Surface Water Supply of the United States 1957

Part 13. Snake River Basin

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1517

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

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PREFACE

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

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

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K. N. Phillips	Portland, Oreg.
J. M. Terry (succeeded by W. T. Miller)	Denver, Colo.
F. M. Veatch	Tacoma, Wash.
M. T. Wilson	Salt Lake City, Utah

CALENDAR FOR WATER YEAR 1957

OCTOBER 1956

S	M	T	W	T	F	S
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NOVEMBER 1956

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JANUARY 1957

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FEBRUARY 1957

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MARCH 1957

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APRIL 1957

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MAY 1957

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JUNE 1957

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JULY 1957

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AUGUST 1957

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SEPTEMBER 1957

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SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1957

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, 1957. 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 13,750 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1957, the Geological Survey and cooperating organizations were maintaining 7,030 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1957 water year. The name of each stream measured at points other than gaging stations is not listed in the index of this report. Only the major river basins in which measurements were made are listed under the item "Discharge measurements" in the index.

COOPERATION

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

Idaho: Idaho Department of Reclamation, M. R. Kulp, State reclamation engineer; Idaho State Fish and Game Commission, Ross Leonard, director; and Big Lost River Irrigation District, R. C. Rothwell, president.

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

Oregon: Office of the State Engineer, L. A. Stanley, and State Highway Commission, C. H. Reynolds, chairman.

Utah: Office of the State Engineer, J. M. Tracy, succeeded by W. D. Criddle.

Washington: State Department of Conservation, W. A. Galbraith, director, succeeded by Earl Coe, through Division of Water Resources, M. G. Walker, supervisor.

Wyoming: Office of the State Engineer, Earl Lloyd.

Assistance in the form of funds or services was given by the Corps of Engineers, Department of the Army, in collecting records published herein for 21 gaging stations, of which 13 were in Idaho, 3 in Oregon, 1 in Washington, and 4 in Wyoming.

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

The following organizations aided in collecting records:

Idaho: Board of Control for Boise Project, Idaho Power Co., Idaho Water District 36, North Side Canal Co., Twin Falls Canal Co., Utah Power & Light Co., Washington Water Power Co., Pacific Northwest Power Co., American Falls Reservoir District 2, and watermasters for Big Lost, Little Lost, 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	914 Jefferson Street.
Idaho b/	Idaho Falls	204 Federal Building.
Nevada c/	Salt Lake City, Utah	300 Federal Building.
Oregon d/	Portland	1001 NE. Lloyd Boulevard.
Utah e/	Salt Lake City	300 Federal Building.
Washington	Tacoma	207 Federal Building.
Wyoming f/	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 Alpine, Wyo., and Milner, Idaho, diversions from Snake River at and above Milner, and Jackson Lake and Snake River at Moran, Wyo., Grassy Lake near Moran, Wyo., and stations on tributaries of Snake River above American Falls Reservoir except Salt River and Cottonwood Creek near Smoot, Wyo., and Swift Creek near Afton, Wyo.

c/ Except for Salmon Falls Creek above upper Vineyard ditch, near Contact and near San Jacinto.

d/ Except for Snake River at Oxbow.

e/ Including Clear Creek near Naf, Idaho.

f/ Includes only the stations for Salt River and Cottonwood Creek near Smoot and Swift Creek near Afton in the Snake River basin in Wyoming.

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

DEFINITION OF TERMS AND ABBREVIATIONS

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

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

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

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

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

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

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

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

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

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

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

DOWNSTREAM ORDER OF LISTING GAGING STATIONS

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

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

EXPLANATION OF DATA

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

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect 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 1957 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 mose accurate maps available. River mileage, given under "Location" for some stations, is that determined and used by the Corps of Engineers unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at the present site. Under "Gage" are given the type of gage currently in use and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive

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

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual reports. In order to make it easier to find such revised records, a paragraph headed "Revisions (water years)" has been added to the description of all stations for which revised records have been published. Listed therein are all 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 revisions, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m) that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

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

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

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

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

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "Mean" gives the average flow in cubic feet per second during the month. 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 discharge when the water was at crest stage. Likewise, the minimums in this summary are the minimum daily discharges.

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

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

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

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

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

also at the time a discharge measurement is made; such temperature readings are not reported in the quality-of-water annual reports.

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 of 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.

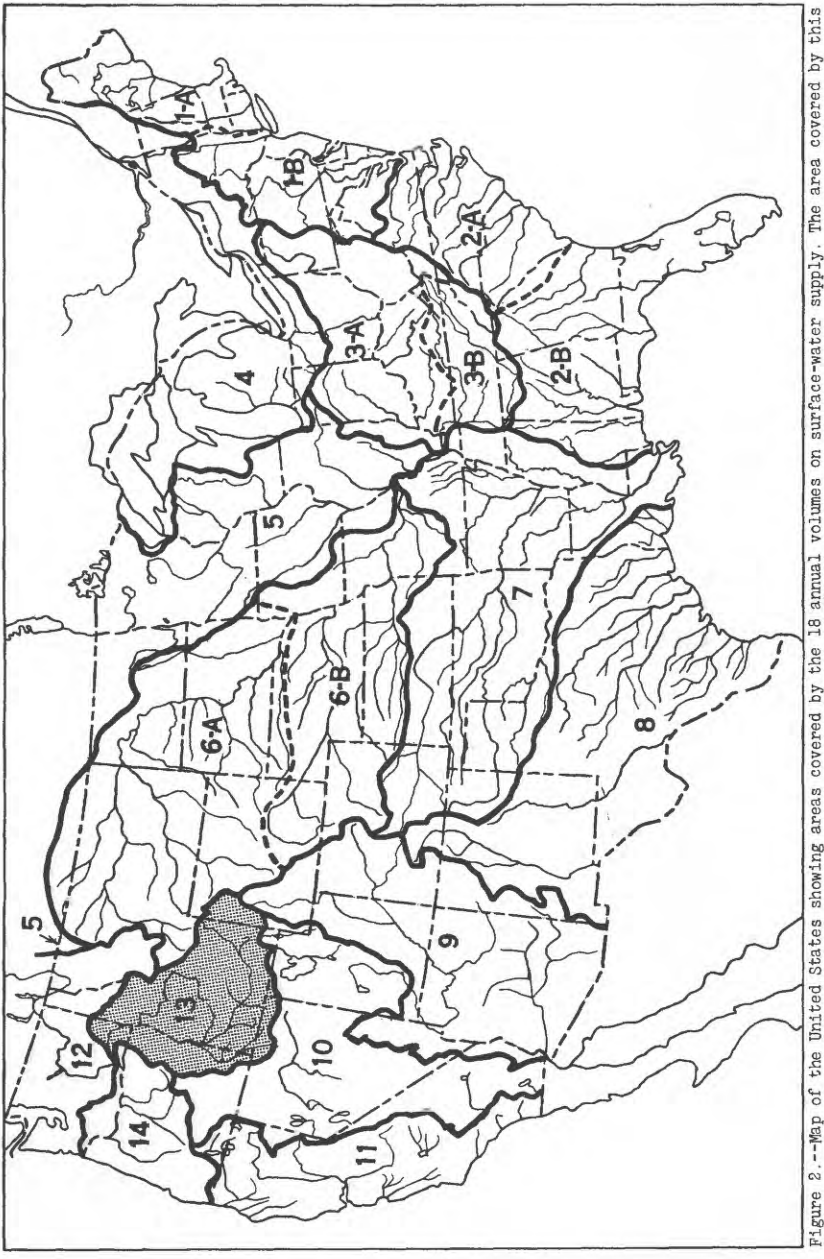

Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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12. Pacific slope basins in Washington and upper Columbia River basin.
13. Snake River basin.
14. Pacific slope basins in Oregon and lower Columbia River basin.

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

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

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

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

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

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

(A = Annual Report; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to September 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	Monthly discharge and descriptive information.....	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, 1899-1957

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

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

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.

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 1957 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
American Falls Reservoir, inflow to.	Near American Falls, Idaho.....	1927-28, 1932-57	Idaho Water District 36.
Malheur River.....	SW¼ sec. 32, T. 20 S., R. 41 E., near Namorf, Oreg.	1931-57†	Oregon State engineer.
Snake River tributaries..	Near Irwin, Idaho.....	1940-57‡	Idaho Water District 36.
Teton basin tributaries..	Near Driggs, Idaho.....	1934-57‡	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.	1953-57†	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 1942-57 have not been published. Records for the stations operated by Idaho Water District 36 are published in the annual reports of that organization. Records for some canals, not listed above, have been collected by the Oregon State engineer and the Bureau of Reclamation in connection with the water supply for irrigation and other projects.

HYDROLOGIC CONDITIONS

Runoff was above median in most streams during the first three months of water year 1957 in the area covered by this report. Runoff during January varied from excessive in the upper Snake River basin in Idaho to below median in Oregon and Washington. During the last four days in February, maximum or near maximum flows of record occurred in the Malheur, lower Powder, and Wallowa River basins in Oregon, and in the Weiser and Portneuf River and other low altitude basins in Idaho. Considerable damage occurred at Vale, Oreg., from the flooding Malheur River, which was near the previous maximum reached in 1910, even though reservoir capacity provided since the 1910 flood impounded all the runoff from about 30 percent of the basin. Runoff remained above median throughout the remainder of the water year except during April when cool weather retarded the flow in parts of Idaho and Oregon. During May and June extremely high stages in scattered parts of Snake River basin occurred as a result of rapid snowmelt and above average precipitation. Maxima of record occurred in Salt River near Smoot, Wyo., Swift Creek near Afton, Wyo., Imnaha River at Imnaha, Oreg., Lemhi River near Lemhi, Idaho, and flows were near maxima of record at

several points in Payette, Weiser, and Clearwater River basins. The peak of May 1957 in Snake River near Clarkston, Wash., which measures the runoff from 95 percent of the basin, has been exceeded only in 1894 and 1948. For two key gaging stations in the area covered by this report, a comparison of the monthly and annual mean discharge during the 1957 water year with the median discharge for the 25-year period 1921-45 is shown in figure 3 below.

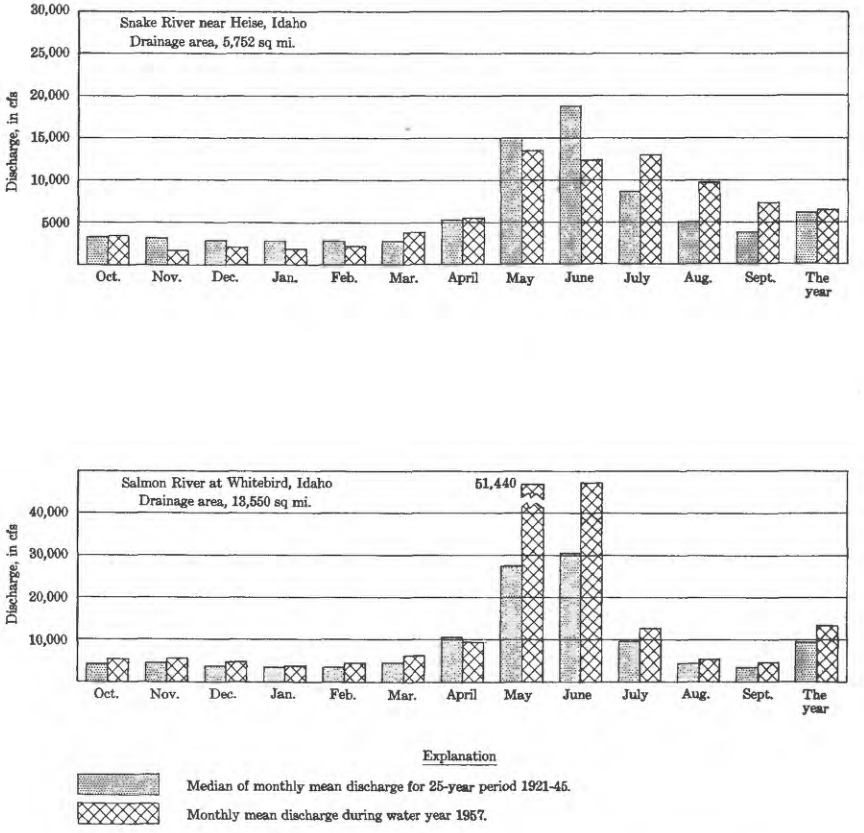

Figure 3. – Comparison of discharge at two key gaging stations during 1957 water year with median discharge for 25-year period.

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 1957 (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, 847,480 acre-ft July 9, 10 (elevation, 6,769.02 ft); minimum, 42,500 acre-ft Dec. 24 (elevation, 6,732.45 ft).
1908-57: 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. Figures given herein represent usable contents.

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

Revisions.--WSP 1217: Drainage area.

Capacity table (elevation, in feet, and usable contents, in acre-ft)

6,732.0	34,580	6,755.0	506,550
6,735.0	88,070	6,760.0	624,360
6,740.0	182,520	6,765.0	746,280
6,745.0	284,450	6,770.0	872,600
6,750.0	392,900		

Usable contents, in acre-feet, at 8 a.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370,310	402,290	264,550	52,180	85,550	120,710	150,760	186,680	442,820	817,740	769,440	660,030
2	371,190	402,960	251,510	53,080	87,350	122,200	151,910	188,070	458,740	824,070	765,210	656,150
3	372,300	404,080	239,160	53,790	88,810	123,500	152,870	189,850	477,280	830,180	759,230	652,040
4	373,190	404,970	227,130	54,500	90,090	124,610	153,830	193,810	499,160	833,990	756,490	649,620
5	374,070	405,870	215,400	55,040	91,190	125,740	154,790	198,570	520,730	835,520	751,760	647,920
6	375,180	407,210	203,940	55,570	92,110	127,060	156,710	204,340	543,360	837,560	747,280	647,680
7	376,290	408,330	192,430	56,460	93,020	128,000	157,670	210,570	565,440	841,880	745,790	646,960
8	377,170	409,220	182,520	57,350	93,750	128,950	158,620	218,620	584,810	847,000	745,790	646,720
9	378,280	410,120	170,050	58,250	94,850	129,890	159,580	225,700	603,580	847,480	745,300	646,480
10	378,940	411,010	158,430	58,960	95,950	131,020	160,350	233,860	620,770	847,480	744,550	646,000
11	380,050	411,910	148,080	59,850	96,690	131,970	162,080	243,040	637,580	845,700	744,800	646,240
12	381,380	413,020	137,630	60,920	97,970	133,290	163,420	255,440	652,520	842,900	744,310	646,480
13	382,490	413,690	128,000	62,350	99,070	134,990	164,590	264,760	666,320	839,590	740,840	646,720
14	383,380	415,260	117,730	63,950	100,170	136,310	165,570	272,930	680,180	836,030	735,900	643,110
15	384,040	415,940	107,140	65,020	101,450	137,250	166,540	282,150	690,420	832,210	731,450	638,780
16	384,930	416,840	97,230	66,270	102,730	138,010	167,520	290,180	699,950	828,400	727,740	632,290
17	385,590	409,870	88,070	67,160	103,830	138,760	168,490	297,810	707,070	824,070	723,040	625,560
18	386,480	400,500	79,580	68,230	104,930	139,330	169,660	305,870	713,700	819,000	718,860	618,620
19	387,360	391,130	71,460	69,120	106,210	139,900	171,030	315,530	721,070	814,960	712,960	616,230
20	388,250	379,830	63,950	70,370	107,320	140,460	172,590	322,830	728,980	810,660	709,770	616,000
21	389,360	368,780	57,180	72,180	108,810	141,030	174,140	332,540	740,100	806,370	705,600	616,230
22	390,240	358,030	51,500	73,620	110,300	141,780	175,700	339,060	750,270	800,560	701,180	616,000
23	390,910	347,740	46,380	74,890	111,970	142,540	177,260	344,910	757,740	796,260	697,000	616,000
24	392,240	337,100	42,500	76,150	113,460	143,290	178,630	350,570	764,210	791,250	691,640	616,000
25	393,120	327,120	42,860	77,240	114,950	144,240	179,800	358,030	771,440	786,230	687,490	616,000
26	394,690	317,460	43,380	78,140	116,620	145,200	180,770	363,950	777,700	784,730	683,590	616,000
27	396,250	307,590	44,440	79,220	118,290	145,970	181,750	371,410	785,230	784,480	680,420	615,760
28	397,600	295,900	46,200	80,310	119,590	146,540	182,720	381,380	793,760	782,720	676,030	615,760
29	398,490	285,510	48,310	81,570	-	147,310	183,910	393,570	803,840	781,220	671,890	615,760
30	399,160	274,820	50,070	82,660	-------	148,270	185,300	408,550	811,930	777,960	667,530	615,760
31	400,730	-------	51,500	84,100	-------	149,420	-------	424,960	-------	773,940	663,420	-------
(†)	6,750.35	6,744.54	6,732.95	6,734.78	6,736.71	6,738.29	6,740.14	6,751.43	6,767.62	6,766.11	6,761.62	6,759.64
(‡)	+31,080	-125,910	-223,520	+32,800	+35,490	+29,830	+35,880	+239,660	+386,970	-37,990	-110,520	-47,660

Calendar year 1956..... ‡ -254,360
Water year 1956-57..... ‡ +246,110

† 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 1957. 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.--54 years, 1,437 cfs (1,040,000 acre-ft per year).

