	280	633	38,900
Water year 1931-32	-	1,040	16	142	103,000
Calendar year 1932	-	1,040	-	144	104,000
February 1933	-	-	-	22	1,220
March	-	109	25	52.0	3,200
Water year 1932-33	-	1,030	-	143	103,000
Calendar year 1933	-	1,030	-	143	104,000
November 1936	549	23	14	18.3	1,090
December	622	31	14	20.1	1,230
Calendar year 1936	35,408	785	14	96.7	70,230
Water year 1936-37	29,891	520	14	81.9	59,300
November 1938	1,136	60	30	37.9	2,250
Calendar year 1938	53,206	920	20	146	105,500
Water year 1938-39	40,210	723	18	110	79,760
December 1940	1,736	72	40	56.0	3,440
Calendar year 1940	37,208	477	17	102	73,780
Water year 1940-41	42,413	474	24	116	84,110
January 1942	1,884	-	-	60.8	3,740
Water year 1941-42	52,670	600	26	144	104,500
Calendar year 1942	48,478	600	24	133	96,160
January 1943	1,400	90	30	45.2	2,780
Water year 1942-43	47,491	590	24	130	94,200
Calendar year 1943	47,193	590	20	129	93,600
January 1950	863	40	17	27.8	1,710
Water year 1949-50	41,401	530	17	113	82,130
Calendar year 1950	41,770	530	17	114	82,860

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	20	16	27	25	32	48	157	*281	136	46	26
2	26	20	*27	25	25	*27	46	157	287	124	45	26
3	26	19	29	21	23	22	44	146	320	114	45	25
4	26	19	27	23	19	20	41	150	350	111	44	25
5	26	19	27	25	21	18	42	210	410	111	42	25
6	25	18	28	26	19	22	54	260	472	107	41	25
7	25	18	*27	24	25	29	82	275	532	120	40	*24
8	25	17	26	23	27	34	*124	299	*558	105	*40	25
9	25	17	28	22	23	36	150	281	585	101	39	27
10	25	*26	27	22	20	34	170	290	590	101	38	25
11	26	21	25	24	22	36	142	335	*590	98	36	25
12	32	27	26	26	25	27	116	385	572	93	35	24
13	30	24	28	26	28	27	100	347	512	*89	35	24
14	26	22	30	26	27	24	89	269	428	88	34	47
15	26	44	26	22	29	*23	82	228	350	84	33	43
16	26	41	24	23	28	24	76	198	302	82	32	37
17	25	33	22	24	27	25	76	185	269	80	32	36
18	25	32	20	21	23	24	72	215	252	72	32	32
19	25	29	23	22	21	24	*66	308	252	68	31	31
20	26	27	25	24	20	24	63	468	255	64	30	29
21	25	26	24	25	21	25	67	572	272	61	30	*28
22	25	28	*27	23	23	24	80	508	272	59	30	29
23	24	29	32	24	25	25	83	424	248	59	30	29
24	22	28	30	24	28	26	83	354	210	64	30	29
25	21	28	25	25	26	26	83	317	181	56	30	28
26	19	28	20	*26	27	27	88	311	167	55	29	28
27	21	26	19	24	22	27	78	278	155	54	29	28
28	20	26	20	25	24	32	74	272	167	54	28	29
29	20	16	22	26	-	45	80	299	174	51	28	30
30	20	18	24	27	------	44	103	311	148	50	27	29
31	20	------	27	24	------	44	------	299	------	48	26	------
Total	760	746	781	751	673	877	2,502	9,108	10,161	2,559	1,067	868
Mean	24.5	24.9	25.2	24.2	24.0	28.3	83.4	294	339	82.5	34.4	28.9
Ac-ft	1,510	1,480	1,550	1,490	1,330	1,740	4,960	18,070	20,150	5,080	2,120	1,720

Calendar year 1954: Max 503 Min 16 Mean 89.4 Ac-ft 64,760
Water year 1954-55: Max 590 Min 16 Mean 84.5 Ac-ft 61,200

Peak discharge (base, 500 cfs).--May 20 (9:30 p.m.) 635 cfs (3.01 ft); June 10 (9 p.m.) 655 cfs (3.05 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 30, Dec. 1-3, 8-14, Dec. 16 to Mar. 10, Mar. 13-18, 20, 26. Backwater from leaves Oct. 11 to Nov. 14.

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 an eighth of a mile upstream from bridge on Highway 82, 1½ miles downstream from Willow Creek, 1¾ miles upstream from Indian Creek, and 3¾ miles south of Elgin.

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

Records available.--August to September 1955.

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 observed during period, 82 cfs Aug. 1 (gage height, 1.30 ft); minimum, 21 cfs Sept. 3-5 (gage height, 0.73 ft).

The flood of May 1948 was measured at peak as 5,690 cfs (gage height, 2,672.9 ft on Corps of Engineer's gage at bridge an eighth of a mile downstream); floods of 1894, 1917, and 1932 were much higher based on Corps of Engineers flood profiles.

Remarks.--Records good. Many diversions for irrigation in valley above station.

Discharge, in cubic feet per second, August to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1											g82	24
2											g76	22
3											g68	22
4											g62	22
5											g57	22
6											g54	25
7											g49	*25
8											g46	24
9											44	25
10											43	25
11											41	25
12											*39	24
13											36	24
14											34	27
15											32	31
16											31	32
17											30	34
18											30	33
19											30	33
20											30	33
21											29	32
22											30	32
23											30	*33
24											30	32
25											29	32
26											28	32
27											27	32
28											27	31
29											26	32
30											25	34
31											25	---
Total											1,220	854
Mean											39.4	28.5
Ac-ft											2,420	1,690

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

* Discharge measurement made on this day.
g Computed from staff-gage readings.

East Fork Wallowa River near Joseph, Oreg.

Location.--Lat 45°16', long 117°13', in SE¼ 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 6 miles south of Joseph.

Drainage area.--10 sq mi, approximately.

Records available.--July 1924 to September 1955. 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 mean sea level, datum of 1929 (Pacific Power & Light Co.'s benchmark). Prior to Apr. 8, 1950, staff gage at same site and datum.

Average discharge.--31 years, 20.7 cfs (14,990 acre-ft per year).

Extremes.--Maximum discharge during year, 130 cfs June 11; minimum daily, 9.9 cfs Apr. 28. 1924-55: 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; prior to October 1952, that record was published separately. The water is diverted at dam on East Fork Wallowa River into a conduit 1 mile above powerhouse and discharged into West Fork a quarter of a mile downstream.

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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	12	12	11	11	10	11	21	50	25	14
2	16	14	12	13	*11	11	10	10	22	45	24	14
3	16	14	12	13	11	11	10	10	26	42	24	14
4	15	14	12	13	11	11	10	10	31	42	23	14
5	16	14	14	12	11	11	10	13	34	40	22	14
6	15	14	14	12	11	11	10	15	40	44	21	14
7	15	14	14	12	11	11	11	15	50	39	21	14
8	15	13	14	12	11	11	11	16	57	37	20	14
9	15	13	14	12	11	*11	12	15	64	37	20	14
10	15	14	13	12	11	11	12	16	77	41	19	14
11	15	14	13	11	11	11	11	18	92	42	*18	14
12	16	15	13	12	11	11	*10	20	106	42	18	14
13	15	14	13	11	11	11	10	19	108	46	18	*14
14	16	14	13	12	11	11	10	15	97	51	18	19
15	16	15	13	12	11	11	10	14	89	61	18	17
16	16	16	14	12	11	11	10	14	72	66	17	16
17	15	15	14	11	10	11	10	14	70	59	17	16
18	*15	14	12	11	11	11	10	15	70	50	17	14
19	15	14	12	12	11	11	10	19	73	44	17	14
20	14	13	12	11	10	11	10	28	82	42	17	14
21	15	13	12	11	11	11	10	32	*95	42	17	13
22	15	13	12	11	11	10	10	29	99	44	16	14
23	14	13	12	11	11	11	10	25	*89	40	16	14
24	14	13	12	11	11	11	10	22	78	40	16	14
25	14	13	11	11	11	11	10	*21	63	36	16	13
26	14	13	12	11	11	11	10	21	56	32	15	13
27	14	13	12	11	11	10	10	20	57	31	15	13
28	14	13	*12	11	11	11	9.9	22	73	30	15	12
29	14	*13	13	11	-	11	10	25	*66	28	15	14
30	14	11	12	11	------	10	10	25	53	27	14	14
31	13	-----	12	11	-----	11	-----	23	------	26	14	------
Total	461	410	392	359	306	338	306.9	572	2,010	1,296	563	426
Mean	14.9	13.7	12.6	11.6	10.9	10.9	10.2	18.5	67.0	41.8	18.2	14.2
Cfsm	1.49	1.37	1.26	1.16	1.09	1.09	1.02	1.85	6.70	4.18	1.82	1.42
In.	1.71	1.52	1.46	1.34	1.14	1.26	1.14	2.13	7.48	4.82	2.09	1.58
Ac-ft	914	813	778	712	607	670	609	1,130	3,990	2,570	1,120	845

Calendar year 1954: Max 73 Min 11 Mean 22.2 Cfsm 2.22 In. 30.17 Ac-ft 16,100
Water year 1954-55: Max 108 Min 9.9 Mean 20.4 Cfsm 2.04 In. 27.67 Ac-ft 14,760

* Discharge measurement made on this day.

Diversions from Wallowa Lake, Oreg.

The following canals divert from Wallowa Lake:

Joseph powerplant tailrace diverts at Wallowa Lake Dam in NW¼ sec. 5, T. 3 S., R. 45 E., for generation of power at Joseph. The diversion is measured at the powerplant in NE¼NE¼ sec. 31, T. 2 S., R. 45 E., and is returned to Wallowa River at Joseph. Records published as presented herein October 1952 to September 1955. Records published separately October 1950 to September 1952 in reports of Geological Survey, November 1929 to September 1941 in reports of State engineer, and October 1941 to September 1950 in files of State engineer.

Silver Lake Canal diverts at Wallowa Lake Dam in NW¼ sec. 5, T. 3 S., R. 45 E., for irrigation of about 4,900 acres northeast of Joseph. Records published as presented herein October 1952 to September 1955. Prior to October 1952, published separately July to December 1905 (gage heights and discharge measurements only), May to September 1915, and November 1926 to September 1952. Monthly runoff only for some periods, published in WSP 1317. Published as Silver Lake ditch near Joseph in 1905 and 1915.

Diversion, in acre-feet, water year October 1954 to September 1955

Month	Joseph powerplant tailrace	Silver Lake Canal
October	2,000	541
November	1,530	417
December	1,550	422
Calendar year 1954	36,170	19,600
January	1,310	393
February	1,150	261
March	1,380	131
April	1,690	157
May	2,290	157
June	4,080	4,570
July	4,500	3,260
August	4,910	4,450
September	1,390	1,290
Water year 1954-55	27,780	16,050

Wallowa Lake near Joseph, Oreg.

Location (revised).--Lat 45°20'20", long 117°13'30", in NW¼ sec. 5, T. 3 S., R. 45 E., on trash-rack 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), and October 1925 to September 1955. 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. Prior to Aug. 7, 1929, staff gages at several sites within 600 ft of present site at various datums.

Extremes.--Maximum contents during year, 28,540 acre-ft July 30 (gage height, 18.15 ft); minimum, 13,740 acre-ft Sept. 13 (gage height, 8.85 ft).

1925-55: Maximum contents, 45,580 acre-ft July 14-19, 1938, May 8, 9, 1939 (gage height, 28.50 ft); minimum, 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 ft (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 1954 to September 1955

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	12.15	18,940	-
Oct. 31	11.8	18,380	-560
Nov. 30	11.7	18,230	-150
Dec. 31	11.45	17,830	-400
Calendar year 1954	-	-	-15,350
Jan. 31	11.45	17,830	0
Feb. 28	11.5	17,910	+80
Mar. 31	11.8	18,380	+470
Apr. 30	12.25	19,100	+720
May 31	14.7	23,000	+3,900
June 30	14.85	23,240	+240
July 31	18.1	28,460	+5,220
Aug. 31	9.4	14,610	-13,850
Sept.30	9.15	14,220	-390
Water year 1954-55	-	-	-4,720

† Gage height at 7 a.m.

Wallowa River at Joseph, Oreg.

Location.--Lat 45°20', long 117°14', 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, and November 1926 to September 1955. Monthly discharge only for some periods, published in WSP 1317. Published as "near Joseph" 1904-5, 1907-11, 1937-49, and as "below Wallowa Lake near Joseph" 1931-36.
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 various datums.
Average discharge.--28 years (1927-55), 122 cfs (88,320 acre-ft per year), adjusted for storage and diversion.
Extremes.--Maximum discharge during year, 420 cfs June 12, 13 (gage height, 3.35 ft); minimum, 0.3 cfs May 17 (gage height, 0.87 ft).
1903-15, 1926-55: Maximum discharge, 850 cfs June 12, 13, 1912 (gage height, 3.60 ft, site and datum then in use); no flow at times.
Remarks.--Records good except those below 20 cfs, which are poor. Monthly discharges adjusted for storage in Wallowa Lake (see preceding page) and diversions from Wallowa Lake by Silver Lake Canal and Joseph powerplant tailrace (see p. 241). City of Joseph diverts less than 1 cfs from Wallowa Lake for municipal supply.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1906, superseding those published in WSP 370, are given herewith:

Sept. 12, 1906..... 66
13, 1906..... 66

Month	Maximum	Minimum	Mean	Runoff in acre-feet
September 1906,.....	77	26	52.6	3,130
Water year 1905-6.....	561	26	129	93,500
Calendar year 1906.....	561	26	141	102,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	10	10	9.5	*9.5	8.5	9.0	1.8	238	280	161	21
2	14	10	10	9.5	9.5	8.5	9.0	1.8	248	252	164	21
3	14	11	10	9.5	9.5	8.5	9.0	2	252	221	176	22
4	14	11	10	9.5	9.5	8	9.0	2.5	*258	203	207	23
5	14	11	10	9.5	9.5	8	8.5	3	280	179	232	23
6	14	10	10	9.5	9.5	8	8.5	3.5	302	159	255	23
7	14	10	10	9.5	9.5	8	8.5	4	320	*128	260	23
8	14	10	10	9.5	9	8	8.5	4.5	342	100	275	23
9	14	10	10	9.5	9	8	8.5	4.9	362	92	292	23
10	15	10	10	9.5	9	*8.0	8.0	10	381	79	332	23
11	15	*10	10	10	9	8.5	8.0	16	405	65	399	23
12	15	10	10	10	9	8.5	8.0	16	414	47	330	23
13	15	10	10	10	9	8.5	*8.0	16	411	48	315	22
14	13	10	10	*10	9	8.5	7.5	10	411	62	310	22
15	12	10	10	10	9	9.0	7	8.5	384	53	268	22
16	12	10	10	10	9	9.0	6.5	6.5	355	34	199	22
17	12	10	10	10	9	9.0	6	3.1	335	29	179	19
18	12	10	9.5	10	9	9.0	6	14	282	29	176	16
19	12	10	9.5	10	9	9.0	5.5	26	258	33	168	16
20	*12	10	9.5	10	8.5	9.0	5	30	240	43	153	15
21	12	10	9.5	10	8.5	9.0	4.5	33	252	*47	125	14
22	11	10	9.0	10	8.5	9.5	4	33	288	48	42	*13
23	11	10	9.0	10	8.5	9.5	4	*47	290	49	24	13
24	11	10	9.0	10	8.5	9.5	3.5	64	295	49	24	13
25	11	10	9.0	10	8.5	9.5	3	74	300	49	*24	13
26	11	10	9.0	10	8.5	9.5	3	111	305	49	24	13
27	11	11	9.0	10	8.5	9.5	2.5	128	320	49	24	13
28	11	11	9.5	9.5	8.5	9.5	2.5	153	335	65	24	13
29	11	11	9.5	9.5	-	9.0	2	176	300	87	23	13
30	11	10	9.5	9.5	-------	9.0	2	199	282	90	22	13
31	10	-------	9.5	9.5	-------	9.0	-------	228	-------	104	22	-------
Total	392	306	300.0	303.0	251.0	272.0	185.0	1,430.1	9,445	2,822	5,229	556
Mean	12.6	10.2	9.68	9.77	8.96	8.77	6.17	46.1	315	91.0	169	18.5
Ac-ft	778	607	595	601	498	540	367	2,840	18,730	5,600	10,370	1,100
Adjusted for change in contents in Wallowa Lake and diversions by Joseph powerplant tailrace and Silver Lake Canal												
Mean	44.9	40.5	35.1	37.4	35.8	41.0	49.4	149	464	302	95.6	57.0
Cfsm	0.863	0.779	0.675	0.719	0.688	0.788	0.950	2.87	8.92	5.81	1.84	1.10
In.	1.00	0.87	0.78	0.83	0.72	0.91	1.06	3.31	9.96	6.70	2.12	1.22
Ac-ft	2,760	2,410	2,160	2,300	1,990	2,520	2,940	9,190	27,620	18,580	5,880	3,390

Observed

Calendar year 1954: Max 435 Min 2 Mean 73.9 Ac-ft 53,480
Water year 1954-55: Max 414 Min 1.8 Mean 58.9 Ac-ft 42,630

Adjusted

Calendar year 1954: Mean 130 Cfsm 2.50 In. 33.86 Ac-ft 93,900
Water year 1954-55: Mean 113 Cfsm 2.17 In. 29.47 Ac-ft 81,740

* Discharge measurement made on this day.
Note.--No gage-height record Feb. 2 to Mar. 9, Apr. 14 to May 1, May 3-8; Sept. 19-21; discharge interpolated.

Hurricane Creek near Joseph, Oreg.

Location.--Lat 45°20', long 117°18', 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 1955. 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.--31 years (1924-55), 71.1 cfs (51,470 acre-ft per year).

Extremes.--1925-26: Maximum discharge during water year, 228 cfs June 6 (gage height, 1.47 ft); minimum not determined (revised).

1954-55: Maximum discharge during water year, 850 cfs June 11 (gage height, 3.52 ft); maximum gage height, 4.69 ft June 13 (backwater from debris); minimum discharge, 2.8 cfs Mar. 2 (gage height, 1.22 ft), result of ice jam upstream.

1915, 1924-55: Maximum discharge, 1,110 cfs June 9, 1948 (gage height, 3.55 ft); maximum gage height, that of June 13, 1955; minimum discharge, that of Mar. 2, 1955.

Revisions: The minimum discharge for the water year 1926, published in WSP 638, is in error and should not be used.

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

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1915, 1925-28, superseding those published in WSP 413, 613, 633, 653, and 673, are given herewith. Complete table of daily discharge is given for the water year 1926 but only revised figures are given for other years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1915		1925-Con.		1925-Con.		1926-Con.		1926-Con.	
May 5	128	Aug. 16	61	Sept.10	39	Oct. 3	27	Oct. 28	35
7	117	17	58	11	38	4	27	29	32
9	140	18	55	12	37	5	26	30	31
12	163	19	52	13	38	6	25	31	30
14	140	20	53	14	38	7	27	Nov. 1	30
16	128	21	53	15	39	8	27	2	29
19	160	22	52	16	41	9	27	3	28
28	163	23	56	17	40	10	26		
		24	52	18	37	11	27	1927	
1925		25	50	19	40	12	25	May 8	70
Aug. 1	96	26	50	20	39	13	31	9	70
2	93	27	48	21	38	14	31	10	75
3	105	28	48	22	37	15	31	11	85
4	91	29	48	23	36	16	38	12	100
5	80	30	46	24	35	17	45	13	115
6	77	31	42	25	34	18	38	15	160
7	76	Sept. 1	44	26	34	19	36	16	200
8	70	2	42	27	35	20	35	17	220
9	68	3	41	28	35	21	33	18	200
10	64	4	42	29	35	22	33	19	160
11	62	5	45	30	35	23	32	20	130
12	61	6	46			24	31	21	140
13	71	7	42	1926		25	31		
14	80	8	41	Oct. 1	24	26	44	1928	
15	64	9	40	2	24	27	42	May 8	245
								9	258

Month	Maximum	Minimum	Mean	Per square mile	Runoff	
					Inches	Acre-feet
May 1915	260	110	165	5.32	6.13	10,100
August 1925	105	42	63.9	2.06	2.38	3,930
September	46	34	38.8	1.25	1.40	2,310
Water year 1924-25	528	-	89.9	2.90	39.36	65,200
October 1926	45	24	31.3	1.01	1.16	1,920
November	-	-	25.4	.819	.91	1,510
Calendar year 1926	203	-	50.7	1.64	22.20	36,700
May 1927	220	70	124	4.00	4.61	7,620
Water year 1926-27	612	-	88.4	2.85	38.74	64,000
May 1928	558	76	292	9.42	10.86	18,000
Water year 1927-28	558	21	90.2	2.91	39.60	65,500
Calendar year 1928	558	19	80.1	2.58	35.18	58,200

Hurricane Creek near Joseph, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1925 to September 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		30					25	183	150	138		36
2		30					25	169	153	99		34
3		29					25	172	164	84		32
4		29					25	180	180	78		31
5								161	189	80		30
											33	
6								135	197	94		29
7								115	197	88		30
8	33							105	177	80		30
9								96	155	66		28
10								86	138	66	*30	27
11								89	128	66	29	27
12							75	111	117	66	28	27
13								128	107	66	28	27
14								135	105	66	28	27
15						20		130	92	60	28	27
			25	15	20							
16	32							135	81	52	28	27
17	32	29						140	82	45	28	26
18	32							155	89	44	34	25
19	31							180	91	44	34	25
20	31						125	203	87	43	31	25
21	31						113	180	82	40	30	25
22	31						100	*177	89	40	27	25
23	31						86	172	109	38	27	25
24	32						86	150	119	38	26	24
25	32						101	132	125	38	25	24
26	32						125	125	130	37	26	24
27	32						142	138	128	36	26	24
28	32					*24	166	145	117	35	25	24
29	*32				-	24	186	150	113	34	24	24
30	30				------	23	200	150	107	33	37	25
31	30	-----			-----	24	-----	140	------	33	40	------
Total	998	872	775	465	560	635	2,655	4,467	3,798	1,827	936	814
Mean	32.2	29.1	25	15	20	20.5	88.5	144	127	58.9	30.2	27.1
Cfsm	1.04	0.939	0.806	0.484	0.645	0.661	2.85	4.65	4.10	1.90	0.974	0.874
In.	1.20	1.05	0.93	0.56	0.67	0.76	3.18	5.36	4.57	2.19	1.12	0.98
Ac-ft	1,980	1,730	1,540	922	1,110	1,260	5,270	8,850	7,560	3,620	1,860	1,610

Calendar year 1925: Max 528 Min - Mean 88.8 Cfsm 2.86 In. 38.87 Ac-ft 64,400
Water year 1925-26: Max 203 Min - Mean 51.5 Cfsm 1.66 In. 22.57 Ac-ft 37,300

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	22	*16	16	*14	10	10	17	98	180	100	34
2	27	*22	18	15	14	11	10	17	100	170	100	33
3	27	21	20	15	14	11	11	17	125	150	90	32
4	26	21	20	15	12	10	11	17	*150	150	85	31
5	26	21	20	15	14	10	12	21	195	160	*80	30
6	26	20	20	15	14	10	12	28	246	160	76	32
7	26	20	19	15	14	11	13	34	300	150	72	33
8	26	20	18	15	14	12	14	40	354	160	70	34
9	26	20	18	15	12	12	17	43	419	180	66	35
10	25	21	17	15	11	*13	19	46	532	200	64	35
11	26	20	17	15	12	13	17	56	578	200	60	34
12	26	20	16	15	13	13	*17	64	525	200	58	33
13	25	20	16	15	13	12	16	72	490	200	56	32
14	25	20	16	15	13	12	15	60	450	200	54	34
15	25	21	16	15	12	11	15	54	400	200	52	38
16	*26	21	16	15	11	11	15	50	350	200	50	37
17	26	21	15	15	11	11	14	47	320	190	49	36
18	26	20	14	15	11	10	14	*54	300	180	48	34
19	26	20	14	15	11	9.5	14	88	350	180	*47	32
20	26	20	14	15	11	9.2	14	154	400	170	46	*31
21	27	20	15	15	11	8.8	14	199	*460	*160	45	30
22	28	21	16	15	11	8.4	15	172	400	160	44	29
23	26	21	17	15	11	8.4	14	144	*330	160	42	28
24	26	21	16	15	11	8.8	14	116	310	160	41	27
25	25	21	16	15	11	8.4	14	105	300	150	40	26
26	25	21	15	15	11	8.4	14	105	290	140	39	25
27	24	20	15	14	11	8.4	13	92	300	130	38	25
28	24	20	15	13	11	8.4	13	98	300	120	37	25
29	24	19	16	13	-	9.2	14	116	280	110	36	25
30	23	17	*19	13	------	9.2	14	128	200	110	35	-
31	23	-----	18	13	-----	9.5	-----	110	------	100	35	------
Total	795	612	518	457	339	317.6	419	2,364	9,852	5,080	1,755	935
Mean	25.6	20.4	16.7	14.7	12.1	10.2	14.0	76.3	328	164	56.6	31.2
Cfsm	0.826	0.658	0.539	0.474	0.390	0.329	0.452	2.46	10.58	5.29	1.83	1.01
In.	0.95	0.73	0.62	0.55	0.41	0.38	0.50	2.84	11.82	6.09	2.11	1.12
Ac-ft	1,580	1,210	1,030	906	672	630	831	4,690	19,540	10,080	3,480	1,850

Calendar year 1954: Max 370 Min 14 Mean 69.5 Cfsm 2.24 In. 30.42 Ac-ft 50,350
Water year 1954-55: Max 675 Min 8.4 Mean 64.9 Cfsm 2.09 In. 28.40 Ac-ft 46,970

Peak discharge (base, 400 cfs).--June 11 (7 p.m.) 850 cfs (3.52 ft); June 21 (6 p.m.) discharge unknown (3.87 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 29, 30, Dec. 2-29, Jan. 1-31, Mar. 3-9, June 14 to Sept. 30; discharge estimated on basis of measured discharge, recorded range in stage when available, weather records, and records for Bear Creek near Wallowa and Lostine River near Lostine.

Lostine River near Lostine, Oreg.

Location.--Lat 45°26', long 117°25', 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 1955. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,650 ft (by barometer). Aug. 24, 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 from present site at datum about 1.5 ft higher than present datum. Oct. 1, 1929, to Dec. 15, 1953, water-stage recorder at site 85 ft downstream from present site at datum 1.0 ft higher than present datum.

Average discharge.--31 years (1912-13, 1925-55), 189 cfs (136,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,690 cfs June 12 (gage height, 6.34 ft); minimum daily, 13 cfs Feb. 25 to Mar. 5.

1912-15, 1925-55: 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 good except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 130 acres of which about 20 acres are below station. Flow slightly regulated since 1916 by Minam Lake, usable capacity about 1,000 acre-ft.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1913 and 1942, superseding those published in WSP 393 and 963, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1912		1912-Con.		1913-Con.		1913-Con.		1913-Con.	
Dec. 19	46	Dec. 28	40	Jan. 5	30	Jan. 14	38	Jan. 26	35
20	42	29	46	6	29	15	38	27	33
21	42	31	44	7	30	16	40	28	34
22	43			8	33	19	36	29	35
23	39	1913		9	32	20	36	30	36
24	40	Jan. 1	41	10	34	21	38		
25	36	2	42	11	35	22	40	1941	
26	38	3	44	12	40	23	36	Nov. 13	91
27	39	4	36	13	44	24	36		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1912	-	36	13	47.7	2,930
January 1913	-	44	29	36.8	2,260
Water year 1912-13	-	2,540	26	276	200,000
Calendar year 1913	-	2,540	22	273	198,000
November 1941	3,122	195	73	104	6,190
Calendar year 1941	63,700	882	33	175	126,400
Water year 1941-42	71,309	1,150	30	195	141,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	32	23	24	18	13	35	61	344	350	177	48
2	38	32	25	22	18	13	35	58	338	320	168	47
3	37	31	27	21	18	13	34	57	410	300	156	46
4	36	30	28	20	16	13	32	60	*505	320	141	45
5	36	31	28	20	16	13	30	70	678	340	129	44
6	34	30	27	20	16	14	35	100	872	350	123	56
7	34	30	26	20	16	15	40	140	1,080	330	116	62
8	35	30	25	20	16	15	50	170	1,140	400	112	62
9	34	30	24	20	16	15	60	195	1,220	450	105	62
10	33	37	22	20	16	15	80	234	1,360	550	98	58
11	36	35	21	20	16	15	75	292	1,440	500	93	55
12	41	36	20	20	15	15	70	344	1,470	500	89	52
13	37	34	20	20	15	15	65	334	1,130	500	84	51
14	35	37	20	20	15	15	60	272	1,080	500	81	82
15	40	40	20	20	15	15	56	238	848	500	77	82
16	40	43	20	20	15	15	54	212	708	480	*75	70
17	42	40	20	21	15	15	50	202	*678	460	74	68
18	*41	38	20	22	15	15	45	228	700	450	72	57
19	42	35	20	24	17	15	42	344	820	*430	68	*51
20	42	33	22	*25	20	15	40	*528	980	430	66	48
21	49	*34	25	24	*22	15	45	711	1,210	388	64	47
22	56	34	*29	24	18	15	*50	681	*1,340	418	60	45
23	49	35	27	23	15	15	47	570	1,150	410	58	42
24	42	34	24	23	14	15	45	460	900	455	57	41
25	41	35	23	21	13	16	44	400	600	345	56	40
26	36	35	23	20	13	17	44	392	500	281	55	39
27	40	33	24	20	13	19	42	348	550	249	55	38
28	37	31	25	20	13	22	42	340	600	219	52	38
29	34	32	*28	20	-	25	43	386	500	201	52	40
30	34	19	27	20	------	28	49	420	420	190	51	40
31	33	------	25	18	------	30	------	386	------	182	50	------
Total	1,202	1,006	738	652	445	506	1,439	9,231	25,571	11,798	2,714	1,558
Mean	38.8	33.5	23.8	21.0	15.9	16.3	48.0	298	852	381	87.5	51.9
Ac-ft	2,380	2,000	1,460	1,290	883	1,000	2,850	18,310	50,720	23,400	5,380	3,090

Calendar year 1954: Max 1,160 Min 19 Mean 182 Ac-ft 131,900
Water year 1954-55: Max 1,470 Min 13 Mean 156 Ac-ft 112,800

Peak discharge (base, 1,100 cfs).--June 12 (12:30 a.m.) 1,690 cfs (6.34 ft); June 22 (10:30 p.m.) 1,580 cfs (6.01 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 16-21, 27, 28, Jan. 3-19, Jan. 31 to Feb. 20, Feb. 22 to Apr. 21, May 4-8, June 18, June 24 to July 18; discharge estimated on basis of recorded range in stage when available, weather records and records for Bear Creek near Wallowa and Hurricane Creek near Joseph. Stage-discharge relation affected by ice Dec. 2-7, 9, 10, 12-15, 30, 31, Jan. 1, 2, 27, 28, 30.

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 unused 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 1955. 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 from present site at different datum, above intakes of 2 irrigation ditches with a combined capacity of about 3 cfs.

Average discharge.--31 years (1924-55), 110 cfs (79,640 acre-ft per year).

Extremes.--1935-36: Maximum discharge during water year, 1,620 cfs Apr. 22 (gage height, 3.82 ft, from floodmark), from rating curve extended above 930 cfs; minimum daily, 6 cfs Dec. 16-24.

1936-37: Maximum discharge during water year, 586 cfs June 20 (gage height, 2.67 ft); minimum daily, 3 cfs Jan. 20, Feb. 1.

1954-55: Maximum discharge during water year, 1,540 cfs June 11 (gage height, 3.88 ft, affected by backwater from debris), from rating curve extended above 700 cfs by logarithmic plotting; minimum, 10 cfs Feb. 3, Mar. 4, Sept. 13.

1915, 1924-55: Maximum discharge, that of Apr. 22, 1936; maximum gage height, that of June 11, 1955; minimum daily, 3 cfs Jan. 20, Feb. 1, 1937.

Revisions.--The minimum discharge for the water year 1929 has been revised to 8 cfs Sept. 18, 19, 1929 (gage height, 0.86 ft), superseding figure published in WSP 693.

Remarks.--Records poor. 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. No regulation.

Revisions.--Revised figures of discharge, in cubic feet per second, for some periods in the water years 1915, 1927, 1929-30, 1932, 1938-40, 1945, and 1949, superseding figures published in WSP 413, 653, 693, 708, 738, 813, 833, 863, 883, 903, 1043, and 1153, are given herein. Complete table of daily and monthly discharge is given for the water years 1936, 1937, but only revised discharges are given for other years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1915		1929-Con.		1930-Con.		1932-Con.		1939-Con.	
Apr. 20	324	Sept. 12	9	Feb. 9	48	Aug. 5	23	Feb. 22	21
		13	9	10	46	6	21	23	23
1927		14	8	11	45	7	21	24	25
May 11	210	15	8	12	45	8	20	25	22
12	250	16	8	13	48	9	19	Nov. 1	14
13	400	17	8	14	58	10	20	2	13
14	650	18	8	15	80	11	20	3	13
15	800	19	8	16	65	12	20	4	11
16	900	20-26	†9	17	75	13	20	5	12
17	850	27	10			14	18	6	13
18	500	Dec. 16	18	1932		15	18	7	14
19	350	17	17	Feb. 27	120	16	17	8	13
20	320	18	16	28	150	17	16	9	12
21	280	19	15	29	130	18	15	10	11
22	250	20	14	May 11	480	19	14	11	12
		21	13	12	530	20	14	12	12
1929		22	13	13	530	21	14	13	12
Feb. 15	9	23	13	14	500	22	14	14	12
16	11	24	13	15	410	23	14	15	12
17	9	25	12	16	360	24	14	16	12
18	9	26	12	17	340	25	13	17	12
19	9	27	11	18	350	27	13	18	12
26	11	28	11	19	380	29	12	19	12
27	11	29	10	20	420	31	13	20	12
28	11	30	10	21	390			21	12
Sept. 1	10	31	10	22	350	1938			
2	10			June 10	350	Feb. 17	21	1944	
3	9	1930		11	400	18	20	Nov. 19	9.5
4	9	Jan. 1-31	†10	12	470	19	21	20	11
5	9	Feb. 1	25	13	540	20	21	21	15
6	9	2	30	14	620			22	16
7	9	3	45	15	650	1939			
8	9	4	52	Aug. 1	29	Feb. 1-16	†20	1949	
9	9	6	56	2	28	18	22	Feb. 16	11
10	9	7	54	3	25	19	21	17	15
11	9	8	50	4	24	21	19	18	30

† Average for period indicated.