Extremes.--Maximum discharge observed during year, 7,120 cfs Dec. 4 (gage height, 8.40 ft); minimum, 12 cfs Nov. 14.

1903-57: 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 probably was considerably higher than that of June 12, 1918.

Remarks.--Records excellent except those for period of ice effect, which are fair. 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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	8	3.0	580	6.0	3,250
1.3	28	3.5	860	7.0	4,670
1.6	70	4.0	1,210	8.0	6,300
2.0	168	5.0	2,110	8.5	7,150
2.5	345				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	14	6,200			107	62	25	36	2,400	3,320	2,870
2	29	15	6,950			107	60	28	34	2,400	3,320	2,860
3	27	16	6,830			107	60	29	34	2,610	3,320	2,600
4	26	17	7,120			107	62	35	33	2,820	3,300	1,200
5	26	17	6,910			107	60	38	34	2,830	3,300	848
					40							
6	26	16	6,740			148	57	39	35	2,300	2,300	756
7	26	14	6,690			258	60	39	30	854	1,010	690
8	26	14	6,440			258	57	35	23	1,670	1,010	500
9	21	14	6,180			265	51	33	22	2,870	993	258
10	17	13	5,960			265	39	29	48	3,740	830	157
11	16	13	6,250			265	39	29	68	4,480	830	204
12	15	13	5,990			265	32	41	59	4,640	1,500	237
13	15	13	5,670	50		248	27	29	56	4,640	3,020	1,000
14	14	14	6,120			248	26	27	59	4,620	3,040	3,050
15	14	17	5,960			265	24	28	65	4,600	3,050	3,580
					50							
16	14	2,150	5,570			265	21	25	64	4,560	3,040	3,920
17	14	6,030	*5,220			265	21	25	59	4,550	3,020	3,890
18	14	6,130	4,680			240	21	26	57	4,520	3,010	3,290
19	14	6,330	4,740			*220	21	29	56	4,500	3,010	1,400
20	14	6,590	4,190			254	20	27	53	4,440	3,000	*440
21	13	6,500	3,790			174	21	28	54	4,400	3,000	440
22	14	6,420	3,350			76	21	27	50	4,370	2,980	440
23	16	6,350	3,010		70	82	21	26	345	4,340	2,960	440
24	16	6,230	1,440			84	20	25	1,060	*4,320	2,960	440
25	16	6,130	119			82	19	24	1,060	2,770	2,950	440
26	16	6,030	109			70	18	24	1,070	933	2,950	440
27	15	5,940	76		80	62	18	24	1,080	2,080	2,940	440
28	14	6,400	70			62	21	24	1,080	2,080	2,920	440
29	14	6,450	70	35	-	64	23	24	1,540	2,500	2,900	440
30	14	6,370	70		-------	62	24	25	2,180	3,340	2,890	440
31	13	-------	67		-------	62	-------	34	-------	3,330	2,880	-------
Total	559	90,270	132,681	1,460	1,490	5,144	1,026	901	10,444	104,507	81,553	38,150
Mean	18.0	3,009	4,280	47.1	53.2	166	34.2	29.1	348	3,371	2,631	1,272
Ac-ft	1,110	179,000	263,200	2,900	2,960	10,200	2,040	1,790	20,720	207,300	161,800	75,670

Calendar year 1956: Max 7,120 Min 13 Mean 2,407 Ac-ft 1,747,000
Water year 1956-57: Max 7,120 Min 13 Mean 1,283 Ac-ft 928,700

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Jan. 1 to Feb. 28. Discharge computed from staff-gage readings Nov. 25 to Mar. 18.

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 1957.

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.--13 years (1944-57), 281 cfs (203,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,950 cfs June 6 (gage height, 4.66 ft in gage well); maximum gage height recorded in gage well, 4.84 ft Mar. 6 (backwater from ice); minimum daily discharge, 28 cfs Jan. 30, Feb. 1.
1917-18, 1944-57: Maximum discharge, 3,470 cfs May 21, 1954; maximum gage height, 5.00 ft in gage well, 5.60 ft from outside gage May 28, 1951; minimum daily discharge, 24 cfs Nov. 29, 1952, Jan. 21, 1954, Feb. 20-23, 1955.

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	57	48	41	28	41	48	182	1,930	950	132	102
2	61	49	48	41	30	40	50	250	2,350	983	123	102
3	60	43	50	42	35	38	50	330	2,420	900	120	84
4	58	48	53	40	33	39	50	517	2,320	813	116	77
5	60	54	54	39	34	40	50	*692	2,580	708	116	72
6	57	57	50	39	34	*41	52	758	2,640	660	110	69
7	57	57	*46	40	33	40	50	813	2,450	645	106	67
8	56	53	45	41	36	44	50	870	2,200	564	102	66
9	53	56	48	39	36	43	52	950	1,990	530	100	66
10	54	*53	50	36	36	41	54	1,160	2,130	498	*94	67
11	56	54	52	36	35	41	54	1,130	*2,060	461	93	69
12	57	53	53	37	36	43	*54	1,160	1,820	444	96	67
13	60	49	53	38	34	45	54	1,070	1,480	405	94	66
14	60	46	52	36	36	44	58	1,170	1,180	389	85	66
15	58	41	51	33	38	42	66	1,100	1,000	*349	87	63
16	56	45	50	31	37	44	67	1,000	880	303	106	61
17	56	48	48	31	35	48	74	1,020	758	273	93	58
18	54	48	47	31	36	45	74	1,100	750	265	85	58
19	58	52	46	32	38	44	74	1,180	813	273	84	84
20	56	46	45	33	41	48	78	1,210	1,030	277	84	82
21	54	42	44	34	40	49	84	994	1,060	250	80	*75
22	54	45	45	35	39	48	91	841	910	221	78	74
23	57	47	46	34	40	45	94	795	813	197	85	72
24	58	50	46	33	41	45	93	813	900	185	78	70
25	57	46	45	31	41	46	84	870	910	176	75	66
26	60	49	43	30	42	50	80	1,070	813	167	91	64
27	63	47	42	32	42	50	78	1,290	880	159	94	61
28	61	45	41	30	41	50	93	1,500	950	146	87	60
29	61	48	41	*29		47	120	1,640	961	144	94	60
30	50	48	41	28	------	48	159	1,780	1,000	144	87	58
31	51	-----	41	30	-----	48	-----	1,820	------	139	91	------
Total	1,777	1,476	1,464	1,082	1,027	1,377	2,135	31,075	43,978	12,618	2,966	2,106
Mean	57.3	49.2	47.2	34.9	36.7	44.4	71.2	1,002	1,466	407	95.7	70.2
Cfsm	0.358	0.308	0.295	0.218	0.229	0.278	0.445	6.26	9.16	2.54	0.598	0.439
In.	0.41	0.34	0.34	0.25	0.24	0.32	0.50	7.22	10.22	2.93	0.69	0.49
Ac-ft	3,520	2,930	2,900	2,150	2,040	2,730	4,230	61,640	87,230	25,030	5,880	4,180

Calendar year 1956: Max 3,130 Min 31 Mean 359 Cfsm 2.24 In. 30.49 Ac-ft 260,300
Water year 1956-57: Max 2,640 Min 28 Mean 282 Cfsm 1.76 In. 23.95 Ac-ft 204,500

Peak discharge (base, 1,300 cfs).--May 20 (12:30 a.m.) 1,350 cfs (3.82 ft); June 6 (2 a.m.) 2,950 cfs (4.66 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 2, 3, Nov. 14 to Mar. 30. No gage-height record Dec. 31 to Jan. 28, Jan. 30 to Mar. 5, Mar. 7 to Apr. 10; discharge estimated on basis of weather records, 2 discharge measurements, and records for nearby Snake River tributaries.

Buffalo Fork near Moran, Wyo.

Location.--Lat 43°50'10", long 110°30'30", in sec. 26, T. 45 N., R. 114 W., on right bank 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 1957.

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 upstream within 500 ft of present site at different datums.

Average discharge.--13 years (1944-57), 618 cfs (447,400 acre-ft per year).

Extremes.--Maximum discharge during year, 4,460 cfs June 7 (gage height, 6.21 ft); minimum recorded, 103 cfs Nov. 3 (gage height, 1.34 ft), but was probably less during period of ice effect.

1917-18, 1944-57: Maximum discharge, 5,960 cfs June 27, 1954 (gage height, 6.71 ft); minimum, 78 cfs Nov. 20, 1953 (gage height, 0.88 ft), but may have been less during periods of ice effect.

Remarks.--Records fair. No diversion or regulation.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	248	203	145	130	120	120	140	311	2,420	3,540	804	410
2	240	152	142	132	120	115	140	359	2,900	3,610	749	410
3	235	146	142	134	120	115	140	433	3,240	3,310	674	400
4	226	184	143	135	120	115	140	596	3,560	3,000	623	390
5	235	184	145	130	120	115	140	*788	3,850	2,450	623	380
6	230	206	144	125	120	*118	145	818	4,090	2,480	630	360
7	222	230	140	130	115	120	148	886	4,280	2,640	582	350
8	218	222	*137	135	120	120	150	1,030	3,930	2,140	535	340
9	214	222	130	130	120	120	150	1,020	3,740	2,200	520	330
10	222	*222	130	125	120	120	150	1,130	*3,540	2,230	510	325
11	218	199	140	120	125	120	*149	1,220	3,440	2,140	*500	320
12	218	191	145	125	120	120	143	1,320	3,400	2,340	489	320
13	230	181	150	115	120	120	143	1,090	3,140	2,140	476	330
14	218	171	150	125	120	110	152	1,110	2,620	2,140	464	310
15	214	137	150	125	120	120	161	1,110	2,160	2,060	445	300
16	206	152	150	120	115	120	161	972	1,840	1,870	470	290
17	206	218	148	115	115	120	174	886	1,610	1,740	445	290
18	210	203	145	110	115	115	177	920	1,520	1,600	427	290
19	218	185	142	110	115	115	177	981	1,560	1,940	416	300
20	203	170	140	120	120	120	184	1,090	1,940	1,710	421	300
21	195	160	140	118	125	120	184	999	2,300	1,510	398	*291
22	203	160	140	120	125	120	195	844	1,900	1,340	392	291
23	206	162	138	125	125	120	218	718	1,630	1,260	421	291
24	214	163	135	125	125	115	206	659	1,750	1,090	392	281
25	199	163	135	125	125	120	181	681	2,200	1,040	381	271
26	206	160	130	115	125	125	171	836	1,960	954	404	262
27	214	155	130	125	125	125	161	1,170	2,350	963	400	248
28	206	150	135	120	120	128	177	1,330	2,900	945	400	244
29	203	150	135	*115	-	130	240	1,800	3,220	886	400	240
30	171	148	135	105	------	135	306	1,990	3,550	911	405	235
31	203	-----	135	110	-----	140	------	2,230	------	836	410	------
Total	6,651	5,349	4,346	3,794	3,375	3,736	5,103	31,527	82,540	59,015	15,206	9,399
Mean	215	178	140	122	121	121	170	1,017	2,751	1,904	491	313
Cfsm	0.569	0.471	0.370	0.323	0.320	0.320	0.450	2.69	7.28	5.04	1.30	0.828
In.	0.65	0.53	0.43	0.37	0.33	0.37	0.50	3.10	8.12	5.81	1.50	0.92
Ac-ft	13,190	10,610	8,620	7,530	6,690	7,410	10,120	62,530	163,700	117,100	30,160	18,640

Calendar year 1956: Max 4,710 Min 90 Mean 748 Cfsm 1.98 In. 26.96 Ac-ft 543,400
Water year 1956-57: Max 4,280 Min 105 Mean 630 Cfsm 1.67 In. 22.63 Ac-ft 456,300

Peak discharge (base, 3,100 cfs).--June 7 (9 to 10 a.m.) 4,460 cfs (6.21 ft); July 2 (11 a.m. to 12 m. 3,930 cfs (5.88 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 19 to Apr. 10. No gage-height record Dec. 28 to Jan. 28, Mar. 4, 5, Apr. 10, Aug. 27 to Sept. 20; discharge estimated on basis of weather records and records for Hoback River near Jackson and Gros Ventre River at Kelly and other nearby streams.

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 1957.

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 10 ft upstream at present datum. May 15 to July 23, 1954, May 22 to June 28, 1955, supplementary staff gage 300 ft downstream at datum 1.09 ft higher, and May 20, 1956, to Sept. 30, 1957, supplementary staff gage at site 300 ft downstream at datum 0.61 ft lower.

Average discharge.--13 years (1944-57), 484 cfs (350,400 acre-ft per year).

Extremes.--Maximum discharge observed during year, 3,810 cfs June 8 (gage height, 4.65 ft, supplementary staff gage); minimum observed, 143 cfs Jan. 30 (gage height, 0.42 ft, supplementary gage).

1918, 1944-57: Maximum discharge observed, 6,220 cfs June 16, 1918 (gage height, 9.95 ft, site and datum then in use); minimum observed, 101 cfs Mar. 12, 1956 (gage height, 0.27 ft).

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 table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 2 to July 15)

0.3	124	2.0	860
.5	168	3.0	1,660
.7	220	4.0	2,730
1.0	314	5.0	3,980
1.5	545		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	212	215	173	159	161	156	166	243	2,140	2,440	440	300
2	215	206	170	163	161	150	166	280	2,730	2,160	431	300
3	212	193	170	168	161	156	166	352	2,990	2,000	422	294
4	212	193	173	168	159	159	166	440	3,380	1,840	394	283
5	209	201	176	152	161	*161	161	*629	3,540	1,520	377	271
6	212	201	176	154	161	161	168	762	3,500	1,330	360	258
7	212	209	176	156	154	161	168	874	3,720	1,790	360	252
8	212	215	*166	168	163	163	163	1,010	3,810	1,220	352	249
9	212	215	154	166	161	163	163	1,080	3,260	1,040	314	243
10	209	*212	159	154	159	166	166	1,200	*3,010	1,000	300	240
11	212	215	170	154	166	161	*168	1,290	3,090	1,000	287	237
12	217	215	180	166	160	163	173	1,410	2,850	1,130	*283	237
13	220	215	183	147	159	161	170	1,370	2,730	1,130	243	234
14	215	212	186	165	161	152	168	1,170	2,610	1,090	240	237
15	215	204	183	168	163	154	173	1,090	2,050	*1,040	234	234
16	217	215	183	154	156	159	178	951	1,590	986	234	234
17	215	215	183	150	154	161	178	881	1,280	867	232	229
18	212	217	178	145	152	154	186	881	1,080	782	226	226
19	212	196	178	145	154	154	188	881	895	724	220	232
20	209	180	176	159	161	161	188	1,090	986	1,040	220	237
21	209	173	170	154	163	161	190	986	1,480	944	217	246
22	209	176	168	163	163	161	193	847	1,730	782	217	249
23	209	180	166	166	163	154	198	717	1,330	691	220	*249
24	212	183	168	168	166	178	206	653	1,170	617	223	246
25	215	183	168	168	166	161	201	672	1,180	575	220	243
26	215	180	159	154	166	159	193	750	1,480	540	223	237
27	217	180	156	173	166	154	188	881	1,630	545	226	234
28	220	176	163	*159	161	154	183	1,140	2,000	480	283	232
29	220	178	163	152	-	159	188	1,470	2,050	465	290	226
30	220	176	166	143	------	159	209	1,750	2,380	460	297	226
31	215	-----	163	154	-----	161	------	2,060	------	460	300	------
Total	6,622	5,929	5,303	4,915	4,501	4,937	5,372	29,810	67,671	32,688	8,885	7,415
Mean	214	198	171	159	161	159	179	962	2,256	1,054	287	247
Cfsm	0.344	0.318	0.275	0.256	0.259	0.256	0.288	1.55	3.63	1.69	0.461	0.397
In.	0.40	0.35	0.32	0.29	0.27	0.30	0.32	1.78	4.05	1.95	0.53	0.44
Ac-ft	13,130	11,760	10,520	9,750	8,930	9,790	10,660	59,130	134,200	64,840	17,620	14,710

Calendar year 1956: Max 5,000 Min 101 Mean 639 Cfsm 1.03 In. 13.99 Ac-ft 463,800
Water year 1956-57: Max 3,810 Min 143 Mean 504 Cfsm 0.810 In. 11.00 Ac-ft 365,000

* 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 1957. Monthly discharge only for some periods, 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. Nov. 6, 1944, to May 29, 1956, at site 300 ft upstream at datum 0.92 ft higher.

Average discharge.--13 years (1944-57), 717 cfs (519,100 acre-ft per year).

Extremes.--Maximum discharge during year, 4,500 cfs June 7 (gage height, 4.70 ft, from graph based on gage readings); minimum observed, 150 cfs Mar. 23 (gage height, 0.40 ft). 1917-18, 1944-57: 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, site and datum then in use).

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	150	2.0	1,110
.7	242	2.5	1,640
1.0	361	3.0	2,220
1.3	525	4.0	3,460
1.6	740	4.7	4,390

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	249	203	197	190	167	216	893	2,690	2,780	812	465
2	308	249	197	203	209	161	203	1,080	3,170	2,630	776	448
3	300	249	222	212	235	167	216	1,330	3,560	2,460	692	438
4	296	256	235	216	209	172	222	1,560	4,090	2,200	660	438
5	285	256	249	184	216	209	219	1,770	4,160	1,980	646	438
6	293	263	242	203	197	*167	242	*1,910	4,230	1,930	639	395
7	293	263	203	209	190	190	203	1,930	4,290	1,830	625	395
8	300	256	178	219	216	212	216	2,000	3,660	1,680	611	386
9	293	266	*181	229	222	203	229	2,220	*3,410	1,660	570	386
10	304	*256	229	209	209	197	249	2,320	3,380	1,710	544	386
11	308	263	242	197	197	161	*249	2,340	3,150	1,770	532	386
12	308	270	249	216	203	203	242	2,290	3,040	*1,760	*532	386
13	308	256	256	222	190	184	232	2,170	2,980	1,660	519	410
14	277	249	252	229	209	172	249	1,980	2,450	1,600	495	361
15	277	190	235	222	216	156	293	1,960	2,050	1,550	483	352
16	285	229	246	184	190	190	316	1,910	1,840	1,410	483	343
17	270	256	235	178	167	197	348	1,770	1,600	1,340	471	352
18	270	249	203	167	172	164	376	1,790	1,640	1,200	460	343
19	270	203	242	184	184	170	366	1,980	1,670	1,560	438	361
20	270	184	190	197	209	178	376	2,000	2,030	1,410	448	361
21	270	172	197	209	203	197	386	1,730	2,200	1,250	438	352
22	270	190	190	216	197	190	410	1,530	1,930	1,110	443	343
23	277	209	209	222	190	150	501	1,440	1,670	1.050	432	*334
24	277	216	216	222	216	153	525	1,460	1,790	1,020	421	334
25	277	190	203	216	216	156	421	1,510	2,200	958	410	334
26	285	203	190	178	203	197	410	1,530	2,220	893	443	325
27	285	184	184	216	209	178	376	1,730	2,270	875	421	316
28	256	190	203	*216	197	190	426	1,930	2,570	803	432	325
29	242	209	212	222	-	197	558	2,120	2,800	821	432	325
30	242	203	190	184	-------	200	776	2,360	2,990	839	432	325
31	242	-------	197	216	-------	206	-------	2,390	-------	794	432	-------
Total	8,746	6,878	6,680	6,394	5,661	5,634	10,051	56,933	81,730	46,533	16,172	11,143
Mean	282	229	215	206	202	182	335	1,837	2,724	1,501	522	371
Cfsm	0.500	0.406	0.381	0.365	0.358	0.323	0.594	3.26	4.83	2.66	0.926	0.658
In.	0.58	0.45	0.44	0.42	0.37	0.37	0.66	3.75	5.39	3.07	1.07	0.73
Ac-ft	17,350	13,640	13,250	12,680	11,230	11,170	19,940	112,900	162,100	92,300	32,080	22,100

Calendar year 1956: Max 5,800 Min 150 Mean 971 Cfsm 1.72 In. 23.41 Ac-ft 704,800
Water year 1956-57: Max 4,290 Min 150 Mean 719 Cfsm 1.27 In. 17.30 Ac-ft 520,700

* Discharge measurement made on this day.

Snake River above reservoir, near Alpine, Wyo.

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

Drainage area.--3,465 sq mi.

Records available.--March 1937 to March 1939 (published as above Greys River near Alpine), July 1953 to September 1957.

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

Average discharge.--5 years (1937-38, 1953-57), 4,782 cfs (3,462,000 acre-ft per year).

Extremes.--Maximum discharge during year, 19,000 cfs June 6 (gage height, 9.25 ft); minimum, 1,070 cfs Jan. 17 (gage height, 2.53 ft).
1937-39, 1953-57: Maximum discharge, 26,800 cfs June 28, 1954 (gage height, 11.68 ft); minimum, 740 cfs Nov. 16, 1955 (gage height, 2.19 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Flow partly regulated by Jackson Lake (see p.13). Some diversions from tributaries above station.

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

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 17 to Dec. 20, May 17-28, Aug. 16 to Sept. 16)

Oct. 1 to May 16				May 17 to Sept. 30			
2.6	1,140	5.0	4,780	3.3	1,870	6.0	7,620
3.0	1,540	6.0	7,220	3.6	2,260	7.0	10,800
3.5	2,120	6.5	8,600	4.0	2,920	8.0	14,300
4.0	2,900			5.0	5,000	9.2	18,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,970	*1,660	7,540	1,650	1,350	1,310	1,480	4,000	12,000	14,300	7,090	*4,860
2	1,930	1,600	7,930	1,650	1,300	1,250	1,450	5,000	13,700	14,200	6,860	4,860
3	1,890	1,520	8,150	1,650	1,300	1,280	1,500	6,000	15,400	13,900	6,720	4,770
4	*1,870	1,560	8,260	1,650	1,300	1,260	1,510	7,000	16,800	13,500	6,560	4,280
5	1,860	1,620	8,350	1,600	1,300	1,290	1,510	8,200	17,700	12,600	6,450	3,150
6	1,850	1,660	8,100	1,550	1,300	1,220	1,730	8,300	*18,700	11,800	6,380	2,760
7	1,870	1,680	7,840	1,550	1,300	1,250	1,570	8,400	18,600	10,700	5,070	2,600
8	1,850	1,650	6,850	1,550	1,300	1,410	1,510	8,200	17,300	9,300	*4,050	2,470
9	1,820	1,620	6,770	1,520	1,300	1,510	*1,550	7,800	15,700	9,680	3,880	2,290
10	1,840	1,620	7,460	1,500	1,300	1,560	1,640	8,000	15,000	10,500	3,680	2,070
11	1,820	1,620	7,710	1,550	1,300	1,460	1,700	8,100	15,000	11,700	3,420	1,950
12	1,800	1,620	7,540	1,550	1,300	1,510	1,690	8,200	14,600	12,600	3,360	1,940
13	1,830	1,620	7,380	1,550	1,300	1,380	1,660	7,800	14,100	12,300	4,220	1,940
14	1,830	1,600	7,620	1,550	1,300	1,330	1,680	7,500	12,900	12,100	5,140	2,690
15	1,790	1,450	7,490	1,550	1,300	1,340	1,780	7,200	11,200	11,900	5,190	4,470
16	1,780	1,480	7,300	1,450	1,320	1,400	1,840	7,000	9,620	11,500	5,240	5,240
17	1,750	4,690	*6,820	1,500	1,330	1,430	1,870	*6,860	8,370	11,000	5,140	5,500
18	1,730	7,170	6,330	1,500	1,340	1,430	1,950	7,000	7,410	*10,600	5,020	5,530
19	1,730	7,190	6,170	1,500	1,290	1,420	1,920	7,500	7,060	10,700	5,000	4,880
20	1,720	7,520	5,900	1,500	1,290	1,400	1,870	7,990	7,810	11,300	5,000	3,220
21	1,680	7,570	5,370	1,480	*1,230	1,460	1,880	7,260	9,550	10,700	4,880	2,360
22	1,670	7,650	4,840	1,450	1,230	1,410	1,940	6,380	9,300	10,200	4,860	2,230
23	1,720	7,570	4,620	1,450	1,250	1,280	2,080	5,800	8,180	9,710	4,860	*2,200
24	1,770	7,490	4,320	1,450	1,330	1,240	*2,050	5,580	8,240	9,360	4,770	2,170
25	1,720	7,440	2,800	1,450	1,440	1,250	2,000	5,600	9,390	9,040	4,680	2,140
26	1,770	7,330	1,730	1,450	1,430	1,280	2,000	5,870	9,810	6,720	4,880	2,120
27	1,830	7,250	1,720	1,450	1,420	1,250	2,000	6,750	*9,940	5,360	4,880	2,100
28	1,770	7,540	1,700	1,400	1,390	1,240	2,100	7,990	11,300	6,120	4,840	2,080
29	1,720	7,680	1,690	1,400	-	1,300	2,800	9,330	12,200	6,070	4,840	2,060
30	1,660	7,650	1,680	1,350	-------	1,370	3,400	10,200	13,700	6,720	4,860	2,040
31	1,680	-------	1,660	1,350	-------	1,440	-------	11,300	-------	7,260	4,840	-------
Total	55,520	127,320	179,640	46,750	36,840	41,960	55,660	228,110	370,580	323,440	156,660	92,970
Mean	1,791	4,244	5,795	1,508	1,316	1,354	1,855	7,358	12,350	10,430	5,054	3,099
Ac-ft	110,100	252,500	356,300	92,730	73,070	83,230	110,400	452,400	735,000	641,500	310,700	184,400

Calendar year 1956: Max 24,500 Min 950 Mean 6,672 Ac-ft 4,843,000
Water year 1956-57: Max 18,700 Min 1,220 Mean 4,700 Ac-ft 3,402,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 28 to Jan. 14, Jan. 17 to Feb. 16. No gage-height record Apr. 24 to May 16, Sept. 24-29; discharge estimated on basis of records for nearby stations.

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 1957. Published as Greys River near Alpine, Idaho, 1917-18 and as Greys River near Alpine, Wyo., 1937-39.

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

Average discharge.--5 years (1937-38, 1953-57), 663 cfs (480,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,290 cfs June 7 (gage height, 7.09 ft); minimum, 155 cfs Mar. 14 (gage height, 2.79 ft).
1917-18, 1937-39, 1953-57: Maximum discharge observed, 5,200 cfs June 14, 1918 (gage height, 4.85 ft, former site and datum); minimum, 118 cfs Dec. 15, 1955 (gage height, 2.62 ft).

Remarks.--Records 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 seven discharge measurements furnished by Bureau of Reclamation.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 4 to June 1)

2.9	165	5.0	1,500
3.5	350	6.0	2,690
4.0	625	7.0	4,040
4.5	1,010	7.1	4,180

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	278	230	200	180	201	252	994	2,790	2,350	667	445
2	342	*252	230	200	180	201	249	1,270	3,080	2,280	639	420
3	338	246	230	200	180	212	263	1,450	3,470	2,160	625	405
4	338	278	230	200	180	212	263	1,850	3,760	1,940	599	395
5	334	282	230	200	180	215	269	2,350	3,970	1,730	592	390
6	330	286	220	200	190	198	318	2,350	*4,010	1,640	580	380
7	330	278	200	200	190	210	282	2,440	4,110	1,590	560	380
8	330	269	190	200	190	226	269	2,420	3,830	1,490	548	370
9	330	266	190	200	190	229	*278	2,130	3,590	1,430	530	375
10	346	269	220	200	190	229	306	2,170	3,420	1,390	524	380
11	*330	272	250	200	190	212	318	2,300	3,030	1,450	518	375
12	334	269	*284	200	190	226	303	2,360	2,820	1,430	518	370
13	342	269	280	200	190	212	300	2,080	3,140	1,290	506	375
14	334	263	260	200	190	190	334	1,990	2,680	1,220	495	370
15	326	232	240	200	190	204	370	1,880	2,300	1,170	500	360
16	318	245	230	190	190	204	405	1,800	2,000	1,110	495	360
17	318	250	230	190	190	207	455	*1,790	1,760	1,070	480	355
18	314	245	225	190	190	204	470	1,870	1,660	1,000	470	360
19	314	232	225	190	190	207	445	2,160	1,780	1,060	470	400
20	306	196	220	190	190	215	440	2,250	2,070	986	465	375
21	303	226	215	190	190	229	445	1,910	2,250	930	460	365
22	303	238	215	190	190	221	500	1,710	1,910	890	470	355
23	310	229	210	190	195	204	660	1,600	1,730	858	450	*346
24	322	229	210	190	200	204	632	1,570	1,800	826	*440	342
25	300	229	210	190	200	221	*518	1,630	1,920	794	435	338
26	330	229	210	180	210	221	465	1,760	2,080	*770	465	334
27	330	232	210	180	215	212	440	2,020	*2,220	740	450	330
28	314	230	210	180	*218	221	500	2,460	2,310	702	445	326
29	300	230	210	180	-	235	725	2,610	2,480	695	440	326
30	278	230	210	180	-------	243	906	2,560	2,550	681	435	326
31	303	-------	210	180	-------	249	-------	2,640	-------	667	425	-------
Total	9,997	7,479	6,934	5,980	5,368	6,674	12,380	62,374	80,520	38,339	15,696	11,028
Mean	322	249	224	193	192	215	413	2,012	2,684	1,237	506	368
Cfsm	0.714	0.552	0.497	0.428	0.426	0.477	0.916	4.46	5.95	2.74	1.12	0.816
In.	0.82	0.62	0.57	0.49	0.44	0.55	1.02	5.14	6.64	3.16	1.29	0.91
Ac-ft	19,830	14,830	13,750	11,860	10,650	13,240	24,560	123,700	159,700	76,040	31,130	21,870

Calendar year 1956: Max 4,850 Min 180 Mean 863 Cfsm 1.91 In. 26.04 Ac-ft 626,600
Water year 1956-57: Max 4,110 Min 180 Mean 720 Cfsm 1.60 In. 21.65 Ac-ft 521,200

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 16-18, Nov. 28 to Feb. 27 (no gage-height record Jan. 1-27, Feb. 11-20; discharge estimated on basis of 2 discharge measurements, weather records, and records for Salt River above reservoir, near Etna).

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 1957 (discontinued). 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.--25 years, 36.2 cfs (26,230 acre-ft per year).

Extremes.--Maximum discharge during year, 460 cfs June 7 (gage height, 3.83 ft); minimum not determined.
1932-57: Maximum discharge, that of June 7, 1957; no flow Jan. 25-28, 1949.

Remarks.--Records good except those above 200 cfs, which are fair, and those for periods of ice effect or no gage-height record, which are poor. 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.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	11	8.0					70	255	211	28	17
2	13	10	8.0					110	284	209	25	16
3	13	10	8.0					134	308	193	25	16
4	13	11	8.0					176	339	162	20	15
5	13	12	8.0					202	379	149	17	15
							8.0					
6	13	13	7.0					217	422	145	17	15
7	13	13	6.0			(*)		234	404	138	16	15
8	13	12	5.0					260	362	134	15	15
9	13	12	4.0					258	369	124	15	15
10	*13	12	4.5					262	359	122	14	15
11	12	12	5.0				*8.8	241	325	134	15	*16
12	13	12	5.0				8.6	267	298	134	16	16
13	14	*12	5.0				8.6	236	298	128	15	16
14	13	11	5.0				9.6	206	248	124	14	14
15	13	10	4.5				11.0	202	215	114	14	14
				2.5	4.0	7.0						
16	12	9.0	4.0				12	189	198	102	13	14
17	12	9.0	3.5				14	191	167	96	12	14
18	12	9.0	3.2				14	200	136	94	13	14
19	12	8.0	(*)				12	205	134	94	13	16
20	12	7.0					12	209	156	86	13	14
21	12	7.5					14	200	*171	78	14	14
22	12	8.0					18	185	149	72	14	14
23	13	8.0					25	175	136	66	14	14
24	13	8.0					17	*168	134	63	14	14
25	13	8.0	3.0				15	167	156	*61	14	13
26	14	8.0					14	176	178	51	15	12
27	14	8.0					14	200	191	46	16	12
28	13	8.0					19	222	215	41	15	12
29	12	8.0			-		32	226	231	37	16	11
30	12	8.0			-------		49	246	236	34	17	12
31	12	-------			-------		-------	246	-------	32	17	-------
Total	395	294.5	140.7	775	112.0	217.0	407.6	6,280	7,453	3,274	496	430
Mean	12.7	9.82	4.54	2.5	4.0	7.0	13.6	203	248	106	16.0	14.3
Ac-ft	783	583	279	154	222	430	808	12,460	14,780	6,490	984	853

Calendar year 1956: Max 376 Min - Mean 53.0 Ac-ft 38,500
Water year 1956-57: Max 422 Min - Mean 53.6 Ac-ft 38,830

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Oct. 25, Oct. 30 to Nov. 9, Nov. 14-18. No gage-height record Oct. 1-10, Nov. 19 to Apr. 11 (stage-discharge relation affected by ice most of period), May 18-24, Sept. 10, 11; discharge estimated on basis of 6 discharge measurements, weather records, recorded range in stage, 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 1957 (discontinued).