Bear Creek near Wallowa, Oreg.--Continued

Revised figures of monthly discharge, in cubic feet per second, 1915, 1927, 1929-30, 1932, 1938-40, 1945, and 1949

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
April 1915	-	372	110	213	12,700
May 1927	-	900	163	349	21,500
Water year 1926-27	-	1,240	-	143	103,000
Calendar year 1927	-	1,240	-	168	121,000
February 1929	-	-	-	9.4	522
September	-	10	8	8.9	530
Water year 1928-29	-	800	-	86.2	62,400
December 1929	-	20	6.9	12.4	762
Calendar year 1929	-	800	-	85.4	61,900
January 1930	-	-	-	10	615
February	-	94	25	58.4	3,240
Water year 1929-30	-	450	-	79.9	57,900
Calendar year 1930	-	450	-	82.9	60,100
February 1932	-	150	-	26.8	1,540
May	-	530	187	354	21,800
June	-	650	242	404	24,000
August	-	29	12	17.6	1,080
Water year 1931-32	-	650	-	110	79,700
Calendar year 1932	-	650	-	111	80,800
February 1938	833	52	20	29.8	1,650
Water year 1937-38	42,515	820	8	116	84,320
Calendar year 1938	42,268	820	8	116	83,830
February 1939	576	-	-	20.6	1,140
Water year 1938-39	32,298	547	7	88.5	64,060
November 1939	361	14	10	12.0	716
Calendar year 1939	31,221.6	547	7	85.5	61,920
Water year 1939-40	32,869.8	598	5.7	89.8	65,200
November 1944	380.5	17	9.0	12.7	755
Calendar year 1944	30,922.4	680	7.9	84.5	61,350
Water year 1944-45	37,741.0	657	8.0	103	74,860
February 1949	673	63	8	24.0	1,330
Water year 1948-49	42,064	1,000	8	115	83,440
Calendar year 1949	43,265	1,000	8	119	85,820

Discharge, in cubic feet per second, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	8	b7			28	33	a325	553	53	12	8
2	7	7	b7			41	26	a325	442	47	12	12
3	7	a7	b7			47	25	a340	410	46	12	11
4	7	b9	b7			52	25	a400	384	43	12	10
5	7	b14	b7			52	24	a400	360	41	11	10
6	7	b15	b7			54	26	a350	360	37	11	9
7	7	b15	b7			56	38	a325	365	37	10	9
8	7	b14	b7			64	61	*336	314	39	10	8
9	7	b14	b7			77	77	415	276	37	10	8
10	7	12	b8		a7.5	65	105	586	276	37	10	7
11	7	12	8			62	166	731	297	37	10	7
12	8	8	10			61		884	*314	33	10	8
13	9	8	8			53		820	314	29	10	9
14	8	8	8			47		852	268	28	9	9
15	8	9	b7	b10		40		812	238	26	9	9
16	8	8	b6			37		612	217	24	9	9
17	8	8	b6			35		464	198	24	9	9
18	7	b7	b6			33		430	171	21	9	8
19	8	b8	b6			34		436	147	21	9	8
20	8	b8	b6		*9	38		379	140	19	9	8
21	8	b8	b6		12	48	a635	327	134	18	9	7
22	8	b8	b6		b16	52		327	131	18	8	7
23	7	b8	b6		24	51		384	125	17	8	7
24	8	*8	a6		14	47		474	119	17	8	7
25	8	8	b8		12	41		560	111	16	9	7
26	8	8	b10		12	38		633	95	15	9	7
27	8	8	b11		12	40		633	81	15	9	7
28	8	8	b12		12	37		619	72	14	8	7
29	8	b7	12		15	35		619	64	14	7	7
30	7	b7	11		------	36		592	57	14	7	7
31	8	------	10		------	30	------	504	------	13	7	------
Total	235	277	240	310	280.5	1,431	12,671	15,894	7,033	850	292	246
Mean	7.6	9.2	7.7	10	9.7	46.2	422	513	234	27.4	9.4	8.2
Ac-ft	466	549	476	615	556	2,840	25,130	31,530	13,950	1,690	579	488

Calendar year 1935: Max 534 Min 6 Mean 79.8 Ac-ft 57,800
Water year 1935-36: Max - Min - Mean 109 Ac-ft 78,870

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Lostine River near Lostine and Hurricane Creek near Joseph.
b Stage-discharge relation affected by ice.

Bear Creek near Wallowa, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6		b4	b6	a3	a4	30	147	318	147	18	9
2	6		b4	6	a4	a4	28	228	410	131	17	9
3	6		b5	b6	a4	a4	28	318	447	113	*16	8
4	7		b5	b6	a4	a4	28	*379	394	98	15	9
5	7		a5	b6	a5	a4	28	336	332	89	14	9
6	7		a6	a5	a5	a4	28	301	306	78	14	9
7	7		a8	a4	a6	a4	28	293	293	67	14	8
8	7		a7	b5	a6	a4	29	284	280	61	14	8
9	7		7	b5	a6	a5	34	301	276	57	14	7
10	7	a9	7	b6	a6	*8	37	280	318	50	14	7
11	*7		8	b6	a5	16	37	253	253	47	13	7
12	7		7	b7	a5	18	41	249	238	43	13	7
13	8		7	b7	a5	19	68	374	224	42	*13	7
14	8		7	b7	a5	21	143	458	224	39	12	6
15	8		8	b7	a4	24	191	*442	*238	36	12	6
16	8		8	a7	a4	28	152	430	346	34	11	6
17	8		a8	a6	a4	27	125	447	297	31	11	6
18	8	9	*9	a5	a4	28	113	452	276	28	10	6
19	8	9	8	a4	*a4	25	104	430	301	28	*10	6
20	8	*9	7	a3	a4	25	111	410	498	25	10	7
21	9	9	7	a4	a4	24	131	415	430	*24	9	7
22	9	10	8	a4	a4	23	123	420	384	24	9	6
23	9	7	10	a4	a4	22	111	405	306	21	10	6
24	12		10	a4	a4	21	100	420	257	23	10	6
25	12		8	a4	a4	20	100	504	231	24	10	6
26	10		10	a5	a4	21	125	504	210	22	9	6
27	a10	b6	10	a5	a4	21	163	498	191	23	9	6
28	a10		9	a4	a4	22	145	458	185	21	9	6
29	a10		7	*a4	-	24	123	374	176	19	9	6
30	a10		6	a4	------	26	117	272	176	18	9	6
31	a10	------	b6	a4	------	*27	------	264	------	17	10	------
Total	256	248	226	160	125	527	2,621	11,346	8,815	1,480	368	208
Mean	8.3	8.3	7.3	5.2	4.5	17.0	87.4	366	294	47.7	11.9	6.9
Ac-ft	508	492	448	317	248	1,050	5,200	22,500	17,480	2,940	730	413

Calendar year 1936: Max - Min - Mean 109 Ac-ft 78,830
Water year 1936-37: Max 504 Min - Mean 72.3 Ac-ft 52,330

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Lostine River near Lostine and Hurricane Creek near Joseph.
b Stage-discharge affected by ice.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	16	19	16	12	12	36	77	250	174	47	13
2	12	16	20	15	12	11	38	84	254	154	42	13
3	12	16	20	15	12	11	36	85	*296	143	37	13
4	11	16	20	15	12	11	34	*87	365	149	35	12
5	11	15	20	15	12	11	*34	114	472	154	33	12
6	11	15	20	15	12	12	38	180	589	167	32	12
7	12	14	20	15	13	13	48	214	690	174	30	12
8	12	14	20	15	12	14	68	250	792	167	30	13
9	11	15	19	15	12	15	98	250	858	206	29	12
10	11	20	18	15	12	15	125	263	952	263	28	12
11	13	16	17	15	13	15	109	315	1,040	242	26	12
12	15	16	17	15	14	16	96	354	1,300	233	25	11
13	14	16	17	15	15	16	89	515	1,110	233	24	11
14	13	18	16	15	15	16	80	246	700	233	23	22
15	13	19	16	15	15	16	73	198	458	225	22	19
16	13	20	16	15	13	16	68	164	370	214	21	17
17	15	19	16	15	13	16	67	149	337	191	20	19
18	*16	20	15	14	13	16	62	167	342	151	20	17
19	18	20	15	14	14	16	57	286	394	132	20	*16
20	18	19	15	*14	15	16	54	516	479	114	19	16
21	18	*19	16	14	*20	16	56	643	616	100	19	16
22	20	19	17	14	14	18	68	564	*607	109	18	15
23	23	20	18	15	12	18	70	458	430	105	17	15
24	21	20	17	15	12	19	68	359	286	100	17	15
25	21	22	16	14	12	18	67	305	233	80	16	15
26	19	22	15	13	11	19	65	296	225	71	16	15
27	18	22	15	13	11	20	59	254	229	65	15	14
28	18	21	16	13	11	23	56	246	272	59	15	15
29	17	20	16	13	-	28	54	291	233	56	15	15
30	17	18	17	12	------	30	59	332	195	53	14	14
31	17	------	17	12	------	32	------	291	------	50	14	------
Total	473	543	536	446	364	525	1,932	8,353	15,374	4,567	739	433
Mean	15.3	18.1	17.3	14.4	13.0	16.9	64.4	269	512	147	23.8	14.4
Ac-ft	938	1,080	1,060	885	722	1,040	3,830	16,570	30,490	9,060	1,470	859

Calendar year 1954: Max 710 Min 11 Mean 104 Ac-ft 75,410
Water year 1954-55: Max 1,300 Min 11 Mean 93.9 Ac-ft 68,000

Peak discharge (base, 600 cfs).--May 20 (12 p.m.) 720 cfs (2.95 ft); June 11 (8 p.m.) 1,540 cfs (3.88 ft); June 21 (8 p.m.) 825 cfs (2.85 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30 to Jan. 14, Jan. 28-31, Feb. 4, 5, 8-14, 19, 20, Mar. 5, 6, 10-12, 16.

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 and at mile 81.4 (Geological Survey river-profile survey).

Drainage area.--2,555 sq mi.

Records available.--October 1926 to September 1955.

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.--29 years, 2,030 cfs (1,470,000 acre-ft per year).

Extremes.--1926-27: Maximum discharge during water year, 10,100 cfs June 9 (gage height, 6.58 ft); minimum daily, 450 cfs Aug. 28.
1954-55: Maximum discharge during water year, 9,760 cfs June 12 (gage height, 6.37 ft); minimum, 345 cfs Dec. 20 (gage height, 0.88 ft).
1926-55: Maximum discharge, 19,900 cfs May 28, 1948 (gage height, 9.76 ft); minimum, 225 cfs Dec. 19, 1935.

Remarks.--Records excellent except those below 450 cfs, which are good. Many 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. Flow slightly regulated by Wallowa Lake (see p. 241) and small reservoirs.

Revisions (water years).--WSP 1093: 1928-29, 1932-33, 1936, 1938, 1939(M), 1943. Revised figures of discharge for the water year 1927, superseding those published in WSP 653 and 1093, are given herein.

Discharge, in cubic feet per second, water year October 1926 to September 1927

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*466	574	2,660	922	1,210	2,270	3,160	4,930	3,230	3,660	840	620
2	466	560	2,940	974	2,870	2,530	3,320	5,890	3,320	3,300	800	660
3	498	548	3,010	1,350	3,400	2,800	3,230	5,890	3,480	3,100	784	626
4	522	548	2,660	1,600	3,080	2,870	3,080	5,200	3,660	3,600	760	*626
5	504	541	2,340	1,660	2,530	2,800	2,940	4,680	4,250	2,800	744	619
6	515	606	2,080	1,770	2,270	2,730	2,870	4,350	5,460	2,800	705	632
7	541	668	1,890	1,830	2,080	2,600	3,010	4,150	6,510	2,500	698	690
8	554	619	1,720		1,830	2,600	3,080	3,850	8,730	2,200	698	660
9	541	600	1,550		1,660	2,400	2,940	3,570	9,590	2,300	690	652
10	534	593	1,500		1,550	2,200	2,730	3,570	8,520	2,000	682	712
11	534	600	1,600		1,500	2,080	2,530	3,850	8,160	1,900	675	768
12	534	600	1,600	1,530	1,400	2,080	2,400	4,050	7,940	1,700	660	922
13	548	606	1,450		1,300	2,730	2,340	4,460	7,940	1,800	660	940
14	574	600	940		1,300	3,230	2,400	6,360	7,860	1,800	660	940
15	554	632	1,010		1,250	3,010	2,730	7,230	7,500	1,600	660	900
16	567	856	1,250		1,250	*2,730	2,870	8,310	6,990	1,600	660	860
17	712	744	1,300		1,500	2,530	2,800	8,700	6,360	1,600	660	830
18	675	720	1,350	1,450	2,340	2,340	2,660	7,120	6,040	1,500	620	800
19	626	712	1,300	1,400	2,600	2,200	2,530	6,360	6,040	1,500	600	770
20	606	752	1,250	1,120	4,250	2,140	2,340	*5,330	5,740	1,400	650	740
21	593	864	1,210	848	5,060	2,200	2,200	4,570	5,740	1,400	580	740
22	574	999	1,150	982	4,800	2,460	2,200	4,250	5,740	*1,230	580	740
23	560	1,140	1,030	1,160	3,750	2,730	2,400	3,950	5,740	1,170	540	740
24	548	1,400	888	1,140	3,080	2,940	3,160	3,950	5,890	1,160	540	720
25	548	1,600	948	1,250	2,730	2,870	5,060	3,850	5,460	1,120	540	800
26	580	1,500	914	1,240	2,530	2,800	7,480	3,950	7,480	1,080	540	750
27	682	1,400	897	1,300	2,400	2,730	9,200	3,850	6,360	1,050	580	800
28	632	1,350	906	1,160	2,270	2,730	8,850	3,750	4,460	982	450	1,000
29	600	1,960	931	1,160	-	2,800	8,500	3,480	4,150	940	520	1,200
30	586	2,340	940	1,160	------	2,940	7,990	3,320	3,950	880	550	1,450
31	586	------	906	1,160	------	3,230	------	3,230	------	856	590	------
Total	17,560	27,232	46,120	41,936	67,790	81,300	113,000	150,000	182,290	56,528	19,916	23,907
Mean	566	908	1,490	1,350	2,420	2,620	3,770	4,839	6,076	1,820	642	797
Ac-ft	34,800	54,000	91,600	83,000	134,000	161,000	224,000	297,500	361,600	112,000	39,500	47,400

Calendar year 1926: Max - Min - Mean - Ac-ft -
Water year 1926-27: Max 9,590 Min 450 Mean 2,270 Ac-ft 1,640,000

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 8-17, July 2-21, Aug. 13 to Sept. 1, Sept. 15-29; discharge estimated on basis of recorded range in stage and records for nearby stations.

Grande Ronde River at Rondowa, Oreg.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.9	355	3.5	3,440
1.5	750	5.0	6,600
2.5	1,800	6.5	10,100

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	561	535	440	649	516	522	2,590	3,480	4,340	2,800	777	416
2	561	535	480	587	496	528	2,520	3,580	4,080	2,490	702	416
3	561	542	580	554	476	522	2,060	3,680	4,320	2,320	670	416
4	554	535	561	522	483	496	1,810	3,700	4,620	2,240	656	399
5	542	535	548	509	516	440	1,800	4,140	5,350	2,240	600	404
6	535	535	587	522	490	470	2,250	4,930	6,140	2,300	561	434
7	528	535	561	522	516	516	3,100	5,180	7,220	2,560	542	399
8	522	*535	528	516	1,050	*542	4,040	5,540	7,880	2,380	535	399
9	522	542	496	502	840	580	4,560	5,400	8,270	2,380	528	434
10	516	594	522	502	587	649	5,570	5,350	8,710	2,930	490	458
11	528	587	464	496	548	840	4,930	5,650	9,090	2,880	476	452
12	574	580	440	496	568	786	4,260	6,050	9,210	2,810	476	434
13	574	587	550	496	568	742	4,240	5,870	8,710	2,800	476	440
14	554	600	542	490	548	734	3,980	5,140	7,740	2,860	470	574
15	561	600	542	490	548	718	*3,460	4,600	6,420	2,900	464	*750
16	561	621	464	490	561	678	3,120	4,300	5,440	2,860	458	670
17	568	642	404	490	568	678	3,060	4,140	4,890	2,830	458	663
18	561	649	404	483	542	718	2,920	4,200	4,510	2,350	446	600
19	568	642	400	470	516	742	2,610	4,850	4,660	2,010	422	574
20	*587	614	399	483	509	702	2,460	6,400	4,870	1,760	404	554
21	580	607	*420	483	535	734	2,690	7,810	*5,570	1,610	399	548
22	587	594	535	483	535	960	3,310	7,510	5,870	*1,520	410	548
23	587	580	522	496	522	980	3,400	6,840	5,460	1,630	422	542
24	574	574	554	535	528	1,000	3,330	6,090	4,200	1,680	410	522
25	568	574	554	535	516	930	3,170	5,520	3,420	1,460	422	516
26	561	580	516	535	522	960	3,160	5,350	3,080	1,290	422	516
27	554	580	452	502	522	1,070	2,850	4,890	2,920	1,170	410	509
28	561	587	458	490	516	1,290	2,620	4,530	3,270	1,060	416	516
29	554	580	483	502	-	1,880	2,560	4,660	3,460	970	416	528
30	554	516	522	496	------	2,040	2,860	4,890	2,970	900	422	516
31	542	------	686	*516	------	2,030	------	4,680	------	850	416	------
Total	17,260	17,317	15,614	15,842	15,642	26,477	95,290	158,950	166,690	64,840	15,176	15,147
Mean	557	577	504	511	559	854	3,176	5,127	5,556	2,092	490	505
Ac-ft	34,230	34,350	30,970	31,420	31,030	52,520	189,000	315,300	330,600	128,600	30,100	30,040

Calendar year 1954: Max 6,710 Min 399 Mean 1,759 Ac-ft 1,273,000
Water year 1954-55: Max 9,210 Min 399 Mean 1,710 Ac-ft 1,238,000

Peak discharge (base, 5,000 cfs).--Apr. 10 (6 a.m.) 5,810 cfs (4.64 ft); May 21 (2 a.m.) 8,130 cfs (5.68 ft); June 12 (2:30 a.m.) 9,760 cfs (6.37 ft); June 22 (2:30 a.m.) 6,270 cfs (4.85 ft).

* Discharge measurement made on this day.

Grande Ronde River at Troy, Oreg.

Location.--Lat 45°57', long 117°27', in NE¼ 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 (Geological Survey river-profile survey).

Drainage area.--3,275 sq mi.

Records available.--August 1944 to September 1955.

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.--11 years, 3,216 cfs (2,328,000 acre-ft per year).

Extremes.--Maximum discharge during year, 11,200 cfs June 12 (gage height, 7.30 ft); minimum, 470 cfs Dec. 19 (gage height, 1.88 ft).

1944-55: 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.

Revisions.--The maximum discharge for the water year 1946 has been revised to 17,200 cfs Dec. 29, 1945 (gage height, 9.2 ft, present datum, from graph based on gage readings), superseding figure published in WSP 1063.

Remarks.--Records excellent. Many 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. Flow slightly regulated by Wallowa Lake (see p. 241) and small reservoirs.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1948-50, superseding those published in WSP 1123, 1153, and 1183, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1948		1948-Con.		1949-Con.		1949-Con.		1949-Con.	
Mar. 1	5,370	Mar. 26	3,100	Sept. 9	656	Oct. 4	684	Oct. 29	900
2	4,820	27	3,100	10	670	5	772	30	884
3	4,150	28	3,840	11	656	6	900	31	812
4	3,510	29	4,060	12	656	7	868	Nov. 1	788
5	3,280	30	5,120	13	656	8	868	2	780
6	3,170	31	4,970	14	726	9	909	3	772
7	3,030	Dec. 23	750	15	748	10	963	4	756
8	2,890	24	750	16	788	11	999	5	740
9	2,820	25	800	17	836	12	954	6	733
10	2,660	26	850	18	788	13	909	7	733
11	2,500	27	900	19	756	14	868	8	733
12	2,370	28	950	20	726	15	852	9	772
13	2,340	29	1,000	21	698	16	836	10	812
14	2,370	30	1,000	22	712	17	820	11	796
15	2,400	31	950	23	698	18	804	12	820
16	2,400			24	712	19	796	13	812
17	2,400	1949		25	691	20	788	14	796
18	2,430	Sept. 1	677	26	670	21	788	15	780
19	2,460	2	656	27	656	22	756	16	740
20	2,370	3	656	28	642	23	756	17	740
21	2,400	4	670	29	663	24	756	18	726
22	2,430	5	656	30	684	25	756	19	726
23	2,890	6	642	Oct. 1	684	26	756	20	712
24	2,920	7	656	2	684	27	748	21	698
25	2,990	8	642	3	670	28	852	22	684
								23	796

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
March 1948	97,560	5,370	2,340	3,147	193,500
Water year 1947-48	1,620,082	22,800	680	4,426	3,213,000
December 1948	32,040	1,500	750	1,034	63,550
Calendar year 1948	1,541,588	22,800	680	4,212	3,058,000
September 1949	20,743	836	642	691	41,140
Water year 1948-49	1,304,721	17,300	642	3,575	2,588,000
October 1949	25,392	999	670	819	50,360
November	30,243	2,370	684	1,008	59,990
Calendar year 1949	1,299,728	17,300	642	3,561	2,578,000
Water year 1949-50	1,346,064	15,800	670	3,688	2,670,000

Grande Ronde River at Troy, Oreg.--Continued

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 9				Apr. 10 to Sept. 30			
2.0	540	4.0	2,690	1.9	510	5.0	4,630
2.2	690	5.0	4,450	2.3	780	6.0	7,220
3.0	1,440	6.0	7,000	3.0	1,500	8.0	14,000
				4.0	2,840		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	788	770	682	1,200	762	851	3,290	5,500	5,420	3,460	1,160	588
2	779	770	674	995	746	833	3,590	5,350	5,120	3,400	1,060	582
3	788	770	842	905	*706	806	3,000	5,550	5,350	2,990	980	576
4	779	770	815	842	682	770	2,660	5,500	5,600	2,880	951	558
5	770	770	788	842	722	690	2,450	6,340	6,280	2,920	897	546
6	770	770	815	815	738	730	3,060	7,450	6,940	2,840	861	552
7	762	770	851	806	842	797	4,180	7,680	8,130	3,240	789	546
8	754	770	797	806	1,230	860	5,770	8,010	8,970	3,050	764	552
9	746	770	746	779	1,820	*986	6,660	7,630	9,510	2,990	748	594
10	738	842	762	770	1,140	1,170	7,890	7,340	9,930	3,410	*700	618
11	762	851	746	762	968	1,330	*7,000	7,740	10,200	3,490	679	624
12	842	833	674	770	950	1,370	5,860	8,160	10,600	3,440	658	618
13	851	842	779	770	941	1,240	5,600	7,920	10,100	3,380	651	*618
14	806	860	806	762	914	1,210	5,350	6,860	9,150	3,430	651	740
15	788	878	806	754	887	1,120	4,720	6,070	7,740	3,430	644	980
16	788	914	762	746	896	1,080	4,240	5,700	6,580	3,400	637	990
17	797	977	618	738	923	1,070	4,100	5,600	5,860	3,400	644	970
18	797	977	550	738	869	1,110	4,020	5,600	5,350	3,000	637	879
19	*788	977	550	714	833	1,190	3,720	6,360	5,380	2,620	624	807
20	824	932	600	722	815	1,120	3,560	8,160	5,520	2,370	576	780
21	842	887	706	722	833	1,130	3,610	9,810	6,150	2,140	552	780
22	851	869	797	722	851	1,220	*4,700	9,570	6,630	2,010	570	772
23	842	860	815	738	815	1,520	4,880	8,700	6,420	2,130	576	764
24	824	851	842	770	842	1,440	4,840	7,710	4,860	2,140	576	740
25	806	842	824	797	815	1,330	4,540	6,940	4,200	2,090	582	716
26	797	860	806	824	797	1,360	4,430	*6,690	3,810	1,820	588	724
27	788	860	714	788	815	1,540	4,080	6,170	3,610	1,660	588	716
28	788	860	*650	754	806	1,760	3,810	5,700	3,670	1,500	588	732
29	788	842	700	754	-	2,440	3,810	5,810	*4,180	1,370	588	756
30	779	*797	770	754	------	2,980	4,430	6,120	3,650	1,280	582	740
31	779	------	1,010	770	------	2,800	------	5,860	------	1,220	588	------
Total	24,601	25,341	23,297	24,629	24,958	39,853	133,850	213,600	194,910	82,500	21,689	21,158
Mean	794	845	752	794	891	1,286	4,462	6,890	6,497	2,661	700	705
Ac-ft	48,800	50,260	46,210	48,850	49,500	79,050	265,500	423,700	386,600	163,600	43,020	41,970

Calendar year 1954: Max 9,880 Min 550 Mean 2,458 Ac-ft 1,780,000
Water year 1954-55: Max 10,600 Min 546 Mean 2,275 Ac-ft 1,647,000

Peak discharge (base, 7,000 cfs).--Apr. 10 (10:30 a.m.) 8,340 cfs (6.38 ft); May 21 (4:30 a.m.) 10,200 cfs (7.01 ft); June 12 (8:30 a.m.) 11,200 cfs (7.30 ft).

* Discharge measurement made on this day.

Asotin Creek near Asotin, Wash.

Location.--Lat 46°19'30", long 117°12'30", in SE¼ sec. 19, T. 10 N., R. 45 E., on left bank half a mile upstream from 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 September 1955. Published as "at Shelman's Ranch, near Asotin" 1904-5.

Gage.--Staff gage read twice daily. Altitude of gage is 1,380 ft (from topographic map). Prior to Jan. 11, 1934, staff gages within a quarter of a mile of present site at different datums.

Average discharge.--27 years (1928-55), 65.8 cfs (47,640 acre-ft per year).

Extremes.--Maximum discharge observed during year, 215 cfs June 11 (gage height, 1.76 ft); minimum observed, 33 cfs Sept. 2, 3 (gage height, 0.70 ft).
1904-6, 1910-11, 1928-55: 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 good except those for periods of ice effect, which are fair. Several diversions for irrigation and domestic use. No regulation.

Cooperation.- Gage-height record furnished by the Washington Water Power Co.

Revisions (water years).--WSP 1217: Drainage area. WSP 1317: 1931(M), 1935(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	33
1.0	68
1.5	155
2.0	280

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	40	37	43	40	43	109	85	120	68	45	36
2	40	40	39	42	39	41	88	90	112	65	43	35
3	38	39	39	41	39	39	81	90	124	63	43	34
4	38	39	39	37	35	37	76	88	139	63	43	35
5	38	39	39	41	39	b35	71	102	167	65	43	35
6	38	39	40	42	39	b36	79	126	182	68	41	35
7	37	39	39	42	69	40	95	127	195	75	40	35
8	*37	39	39	39	65	*42	112	139	202	65	38	35
9	37	39	39	41	44	45	129	129	200	63	38	36
10	37	45	39	39	38	48	147	124	208	64	38	35
11	39	42	39	39	41	58	147	137	208	64	38	35
12	41	41	39	40	43	50	116	153	202	60	37	35
13	37	41	39	41	42	48	109	149	185	59	38	35
14	38	41	39	39	41	45	102	127	163	*58	38	49
15	38	41	39	39	41	44	88	116	143	54	38	45
16	38	44	37	39	41	44	84	109	122	53	37	44
17	38	*43	35	39	41	43	82	105	111	50	38	43
18	39	43	35	39	39	43	78	105	103	53	38	39
19	38	43	b35	40	38	45	74	124	98	50	38	37
20	40	41	b35	40	39	43	74	159	93	50	38	36
21	39	41	37	39	41	45	74	182	90	48	38	35
22	41	41	39	41	41	48	88	171	88	48	37	37
23	40	40	39	40	41	45	92	159	84	50	37	35
24	41	40	39	*39	40	45	92	141	81	49	36	35
25	40	39	39	41	40	44	88	*129	78	50	37	34
26	39	39	39	39	41	43	*85	124	76	49	37	34
27	39	39	*b35	40	41	45	81	116	74	49	37	34
28	39	39	b38	38	41	51	78	109	76	48	37	*35
29	40	40	41	39	-	120	78	120	74	45	37	36
30	40	39	41	40	------	84	78	137	68	45	*36	36
31	40	------	48	39	------	85	------	137	------	45	36	------
Total	1,204	1,215	1,196	1,237	1,179	1,524	2,775	3,909	3,866	1,736	1,195	1,100
Mean	38.8	40.5	38.6	39.9	42.1	49.2	92.5	126	129	56.0	38.5	36.7
Ac-ft	2,390	2,410	2,370	2,450	2,340	3,020	5,500	7,750	7,670	3,440	2,370	2,180

Calendar year 1954: Max 300 Min 35 Mean 76.8 Ac-ft 55,570
Water year 1954-55: Max 208 Min 34 Mean 60.6 Ac-ft 43,890

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

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 1955.

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.--26 years (1929-55), 3,588 cfs (2,598,000 acre-ft per year).

Extremes.--Maximum discharge during year, 32,400 cfs June 13 (gage height, 12.63 ft); minimum, 356 cfs Mar. 5 (gage height, 2.47 ft).
1929-55: 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 9-12)

2.5	389	-	7.0	8,080
3.0	748		8.0	11,400
4.0	1,810		10.0	19,500
5.0	3,360		13.0	33,800
6.0	5,440			

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	643	*682	438	861	691	628	1,140	5,580	11,700	10,900	2,150	748
2	643	658	470	782	666	635	1,250	*6,730	10,800	9,620	2,040	723
3	628	651	*944	774	643	612	1,180	6,220	12,000	8,810	1,940	707
4	620	651	944	699	628	589	1,050	6,040	13,000	8,780	1,850	699
5	620	643	870	691	628	463	*1,000	7,250	13,100	8,600	1,760	682
6	604	651	765	b750	628	567	1,180	9,650	15,100	8,540	1,680	666
7	589	628	791	b850	674	658	1,730	9,910	20,200	9,620	1,610	658
8	582	620	765	b750	817	715	2,540	10,600	23,900	8,410	1,560	651
9	575	612	620	*b700	963	715	3,230	9,320	25,100	8,050	1,490	651
10	560	682	643	691	774	732	4,560	9,420	*25,800	8,660	1,420	643
11	597	691	765	682	620	740	3,920	10,700	28,100	8,470	1,360	643
12	723	723	612	674	658	723	2,980	13,400	30,100	8,720	1,310	620
13	782	817	628	666	765	699	2,580	15,500	29,900	*7,940	1,260	612
14	715	782	757	666	740	691	2,540	13,000	28,100	7,730	1,230	643
15	674	740	757	651	707	674	2,310	10,500	24,800	7,300	1,200	852
16	707	843	723	658	691	635	2,120	8,880	21,400	6,870	1,170	852
17	748	963	612	643	*682	651	2,040	8,440	17,900	6,400	1,120	916
18	782	934	463	643	612	666	2,360	8,810	16,600	5,820	1,080	852
19	757	861	438	643	560	666	2,500	*11,500	17,100	5,300	1,050	757
20	817	825	b600	658	531	620	2,440	16,500	18,800	4,760	*1,020	757
21	808	782	b700	651	620	635	2,550	23,600	20,700	4,370	992	889
22	800	774	b850	635	666	699	3,400	22,800	21,500	3,980	963	*907
23	870	800	b830	651	651	723	3,810	18,100	20,200	3,750	944	808
24	889	817	b790	658	628	682	3,600	15,100	19,800	3,560	907	757
25	834	817	b760	691	620	643	3,340	13,500	15,600	3,430	898	715
26	791	880	732	682	612	612	3,270	13,700	13,200	3,180	880	699
27	748	972	658	666	612	674	3,130	12,200	13,100	2,870	852	674
28	732	880	612	620	604	791	2,870	10,900	12,600	2,680	834	723
29	723	825	707	628	-	861	2,920	11,700	13,700	2,520	808	791
30	699	658	808	666	------	1,010	3,860	14,200	11,800	2,400	791	748
31	682	-----	861	682	-----	1,040	-----	13,100	------	2,280	774	------
Total	21,942	22,862	21,913	21,362	18,691	21,449	77,400	366,850	565,700	194,320	38,943	22,043
Mean	708	762	707	689	668	692	2,580	11,830	18,860	6,268	1,256	735
Cfsm	0.371	0.399	0.370	0.361	0.350	0.362	1.35	6.18	9.87	3.28	0.658	0.385
In.	0.43	0.45	0.43	0.42	0.36	0.42	1.51	7.14	11.01	3.78	0.76	0.43
Ac-ft	43,520	45,350	43,460	42,370	37,070	42,540	153,500	727,600	‡1,122	385,400	77,240	43,720

Calendar year 1954: Max 27,500 Min 400 Mean 3,880 Cfsm 2.03 In. 27.59 Ac-ft 2,809,000
Water year 1954-55: Max 30,100 Min 438 Mean 3,818 Cfsm 2.00 In. 27.14 Ac-ft 2,764,000

Peak discharge (base, 18,000 cfs).--May 21 (12 p.m.) 25,700 cfs (11.36 ft); June 13 (2 a.m.) 32,400 cfs (12.63 ft).

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

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 1955. 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 gage at site 1 mile upstream at different datum.

Average discharge.--28 years (1910-12, 1929-55), 2,722 cfs (1,971,000 acre-ft per year).

Extremes.--Maximum discharge during year, 24,100 cfs June 12 (gage height, 10.78 ft); minimum, 334 cfs probably Mar. 5 (gage height, 1.72 ft).
1929-55: 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 periods of ice effect or no gage-height record, which are good.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 6 to July 2)

1.7	345	4.0	3,030
2.0	560	6.0	6,990
2.5	1,000	8.0	12,500
3.0	1,560	11.0	23,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	504	*544	452	b680	568	520	960	4,300	9,000	7,360	1,490	512
2	504	528	520	b670	528	530	1,000	*5,190	8,500	6,460	1,420	504
3	488	520	*765	b560	496	510	960	4,680	9,500	5,810	1,340	488
4	488	520	792	b550	480	500	880	4,660	10,000	5,590	1,290	480
5	480	520	729	b540	496	390	*846	5,920	10,000	5,440	1,230	473
6	473	520	688	b580	480	470	1,050	7,460	11,700	5,300	1,180	459
7	473	504	704	b640	560	560	1,490	7,790	15,200	6,730	1,120	452
8	459	496	688	b600	846	620	2,090	8,180	17,600	5,900	1,080	438
9	452	480	600	*b560	940	620	2,610	7,420	18,500	5,340	1,030	445
10	445	576	592	b540	712	630	3,730	7,520	*19,400	5,650	1,000	445
11	466	592	624	b540	592	630	3,130	8,340	21,300	5,360	960	438
12	616	624	560	b530	568	620	2,460	9,870	22,700	5,570	920	424
13	704	738	552	b520	576	610	2,310	11,000	22,200	*5,090	882	410
14	600	672	624	b520	616	600	2,180	9,180	20,200	4,700	864	452
15	552	664	632	b520	600	580	1,930	7,390	17,300	4,410	846	664
16	552	792	616	b520	560	560	1,800	6,370	15,000	4,160	801	680
17	600	980	512	b510	*568	570	1,700	6,460	13,100	3,870	774	729
18	632	960	b450	b510	504	580	2,000	7,120	11,800	3,630	756	656
19	648	873	b430	b510	460	580	2,100	*9,400	12,200	3,330	*729	560
20	704	828	b550	512	440	540	2,100	13,300	13,200	3,030	704	576
21	688	765	b670	520	510	560	2,200	18,800	14,200	2,820	688	704
22	720	729	b770	512	550	600	2,700	17,600	14,500	2,600	672	*688
23	828	738	b740	544	540	620	3,100	13,700	13,500	2,480	656	608
24	783	747	b710	576	530	600	2,900	11,200	13,800	2,440	640	544
25	712	756	b670	632	520	560	2,700	10,300	11,100	2,380	624	512
26	664	792	624	608	520	540	2,600	*10,700	9,020	2,220	608	488
27	624	864	568	560	510	580	2,500	9,400	8,600	1,990	592	480
28	608	801	b520	b510	510	680	2,400	8,500	8,100	1,860	584	560
29	600	704	b580	b500	-	760	2,300	9,000	9,100	1,770	568	608
30	568	560	b620	b490	-----	880	3,000	11,000	7,870	1,660	552	552
31	552	-----	b700	528	-----	900	-----	10,000	------	1,590	536	------
Total	18,187	20,387	19,252	17,092	15,780	18,500	63,726	281,750	408,190	126,540	27,136	16,029
Mean	587	680	621	551	564	597	2,124	9,089	13,610	4,082	875	534
Cfsm	0.497	0.576	0.526	0.467	0.478	0.506	1.80	7.70	11.5	3.46	0.742	0.453
In.	0.57	0.64	0.61	0.54	0.50	0.58	2.01	8.88	12.86	3.99	0.86	0.51
Ac-ft	36,070	40,440	38,190	33,900	31,300	36,690	126,400	558,800	809,600	251,000	53,820	31,790

Calendar year 1954: Max 23,000 Min 410 Mean 3,181 Cfsm 2.70 In. 36.60 Ac-ft 2,303,000
Water year 1954-55: Max 22,700 Min 390 Mean 2,829 Cfsm 2.40 In. 32.55 Ac-ft 2,048,000

Peak discharge (base, 12,000 cfs).--May 21 (11 p.m.) 20,100 cfs (9.86 ft); June 12 (3 a.m.) 24,100 cfs (10.78 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Feb. 19 to Apr. 4, Apr. 16 to May 1, May 27-29, May 31 to June 5; discharge estimated on basis of weather records, recorded range in stage, and records for Selway River near Lowell and other nearby streams.

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 1955.

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.--11 years, 254 cfs (183,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,980 cfs May 21 (gage height, 5.60 ft); minimum daily, 25 cfs Dec. 1, 18, 19; minimum gage height, 1.43 ft Nov. 6.
1944-55: 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 period of ice effect, which are fair. No regulation or diversion above station except for mining operations.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	29	3.0	368
1.6	38	3.5	585
1.8	62	4.0	870
2.0	96	5.0	1,540
2.5	217	5.5	1,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	44	25	40	45	45	70	756	1,110	722	144	39
2	45	*42	35	40	40	45	60	852	1,030	618	134	38
3	44	47	50	35	40	40	*75	786	1,080	560	125	37
4	44	42	*65	35	40	35	70	756	1,070	540	118	35
5	42	45	60	35	40	30	75	950	1,050	516	116	35
6	41	42	60	35	40	35	90	1,220	1,090	507	110	35
7	40	44	55	35	45	40	130	1,220	1,250	668	106	37
8	39	41	50	35	45	45	180	1,270	1,320	512	108	37
9	38	49	45	35	45	50	260	1,090	*1,360	470	100	37
10	38	53	50	*35	40	50	370	1,090	1,370	479	96	37
11	41	58	45	35	40	50	330	1,190	1,350	479	94	33
12	58	58	45	35	40	50	260	1,310	1,320	*432	87	34
13	62	65	50	40	45	45	230	1,480	1,280	393	82	34
14	54	59	50	40	45	45	220	1,200	1,210	365	78	37
15	54	56	50	40	45	45	209	1,010	1,080	342	73	73
16	59	59	45	40	*45	45	185	936	1,030	323	72	67
17	65	70	35	35	45	50	190	918	918	301	67	63
18	62	76	25	35	40	50	212	*1,000	786	283	67	73
19	58	75	25	35	40	45	209	1,260	706	265	*65	56
20	70	68	30	35	40	45	212	1,580	656	245	62	53
21	61	64	30	35	40	50	217	1,900	629	237	58	*73
22	59	61	35	35	45	55	280	1,800	590	223	56	77
23	65	61	40	40	45	55	304	1,610	550	220	53	57
24	61	59	45	40	45	50	310	1,390	790	245	52	49
25	56	53	40	40	45	50	301	1,260	750	254	50	45
26	54	61	40	40	45	50	310	1,270	560	214	49	42
27	47	64	35	35	40	55	301	*1,250	535	190	48	42
28	46	53	35	35	40	60	274	1,120	479	182	47	47
29	45	45	40	35	-	65	332	1,160	756	172	46	56
30	42	35	40	40	------	65	*507	1,310	690	164	45	49
31	44	-----	45	40	-----	65	-----	1,250	-------	156	41	------
Total	1,583	1,649	1,320	1,145	1,190	1,505	6,793	37,194	28,395	11,277	2,449	1,433
Mean	51.1	55.0	42.6	36.9	42.5	48.5	226	1,200	946	364	79.0	47.7
Cfsm	0.196	0.211	0.163	0.141	0.163	0.186	0.866	4.60	3.62	1.39	0.303	0.183
In.	0.23	0.23	0.19	0.16	0.17	0.21	0.97	5.30	4.05	1.61	0.35	0.20
Ac-ft	3,140	3,270	2,620	2,270	2,360	2,990	13,470	73,770	56,320	22,370	4,860	2,840

Calendar year 1954: Max 1,120 Min 25 Mean 184 Cfsm 0.705 In. 9.58 Ac-ft 133,400
Water year 1954-55: Max 1,900 Min 25 Mean 263 Cfsm 1.01 In. 13.67 Ac-ft 190,300

Peak discharge (base, 1,300 cfs).--May 13 (4 a.m.) 1,590 cfs (5.07 ft); May 21 (7 a.m.) 1,980 cfs (5.60 ft); June 10 (5 a.m.) 1,440 cfs (4.85 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Apr. 14 (no gage-height record Jan. 5-9, Feb. 9-15).

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 September 1916, April 1923 to September 1955. 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 gage at present datum.

Average discharge.--37 years (1911-16, 1923-55), 854 cfs (618,300 acre-ft per year).

Extremes.--Maximum discharge during year, 6,570 cfs May 21 (gage height, 8.95 ft); minimum, 4 cfs Jan. 26, 31 (gage height, 1.78 ft); minimum daily, 76 cfs Dec. 1.
1910-16, 1923-55: Maximum discharge observed, 12,600 cfs May 29, 1948 (gage height, 12.50 ft); no flow part of day Aug. 27, 1947; minimum daily, 29 cfs Nov. 23, 27, 29, 1952.

Remarks.--Records excellent except those below 200 cfs, which are good, and those for periods 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	69	5.0	1,390
2.7	130	6.0	2,350
3.0	215	7.0	3,600
4.0	650	9.0	6,650

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	203	173	76	187	184	181	288	2,030	3,380	3,090	595	200
2	193	*176	127	178	173	173	357	*2,560	3,140	2,750	585	190
3	184	178	209	176	164	173	328	2,420	3,260	2,560	536	190
4	178	176	*236	b160	b160	162	*296	2,130	3,290	2,490	514	184
5	176	181	215	b160	b160	b130	284	2,490	3,380	2,400	492	181
6	178	176	203	b165	b160	b160	320	3,200	3,700	2,330	469	181
7	167	173	203	b170	178	176	433	3,190	4,600	2,730	456	170
8	159	173	176	170	173	184	570	3,390	5,170	2,340	469	178
9	159	170	156	162	175	203	734	2,960	*5,550	2,210	428	176
10	156	222	196	*162	b165	209	1,180	2,940	5,790	2,440	406	173
11	159	232	164	159	b160	226	1,040	3,280	5,950	2,370	388	167
12	190	232	152	162	b170	222	812	3,770	6,030	*2,210	366	173
13	229	273	187	162	b180	212	710	4,120	5,740	2,050	362	146
14	218	246	190	162	b180	209	680	3,380	5,260	1,920	341	170
15	203	222	184	b160	175	200	580	2,800	4,520	1,810	332	353
16	218	243	145	159	*187	187	536	2,530	4,040	1,690	320	284
17	232	265	111	b160	184	200	565	2,490	3,660	1,590	308	269
18	254	265	84	b160	170	193	662	*2,630	3,400	1,480	284	277
19	229	269	81	159	162	196	674	3,380	3,290	1,340	*288	243
20	258	250	b125	162	b160	184	686	4,800	3,280	1,240	296	215
21	254	222	b140	156	b170	187	770	6,380	3,390	1,140	261	*258
22	240	215	b190	b155	b180	203	1,120	6,070	3,380	1,080	261	280
23	258	222	206	159	187	196	1,110	5,170	3,160	1,080	258	246
24	246	218	218	162	178	196	1,040	4,330	3,380	1,170	250	218
25	226	206	193	178	184	181	952	3,820	3,260	1,080	243	209
26	206	209	187	165	178	181	938	3,910	2,750	952	246	200
27	200	226	b170	153	b170	203	896	*3,770	2,680	833	240	200
28	193	203	b160	b150	b170	203	791	3,360	2,530	770	226	200
29	184	196	b170	b150	-	254	847	3,560	3,400	728	218	229
30	181	119	176	b150	------	273	1,220	4,090	3,140	680	215	218
31	179	------	209	165	------	265	------	3,810	------	645	203	------
Total	6,310	6,331	5,239	5,038	4,837	6,122	21,419	108,760	117,500	53,198	10,836	6,378
Mean	204	211	169	163	173	197	714	3,508	3,917	1,716	350	213
Cfsm	0.236	0.244	0.195	0.188	0.200	0.228	0.825	4.06	4.53	1.98	0.405	0.246
In.	0.27	0.27	0.23	0.22	0.21	0.26	0.92	4.68	5.05	2.29	0.47	0.27
Ac-ft	12,520	12,560	10,390	9,990	9,590	12,140	42,480	215,700	233,100	105,500	21,490	12,650

Calendar year 1954: Max 3,360 Min 75 Mean 689 Cfsm 0.797 In. 10.81 Ac-ft 498,900
Water year 1954-55: Max 6,380 Min 76 Mean 964 Cfsm 1.11 In. 15.14 Ac-ft 698,100

Peak discharge (base, 3,200 cfs).--May 13 (7 a.m.) 4,450 cfs (7.58 ft); May 21 (10 p.m.) 6,570 cfs (8.95 ft); June 11 (10 p.m.) 6,430 cfs (8.86 ft); June 29 (12 m.) 3,770 cfs (7.12 ft).

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

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 1955.

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.--45 years, 8,073 cfs (5,845,000 acre-ft per year).

Extremes.--Maximum discharge during year, 64,100 cfs June 12 (gage height, 15.04 ft from graph based on gage readings); minimum, 621 cfs probably Dec. 20 (gage height, 2.73 ft).
1910-55: 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 except those below 5,000 cfs and those for periods computed from once-daily staff-gage readings, which are good, and those for period of no gage-height record, which are fair. Some diurnal regulation at low stages caused by power-plant on South Fork.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.8	645	6.0	6,620
3.0	830	8.0	13,700
3.5	1,400	10.0	24,200
4.0	2,150	12.0	38,200
5.0	4,060	15.0	63,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,440	*1,520	1,130	1,790	1,630	1,400	3,500	13,000	25,300	22,500	4,610	1,530
2	1,410	1,490	1,030	1,710	1,600	1,410	3,700	16,400	23,100	20,200	4,350	1,480
3	1,390	1,440	*1,600	1,670	1,500	1,360	3,220	*15,600	24,400	18,100	4,130	1,440
4	1,360	1,440	2,130	1,410	1,400	1,280	*2,920	14,300	27,300	17,500	3,910	1,410
5	1,350	1,440	2,000	1,400	1,430	1,030	2,920	16,200	26,900	17,300	3,770	1,400
6	1,340	1,440	1,840	1,450	1,430	1,170	3,380	21,700	30,300	16,700	3,580	1,370
7	1,310	1,440	1,800	1,630	1,430	1,360	4,420	22,500	39,700	19,200	3,420	1,340
8	1,270	1,390	1,780	1,720	1,820	1,430	6,200	24,100	47,600	18,000	3,320	1,320
9	1,260	1,370	1,570	*1,570	2,570	1,730	7,810	21,400	50,000	16,400	3,180	1,300
10	1,230	1,460	1,480	1,500	2,030	1,900	11,700	21,000	*52,100	17,400	3,030	1,300
11	1,250	1,670	1,610	1,450	1,570	1,780	10,800	22,900	56,000	17,100	2,920	1,300
12	1,430	1,640	1,500	1,430	1,540	1,760	8,090	27,800	60,300	17,000	2,770	1,270
13	1,790	1,960	1,540	1,430	1,670	1,740	7,500	32,400	60,100	16,200	2,660	1,250
14	1,700	1,900	1,700	1,440	1,680	1,700	7,300	28,000	56,700	*15,100	2,590	1,270
15	1,530	1,780	1,680	1,390	1,670	1,540	6,650	22,700	49,900	14,400	2,520	1,730
16	1,520	1,870	1,450	1,400	1,600	1,490	5,950	19,200	42,000	13,500	2,450	1,950
17	1,610	2,300	1,270	1,390	*1,610	1,460	5,740	18,500	36,800	12,700	2,360	1,950
18	1,730	2,460	1,160	1,520	1,460	1,520	7,230	*18,900	32,600	11,700	2,270	1,980
19	1,740	2,250	930	1,390	1,310	1,500	7,470	24,100	32,500	10,800	2,170	1,720
20	1,840	2,080	696	1,390	1,230	1,440	6,760	34,100	34,100	9,680	*2,120	1,570
21	1,900	1,950	880	1,390	1,370	1,390	6,760	49,400	38,000	8,940	2,060	1,790
22	1,870	1,850	1,320	1,370	1,540	1,460	9,040	49,600	40,000	8,310	1,980	*2,030
23	2,050	1,850	a1,800	1,400	1,490	1,660	10,300	39,800	39,600	7,810	1,930	1,850
24	2,080	1,900	a1,900	1,480	1,450	1,590	9,500	32,700	40,000	7,660	1,870	1,660
25	1,930	1,900	a1,700	1,590	1,410	1,450	8,640	28,900	33,500	7,410	1,820	1,560
26	1,800	1,960	1,590	1,640	1,390	1,390	8,280	*29,800	25,800	6,940	1,800	1,500
27	1,700	2,170	1,460	1,560	1,370	1,460	7,930	27,500	24,400	6,230	1,740	1,450
28	1,630	2,130	1,320	1,430	1,340	1,760	7,170	24,200	23,600	5,790	1,680	1,450
29	1,610	1,920	1,350	1,320	-	2,430	7,000	24,900	26,500	5,470	1,640	1,720
30	1,590	1,660	1,390	1,450	------	2,840	8,740	30,300	24,600	5,160	1,610	1,640
31	1,530	-----	1,640	1,500	-----	2,880	-----	28,900	------	4,900	1,570	------
Total	49,190	53,630	46,246	46,010	43,540	50,310	206,620	800,800	‡1,123.7	396,100	81,830	46,530
Mean	1,587	1,788	1,492	1,484	1,555	1,623	6,887	25,830	37,460	12,780	2,640	1,551
Cfsm	0.327	0.369	0.308	0.306	0.321	0.335	1.42	5.33	7.72	2.64	0.544	0.320
In.	0.38	0.41	0.35	0.35	0.33	0.39	1.58	6.14	8.62	3.04	0.63	0.36
Ac-ft	97,570	106,400	91,730	91,260	86,360	99,790	409,800	‡1,588	‡2,229	785,700	162,300	92,290

Calendar year 1954: Max 54,700 Min 654 Mean 8,180 Cfsm 1.69 In. 22.90 Ac-ft 5,922,000
Water year 1954-55: Max 60,300 Min 696 Mean 8,067 Cfsm 1.66 In. 22.58 Ac-ft 5,840,000

Peak discharge (base, 28,200 cfs).--May 13 (11 a.m.) 33,500 cfs (11.42 ft); May 22 (4 a.m.) 54,200 cfs (13.99 ft); June 12 (about 8 a.m.) 64,100 cfs (15.04 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 other stations in Clearwater River basin.

Note.--Discharge computed from once-daily staff-gage readings Dec. 16-22, Dec. 26 to Jan. 7, June 12-30.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 2,240 ft (from river-profile map).

Average discharge.--11 years, 2,878 cfs (2,084,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,300 cfs June 11 (gage height, 8.49 ft); minimum daily, 450 cfs Mar. 4; minimum gage height, 2.51 ft Mar. 25, 26.
1944-55: 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, which are fair. 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 2, 3, May 20 to June 30)

2.6	570	5.0	5,070
3.0	980	7.0	11,800
3.5	1,680	9.0	19,500
4.0	2,610		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	760	750	600	840	620	580	793	5,270	8,490	6,080	1,600	760
2	760	740	780	800	600	560	848	5,360	8,220	5,480	1,550	750
3	750	730	900	700	570	540	815	*5,130	8,940	4,950	1,490	740
4	740	730	830	600	560	450	782	5,070	9,360	4,780	1,440	730
5	730	720	800	*570	590	490	793	6,330	9,680	4,640	1,400	720
6	720	710	800	680	600	560	*1,000	7,680	10,900	4,450	1,360	690
7	710	710	800	700	750	660	1,480	7,950	13,200	5,690	1,310	690
8	710	700	740	670	850	700	2,180	8,220	14,400	4,810	1,270	680
9	700	680	680	640	800	750	2,760	7,480	14,900	4,560	1,240	690
10	690	804	710	620	700	730	3,650	7,550	15,600	4,640	1,220	680
11	815	782	700	610	680	700	2,840	8,190	*16,600	4,340	1,180	660
12	958	826	640	620	710	650	2,140	9,140	16,800	4,390	1,150	651
13	925	925	710	630	750	640	2,030	9,420	16,000	4,000	1,110	642
14	826	815	750	600	720	630	1,850	8,020	14,500	*3,770	1,090	720
15	793	859	730	600	680	610	1,620	6,740	12,600	3,550	1,080	1,140
16	804	1,110	650	610	650	610	1,460	6,150	11,200	3,390	1,050	980
17	837	1,180	540	600	600	620	1,420	6,520	10,100	3,230	1,030	1,200
18	870	1,150	490	580	*530	610	1,700	7,220	9,500	3,030	1,000	826
19	826	1,090	550	590	510	600	1,620	8,970	9,280	2,820	992	740
20	947	1,000	680	600	560	624	1,570	*11,800	9,320	2,650	*969	750
21	903	947	730	590	600	660	1,780	15,000	9,560	2,490	947	870
22	1,110	925	800	590	640	680	2,780	14,100	9,760	2,350	936	870
23	1,200	936	820	610	620	624	2,820	11,600	9,220	2,260	914	*780
24	947	925	760	630	610	570	2,590	10,000	10,300	2,220	903	730
25	903	936	700	630	600	560	2,430	9,500	8,460	2,490	892	700
26	859	1,140	650	620	590	600	2,550	9,680	7,250	2,220	870	690
27	837	1,100	580	610	590	650	2,430	8,800	6,710	2,010	859	690
28	815	1,000	560	560	580	670	2,140	8,290	6,240	1,920	837	804
29	793	859	600	560	-	730	2,320	8,760	6,490	1,830	826	848
30	771	*630	700	580	------	782	3,140	10,100	5,840	1,780	804	793
31	*760	------	900	630	------	771	------	9,280	------	1,710	782	------
Total	25,769	26,409	21,880	19,470	17,860	19,611	58,331	263,320	319,420	108,530	34,101	23,194
Mean	831	880	706	628	638	633	1,944	8,494	10,650	3,501	1,100	773
Cfsm	0.834	0.884	0.709	0.631	0.641	0.636	1.95	8.53	10.7	3.52	1.10	0.776
In.	0.96	0.99	0.82	0.73	0.67	0.73	2.18	9.83	11.93	4.05	1.27	0.87
Ac-ft	51,110	52,380	43,400	38,620	35,420	38,900	115,700	522,300	633,600	215,300	67,640	46,000

Calendar year 1954: Max 18,900 Min 490 Mean 3,132 Cfsm 3.14 In. 42.68 Ac-ft 2,268,000
Water year 1954-55: Max 16,800 Min 450 Mean 2,570 Cfsm 2.58 In. 35.03 Ac-ft 1,860,000

Peak discharge (base, 9,000 cfs).--May 13 (1 a.m.) 10,200 cfs (6.53 ft); May 21 (10 p.m.) 16,100 cfs (8.03 ft); June 11 (11 p.m.) 18,300 cfs (8.49 ft); June 24 (3 p.m.) 12,000 cfs (6.93 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30 to Mar. 19, Mar. 24-27.

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 1955.

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.--29 years, 5,552 cfs (4,019,000 acre-ft per year).

Extremes.--Maximum discharge during year, 31,800 cfs May 21 (gage height, 18.68 ft); minimum, 1,070 cfs Mar. 5 (gage height, 2.60 ft).
1926-55: 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. No regulation or diversion above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.7	1,130	9.0	8,820
3.0	1,320	11.0	12,400
4.0	2,120	13.0	16,600
5.0	3,150	16.0	24,000
7.0	5,730	19.0	32,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,530	1,550	1,680	2,500	1,640	1,470	2,410	13,200	15,600	10,500	3,140	1,500
2	1,500	1,520	*1,630	2,230	1,600	1,470	2,600	15,100	14,600	10,100	3,020	1,480
3	1,490	1,520	2,200	1,950	1,520	1,430	2,620	14,300	15,200	8,970	2,920	1,470
4	1,480	1,500	2,340	1,730	1,460	1,380	2,460	*13,200	16,300	8,470	2,810	1,450
5	1,470	1,500	2,160	1,460	1,430	1,150	2,490	15,100	16,400	8,630	2,710	1,430
6	1,460	1,490	2,050	1,500	1,490	1,230	3,050	18,300	17,900	8,270	2,610	1,420
7	1,450	1,470	2,080	1,730	1,480	1,460	*4,300	18,800	21,400	10,700	2,540	1,400
8	1,450	1,470	2,070	*1,800	1,940	1,630	6,430	19,800	24,300	10,100	2,480	1,390
9	1,450	1,450	1,870	1,720	3,170	1,790	8,380	17,900	25,400	8,940	2,390	1,380
10	1,400	1,530	1,730	1,630	2,320	1,890	11,800	17,300	26,400	9,230	2,320	1,380
11	1,430	1,760	1,860	1,580	1,750	1,870	11,100	17,500	*27,800	8,630	2,280	1,360
12	1,830	1,670	1,760	1,550	1,680	1,790	8,120	20,100	29,100	8,550	2,220	1,330
13	1,970	1,910	1,600	1,550	1,830	1,700	7,640	20,400	28,000	7,990	2,160	1,310
14	1,780	1,930	1,830	1,590	1,970	1,660	7,090	17,800	25,700	7,450	2,120	1,360
15	1,590	1,830	1,910	1,520	1,850	1,640	5,910	14,800	21,700	*7,090	2,080	2,070
16	1,550	2,220	1,820	1,510	1,730	1,590	5,090	13,100	18,900	6,740	2,060	2,230
17	1,590	3,130	1,650	1,540	1,670	1,550	4,770	13,100	17,400	6,300	1,990	2,280
18	1,710	3,460	1,280	1,500	*1,540	1,580	5,350	14,100	15,800	5,940	1,950	2,170
19	1,680	3,360	1,180	1,470	1,370	1,570	5,940	*16,500	15,400	5,490	1,900	1,660
20	1,790	2,840	1,370	1,500	1,340	1,520	5,630	22,800	15,200	5,170	1,860	1,520
21	1,900	2,490	1,730	1,520	1,410	1,510	6,040	30,100	15,600	4,880	*1,820	1,560
22	2,600	2,300	1,850	1,480	1,580	1,630	9,020	29,600	16,300	4,600	1,790	*1,780
23	2,600	2,240	2,040	1,480	1,690	1,730	10,700	23,900	16,300	4,380	1,750	1,670
24	2,180	2,230	2,070	1,540	1,620	1,670	9,470	19,800	16,200	4,340	1,720	1,520
25	1,930	2,180	1,900	1,620	1,570	1,480	8,270	17,900	17,100	4,270	1,690	1,440
26	1,830	2,710	1,760	1,630	1,530	1,450	8,170	18,300	12,900	4,500	1,670	1,400
27	1,750	2,910	1,630	1,600	1,520	1,520	7,980	17,300	11,700	3,900	1,640	1,380
28	1,690	2,760	1,470	1,540	1,490	1,680	6,940	15,400	10,900	3,680	1,620	1,420
29	1,670	2,440	1,440	1,410	-	1,850	6,820	15,900	11,100	3,510	1,590	1,740
30	1,610	2,190	1,550	1,400	------	2,240	8,140	17,800	10,500	3,420	1,560	1,710
31	*1,590	-----	1,790	1,520	-----	2,390	-----	17,400	------	3,320	1,550	------
Total	52,950	63,560	55,300	50,300	47,190	50,520	194,730	556,600	547,100	208,060	65,960	47,210
Mean	1,708	2,119	1,784	1,623	1,685	1,630	6,491	17,950	18,240	6,712	2,128	1,574
Cfsm	0.700	0.868	0.731	0.665	0.691	0.668	2.66	7.36	7.48	2.75	0.872	0.645
In.	0.81	0.97	0.84	0.77	0.72	0.77	2.97	8.48	8.34	3.17	1.01	0.72
Ac-ft	105,000	126,100	109,700	99,770	93,600	100,200	386,200	‡1,104	‡1,085	412,700	130,800	93,640

Calendar year 1954: Max 35,700 Min 1,180 Mean 6,555 Cfsm 2.69 In. 36.46 Ac-ft 4,745,000
Water year 1954-55: Max 30,100 Min 1,150 Mean 5,314 Cfsm 2.18 In. 29.57 Ac-ft 3,847,000

Peak discharge (base, 18,000 cfs).--May 13 (10 a.m.) 21,300 cfs (14.99 ft); May 21 (11 a.m.) 31,800 cfs (18.68 ft); June 12 (8:30 a.m.) 30,800 cfs (18.32 ft); June 25 (1:30 a.m.) 20,500 cfs (14.70 ft).
* Discharge measurement made on this day.
‡ Expressed in thousands.

Potlatch Creek at Kendrick, Idaho

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.--460 sq mi, approximately.

Records available.--October 1945 to September 1955.

Gage.--Wire-weight gage read once daily. Datum of gage is 1,198.2 ft above mean sea level, unadjusted.

Average discharge.--10 years, 413 cfs (299,000 acre-ft per year).

Extremes.--Maximum discharge during year, 5,380 cfs Apr. 10 (gage height, 9.62 ft, from graph based on gage readings); minimum observed, 7.8 cfs Sept. 5, 7-10, 12 (gage height, 4.13 ft).
1945-55: Maximum discharge, 13,000 cfs Feb. 26, 1948 (gage height, 12.6 ft, from floodmarks), by slope-area determination of peak flow; minimum observed, 4.3 cfs Aug. 25, 1946; minimum gage height observed, 3.28 ft Oct. 12-16, 1945.

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

Revisions (water years).--WSP 1093: 1946(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.2	7.5	6.0	500
4.3	10	6.5	830
4.5	22	7.0	1,260
4.7	42	8.0	2,350
4.9	74	9.0	4,120
5.1	122	9.5	5,260
5.5	250		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	21	40	69	51	56	1,450	1,260	243	83	29	9.3
2	14	21	*19	72	48	54	1,590	1,350	179	112	26	8.7
3	14	24	47	b65	b45	47	1,430	1,060	198	83	24	8.7
4	14	20	44	b60	b35	b30	1,530	*958	182	65	22	9.0
5	14	20	41	b55	b37	b32	1,790	982	176	74	20	7.8
6	15	18	41	b50	40	b36	2,230	1,200	166	99	19	8.7
7	14	19	41	*b48	65	b40	3,200	1,130	163	125	19	7.8
8	14	16	44	45	101	76	*3,600	1,090	148	215	19	7.8
9	14	19	25	41	246	122	2,910	966	119	139	18	7.8
10	14	22	18	45	b200	258	4,900	830	112	139	14	7.8
11	15	22	28	40	b170	335	2,800	753	94	114	14	8.1
12	15	26	29	37	b150	340	1,880	816	101	104	14	7.8
13	21	33	35	39	b130	270	2,210	795	*89	101	14	8.4
14	18	44	37	41	b120	254	1,920	795	85	81	13	13
15	19	36	37	37	b110	198	1,600	676	78	70	13	21
16	17	82	27	37	b100	168	934	554	78	80	12	42
17	18	109	17	37	b95	157	854	530	67	*56	12	31
18	18	192	8.4	35	b90	168	1,200	488	62	54	12	34
19	18	170	18	b34	*b85	173	1,450	494	58	51	11	22
20	20	131	17	35	b45	168	1,410	*598	54	41	12	22
21	25	83	27	34	b80	170	1,470	683	50	41	*9.9	18
22	52	70	44	34	89	179	2,830	641	48	38	9.6	24
23	87	56	45	35	76	b160	2,470	518	42	37	9.6	26
24	48	47	45	39	65	b140	1,820	484	41	35	9.6	*20
25	33	44	45	52	58	b140	1,400	446	85	33	9.6	16
26	30	45	b42	55	60	b140	1,330	360	119	30	9.6	14
27	26	70	b39	b50	60	b190	1,170	365	72	32	9.9	14
28	24	78	b37	b45	62	355	862	304	65	33	9.6	15
29	22	69	b35	b43	-	608	854	266	74	28	9.3	16
30	*22	58	b45	b42	------	854	974	278	96	28	8.7	24
31	21	-----	b55	48	------	966	-----	286	------	28	8.7	------
Total	710	1,645	1,072.4	1,399	2,493	6,878	56,068	21,934	3,144	2,229	441.1	479.7
Mean	22.9	54.8	34.6	45.1	89.0	222	1,869	708	105	71.9	14.2	16.0
Cfsm	0.050	0.119	0.075	0.098	0.193	0.483	4.06	1.54	0.228	0.156	0.031	0.035
In.	0.06	0.13	0.09	0.11	0.20	0.56	4.53	1.77	0.25	0.18	0.04	0.04
Ac-ft	1,410	3,260	2,130	2,770	4,940	13,640	111,200	43,510	6,240	4,420	875	951

Calendar year 1954: Max 2,590 Min 6.9 Mean 306 Cfsm 0.665 In. 9.04 Ac-ft 221,700
Water year 1954-55: Max 4,900 Min 7.8 Mean 270 Cfsm 0.587 In. 7.96 Ac-ft 195,300

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

Clearwater River at Spalding, Idaho

Location.--Lat 46°25', long 116°51', 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.--March 1926 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 770 ft (from comparison with gage 2,300 ft upstream at datum 772.49 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Wire-weight gage on highway bridge 2,300 ft upstream and at same datum as former staff gage, used as supplementary gage.

Average discharge.--29 years, 14,830 cfs (10,740,000 acre-ft per year).

Extremes.--Maximum discharge during year, 101,000 cfs June 12 (gage height, 17.44 ft); minimum, 1,820 cfs Dec. 19 (gage height, 2.35 ft), but may have been less during period of ice effect.

1926-55: 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.