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.--25 years, 44.5 cfs (32,240 acre-ft per year).

Extremes.--Maximum discharge during year, 318 cfs June 6 (gage height, 2.81 ft); maximum gage height, 4.12 ft June 10 (backwater from debris); minimum daily discharge, 13 cfs Mar. 11.

1932-57: Maximum discharge, 438 cfs June 2, 1956; maximum gage height, that of June 10, 1957; minimum discharge, 6.4 cfs Mar. 11, 1948; minimum gage height, 0.95 ft Jan. 19, 1950.

Remarks.--Records good except those after June 7 which are fair, and those for periods of ice effect or no gage-height record, which are poor. No diversion above station. Flow regulated by Cottonwood Lake.

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 17 to Sept. 5)

1.2	12	2.0	96
1.3	17	2.5	210
1.5	33	3.0	345
1.7	54		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	22	18	16	14	14	15	28	168	230	79	42
2	28	21	18	16	14	14	15	35	192	228	73	41
3	28	21	18	17	14	14	15	40	205	248	73	39
4	27	21	18	16	14	14	15	48	232	280	72	39
5	27	21	19	b16	14	14	15	62	265	265	66	38
6	27	22	19	16	14	14	15	67	262	230	62	38
7	27	21	18	16	14	*14	15	72	303	225	61	37
8	27	20	18	16	14	14	15	76	270	208	59	37
9	27	20	18	16	14	14	15	79	260	190	59	37
10	*27	20	18	16	14	14	15	79	250	185	58	37
11	26	20	19	16	14	13	*15	85	230	195	56	*36
12	26	20	19	16	14	14	15	90	240	162	55	35
13	26	*20	19	16	14	14	16	88	220	155	53	35
14	25	20	19	16	14	14	16	90	205	150	53	35
15	25	19	19	16	14	14	16	88	190	155	53	34
16	24	19	19	15	14	14	17	83	185	150	53	33
17	24	19	19	b14	14	14	18	86	170	146	52	34
18	24	19	18	b14	14	14	18	86	150	140	50	36
19	24	19	*18	b14	14	14	17	96	145	146	48	36
20	23	19	18	b14	14	14	18	102	170	143	50	35
21	23	19	18	15	14	14	18	94	*200	135	50	33
22	23	19	18	15	14	14	20	90	180	130	48	31
23	23	19	18	15	14	14	20	*85	165	120	47	31
24	23	19	18	15	15	14	20	80	190	110	47	30
25	23	19	18	15	15	14	19	79	202	*105	45	29
26	23	19	17	14	15	14	18	85	190	102	46	28
27	23	19	17	14	14	14	17	94	202	94	45	29
28	23	19	17	14	14	14	19	109	215	86	44	28
29	23	19	17	*14	-	14	23	121	242	85	43	29
30	22	18	16	15	-------	14	25	134	278	82	43	29
31	23	-------	16	14	-------	14	-------	146	-------	79	43	-------
Total	772	592	559	472	395	433	515	2,597	6,376	4,959	1,686	1,031
Mean	24.9	19.7	18.0	15.2	14.1	14.0	17.2	83.8	213	160	54.4	34.4
Ac-ft	1,530	1,170	1,110	936	783	859	1,020	5,150	12,650	9,840	3,340	2,040

Calendar year 1956: Max 360 Min 10 Mean 51.0 Ac-ft 37,040
Water year 1956-57: Max 303 Min 13 Mean 55.9 Ac-ft 40,430

Peak discharge (base, 140 cfs).--June 6 (11:30 p.m.) 318 cfs (2.81 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 21-29, Mar. 13 to Apr. 11; discharge estimated on basis of 2 discharge measurements, weather records, and recorded range in stage.

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 1957. 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.--15 years, 90.2 cfs (65,350 acre-ft per year).

Extremes.--Maximum discharge during year, 775 cfs June 30 (gage height, 3.52 ft); minimum daily, 32 cfs Feb. 18, Mar. 6, 14.
1942-57: Maximum discharge, that of June 30, 1957; minimum daily, 27 cfs Feb. 1, 1956.

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 1956-57, (gage height, in feet, and discharge, in cubic feet per second)

1.9	34	2.5	183
2.0	49	3.0	428
2.2	91	3.5	735

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	48	46	42	35	33	39	51	329	602	144	76
2	53	48	42	41	37	33	38	57	362	608	138	76
3	59	48	44	42	35	35	38	69	390	554	132	73
4	57	48	44	41	34	36	38	82	412	518	125	73
5	53	48	44	38	33	34	37	96	452	417	125	71
6	55	48	44	39	34	32	38	106	560	378	125	73
7	53	48	42	38	35	*33	37	114	554	351	122	71
8	55	48	37	39	34	35	37	119	488	313	116	71
9	53	48	40	38	35	37	37	114	*458	318	111	69
10	*53	48	44	37	36	35	37	122	440	308	108	69
11	48	48	45	42	34	34	37	132	356	318	108	*71
12	49	48	44	41	35	35	*37	132	378	303	106	71
13	53	*46	43	41	34	34	37	125	362	288	106	69
14	49	44	42	41	36	32	37	128	313	303	104	67
15	49	44	39	39	37	36	40	116	264	298	98	67
16	49	44	38	35	35	36	42	111	250	288	98	67
17	46	44	37	35	33	37	42	111	232	273	98	65
18	46	44	37	36	32	37	40	111	228	259	96	67
19	46	44	*37	36	34	38	40	112	254	259	96	67
20	46	44	38	36	36	39	40	114	288	259	94	63
21	44	46	43	38	36	39	40	113	*283	246	91	61
22	51	46	43	36	36	37	40	112	288	236	89	61
23	51	46	43	36	36	35	43	*112	264	223	87	61
24	48	46	42	38	36	36	42	111	283	207	84	61
25	48	44	38	37	36	38	42	111	313	*191	84	61
26	49	46	42	36	35	38	38	119	368	176	87	65
27	48	46	42	36	34	36	38	144	482	172	87	63
28	49	46	41	36	33	36	40	169	518	165	82	63
29	49	46	41	*35	-	41	43	203	644	158	80	63
30	48	46	41	33	-------	42	48	236	695	154	80	63
31	48	-------	41	34	-------	42	-------	283	-------	144	78	-------
Total	1,560	1,388	1,284	1,172	976	1,121	1,182	3,835	11,508	9,287	3,179	2,018
Mean	50.3	46.3	41.4	37.8	34.9	36.2	39.4	124	384	300	103	67.3
Ac-ft	3,090	2,750	2,550	2,320	1,940	2,220	2,340	7,610	22,830	18,420	6,310	4,000

Calendar year 1956: Max 505 Min 27 Mean 95.1 Ac-ft 68,840
Water year 1956-57: Max 695 Min 32 Mean 106 Ac-ft 76,380

Peak discharge (base, 390 cfs).--June 6 (12 p.m.) 644 cfs (3.36 ft); June 30 (8 a.m.) 775 cfs (3.52 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 8-19, Dec. 28 to Apr. 12, May 18-23; discharge estimated on basis of 5 discharge measurements, weather records, and records for nearby stations.

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 1957. 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, 2,320 cfs May 21 (gage height, 4.55 ft); minimum, 400 cfs Jan. 31 (gage height, 2.14 ft).
1917-18, 1953-57: Maximum discharge, 2,420 cfs Apr. 24, 1956 (gage height, 4.68 ft); minimum, 281 cfs Feb. 4, 1956 (gage height, 1.81 ft).

Remarks.--Records excellent. Diversions above station for power developments, industry, municipal supply, and irrigation of about 66,000 acres (for details on adjudication of diversions, see Remarks for this station in WSP 1347).

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

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.1	380	4.0	1,820
2.5	610	4.6	2,350
3.0	995		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	655	700	564	509	452	485	503	1,060	2,050	1,160	899	798
2	648	685	a560	497	463	474	497	1,210	2,070	1,150	875	805
3	640	678	a560	485	463	474	503	1,330	2,080	1,160	859	805
4	632	670	558	503	458	468	509	1,430	2,100	1,160	859	812
5	625	662	578	485	458	468	521	1,640	2,100	1,130	867	805
6	618	648	a570	468	441	458	597	1,640	2,120	1,110	835	798
7	618	655	a560	480	441	458	604	1,660	2,080	1,100	835	790
8	618	655	a540	491	458	463	590	1,710	2,010	1,080	820	782
9	625	655	a520	503	463	474	618	1,660	1,910	1,060	805	775
10	632	655	a530	474	452	491	655	1,700	1,880	1,050	798	768
11	632	648	533	485	452	480	692	1,670	1,830	1,070	798	760
12	632	640	564	527	446	485	722	1,920	1,720	1,090	790	760
13	648	648	571	527	441	474	730	2,110	1,710	1,120	775	760
14	640	655	584	533	441	468	782	2,040	1,630	1,120	775	752
15	632	*632	564	533	436	463	805	2,160	1,550	1,040	775	760
16	640	a640	558	509	436	463	859	2,020	1,540	1,030	768	760
17	632	648	a555	b480	436	468	907	1,960	1,520	1,010	760	745
18	*625	648	a550	b475	436	463	979	1,980	1,400	1,010	738	745
19	625	648	a550	b475	436	463	931	2,030	1,320	1,030	730	775
20	625	618	*545	b480	441	468	891	2,190	1,280	1,020	738	775
21	625	604	515	b480	436	468	875	2,300	1,320	987	738	775
22	625	597	527	480	430	*458	907	2,250	1,260	963	752	768
23	a625	597	521	*474	441	441	963	2,120	1,190	947	745	760
24	a630	597	539	480	452	441	979	2,070	1,120	939	*745	*752
25	a635	597	539	474	480	446	*883	2,000	1,060	907	745	745
26	640	578	521	458	485	452	835	1,980	1,050	*907	760	738
27	648	584	515	441	491	436	798	2,000	*1,040	907	760	722
28	640	578	533	452	*497	436	812	2,020	1,040	899	768	715
29	662	571	527	441	-	441	899	*2,050	1,070	907	768	715
30	708	545	521	425	-------	458	1,010	2,040	1,140	907	775	708
31	708	-------	515	436	-------	480	-------	2,030	-------	899	798	-------
Total	19,788	18,936	16,887	14,960	12,662	14,365	22,856	57,980	47,190	31,869	24,453	22,928
Mean	638	631	545	483	452	463	762	1,870	1,573	1,028	789	764
Ac-ft	39,250	37,560	33,490	29,670	25,110	28,490	45,330	115,000	93,600	63,210	48,500	45,480

Calendar year 1956: Max 2,380 Min 294 Mean 871 Ac-ft 632,400
Water year 1956-57: Max 2,300 Min 425 Mean 835 Ac-ft 604,700

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

McCoy Creek above reservoir, near Alpine, Idaho

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

Drainage area.--108 sq mi.

Records available.--July to September 1917, June to September 1918, May to July 1934, September 1953 to September 1957. Monthly discharge only for some periods, published in WSP 1317. Published as McCoy Creek near Alpine, Idaho, 1917-18 and as McCoy Creek near Alpine, Wyo., 1934.

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

Extremes.--Maximum discharge during year, 1,070 cfs May 13 (gage height, 5.73 ft); minimum, 10 cfs Feb. 15 (gage height, 1.33 ft).
1917-18, 1934, 1953-57: Maximum discharge, 1,130 cfs Apr. 21, 1956 (gage height, 5.72 ft); minimum, 1 cfs for 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 13 discharge measurements furnished by Bureau of Reclamation.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 29 to June 23, Aug. 24-30)

1.4	11	3.0	175
1.6	15	3.5	305
1.8	21	4.0	467
2.0	35	5.0	833
2.5	90	5.2	911

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	19	15	13	12	18	29	443	460	126	43	33
2	15	18	15	13	12	16	29	554	457	125	40	29
3	14	18	15	13	12	16	37	609	460	120	39	28
4	14	18	15	13	12	17	35	709	443	115	39	26
5	*14	19	15	13	12	17	37	746	423	110	37	25
6	14	20	15	12	13	16	52	694	*400	*106	35	24
7	14	21	14	12	13	16	43	672	362	102	34	23
8	15	19	13	12	13	18	40	616	327	99	33	22
9	15	18	13	13	13	22	49	*572	290	95	33	22
10	17	18	13	13	14	24	62	628	290	93	31	23
11	16	19	14	13	14	22	64	561	259	95	31	23
12	16	19	14	13	15	21	63	876	245	90	35	23
13	17	19	15	14	15	19	72	818	232	85	33	22
14	17	17	15	14	15	17	91	694	207	81	31	21
15	16	*15	15	14	14	17	104	687	214	75	32	21
16	16	16	15	13	13	17	118	590	195	72	37	21
17	16	17	15	12	13	17	132	554	175	70	31	20
18	16	17	*15	11	12	17	153	547	161	69	29	20
19	17	15	15	11	13	18	128	646	153	66	30	26
20	17	14	15	11	14	19	133	698	163	62	31	25
21	17	14	15	11	14	21	147	679	177	58	33	23
22	16	14	15	11	14	*19	188	613	155	58	41	22
23	17	15	15	11	15	17	265	561	147	54	36	21
24	19	15	14	*11	16	16	251	*529	143	52	33	*21
25	18	15	14	11	18	18	167	487	137	50	*32	20
26	22	15	14	11	19	19	141	474	135	*49	45	20
27	26	15	14	11	21	18	133	501	135	48	36	19
28	23	15	14	11	20	18	182	526	133	45	34	19
29	*20	15	14	11	-	20	324	522	133	48	34	19
30	17	15	13	11	-------	24	390	494	133	47	33	19
31	21	-------	13	11	-------	28	-------	477	-------	44	37	-------
Total	527	504	446	374	401	582	3,659	18,777	7,344	2,409	1,078	680
Mean	17.0	16.8	14.4	12.1	14.3	18.8	122	606	245	77.7	34.8	22.7
Cfsm	0.157	0.156	0.133	0.112	0.132	0.174	1.13	5.61	2.27	0.719	0.322	0.210
In.	0.18	0.17	0.15	0.13	0.14	0.20	1.26	6.47	2.53	0.83	0.37	0.23
Ac-ft	1,050	1,000	885	742	795	1,150	7,260	37,240	14,570	4,780	2,140	1,350

Calendar year 1956: Max 927 Min 13 Mean 126 Cfsm 1.17 In. 15.87 Ac-ft 91,460
Water year 1956-57: Max 876 Min 11 Mean 101 Cfsm 0.935 In. 12.66 Ac-ft 72,960

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 2-4, Nov. 14 to Feb. 13, Feb. 16-20, Feb. 28 to Mar. 3, Mar. 6, 11, 14, 15, 23, 24.

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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 1957. 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, 233 cfs June 6 (gage height, 3.74 ft); no flow for many days.
1917-18, 1953-57: 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 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 9-29, Aug. 6-11)

1.0	0	2.0	28
1.2	1	2.5	65
1.3	2	3.0	122
1.5	6	3.5	195
1.7	13		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							a0	75	112	4	
2	0							a0	90	109	3	
3	0							a0	112	101	2	
4	0							a2	136	87	1	
5	0							a4	152	75	1	
6	0							a6	*189	77	0	
7	0							a10	192	68	0	
8	0							a15	166	60	0	
9	0							*20	149	57	*0	
10	1							22	146	53	0	
11	*0							24	137	52	0	
12	1							24	133	46	0	
13	1							20	122	42	0	
14	1							19	97	39	0	
15	1							18	77	35	0	
16	1							18	57	32	0	
17	1							18	45	29	0	
18	0							20	44	*28	0	
19	0							22	50	26	0	
20	0							23	73	24	0	
21	0							19	90	20	0	
22	0							16	82	18	0	
23	1							15	76	16	0	
24	0							16	85	16	0	
25	0							16	93	14	0	
26	1							19	92	12	0	
27	1							24	*101	6	0	
28	1							32	118	5	0	
29	0				-			44	125	6	0	
30	0				-------			54	117	8	0	
31	0	-------			-------		-------	65	-------	6	0	-------
Total	11	0	0	0	0	0	0	605	3,221	1,282	11	0
Mean	0.4	0	0	0	0	0	0	19.5	107	41.4	0.4	0
Ac-ft	22	0	0	0	0	0	0	1,200	6,390	2,540	22	0

Calendar year 1956: Max 268 Min 0 Mean 21.8 Ac-ft 15,850
Water year 1956-57: Max 192 Min 0 Mean 14.1 Ac-ft 10,170

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

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 1957. Published as Big Elk Creek near Blowout 1917-18 and as Elk Creek near Irwin, 1934.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map). July 1917 to September 1918, April to July 1934, staff gage at site 2¼ miles downstream at different datum.