Remarks.--Records excellent except those for periods of ice effect, which are good. Small diversions from tributaries; slight diurnal fluctuation at times caused by powerplant on South Fork.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	2,010	8.0	21,200
3.0	2,780	10.0	33,000
4.0	4,890	12.0	47,000
5.0	7,780	14.0	64,300
6.0	11,400	17.0	95,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,130	3,170	*3,370	4,580	3,370	3,090	8,580	29,100	43,500	33,500	8,110	3,090
2	3,070	3,150	2,760	4,700	3,460	3,170	9,800	36,200	39,500	31,800	7,650	3,020
3	3,020	3,110	3,250	4,130	3,290	3,110	9,190	36,300	39,500	28,300	7,230	2,940
4	3,000	3,000	4,440	3,390	3,110	b2,900	8,610	*32,800	43,800	26,600	6,940	2,910
5	2,960	3,040	4,470	2,890	3,000	b2,400	9,300	34,900	43,600	26,500	6,670	2,850
6	2,940	3,020	4,220	2,760	3,070	2,500	11,900	43,600	47,300	25,700	6,400	2,820
7	2,890	3,000	4,020	*3,330	3,230	2,820	*15,500	46,200	59,400	28,900	6,150	2,780
8	2,830	2,980	4,110	3,690	4,000	3,350	19,900	48,600	73,200	30,400	5,950	2,730
9	2,820	2,940	3,880	3,640	5,700	3,790	23,500	44,700	78,600	26,300	5,750	2,710
10	2,780	2,960	3,460	3,390	5,170	4,470	32,200	41,700	82,300	26,900	5,480	2,700
11	2,780	3,370	3,460	3,270	4,050	4,490	32,000	42,400	87,400	26,800	5,350	2,660
12	3,060	3,540	3,620	3,130	3,660	4,400	25,800	49,900	*94,800	26,100	5,140	2,630
13	3,600	3,580	3,170	3,150	3,850	4,180	21,900	55,600	94,000	25,300	4,940	2,560
14	3,810	4,200	3,330	3,170	4,020	4,000	20,700	51,500	88,400	23,400	4,840	2,630
15	3,390	3,850	3,810	3,060	3,980	3,810	17,800	42,400	76,800	*22,200	4,670	3,190
16	3,170	3,960	3,730	3,070	3,790	3,600	15,400	36,200	64,000	21,000	4,580	4,420
17	3,190	5,090	b3,400	3,070	3,660	3,500	14,200	34,500	56,600	19,800	4,420	4,270
18	3,370	6,290	b2,650	2,960	3,460	3,560	15,600	35,400	49,100	18,500	4,310	4,510
19	3,580	6,200	b2,100	2,980	*2,980	3,620	18,500	40,500	47,900	17,000	4,200	3,770
20	3,600	5,480	b1,850	3,000	2,760	3,560	17,200	55,400	49,200	15,600	4,090	3,310
21	3,980	4,890	b2,100	3,060	2,920	3,390	17,200	*81,800	53,200	14,400	*3,980	3,190
22	4,290	4,420	2,920	2,980	3,290	3,710	23,000	90,200	56,200	13,400	3,880	3,730
23	4,870	4,240	3,960	2,980	3,460	4,020	29,100	72,800	56,600	12,600	3,770	*3,900
24	4,600	4,270	4,180	3,110	3,350	4,070	26,300	57,900	51,200	12,300	3,690	3,480
25	4,200	4,270	b4,000	3,330	3,250	3,640	23,100	*49,700	54,600	12,000	3,600	3,210
26	3,900	4,540	3,770	3,480	3,150	3,390	21,700	49,700	40,400	12,100	3,540	3,060
27	3,660	5,020	b3,400	3,390	3,150	3,560	21,000	48,400	36,700	10,800	3,480	2,980
28	3,500	5,170	3,110	3,210	3,090	4,110	18,600	42,300	35,200	9,840	3,390	2,960
29	3,370	4,670	2,940	2,980	-	5,270	17,700	41,600	35,800	9,340	3,330	3,250
30	*3,330	4,270	3,150	2,890	------	6,880	20,300	47,500	37,200	8,880	3,250	3,690
31	3,230	-----	3,730	3,150	-----	7,550	-----	49,600	------	8,540	3,170	------
Total	105,920	121,690	106,360	101,920	99,270	119,910	563,580	‡1,469.4	‡1,716	624,800	151,950	95,950
Mean	3,417	4,056	3,431	3,288	3,545	3,868	18,790	47,400	57,200	20,150	4,902	3,198
Cfsm	0.357	0.424	0.359	0.344	0.370	0.404	1.96	4.95	5.98	2.11	0.512	0.334
In.	0.41	0.47	0.41	0.40	0.39	0.47	2.19	5.71	6.67	2.43	0.59	0.37
Ac-ft	210,100	241,400	211,000	202,200	196,900	237,800	‡1,118	‡2,915	‡3,404	‡1,239	301,400	190,300

Calendar year 1954 : Max 97,600 Min 1,850 Mean 15,720 Cfsm 1.64 In. 22.30 Ac-ft 11,380,000
Water year 1954-55 : Max 94,800 Min 1,850 Mean 14,480 Cfsm 1.51 In. 20.51 Ac-ft 10,470,000

Peak discharge (base, 50,000 cfs).--May 13 (4 p.m.) 58,900 cfs (13.40 ft); May 22 (9 a.m.) 95,400 cfs (16.96 ft); June 12 (12 m.) 101,000 cfs (17.44 ft).

* Discharge measurement made on this day.

‡ Expressed in thousands.

b Stage-discharge relation affected by ice.

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 1955 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, 1900-1916 (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 benchmark). 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, 204,000 cfs June 13 (gage height, 30.50 ft); minimum, 16,000 cfs Feb. 24 (gage height, 9.79 ft); minimum daily, 17,500 cfs Sept. 10.
1909-55: Maximum discharge, 369,000 cfs May 29, 1948 (gage height, 40.36 ft, from high-water mark in well); minimum observed, 10,600 cfs Aug. 14, 18, 20, 24-28, 30, 31, Sept. 1, 2, 5, 1931, but may have been less during period of ice effect in January 1937.
Maximum stage known, 24.7 ft, Riparia site and datum, June 5, 1894, 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 diurnal fluctuation during low-water periods from powerplant on Clearwater River at Lewiston, Idaho. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1403.

Revisions (water years).--WSP 463: 1916. WSP 933: 1937.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 22				May 23 to Sept. 30			
10.0	16,700	20.0	78,500	10.0	16,600	20.0	76,400
12.0	24,800	25.0	131,000	12.0	24,000	25.0	130,000
15.0	41,000	28.0	169,000	15.0	39,200	31.0	211,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22,800	24,800	23,400	22,700	21,400	20,800	36,300	65,000	97,000	81,500	28,200	18,100
2	22,900	25,000	22,400	25,900	21,300	20,200	38,000	78,000	90,200	78,100	26,900	18,200
3	23,000	23,800	22,300	25,700	21,600	19,800	37,100	79,900	87,900	70,400	26,100	18,100
4	22,800	24,300	23,000	23,800	21,300	20,500	35,800	73,600	93,400	66,200	25,100	17,900
5	23,600	24,400	25,400	22,800	21,300	19,800	35,100	75,400	94,400	64,900	24,900	18,100
6	22,900	25,700	25,700	20,800	21,400	19,600	37,600	88,000	101,000	64,000	24,600	18,200
7	22,300	25,700	24,600	21,300	21,800	20,000	43,000	94,900	119,000	66,100	23,900	18,100
8	*23,200	24,800	24,100	22,000	21,200	*19,800	50,600	99,800	147,000	69,700	23,700	17,900
9	23,600	24,300	24,000	22,600	23,200	20,700	57,300	98,100	165,000	63,000	23,200	18,300
10	24,000	24,600	23,900	23,100	23,900	21,000	67,300	94,400	177,000	62,000	22,800	17,500
11	23,600	23,600	22,200	22,400	23,100	23,200	68,900	95,000	*186,000	62,800	22,300	18,100
12	23,100	22,700	22,300	21,100	21,700	23,200	58,500	103,000	196,000	61,600	21,700	18,000
13	22,400	22,500	22,100	20,900	20,600	23,400	54,100	112,000	199,000	60,400	21,600	17,900
14	24,800	25,800	20,800	22,000	20,400	22,800	52,200	110,000	193,000	*57,100	21,300	18,700
15	26,700	24,900	21,300	21,900	20,500	23,500	49,800	96,700	177,000	54,600	21,300	19,600
16	27,100	25,400	22,600	21,300	20,400	23,500	47,200	84,800	156,000	52,600	20,900	21,300
17	26,000	*27,200	23,700	22,400	20,500	22,400	45,100	78,400	140,000	50,300	20,900	22,100
18	27,400	28,200	22,700	22,300	20,300	22,700	46,200	76,700	124,000	47,900	20,300	23,400
19	28,800	27,700	20,700	20,700	19,600	22,900	51,500	81,100	118,000	44,800	19,900	23,000
20	25,900	27,600	20,100	21,800	18,800	23,300	52,200	101,000	117,000	42,000	19,600	22,300
21	24,100	26,600	19,800	22,500	19,100	27,000	51,700	137,000	123,000	39,300	19,800	21,900
22	26,400	25,500	19,600	22,400	19,400	27,000	61,300	161,000	129,000	37,600	19,700	21,900
23	28,000	25,100	18,900	21,200	19,800	25,300	70,300	153,000	131,000	36,300	19,100	22,600
24	26,300	24,400	21,600	21,000	18,900	23,200	72,400	*136,000	122,000	36,100	18,900	23,100
25	23,700	24,600	21,800	21,600	19,700	23,800	65,300	117,000	124,000	36,800	18,800	21,800
26	25,300	24,000	22,200	*21,100	19,800	24,800	*59,600	110,000	102,000	36,100	18,900	22,500
27	26,200	25,300	21,300	21,200	20,100	23,200	55,800	106,000	91,000	33,800	19,100	*21,700
28	25,700	25,100	*21,400	21,400	20,700	24,700	52,800	95,500	85,800	31,800	19,300	20,200
29	24,300	24,400	20,700	20,900	-	28,000	52,200	90,900	84,500	30,400	*18,400	19,800
30	25,700	25,000	21,500	21,400	------	31,300	54,200	95,600	88,600	29,600	18,400	21,900
31	25,400	------	22,100	21,400	------	31,900	------	104,000	------	29,200	18,500	------
Total	768,000	753,000	688,200	683,600	581,800	723,300	‡1,559.4	‡3,091.8	‡3,858.8	‡1,597	668,100	602,200
Mean	24,770	25,100	22,200	22,050	20,780	23,330	51,980	99,740	128,600	51,520	21,550	20,070
Ac-ft	‡1,525	‡1,494	‡1,365	‡1,356	‡1,154	‡1,435	‡3,093	‡6,132	‡7,654	‡3,168	‡1,325	‡1,194

Calendar year 1954: Max 204,000 Min 18,900 Mean 48,690 Ac-ft 35,250,000
Water year 1954-55: Max 199,000 Min 17,500 Mean 42,670 Ac-ft 30,890,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

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 5½ miles southwest of Colfax.

Drainage area.--189 sq mi.

Records available.--July 1953 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 1,865 ft (from topographic map).

Extremes.--Maximum discharge during year, 926 cfs Feb. 9 (gage height, 5.84 ft), from rating curve extended above 540 cfs by logarithmic plotting; no flow Aug. 15 to Sept. 13.
1953-55: Maximum discharge, that of Feb. 9, 1955; minimum, that of Aug. 15 to Sept. 13, 1955.

Remarks.--Records good except those below 10 cfs, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Small diversions above station for irrigation. No known regulation.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge in cubic feet per second)
(Shifting-control method used July 3-17)

Oct. 1 to Feb. 8				Feb. 9 to Sept. 30			
1.1	1.5	2.0	45	0.8	0.2	1.6	19
1.2	3.0	3.0	157	.9	0.6	2.0	46
1.3	5.0	4.0	352	1.0	1.3	3.0	157
1.5	11.5	5.0	631	1.2	4.2	4.0	352
1.7	22			1.4	10.0	5.0	631

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	3.0	3.4	147	43	b13	336	23	8.7	2.4	0.7	0
2	1.5	3.0	4.8	35	26	b13	178	22	8.1	2.2	.7	0
3	1.6	3.0	4.4	16.5	18.5	b12	129	21	7.8	1.9	.6	0
4	1.5	4.2	4.6	b10	b15	b12	118	20	7.4	1.7	.6	0
5	1.6	3.2	4.6	b8.0	b15	b12	94	19.5	6.5	1.6	.5	0
6	1.9	3.0	5.3	b7.0	15	b14	113	17	6.0	1.8	.5	0
7	*1.9	3.0	5.3	b6.0	214	*23	106	15.5	5.8	3.5	.4	0
8	1.9	2.6	4.6	b6.0	*619	158	97	14	5.2	3.0	.4	0
9	1.8	3.0	4.2	b6.0	315	444	81	13	4.4	2.4	.3	0
10	1.8	3.8	4.0	b6.0	58	412	104	13	3.8	*1.9	.3	0
11	1.9	3.6	4.2	b6.0	40	146	*81	12.5	3.6	1.8	.2	0
12	1.9	3.8	4.6	b7.0	35	123	63	12	3.3	1.7	.2	0
13	1.9	3.8	8.0	8.4	29	71	91	11	3.1	1.6	.1	0
14	2.0	4.0	6.2	7.4	35	62	74	12.5	3.1	1.4	.1	.1
15	2.0	4.4	6.8	7.1	54	48	77	16.5	2.8	1.1	0	.1
16	2.0	*5.9	3.6	7.4	67	44	55	19	2.8	1.1	0	.1
17	2.2	5.0	b3.5	7.1	48	44	49	*18	2.8	1.1	0	.1
18	2.3	6.2	b3.3	6.8	28	55	60	15	2.5	1.0	0	.2
19	2.2	6.5	b3.3	6.8	28	66	64	13	2.4	.8	0	.2
20	2.3	5.6	b3.3	7.1	23	58	44	12.5	2.0	.8	0	.2
21	3.8	5.3	b3.3	6.8	23	52	40	11.5	1.8	.7	0	.3
22	5.0	5.0	b3.3	6.8	18	278	92	11	1.7	.7	0	.3
23	3.8	5.0	b3.5	23	18	278	76	10.5	1.5	.6	0	.4
24	3.4	4.8	5.0	33	17.5	86	49	11	1.3	.6	0	.4
25	3.4	5.3	4.0	*170	b17	71	37	15.5	1.5	.5	0	.4
26	3.2	5.0	4.0	83	b18	79	40	15	1.7	.6	0	.5
27	3.0	4.6	*3.6	52	b15	180	37	13	1.7	.7	0	*.5
28	2.8	4.4	4.0	35	b14	374	30	11	1.8	.7	0	.5
29	2.8	4.8	5.9	30	--	469	29	10.5	2.2	.7	0	.5
30	3.0	4.6	95	23	------	336	26	9.4	2.0	.7	*0	.5
31	3.0	------	191	27	------	327	------	9.0	------	.7	0	------*
Total	74.9	129.4	414.6	808.2	1,864.0	4,358	2,470	447.4	109.3	41.9	5.6	5.3
Mean	2.42	4.31	13.4	26.1	66.6	141	82.3	14.4	3.64	1.35	0.18	0.18
Ac-ft	149	257	822	1,600	3,700	8,640	4,900	887	217	83	11	11

Calendar year 1954: Max 191 Min 0.2 Mean 18.9 Ac-ft 13,710
Water year 1954-55: Max 619 Min 0 Mean 29.4 Ac-ft 21,280

Peak discharge (base, 400 cfs).--Dec. 30 (10:30 p.m.) 449 cfs (4.38 ft); Jan. 25 (12:30 a.m.) 444 cfs (4.36 ft); Feb. 9 (5 a.m.) 926 cfs (5.84 ft); Mar. 10 (7 a.m.) 752 cfs (5.35 ft); Mar. 22 (10 p.m.) 604 cfs (4.91 ft); Mar. 29 (8 a.m.) 500 cfs (4.56 ft).
* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Aug. 7-29, Aug. 31 to Sept. 26, Sept. 28-30; discharge estimated on basis of weather records, 1 discharge measurement, and 1 observation of no flow.

Palouse River at Hooper, Wash.

Location.--Lat 46°45'30", long 118°08'50", in SE¼ sec. 27, T. 15 N., R. 37 E., on left bank 150 ft downstream from State Highway 11B bridge 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 1955. 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 Sept. 8, 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.

Extremes.--Maximum discharge during year, 4,140 cfs Feb. 8 (gage height, 9.51 ft); minimum, 5.7 cfs Aug. 26 (gage height, 3.09 ft).
1897-1916, 1951-55: 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 below 100 cfs, which are fair, and those for period of ice effect, which are poor. No regulation. Diversions above station for irrigation, domestic and municipal use.

Revisions (water years).--WSP 1217: Drainage area. WSP 1287: 1897-1904, 1910(M), 1915-16(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.1	6	5.5	415
3.3	13	6.0	640
3.5	25	7.0	1,250
3.7	42	8.0	2,130
4.0	75	9.0	3,360
4.5	153	10.0	4,960
5.0	260		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	91	132	1,830	1,280	283	1,800	926	491	110	38	9.8
2	67	87	125	872	808	288	2,090	980	471	105	36	9.4
3	65	87	128	535	545	285	1,620	1,110	419	153	34	9.0
4	65	87	139	377	398	b205	1,310	1,130	366	137	35	10
5	63	87	130	339	345	b200	1,200	1,060	345	*91	30	12
6	61	94	132	324	342	b220	1,120	1,020	339	73	26	10.5
7	*60	92	149	306	610	258	1,420	1,170	333	104	26	9.4
8	58	87	132	294	*3,390	595	1,620	1,270	324	99	24	9.8
9	60	87	120	294	2,690	690	1,720	1,220	312	102	14	10.5
10	61	85	127	283	1,380	2,050	1,700	1,220	300	107	16	12
11	58	85	115	262	992	1,280	1,910	1,080	280	126	20	10
12	59	87	113	245	848	1,000	*1,960	968	260	116	17	9.8
13	60	89	130	253	782	980	1,670	998	233	108	14	12
14	60	94	139	333	690	788	1,760	1,090	228	95	13.5	12.5
15	61	99	161	262	650	710	1,660	1,040	211	91	11.5	13
16	62	*101	128	248	675	620	1,320	908	182	83	10.5	15.5
17	67	102	123	231	650	580	1,140	776	158	101	10	19
18	68	118	95	224	560	600	1,080	720	144	76	13	22
19	63	135	b90	213	459	640	1,310	705	144	65	13.5	30
20	64	149	b90	203	384	675	1,360	695	140	67	11	31
21	71	211	b90	203	370	635	1,210	752	128	62	9.0	29
22	80	220	b95	196	355	605	1,340	944	123	50	16	29
23	89	194	b100	226	363	2,000	2,350	*962	108	50	13.5	31
24	98	166	b100	*764	324	1,210	2,250	818	105	48	9.8	37
25	87	159	110	1,900	324	872	1,700	715	104	45	7.2	36
28	89	142	110	1,670	321	735	1,390	710	94	40	6.3	*35
27	105	144	101	980	294	854	1,420	640	102	42	7.2	38
28	104	142	96	680	291	1,420	1,310	610	105	42	7.2	40
29	98	138	121	504	-	1,910	1,110	575	118	40	9.8	41
30	89	127	163	451	------	2,630	992	522	113	39	*9.8	43
31	94	------	*1,150	405	------	1,990	------	491	------	39	8.4	------
Total	2,249	3,586	4,734	15,907	21,118	27,788	45,842	27,825	6,780	2,506	517.2	636.2
Mean	72.5	120	153	513	754	896	1,528	898	226	80.8	16.7	21.2
Ac-ft	4,460	7,110	9,390	31,550	41,890	55,120	90,930	55,190	13,450	4,970	1,030	1,260

Calendar year 1954: Max 3,020 Min 23 Mean 472 Ac-ft 342,000
Water year 1954-55: Max 3,390 Min 6.3 Mean 437 Ac-ft 316,400

Peak discharge (base, 3,700 cfs).--Feb. 8 (6 a.m.) 4,140 cfs (9.51 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Cow Creek at Danner, Oreg.

Location (revised).--Lat 42°57', long 117°20', in sec. 16, T. 30 S., R. 44 E., a quarter of a mile upstream from highway bridge, half a mile upstream from mouth, three-quarters of a mile north of Danner, and 15 miles west of Jordan Valley.
Drainage area.--330 sq mi, approximately.
Records available.--March to June 1914, February to May 1920, May to July 1930 (discontinued). Published as "at mouth, near Jordan Valley" March to May 1914.
Gage.--Staff gage and sharp-crested weir. Altitude of gage is 4,210 ft (by barometer). Mar. 14 to June 16, 1914, Feb. 3 to May 24, 1920, staff gage at about same site at various datums.
Extremes.--1914, 1920, 1930: Maximum discharge not determined; maximum daily discharge, 620 cfs Mar. 8, 1914; no flow observed Apr. 21, 22, 1920.
Remarks.--Diversions for irrigation of about 7,000 acres above station. Two small ditches divert above station for irrigation of 70 acres below station. Beginning prior to 1920, flow regulated by Upper Cow Creek Lake and Lower Cow Creek Reservoirs (dams not completed until after 1920).
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1914, superseding those published in WSP 393, are given herewith:

1914
Mar. 9..... 600
10..... 570
11..... 540
12..... 450

Month	Maximum	Minimum	Mean	Runoff in acre-feet
March 1914.....	620	137	†356	21,900

† Partly estimated.

Owyhee River above Owhyee Reservoir, Oreg.

Location.--Lat 43°12' (revised), long 117°30', in SE¼ sec. 18, T. 27 S., R. 43 E., on left bank 3 miles upstream from flow line of Owyhee Reservoir and 26 miles northeast of Rome.
Drainage area.--10,400 sq mi, approximately.
Records available.--April 1929 to September 1951 (discontinued). Monthly discharge only for same periods, published in WSP 1317.
Gage.--Water-stage recorder. Altitude of gage is 2,690 ft (levels by Bureau of Reclamation).
Average discharge.--22 years, 851 cfs (revised).
Extremes.--1929-51: Maximum discharge, 16,000 cfs Mar. 20, 1932, Apr. 19, 1936; maximum gage height, 12.95 ft Mar. 20, 1932; minimum discharge, 99 cfs Dec. 18, 1948 (gage height, 3.45 ft).
Remarks.--Diversions above station for irrigation. Flow slightly regulated by 11 small reservoirs which have a total capacity of 52,000 acre-ft.
Revisions (water years).--WSP 793: 1932(M). Revised figures or discharge, in cubic feet per second, for the water years 1939 and 1940, superseding those published in WSP 883 and 903, are given herwith:

Date	Discharge	Date	Discharge	Date	Discharge
1938		1938-Con.		1938-Con.	
Dec. 10	260	Dec. 19	240	Dec. 26	220
11	230	20	250	27	240
12	210	21	250		
13	210	22	230	1940	
14	220	23	230	Mar. 1-31	†2,250
17	220	24	230	Apr. 1-16	†2,520
18	230	25	230		

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1938.....	7,603	293	210	245	15,080
Calendar year 1938.....	462,291	12,500	133	1,267	916,900
Water year 1938-39.....	284,528	11,200	180	780	564,300
March 1940.....	69,700	-	-	2,250	138,200
April.....	60,074	-	944	2,002	119,200
Water year 1939-40.....	230,708	6,400	132	630	457,600
Calendar year 1940.....	237,356	6,400	132	649	470,800

Owyhee River near Owyhee, Oreg.

Location.--Lat 43°46'40", long 117°04'00", in N½ sec. 2, T. 21 S., R. 46 E., at county bridge, 1½ miles southwest of Owyhee and 2¼ miles north of Adrian.
Drainage area.--About 11,300 sq mi (revised).
Records available.--March 1890 to June 1891, February to June 1892, February to July 1893, October to December 1893, January 1895 to May 1897, August 1903 to September 1916, May 1920 to July 1929 (discontinued). July 1891 to January 1892, July 1892 to January 1893, August to September 1893, gage heights only (published figures of discharge for those periods have been found unreliable and should not be used).
Gage.--Chain gage. Altitude of gage is 2,200 ft (from topographic map). Mar. 26, 1890, to Dec. 31, 1893, Jan. 1, 1895, to May 15, 1897, staff gage at different datum. Aug. 27, 1903, to July 27, 1904, staff gage, and July 28, 1904, to Sept. 30, 1916, chain gage, at datum about 0.05 ft higher.
Average discharge.--20 years (1895-96, 1903-1916, 1921-1927), 1,048 cfs.
Extremes.--1890-93, 1895-96, 1903-16, 1920-29: Maximum discharge, 29,000 cfs (revised) Mar. 2, 1910 (gage height, 12.9 ft, datum then in use), from rating curve extended above 14,000 cfs by logarithmic plotting; no flow July 7, 19, Aug. 14-16, 1924, July 5, 6, 1926.

Revisions.--The maximum discharge for the water year 1910 has been revised to 29,000 cfs Mar. 2, 1910 (gage height, 12.9 ft, datum then in use), from rating curve extended above 14,000 cfs by logarithmic plotting, superseding figure published in WSP 370.

Remarks.--Many diversions for irrigation above station. Owyhee Canal diverts about 6 miles above station for irrigation largely below, but partly above, the station. Two waste-ways of Owyhee Canal return flow to river above station. Flow regulated by numerous small reservoirs and since 1914, by Antelope Reservoir (capacity since 1924, about 36,600 acre-ft).
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1890, 1891, 1904, 1909, 1910, and 1929, superseding those published in WSP 370 and 693, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1890		1890-Con.		1890-Con.		1891-Con.		1910-Con.	
Aug. 1	190	Sept. 7	150	Oct. 14	150	Feb. 21	450	Mar. 9	12,400
2	190	8	150	15	150	22	600	10	10,600
3	190	9	150	16	150			11	9,960
4	190	10	150	17	150	1904		15	10,900
5	190	11	150	18	150	Feb. 24	25,500	16	10,600
6	190	12	150	19	150	25	14,200	17	12,000
7	150	13	150	20	150	26	13,400	18	12,000
8	150	14	150	21	150	27	10,700	19	14,200
9	150	15	150	22	150	28	9,180	20	15,700
10	150	16	150	23	150			21	17,000
11	150	17	150	24	150	1908		22	14,600
12	150	18	150	25	150	Dec. 16	350	23	10,600
13	150	19	150	26	150	17	350	24	10,300
14	150	20	150	27	150	18	350	25	9,800
15	150	21	150	28	150	19	300	26	9,800
16	150	22	150	29	150	20	250	27	9,650
17	150	23	150	30	150	21	250	28	9,500
18	150	24	150	31	150	22	250	29	9,060
19	150	25	150			23	300	Dec. 13	680
20	150	26	150	1891		24	300	14	300
21	150	27	150	Feb. 1	350	25	350	15	200
22	150	28	150	2	310	26	350	16	250
23	150	29	150	3	310	27	400	17	250
24	150	30	150	4	370	28	400	18	250
25	150	Oct. 1	150	5	400	29	400	19	250
26	150	2	150	6	400	30	400	20	250
27	150	3	150	7	350	31	400	21	250
28	150	4	150	8	280			22	250
29	190	5	150	9	300	1910		23	300
30	190	6	150	10	330	Mar. 1	21,800		
31	150	7	150	11	400	2	29,000	1929	
Sept. 1	150	8	150	15	450	3	25,000	Mar. 2	2,250
2	150	9	150	16	400	4	23,200	May 7	1,890
3	150	10	150	17	370	5	19,600	8	1,890
4	150	11	150	18	330	6	17,400		
5	150	12	150	19	330	7	15,300		
6	150	13	150	20	400	8	14,200		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
August 1890	190	150	160	9,840
September	150	150	150	8,930
October 1890	150	150	150	9,220
February 1891	3,260	280	813	45,200
February 1904	25,500	206	4,170	240,000
Water year 1903-04	25,500	4	1,530	1,110,000
Calendar year 1904	25,500	4	1,540	1,120,000
December 1908	400	132	247	15,200
Calendar year 1908	4,460	25	460	334,000
Water year 1908-9	14,500	42	1,630	1,180,000
March 1910	29,000	7,700	13,400	824,000
Water year 1909-10	23,000	25	1,990	1,440,000
December 1910	680	200	320	19,700
Calendar year 1910	29,000	25	1,940	1,400,000
Water year 1910-11	14,200	2	1,430	1,030,000
March 1929	13,000	700	3,330	205,000
May	2,380	765	1,400	86,100

Malheur River at Jones' ranch, near Drewsey, Oreg.

Location.--Lat 43°52', long 118°34', in SW¼NW¼ sec. 5, T. 20 S., R. 34 E., 350 ft downstream from head of Jones-Muller ditch, an eighth of a mile downstream from Pine Creek, and 10 miles (revised) northwest of Drewsey.
Drainage area.--530 sq mi, approximately.
Records available.--March to September 1914 (discontinued).
Gage.--Staff gage. Altitude of gage is 3,690 ft (by barometer).
Extremes.--Maximum discharge observed during period, 1,740 cfs (revised) Apr. 6, 1914 (gage height, 5.0 ft), from rating curve extended above 920 cfs by logarithmic plotting; minimum observed, 22 cfs Aug. 22, 23, 26, 27, 1914.

Revisions.--The maximum discharge for the period March to September 1914 has been revised to 1,740 cfs Apr. 6, 1914 (gage height, 5.0 ft), from rating curve extended above 920 cfs by logarithmic plotting, superseding figure published in WSP 393.

Remarks.--Diversions for irrigation of about 4,400 acres above station. Jones-Muller ditch diverts above station for irrigation of about 90 acres below station. No known regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1914, superseding those published in WSP 393, are given herewith:

1914		1914-Con.	
Apr. 5	1,300	Apr. 12	1,300
6	1,740	13	1,200
7	1,620	14	1,200
8	1,160	15	1,300
9	1,300	16	1,300
10	1,300	17	1,200
11	1,300		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
April 1914	1,740	432	977	58,100

South Fork Malheur River at Riverside, Oreg.

Location.--Lat 43°32', long 118°10', in NW¼ sec. 27, T. 23 S., R. 37 E., 1,000 ft upstream from mouth and 1 mile northwest of Riverside.
Drainage area.--630 sq mi, approximately.
Records available.--May 1910 to January 1915, May 1919 to July 1920 (fragmentary), March 1927 to August 1929 (fragmentary), June to October 1938 (discontinued). Monthly discharge only for some periods, published in WSP 1317.
Gage.--Staff gage and sharp-crested weir. Altitude of gage is 3,270 ft (by levels to approximate gage datum). May 25, 1910, to Jan. 23, 1915, May 20, 1919, to July 16, 1920, Mar. 10, 1927, to Aug. 31, 1929, May 24 to June 7, 1938, staff gage at several sites within 200 ft of described site at various datums.
Extremes.--1910-15, 1919-20, 1927-29, 1938: Maximum discharge observed, 2,770 cfs (revised) Apr. 26, 1912 (gage height, 8.0 ft, site and datum then in use, from graph based on gage readings), from rating curve extended above 610 cfs; no flow for several days in some years.

Revisions.--The maximum discharge for the water year 1912 has been revised to 2,770 cfs Apr. 26, 1912 (gage height, 8.0 ft, site and datum then in use, from graph based on gage readings), from rating curve extended above 610 cfs, superseding figure published in WSP 413.

Remarks.--Many diversions for irrigation of about 5,000 acres above station. Flow regulated by several small reservoirs having a combined capacity of about 7,000 acre-ft.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1911-13, superseding those published in WSP 312, 332, and 362, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1911		1911-Con.		1911-Con.		1912-Con.		1913-Con.	
Feb. 4	43	Feb. 17	26	Feb. 27	31	Apr. 26	1,530	Feb. 16	411
5	41	18	28	28	32	27	630	17	335
7	36	21	28	Dec. 1-31	†17	28	570	19	54
8	34	22	27			29	430	20	47
9	33	23	26	1912				21	35
12	33	24	26	Apr. 23	570	1913		22	30
13	28	25	27	24	1,320	Feb. 14	95	23	24
14	26	26	29	25	1,560	15	545	24	19

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
February 1911	413	25	49.2	2,730
Water year 1910-11	1,210	9	68.6	49,600
December 1911	-	-	17	1,050
Calendar year 1911	1,210	10	67.8	49,000
April 1912	1,560	64	298	17,700
Water year 1911-12	1,560	6	63.5	46,000
Calendar year 1912	1,560	6	61.5	44,600
February 1913	545	15	83.9	4,660

Malheur River at Riverside, Oreg.

Location.--Lat 43°32', long 118°10', in SW¼ sec. 22, T. 23 S., R. 37 E., at bridge 300 ft downstream from South Fork and three-quarters of a mile northwest of Riverside.
Drainage area.--1,750 sq mi (revised), approximately.
Records available.--January 1909 to January 1915 (discontinued). Prior to October 1911, published as Middle Fork Malheur River at Riverside. Monthly discharge only for some periods, published in WSP 1317.
Gage.--Staff or chain gage. Datum of gage is 3,264.70 ft above mean sea level (Oregon Eastern Railway benchmark).
Extremes.--1909-10: Maximum discharge during water year, 11,500 cfs (revised) Mar. 1 (gage height, 11.60 ft, from floodmark), from rating curve extended above 900 cfs; minimum observed, 2 cfs Aug. 9.
1911-12: Maximum discharge observed during water year, 2,500 cfs Apr. 24 (gage height, 4.65 ft); minimum observed, 22 cfs July 26-29.
1909-15: Maximum discharge, that of Mar. 1, 1910; minimum observed, that of Aug. 9, 1910.
Revisions.--Figures of maximum discharge for the water years 1910 and 1914 have been revised to 11,500 cfs Mar. 1, 1910 (gage height, 11.60 ft, from floodmark), from rating curve extended above 900 cfs and 2,050 cfs Mar. 17, 18, 1914 (gage height, 4.4 ft), superseding those published in WSP 413 and 393, respectively.
Remarks.--Diversions for irrigation of about 16,000 acres above station. Some regulation by two small reservoirs on tributaries of the South Fork having a combined capacity of about 5,000 acre-ft.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1909-14, superseding figures published in WSP 272, 292, 312, 332, 362, and 393, are given herein. Complete tables of daily discharge are given for the water years 1909-10, and 1912, but only revised discharges are given for other water years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1911		1912-Con.		1913-Con.		1913-Con.		1914-Con.	
Feb. 5	210	Oct. 10	66	May 5	362	July 26	235	May 4	352
6	200	11	66	6	340	27	215	5	450
7	190	12	66	7	360	28	195	6	400
8	190	13	63	8	385	29	180	7	400
9	210	14	66	9	410	30	160	8	400
14	180	15	66	10	435			9	352
15	160	16	66	11	435	1914		10	352
16	150	17	66	12	385	Mar. 2	1,200	11	332
17	150	18	66	13	385	3	754	12	352
18	160	19	66	14	385	4	754	13	352
20	175	20	69	15	352	7	1,520	14	352
23	170	21	69	16	320	11	1,520	15	352
24	160	22	72	17	340	16	1,930	16	352
25	165	23	74	18	320	17	2,050	17	352
26	175	24	74	19	300	18	2,050	18	400
27	190	25	74	20	320	19	1,930	19	400
28	195	26	66	21	310	20	1,930	20	400
		27	66	22	300	24	1,300	21	400
1912		28	74	23	280	25	1,100	22	450
Oct. 1	58	29	74	24	265	26	794	23	450
2	58	30	74	25	280	27	754	24	400
3	58	31	74	26	320	28	714	25	400
4	63			27	340	29	690	26	376
5	58	1913		28	385	30	636	27	352
6	58	May 1	520	29	385	31	636	28	332
7	63	2	490	30	435	May 1	508	29	332
8	63	3	385	31	385	2	450	30	312
9	66	4	385	July 25	435	3	400	31	375

Month	Maximum	Minimum	Mean	Runoff in acre-feet
Calendar year 1910.....	8,650	2	425	308,000
February 1911.....	1,590	150	263	14,600
Water year 1910-11.....	2,800	14	258	187,000
October 1912.....	74	58	66.5	4,090
Calendar year 1912.....	2,430	22	285	207,000
May 1913.....	520	265	364	22,400
July.....	435	42	132	8,120
March 1914.....	2,050	636	1,380	84,800
May.....	508	312	383	23,600
Calendar year 1914.....	2,050	2.6	321	232,000

Malheur River at Riverside, Oreg.--Continued

Discharge, in cubic feet per second, January to September 1909

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				140	200	315	560	440	260	93	24	5
2				250	200	490	610	395	260	77	32	7
3				300	200	490	710	395	230	93	24	5
4				380	200	760	720	355	295	77	17	17
5				330	200	620	520	355	330	93	7	11
6				310	150	550	510	395	295	77	5	17
7				410	150	490	470	395	260	93	3	11
8				350	150	490	430	315	260	77	5	17
9				290	*195	440	470	355	260	93	3	11
10				240	220	355	510	355	230	77	5	195
11				240	280	395	560	315	230	77	3	129
12				240	280	355	560	315	200	63	5	150
13				300	490	355	520	315	170	93	3	129
14				350	1,190	490	660	315	160	51	5	150
15				800	490	440	720	160	160	51	3	129
16				2,380	490	440	770	160	130	41	5	195
17				3,000	2,490	490	830	180	130	51	3	110
18				2,000	1,500	490	830	180	130	41	5	129
19				1,800	920	490	690	180	130	41	3	129
20				2,800	620	440	690	150	130	32	5	150
21				2,500	315	355	550	125	130	41	3	129
22				1,800	315	*355	490	125	130	32	5	150
23				1,000	395	315	490	150	130	41	3	129
24				600	395	395	490	150	130	32	5	172
25				450	440	490	490	180	130	32	3	150
26				380	355	490	490	180	94	24	5	172
27				330	355	490	440	180	93	32	3	150
28				300	440	690	490	220	77	24	5	172
29				280	-	840	490	270	93	32	3	172
30				260	------	760	440	270	77	24	5	220
31		------		250	------	550	------	270	------	32	7	------
Total				25,060	13,625	15,115	17,200	8,145	5,334	1,737	212	3,312
Mean				808	487	488	573	263	178	56.0	6.8	110
Ac-ft				49,700	27,000	30,000	34,100	16,200	10,600	3,440	418	6,550

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

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 1-15, Jan. 17 to Feb. 8, Apr. 1-18, May 15 to June 26; discharge estimated on basis of records for Malheur River above South Fork at Riverside and John Day River at McDonald Perry.

Discharge, in cubic feet per second, water year October 1909 to September 1910

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195	195	120			8,650	*920	395	93	14	11	17
2	220	150	110			6,500	1,000	395	77	17	9	17
3	172	150	80			4,700	840	395	77	14	7	24
4	195	110	60			3,440	920	440	77	14	7	24
5	172	110	60			3,800	1,000	395	70	14	6	24
				50								
6	195	93	66		100	3,080	920	355	70	11	5	24
7	172	110	74			2,600	1,090	355	57	14	4	24
8	195	110	90			2,380	1,090	355	51	14	3	24
9	172	129	90			2,540	1,090	355	51	11	2	28
10	172	129	78			2,380	1,190	355	46	11	3	32
11	150	110	76			2,840	1,290	355	51	14	5	32
12	150	150				2,720	1,190	395	46	14	7	32
13	129	129				2,380	1,090	395	41	14	6	32
14	150	150				2,600	1,000	315	32	14	5	32
15	129	129				2,600	840	280	32	14	5	32
				70								
16	150	150				2,600	840	250	32	11	5	51
17	110	129				2,380	760	280	28	11	6	41
18	129	93			500	2,380	690	250	28	11	6	41
19	110	93				2,490	550	220	24	17	6	46
20	129	77				2,840	490	195	24	14	7	46
21	129	*93	60			4,760	440	220	24	14	7	51
22	150	195				3,080	440	172	28	17	7	51
23	129	250				3,320	550	172	24	14	9	46
24	172	395				3,200	355	150	24	14	9	46
25	150	315			1,720	1,610	395	*129	20	14	11	41
				170								
26	172	250			2,490	2,490	395	120	24	14	14	41
27	150	160			1,720	1,720	440	120	20	11	14	41
28	172	160			5,850	1,190	490	120	17	11	14	41
29	150	130			-	1,190	440	102	17	11	11	41
30	195	130			------	840	395	93	14	11	11	41
31	172	------			------	490	------	93	------	11	17	------
Total	4,937	4,574	2,104	3,070	19,380	89,790	23,140	8,221	1,219	410	239	1,063
Mean	159	152	67.9	99.0	692	2,900	771	265	40.6	13.2	7.7	35.4
Ac-ft	9,780	9,040	4,180	6,090	38,400	178,000	45,900	16,300	2,420	812	474	2,110

Calendar year 1909:	Max 3,000	Min 3	Mean 278	Ac-ft	201,000
Water year 1909-10:	Max 8,650	Min 2	Mean 433	Ac-ft	314,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 26 to Feb. 24 (no gage-height record Feb. 16-22).

Malheur River at Riverside, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1911 to September 1912

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	73			192	171	557	1,600	588	134	27	29
2	67	73			179	184	588	1,710	a572	145	31	29
3	61	73			154	156	652	1,430	556	134	36	36
4	61	73			120	147	652	1,080	a572	134	31	44
5	61	73			120	169	652	1,080	588	134	a31	41
				50								
6	61	73			120	169	528	1,030	588	112	a31	43
7	61	80			142	176	448	941	a606	92	a32	48
8	61	80			142	182	528	1,080	623	92	a32	58
9	61	87			166	192	588	985	a612	a92	32	51
10	73	87			448	195	686	985	a600	92	32	58
11	73	87			619	203	835	985	588	83	38	a62
12	80	95			500	187	1,000	897	588	74	32	66
13	80	95			356	182	1,050	813	a588	66	27	66
14	73	95			*264	225	876	813	588	58	a27	63
15	73	95		250	248	264	1,000	813	493	58	27	66
			70									
16	73	103			*280	214	557	813	463	48	29	51
17	73	103			448	234	588	855	658	51	32	54
18	73	112			1,330	214	557	855	a457	51	27	51
19	73	95			619	192	686	813	256	80	29	51
20	73	95		219	356	166	686	813	206	46	a29	54
21	67	95		219	316	147	588	733	192	46	29	54
22	67	87		219	316	142	686	696	177	38	a30	51
23	73	87		219	197	147	1,050	623	177	38	32	54
24	80	80		142	192	231	2,310	588	164	38	32	a56
25	80	80		142	179	448	2,310	588	151	37	31	58
26	80	73		400	187	588	2,430	556	140	22	36	a58
27	73	80		316	174	557	2,430	623	128	22	27	58
28	67	80		280	192	758	1,270	658	140	22	32	63
29	67	80		219	174	686	1,270	658	118	22	32	58
30	73	80		192	------	557	1,430	623	128	25	a30	58
31	73	------		192	------	448	------	588	------	27	27	------
Total	2,178	2,569	2,170	5,509	8,730	8,531	29,488	27,325	12,305	2,113	950	1,589
Mean	70.3	85.6	70	178	301	275	983	881	410	68.2	30.6	53.0
Ac-ft	4,320	5,090	4,300	10,900	17,300	16,900	58,500	54,200	24,400	4,190	1,880	3,150

Calendar year 1911: Max 2,800 Min 14 Mean 253 Ac-ft 183,000
Water year 1911-12: Max 2,430 Min 22 Mean 283 Ac-ft 205,000

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.--Stage-discharge relation affected by ice Nov. 27 to Jan. 19.

North Fork Malheur River at Foley's ranch, near Beulah, Oreg.

Location.--Lat 43°49', long 118°10', in sec. 22, T. 20 S., R. 37 E., 6 miles south of Beulah and 8 miles (revised) upstream from mouth at Juntura.

Drainage area.--470 sq mi (revised), approximately.

Records available.--March 1909 to June 1912, November 1913 to July 1914 (discontinued). Prior to November 1913, published as North Fork Malheur River near Beulah, Oreg.

Gage.--Staff gage. Altitude of gage is 3,160 ft (by barometer). Prior to May 26, 1910, chain gage at site 300 ft upstream at different datum.

Extremes.--1909-12, 1913-14: Maximum discharge, 5,910 cfs Mar. 20, 1910 (gage height, 8.84 ft, from floodmark), from rating curve extended above 550 cfs; minimum observed, 12 cfs Aug. 16-18, Dec. 11, 1911.

Remarks.--Diversions for irrigation of about 3,700 acres above station. No regulation.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1910-11, superseding those published in WSP 292 and 312, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1910		1910-Con.		1911-Con.		1911-Con.	
Jan.1-31	†60	Dec. 31	60	Jan. 12	35	Jan. 28	70
Dec. 23	70			13	35	Mar. 20	621
24	95	1911		14	35	21	570
25	75	Jan. 1	45	15	35	22	673
26	75	2	40	16	35	23	948
27	70	3	45	24	40	24	835
28	75	4	50	25	60	25	780
29	75	5	50	26	80		
30	80	6	58	27	80		

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1910.....	-	-	60	3,690
Water year 1909-10.....	4,900	-	205	148,000
December 1910.....	131	51	77.8	4,780
Calendar year 1910.....	4,900	-	205	148,000
January 1911.....	112	-	55.5	3,410
March.....	948	64	274	16,800
Water year 1910-11.....	948	-	95.1	68,800
Calendar year 1911.....	948	-	92.0	66,500

North Fork Malheur River at Juntura, Oreg.

Location.--Lat 43°45', long 118°04', in NE¼NE¼ sec. 17, T. 21 S., R. 38 E., at road bridge, half a mile northwest (revised) of Juntura.

Drainage area.--530 sq mi, approximately.

Records available.--June 1919 to July 1922, July 1926 to September 1932, July 1935 to September 1940 (discontinued); all records fragmentary.

Gage.--Water-stage recorder. Altitude of gage is 2,940 ft (by barometer). May 21, 1919, to July 30, 1922, at site three-quarters of a mile downstream at different datums.

Extremes.--1912-22, 1926-32, 1935-40: Maximum discharge observed, 1,160 cfs Mar. 28, 1940 (gage height, 5.14 ft), from rating curve extended above 320 cfs by logarithmic plotting; practically no flow Aug. 28-30, Sept. 2, 1931.
Flood of May 7, 1942, reached a stage of 7.95 ft, from floodmark (discharge not determined, caused by failure of gates at Agency Valley Reservoir dam).

Remarks.--Diversions for irrigation of about 6,300 acres above station. Ditch diverts 5 to 10 cfs above station for irrigation below station. Flow regulated by Agency Valley Reservoir since December 1935.

Revisions.--Revised figure of discharge, in cubic feet per second, for the water year 1920, superseding that published in WSP 513, is given herewith:

Aug. 3, 1920..... 21

Month	Maximum	Minimum	Mean	Runoff in acre-feet
August 1920.....	38	11	21.4	1,320

Malheur River near Namorf, Oreg.

Location.--Lat 43°47', long 117°46', in SW¼ sec. 36, T. 20 S., R. 40 E., 1½ miles west of Namorf, 2 miles upstream from Vale-Oregon Canal diversion dam, and 10 miles southwest of Harper.
Drainage area.--2,590 sq mi, approximately.
Records available.--May 1913 to September 1923, June 1926 to September 1931 (discontinued). Published as "at Namorf" 1926-29. Monthly discharge only for some periods, published in WSP 1317.
Gage.--Water-stage recorder. Altitude of gage is 2,840 ft (by barometer). May 24, 1913, to Dec. 31, 1923, staff gage at different datums 1½ miles upstream. June 12, 1926, to November 1930, water-stage recorder 2½ miles downstream at different datum.
Average discharge.--7 years (1919-23, 1926-29), 357 cfs.
Extremes.--Maximum and minimum discharges for the water years 1916, 1919-21, and 1929, are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1916	Feb. 7, 1916	8,450	†9.1	-	-	-
1919	Apr. 1, 5, 1919	‡2,940	4.62	-	-	-
1920	Jan. 27, 1920	*2,940	4.6	-	-	-
1921	Feb. 11, 1921	‡3,950	5.23	Oct. 1-5, 1920	43	1.04
1929	May 18, 1929	*796	2.99	Nov. 20, 1928	58	.90

* Revised.
† From floodmark.
‡ Observed.

1913-23, 1926-31: Maximum discharge, 8,450 cfs Feb. 7, 1916 (gage height, 9.1 ft, site and datum then in use, from floodmark), from rating curve extended above 3,800 cfs; minimum, 6 cfs (revised) Sept. 17, 1931.

Flood of Mar. 1 or 2, 1910, reached a stage of 11.3 ft (by levels to 1918 datum), from floodmarks (discharge, 16,500 cfs, revised). Flood of March 1894 reached a stage about 0.3 ft higher than that of Mar. 1 or 2, 1910.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
393	1914	Mar. 18, 1914	a2,970	5.8
463	1917	Feb. 26, 1917	4,250	b8.1
513	1920	Jan. 27, 1920	2,940	4.6
693	1929	May 18, 1929	796	2.99

a Observed.
b Backwater from ice.

Remarks.--Diversions for irrigation of about 25,000 acres above station. Flow regulated by Warmsprings Reservoir since November 1919 and by small reservoirs on tributaries of South Fork Malheur River.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1913-14, 1916-23, 1927, and 1929, superseding figures published in WSP 362, 393, 443, 463, 483, 513, 533, 553, 573, 653, and 693, are given herein. Complete tables of daily discharge are given for the water years 1916, 1919-21, and 1929, but only revised discharges are given for other water years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1913		1913-Con.		1913-Con.		1914-Con.		1917-Con.	
Aug. 1	144	Aug. 31	57	Sept.28	97	Aug. 24	50	Aug. 3	32
2	120	Sept. 1	63	29	97	25	53	4	30
3	112	2	57	30	112	26	53	5	30
4	112	3	53			27	53	6	28
7	128	4	57	1914		28	53	7	28
8	112	5	63	Aug. 1	35	29	57	8	32
9	97	6	63	2	35	30	57	9	28
10	112	7	63	3	35	31	57	10	30
11	120	8	63	4	35			11	28
12	103	9	63	5	35	1917		12	28
13	92	10	63	6	35	Feb. 1	160	13	28
14	92	11	57	7	31	2	180	14	28
15	92	12	57	8	25	6	250	15	28
16	92	13	63	9	25	7	220	16	28
17	92	14	63	10	25	8	200	17	28
18	85	15	69	11	31	9	190	18	30
19	73	16	69	12	35	10	190	19	32
20	73	17	69	13	37	11	200	20	30
21	73	18	73	14	37	17	240	21	28
22	73	19	73	15	37	18	220	22	23
23	73	20	73	16	37	19	210	23	23
24	69	21	73	17	37	20	200	24	23
25	63	22	73	18	40	21	200	25	23
26	63	23	78	19	40	22	220	26	23
27	63	24	85	20	45	23	250	27	23
28	63	25	85	21	45	26	2,860	28	23
29	63	26	85	22	50	Aug. 1	30	29	23
30	63	27	85	23	50	2	28	30	23

Malheur River near Namorf, Oreg.--Continued

Revised figures of discharge, in cubic feet per second, for the water years 1913-14, 1916-23, 1927, and 1929--Continued

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1917-Con.		1917-Con.		1918-Con.		1918-Con.		1922-Con.	
Aug. 31	25	Sept.17	47	Jan. 8	170	Feb. 20	100	Dec. 15	70
Sept. 1	25	18	52	9	150	21	120	16	75
2	28	19	52	10	120	22	140	17	80
3	32	20	52	11	130	23	150	18	85
4	32	21	52	12	150				
5	30	22	52	15	180	1922		1927	
6	28	23	56	16	190	Jan. 10-23	†65	Feb. 17	170
7	28	24	78	19	150	May 15	1,280	18	200
8	28	25	78	26	150	16	1,290	19	250
9	25	26	78	27	160	Dec. 7	100	20	350
10	28	27	74	29	150	8	95	21	1,140
11	28	28	78	30	130	9	95	22	1,310
12	25	29	68	31	80	10	95		
13	28	30	59	Feb. 1	100	11	90		
14	32			14	170	12	85		
15	34	1918		15	140	13	80		
16	44	Jan. 7	180	19	130	14	75		

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
August 1913	250	57	96.2	5,920
September	112	53	71.5	4,250
August 1914	57	25	41.0	2,520
Water year 1913-14	2,970	25	525	380,000
Calendar year 1914	2,970	25	519	376,000
February 1917	2,860	160	372	20,700
August	32	23	27.2	1,670
September	78	25	45.0	2,680
Water year 1916-17	2,860	23	416	301,000
Calendar year 1917	2,860	23	415	301,000
January 1918	237	80	172	10,600
February	359	100	183	10,200
Water year 1917-18	1,240	20	177	128,000
January 1922	106	-	76.8	4,720
May	2,330	960	1,670	103,000
Water year 1921-22	3,210	-	502	363,000
December 1922	120	70	92.0	5,660
Calendar year 1922	3,210	-	507	367,000
Water year 1922-23	500	-	222	160,000
February 1927	1,310	100	383	21,300
Water year 1926-27	1,310	46	367	266,000
Calendar year 1927	1,310	53	365	265,000

Discharge, in cubic feet per second, water year October 1915 to September 1916

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	119	151			543	1,520	1,760	580	415	68	56
2	57	116	191			446	2,150	1,640	580	476	68	59
3	57	116	191			387	2,710	1,520	543	510	68	59
4	57	116	178		523	404	2,430	1,520	510	510	59	59
5	63	125	178			476	2,430	1,580	510	446	47	63
6	69	125	178			698	2,150	1,640	543	404	47	59
7	63	125	178		6,580	698	2,150	1,640	543	359	52	59
8	63	125	178		4,890	617	2,150	1,640	580	349	52	59
9	69	125	178		2,430	786	2,150	1,520	617	307	52	59
10	69	132	170		2,860	1,520	2,290	1,300	617	297	52	59
11	69	132	170		*4,250	2,430	2,710	1,190	698	282	56	59
12	73	125	151	85	2,290	2,570	3,460	1,080	658	268	59	59
13	73	132	150		1,140	2,860	2,860	980	698	268	59	59
14	73	125	150		742	2,860	2,430	880	580	212	59	68
15	78	106	140		698	2,570	2,430	786	580	191	78	78
16	86	132	130		617	2,290	2,430	786	580	191	90	78
17	94	140	120		658	2,020	2,290	617	617	170	74	68
18	94	162	100		617	2,430	2,290	617	617	170	59	59
19	99	162	90		617	3,010	2,150	698	698	170	68	59
20	94	162	120		698	3,610	1,890	880	786	151	68	59
21	99	170	133		698	4,410	1,640	880	880	132	68	59
22	99	170	183		698	3,770	1,640	880	698	125	68	59
23	99	170	212	200	742	2,570	1,640	786	617	116	59	63
24	99	170	226	*400	786	2,020	1,760	698	543	106	59	63
25	99	170	241	1,400	880	1,640	1,640	658	476	99	59	63
26	106	170	195	880	880	1,410	1,890	786	*446	94	59	63
27	99	162	169	500	786	1,520	2,020	698	415	94	59	74
28	106	204	140	350	742	1,830	*2,150	658	446	86	59	78
29	106	132	100	250	698	1,640	2,020	617	415	78	59	78
30	116	212	37	200	-----	1,580	1,890	580	415	78	59	78
31	116	-----	73	150	-----	1,410	-----	617	-----	73	59	-----
Total	2,597	4,332	4,801	6,200	39,135	57,025	65,360	32,132	17,486	7,227	1,902	1,915
Mean	83.8	144	155	200	1,350	1,840	2,180	1,040	583	233	61.4	63.8
Ac-ft	5,150	8,570	9,530	12,300	77,600	113,000	130,000	64,000	34,700	14,300	3,780	3,800

Calendar year 1915: Max 1,110 Min 18 Mean 213 Ac-ft 154,000
Water year 1915-16: Max 6,580 Min 47 Mean 656 Ac-ft 477,000
Calendar year 1916: Max 6,580 Min 47 Mean 657 Ac-ft 478,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 13-19, 28, 29, Jan. 1-25, Jan. 27 to Feb. 6.

Malheur River near Namorf, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1918 to September 1919

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	139	110	80	200	230	2,940	1,140	*370	43	20	18
2	108	139	120	100	200	325	2,160	1,100	335	41	20	20
3	97	177	230	105	200	910	2,040	965	320	38	21	20
4	154	169	185	95	200	435	2,040	920	300	38	24	21
5	146	162	169	110	220	435	2,940	800	246	36	24	21
6	146	154	185		200	380	2,280	720	198	35	26	23
7	146	154	177		212	221	1,290	680	190	34	26	24
8	139	139	162	130	221	185	1,290	575	184	32	28	23
9	133	139	203		203	212	1,290	540	172	30	28	24
10	133	146	169		248	203	1,290	540	130	28	28	26
11	126	146	113	150	352	194	1,390	510	142	28	30	28
12	126	146	133	150	325	185	1,390	480	136	26	30	30
13	126	146	139	170	257	177	1,390	450	130	26	34	32
14	120	154	146	240	257	185	1,390	410	130	24	34	36
15	120	154	162	310	221	194	1,190	380	124	24	32	41
16	325	154	185	380	230	221	1,140	370	98	23	34	46
17	230	162	185	408	239	203	1,140	350	93	21	34	62
18	154	162	185	435	230	212	1,100	350	89	21	32	148
19	139	154	126	468	194	870	1,240	350	84	20	32	136
20	139	146	100	500	180	1,030	1,100	360	80	18	30	124
21	139	146	100	500	160	1,210	1,140	350	76	17	28	102
22	133	133	100	500	170	1,210	1,140	360	73	14	28	98
23	133	126	86	435	160	2,020	*1,490	*405	69	14	26	62
24	133	120	86	435	177	2,020	*1,700	420	*66	13	26	62
25	139	113	133	305	221	1,910	1,810	420	62	12	24	73
26	133	108	126	260	221	2,020	1,920	420	59	13	23	76
27	133	108	133	250	177	2,240	1,590	450	59	14	21	80
28	139	108	133	240	221	2,240	1,490	450	54	14	20	80
29	146	110	110	230	-	2,240	1,340	420	51	17	18	84
30	139	110	110	220	------	2,820	1,240	390	48	17	18	80
31	139	------	110	210	------	2,240	------	*400	------	18	18	------
Total	4,446	4,224	4,411	7,936	6,096	29,177	46,890	16,475	4,168	749	817	1,700
Mean	143	141	142	256	218	941	1,560	531	139	24.2	26.4	56.7
Ac-ft	8,790	8,390	8,730	15,700	12,100	57,900	92,800	32,600	8,270	1,490	1,620	3,370

Calendar year 1918: Max 1,249 Min 20 Mean 180 Ac-ft 130,000
Water year 1918-19: Max 2,940 Min 12 Mean 348 Ac-ft 252,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29, 30, Dec. 20-22, Dec. 29 to Jan. 15, Jan. 26 to Feb. 6, Feb. 20-23.

Discharge, in cubic feet per second, water year October 1919 to September 1920

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	148	93	80	262	98	102	242	270	280	250	206
2	93	154	89	80	262	102	108	270	270	260	250	210
3	98	154	89	85	254	98	108	262	270	240	240	206
4	102	166	89	89	246	93	108	270	290	212		198
5	102	172	89	89	230	93	108	280	300	77		190
6	102	178	89	84	222	98	113	290	310	68		184
7	108	184	93	75	206	98	119	270	370	65		178
8	108	184	80	65	166	98	124	350	370	65		178
9	108	178	60	70	160	102	130	370	360	130		172
10	110	172	102	70	130	108	136	350	360	136		*166
11	113	172	119	75	89	108	136	350	330	145	250	184
12	113	160	80	80	93	113	142	340	315	240		184
13	113	166	55	75	98	108	142	320	320	270		190
14	119	160	60	80	98	113	148	310	340	300		198
15	119	160	70	84	98	113	160	260	360	290		184
16	119	160	80	400	102	119	154	270	360	270		172
17	119	160	90	1,590	102	119	148	280	360	270		150
18	124	166	100	420	102	119	148	290	350	270		84
19	124	160	110	370	102	113	142	320	340	275	204	80
20	124	154	300	370	102	108	136	370	340	270	196	76
21	119	160	310	360	102	102	136	360	350	260	204	73
22	119	154	360	320	102	102	130	350	340	260	196	
23	124	160	420	315	98	108	130	350	270	260	196	
24	124	154	370	246	98	102	124	340	270	270	188	
25	124	148	360	270	102	102	124	330	280	260	188	
26	124	100	280	1,810	98	108	130	320	290	250	196	68
27	130	60	220	1,920	98	102	136	320	285	260	188	
28	136	70	160	900	93	102	148	310	290	260	188	
29	136	84	110	650	93	102	154	300	295	250	196	
30	136	89	100	500	------	108	160	290	*310	250	192	
31	148	------	90	330	------	102	------	280	------	260	196	------
Total	3,627	4,487	4,717	11,952	4,008	3,261	3,984	9,614	9,565	6,973	7,018	4,055
Mean	117	150	152	386	138	105	133	310	319	225	226	135
Ac-ft	7,190	8,930	9,350	23,700	7,940	6,460	7,910	19,100	19,000	13,800	13,900	8,030

Calendar year 1919: Max 2,940 Min 12 Mean 348 Ac-ft 251,000
Water year 1919-20: Max 1,590 Min - Mean 200 Ac-ft 145,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 26-28, Dec. 7-9, 12-24, Dec. 26 to Jan. 3, Jan. 7-14.

Malheur River near Namorf, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1920 to September 1921

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	73	93	320	148	820	820	1,830	1,400	*405	395	355
2		73	93	360	145	820	965	1,720	1,400	415	395	355
3		69	98	350	142	1,300	965	1,120	1,400	415	385	365
4	54	69	102	360	148	1,500	965	1,210	1,350	425	385	375
5	54	69	102	340	148	2,070	928	1,120	1,350	425	375	375
6	56	69	102	270	154		820	1,400	1,300	425	375	375
7	56	73	102	254	154	1,200	750	1,400	1,300	425	375	365
8	56	73	136	222	154		750	1,400	1,120	455	375	365
9	55	73	130	154	190		785	1,400	1,080	425	375	365
10	56	76	124	148	270	425	785	1,400	1,040	425	385	355
11	59	76	124	154	3,950	550	820	1,400	1,000	425	375	365
12	59	75	119	154	1,950	680	890	1,400	890	455	375	355
13	59	76	119	154	1,500	750	890	1,400	890	455	375	355
14	59	76	115	154	1,120	750	1,000	1,400	855	485	375	365
15	62	80	113	154	1,300	785	820	1,400	820	485	375	375
16	66	80	119	154	528	820	750	1,500	820	485	375	375
17	66	84	124	154	528	1,120	750	1,500	785	485	375	345
18	62	89	119	160	528	1,720	680	1,610	750	485	375	280
19	67	89	119	172	485	1,210	648	1,720	750	485	365	289
20	66	89	113	160	425	890	1,040	1,830	750	485	355	294
21	66	93	119	154	455	715	1,350	2,070	715	455	345	272
22	69	93	119	148	425	680	1,500	2,190	680	455	345	264
23	69	98	113	154		715	2,070	2,450	648	455	335	248
24	67	98	113	160		680	2,190	1,120	648	425	345	205
25	69	98	116	154	410	680	*2,070	1,300	615	455	345	102
26	69	100	119	148		615	*1,950	1,120	615	455	345	99
27	69	102	113	142	405	550	1,610	1,400	615	455	345	99
28	73	102	119	136	395	550	1,610	1,120	582	425	345	95
29	73	98	130	142	-	550	1,400	1,400	550	*425	355	95
30	73	98	254	148	------	615	1,610	1,120	425	405	345	95
31	71	------	262	154	------	680	------	1,400	------	405	355	------
Total	1,942	2,511	3,843	5,988	17,287	28,040	34,181	45,850	27,143	13,785	11,345	8,622
Mean	62.6	83.7	124	193	617	905	1,140	1,480	905	445	366	287
Ac-ft	3,850	4,980	7,620	11,900	34,300	55,600	67,800	91,000	53,900	27,400	22,500	17,100

Calendar year 1920: Max 1,590 Min - Mean 188 Ac-ft 136,000
Water year 1920-21: Max 3,950 Min 54 Mean 549 Ac-ft 398,000
Calendar year 1921: Max 3,950 Min 73 Mean 551 Ac-ft 399,000

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1928 to September 1929

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	73					139	404	572	540	*220	277
2	344	76					137	381	572	568	211	286
3	311	76				310	137	460	554	593	208	289
4	302	76					141	582	540	568	205	283
5	299	76					144	565	520	570	205	289
6	299	78				478	139	530	474	600	205	310
7	299	80				348	132	512	474	596	205	307
8	293	76				260	134	512	460	600	210	289
9	290	73				222	130	530	418	596	211	277
10	247	76				275	125	548	397	593	214	199
11	152	73				305	119	548	432	586	217	136
12	128	70				260	123	548	397	586	220	120
13	158	70				215	116	620	372	593	229	112
14	141	68				170	134	722	362	593	226	108
15	90	70				165	163	741	372	590	317	104
16	86	70	60	60	75	160	266	741	450	593	432	100
17	83	70				175	290	741	456	596	390	96
18	83	70				190	290	760	397	590	355	96
19	80	73				*188	254	741	349	576	355	92
20	80	66				185	251	684	337	565	349	89
21	83	*66				190	275	538	313	558	343	81
22	83	73				225	296	574	292	537	331	81
23	80					240	257	592	316	540	322	81
24	80					185	248	610	346	530	325	89
25	80	78				160	235	628	349	394	325	92
26	80					156	220	647	337	226	331	96
27	78					146	278	647	442	211	331	100
28	78					146	414	592	523	208	319	100
29	78	83			-	148	425	574	488	202	304	104
30	78	73			------	158	414	503	520	199	289	100
31	76	------			------	146	------	538	------	205	271	------
Total	4,969	2,223	1,860	1,860	2,100	7,046	6,426	18,313	12,831	15,502	8,675	4,783
Mean	160	74.1	60	60	75	227	214	591	428	500	280	159
Ac-ft	9,840	4,410	3,690	3,690	4,170	14,000	12,700	36,300	25,500	30,700	17,200	9,460

Calendar year 1928: Max 1,760 Min - Mean 426 Ac-ft 309,000
Water year 1928-29: Max 760 Min - Mean 237 Ac-ft 172,000

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 23-28, Dec. 1 to Mar. 5, Mar. 13, July 5, Aug. 5-8; discharge interpolated or estimated on basis of records for othar stations in the Malheur River basin.

Malheur River near Westfall, Oreg.

Location.--Lat 43°53', long 117°32', in SE¼ sec. 26, T. 19 S., R. 42 E., 1½ miles downstream from Cottonwood Creek and 11 miles southeast of Westfall.

Drainage area.--2,970 sq mi (revised), approximately.

Records available.--December 1903 to October 1905 (discontinued). Prior to January 1904, published as "near Harper's Ranch, above Vale."

Gage.--Staff gage. Altitude of gage is 2,450 ft (by barometer). Dec. 13, 1903, to Feb. 22, 1904, and Mar. 8 to July 26, 1904, staff gages 200 ft downstream at different datums.

Extremes.--1903-5: Maximum discharge, 17,000 cfs about Feb. 25, 1904 (gage height, 15.4 ft, from floodmark); minimum observed, 3 cfs Aug. 19, 1905.

Remarks.--Diversions for irrigation of about 20,000 acres above station. No known regulation.

Revisions.--Revised figures of discharge, in cubic feet per second, for several days in the water year 1904, superseding those published in WSP 135 and 370, are given herewith:

1904	
Feb. 16	4,000
17	2,500
18	1,600

Month	Maximum	Minimum	Mean	Runoff in acre-feet
February 1904	10,000	167	1,870	108,000
Calendar year 1904	10,000	34	1,050	763,000

Malheur River near Hope, Oreg.

Location.--Lat 43°56'40", long 117°28'50", in SW¼ sec. 5, T. 19 S., R. 43 E., half a mile upstream from intake of Vines Canal, 5½ miles (revised) west of Hope, and 12 miles west of Vale.
Drainage area.--3,030 sq mi, approximately.
Records available.--May 1919 to February 1922 (fragmentary), March 1922 to September 1949 (discontinued).
Gage.--Water-stage recorder. Altitude of gage is 2,370 ft (from topographic map).
Average discharge.--19 years (1930-49), 187 cfs.
Extremes.--1919-49: Maximum discharge, 8,100 cfs Feb. 5, 1925 (gage height, 8.1 ft), from rating curve extended above 2,800 cfs; minimum, 3.5 cfs Sept. 2, 1919.
Remarks.--Since March 1930, Vale-Oregon Canal has diverted at Namorf for irrigation above and below station. Many small diversions for irrigation above station. Flow regulated by Warmsprings Reservoir, and since December 1935, by Agency Valley Reservoir.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1925, 1927-31, 1937, 1939-41, 1947, and 1949, superseding figures published in WSP 613, 653, 673, 693, 708, 723, 833, 883, 903, 933, 1093, and 1153, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1925		1929-Con.		1937-Con.		1941-Con.	
Jan. 1-31	†270	Feb. 1-28	†80	Jan. 8	14	Jan. 30	174
				9	14		
1927		1930		10	14	1947	
Feb. 18	174	Feb. 1	72	11	14	Jan. 1-31	†50
19	251	2	76	12	15		
20	405	3	85	13	20	1948	
21	1,820	4	110	14	27	Dec. 6-31	†37
22	1,820	5	200	15	31		
23	920	6	170	16	31	1949	
		7	210	17	31	Jan. 1-31	†20
1928		8	280	18	25	Feb. 1-13	†45
May 20	700	9	240	19	20	14	80
21	700	10	230			15	75
22	700	11	210	1939		16	200
23	700	12	260	Feb. 16	100	17	500
24	670	13	310	17	90	18	1,200
25	660	14	340	18	80	19	2,500
26	640	Dec. 24	17	19	70	20	1,100
27	640	25	15			21	660
28	620	26-31	†14	1940		22	400
29	620			Jan. 28-31	†50	23	310
30	600	1937				24	360
31	600	Jan. 3	22	1941		25	330
Dec. 1-31	†65	4	20	Jan. 26	400	26	260
		5	19	27	516	27	230
1929		6	17	28	316	28	190
Jan. 1-31	†65	7	15	29	223		

† Average for period indicated.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1925	-	-	-	270	16,600
Water year 1924-25	-	5,140	-	337	244,000
February 1927	-	1,820	120	483	26,800
Water year 1926-27	-	1,820	60	374	271,000
Calendar year 1927	-	1,820	65	377	273,000
May 1928	-	1,240	385	718	44,000
Water year 1927-28	-	2,210	65	442	321,000
December 1928	-	-	-	65	4,000
Calendar year 1928	-	2,210	-	445	323,000
January 1929	-	-	-	65	4,000
February	-	-	-	80	4,440
Water year 1928-29	-	627	37	217	157,000
Calendar year 1929	-	627	37	205	148,000
February 1930	-	340	72	186	10,300
Water year 1929-30	-	340	10	92.9	67,200
December 1930	-	71	-	26.9	1,650
Calendar year 1930	-	340	10	83.6	60,500
Water year 1930-31	-	310	7	72.4	52,400
January 1937	646	31	14	20.8	1,280
Water year 1936-37	31,694	367	14	86.8	62,850
Calendar year 1937	35,010	571	14	95.9	69,420
February 1939	1,402	100	27	50.1	2,780
Water year 1938-39	43,587	1,320	15	119	86,450
Calendar year 1939	43,547	1,320	20	119	86,380
January 1940	1,195	-	24	38.5	2,370
Water year 1939-40	82,956	3,920	20	227	164,500
Calendar year 1940	86,287	3,920	22	236	171,100
January 1941	3,455	516	44	111	6,850
Water year 1940-41	136,128	2,690	22	373	270,000
Calendar year 1941	134,786	2,690	41	369	267,400
January 1947	1,550	-	-	50	3,070
Water year 1946-47	45,535	1,850	34	125	90,320
Calendar year 1947	43,886	1,850	25	120	87,050
December 1948	1,173	-	-	37.8	2,330
Calendar year 1948	38,173	300	16	104	75,710
January 1949	620	-	-	20.0	1,230
February	8,980	2,500	-	321	17,810
Water year 1948-49	50,972	2,500	19	140	101,100

Malheur River at McLaughlin Bridge, near Vale, Oreg.