Extremes.--Maximum discharge during year, 578 cfs June 5 (gage height, 3.94 ft); minimum recorded, 11 cfs Jan. 15.
1917-18, 1934, 1953-57: Maximum discharge observed, 870 cfs June 15, 1918; minimum, 5 cfs Dec. 15, 1953.

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

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	40	32	27	23	22	20	64	333	198	81	72
2	46	36	32	27	23	22	20	91	377	191	80	70
3	45	37	32	27	23	22	21	112	425	170	78	68
4	45	37	32	27	23	22	20	150	453	151	78	65
5	44	37	32	27	23	22	21	184	513	*151	77	63
6	44	37	*32	26	23	21	22	189	537	161	76	62
7	44	37	32	26	23	21	22	195	*492	153	74	60
8	44	37	31	26	23	21	21	186	432	145	73	58
9	43	37	30	25	24	21	22	176	398	143	72	56
10	44	37	30	25	24	21	22	201	364	138	71	55
11	44	38	30	25	24	21	22	203	343	135	72	*53
12	44	38	30	25	24	21	22	193	316	132	73	52
13	43	37	30	25	*24	21	22	172	284	128	71	51
14	42	*34	30	24	24	20	23	159	229	124	70	51
15	42	36	30	*24	24	20	24	150	197	120	70	51
16	42	37	30	24	24	20	26	148	164	116	68	51
17	41	37	30	23	23	20	28	148	146	110	68	50
18	*41	37	30	23	23	20	28	*151	141	110	68	51
19	40	36	30	24	23	*20	28	167	151	109	68	51
20	40	33	29	24	23	20	29	157	191	105	68	50
21	40	32	29	24	23	20	30	128	221	100	68	50
22	39	32	28	24	23	19	33	113	188	97	72	49
23	40	32	28	24	23	19	37	113	170	93	78	49
24	40	32	28	24	23	19	36	117	189	91	72	49
25	40	32	28	24	23	19	*33	118	193	89	71	49
26	43	32	28	23	23	19	31	138	186	88	*80	48
27	41	32	28	23	23	19	31	206	191	87	76	48
28	40	32	28	23	23	19	34	296	197	85	80	47
29	40	32	28	23	-	19	44	351	217	87	80	47
30	39	32	28	23	------	20	58	342	217	*85	76	47
31	40	------	28	23	------	20	------	318	------	83	75	------
Total	1,306	1,055	923	762	652	630	830	5,436	8,455	3,775	2,284	1,623
Mean	42.1	35.2	29.8	24.6	23.3	20.3	27.7	175	282	122	73.7	54.1
Cfsm	0.711	0.595	0.503	0.416	0.394	0.343	0.468	2.96	4.76	2.06	1.24	0.914
In.	0.82	0.66	0.58	0.48	0.41	0.40	0.52	3.41	5.31	2.38	1.43	1.02
Ac-ft	2,590	2,090	1,830	1,510	1,290	1,250	1,650	10,780	16,770	7,490	4,530	3,220

Calendar year 1956: Max 568 Min 11 Mean 97.2 Cfsm 1.64 In. 22.36 Ac-ft 70,580
Water year 1956-57: Max 537 Min 19 Mean 76.0 Cfsm 1.28 In. 17.42 Ac-ft 55,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 3, 4, 14, 19, Nov. 21 to Dec. 3, Dec. 7-13, Dec. 20 to Jan. 14, Jan. 16 to Feb. 28, Mar. 23, 24. No gage-height record Jan. 3-7, 10, 13, 14, Feb. 3-11, Feb. 16 to Mar. 18, Mar. 25-31, Aug. 27 to Sept. 9; discharge estimated on basis of 7 discharge measurements, weather records, and records for nearby stations.

Bear Creek above reservoir, near Irwin, Idaho

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

Drainage area.--77.1 sq mi.

Records available.--July to September 1917, June to September 1918, May to July 1934, April to October 1935, April to October 1936, August 1953 to September 1957. Published as Bear Creek near Irwin 1917-18, 1934-36.

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

Extremes.--Maximum discharge during year, 621 cfs May 12 (gage height, 5.07 ft); minimum, 15 cfs Feb. 13 (gage height, 2.48 ft).
1917-18, 1934-36, 1953-57: Maximum discharge observed, 784 cfs May 5, 1936; minimum, about 1.0 cfs Jan. 20, 1954 (gage height, 1.08 ft), result of freezeup.

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

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	28	22	22	18	24	33	171	394	140	63	46
2	28	27	21	22	18	23	32	229	394	131	62	43
3	28	26	21	22	18	23	34	243	407	126	60	42
4	28	26	21	22	18	23	34	260	411	120	59	42
5	*28	26	21	22	18	23	37	296	398	*116	59	40
6	27	27	*20	22	19	22	44	323	376	116	56	39
7	27	27	20	22	19	22	39	343	*351	112	56	40
8	27	27	20	22	19	23	38	343	331	*112	55	40
9	31	26	20	22	19	25	40	323	304	109	53	40
10	31	26	20	22	19	27	47	339	285	107	52	40
11	28	26	21	22	19	25	49	331	264	107	52	40
12	28	26	21	22	*19	25	52	505	250	105	55	39
13	28	26	22	22	19	23	56	510	240	99	51	39
14	28	25	23	*22	19	22	66	438	220	97	49	39
15	28	24	23	21	20	23	69	420	220	93	51	39
16	28	25	23	20	20	22	76	411	207	90	51	39
17	28	26	23	19	19	22	82	411	198	88	48	38
18	28	26	22	19	19	22	92	425	190	86	47	38
19	28	25	22	19	19	*22	82	495	187	86	47	43
20	28	24	22	19	20	24	80	481	198	80	47	42
21	28	23	22	20	20	26	86	434	201	77	48	42
22	28	22	21	21	20	25	99	402	179	76	48	*40
23	29	22	22	21	22	24	118	389	173	74	49	39
24	29	22	22	20	25	22	116	380	171	72	47	38
25	29	23	23	20	27	23	97	360	166	71	*46	38
26	33	23	23	20	25	23	88	356	161	69	52	38
27	32	23	22	19	26	23	77	372	156	68	47	37
28	29	23	22	19	25	24	86	402	151	66	49	35
29	*28	22	22	18	-	25	*126	411	154	68	51	35
30	28	22	22	18	------	28	158	402	146	*71	46	35
31	29	-----	22	18	-----	31	-----	398	------	68	48	------
Total	885	744	671	639	568	739	2,133	11,603	7,483	2,900	1,604	1,185
Mean	28.5	24.8	21.6	20.6	20.3	23.8	71.1	374	249	93.5	51.7	39.5
Cfsm	0.370	0.322	0.280	0.267	0.263	0.309	0.922	4.85	3.23	1.21	0.671	0.512
In.	0.43	0.36	0.32	0.31	0.27	0.36	1.03	5.59	3.60	1.40	0.77	0.57
Ac-ft	1,760	1,480	1,330	1,270	1,130	1,470	4,220	23,010	14,840	5,750	3,180	2,350

Calendar year 1956: Max 638 Min 20 Mean 105 Cfsm 1.36 In. 18.60 Ac-ft 76,340
Water year 1956-57: Max 510 Min 18 Mean 85.4 Cfsm 1.11 In. 15.01 Ac-ft 61,790

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 2, 15, 16, Nov. 19 to Dec. 13, Dec. 20-24, Dec. 26 to Jan. 3, Jan. 5-7, 10, 16-31, Feb. 17-19, Mar. 14, 23-26. No gage-height record Feb. 1-11; discharge estimated on basis of 3 discharge measurements, weather records, and records for nearby stations.

Palisades Reservoir near Irwin, Idaho

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

Drainage area.--5,208 sq mi.

Records available.--October 1955 to September 1957.

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

Extremes.--Maximum contents during year, 966,700 acre-ft July 23 (elevation, 5,589.6 ft); minimum observed, 918 acre-ft Oct. 2 (elevation, 5,393.2 ft).
1955-57: Maximum contents, that of July 23, 1957; minimum observed, 565 acre-ft Jan. 31, 1956 (prior to filling of reservoir).

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

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

Capacity table (elevation, in feet, and total contents, in acre-feet)

5,393	899	5,430	10,760	5,490	164,600
5,396	1,200	4,440	21,380	5,500	212,200
5,400	1,680	5,450	38,960	5,520	329,000
5,405	2,390	5,460	61,910	5,540	474,100
5,410	3,200	5,470	90,280	5,560	649,100
5,420	5,740	5,480	124,400	5,580	855,100
				5,590	971,600

Total contents, in acre-feet, at 10 a.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	946	992	237,700	523,400	552,600	578,100	506,700	408,700	457,400	867,300	907,300	747,200
2	918	955	249,900	524,300	553,400	579,000	504,200	408,700	477,300	883,200	901,500	747,200
3	1,000	6,520	264,300	526,000	554,300	579,900	501,700	409,400	500,900	896,900	894,600	747,200
4	1,000	-	277,900	526,800	555,200	580,800	500,100	415,300	529,400	909,600	887,700	748,200
5	983	12,300	291,200	527,700	556,900	582,600	497,600	425,800	562,200	921,300	885,400	748,200
6	1,000	18,000	304,900	528,500	557,800	583,500	496,000	436,500	597,900	929,500	875,200	744,100
7	-	23,800	317,500	529,400	558,700	584,400	495,100	434,900	625,500	935,400	868,500	739,000
8	1,020	29,400	329,700	530,200	559,500	584,400	493,500	432,700	653,900	937,800	858,400	730,800
9	973	35,200	340,800	531,900	560,400	586,200	490,200	431,100	680,000	936,600	847,300	722,700
10	1,020	41,300	353,500	532,800	561,300	588,000	487,000	430,400	694,700	937,800	837,400	714,600
11	1,010	-	367,200	533,600	561,300	588,900	483,700	429,600	704,600	940,200	825,400	705,600
12	1,010	51,500	380,500	534,500	562,200	590,700	480,500	431,100	714,600	945,000	815,700	697,700
13	1,020	56,700	392,600	536,200	563,000	592,500	478,100	433,400	733,900	949,800	806,000	688,800
14	-	58,700	405,700	538,800	563,900	588,900	475,700	440,300	748,200	953,400	800,600	681,000
15	1,000	61,200	418,300	540,500	564,800	584,400	474,100	441,100	759,600	959,400	795,300	675,100
16	1,010	62,900	432,700	541,300	564,800	579,900	470,100	441,100	770,000	963,100	792,100	668,300
17	1,000	-	443,400	542,200	566,600	575,400	466,100	438,800	777,300	964,300	787,900	669,300
18	983	-	454,300	543,000	566,600	571,000	462,900	437,200	780,500	964,300	784,700	668,300
19	983	84,100	465,300	543,000	566,600	566,600	460,600	435,700	782,600	964,300	780,500	667,400
20	964	96,000	474,900	543,900	567,400	562,200	457,400	438,800	783,600	964,300	775,200	665,400
21	-	108,400	484,500	544,800	568,300	556,900	455,100	439,500	790,000	965,500	772,100	660,600
22	955	121,100	493,500	546,500	569,200	550,800	451,900	439,500	797,400	965,500	768,900	654,800
23	964	135,300	500,900	547,400	569,200	544,800	451,900	436,500	801,700	966,700	766,800	648,200
24	1,020	148,500	507,500	548,200	570,100	538,800	454,300	433,400	804,900	964,300	763,700	644,400
25	883	-	514,200	549,100	571,900	532,800	450,400	430,400	809,200	963,100	760,600	637,700
26	1,000	174,000	517,500	550,000	573,600	526,800	444,200	425,800	814,600	958,200	758,500	634,000
27	1,040	187,000	518,400	550,800	575,400	520,100	436,500	422,800	822,200	947,400	756,400	630,200
28	-	199,600	519,200	551,700	576,300	516,700	429,600	422,100	829,800	937,800	753,400	626,500
29	1,010	212,200	520,100	551,700	-------	513,400	420,600	425,800	840,700	929,500	750,200	623,700
30	1,000	225,200	520,900	551,700	-------	511,700	414,600	433,400	853,800	921,300	749,200	622,700
31	1,010	-------	521,700	551,700	-------	507,500	-------	443,400	-------	913,100	748,200	-------
(†)	5,394.2	5,502.5	5,545.8	5,549.3	5,552.1	5,544.1	5,532.3	5,536.1	5,579.8	5,585.1	5,570.0	5,557.2
(‡)	-380	+224,190	+296,500	+30,000	+24,600	-68,800	-92,900	+28,800	+409,400	+60,300	-164,900	-125,500

Calendar year 1956..... ‡ +520,801
Water year 1956-57..... ‡ +621,310

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

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 1957. Published as "at Calamity Point, near Irwin" 1934, 1939-41.

Average discharge.--8 years (1949-57), 6,918 cfs (5,008,000 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, 18,200 cfs June 9, 10 (gage height, 10.45 ft); minimum, 19 cfs Nov. 8 (gage height, 2.43 ft).
1934-36, 1939-41, 1949-57: Maximum discharge, 31,800 cfs June 4-6, 1956 (gage-height, 13.31 ft); minimum, that of Nov. 8, 1956.
Flood in early June 1894 probably was much higher than that of June 4-6, 1956.

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

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

Revisions.--WSP 1217: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 28 to Feb. 25, June 27 to Aug. 28)

2.4	15	6.0	3,350
2.6	40	7.0	5,760
3.0	160	8.0	8,870
3.5	370	9.0	12,400
4.0	650	10.3	17,700
5.0	1,650		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,230	2,950	1,660	1,580	1,610	1,620	3,430	8,320	9,300	11,100	12,400	6,880
2	3,190	2,880	1,680	1,560	1,610	1,610	3,430	6,820	8,870	11,100	12,100	6,750
3	3,130	1,460	1,790	1,530	1,620	1,620	*3,430	4,960	8,800	11,100	12,100	6,450
4	3,090	80	1,980	*1,530	*1,620	1,740	3,430	5,040	8,220	11,000	11,900	6,210
5	3,090	*71	2,060	1,550	1,580	1,730	3,430	5,040	7,740	11,200	11,400	*6,060
6	3,050	*25	2,070	1,530	1,620	*1,740	3,430	10,200	9,300	11,600	11,300	6,600
7	3,090	22	2,010	1,530	1,650	*1,740	3,430	13,800	*12,600	12,100	11,300	7,840
8	3,070	*19	1,960	1,520	1,680	1,730	3,770	13,900	12,700	*12,500	*11,100	8,410
9	3,050	20	1,960	1,510	1,680	1,730	4,330	13,700	12,300	12,500	10,900	7,930
10	3,090	20	1,840	1,520	1,690	1,650	4,350	13,900	17,700	13,000	10,700	7,930
11	3,070	120	1,640	1,520	1,620	1,770	4,350	14,000	16,800	13,200	10,500	7,900
12	3,050	611	*1,640	1,480	1,650	1,770	4,350	12,400	14,100	13,400	10,100	8,060
13	3,090	1,010	1,650	1,460	1,680	2,800	4,330	12,200	11,700	13,200	9,760	8,160
14	3,070	*1,360	1,660	1,450	1,700	*4,330	4,070	13,800	12,000	12,700	9,410	8,000
15	3,030	1,640	1,660	*1,460	1,720	4,310	4,740	13,800	10,800	12,600	8,900	8,000
16	2,990	1,850	1,670	1,420	1,770	4,330	5,180	13,800	10,300	13,000	8,740	7,870
17	2,970	2,120	1,680	1,400	1,740	4,350	5,150	*13,800	10,300	13,400	8,350	7,400
18	2,910	2,620	1,680	1,400	1,690	4,380	5,150	13,800	10,300	*13,400	8,060	7,400
19	*2,950	1,620	1,650	1,410	*1,640	4,350	5,150	12,900	10,300	13,400	8,640	6,940
20	2,930	1,650	1,570	1,410	1,730	4,640	5,150	13,800	10,400	13,200	8,640	6,720
21	2,910	1,610	1,580	1,440	1,740	5,240	5,150	13,800	10,400	12,900	8,440	6,660
22	2,870	1,520	1,570	1,640	1,880	5,190	4,310	13,800	10,400	12,700	7,810	6,360
23	2,910	1,550	1,570	1,610	1,610	5,220	3,560	13,700	10,400	12,600	7,710	6,360
24	3,030	1,560	1,580	1,650	1,380	4,910	4,490	13,400	10,400	12,700	7,740	6,060
25	2,990	1,580	1,570	1,640	1,880	5,170	6,940	12,600	10,400	13,000	7,740	6,090
26	3,090	1,600	1,570	1,620	1,690	5,170	*7,810	13,400	10,300	12,900	7,740	*5,290
27	3,230	1,610	1,570	1,650	1,560	4,420	7,960	13,500	10,200	13,000	7,780	4,780
28	3,170	1,640	1,570	1,650	1,570	3,460	8,190	13,400	10,300	13,000	7,780	4,780
29	3,070	1,650	1,580	1,650	-	3,430	8,380	12,700	10,700	12,900	7,710	3,960
30	2,990	1,660	1,570	1,650	-------	3,430	8,380	11,800	11,100	12,800	7,590	3,350
31	3,010	-------	1,580	1,640	-------	3,430	-------	11,700	-------	12,600	7,160	-------
Total	94,410	38,108	52,800	47,610	46,610	103,010	149,250	373,780	329,130	389,800	291,500	201,500
Mean	3,045	1,270	1,703	1,536	1,665	3,323	4,975	12,060	10,970	12,570	9,403	6,717
Ac-ft	187,300	75,590	104,700	94,430	92,450	204,300	296,000	741,400	652,800	773,200	578,200	399,700

Calendar year 1956: Max 31,800 Min 19 Mean 8,315 Ac-ft 6,036,000
Water year 1956-57: Max 17,700 Min 19 Mean 5,801 Ac-ft 4,200,000

* Discharge measurement made on this day.

Snake River near Heise, Idaho

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

Drainage area.--5,752 sq mi.

Records available.--September 1910 to September 1957. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as South Fork of Snake River near Heise.

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

Average discharge.--47 years, 6,878 cfs (4,979,000 acre-ft per year).

Extremes.--Maximum discharge during year, 19,400 cfs June 10 (gage height, 6.62 ft); minimum, 460 cfs Nov. 10, 12 (gage height, -0.18 ft).

1910-57: 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, that of Nov. 10, 12, 1956.

Flood in 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) and Palisades Reservoir (see p. 29) Station is above all irrigation diversions from main river except Riley ditch (4,300 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 1957 are given in WSP 1523.

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 14 to Apr. 26, May 7 to June 17, June 28 to Aug. 2)

-0.2	453	2.0	1,350	5.0	12,000
0.0	525	3.0	5,640	6.0	15,700
.4	760	4.0	8,570	7.0	20,300
1.0	1,390				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,840	3,330	2,070	b2,040	b2,020	2,010	3,840	9,030	11,800	11,800	12,700	7,530
2	3,720	3,220	2,070	b2,040	2,030	2,040	3,820	9,030	11,000	11,800	12,700	7,370
3	3,600	3,020	2,110	2,040	2,010	2,070	3,820	6,280	11,100	11,800	12,300	7,040
4	3,580	760	2,370	2,040	2,030	2,120	3,790	6,470	10,800	11,700	12,300	6,980
5	3,550	567	2,500	b2,040	2,030	2,140	3,790	6,690	10,000	11,700	12,000	6,470
6	3,530	534	2,520	b2,040	1,950	2,140	3,960	8,770	10,700	12,200	11,800	7,010
7	3,530	*498	b2,500	b2,030	2,030	2,140	3,890	15,300	14,300	12,600	11,800	7,590
8	3,530	479	b2,440	b2,020	2,060	2,140	3,940	15,400	14,200	*13,200	11,700	9,060
9	3,510	*470	b2,400	b2,000	2,060	2,150	4,890	15,300	12,700	13,200	*11,400	8,310
10	3,510	460	b2,300	b2,000	2,060	2,150	4,960	15,300	18,200	13,400	11,200	8,190
11	3,530	463	2,170	b2,000	2,060	2,110	4,990	15,500	*18,000	13,700	11,100	8,280
12	3,510	460	2,140	1,980	1,950	2,190	4,990	15,000	16,200	13,800	10,700	8,190
13	3,530	1,040	2,120	1,930	2,090	2,170	4,960	14,200	12,800	13,800	10,300	8,570
14	3,550	1,550	2,120	1,930	1,980	4,600	4,700	14,700	13,400	13,400	10,100	8,280
15	3,530	1,910	2,150	*1,930	2,070	4,650	5,120	15,500	12,200	13,000	9,590	8,280
16	3,510	2,190	2,190	b1,900	2,150	4,680	5,850	15,200	11,400	13,200	9,430	8,220
17	3,460	2,390	2,170	b1,880	2,090	4,780	5,870	15,100	11,400	13,600	9,200	7,870
18	3,420	3,150	2,170	b1,860	2,090	*4,810	5,900	15,200	11,200	13,600	8,740	7,840
19	*3,370	2,140	2,170	b1,860	*2,070	4,810	5,870	14,700	11,200	13,600	9,300	7,560
20	3,350	b2,020	2,090	b1,860	2,040	4,830	5,850	15,500	11,400	13,700	9,230	7,250
21	3,330	b2,000	b2,090	b1,860	2,150	5,770	5,850	15,300	11,500	13,400	9,200	7,130
22	3,300	1,930	b2,080	2,060	2,070	5,740	*5,610	15,000	11,400	13,200	8,640	7,130
23	3,330	1,950	b2,070	2,060	2,560	5,670	4,260	14,800	11,400	13,100	8,380	7,070
24	3,440	1,960	2,070	2,060	1,870	5,350	4,370	14,500	11,400	13,000	8,380	6,660
25	3,420	b1,980	2,060	2,040	2,070	5,690	7,370	14,100	*11,300	13,300	8,310	6,660
26	3,440	b2,010	b2,060	b2,030	2,240	5,720	7,840	14,500	11,300	13,200	8,310	*6,220
27	3,670	b2,060	b2,050	b2,020	2,070	5,510	8,350	15,100	11,200	13,300	8,280	5,800
28	3,670	*b2,060	b2,050	b2,020	2,040	3,840	8,410	*15,200	11,200	13,300	8,250	5,610
29	3,550	b2,050	b2,050	b2,020	-	3,820	8,870	14,900	11,300	13,200	*8,220	5,020
30	3,480	b2,070	b2,050	b2,020		3,840	9,030	13,900	11,800	13,000	8,220	4,240
31	3,440		b2,050	b2,020		3,840	----	13,900	----	12,900	7,900	----
Total	108,730	50,721	67,450	61,630	57,940	115,520	164,760	419,370	367,800	403,700	309,680	217,430
Mean	3,507	1,691	2,176	1,988	2,069	3,726	5,492	13,530	12,260	13,020	9,990	7,248
Ac-ft	215,700	100,600	133,800	122,200	114,900	229,100	326,800	831,800	729,500	800,700	614,200	431,300

Calendar year 1956: Max 33,100 Min 460 Mean 8,878 Ac-ft 6,446,000
Water year 1956-57: Max 18,200 Min 460 Mean 6,424 Ac-ft 4,651,000

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

Henrys Fork near Lake, Idaho

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

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

Records available.--May 1920 to September 1957. (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 bench mark). Prior to September 1922, staff gage at site 3 miles downstream and below mouth of Dry Creek.

Average discharge.--28 years (1929-57), 45.6 cfs (33,010 acre-ft per year).

Extremes.--Maximum discharge during year, 287 cfs June 13 (gage height, 2.27 ft); minimum, 8 cfs Oct. 11-19.

1920-57: Maximum discharge, 907 cfs June 13, 1926 (gage height, 5.40 ft); no flow for part of 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 (Tyghee) Creek have been diverted at times into Henrys Lake (none diverted during 1957).

Revisions.--WSP 1217: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	11			23	26	35	38	107	176	129	140
2	17	*11			23	26	35	40	113	168	127	140
3	17	-			23	26	35	42	119	167	126	134
4	17	-			23	26	35	47	127	155	127	124
5	17	-			23	26	35	53	136	151	126	123
6	17	-			24	26	35	56	148	144	126	124
7	17	-			24	27	35	58	161	138	124	123
8	17	-			24	27	35	59	166	133	123	123
9	17	-			24	27	35	64	174	130	122	120
10	12	-			24	27	35	65	185	126	122	120
11	8	-			24	27	35	67	179	123	120	*83
12	8	-			24	27	35	77	217	117	119	47
13	8	-			24	27	35	88	247	117	117	*47
14	*8	-			24	27	35	91	*240	117	*116	47
15	8	-			24	27	*35	91	242	*116	117	47
16	8	-			25	28	35	93	257	116	120	48
17	8	-			25	28	35	90	230	113	122	48
18	8	-	†16		25	28	35	90	212	133	124	30
19	8	-			25	28	35	91	206	154	124	13
20	9	-			25	30	35	*98	227	150	127	14
21	10	-			25	34	36	113	242	144	127	15
22	10	-			25	35	36	100	227	140	126	15
23	10	-			*25	35	36	102	214	138	124	15
24	10	-			26	35	36	98	206	136	126	14
25	10	-			26	35	37	93	199	133	126	14
26	10	-			26	35	37	93	193	134	127	14
27	11	-			26	35	37	91	188	133	129	13
28	11	-			26	35	37	89	182	133	129	13
29	11	-			-	35	37	90	180	133	130	12
30	11	-			-------	35	38	94	180	131	136	12
31	11	-------			-------	35	-------	100	-------	130	143	-------
Total	361	-	-	-	685	925	1,067	2,461	5,704	4,229	3,881	1,832
Mean	11.6	13	16	20	24.5	29.8	35.6	79.4	190	136	125	61.1
Ac-ft	716	774	984	1,230	1,360	1,830	2,120	4,880	11,310	8,390	7,700	3,630

Calendar year 1956: Max 203 Min 8 Mean 29.0 Ac-ft 21,030
Water year 1956-57: Max 257 Min 8 Mean 62.1 Ac-ft 44,920

* Discharge measurement made on this day.
† Result of discharge measurement.
Note.--No gage-height record Nov. 3 to Feb. 22, Apr. 7-14; discharge estimated on basis of 4 discharge measurements. Only monthly figures estimated for November, December, January.

Island Park Reservoir near Island Park, Idaho

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

Drainage area.--481 sq mi.

Records available.--November 1938 to September 1957.

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, 140,515 acre-ft May 13 (elevation, 6,303.65 ft); minimum, 50,080 acre-ft Sept. 29, 30 (elevation, 6,288.81 ft).
1938-57: Maximum contents, that of May 13, 1957; 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 (normal low-water level with outlet gates open) and 6,302 ft (crest of spillway). Natural flow passing through reservoir when outlet gates are open limits withdrawal of storage to elevation 6,230 ft (sill of lower outlet). Dead storage negligible. Water is used for irrigation of lands in Fremont-Madison irrigation district between Ashton and Rexburg. Figures given herein represent usable contents.

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

Revisions.--WSP 1217: Drainage area.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

6,288.0	47,095	6,299.0	105,150
6,290.0	54,800	6,302.0	127,265
6,293.0	68,655	6,304.0	143,430
6,296.0	85,565		

Usable contents, in acre-feet, at 8 a.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80,080	82,020	77,090	96,485	119,610	122,565	122,945	124,935	138,050	135,365	107,035	64,675
2	80,080	80,665	78,000	97,410	119,835	122,640	123,400	125,090	138,295	135,205	105,495	63,950
3	80,080	77,940	78,975	98,275	119,985	122,715	123,400	125,865	138,460	134,880	103,905	63,235
4	80,080	75,855	79,905	99,145	120,065	122,790	123,400	126,485	138,295	134,555	102,320	62,430
5	80,310	73,805	80,900	100,085	120,515	122,870	123,400	127,420	138,130	134,395	101,030	61,590
6	80,310	71,485	81,840	101,030	120,590	122,870	123,555	128,830	138,130	134,395	99,615	60,855
7	80,310	69,855	82,795	101,915	120,665	122,870	123,705	132,390	138,050	134,395	97,940	60,490
8	80,310	68,055	83,750	102,870	120,740	122,790	123,705	135,205	137,885	134,315	96,485	60,035
9	80,665	66,245	84,720	103,835	120,970	122,790	123,705	137,475	137,805	134,235	95,040	59,540
10	80,720	64,430	85,685	104,870	121,120	122,790	123,705	138,625	137,885	134,155	93,545	59,095
11	80,780	63,090	86,605	105,845	121,195	122,790	123,860	139,200	137,720	133,430	91,620	58,605
12	80,900	62,290	87,595	106,685	121,195	122,790	123,935	139,525	137,475	132,870	89,845	58,165
13	80,955	61,405	88,530	107,525	121,195	122,870	123,935	140,515	137,475	132,310	88,090	57,815
14	80,955	61,405	89,470	108,445	121,120	122,870	124,010	140,435	137,395	131,590	86,300	57,120
15	80,955	61,545	90,415	109,370	121,120	122,790	124,090	139,940	137,230	130,720	84,535	56,480
16	80,900	62,665	91,685	110,155	121,120	122,790	124,395	140,020	137,150	130,010	82,970	56,140
17	80,780	63,950	91,940	110,945	121,120	122,790	124,550	139,445	137,150	129,220	81,605	55,385
18	80,665	65,065	92,385	111,735	121,120	122,790	124,395	139,115	137,070	128,045	80,255	54,385
19	80,255	66,095	92,710	112,530	121,120	122,870	124,395	139,115	136,665	126,180	78,975	53,650
20	80,430	67,040	93,095	113,695	121,045	122,870	124,475	139,690	136,580	124,320	77,600	52,765
21	80,430	68,000	93,290	114,500	121,120	122,870	124,550	139,940	136,665	122,790	76,360	51,815
22	80,370	68,920	93,480	115,375	121,195	122,870	124,550	139,775	136,665	121,650	75,130	51,540
23	80,370	69,855	93,610	116,260	121,425	122,870	124,550	139,115	136,580	120,140	73,970	51,190
24	80,545	70,800	93,740	117,075	121,955	122,945	124,550	138,790	136,580	118,935	72,880	50,995
25	80,545	71,645	93,935	117,890	122,185	122,945	124,935	138,295	136,420	117,670	71,805	50,765
26	80,900	72,500	94,130	118,710	122,260	122,945	124,935	138,050	136,095	116,040	70,585	50,535
27	81,490	73,480	94,250	118,710	122,335	122,945	124,860	137,720	136,095	114,500	69,490	50,230
28	81,490	74,410	94,325	118,785	122,565	122,870	124,780	137,560	135,610	113,040	68,255	50,190
29	81,370	75,130	94,455	118,860	-	122,870	124,780	137,720	135,610	111,160	67,390	50,080
30	81,370	76,135	94,715	118,935	-------	122,870	124,780	137,805	135,285	110,230	66,345	50,080
31	81,960	-------	95,500	119,010	-------	122,945	-------	137,805	-------	108,660	65,405	-------
(†)	6,295.40	6,294.39	6,297.57	6,300.92	6,301.39	6,301.44	6,301.68	6,303.32	6,303.01	6,299.50	6,292.35	6,288.81
(‡)	+1,940	-5,825	+19,365	+23,510	+3,555	+380	+1,835	+13,025	-2,520	-26,625	-43,255	-15,325

Calendar year 1956..... ‡ +23,750
Water year 1956-57..... ‡ -29,940

† 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 Post Office.

Drainage area.--481 sq mi.

Records available.--January 1933 to September 1957.

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

Average discharge.--24 years, 547 cfs (396,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,700 cfs May 13, 14 (gage height, 4.80 ft); minimum daily, 7 cfs for many days.
1933-57: 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). About 14,000 acres irrigated by diversions above station, a considerable portion of which consists of partly sub-irrigated meadows.