Location.--Lat 43°56'20", long 117°22'10", in SE¼SE¼ sec. 6, T. 19 S., R. 44 E., at highway bridge, 4 miles upstream from Sand Hollow and 7 miles southwest of Vale.
Drainage area.--3,060 sq mi (revised), approximately.
Records available.--January 1905 to March 1906 (discontinued).
Gage.--Chain gage. Altitude of gage is 2,310 ft (from topographic map).
Extremes.--1905-6: Maximum discharge, 11,600 cfs Mar. 31, 1906 (gage height, 10.85 ft, from floodmark), from rating curve extended above 2,200 cfs; minimum observed, 11 cfs Aug. 14, 16-18, 1905.
Remarks.--Diversions above station for irrigation of several thousand acres above and below station. No regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1905-6, superseding those published in WSP 178, 214, and 370, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1905		1905-Con.		1905-Con.		1905-Con.		1905-Con.	
Jan. 1	240	Jan. 11	110	Jan. 21	490	Feb. 18	165	Dec. 1-31	†65
2	220	12	110	22	440	19	180		
3	200	13	110	23	660	20	210	1906	
4	190	14	135	Feb. 11	210	21	260	Mar. 25	4,460
5	180	15	83	12	180	22	480	26	4,650
6	150	16	110	13	160	23	1,110	27	4,680
7	130	17	180	14	160	24	1,920	28	4,680
8	110	18	540	15	160	Apr. 5	1,150	29	4,530
9	100	19	360	16	160	7	1,020	30	5,770
10	100	20	540	17	160	9	1,150	31	9,260

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1905	3,390	83	497	30,600
February	2,080	160	560	31,100
April	1,420	485	872	51,900
December	-	-	65	4,000
Calendar year 1905	3,390	11	357	258,000
March 1906	9,260	348	1,670	103,000

Bully Creek near Westfall, Oreg.

Location.--Lat 43°59', long 117°43', in SW¼SW¼ sec. 20, T. 18 S., R. 41 E., at road bridge, a quarter of a mile downstream from Indian Creek and three-quarters of a mile southwest of Westfall.
Drainage area.--160 sq mi, approximately.
Records available.--June to July 1911 (gage heights only). January 1912 to December 1913, March to July 1923 (discontinued). Prior to January 1912, published as "at Westfall."
Gage.--Staff gage. Altitude of gage is 2,990 ft (by barometer). Prior to Feb. 11, 1912, chain gage at different datum.
Extremes.--1912-13, 1923: Maximum discharge observed, 617 cfs June 8, 1912 (gage height, 6.65 ft), from rating curve extended above 16 cfs; minimum observed, 1 cfs Mar. 23-25, 1912.
Remarks.--Diversions above station for irrigation of about 1,800 acres above and one small area below station. Flow regulated slightly by small reservoir on Indian Creek.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1912-13, superseding those published in WSP 332 and 362, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1912		1913		1913-Con.	
Apr. 4	9.0	Feb. 15	47	Mar. 30	44
7	9.0	16	25	31	39
June 8	195	Mar. 4	130	July 25	309
12	156	5	90	26	150
July 20	25	6	50	27	37
30	35	7	24	Aug. 5	318
31	60	9	24	6	100
Aug. 1	60	11	28	11	219
				12	63

Month	Maximum	Minimum	Mean	Runoff in acre-feet
April 1912	17	5.0	8.35	497
June	195	2.5	18.5	1,100
July	60	3.5	8.65	532
August	60	2.2	4.49	276
Calendar year 1912	195	-	6.86	4,980
February 1913	47	6.8	9.29	516
March	130	6.8	24.7	1,520
July	309	2.5	21.8	1,340
August	318	2.6	26.4	1,620
Water year 1912-13	318	1.5	11.2	8,100
Calendar year 1913	318	1.5	10.8	7,810

Bully Creek at Warmsprings, near Vale, Oreg.

Location (revised).--Lat 44°01'30", long 117°27'20", in NW¼NE¼ sec. 9, T. 18 S., R. 43 E., half a mile downstream from Cottonwood Creek and 11 miles northwest of Vale.

Drainage area.--530 sq mi (revised), approximately.

Records available.--August 1903 to March 1904, January 1905 to March 1907, February 1910 to May 1917, March 1922 to June 1923 (discontinued). Published as "near Vale" 1903, 1907, and as "above Vale" 1904-6, 1910.

Gage.--Staff gage. Altitude of gage is 2,530 ft (from topographic map). Aug. 10, 1903, to Mar. 11, 1904, staff gages a quarter of a mile upstream at different datum.

Average discharge.--6 years (1905-6, 1911-16), 49.4 cfs.

Extremes.--1904-7, 1910, 1911-17, 1922-23: Maximum discharge, 6,240 cfs Mar. 1, 1910 (gage height, 8.6 ft, from floodmark), from rating curve extended above 1,100 cfs; no flow at times.

Remarks.--Numerous diversions for irrigation above station. Since the early part of 1915, some regulation by Anderson Reservoir of the Vale-Oregon Irrigation Co. about 6½ miles (revised) above station.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1904-6, 1911, 1914, 1915, superseding those published in WSP 370, 312, 393, and 413, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1904		1904-Con.		1904-Con.		1905-Con.		1911-Con.	
Jan. 1	12	Jan. 13	12	Jan. 25	12	Feb. 14	17	Feb. 22	32
2	12	14	12	26	12	15	15	23	32
3	12	15	12	27	11	16	15	24	32
4	12	16	12	28	10	17	16	25	32
5	12	17	12	31	10	18	18	26	32
6	12	18	12			19	20	27	32
7	12	19	12	1905				28	32
8	12	20	12	Feb. 9	18	1906			
9	12	21	12	10	16	Feb. 1-28	†9.5	1913	
10	12	22	12	11	12			Nov. 12	3
11	12	23	12	12	11	1911			
12	12	24	12	13	12	Feb. 21	31	1915	
								Jan. 15-28	†6

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1904.....	12	10	11.7	719
February 1905.....	305	11	70.9	3,940
February 1906.....	-	-	9.5	528
Water year 1905-6.....	2,640	1.2	77.1	55,700
Calendar year 1906.....	2,640	3	77.5	56,000
February 1911.....	244	29	49.8	2,770
Calendar year 1911.....	796	0	32.5	23,500
November 1913.....	3	2	2.67	159
Calendar year 1913.....	725	.3	27.8	20,100
Water year 1913-14.....	919	1	69.7	50,500
January 1915.....	-	-	6.52	401
Water year 1914-15.....	185	0	10.7	7,760
Calendar year 1915.....	185	0	10.5	7,590

Malheur River at Vale, Oreg.

Location.--Lat 43°58'50", long 117°14'20", in NW¼ sec. 29, T. 18 S., R. 45 E., at road bridge at Vale and about a quarter of a mile downstream from Bully Creek.
Drainage area.--3,880 sq mi (revised), approximately.
Records available.--March 1890 to September 1891, January 1895 to July 1897, May 1903 to March 1907, May 1908 to October 1914, March to September 1919 (discontinued). Records for station "below Nevada Dam, near Vale" for 1926-50 not equivalent owing to diversion.
Gage.--Staff gage. Altitude of gage is 2,230 ft (from topographic map). Prior to Mar. 20, 1919, staff or chain gages at various datums.
Average discharge.--11 years (1890-91, 1895-96, 1903-6, 1908-14), 541 cfs.
Extremes.--1890-91, 1895-97, 1903-14, 1919: Maximum discharge, 22,800 cfs Mar. 2, 1910 (gage height, 19.5 ft, datum then in use, from floodmark), from rating curve extended above 3,600 cfs; minimum observed, 4 cfs July 19-21, 1895, Aug. 23, 1906.
Revisions.--The maximum discharge for the water year 1919 has been revised to 3,960 cfs Mar. 31, 1919 (gage height, 6.20 ft, from floodmark), superseding figure published in WSP 513.
Remarks.--Many diversions for irrigation above station. Several ditches divert water around station for irrigation of lands above and below station. Flow slightly regulated since 1915 by Vale-Oregon Irrigation Co. dam on Bully Creek.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1890, 1891, 1895-97, 1906, 1910, superseding those published in WSP 214, 292, and 370 are given herein. Complete tables of daily discharge are given for the water years 1895 and 1896, but only revised discharges are given for other water years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1890		1890-Con.		1891-Con.		1897-Con.		1905-Con.	
Aug. 1	22	Sept. 13	10	Aug. 24	26	June 4	900	Dec. 9	62
2	22	14	10	25	26	5	810	10	56
3	15	15	10	26	22	6	870	11	52
4	15	16	10	27	22	7	780	12	47
5	15	17	10	28	22	8	750	14	49
6	15	18	10	29	22	9	690	15	56
7	15	19	10	30	22	10	720	16	65
8	15	20	10	31	22	11	615	17	72
9	15	21	10	Sept. 1	22	12	565	18	80
10	10	22	10	2	18	13	515	19	70
11	10	23	10	3	18	14	490	20	60
12	10	24	10	4	15	15	490	21	54
13	10	25	10	5	15	16	490	22	70
14	10	26	10	6	15	17	470	23	80
15	10	27	10	7	15	18	450	24	90
16	10	28	10	8	18	19	450	25	95
17	10	29	10	9	18	20	490	26	100
18	10	30	10	10	22	21	462	27	115
19	10			11	22	22	450	28	100
20	10	1891		12	22	23	450	29	90
21	10	Aug. 1	15	13	22	24	450	30	85
22	10	2	15	14	22	25	442	31	95
23	10	3	22	15	22	26	665		
24	10	4	22	16	22	27	580	1906	
25	10	5	22	17	22	28	565	Jan. 1	100
26	10	6	29	18	22	29	540	2	110
27	10	7	29	19	22	30	515	4	110
28	10	8	29	20	18			5	100
29	10	9	29	21	18	1905		6	85
30	10	10	26	22	18	Nov. 25	88	7	80
31	10	11	26	23	15	26	82	8	90
Sept. 1	10	12	22	24	15	27	76	9	100
2	10	13	22	25	15	28	70	10	110
3	10	14	22	26	15	29	68	17	130
4	10	15	22	27	18	30	63	20	150
5	10	16	22	28	18	Dec. 1	60	21	170
6	10	17	22	29	18	2	62	26	180
7	10	18	22	30	15	3	67		
8	10	19	22			4	72	1909	
9	10	20	26	1897		5	78	Dec. 1-31	†120
10	10	21	26	June 1	1,200	6	80		
11	10	22	26	2	1,080	7	72	1910	
12	10	23	26	3	1,020	8	66	Jan. 1-31	†200

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
August 1890	22	10	12	740
September	10	10	10	595
August 1891	29	15	23	1,410
September	22	15	19	1,130
Water year 1890-91	2,820	15	185	134,000
June 1897	1,200	442	632	37,600
November 1905	135	63	105	6,250
December	115	43	72.4	4,450
Calendar year 1905	3,100	7	372	269,000
January 1906	223	80	144	8,850
Water year 1905-6	12,800	4	723	524,000
Calendar year 1906	12,800	4	725	525,000
December 1909	-	-	120	7,380
Calendar year 1909	7,970	26	490	355,000
January 1910	-	-	200	12,300
Water year 1909-10	-	-	779	564,000
Calendar year 1910	-	-	783	567,000

Malheur River at Vale, Oreg.--Continued

Discharge, in cubic feet per second, January to September 1895

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				142	142	275	540	485	240	26	9	11
2				155	142	260	675	460	240	31	9	11
3				170	170	245	930	435	260	17	10	11
4				185	170	230	815	410	240	17	10	11
5				200	200	230	675	410	200	14	10	11
6				245	200	230	675	435	170	10	9	12
7				245	185	230	510	485	170	17	9	12
8				245	200	245	425	510	155	17	9	12
9				215	200	200	425	485	170	17	10	12
10				200	200	275	540	460	155	17	10	12
11				200	200	345	675	435	140	17	10	48
12				215	155	470	710	385	140	17	10	60
13				215	185	495	745	320	140	17	10	72
14				200	200	385	675	300	140	10	9	92
15				230	200	275	710	320	140	10	9	100
16				230	200	170	675	260	140	10	10	125
17				230	185	260	675	280	115	10	10	125
18				200	200	230	675	280	105	10	10	115
19				200	215	260	780	280	86	4	9	115
20				185	200	230	710	240	69	4	9	108
21				200	215	260	640	240	54	*4	10	100
22				200	345	260	675	260	48	9	10	100
23				185	595	260	675	240	48	9	10	100
24				185	620	260	710	*260	48	9	10	115
25				230	645	328	540	240	48	9	10	115
26				185	520	595	*510	240	48	9	10	100
27				128	345	850	510	220	48	9	10	115
28				142	345	1,210	510	200	42	9	10	115
29				142	-	1,330	485	280	*36	10	11	115
30				142	------	1,450	460	300	26	9	11	108
31		------		142	------	595	------	240	------	9	11	------
Total				5,988	7,379	12,938	18,955	10,395	3,661	387	304	2,158
Mean				193	264	417	632	335	122	12.5	9.8	71.9
Ac-ft				11,900	14,700	25,600	37,600	20,600	7,260	769	603	4,280

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

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1895 to September 1896

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	115	155	155	515	540	790	750	1,580	455	65	166
2	100	115	155	168	565	420	600	750	1,620	410	58	134
3	100	115	135	180	590	360	540	780	1,740	390	50	89
4	100	115	135	205	540	300	480	810	1,740	370	50	75
5	100	115	145	205	540	275	480	1,265	1,700	330	50	75
6	100	115	155	205	490	275	480	2,090	1,580	310	45	75
7	100	115	155	192	490	275	660	1,865	1,545	310	35	75
8	115	115	135	205	450	300	860	1,405	1,545	295	*30	75
9	108	115	135	192	430	420	1,160	1,265	1,440	265	30	75
10	100	135	155	192	390	540	1,000	1,230	1,405	250	31	75
11	100	135	155	155	370	660	860	1,170	1,300	235	32	75
12	100	135	155	155	330	600	720	1,170	1,200	220	32	75
13	100	135	155	155	290	540	930	1,200	1,170	235	31	75
14	100	135	155	155	290	480	1,160	1,140	1,110	250	31	75
15	100	135	155	155	290	420	1,410	1,020	1,050	265	31	75
16	115	135	135	168	290	360	1,160	930	1,050	250	30	75
17	108	135	135	2,180	290	360	930	930	1,050	250	30	75
18	100	135	135	a1,500	310	360	720	930	990	182	30	75
19	100	135	155	a1,300	330	540	600	930	960	*170	30	75
20	108	135	180	a1,100	330	790	540	870	*990	145	30	82
21	115	168	155	a1,000	290	1,080	480	840	960	145	30	89
22	115	205	155	a900	270	1,160	480	810	930	135	30	89
23	115	192	145	a800	310	1,240	600	810	900	125	30	89
24	115	192	155	a900	370	1,410	720	900	840	125	30	89
25	115	155	155	*870	410	1,600	930	1,080	780	110	29	89
26	115	135	155	810	350	1,900	660	1,200	990	110	28	89
27	115	145	168	690	370	2,100	720	1,300	960	102	28	98
28	115	155	205	615	410	1,800	720	1,370	615	95	30	98
29	115	155	205	540	720	1,500	720	1,440	565	88	30	98
30	115	155	180	515	------	1,240	720	1,510	515	80	30	98
31	115	-------	155	565	------	1,000	------	1,510	------	65	350	------
Total	3,319	4,177	4,808	17,127	11,620	24,845	22,830	35,270	34,820	6,767	1,396	2,597
Mean	107	139	155	552	401	801	761	1,140	1,160	218	45.0	86.6
Ac-ft	6,580	8,270	9,530	33,900	23,100	49,300	45,300	70,100	69,000	13,400	2,770	5,150

Calendar year 1895: Max 1,450 Min 4 Mean 204 Ac-ft 148,000
Water year 1895-96: Max 2,180 Min 28 Mean 463 Ac-ft 338,000

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

Malheur River below Nevada Dam, near Vale, Oreg.

Location.--Lat 43°59'20", long 117°13'20", in SW¼ sec. 21, T. 18 S., R. 45 E., 300 ft downstream from dam and headgates of Nevada Canal and 1 mile (revised) northeast of Vale.
Drainage area.--3,880 sq mi, approximately.
Records available.--May 1926 to September 1934, April 1936 to March 1942, March 1944 to September 1950 in reports of the Geological Survey (discontinued). October 1950 to September 1954 in files of State engineer. Prior to October 1926 published as "below Nevada Dam at Vale." Monthly discharge only for some periods, published in WSP 1317. Records for station "at Vale" for 1890-91, 1895-97, 1903-14, 1919, not equivalent owing to diversion by Nevada Canal.
Gage.--Water-stage recorder; October 1932 to February 1949, concrete control. Altitude of gage is 2,220 ft (from topographic map).
Average discharge.--11 years (1936-41, 1944-50), 186 cfs.
Extremes.--1926-34, 1936-42, 1944-50: Maximum discharge, 9,530 cfs Feb. 28, 1940 (gage height, 8.88 ft); no flow at times.
Remarks.--Many diversions for irrigation above station. Since March 1930, Vale-Oregon Canal has diverted in sec. 31, T. 20 S., R. 41 E., for irrigation above station and on Willow Creek, a tributary which enters partly below and partly above station. Gillerman-Frohman Canal diverts on left bank in sec. 8, T. 19 S., R. 44 E., for irrigation above and below station. Nevada Canal diverts on right bank 300 ft above station for irrigation below station. Flow regulated by Warmsprings Reservoir and, since December 1935, by Agency Valley Reservoir.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1928-31, superseding those published in WSP 673, 693, 708, and 723, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1927		1929-Con.		1930-Con.	
Nov. 11	120	Feb. 7-14	†55	Feb. 6	312
		15	75	7	289
1928		16	90	8	338
Dec. 15-28	†60	17	90	9	468
		18	90	Dec. 6	70
1929		19	90	7	60
Jan. 4-15	†70	20	95	8	50
20-25	†65	June 27	25	13	40
29	85	28	40	14	35
30	80			15	30
31	80	1930		16	29
Feb. 1	85	Feb. 5	227	17-29	†25
6	75				

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
November 1927	134	43	90.9	5,410
Calendar year 1927	2,530	19	288	209,000
Water year 1927-28	2,330	19	342	249,000
December 1928	101	-	71.2	4,380
Calendar year 1928	2,330	-	342	249,000
January 1929	108	-	76.9	4,730
February	160	-	87.2	4,840
June	208	25	101	6,010
Water year 1928-29	846	2	94.6	68,500
Calendar year 1929	846	-	86.4	62,600
February 1930	872	83	292	16,200
Water year 1929-30	872	-	44.1	31,900
December 1930	76	-	40.5	2,490
Calendar year 1930	872	-	36.2	26,200
Water year 1930-31	205	0	22.5	16,300

Willow Creek near Malheur, Oreg.

Location.--Lat 44°23', long 117°45', in NE¼NW¼ sec. 6, T. 14 S., R. 41 E., 200 ft upstream from bridge, just downstream from Rich Creek, half a mile upstream from flow line of reservoir No. 3, and 2 miles (revised) southwest of Malheur.
Drainage area.--250 sq mi, approximately.
Records available.--March 1912 to June 1915, March 1921 to May 1929 (discontinued).
Gage.--Water-stage recorder. Altitude of gage is 3,420 ft (by barometer).
Average discharge.--7 years (1912-14, 1921-22, 1923-27), 11.0 cfs.
Extremes.--1912-15, 1921-29: Maximum discharge, 310 cfs Mar. 17, 1921 (gage height, 3.1 ft); no flow at times.
Remarks.--Many diversions for irrigation above station. As much as 4,600 acre-ft annually has been delivered to Willow Creek above the station from tributaries of Burnt River through Eldorado ditch. No regulation.
Revisions--Revised figures of discharge, in cubic feet per second, for the water year 1915, superseding those published in WSP 413, are given herewith:

1915
Feb. 25..... 13
26..... 13
27..... 12

Month	Maximum	Minimum	Mean	Runoff in acre-feet
February 1915	14	-	11.6	642

Willow Creek below reservoir, near Malheur, Oreg.

Location.--Lat 44°21', long 117°40', in NW¼ sec. 14 (revised), T. 14 S., R. 41 E., 300 ft downstream from reservoir outlet tunnel and 5 miles (revised) southeast of Malheur.

Drainage area.--290 sq mi (revised), approximately.

Records available.--November 1904 to August 1906, January to August 1911, October 1920 to April 1929 (discontinued). Published as "near Malheur" 1904-6, 1911. Records for March to December 1910 (fragmentary), published in WSP 292 and 370, have been found to be unreliable and should not be used.

Gage.--Staff gage and sharp-crested weir. Altitude of gage is 3,310 ft (by barometer). Nov. 20, 1904, to Aug. 14, 1906, staff gage about three-quarters of a mile downstream at different datum. Jan. 1 to Aug. 2, 1911, staff gage or staff gage and sharp-crested weir at various datums.

Average discharge.--7 years (1920-27), 11.6 cfs.

Extremes.--1904-6, 1911, 1920-29: Maximum discharge observed, 416 cfs Apr. 6, 1906 (gage height, 5.2 ft, site and datum then in use); no flow at times.

Remarks.--Many diversions for irrigation above station. At site 1904-6, Beer's ditch diverted 2 cfs, or less, above station for irrigation below station. As much as 4,600 acre-ft annually have been diverted to Willow Creek above station from tributaries of Burnt River through Eldorado ditch. Flow regulated by Willow Creek Reservoir since spring of 1911.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1905-6, and 1911, superseding those published in WSP 370 and 312, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1904		1904-Con.		1905-Con.		1905-Con.		1911	
Dec. 3	6.0	Dec. 30	9.0	Jan. 10	5.8	Feb. 11	5.4	Jan. 13	1.3
4	6.0	31	9.8	11	6.0	12	4.5	14	1.3
5	6.0			12	6.4	13	4.8	15	1.3
6	6.0	1905		Feb. 1	12	14	5.0	16	1.3
7	6.0	Jan. 1	9.0	2	11	15	5.4	17	1.4
8	6.0	2	7.4	3	10	16	6.2	18	1.5
23	7.0	3	7.0	4	9.4	17	7.2	31	10
24	7.0	4	6.6	5	9.0	18	8.2	Feb. 1	20
25	6.2	5	6.4	6	10	19	11	2	10
26	5.8	6	6.0	7	11	Dec. 1-31	†1.3		
27	6.2	7	5.8	8	9.0				
28	6.8	8	5.8	9	7.2	1906			
29	7.8	9	5.8	10	6.2	Jan. 1-31	†2.0		

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in Acre-feet
December 1904	9.8	5.8	6.9	424
January 1905	18	5.8	9.6	590
February	61	4.5	16.7	928
December 1905	-	-	1.3	79.9
Calendar year 1905	78	-	10.7	7,740
January 1906	-	-	2.0	123
January 1911	10	1.1	2.5	154
February	20	3.1	4.7	261

Willow Creek at Cole's ranch, near Brogan, Oreg.
(Formerly published as Willow Creek near Brogan)

Location.--Lat 44°16', long 117°32', in E½ sec. 14, T. 15 S., R. 42 E., about a quarter of a mile upstream from Pole Creek and 1 mile (revised) northwest of Brogan.

Drainage area.--455 sq mi.

Records available.--April 1904 to July 1906 (discontinued). Published as "near Dell" 1904-6. Records for January to March 1904, January 1910 to June 1911, published in WSP 135, 292, 312, and 370, have been found to be unreliable and should not be used.

Gage.--Chain gage. Altitude of gage is 2,640 ft (by barometer). Prior to Nov. 1, 1904, staff gage or reference mark at same site and datum.

Extremes.--1904-6: Maximum discharge observed, 954 cfs Apr. 14, 1904 (gage height, 7.06 ft); no flow Aug. 17 to Sept. 20, 1905.

Remarks.--Many small diversions for irrigation above station. Several ditches divert above station for irrigation below station. Probably small flow delivered at times to Willow Creek above station from tributaries of Burnt River through Eldorado ditch. No regulation.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1904-6, superseding figures published in WSP 370, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1905		1906		1906-Con.	
Jan. 3-13	†25	Jan. 1-31	†3	Mar. 20	20
Feb. 11-18	†25	Feb. 1-20	†5.5	21	25
May 1-31	†20	Mar. 15	9	May 11	37
June 1-30	†9	16	8	12	47
July 1-31	†1.5	17	9	13	47
Nov. 6-30	†2.5	18	10	14	47
Dec. 1-31	†2	19	15		

† Average for period indicated.

Month	Maximum	Minimum	Mean	Runoff in acre-feet
April 1904	1,000	237	*518	30,800
January 1905	89	-	53.2	3,270
February	131	-	45.1	2,500
May	-	-	20	1,230
June	-	-	9	536
July	-	-	1.5	92
Water year 1904-5	166	0	22.5	16,300
November 1905	-	-	2.9	173
December	-	-	2.0	123
Calendar year 1905	-	-	21.5	15,200
January 1906	-	-	3.0	184
February	-	-	7.4	411
March	-	-	132	8,120
May	113	12	51.7	3,180

* No daily figures revised.

Malheur River near Ontario, Oreg.

Location.--Lat 44°03'15", long 116°59'20", in SE¼ sec. 29, T. 17 S., R. 47 E., at road bridge, about 1¼ miles upstream from mouth and 2½ miles northwest of Ontario.

Drainage area.--4,680 sq mi, approximately.

Records available.--December 1903 to May 1904 (discontinued).

Gage.--Staff gage. Altitude of gage is 2,130 ft (from topographic map).

Extremes.--Maximum discharge observed during period, 13,000 cfs Feb. 25, 1904 (gage height, 18.0 ft); minimum observed, 88 cfs Feb. 10, 1904.

Remarks.--Many diversions for irrigation above station. Nevada and Brosman ditches divert water around station. Some return flow above station from lands southwest of Ontario irrigated from Owyhee River through Owyhee Canal.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1904, superseding those published in WSP 370, are given herewith:

1904		1904-Con.		1904-Con.	
Jan. 5	140	Jan. 15	300	Feb. 10	220
6	130	Feb. 5	200	11	270
7	110	6	190	12	320
12	180	7	170	13	300
13	180	8	150		
14	200	9	130		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1904	785	95	260	16,000
February	11,900	130	2,760	159,000

North Fork Burnt River at Audrey, Oreg.

Location.--Lat 44°34'10", long 118°13'10", in sec. 31, T. 11 S., R. 37 E., at Audrey, a quarter of a mile downstream from China Creek and 7 miles (revised) southeast of Whitney.

Drainage area.--139 sq mi.

Records available.--March to November 1915, April to November 1916 (discontinued).

Gage.--Staff gage. Altitude of gage is 3,930 ft (from topographic map).

Extremes.--1915-16: Maximum discharge observed, 585 cfs Apr. 25-29, 1916 (gage height, 3.80 ft); minimum observed, 0.3 cfs Aug. 21, 22, 1915.

Remarks.--Water is diverted above station for irrigation of 910 acres, part of which is below station. Since 1865, water has been diverted at times in 3 canals from headwaters of North Fork John Day River to North Fork Burnt River above station for mining and irrigation. No regulation.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1916, superseding figures published in WSP 443, are given herewith:

1916	
May 18	300
19	300
20	300

Month	Maximum	Minimum	Mean	Runoff in acre-feet
May 1916	460	140	260	16,000

Middle Fork Burnt River near Audrey, Oreg.

Location (revised).--Lat 44°30'50", long 118°17'20", in NW¼ sec. 22, T. 12 S., R. 36 E., 4½ miles upstream from mouth, 5 miles southwest of Audrey Post Office, 7 miles northwest of Unity, and 17 miles southwest of Sumpter.

Drainage area.--9.54 sq mi.

Records available.--March to September 1915, April to August 1916 (discontinued).

Gage.--Staff gage. Altitude of gage is 4,150 ft (from topographic map).

Extremes.--1915: Maximum discharge during period March to September not determined; minimum observed, 0.4 cfs many days in July, August, and September.
1915-16: Maximum discharge not determined; maximum daily, 40 cfs Apr. 3, 4, 10-13, 1916; minimum observed, 0.3 cfs Aug. 1-8, 19, 23-31, 1916.

Remarks.--One diversion about 1 mile above station for irrigation of about 100 acres. No regulation.

Revisions.--Revised figures of discharge for the period March to September 1915, superseding those published in WSP 413, are given herewith:

Discharge, in cubic feet per second, March to September 1915

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							4.3	2.0	1.2	0.5	0.4	.4
2							4.3	2.0	1.2	.5	.4	.4
3							3.6	2.0	1.2	.5	.4	.4
4							3.6	1.5	1.2	.5	.4	.4
5							3.6	*1.5	1.2	.5	.4	.4
6							3.6	1.5	1.0	.5	.4	.4
7							3.6	1.2	.8	.5	.4	.4
8						0.6	2.8	1.2	.7	.5	.4	.4
9							2.8	1.2	.7	.5	.4	.4
10							*2.8	1.2	.7	.5	.4	.4
11							2.8	1.5	.7	.5	.4	.4
12							2.8	2.0	.7	.5	.4	.4
13							2.8	2.0	.7	*.5	.4	.4
14							2.8	2.5	.7	.5	.4	.4
15						*.7	2.8	2.0	.7	.5	.4	.4
16						.7	2.8	2.0	.7	.5	.4	.4
17						.7	2.8	2.0	.7	.5	.4	.4
18						.7	2.8	2.0	.7	.5	.4	.4
19						.7	2.8	2.0	.7	.5	.4	.4
20						.8	2.7	2.0	.7	.5	.4	.4
21						.8	2.4	1.7	.7	.5	.4	.4
22						1.0	2.2	2.0	.7	.5	.4	.4
23						1.0	2.0	2.0	.7	.5	.4	.4
24						1.0	1.7	1.7	.7	.5	.4	.4
25						1.1	1.5	1.7	.7	.5	.4	.4
26						1.1	1.3	1.5	.7	.5	.4	.4
27						4.3	.9	1.5	.7	.5	.4	.4
28						4.3	.9	1.5	.7	.4	.4	.4
29						4.3	1.2	1.5	.7	.4	.4	.4
30						4.3	2.0	1.5	.7	.4	.4	.4
31						4.3		1.5		.4	.4	
Total						40.2	79.0	53.4	23.9	15.1	12.4	12.0
Mean						1.30	2.63	1.72	0.80	0.49	0.40	0.40
Ac-ft						80	156	106	48	30	25	24

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

* Discharge measurement made on this day.

Note.--Doubtful or no gage-height record Mar. 1-14, Apr. 20 to July 27; discharge estimated on basis of 2 discharge measurements, weather records, and records for South Fork Burnt River near Unity, North Fork Burnt River at Audrey, and Burnt River at Bridgeport.

South Fork Burnt River near Unity, Oreg.

Location.--Lat 44°24'00", long 118°19'40", in NW¼ sec. 32, T. 13 S., R. 36 E., 100 ft downstream from Elk Creek and 7 miles (revised) southwest of Unity.
Drainage area.--30.9 sq mi.
Records available.--March to September 1915, May to September 1916 (discontinued).
Gage.--Staff gage. Altitude of gage is 4,450 ft (from topographic map).
Extremes.--1915-16: Maximum discharge observed, 76 cfs Apr. 28, 1916 (gage height, 1.53 ft); minimum observed, 10 cfs Oct. 26, 30, Nov. 4, 7, 1915.
Remarks.--Water is diverted from most of the tributaries above station into Eldorado ditch which carries it over Beam Creek divide for irrigation of about 1,500 acres in the Willow Creek basin. No other regulation or diversion above station.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1915, superseding those published in WSP 413, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1915		1915-Con.		1915-Con.	
May 6	23	May 15	34	May 24	28
7	23	16	33	25	28
8	24	17	32	26	28
9	24	18	31	27	28
10	25	19	30	28	27
11	27	20	30	29	27
12	30	21	29	30	27
13	32	22	29	31	27
14	34	23	29		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
May 1915.....	34	20	27.8	1,710

Burnt River at Bridgeport, Oreg.

Location.--Lat 44°30', long 117°44;, SW¼SW¼ sec. 20, T. 12 S., R. 41 E., a quarter of a mile upstream from Clark Creek and 1½ miles northeast of Bridgeport.
Drainage area.--600 sq mi, approximately. At site used March 1915 to October 1916, 580 sq mi, approximately.
Records available.--March 1915 to September 1916, January 1931 to November 1935 (discontinued). Monthly discharge only for some periods published in WSP 1317.
Gage.--Water-stage recorder. Altitude of gage is 3,350 ft (by barometer). Mar. 11, 1915, to Sept. 30, 1916, staff gage 1¾ mile upstream at different datum.
Extremes.--1915-16, 1931-35: Maximum discharge observed, 1,280 cfs Apr. 12, 1916 (gage height, 6.40 ft, site and datum then in use); no flow at times.
Revisions.--The maximum discharge for the period March to September 1915 has been revised to 361 cfs Mar. 31, 1915 (gage height, 4.45 ft), superseding figure published in WSP 413.
Remarks.--Transmountain diversions to and from basin above station. Many diversions for irrigation above station. No known regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1915, superseding those published in WSP 413, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1915		1915-Con.		1915-Con.	
Mar. 16	102	Mar. 26	196	Apr. 5	293
17	102	27	164	6	260
18	115	28	150	7	220
19	122	29	196	8	196
20	122	30	244	9	150
21	136	31	361	10	122
22	147	Apr. 1	276	11	108
23	164	2	260	June 1	50
24	164	3	244		
25	188	4	310		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
March 1915.....	361	50	117	7,190
April.....	310	6	97.1	5,780
June.....	50	3.2	12.7	756

Powder River at Baker, Oreg.