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

Revisions.--WSP 1217: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	445	863	7	7	338	404	486	581	1,300	870	1,350	1,050
2	445	*1,660	7	7	338	414	486	581	1,340	836	1,350	1,030
3	445	1,680	7	7	338	436	481	581	1,340	821	1,340	1,020
4	445	1,680	7	7	338	436	476	733	1,320	787	1,340	1,020
5	445	1,660	7	7	338	481	476	743	1,310	772	1,340	986
6	445	1,550	7	7	338	481	472	545	1,320	762	1,330	885
7	445	1,420	7	7	338	481	468	391	1,290	753	1,340	841
8	445	1,440	7	7	338	481	468	733	1,280	743	1,330	836
9	445	1,440	7	7	338	486	463	1,050	1,250	733	1,320	836
10	445	1,320	7	7	338	490	458	1,260	1,240	910	1,420	831
11	445	1,090	7	7	368	490	454	1,380	1,220	992	1,480	831
12	445	1,010	7	7	391	495	454	1,570	1,180	976	1,480	826
13	427	782	7	7	391	504	450	1,700	1,150	971	*1,480	*826
14	*548	601	7	7	391	509	445	1,700	*1,130	986	1,480	826
15	548	184	7	7	391	509	*440	1,610	1,120	*956	1,470	826
16	543	7	195	7	391	476	440	1,610	1,120	935	1,370	900
17	538	7	259	7	391	476	500	1,520	1,100	1,130	1,280	1,010
18	538	7	235	7	391	481	500	1,450	1,070	1,450	1,280	1,010
19	500	7	*235	7	391	476	500	1,470	1,050	1,520	1,270	1,010
20	481	7	304	7	391	481	495	*1,590	1,040	1,510	1,280	997
21	481	7	346	7	391	481	495	1,640	1,060	1,390	1,230	841
22	481	7	346	7	391	481	490	1,660	1,060	1,300	1,180	718
23	481	*7	346	7	*400	486	490	1,460	1,040	1,290	1,180	689
24	481	7	346	7	404	490	490	1,400	1,020	1,280	1,170	664
25	481	7	346	7	404	490	490	1,300	986	1,340	1,170	660
26	481	7	346	214	404	490	586	1,250	961	1,400	1,170	655
27	481	7	346	338	404	486	586	1,220	950	1,380	1,160	610
28	481	7	346	338	404	486	586	1,200	925	1,360	1,160	576
29	481	7	346	338	-	486	581	1,220	900	1,360	1,160	552
30	481	7	135	338	-------	486	581	1,240	865	1,360	1,150	533
31	481	-------	7	338	-------	486	-------	1,240	-------	1,360	1,100	-------
Total	14,754	18,485	4,589	2,079	10,469	14,835	14,787	37,628	33,937	34,233	40,160	24,895
Mean	476	616	148	67.1	374	479	493	1,214	1,131	1,104	1,295	830
Ac-ft	29,260	36,660	9,100	4,120	20,760	29,420	29,330	74,630	67,310	67,900	79,660	49,380

Calendar year 1956: Max 1,750 Min 7 Mean 526 Ac-ft 382,000
Water year 1956-57: Max 1,700 Min 7 Mean 687 Ac-ft 497,500

* Discharge measurement made on this day.
Note.--Discharge computed from once-daily staff-gage readings Nov. 16 to May 24.

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.

Records available.--April 1890 to June 1891, August 1902 to June 1909, April 1920 to September 1957 (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.--37 years (1902-8, 1926-57), 1,358 cfs (983,200 acre-ft per year).

Extremes.--Maximum discharge during year, 5,040 cfs May 21; maximum gage height, 8.10 ft Aug. 11; minimum discharge, 352 cfs Feb. 13 (gage height, 5.41 ft); minimum daily, 494 cfs Jan. 17.
1890-91, 1902-9, 1920-57: 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 diversions above station.

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

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,210	1,340	749	598	1,030	*1,190	1,300	1,860	2,820	1,940	2,080	1,880
2	1,130	2,160	760	627	1,030	1,190	1,270	2,590	2,840	1,680	1,980	1,770
3	1,140	2,700	760	656	1,030	1,230	1,730	2,300	2,800	1,700	2,080	1,770
4	1,170	2,680	770	627	976	1,230	1,530	2,590	2,760	1,660	2,060	1,750
5	1,200	2,610	781	598	976	1,260	1,320	3,280	2,700	*1,550	*2,040	*1,720
6	1,190	2,660	749	618	1,010	1,260	1,380	3,210	2,610	1,390	2,040	1,610
7	1,160	2,180	636	627	964	1,260	1,380	2,040	2,590	1,330	2,040	1,500
8	1,130	2,260	770	676	1,050	1,260	940	*2,970	2,570	1,320	2,060	1,440
9	*1,200	2,280	718	618	1,040	1,280	814	3,190	2,550	1,470	2,040	1,470
10	1,190	2,240	728	608	964	1,300	1,380	3,350	2,570	1,440	2,060	1,480
11	1,190	2,040	781	618	1,030	1,230	1,380	3,440	2,510	1,810	2,400	1,500
12	1,170	1,660	770	618	1,080	1,320	1,390	4,310	2,400	1,660	2,240	1,520
13	1,240	1,750	770	676	1,030	1,300	1,380	4,220	2,340	1,750	2,340	1,530
14	1,200	1,330	770	696	1,100	1,230	1,420	4,140	*2,340	1,720	2,300	1,480
15	1,300	1,080	738	696	1,120	1,230	1,400	4,170	2,300	1,770	2,240	1,580
16	1,280	847	760	528	1,090	1,210	1,380	3,930	2,280	1,700	2,300	1,520
17	1,260	749	892	494	1,100	1,210	1,500	3,720	2,240	1,610	2,060	1,750
18	1,260	749	1,000	608	1,120	1,200	1,530	3,700	2,080	2,160	2,000	1,880
19	1,320	618	*976	627	1,120	1,200	1,550	3,980	2,080	2,400	*2,040	2,000
20	1,230	627	976	676	1,130	1,200	1,560	*4,480	2,020	2,360	1,980	1,980
21	1,200	*696	1,040	646	1,130	1,210	1,580	4,440	2,200	2,360	2,040	1,900
22	1,230	707	1,010	665	1,170	1,210	1,600	3,980	2,160	2,040	2,020	1,450
23	1,270	738	1,040	676	1,170	1,210	1,700	3,600	2,060	2,060	1,900	1,390
24	1,340	728	1,090	676	1,200	1,200	1,920	3,350	2,020	2,000	1,940	1,330
25	1,270	749	1,040	*646	1,210	*1,200	1,730	3,280	1,940	2,040	1,940	1,360
26	1,340	738	1,010	562	1,190	1,230	2,040	3,100	1,900	2,120	1,940	1,390
27	1,440	718	952	770	1,280	1,210	1,750	3,010	1,900	2,140	1,980	1,390
28	1,320	718	1,000	952	1,190	1,230	1,680	3,010	1,860	2,020	1,960	1,330
29	1,230	696	988	964	-	1,240	2,100	2,950	1,980	2,140	2,020	1,240
30	1,280	728	964	1,000	-------	1,260	1,940	2,910	1,960	2,000	2,020	1,210
31	1,340	-------	707	1,000	-------	1,320	-------	2,890	-------	2,120	2,080	-------
Total	38,430	41,776	26,695	21,047	30,530	38,310	45,574	103,990	69,380	57,460	64,220	47,120
Mean	1,240	1,393	861	679	1,090	1,236	1,519	3,355	2,313	1,854	2,072	1,571
Ac-ft	76,220	82,860	52,950	41,750	60,560	75,990	90,390	206,300	137,600	114,000	127,400	93,460

Calendar year 1956: Max 2,990 Min 510 Mean 1,418 Ac-ft 1,029,000
Water year 1956-57: Max 4,480 Min 494 Mean 1,601 Ac-ft 1,159,000

* 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 1957. 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, 1957

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	0	160	283	150	11	140	225	258	72	21	201	267	224	76
2	0	180	280	148	12	140	225	259	73	22	201	267	224	76
3	0	180	279	80	13	140	237	257	73	23	180	265	209	76
4	0	190	278	79	14	140	237	257	73	24	150	263	205	75
5	80	200	278	76	15	140	240	258	73	25	144	285	206	9
6	100	210	262	75	16	160	241	252	73	26	144	290	178	9
7	120	220	270	75	17	170	248	251	74	27	144	298	181	60
8	125	223	262	73	18	180	258	244	73	28	144	299	180	60
9	130	225	262	72	19	190	247	234	76	29	144	297	179	60
10	140	225	261	72	20	200	266	232	75	30	144	292	179	60
										31	-	289	179	-
Total											3,891	7,549	7,361	2,196
Mean											130	244	237	73.2
Runoff in acre-feet											7,720	14,970	14,600	4,360

The season: Max - Min - Mean - Ac-ft 41,650

Note.--Records began May 1, 1957; no flow May 1 to June 4.

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 1957. 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.

Average discharge.--43 years (1904-8, 1918-57), 757 cfs (548,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,080 cfs June 6 (gage height, 4.77 ft); minimum, 378 cfs Jan. 28 (gage height, 1.05 ft).

1904-9, 1918-57: Maximum discharge observed, 6,440 cfs June 27, 1927; minimum observed, 72 cfs Feb. 9, 1930.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow since October 1939 partly regulated by Grassy Lake (see p. 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	640	614	525	480	420	445	450	825	3,030	2,150	620	600
2	633	600	515	480	420	445	445	*1,020	3,230	2,190	600	594
3	626	607	511	480	420	445	450	1,230	3,540	2,100	600	600
4	626	590	511	480	420	440	445	1,560	3,670	1,900	594	588
5	640	590	522	480	420	445	460	1,890	*3,740	*1,660	*594	*581
6	594	590	511	475	420	435	480	1,960	3,960	1,650	581	574
7	581	600	500	475	420	435	455	2,260	3,840	1,740	555	574
8	581	588	495	480	425	440	455	2,500	3,610	1,470	550	562
9	581	588	506	480	430	440	455	2,500	3,380	1,420	544	562
10	594	588	506	480	430	445	465	2,560	3,330	1,370	538	562
11	594	588	516	*480	430	435	475	2,720	3,210	1,230	538	555
12	581	588	500	480	430	450	475	3,180	3,030	1,190	538	550
13	614	607	516	480	430	445	470	*2,640	2,820	1,110	533	550
14	600	562	506	480	435	430	485	2,990	2,710	1,030	522	544
15	588	528	506	470	440	425	511	2,800	2,330	952	522	544
16	581	562	511	460	440	425	511	2,570	2,000	870	522	538
17	574	568	490	450	435	430	544	2,430	1,770	790	522	538
18	562	550	500	450	435	425	550	2,420	1,560	727	522	544
19	588	528	495	450	435	430	555	2,620	1,600	720	528	607
20	574	506	485	450	*440	430	550	2,730	1,840	741	533	581
21	568	500	490	440	450	440	562	2,380	2,210	692	533	568
22	562	562	480	435	450	430	594	1,900	2,160	678	538	562
23	574	562	480	430	440	430	633	1,730	1,920	646	538	555
24	581	528	485	425	445	430	620	1,720	1,910	626	500	550
25	568	522	475	420	455	*425	581	1,800	2,050	620	495	555
26	600	522	475	420	455	420	550	1,920	2,000	652	528	538
27	607	516	480	420	460	415	538	2,220	1,920	646	538	533
28	574	528	480	420	445	415	588	2,440	2,010	626	533	533
29	562	*544	480	420	-	435	741	2,570	2,260	672	568	533
30	*568	535	480	420	-------	440	870	2,620	2,360	659	562	533
31	607	-------	480	420	-------	450	-------	2,770	-------	640	594	-------
Total	18,323	16,861	15,412	14,110	12,175	13,470	15,963	69,475	79,000	34,167	16,983	16,808
Mean	591	562	497	455	435	435	532	2,241	2,633	1,102	548	560
Ac-ft	36,340	33,440	30,570	27,990	24,150	26,720	31,660	137,800	156,700	67,770	33,690	33,340

Calendar year 1956: Max 3,720 Min 375 Mean 914 Ac-ft 663,500
Water year 1956-57: Max 3,960 Min 415 Mean 884 Ac-ft 640,200

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 4-6, Nov. 30 to Dec. 2, Dec. 28 to Feb. 15.

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 1957. 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, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	155	402	667	617	421	16	203	837	726	496	420
2	113	397	675	594	420	17	227	745	710	494	436
3	116	404	668	585	394	18	268	734	665	492	437
4	124	507	654	574	365	19	271	762	659	496	490
5	176	581	706	585	344	20	235	802	681	499	521
6	244	650	709	592	378	21	222	798	653	498	503
7	235	747	734	574	388	22	236	737	659	502	481
8	221	744	721	573	392	23	253	687	648	463	485
9	254	786	794	577	396	24	270	643	637	457	482
10	254	831	740	573	399	25	274	660	626	453	482
11	258	828	711	555	409	26	279	675	668	454	467
12	236	828	771	561	414	27	282	681	675	440	468
13	248	829	747	537	419	28	300	615	652	442	463
14	241	834	732	530	421	29	348	626	664	427	461
15	186	834	743	520	420	30	369	635	668	441	457
						31	396	-	632	437	-
Total							7,494	20,839	21,395	16,038	13,033
Mean							242	695	690	517	434
Runoff in acre-feet							14,860	41,330	42,440	31,810	25,850

The season: Max - Min - Mean - Ac-ft 156,300

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 1957 (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 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, 3,920 cfs June 6 (gage height, 5.15 ft); minimum, 51 cfs July 26 (gage height, 1.21 ft).

1920-57: 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. 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. 30 to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)

1.2	48	2.0	265	4.0	1,990
1.4	81	2.5	515	5.0	3,560
1.6	127	3.0	900	6.0	5,400

Discharge, in cubic feet per second, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	909	3,030	1,790	94	346	16	3,070	1,600	288	133	225
2	1,090	3,220	*1,720	94	342	17	2,800	1,440	210	141	210
3	1,380	3,530	1,670	92	355	18	2,770	1,140	155	141	178
4	1,640	3,630	1,500	100	355	19	2,950	1,110	135	149	221
5	2,130	*3,630	1,220	*104	346	20	3,270	1,250	133	162	233
6	2,190	3,790	1,140	102	328	21	2,960	1,670	135	162	218
7	2,370	3,650	1,180	89	306	22	2,340	1,760	124	165	214
8	2,850	3,390	963	87	301	23	2,030	1,610	96	195	206
9	2,820	3,150	837	85	288	24	1,940	1,540	79	162	188
10	2,820	2,960	786	79	278	25	1,980	1,610	63	152	206
11	2,980	2,820	666	87	270	26	2,060	1,610	60	165	188
12	3,740	2,610	615	102	261	27	2,330	1,550	68	206	185
13	*3,220	2,370	522	107	253	28	2,590	1,600	63	*199	192
14	3,490	2,260	449	112	245	29	2,700	1,810	74	249	195
15	3,390	1,900	390	117	245	30	2,700	1,960	107	274	206
						31	2,830	-	92	301	-
Total							78,339	69,200	17,330	4,407	7,584
Mean							2,527	2,307	559	142	253
Runoff in acre-feet							155,400	137,300	34,370	8,740	15,040

The season: Max - Min - Mean - Ac-ft 350,800

* Discharge measurement made on this day.

Note.--Result of discharge measurement, 981 cfs Apr. 30.

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 1957. 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, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	669	1,220	1,170	1,270	721	16	862	1,150	1,220	1,130	669
2	670	1,300	1,090	1,250	708	17	807	1,140	1,240	1,110	550
3	803	1,080	1,120	1,290	703	18	810	1,080	1,400	1,030	659
4	813	1,400	1,150	1,300	603	19	806	1,140	1,350	1,040	668
5	819	1,510	1,110	1,250	654	20	805	1,200	1,330	961	681
6	832	1,440	1,190	1,250	664	21	791	1,110	1,220	945	635
7	806	1,510	1,180	1,030	674	22	736	1,060	1,180	898	599
8	811	1,430	1,210	1,220	661	23	738	999	1,270	861	534
9	869	1,460	1,280	1,210	707	24	729	1,030	1,270	849	579
10	994	1,430	1,280	1,200	703	25	795	1,010	1,310	847	560
11	981	1,410	1,240	1,260	689	26	857	1,010	1,360	884	566
12	932	1,400	1,160	1,260	681	27	960	1,080	1,340	887	572
13	895	1,370	1,170	1,250	673	28	1,040	1,160	1,240	914	574
14	892	1,320	1,170	1,170	658	29	961	1,200	1,190	887	564
15	886	1,210	1,180	1,130	662	30	946	1,180	1,250	884	560
						31	1,050	-	1,320	920	-
Total							26,365	37,039	38,190	33,387	19,131
Mean							850	1,235	1,232	1,077	638
Runoff in acre-feet							52,290	73,470	75,750	66,220	37,950

The season: Max - Min - Mean - Ac-ft 305,700

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 1957 (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 0.08 ft lower.

Extremes.--Maximum discharge during season, 8,070 cfs May 12 (gage height, 6.49 ft); minimum, 776 cfs July 17 (gage height, 3.20 ft).
1919-57: Maximum discharge recorded, 9,030 cfs May 8, 1925 (gage height, 6.78 ft, present datum); minimum daily recorded, 413 cfs July 22, 1931.

Remarks.--Records excellent. Diversions above station for irrigation. Flow regulated by powerplant 17 miles above station and by Henrys Lake (see p. 43); Island Park Reservoir (see p. 33), and Grassy Lake (see p. 43).

Revisions.--WSP 1217: Drainage area.