Location.--Lat 44°46'30", long 117°49'40", in SW¼ sec. 16, T. 9 S., R. 40 E., at the Washington Avenue Bridge in Baker.

Drainage area.--351 sq mi.

Records available.--May to September 1913, April to July 1914 (discontinued).

Gage.--Staff gage. Altitude of gage is 3,420 ft (from topographic map).

Extremes.--1913-14: Maximum discharge observed, 748 cfs May 27-29, 1913 (gage height, 4.0 ft); no flow Sept. 11-30, 1913.

Remarks.--Baldock Slough diverts above station on line between secs. 16 and 21, T. 9 S., R. 40 E., and Old Settlers Slough diverts above station in the W½ sec. 21, T. 9 S., R. 40 E., both for irrigation below station. Most of summer flow diverted for irrigation above station.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1913, superseding figures published in WSP 362, are given herewith:

July 12, 1913..... 47
17, 1913..... 52

Month	Maximum	Minimum	Mean	Runoff in acre-feet
July 1913.....	187	11	60.0	3,690

North Powder River at North Powder, Oreg.

Location.--Lat 45°01'40", long 117°55'00", in NE¼SE¼ sec. 22, T. 6 S., R. 39 E., near east boundary of town of North Powder, 1¼ miles upstream from mouth.

Drainage area.--129 sq mi.

Records available.--March 1912 to July 1914 (discontinued).

Gage.--Staff gage. Altitude of gage is 3,230 ft (from topographic map).

Extremes.--1912-14: Maximum discharge observed, 1,150 cfs May 28, 1913 (gage height, 3.8 ft); minimum observed, 0.1 cfs July 26-31, 1914.

Remarks.--Diversions for irrigation above gage.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1913, superseding those published in WSP 362, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1913		1913-Con.		1913-Con.	
Aug. 7	3.5	Aug. 16	4.9	Aug. 26	4.9
8	3.5	17	4.9	27	3.5
9	3.5	19	4.9	28	2.4
10	3.5	21	3.5	29	2.4
11	3.5	22	4.9	30	2.4
12	4.9	23	3.5	31	3.5
13	4.9	24	4.9		
14	4.9	25	4.9		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
August 1913.....	9.4	2.4	4.95	304

Powder River near North Powder, Oreg.

Location.--Lat 45°03'40", long 117°52'40", in NE¼ sec. 12, T. 6 S., R. 39 E., 2 miles downstream from Wolf Creek and 3 miles northeast of North Powder.
Drainage area.--860 sq mi (revised), approximately.
Records available.--May 1913 to July 1916, February 1920 to July 1925 (discontinued).
Gage.--Staff gage. Altitude of gage is 3,200 ft (from topographic map). Prior to June 20, 1913, at about same site at different datum.
Extremes.--1913-16, 1920-25: Maximum discharge observed, 3,010 cfs May 20, 21, 24, 25, 1921 (gage height, 8.1 ft); minimum observed, 1.0 cfs July 11-13, 16-19, 26, 1924.
Revisions.--The maximum discharge for the water year 1914 has been revised to 1,270 cfs May 24, 1914 (gage height, 4.94 ft), superseding figure published in WSP 393.
Remarks.--Diversions for irrigation of about 72,000 acres above station. No regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1913, 1920, and 1921, superseding those published in WSP 362, 513, and 533, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1913		1913-Con.		1913-Con.		1921-Con.		1921-Con.	
June 1	1,260	June 25	440	July 15	475	Jan. 12	110	Feb. 10	210
2	1,390	26	440			13	140	11	240
3	1,260	27	492	1920		14	170	12	250
4	1,260	28	990	Feb. 2	280	20	150	13	260
5	1,200	29	862	6	200	21	130	15	280
6	1,200	30	730	8	230	22	120	16	200
7	1,080	July 1	630	Dec. 14	110	23	100	17	160
8	965	2	790	15	120	24	150	18	170
9	1,260	3	750	21	160	29	180	19	180
10	1,200	4	750	22	140	30	160	20	190
11	850	5	710	23	130	31	150	21	190
12	900	6	710	24	140	Feb. 1	160	22	180
13	740	7	630	25	140	2	170	23	180
14	600	8	590	26	110	3	170	24	200
15	580	9	590	27	120	4	150	25	210
16	560	10	570	28	140	5	140	26	240
17	520	11	590			6	120	27	270
18	492	12	510	1921		7	115	28	320
23	398	13	630	Jan. 10	125	8	140	Sept.17	58
24	422	14	638	11	105	9	170		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
June 1913	1,390	336	788	46,900
July	790	39	351	21,600
February 1920	349	82	158	9,090
December 1920	185	110	140	8,610
January 1921	227	100	166	10,200
February	320	115	199	11,100
September	87	15	52.7	3,140
Calendar year 1921	3,010	-	492	357,000

Eagle Creek near Newbridge, Oreg.

Location.--Lat 44°51'20", long 117°14'20", in sec. 20, T. 8 S., R. 45 E., at Gover's ranch, 1½ miles downstream from Skull Creek and 4½ miles (revised) northwest of Newbridge.
Drainage area.--170 sq mi, approximately.
Records available.--May 1910 to December 1911, February to May 1914.
Gage.--Staff gage. Altitude of gage is 2,680 ft (from topographic map). May 5, 1910, to Dec. 31, 1911, staff gage at different datum.
Extremes.--1910-11, 1914: Maximum discharge observed, 1,640 cfs May 10, 1910 (gage height, 4.7 ft, datum then in use), from rating cruve extended above 1,000 cfs; minimum observed, 55 cfs Feb. 6, 1914 (gage height, 0.20 ft).
Remarks.--Sparta ditch diverts for mining and irrigation above station. Eagle River Power Co's ditch diverts water but returns water above station. Gover's ditch diverts from left bank above station for irrigation of about 40 acres on ranch at station. Dry gulch ditch diverts from right bank above station in NE¼NW¼ sec. 20, T. 8 S., R. 45 E., for irrigation of land below station, increasing from about 600 acres in 1910 to about 2,000 acres in 1914. No known regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1911, superseding those published in WSP 393, are given herewith:

1911		1911-Con.	
May 16	950	May 22	900
17	1,100	23	900
18	1,000	24	830
19	1,000	25	800
20	950	26	780
21	900		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
May 1911	1,100	650	842	51,800
Water year 1910-11	1,580	110	408	295,000
Calendar year 1911	1,580	110	380	275,000

Grande Ronde River at Elgin, Oreg.

Location.--Lat 45°34', long 117°55', in NW¼ sec. 14, T. 1 N., R. 39 E., at highway bridge a quarter of a mile east of Elgin and half a mile downstream from Phillips Creek.
Drainage area.--1,400 sq mi (revised), approximately.
Records available.--November 1903 to September 1912, April 1918 to August 1919 (discontinued).
Gage.--Chain gage. Altitude of gage is 2,640 ft (by levels to approximate gage datum). Nov. 20, 1903, to July 20, 1904, staff gage, and July 21, 1904, to Aug. 15, 1912, chain gage at different datum.
Average discharge.--8 years (1904-12), 843 cfs.
Extremes.--Maximum and minimum discharges for the water years 1905-12 are contained in the following table:

Water year	Maximum observed			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1905	May 8, 1905	1,930	4.16	Aug. 29, Sept. 1-10, 1905	21	1.3
1906	June 3, 1906	5,200	5.80	-	-	-
1907	Apr. 15,16,1907	6,000	6.20	Aug. 17, 1907	*49	1.6
1908	Mar. 18, 1908	6,000	6.2	Sept. 1-9, 1908	43	1.49
1909	June 4, 1909	2,930	4.60	Aug. 22, Aug. 25 to Sept. 1, 1909	36	1.45
1910	Mar. 22, 1910	9,220	8.1	Aug. 14-17, 21-24, 1910	20	1.15
1911	Mar. 25, 1911	*2,800	4.5	Aug. 23, 24, 1911	17	1.1
1912	Apr. 11-13, May 11, 13, 16, 1912	6,880	6.8	Oct. 1, 1911	*43	1.40

* Revised.

1903-12, 1918-19: Maximum discharge observed, 9,220 cfs Mar. 22, 1910 (gage height, 8.1 ft, datum then in use), from rating curve extended above 3,500 cfs; minimum observed, 17 cfs Aug. 23, 24, 1911 (revised).

Flood of February 1917 reached a stage of 10.3 ft, from floodmark (discharge, 10,500 cfs, from rating curve extended above 4,400 cfs).

Revisions.--The maximum discharge observed for the water year 1911 has been revised to 2,800 cfs Mar. 25, 1911 (gage height, 4.5 ft), superseding figure published in WSP 312. The minimum discharge for the water years 1907 and 1912 have been revised to 49 cfs Aug. 17, 1907 (gage height, 1.6 ft) and 43 cfs Oct. 1, 1911 (gage height, 1.40 ft), superseding figures published in WSP 370 and 332, respectively.
Remarks.--Diversions for irrigation of about 35.000 acres above station. No known regulation.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1904-12, and 1919, superseding those published in WSP 370, 312, 332, and 513, are given herein. Complete tables of daily discharge are given for the water years 1905-12, but only revised discharges are given for other years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1904		1904-Con.		1904-Con.		1918-Con.	
Sept. 1	57	Sept.12	50	Sept.23	57	Dec. 28	110
2	57	13	50	24	57	30	100
3	66	14	57	25	66	31	90
4	66	15	57	26	87		
5	66	16	57	27	87	1919	
6	66	17	57			Jan. 1	80
7	66	18	57	1918		2	90
8	57	19	50	Dec. 24	115	7	110
9	57	20	50	25	100	8	90
10	57	21	50	26	90	9	80
11	66	22	50	27	100	10	100

Month	Maximum	Minimum	Mean	Runoff in acre-feet
September 1904.....	128	50	66.8	3,970
December 1918.....	135	80	113	6,950
January 1919.....	370	80	187	11,500

Grande Ronde River at Elgin, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1904 to September 1905

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	99	113	150	240	655	*848	1,080	805	260	29	21
2	99	99	113	150	305	622	805	1,080	848	260	29	21
3	99	99	113	180	185	690	935	1,140	848	220	25	21
4	74	99	99	130	168	725	890	1,370	848	202	25	21
5	74	99	99	110	168	725	890	1,700	890	190	25	21
6	74	99	143	110	168	690	1,080	1,770	890	185	25	21
7	74	113	113	110	152	690	1,080	1,770	890	168	25	21
8	74	113	113	140	122	622	1,190	1,930	805	122	25	21
9	86	99	86	137	110	622	1,190	1,920	725	95	25	21
10	113	99	99	129	80	530	1,190	1,920	725	84	25	21
11	128	99	99	110	60	530	1,030	1,840	690	73	25	27
12	128	128	99	90	120	530	980	1,700	690	73	25	27
13	128	114	113	150	180	502	890	1,560	690	64	25	27
14	143	99	128	168	120	560	805	1,560	690	64	25	27
15	143	99	128	168	137	655	725	1,430	655	64	25	27
16	143	128	99	168	137	725	765	1,370	622	64	25	27
17	158	113	99	168	168	655	765	1,310	530	54	29	27
18	190	99	113	168	122	560	725	1,370	475	54	29	27
19	158	99	128	185	122	655	725	1,370	448	47	29	34
20	128	113	128	220	137	655	765	1,250	420	47	29	34
21	113	113	128	168	185	765	980	1,140	395	54	25	*42
22	113	113	113	240	220	805	980	*1,080	348	47	25	42
23	113	99	113	330	260	848	1,030	980	348	40	25	42
24	128	113	128	330	305	805	1,030	980	370	40	25	42
25	128	99	128	330	410	765	1,190	980	280	40	25	42
26	113	113	74	382	530	805	1,250	890	348	40	25	42
27	113	113	99	382	655	890	1,310	805	348	34	25	71
28	113	113	143	382	655	890	1,190	848	348	34	25	71
29	99	113	143	440	-	935	1,190	805	348	29	21	82
30	99	113	99	330	----	890	1,080	805	325	29	25	82
31	99	---	128	260	---	805	------	805	------	29	25	------
Total	3,544	3,211	3,521	6,515	6,221	21,801	29,503	40,558	17,642	2,806	795	1,052
Mean	114	107	114	210	222	703	983	1,310	588	90.5	25.6	35.1
Ac-ft	7,010	6,370	7,010	12,900	12,300	43,200	58,500	80,600	35,000	5,560	1,570	2,090

Calendar year 1904: Max 8,350 Min 44 Mean 1,180 Ac-ft 857,000
Water year 1904-5: Max 1,930 Min 21 Mean 376 Ac-ft 272,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 26 to Jan. 13, Feb. 9-14.

Discharge, in cubic feet per second, water year October 1905 to September 1906

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	73	84	70	152	382	4,550	2,300	5,100	710	66	57
2	64	73	84	90	122	355	4,460	2,300	5,100	455	66	57
3	64	73	73	110	137	330	4,100	2,300	5,200	455	57	57
4	64	73	84	137	137	330	3,740	2,220	5,100	455	66	57
5	64	73	95	108	122	330	3,380	1,960	5,010	400	66	57
6	73	84	95	100	137	305	3,200	1,880	4,640	400	66	57
7	64	108	95	90	152	330	3,290	1,880	4,840	375	66	57
8	64	108	84	80	137	590	3,560	1,630	4,550	328	66	57
9	64	64	65	100	122	725	3,740	1,560	4,280	400	57	57
10	64	47	55	95	122	1,030	3,920	1,480	3,920	328	57	57
11	64	47	55	105	122	1,080	3,740	1,560	3,560	274	57	57
12	73	47	65	120	122	848	3,470	1,480	2,480	220	66	66
13	84	47	70	110	122	590	3,200	1,480	2,840	185	57	75
14	95	47	72	90	137	440	2,840	1,340	2,480	185	57	87
15	95	64	74	120	152	355	3,200	1,340	2,300	150	57	99
16	73	73	90	152	168	410	2,840	1,340	2,300	150	57	99
17	73	73	108	152	220	355	2,840	1,340	2,300	135	57	114
18	73	73	108	152	440	330	2,840	*1,150	2,040	135	57	128
19	73	73	108	137	410	330	2,840	880	1,710	120	57	128
20	73	84	108	137	560	330	2,840	835	1,560	106	57	128
21	84	73	108	122	530	305	2,840	710	1,340	92	57	128
22	84	54	85	137	530	355	3,200	710	1,210	80	57	114
23	84	42	65	137	500	530	3,560	710	980	80	57	114
24	84	47	80	152	470	1,430	3,380	710	930	80	57	99
25	84	47	95	185	440	1,990	3,290	710	880	80	57	99
26	84	47	137	200	410	2,480	3,020	710	790	80	57	99
27	152	64	108	220	470	3,020	2,840	640	710	80	57	99
28	152	54	90	185	440	3,210	2,700	640	799	80	57	99
29	152	65	100	152	-	3,400	2,570	980	*710	67	57	114
30	84	*75	105	152	----	3,600	2,130	2,750	640	67	57	114
31	84	---	105	137	-----	4,300	------	3,200	------	67	57	------
Total	2,562	1,972	2,750	4,034	7,583	34,395	98,120	44,725	80,099	6,819	1,839	2,630
Mean	82.6	65.7	88.7	130	271	1,110	3,270	1,440	2,670	220	59.3	87.7
Ac-ft	5,080	3,910	5,450	7,990	15,100	68,700	195,000	88,500	159,000	13,500	3,650	5,220

Calendar year 1905: Max 1,930 Min 21 Mean 368 Ac-ft 266,000
Water year 1905-6: Max 5,200 Min 42 Mean 788 Ac-ft 571,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 23-25, 29, 30, Dec. 9-16, 22-24, Dec. 28 to Jan. 3, Jan. 6-15.

Grande Ronde River at Elgin, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1906 to September 1907

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	128	202	1,210	1,280	3,110	1,960	2,480	1,840	605	107	65
2	99	135	202	980	1,480	2,840	1,960	2,400	1,920	570	96	84
3	99	135	185	880	1,090	2,590	2,480	2,400	1,920	500	84	84
4	99	150	185	1,340	1,090	2,130	2,660	2,400	1,700	500	84	84
5	99	185	185	1,090	4,640	1,790	2,660	2,400	1,700	500	65	96
6	99	185	202	1,560	3,920	1,790	2,840	*2,560	1,700	440	65	96
7	99	185	220	575	4,460	1,790	3,290	2,560	1,560	412	57	96
8	99	202	260	485	5,100	1,710	3,920	2,650	1,430	385	57	96
9	99	202	260	640	5,010	1,630	4,370	2,740	1,300	335	57	96
10	99	202	*282	575	4,460	1,790	4,820	2,830	1,190	360	57	96
11	99	202	305	575	4,190	1,880	5,200	3,020	1,190	310	65	84
12	99	202	305	485	3,920	1,800	5,500	3,120	1,250	285	74	84
13	114	202	305	515	3,560	1,710	5,800	2,920	1,250	285	74	90
14	114	260	282	458	3,200	1,630	5,900	2,830	1,190	285	65	*96
15	114	400	220	400	3,020	1,410	6,000	2,650	1,140	282	57	96
16	114	455	220	400	2,930	1,340	6,000	2,740	1,030	220	57	107
17	128	455	230	375	2,840	1,210	5,700	2,740	980	200	49	107
18	128	400	240	400	2,750	1,340	5,600	2,830	890	182	57	107
19	128	328	282	400	2,660	1,340	5,300	3,120	890	165	57	107
20	114	305	515	400	2,930	2,130	4,820	3,020	845	165	57	107
21	128	220	790	350	3,470	3,470	4,640	3,120	845	165	57	107
22	128	185	790	400	3,560	3,740	4,640	3,020	800	135	57	107
23	128	260	980	375	3,740	4,100	4,640	2,700	760	135	57	107
24	128	220	1,150	375	3,740	4,280	4,550	2,480	760	135	57	107
25	128	220	1,790	375	3,920	3,920	4,280	2,310	680	135	57	107
26	128	220	2,480	350	3,920	3,110	4,100	2,230	570	121	57	107
27	128	220	2,660	305	3,740	3,110	3,920	2,070	605	121	57	107
28	128	220	2,570	328	3,380	2,570	3,560	2,000	605	107	57	107
29	128	168	1,960	515	-	2,300	3,470	1,920	605	107	65	107
30	128	185	1,710	710	-------	2,040	3,110	1,840	605	107	65	107
31	128	-------	1,480	1,340	-------	1,960	-------	1,840	-------	107	65	-------
Total	3,550	7,036	23,447	19,166	94,000	71,360	127,690	79,940	33,750	8,341	1,992	2,948
Mean	115	235	756	618	3,360	2,300	4,260	2,580	1,120	269	64.3	98.3
Ac-ft	7,070	14,000	46,500	38,000	187,000	141,000	253,000	159,000	66,600	16,500	3,950	5,850

Calendar year 1906: Max 5,200 Min 57 Mean 861 Ac-ft 624,000
Water year 1906-7: Max 6,000 Min 49 Mean 1,300 Ac-ft 938,000

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1907 to September 1908

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	135	135	240	b75	400	980	2,390	790	335	64	43
2	107	135	135	240	b80	375	980	2,480	750	320	64	43
3	115	135	135	220	b95	328	980	2,480	675	285	61	43
4	121	135	121	200	107	328	980	2,220	*718	280	56	43
5	121	135	121	200	121	305	1,040	2,040	703	266	56	43
6	121	135	121	165	121	305	1,150	1,960	696	271	56	43
7	121	135	135	165	150	282	1,150	2,040	696	258	54	43
8	121	135	135	150	150	260	1,090	2,040	689	215	54	43
9	107	135	135	165	150	260	1,090	1,960	682	195	52	43
10	107	135	135	165	150	282	1,410	1,790	835	167	52	45
11	107	135	135	165	150	282	1,790	1,480	880	160	49	47
12	107	121	165	135	135	305	2,480	1,410	890	154	49	54
13	107	135	150	135	b110	455	3,020	1,150	900	136	49	56
14	107	135	135	150	b120	790	3,290	980	910	130	49	56
15	107	135	135	135	135	3,110	3,470	880	910	130	49	63
16	107	135	b130	135	150	5,400	3,650	1,040	890	125	49	67
17	107	135	b120	135	165	5,800	3,560	1,090	835	120	49	80
18	107	150	b110	135	165	6,000	3,560	880	799	120	48	87
19	107	150	b120	135	165	5,600	3,740	930	750	115	48	87
20	107	150	b150	135	165	4,370	4,010	835	696	110	48	92
21	107	150	b220	135	150	3,380	4,100	980	675	105	48	106
22	107	150	b250	135	150	2,390	4,280	980	575	101	48	106
23	107	150	b270	135	150	1,880	4,190	980	588	94	48	103
24	107	165	b320	121	165	1,790	3,740	1,040	533	85	48	103
25	107	182	412	121	240	1,880	3,560	1,040	461	75	48	98
26	107	182	720	121	310	1,880	3,200	1,090	438	74	48	100
27	107	182	605	121	335	1,790	2,840	1,040	433	72	48	100
28	107	165	335	121	335	1,560	2,660	980	428	68	48	100
29	107	165	285	121	335	1,340	2,220	980	428	68	48	109
30	121	150	240	b105	-------	1,150	2,300	930	400	68	48	114
31	135	-------	240	b90	-------	1,090	-------	880	-------	66	48	-------
Total	3,437	4,372	6,555	4,631	4,829	55,367	76,510	42,995	20,653	4,768	1,584	2,160
Mean	111	146	211	149	167	1,790	2,550	1,390	688	154	51.1	72.0
Ac-ft	6,820	8,690	13,000	9,160	9,610	110,000	152,000	85,500	40,900	9,470	3,140	4,280

Calendar year 1907: Max 6,000 Min 49 Mean 1,240 Ac-ft 899,000
Water year 1907-8: Max 6,000 Min 43 Mean 623 Ac-ft 453,000

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

Grande Ronde River at Elgin, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1908 to September 1909

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	122	118	130	215	485	1,340	1,560	2,660	355	150	36
2	98	122	118	130	305	485	1,410	1,560	2,750	305	135	45
3	94	120	118	160	258	515	1,480	1,560	2,750	280	106	45
4	94	120	118	160	215	640	1,630	1,560	2,930	305	106	45
5	94	120	118	160	178	750	1,410	1,560	2,750	258	92	45
6	94	120	120	150	160	710	1,210	1,630	2,480	258	80	45
7	94	118	120	135	160	640	1,090	1,710	1,880	235	80	45
8	96	118	118	135	160	608	980	1,710	1,710	215	80	45
9	96	118	118	110	160	608	790	1,880	1,630	195	80	45
10	96	118	120	100	130	575	880	1,790	1,410	195	56	56
11	98	118	120	90	130	545	1,090	1,560	1,280	195	56	56
12	101	118	125	90	130	455	1,090	1,560	1,210	178	56	56
13	101	120	125	90	160	485	1,210	1,410	1,150	178	56	56
14	105	120	120	90	178	485	1,340	1,280	1,150	160	56	56
15	118	120	115	120	195	515	1,480	1,280	1,090	145	36	56
16	122	120	110	200	535	640	1,630	1,280	1,040	118	36	80
17	*160	122	105	320	535	980	1,480	1,280	980	105	56	80
18	154	125	100	250	790	1,210	1,480	1,150	930	105	56	80
19	128	125	105	400	640	980	1,410	1,150	930	94	56	80
20	120	125	105	640	570	880	1,280	1,150	930	94	56	80
21	112	122	110	980	500	790	1,210	1,150	930	83	56	80
22	105	122	110	980	380	710	1,210	1,150	835	74	36	80
23	112	120	115	640	330	675	1,090	1,150	790	74	45	80
24	122	120	125	500	280	675	1,090	1,040	750	74	45	80
25	122	118	135	355	305	880	1,340	1,040	675	74	36	80
26	120	118	160	330	330	1,090	1,480	1,040	545	74	36	80
27	120	118	167	280	305	1,340	1,630	1,410	485	94	36	80
28	120	118	167	160	330	1,340	1,790	2,130	428	118	36	80
29	122	115	167	160	-	1,410	1,690	2,570	400	94	36	80
30	122	115	167	160	-------	1,410	1,790	2,570	375	145	36	80
31	122	-------	167	160	-------	1,340	-------	2,570	-------	145	36	-------
Total	3,463	3,595	3,906	8,365	8,564	24,851	40,030	47,440	39,853	5,022	1,919	1,932
Mean	112	120	126	270	306	802	1,330	1,530	1,330	162	61.9	64.4
Ac-ft	6,890	7,140	7,750	16,600	17,000	49,300	79,100	94,100	79,100	9,960	3,810	3,830

Calendar year 1908: Max 6,000 Min 43 Mean 613 Ac-ft 446,000
Water year 1908-9: Max 2,570 Min 36 Mean 518 Ac-ft 375,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 14-25, Jan. 6-19.

Discharge, in cubic feet per second, water year October 1909 to September 1910

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	92	440	160	150	3,280	3,820	2,750	575	57	23	23
2	74	106	440	130	120	5,440	3,820	2,410	545	57	23	23
3	74	106	440	90	110	5,350	3,640	2,250	545	43	23	23
4	74	106	380	110	120	6,160	3,640	2,250	455	43	23	23
5	74	106	280	105	150	6,340	3,460	2,330	455	43	23	23
6	74	120	260	100	170	6,160	3,190	2,330	400	43	23	23
7	83	120	350	110	180	5,440	3,190	2,090	375	43	23	23
8	83	120	380	140	160	4,900	3,460	1,780	350	43	23	23
9	83	135	380	160	180	4,360	3,730	1,930	305	43	23	23
10	94	120	380	170	210	4,180	4,180	2,500	260	32	23	23
11	83	120	280	160	200	4,270	4,990	2,500	260	32	23	23
12	83	120	235	150	215	4,360	4,900	2,410	220	38	23	23
13	70	106	280	130	215	4,540	4,990	2,330	202	38	23	23
14	64	106	355	178	215	4,900	4,810	2,250	185	38	20	23
15	*64	106	280	160	210	5,260	4,630	2,090	185	38	20	*28
16	64	106	235	150	160	5,440	4,270	2,170	167	32	20	28
17	64	92	235	170	180	5,800	4,090	1,930	167	28	20	32
18	64	106	215	195	215	5,890	4,090	1,780	150	32	23	32
19	64	106	215	170	215	6,160	4,090	1,630	135	32	23	32
20	74	202	215	120	215	8,770	4,090	1,480	135	28	23	38
21	64	185	160	170	195	8,320	4,180	1,210	135	32	20	38
22	64	640	120	195	195	9,220	4,180	1,090	135	28	20	43
23	64	980	120	190	195	8,860	4,180	980	120	28	20	43
24	64	1,210	140	130	235	7,780	4,000	880	106	23	20	43
25	64	1,090	150	180	300	6,970	4,000	835	92	23	23	38
26	64	710	160	160	440	6,160	4,000	835	68	23	23	38
27	74	640	150	150	500	5,800	4,000	930	68	23	23	38
28	83	515	130	170	640	5,260	3,640	835	68	23	23	38
29	83	455	150	140	-	4,720	3,460	790	52	23	23	38
30	83	455	140	167	-------	4,540	2,660	710	52	23	23	38
31	83	-------	180	170	-------	4,090	-------	640	-------	23	23	-------
Total	2,271	9,181	7,875	4,740	6,290	178,720	119,380	52,925	6,967	1,055	689	907
Mean	73.3	306	254	153	225	5,770	3,980	1,710	232	34.0	22.2	30.2
Ac-ft	4,510	18,200	15,600	9,410	12,500	355,000	237,000	105,000	13,800	2,090	1,360	1,800

Calendar year 1909: Max 2,570 Min 36 Mean 541 Ac-ft 391,000
Water year 1909-10: Max 9,220 Min 20 Mean 1,070 Ac-ft 776,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 27-31, Jan. 2-13, 15-17, 19-21, Jan. 23 to Feb. 11, Feb. 15-17, 25.

Grande Ronde River at Elgin, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1910 to September 1911

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	57	185	100		70	2,580	1,040	1,630	455	30	20
2	50	57	202	80		75	2,580	1,040	1,700	428	30	20
3	50	57	260	90		90	2,250	1,090	1,860	375	30	20
4	50	57	400	100		110	2,250	1,210	1,780	328	30	32
5	50	57	400	113		158	1,860	1,340	1,700	305	30	23
6	43	57	575	128		225	1,480	1,480	1,560	282	30	28
7	43	57	545	140		330	1,210	1,480	1,480	240	30	28
8	43	75	455	150		462	980	1,480	1,410	220	30	28
9	43	87	400	150		523	980	1,340	1,280	185	30	32
10	38	113	375	130		663	980	1,040	1,210	185	26	35
11	38	113	328	110		663	1,040	980	1,090	185	26	38
12	38	128	305	85		702	980	980	1,090	167	26	32
13	38	128	260	105		702	930	980	1,090	150	26	32
14	38	113	220	110		875	835	1,040	1,090	135	23	38
15	38	113	202	120	100	1,080	710	980	1,090	120	23	38
16	38	87	185	110		1,320	640	1,480	980	92	23	38
17	38	87	150	90		1,510	675	1,930	930	92	23	38
18	38	87	167	143		1,800	675	2,410	790	92	23	38
19	43	87	167	158		1,800	710	2,580	640	68	23	38
20	43	128	185	130		1,800	675	2,750	575	68	20	32
21	50	158	167	110		1,960	675	2,580	515	60	20	32
22	50	174	150	105		2,620	710	2,580	515	60	20	38
23	57	190	150	100		2,620	835	2,410	485	39	17	38
24	57	225	150	120		2,620	980	2,250	455	34	17	38
25	57	190	150	130		2,800	1,150	2,250	455	34	20	38
26	57	174	150	143		2,620	1,340	2,090	455	34	20	43
27	57	158	150	143		2,280	1,480	1,930	400	30	20	43
28	57	158	150	130		1,730	1,480	1,780	428	30	20	43
29	57	174	150	110	-	1,800	1,340	1,780	455	30	20	43
30	57	174	135	143	-------	1,800	1,210	1,700	455	30	20	43
31	57	-------	120	130	-------	1,960	-------	1,700	-------	30		-------
Total	1,456	3,520	7,588	3,706	2,800	39,768	36,220	51,700	29,593	4,583	746	1,027
Mean	47.0	117	245	120	100	1,280	1,210	1,670	986	148	24.1	34.2
Ac-ft	2,890	6,960	15,100	7,380	5,550	78,700	72,000	103,000	58,700	9,100	1,480	2,040

Calendar year 1910: Max 9,220 Min 20 Mean 1,050 Ac-ft 763,000
Water year 1910-11: Max 2,800 Min 17 Mean 501 Ac-ft 363,000

Note.--Stage-discharge relation affected by ice Jan. 1-4, 7-17, 20-25, 28, 29, Jan. 31 to Mar. 4.

Discharge, in cubic feet per second, water year October 1911 to September 1912

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	66	113	65	880	675	2,920	5,440	6,160	1,340	150	80
2	57	66	113	60	710	640	3,280	5,880	6,160	1,210	185	80
3	57	57	113	55	545	608	3,640	5,980	5,800	1,210	185	90
4	50	66	113	*65	515	545	4,360	5,980	5,440	1,090	185	90
5	50	75	99	70	545	545	4,900	5,800	5,260	1,040	260	90
6	50	75	99	70	545	575	5,260	5,800	5,080	790	260	90
7	57	87	99	50	575	640	5,260	5,440	4,720	675	220	90
8	75	99	99	55	640	750	5,440	5,620	4,540	608	185	90
9	75	99	99	65	1,210	790	5,980	5,980	4,360	515	168	90
10	57	113	99	80	1,780	790	6,520	6,520	4,180	455	168	90
11	57	87	99	68	2,410	750	6,880	6,880	4,000	428	150	90
12	75	75	99	92	2,330	640	6,880	6,700	4,000	375	150	80
13	99	75	87	141	2,330	675	6,880	6,880	4,000	350	150	80
14	99	75	87	304	1,780	710	6,340	6,700	4,000	350	135	80
15	99	87	87	304	1,780	1,040	5,620	6,700	4,000	328	120	80
16	75	128	87	1,640	2,330	1,040	5,080	6,880	4,000	305	120	80
17	75	158	87	1,500	3,280	1,040	4,540	6,520	3,640	282	120	80
18	75	143	85	1,320	3,640	880	4,360	6,520	3,640	260	120	80
19	75	143	75	923	3,280	790	4,180	6,340	3,460	240	100	70
20	75	135	60	829	2,920	710	4,000	6,520	3,280	220	100	70
21	75	128	65	743	2,330	675	3,640	6,520	3,100	220	100	70
22	75	128	75	589	1,860	675	3,460	6,340	2,920	260	100	70
23	75	128	87	523	1,630	675	3,280	6,160	2,580	305	100	70
24	66	113	87	663	1,340	710	3,460	5,620	2,580	282	100	70
25	66	113	70	1,020	1,150	1,040	3,640	5,080	2,330	282	100	70
26	66	113	75	2,110	930	1,560	4,000	5,080	2,170	240	90	60
27	66	113	80	1,380	710	2,090	4,180	5,440	2,010	220	90	60
28	66	113	75	1,380	710	2,330	4,180	6,160	1,860	185	*90	60
29	66	113	75	1,320	710	2,920	5,620	6,160	1,630	185	90	60
30	66	99	70	1,250	-------	2,920	5,440	6,160	1,560	168	80	60
31	66	-------	70	1,140	-------	2,920	-------	6,160	-------	150	80	-------
Total	2,128	3,070	2,728	19,874	45,395	33,348	143,220	189,960	112,460	14,568	4,251	2,320
Mean	68.6	102	88.0	641	1,570	1,080	4,770	6,130	3,750	470	137	77.3
Ac-ft	4,220	6,070	5,410	39,400	90,300	66,400	284,000	377,000	223,000	28,900	8,420	4,600

Calendar year 1911: Max 2,800 Min 17 Mean 488 Ac-ft 354,000
Water year 1911-12: Max 6,880 Min 43 Mean 1,570 Ac-ft 1,140,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 18-22, Dec. 25 to Jan. 17 (no gage-height record Jan. 5-9). No gage-height record Aug. 16 to Sept. 30; discharge estimated on basis of 1 discharge measurement and records for other streams in the basin.

Wallowa River above Wallowa Lake, near Joseph, Oreg.

Location (revised).--Lat 45°17', long 117°12', in SE¼SE¼ sec. 20, T. 3 S., R. 45 E., half a mile upstream from Wallowa Lake, three-eighths of a mile downstream from confluence of East and West Forks, and 5 miles south of Joseph.

Drainage area.--43 sq mi, approximately. At sites prior to Oct. 1, 1933, 42 sq mi, approximately.

Records available.--February to November 1924, April 1925 to September 1933, October 1936 to September 1938, April 1940 to September 1941 (discontinued). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder and wooden control at present site after Dec. 1, 1936. Altitude of gage is 4,400 ft (estimated from nearby benchmarks). Feb. 22, 1924, to June 20, 1927, water-stage recorder about three-eighths of a mile upstream at different datum. June 21, 1927, to Sept. 30, 1933, water-stage recorder about a quarter of a mile upstream at different datum.

Average discharge.--11 years (1925-1933, 1936-38, 1940-41), 107 cfs.

Extremes.--1924-33, 1936-38, 1940-41: Maximum discharge, 1,630 cfs (revised) June 26, 1927 (gage height, 2.75 ft, site and datum then in use), from rating curve extended above 380 cfs by logarithmic plotting; minimum, 11 cfs Sept. 30, 1931.
Revisions.--The maximum discharge for the water year 1927 has been revised to 1,630 cfs June 26, 1927 (gage height, 2.75 ft), superseding those published in WSP 653.

Remarks.--No known diversion. Slight regulation by powerplant on East Fork.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1925, 1927, and 1930, superseding those published in WSP 633, 653, and 708, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1925		1927		1927-Con.	
Apr. 15	180	May 15	250	May 30	150
16	190	16	350	31	150
17	180	17	400		
18	160	18	350	1930	
19	150	19	300	Jan. 6	22
20	130	20	240	7	20
21	120	26	200	8	17
22	115	27	190	9-22	†15
23	110	28	180	23	15
24	105	29	160		

† Average for period indicated.

Month	Maximum	Minimum	Mean	Per square mile	Runoff	
					Inches	Acre-feet
April 1925.....	200	60	125	2.98	3.32	7,440
May 1927.....	400	69	170	4.05	4.67	10,500
Water year 1926-27.....	1,100	28	134	3.19	43.30	97,200
Calendar year 1927.....	1,100	28	144	3.43	46.43	104,000
January 1930.....	27	-	18.0	.429	.49	1,110
Water year 1929-30.....	392	-	77.9	1.85	25.20	56,400
Calendar year 1930.....	392	-	80.9	1.93	26.15	58,600

Wallowa River near Wallowa, Oreg.

Location (revised).--Lat 45°35', long 117°32', in NW¼ sec. 11, T. 1 N., R. 42 E., a quarter of a mile downstream from Bear Creek and 1 mile northwest of Wallowa.

Drainage area.--520 sq mi (revised), approximately.

Records available.--October 1903 to March 1907 (discontinued).

Gage.--Staff gage. Altitude of gage is 2,880 ft (from river-profile map).

Extremes.--1903-7: Maximum discharge, 3,700 cfs Nov. 14, 1906 (gage height, 5.2 ft, from graph based on gage readings), from rating curve extended above 1,200 cfs by logarithmic plotting; minimum daily, 130 cfs Feb. 8, 1906.

Remarks.--Diversions for irrigation of about 40,000 acres above station. Company ditch diverts about 1,000 ft above station for irrigation below station. About 2 cfs is diverted on left bank (revised) about 300 ft above station for irrigation largely below station. Since 1906, some water has been diverted from Little Sheep Creek and tributaries in the Imnaha River basin for irrigation above station near Joseph. Slightly regulated since 1905 by storage in Wallowa Lake.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1904-7, superseding those published in WSP 135, 178, 214, 252 and 370, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1904		1905-Con.		1905-Con.		1906-Con.		1907	
Mar. 26	405	Jan. 8	200	Dec. 18	270	Jan. 18	220	Jan. 1	450
Aug. 1	550	9	220	19	270	19	210	2	380
2	550	10	210	20	250	20	200	9	280
3	550	11	190	21	230	21	170	10	300
4	550	12	180	22	180	22	200	11	360
5	500	13	190	23	160	23	230	12	300
6	500	14	220	24	190	25	260	13	270
7	500	16	300	25	210	28	180	14	220
8	500	17	320	26	250	30	250	15	250
9	461	18	320	27	250	Feb. 7	140	16	210
10	461	20	220			8	130	17	200
Dec. 22	220	21	210	1906		9	150	18	350
23	220	22	230	Jan. 2	190	10	170	22	340
24	230	June 16	862	3	210	11	200	23	290
25	220	17	693	4	250	Mar. 12	240	24	300
26	160	Dec. 10	170	5	270	13	190	25	300
27	180	11	160	8	170	14	170	26	300
28	210	12	170	9	190	15	150		
		13	190	10	190	16	150		
1905		14	190	11	200	17	140		
Jan. 6	210	15	190	15	170	18	170		
7	200	16	210	16	200	19	200		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
March 1904	1,790	320	579	35,600
August	550	331	433	26,600
Water year 1903-4	2,300	-	683	496,000
December 1904	371	226	250	15,400
Calendar year 1904	2,300	200	678	492,000
January 1905	461	180	264	16,200
June	2,300	693	1,430	85,100
Water year 1904-5	2,300	168	431	312,000
December 1905	276	160	229	14,100
Calendar year 1905	2,300	160	429	311,000
January 1906	270	170	217	13,300
February	330	130	242	13,400
March	710	140	342	21,000
Water year 1905-6	1,840	130	473	342,000
Calendar year 1906	3,100	130	543	393,000
January 1907	570	200	353	21,700

Minam River at Minam, Oreg.

Location.--Lat 45°37', long 117°43', in SW¼ sec. 29, T. 2 N., R. 41 E. (revised), at Minam, a quarter of a mile upstream from mouth.

Drainage area.--240 sq mi, approximately.

Records available.--June 1912 to March 1914 (discontinued).

Gage.--Staff gage. Altitude of gage is 2,540 ft (from river-profile map).

Extremes.--1912-14: Maximum discharge observed, 4,500 cfs May 28, 1913 (gage height, 7.3 ft); minimum daily, 90 cfs Jan. 5, 9, 19, 22, 27, 1913.

Remarks.--No known regulation or diversion.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1913-14, superseding those published in WSP 393, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1913		1913-Con.		1913-Con.		1913-Con.	
Jan. 3	110	Jan. 20	110	Feb. 8	100	Mar. 1	170
4	100	21	100	9	110	2	190
5	90	22	90	10	120	3	220
6	100	23	100	18	160	4	250
7	110	24	120	19	150	5	300
8	100	25	140	20	140	6	350
9	90	26	110	21	120	7	350
10	110	27	90	22	110		
11	130	28	100	23	110	1914	
12	150	29	115	24	120	Jan. 18	155
16	122	30	130	25	130	19	139
17	122	31	170	26	140	20	125
18	105	Feb. 6	100	27	150		
19	90	7	100	28	160		

Month	Maximum	Minimum	Mean	Per square mile	Runoff	
					Inches	Acre-feet
January 1913.....	180	90	117	0.488	0.56	7,190
February.....	180	100	134	.558	.58	7,440
March.....	1,140	168	316	1.32	1.52	19,400
Water year 1912-13...	4,500	90	614	2.56	34.72	444,000
Calendar year 1913...	4,500	90	631	2.63	35.68	457,000
January 1914.....	380	125	229	.954	1.10	14,100

Wallowa River at Minam, Oreg.

Location.--Lat 45°38', long 117°43', in W½ sec. 29, T. 2 N., R. 41 E., at Minam, 1,000 ft downstream from highway bridge and 1,200 ft downstream from Minam River.

Drainage area.--880 sq mi (revised), approximately.

Records available.--November 1903 to September 1907, October 1908 to March 1914 (discontinued). Prior to 1910, published as "near Elgin." Monthly discharge only for some periods, published in WSP 1317.

Gage.--Staff gage. Altitude of gage is 2,520 ft (from river-profile map).

Average discharge.--8 years (1904-7, 1908-13), 1,160 cfs.

Extremes.--1903-4: Maximum discharge observed during water year, 4,900 cfs May 24 (gage height, 5.4 ft); minimum not determined.
1903-7, 1908-14: Maximum discharge observed, 12,400 cfs Mar. 1, 1910 (gage height, 7.9 ft), from rating curve extended above 3,700 cfs by logarithmic plotting, result of sudden release of ice jam; minimum daily, 200 cfs Jan. 6, 1913, but may have been less during period of ice effect.
Revisions.--The maximum discharge observed for the water year 1905 has been revised to 4,000 cfs June 2, 3, 1905 (gage height, 5.0 ft), superseding figure published in WSP 370.

Remarks.--Diversions for irrigation of about 41,000 acres above station. Since 1906 some water has been diverted from Little Sheep Creek and tributaries in the Imnaha River basin for irrigation above station. Slightly regulated since 1905 by storage in Wallowa Lake.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1904-6 and 1913, superseding those published in WSP 370 and 362, are given herein. Complete table of daily discharge is given for the water year 1904, but only revised discharges are given for other water years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1905		1905-Con.		1905-Con.		1913-Con.		1913-Con.	
June 1	3,800	June 15	2,470	Dec. 29	320	Jan. 9	300	Jan. 27	300
2	4,000	20	1,980	30	350	10	250	28	300
3	4,000	21	2,140	31	360	12	400	29	300
4	3,800	22	2,300			13	450	Feb. 17	600
5	3,400	23	1,980	1906		14	500	18	500
6	2,820	24	2,140	Apr. 1	1,900	15	450	19	450
7	2,820	Dec. 21	320	2	1,610	16	400	20	400
8	3,200	22	280			17	350	21	370
9	4,000	23	240	1913		18	400	22	330
10	3,800	24	270	Jan. 3	370	19	330	23	300
11	3,800	25	320	4	300	20	250	24	310
12	3,600	26	400	5	230	22	300	25	330
13	3,200	27	370	6	200	23	280	26	350
14	2,820	28	340	7	270	26	350	27	360
								28	380

Month	Maximum	Minimum	Mean	Runoff in acre-feet
Calendar year 1904...	4,900	386	1,320	956,000
June 1905.....	4,000	1,190	2,590	154,000
Water year 1904-5....	4,000	215	761	551,000
December 1905.....	400	240	315	19,400
Calendar year 1905...	4,000	215	765	554,000
April 1906.....	2,560	1,200	1,600	95,200
Water year 1905-6....	3,700	240	919	666,000
Calendar year 1906...	5,420	300	1,050	758,000
January 1913.....	500	200	344	21,200
February.....	608	295	396	22,000
Water year 1912-13...	7,300	200	1,450	1,050,000
Calendar year 1913...	7,300	200	1,460	1,060,000

Wallowa River at Minam, Oreg.--Continued

Discharge, in cubic feet per second, water year November 1903 to September 1904

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		550	834	488	386	750	1,140	1,820	3,600	4,000	834	545
2		550	834	545	386	750	1,260	1,820	4,000	3,600	834	545
3		550	834	545	386	674	1,520	1,820	3,600	3,600	834	488
4		600	834	545	435	674	1,660	2,140	3,400	3,600	834	488
5		650	834	488	545	674	1,820	1,980	3,600	3,400	750	488
6		700	834	488	488	750	2,640	1,820	4,200	3,400	750	488
7		900	750	488	488	1,660	1,980	1,820	4,000	3,200	750	488
8		650	674	488	435	3,510	1,820	1,820	3,800	3,200	750	435
9		800	674	545	435	2,660	2,140	1,820	3,600	3,200	674	435
10		700	674	545	488	1,950	2,820	1,980	3,400	3,000	674	435
11		600	674	545	488	1,800	3,600	2,140	3,000	2,820	674	435
12		1,000	674	606	545	1,520	3,600	2,140	3,000	2,820	674	435
13		800	606	606	545	1,260	4,000	2,300	3,000	2,640	606	435
14		1,100	606	606	545	1,260	4,400	2,470	3,000	2,300	606	435
15		900	606	606	545	1,660	4,400	2,470	3,600	2,300	606	435
16		700	606	606	606	1,260	4,400	2,470	4,000	2,140	606	435
17		545	674	606	606	1,260	3,600	2,640	4,000	1,820	606	386
18		*545	674	606	488	1,260	3,200	3,000	4,400	1,660	606	386
19		606	674	606	606	1,260	3,200	3,000	4,000	1,660	606	386
20		674	674	386	545	1,380	3,200	2,820	3,600	*1,660	*545	386
21		834	674	435	545	1,140	3,200	3,200	3,400	1,660	545	386
22		1,800	606	488	834	1,030	2,470	4,000	3,400	1,820	545	386
23		1,380	606	488	1,380	1,030	2,300	4,650	3,200	1,820	545	386
24		1,260	606	435	1,950	1,030	1,980	4,900	2,640	1,820	545	386
25		1,260	545	435	834	1,030	1,820	4,000	2,640	1,660	545	386
26		1,260	488	386	834	750	1,820	3,200	2,640	1,520	488	386
27		1,140	488	386	1,140	750	1,980	3,200	2,640	1,380	545	*386
28		1,030	488	386	834	750	2,140	3,200	2,640	1,380	606	386
29		834	488	386	834	1,260	2,140	3,400	3,000	1,140	606	386
30		834	488	386	------	1,520	1,980	3,600	3,200	1,030	545	386
31		------	488	386	------	1,260	------	3,600	------	926	545	------
Total		25,752	20,209	15,541	19,176	39,522	78,230	85,240	102,200	72,176	19,879	12,849
Mean		858	652	501	661	1,270	2,610	2,750	3,410	2,330	641	428
Ac-ft		51,100	40,100	30,800	38,000	78,100	155,000	169,000	203,000	143,000	39,400	25,500

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

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 1-16; discharge estimated on basis of weather records and records for Minam River at Minam.

Joseph Creek at Chico, Oreg.

Location.--Lat 45°43', long 117°10', in NW¼ sec. 26, T. 3 N., R. 45 E., half a mile downstream from Chesnimnus Creek and 1 mile south of Chico.

Drainage area.--280 sq mi, approximately.

Records available.--June 1931 to September 1933 (fragmentary), discontinued.

Gage.--Staff gage. Altitude of gage is 3,190 ft (by barometer).

Extremes.--1931-32: Maximum discharge during water year, 1,220 cfs Apr. 2 or 3 (gage height, 5.5 ft, from floodmark); minimum, 3 cfs Aug. 1-9 (gage height, 0.98 ft).
1932-33: Maximum discharge during water year, 890 cfs Mar. 12 (gage height, 4.8 ft, from floodmark); minimum, 3 cfs July 28, 31 (gage height, 0.98 ft).
1931-33: Maximum discharge, that of Apr. 2 or 3, 1932; minimum observed, 2.5 cfs many days during periods Aug. 1-25, Aug. 29 to Sept. 5, 1931 (revised).

Remarks.--Small diversions for irrigation above station; no diversion around station. No regulation.

Revisions.--Revised figures of discharge for the water years 1932 and 1933, superseding those published in WSP 738 and 753, are given herein.

Discharge, in cubic feet per second, water year October 1931 to September 1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	6	6	5	118	730	*275	-	7	3	-
2	*5	7	8	6	5	-	890	290	-	7	3	4.5
3	5	7	10	6	5	-	-	305	83	-	-	4.5
4	-	-	10	6	5	53	615	-	80	10	-	-
5	6	-	10	6	5	54	580	-	-	9	3	4
6	6	7	10	7	5	-	-	350	77	*6	-	4
7	-	8	*10	7	5	92	-	320	77	-	-	-
8	-	-	7	7	5	94	380	-	-	7	3	-
9	6	7	6	7	5	-	365	260	-	7	3	4
10	6	7	6	8	5	-	-	260	41	-	-	4
11	-	-	5	10	5	63	615	-	41	6	-	-
12	6	-	5	10	5	61	890	-	-	6	7	5
13	6	12	5	10	5	-	-	145	43	-	7	5
14	-	13	5	11	5	53	-	145	43	-	-	-
15	-	-	5	12	5	54	615	-	-	5	3	-
16	6	11	12	12	5	53	650	89	-	5	3	*4.5
17	6	11	30	14	5	65	-	89	25	-	-	5
18	-	-	65	16	5	*650	440	-	25	5	-	-
19	7	-	65	16	5	610	440	-	-	5	5	5
20	7	9	22	14	5	510	-	63	22	-	5	5
21	-	9	26	11	5	380	-	74	22	-	-	-
22	-	-	25	10	5	365	260	-	-	5	5	-
23	8	10	21	10	5	-	260	165	-	5	5	5
24	8	10	19	9	5	-	-	210	11	-	-	5
25	-	-	19	*8	5	410	260	-	11	3	-	-
26	9	-	19	5	14	440	320	-	-	3	5	5
27	*8	14	16	5	30	-	-	110	10	-	5	5
28	-	8	14	5	70	650	-	102	10	-	-	-
29	-	-	14	5	125	650	290	-	-	3	5	-
30	10	7	10	5	------	-	290	110	-	3	5	5
31	10	------	7	5	------	-	------	110	------	-	-	------
Total	125	157	492	269	364	5,625	8,890	3,472	621	107	75	79.5
Mean	e6.9	e9.2	15.9	8.7	12.6	e281	e494	e183	e38.8	e5.6	e4.4	e4.68
Ac-ft	424	547	978	535	725	17,300	29,400	11,300	2,310	344	271	278

Calendar year 1931: Max - Min - Mean - Ac-ft -
Water year 1931-32: Max - Min - Mean 88.7 Ac-ft 64,400

* Discharge measurement made on this day.
e Partly estimated.
Note.--Stage-discharge relation affected by ice Nov. 28 to Dec. 15, Jan. 1, 4, 5, 9, 10, 25-30.

Joseph Creek at Chico, Oreg.--Continued

Discharge, in cubic feet per second, water year October 1932 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	9		8	6	14	-	280	160	-	-	6
2	-	-		7	7	13	-	-	128	-	-	-
3	5	-		7	8	16	510	-	*54	13	-	-
4	5	8		7	8	14	-	-	48	-	8	7
5	-	8		7	8	15	-	222	68	-	-	-
6	-	-		7	8	14	-	-	58	-	-	-
7	5	8		7	8	18	290	-	48	9	7	-
8	5	8		7	7	16	-	165	40	-	-	10
9	-	-		7	6	15	-	-	35	-	-	-
10	7	-		7	5	20	146	-	29	8	-	-
11	7	12		8	5	140	-	-	24	-	7	9
12	-	12		10	5	580	-	185	21	-	-	-
13	-	-		12	5	146	-	-	20	-	-	-
14	8	13		12	5	94	156	-	19	7	7	-
15	8	13		11	5	98	-	185	18	-	-	9
16	-	-	9	*11	5	120	-	-	18	-	-	-
17	8	-		10	5	146	210	-	18	7	-	-
18	8	14		8	5	110	-	-	17	-	7	10
19	-	14		7	5	*83	-	210	17	-	-	-
20	-	-		7	5	156	-	-	17	-	-	-
21	8	13		7	5	130	305	-	16	5	7	-
22	8	13		7	6	110	-	185	16	-	-	12
23	-	-		7	7	94	-	-	16	-	-	-
24	8	-		7	8	80	395	-	15	5	-	-
25	8	12		7	9	72	-	-	15	-	6	9
26	-	12		7	9	80	-	146	14	-	-	-
27	-	-		7	10	120	-	-	13	-	-	*7
28	8	13		7	12	140	410	-	14	3	6	-
29	8	13		6	-	150	-	128	15	-	-	6
30	-	-		6	------	180	-	-	16	-	-	-
31	9	------		6	------	210	------	-	------	3	-	------
Total	128	195	279	241	187	3,194	2,422	1,686	1,007	60	55	85
Mean	e7.1	e11.5	9	7.8	6.7	103	e303	e187	33.6	e6.7	e6.9	e8.5
Ac-ft	437	684	553	480	372	6,330	18,000	11,500	2,000	412	424	508

Calendar year 1932: Max - Min - Mean 88.3 Ac-ft 64,100
Water year 1932-33: Max - Min - Mean 57.6 Ac-ft 41,700

* Discharge measurement made on this day.
e Partly estimated.
Note.--Stage-discharge relation affected by ice Dec. 9 to Feb. 20.

Measurements of streamflow in the Snake River basin made at points other than regular gaging stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. Measurements believed to have been made under base-flow conditions are identified by an asterisk (*) to the left of the discharge figure. These measurements when correlated with the simultaneous discharge of a nearby stream where continuous records are available will give a picture of the low-flow potentiality of stream. The column headed, "Measured previously" shows the water years in which measurements were made at the same, or practically the same, site.

Determinations of peak flow at points other than regular gaging stations are given in a separate table on page 306.

Discharge measurements made at points other than gaging stations in the Snake River basin during the water year 1955

Henrys Fork basin, Idaho

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Teton River..	Henrys Fork..	On line between secs. 19 and 30, T. 3 N., R. 46 E., 100 ft downstream from Moose Creek, 200 ft upstream from String Canal, and 3½ miles southeast of Victor.	47.6	†1946-54	June 1	103
					July 14	113
					Aug. 3	73.4
					Aug. 24	55.0
Teton Creek..	Teton River..	1½ miles upstream from 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.	33.8	†1946-54	Aug. 3	79.3
Horseshoe Creek.	....do.....	In sec. 27, T. 5 N., R. 44 E., 90 ft upstream from bridge on old railroad grade, 4 miles upstream from mouth, and 7½ miles west of Driggs.	11.7	†1946-52, 1954	June 8	36.4
					June 21	20.4

Tributaries between Portneuf River and Salmon Falls Creek, Idaho

Rattlesnake Creek.	Bannock Creek	NE¼ sec. 26, T. 8 S., R. 33 E., 2 miles above mouth and 12 miles southwest of Pocatello.	a77		May 22	8.23
					June 20	4.26
					Aug. 26	3.21
East Fork Rock Creek.	Rock Creek...	SE¼ sec. 4, T. 10 S., R. 31 E., 3¼ miles above mouth and 2¼ miles east of Rockland.	21.2		June 21	7.22
					July 26	8.42
					Aug. 26	7.09
Devils Washbowl Springs.	Snake River..	NE¼NE¼ sec. 4, T. 10 S., R. 18 E., ½ mile above Twin Falls of Snake River and plant of Idaho Power Co. and 3½ miles north of Kimberly.	-	1902,1917, 1923-24, 1950-54	Apr. 4	*23.7
Devils Corral Spring (upper outlet).	....do.....	NE¼SE¼ sec. 32, T. 9 S., R. 18 E., on north side of Snake River, 100 ft above point where spring cascades down to river.	-	1902, 1923-24, 1939, 1950-54	Apr. 4	*42.7
Devils Corral Spring (lower outlet).	....do.....	SE¼NW¼ sec. 32, T. 9 S., R. 18 E., on north side of Snake River, 1/8 mile above mouth of creek.	-	1902,1923, 1950-54	Apr. 4	*8.30
Unnamed spring.	....do.....	Near center of sec. 31, T. 9 S., R. 18 E., on north bank of Snake River, ½ mile above Shoshone powerplant.	-	1950-54	Apr. 5	*1.94
Do.....	....do.....	Outlet to river in NW¼SW¼ sec. 31, T. 9 S., R. 18 E., on north bank of Snake River just above Shoshone Falls, on D. T. Heter property.	-	1950-54	Apr. 4	*6.05
Do.....	....do.....	SW¼NW¼ sec. 34, T. 9 S., R. 17 E., on north side of Snake River, 200 yards below Rim to Rim Bridge and 2 miles north of Twin Falls.	-	1950-54	Apr. 5	*1.35
Blue Lakes Outlet.	....do.....	SW¼SW¼ sec. 28, T. 9 S., R. 17 E., at point of entry to Snake River, 4 miles north of Twin Falls.	-	1902, 1913-14, 1917-47, 1950-54	Apr. 5	*b237
Sunnybrook Spring.	....do.....	SE¼SE¼ sec. 19, T. 9 S., R. 17 E., 3/8 mile above point of entry to river.	-	1950-54	Apr. 5	*15.5
Trail Springs (upper outlet).	....do.....	SW¼SW¼ sec. 14, T. 9 S., R. 16 E., 1 mile below Rock Creek and 6 miles northwest of Twin Falls.	-	1917, 1950-54	Apr. 5	*2.80
Crystal Springs.	....do.....	Sec. 12, T. 9 S., R. 15 E., 6½ miles above Devils Washboard Falls in Snake River and 7 miles northeast of Buhl.	-	1902, 1917,1919, 1924-25, 1931, 1950-54	Apr. 5	*517
Niagara Springs.	....do.....	E½NE¼ sec. 10, T. 9 S., R. 15 E., 4½ miles above Devils Washboard Falls and 6 miles northeast of Buhl.	-	1902, 1917-20, 1924,1931, 1950-54	Apr. 11	*b334

* Base flow.
† Gaging station operated 1946-52.
a Approximately.
b Discharge represents actual net spring flow adjusted for diversions and surface flow.

Discharge measurements made at points other than gaging stations in the Snake River basin during the water year 1955--Continued

Tributaries between Portneuf River and Salmon Falls Creek, Idaho--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Clear Lakes Outlet.	Snake River..	SW¼SE¼ sec. 2, T. 9 S., R. 14 E., at Clear Lakes plant of Idaho Power Co., 4½ miles north of Buhl.	-	1902, 1913-14, 1917,1920, 1924, 1926-27, 1937, 1950-54	Apr. 11	*b535
Briggs Creek.	....do.....	NW¼SE¼ sec. 4, T. 9 S., R. 14 E., 2 miles below Clear Lakes Outlet and 5½ miles northwest of Buhl.	-	1902,1913, 1917-20, 1924-25, 1931, 1950-54	Apr. 8	*b106
Banbury Springs.	....do.....	SE¼NW¼ sec. 33, T. 8 S., R. 14 E., at footbridge over outlet to Snake River, 7 miles northwest of Buhl.	-	1902,1913, 1917, 1919-20, 1924-25, 1950-54	Apr. 8	*b127
Unnamed spring.	....do.....	SE¼SW¼ sec. 28, T. 8 S., R. 14 E., on east side Snake River, 0.35 mile above Blind Canyon Spring and 7 miles northwest of Buhl.	-	1950-54	Apr. 8	*4.86
Blind Canyon Spring.	....do.....	NE¼SW¼ sec. 28, T. 8 S., R. 14 E., just upstream from Box Canyon and 7½ miles northwest of Buhl.	-	1902,1917, 1919, 1950-54	Apr. 8	*b15.1
Salmon Falls Creek.	....do.....	NW¼ sec. 6, T. 14 S., R. 15 E., 2 miles below dam of Salmon River Canal Co. and 8 miles northwest of Rogerson.	-	1912,1946, 1953-54	Jan. 7 Mar. 31 May 6 June 17	5.89 6.66 6.94 8.86
Do.....	....do.....	SE¼ sec. 19, T. 11 S., R. 14 E., at Roseworth Crossing, 5 miles south of Castleford.	-	1953-54	Oct. 26 Jan. 5 Mar. 31 June 23	8.38 6.70 8.19 9.57
Do.....	....do.....	NE¼ sec. 20, T. 10 S., R. 13 E., at Castleford Crossing, 4½ miles northwest of Castleford.	-	1912,1914, 1953-54	Oct. 26 Jan. 4 Mar. 31 June 23	35.2 35.3 36.8 31.1
Do.....	....do.....	NW¼ sec. 1, T. 10 S., R. 13 E., 6 miles west of Buhl.	-	1953-54	Oct. 27 Jan. 5 Mar. 31 July 6	110 81.6 79.3 100
Do.....	....do.....	NE¼ sec. 14, T. 9 S., R. 13 E., at Sheep Bridge, 7½ miles northwest of Buhl.	-	1953-54	Oct. 27 Jan. 4 Mar. 30 June 24 July 6	157 120 108 166 132
Do.....	....do.....	NE¼ sec. 30, T. 8 S., R. 14 E., 150 ft above U. S. Highway 30 and 9 miles northwest of Buhl.	-	1931, 1953-54	Oct. 28 Mar. 30 Jan. 4 June 24 July 5	183 127 133 161 143

Tributaries between Salmon Falls Creek and Malad River, Idaho

Sand Springs Creek.	Snake River..	SE¼ sec. 17, T. 8 S., R. 14 E., 100 ft upstream from Hy Berkowitz house and 7 miles southeast of Hagerman.	-	1902, 1912-13, 1917-21, 1924-25, 1931,1954	Apr. 6	*b96.6
Thousand Springs.	....do.....	Springs enter 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.	-	1920, 1950-54	Apr. 6	*c1,360
Riley Creek..	....do.....	SW¼NE¼ sec. 6, T. 8 S., R. 14 E., at Hagerman hatchery of U. S. Fish and Wildlife Service, 100 yds below mouth of Lewis Creek, 100 ft below small unnamed spring entering from right, and 5 miles southeast of Hagerman.	-	1950-54	Apr. 12	*59.6
Billingsly Creek.	....do.....	Near line between secs. 31 and 32, T. 7 S., R. 14 E. (spring heads in SW¼NW¼ sec. 32), at E. W. Bean farm, 1/8 mile below head of creek and 3¾ miles southeast of Hagerman.	-	1950-54	Apr. 7	*b45.2

*Base flow.
b Discharge represents actual net spring flow adjusted for diversions and surface flow.
c Discharge obtained by measuring Snake River above and below spring outlets and adjusting for surface flow.

Discharge measurements made at points other than gaging stations in the Snake River basin during the water year 1955--Continued

Tributaries between Salmon Falls Creek and Malad River, Idaho--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Birch Creek..	Snake River..	SE¼SE¼ sec. 34, T. 6 S., R. 13 E., on Bud Smith property, ¾ mile south of Malad River and 2½ miles north of Hagerman.	-	1950-54	Apr. 7	*b8.76
Malad River basin, Idaho						
Malad Springs	Malad River..	Springs head in SE¼ sec. 24, T. 6 S., R. 13 E., and enter Snake River in NW¼ sec. 34, T. 6 S., R. 13 E., 3 miles north of Hagerman.	-	1899, 1910-11, 1913,1917, 1919,1924, 1950-54	Apr. 7	*b4,210
Bruneau River basin, Idaho						
East Fork Bruneau River.	Bruneau River	SW¼ sec. 23, T. 11 S., R. 9 E., at road crossing at Clover Flat Ranch 28 miles northwest of Three Creek, (flow includes diversions to Clover Flat Ranch).	a490	1953-54	Oct. 25 Nov. 29 Jan. 6 Feb. 23 Apr. 1 Apr. 26 May 13 June 16 July 7 Aug. 9	2.99 3.07 5.90 6.03 15.4 14.0 10.8 67.2 10.5 2.25
Owyhee River basin, Oreg.						
Crooked Creek	Owyhee River.	At former gaging station, 6 miles southwest of Rome.	a1,700	1946, 1949-54	Oct. 5 Nov. 18 Feb. 10 Mar. 25 June 7 Aug. 24	25.1 26.2 25.3 28.7 20.8 25.0
Malheur River basin, Oreg.						
Warm Springs Creek.	North Fork Malheur River.	Near line between secs 1 and 2, T. 19 S., R. 37 E., 2½ miles northeast of Beulah.	a90	1936,1938, 1941,1944, 1946-54	Oct. 5 Nov. 16	5.43 2.5
Malheur River	Snake River..	At former gaging station below Nevada Dam near Vale.	a3,880	1927-34, 1937-42, 1945-54	Oct. 13	114
Cow Creek....	Willow Creek.	At former gaging station, 8 miles northwest of Brogan.	a75	1912-14	Aug. 23	.28
Burnt River basin, Oreg.						
North Fork Burnt River	Burnt River..	Sec. 3, T. 11 S., R. 36 E., an eighth of a mile below Trout Creek and 9 miles southwest of Sumpter.	102	1952-54	Oct. 13 Sept.20	1.26 .94
Middle Fork Burnt River	....do.....	NW¼ sec. 22, T. 12 S. R. 36 E., at highway bridge, 7 miles northwest of Unity.	9.70	1952,1954	May 13	2.48
Powder River basin, Oreg.						
Powder River.	Snake River..	At former gaging station near Haines.	572	1947-54	Sept.20	3.33
Wolf Creek...	Powder River.	At former gaging station near North Powder.	32.9	1946-54	Sept.21	1.30
Eagle Creek..	....do.....	Sec. 7, T. 8 S., 45 E., above Skull Creek, 8 miles northwest of Newbridge.	160	1926, 1948-54	Aug. 19	*149
Grande Ronde River basin, Oreg.						
Grande Ronde River.	Snake River..	Sec. 36, T. 3 S., R. 35 E., above Meadow Creek, 2 miles northeast of Starkey.	208	1952-54	Sept.23	14.4
Do.....	....do.....	NW¼ sec. 7, T. 3 S., R. 40 E., ¼ mile below Catherine Creek and 3 miles northwest of Cove.	1,080		June 10 July 12 Sept.21	599 106 2.45
Lookingglass Creek.	Grande Ronde River.	Mouth, 4 miles west of Rondowa...	a95	1953-54	Sept.15	69.6
Wallowa River	....do.....	At former gaging station above Wallowa Lake.	a42	1905, 1907-8, 1925-33, 1937-38, 1941,1950,	Oct. 20 Nov. 14 Dec. 15 Apr. 24 May 19	*38.5 *36.8 *33.2 *30.3 *112
Minam River..	Wallowa River	NW¼ sec. 17, T. 1 N., R. 41 E., 3½ miles above mouth and 4 miles south of Minam.	a220	1953-54	July 21	*513

* Base flow.
a Approximately.
b Discharge represents actual net spring flow adjusted for diversions and surface flow.

Discharge measurements made at points other than gaging stations in the Snake River basin during the water year 1955--Continued

Tucannon River basin, Wash.

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Pataha Creek.	Tucannon River.	SE¼ sec. 33, T. 12 N., R. 42 E., 300 ft above Hutchens Gulch at Pataha.	66.3		Sept.28	*4.30

* Base flow.

The following table contains determinations of peak discharge made at crest stage by indirect methods or by current meter or computed from rating curve at points other than regular gaging stations.

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Durkee Creek.	Burnt River..	Sec. 16, T. 11 S., R. 43 E., 1½ miles northeast of Durkee.	24.0		May 20	2,380
Unnamed stream.	Pritchard Creek.	NE¼ sec. 18, T. 11 S., R. 43 E., 2½ miles northwest of Durkee.	.015		May 20	26.6

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