Rating table, Apr. 30 to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)

3.2	740	5.0	3,870
3.5	1,040	6.0	6,790
4.0	1,760	6.2	7,430

Discharge, in cubic feet per second, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	2,060	4,840	2,770	1,150	1,710	16	5,960	2,850	996	1,360	1,380
2	2,750	4,950	2,420	1,100	1,580	17	5,460	2,620	812	1,290	1,410
3	2,960	5,520	2,330	1,100	1,620	18	5,300	2,140	1,080	1,240	1,470
4	3,370	5,360	2,150	1,110	1,620	19	5,770	2,070	1,300	1,360	1,600
5	4,760	5,090	1,830	1,140	1,570	20	7,080	2,130	1,340	1,360	1,660
6	4,650	5,060	1,420	1,160	1,490	21	6,790	2,900	1,440	*1,400	1,630
7	4,220	5,010	1,440	1,250	1,360	22	5,400	3,120	1,210	1,470	1,400
8	5,150	4,680	1,260	1,120	1,260	23	4,780	2,980	*1,160	1,400	1,280
9	5,240	4,380	1,150	1,110	1,260	24	4,490	2,710	1,090	1,380	1,220
10	5,330	4,300	1,100	1,100	1,260	25	4,430	2,620	1,080	1,360	*1,210
11	5,520	4,100	1,320	1,290	1,300	26	4,410	2,620	1,060	1,350	1,220
12	7,270	3,770	1,290	1,240	1,300	27	4,520	2,540	1,150	1,360	1,210
13	6,690	*3,490	1,280	1,320	1,320	28	4,650	2,370	1,090	1,360	1,190
14	*6,760	3,410	1,170	1,380	1,280	29	4,730	2,560	1,240	1,500	1,100
15	6,660	3,250	1,170	1,340	1,340	30	4,780	2,860	1,110	1,580	1,100
						31	4,870	-	1,170	1,710	-
Total							156,810	106,300	42,428	40,390	41,350
Mean							5,058	3,543	1,369	1,303	1,378
Runoff in acre-feet							311,000	200,800	84,150	80,110	82,020

The season: Max - Min - Mean - Ac-ft 758,100

* Discharge measurement made on this day.

Note.--Result of discharge measurement, 2,230 cfs Apr. 30.

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, June 1941 to October 1957 (discontinued). 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, supplemental staff gage at site 1¾ miles upstream.

Average discharge.--19 years (1929-32, 1941-57), 393 cfs (284,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,800 cfs June 7 (gage height, 2.75 ft); minimum daily, 173 cfs Jan. 27 to Feb. 6.
1929-32, 1934-35, 1940-57: 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.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	349	359	265	205	173	560	440	344	1,280	1,300	635	545
2	339	340	265	205	173	443	360	339	1,390	1,310	609	527
3	334	330	260	205	173	380	360	339	1,460	1,320	596	496
4	329	324	260	198	173	330	360	364	1,580	1,260	596	472
5	339	324	255	195	173	300	360	419	1,640	1,210	583	460
6	334	344	255	195	173	*266	370	414	1,730	1,130	570	448
7	334	414	255	195	178	265	370	425	1,780	1,130	552	443
8	329	397	255	195	180	295	360	448	1,740	1,100	552	437
9	334	380	255	195	190	419	350	460	1,600	1,020	545	425
10	344	380	255	195	195	550	386	490	1,500	1,000	533	425
11	339	402	255	195	200	345	431	496	1,340	*1,030	527	*425
12	339	386	255	195	200	340	*460	738	1,210	1,130	*533	419
13	344	364	255	195	200	280	502	787	*1,110	1,090	527	414
14	354	340	255	195	200	240	552	661	1,090	1,030	521	414
15	344	320	255	195	200	246	564	710	1,010	1,030	515	408
16	334	326	255	190	205	246	515	*655	962	977	527	408
17	329	350	250	190	205	246	484	615	939	947	515	402
18	329	330	235	190	210	246	466	628	801	902	496	397
19	329	290	220	190	210	260	431	717	731	866	478	425
20	334	260	*205	190	220	300	419	815	724	880	466	443
21	329	290	205	190	220	350	408	984	954	895	466	443
22	319	290	205	190	220	280	402	910	1,010	858	466	425
23	324	285	205	190	250	230	419	738	902	815	466	414
24	364	280	205	190	380	225	443	682	844	766	466	402
25	349	280	205	185	620	220	397	661	844	731	460	397
26	359	280	205	175	710	220	392	642	902	689	472	380
27	443	275	205	173	790	220	375	642	917	682	496	380
28	443	273	205	173	740	230	359	703	1,010	648	496	370
29	392	*272	205	173	-	280	349	837	1,100	642	521	370
30	*364	270	205	173	-------	443	339	992	1,210	655	521	364
31	370	-------	205	173	-------	460	-------	1,140	-------	655	515	-------
Total	10,796	9,755	7,275	5,893	7,761	9,715	12,423	19,795	35,310	29,698	16,221	12,778
Mean	348	325	235	190	277	313	414	639	1,177	958	523	426
Ac-ft	21,410	19,350	14,430	11,690	15,390	19,270	24,640	39,260	70,040	58,910	32,170	25,340

Calendar year 1956: Max 1,570 Min 160 Mean 449 Ac-ft 325,800
Water year 1956-57: Max 1,780 Min 173 Mean 486 Ac-ft 351,900

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 31 to Apr. 9 (stage-discharge relation affected by ice Nov. 2-4, Nov. 14 to Feb. 25); discharge estimated on basis of 5 discharge measurements, weekly readings on supplementary staff gage, weather records, and records for station near St. Anthony.

Discharge, in cubic feet per second, 1957

Oct. 1	364	Oct. 5	419
2	364	6	392
3	375	7	380
4	431	8	*375

* Discharge measurement made on this day.

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 1957 (irrigation seasons only, 1920-21, 1923-33). Monthly discharge only for some periods, published in WSP 1317. Published as "near Wilford" or "at Chases Ranch" 1890-93.

Gage.--Water-stage recorder. Datum of gage is 4,971.8 ft above mean sea level, datum of 1929. Apr. 5, 1890, to Sept. 30, 1893, staff gage at site 1 mile downstream at different datum. Apr. 23, 1903, to June 30, 1909, staff gage at site three-quarters of a mile upstream 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.--24 years (1933-57), 763 cfs (552,400 acre-ft per year).

Extremes.--Maximum discharge during year, 4,660 cfs June 6 (gage height, 7.03 ft); minimum, 311 cfs Mar. 14 (gage height, 1.83 ft).
1890-93, 1903-9, 1920-57: Maximum discharge observed, 5,830 cfs June 13, 1893 (gage height, 6.90 ft, site and datum then in use); minimum, 214 cfs Dec. 15, 1955 (gage height, 1.62 ft).

Remarks.--Records excellent except those for periods of ice effect, 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 (4,450 acre-ft diverted into river during 1957 irrigation season).

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 28 to Sept. 30)

1.9	337	5.0	2,610
2.5	635	6.0	3,520
3.0	965	7.0	4,600
4.0	1,750		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	683	618	450	395	365	786	641	653	3,420	2,580	1,060	881
2	665	572	450	390	365	659	572	708	3,720	2,630	1,050	874
3	665	518	445	385	365	612	*578	839	4,060	2,500	1,010	806
4	653	556	445	385	365	556	567	965	4,300	2,370	986	740
5	653	556	440	380	365	523	556	1,210	*4,420	2,120	979	708
6	647	562	440	375	365	482	702	1,270	4,500	1,950	965	689
7	629	612	430	375	370	463	671	1,370	4,550	1,950	951	677
8	618	624	430	375	380	492	578	1,600	4,300	1,830	937	665
9	*572	601	435	375	380	629	572	1,550	4,070	1,700	909	653
10	589	601	440	375	380	760	665	1,560	3,770	1,650	895	647
11	584	606	448	378	380	545	740	1,690	3,420	1,620	888	647
12	572	618	448	380	380	550	754	2,120	3,060	1,780	895	641
13	578	595	448	390	380	477	695	2,340	2,790	1,680	909	641
14	589	578	448	385	390	439	760	*1,990	2,510	1,610	888	635
15	584	518	448	380	400	463	799	1,950	2,200	1,580	874	629
16	567	534	448	378	405	453	766	1,870	1,950	1,490	888	618
17	556	562	416	375	410	463	714	1,690	1,810	1,420	860	612
18	545	508	420	375	415	458	708	1,750	1,590	1,340	832	618
19	534	458	434	375	420	477	665	1,960	1,500	1,290	818	635
20	540	450	*407	375	425	513	624	2,340	1,620	1,310	786	671
21	534	*517	402	372	430	567	606	2,290	2,100	1,320	*766	677
22	540	470	385	372	420	492	606	2,040	2,180	1,260	773	665
23	550	470	388	372	467	448	612	1,670	1,890	*1,190	773	653
24	595	465	390	372	606	434	734	1,510	1,790	1,140	773	641
25	601	460	390	*369	839	434	624	1,500	1,910	1,100	760	*635
26	601	460	390	350	972	434	601	1,540	*1,920	1,060	760	635
27	671	455	390	350	*1,060	420	572	1,840	1,920	1,040	806	629
28	702	455	395	350	986	425	550	2,230	2,110	1,020	792	624
29	659	450	395	350	-	458	550	2,630	2,330	1,000	825	618
30	624	450	395	360	-------	534	601	2,900	2,490	1,040	860	618
31	635	-------	395	365	-------	618	-------	3,260	-------	1,060	860	-------
Total	18,735	15,899	13,085	11,583	13,485	16,064	19,383	54,835	84,200	48,630	27,128	20,082
Mean	604	530	422	374	482	518	646	1,769	2,807	1,569	875	669
Ac-ft	37,160	31,540	25,950	22,970	26,750	31,860	38,450	108,800	167,000	96,460	53,810	39,830

Calendar year 1956: Max 3,690 Min 264 Mean 893 Ac-ft 648,600
Water year 1956-57: Max 4,550 Min 350 Mean 940 Ac-ft 680,600

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 20 to Dec. 14, Dec. 22 to Feb. 20.

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 1957. 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, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	199	1,010	1,320	1,040	751	16	536	1,120	1,180	899	572
2	293	1,070	1,370	1,060	785	17	528	1,030	1,180	888	581
3	273	1,250	1,300	1,030	767	18	467	979	1,140	878	567
4	314	1,300	1,290	1,020	690	19	477	1,000	1,090	865	403
5	311	1,370	1,300	983	649	20	488	1,070	1,180	850	438
6	373	1,520	1,360	980	634	21	501	1,200	1,160	836	631
7	440	1,470	1,240	980	627	22	480	1,200	1,140	870	633
8	480	1,450	1,200	978	605	23	487	1,100	1,110	853	578
9	481	1,440	1,280	972	614	24	474	1,120	1,100	836	591
10	480	1,380	1,300	985	666	25	455	1,120	1,100	823	572
11	489	1,330	1,260	1,000	650	26	522	1,180	1,050	821	577
12	474	1,330	1,370	1,000	634	27	567	1,160	1,090	852	509
13	466	1,290	1,320	992	603	28	535	1,250	1,090	844	506
14	495	1,250	1,250	898	613	29	628	1,330	1,090	853	479
15	510	1,200	1,220	921	594	30	655	1,320	1,080	862	447
						31	767	-	1,170	753	-
Total							14,645	36,839	37,330	28,422	17,966
Mean							472	1,228	1,204	917	599
Runoff in acre-feet							29,050	73,070	74,040	56,370	35,640

The season: Max - Min - Mean - Ac-ft 268,200

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 1957. 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, May 1957 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								805	1,150	844	859	567
2								886	1,200	833	839	568
3								935	1,290	818	837	575
4								960	1,340	813	879	580
5								985	1,340	847	867	590
6								1,010	1,240	859	867	604
7								885	1,130	836	903	593
8								960	1,140	832	864	588
9								976	1,090	900	881	595
10								1,020	1,030	956	885	588
11								951	1,060	1,030	889	590
12								873	1,070	1,050	802	566
13								875	997	970	789	520
14								845	936	876	799	528
15								847	905	895	753	527
16								858	853	896	779	535
17								860	840	775	785	526
18								848	860	852	726	538
19								822	869	968	729	522
20								793	787	963	727	503
21								775	836	942	732	436
22								760	852	898	679	436
23								780	814	856	657	428
24								794	799	840	657	408
25								840	745	902	679	413
26								861	654	939	672	411
27								916	719	938	670	388
28								1,040	762	940	678	383
29								1,060	805	741	645	379
30					-------			1,090	807	899	593	375
31		-------			-------		-------	1,110	-------	900	613	-------
Total								28,020	28,920	27,608	23,734	15,260
Mean								904	964	891	766	509
Ac-ft								55,580	57,360	54,760	47,080	30,270

The season: Max - Min - Mean - Ac-ft 245,000

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Henrys Fork near Rexburg, Idaho

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

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

Records available.--April 1909 to September 1957. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as North Fork of Snake River near Rexburg.

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

Average discharge.--48 years, 1,920 cfs (1,390,000 acre-ft per year).

Extremes.--Maximum discharge during year, 8,680 cfs May 22 (gage height, 9.63 ft); minimum, 1,020 cfs July 27 (gage height, 3.61 ft).
1909-57: 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). Diversions for irrigation of about 172,000 acres above station. Part of return flow escapes westward beneath the Snake River plains above gaging station.

Revisions.--WSP 1217: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,630	2,400	1,600	1,500	1,730	*3,210	1,620	1,820	5,840	4,060	1,180	2,260
2	1,620	2,330	1,660	1,400	1,750	2,640	1,590	1,870	5,880	4,000	1,240	2,210
3	1,570	2,980	1,660	1,400	1,750	2,480	*1,510	2,580	6,030	3,810	1,190	2,110
4	1,530	3,270	1,690	1,420	1,750	2,340	1,940	2,510	6,420	3,580	1,140	2,060
5	1,580	3,430	1,690	1,380	1,700	2,280	1,800	3,320	6,610	3,290	1,200	1,920
6	1,590	3,500	1,700	1,350	1,700	2,220	1,660	4,220	6,520	2,610	1,200	1,760
7	1,580	3,520	1,490	1,330	1,720	2,160	1,760	4,610	6,630	2,170	1,240	1,660
8	1,540	3,320	1,380	1,350	1,700	2,130	1,700	*4,690	6,700	2,140	1,200	1,500
9	1,550	3,280	1,490	1,400	1,750	2,190	1,250	5,350	6,450	1,790	*1,110	1,430
10	1,610	3,230	1,520	1,350	1,750	2,310	1,280	5,800	6,210	1,520	1,120	1,400
11	1,660	3,140	1,560	*1,280	1,710	2,310	1,620	6,210	6,030	1,450	1,210	1,430
12	1,650	3,010	1,710	1,280	1,750	2,180	1,690	6,860	5,730	*1,690	1,460	1,440
13	1,640	2,800	*1,810	1,330	1,850	2,160	1,680	*8,070	5,290	1,760	1,510	1,460
14	1,700	2,720	1,820	1,390	1,830	2,060	1,590	8,320	4,950	1,780	1,620	1,460
15	1,720	2,270	1,730	1,400	1,880	1,980	1,680	8,380	4,680	1,650	1,610	1,420
16	1,820	*2,030	1,690	1,350	1,900	1,960	1,730	8,280	4,250	1,490	1,600	1,560
17	1,800	1,900	1,700	1,280	1,880	1,890	1,730	7,960	3,910	1,280	1,670	1,520
18	1,820	1,940	1,880	1,200	1,890	1,870	1,790	7,640	3,430	1,160	1,540	1,560
19	1,850	1,740	1,930	1,230	1,900	1,850	1,810	7,620	2,900	1,330	1,590	1,660
20	1,890	1,350	1,930	1,300	1,920	1,850	1,750	7,960	*2,590	1,540	1,610	1,920
21	1,830	1,350	1,820	1,350	*1,950	1,890	1,720	8,590	3,030	1,660	1,550	1,940
22	1,840	1,520	1,830	1,350	2,000	1,880	1,730	8,590	3,850	1,770	1,690	1,830
23	2,060	1,690	1,870	1,380	2,050	1,800	1,750	7,940	4,200	1,490	1,710	1,610
24	2,200	1,750	1,900	1,380	2,150	1,730	1,960	6,880	4,050	1,290	1,700	1,540
25	2,190	1,760	1,880	1,370	2,300	1,800	2,090	5,910	3,700	1,210	1,650	*1,460
26	2,200	1,750	1,830	1,300	2,550	1,790	1,890	5,490	3,740	1,080	1,610	1,470
27	2,380	1,710	1,800	1,250	2,650	1,720	1,900	*5,240	3,740	1,060	1,570	1,470
28	2,550	1,650	1,830	1,400	2,850	1,610	1,630	5,250	3,540	1,080	*1,580	1,440
29	2,410	1,610	1,830	1,670	-	1,540	1,630	5,360	3,500	1,110	1,700	1,400
30	2,340	1,580	1,800	1,680	-------	1,570	1,900	5,530	3,820	1,220	1,860	1,350
31	2,370	-------	1,650	1,700	-------	1,580	-------	5,720	-------	1,160	2,060	-------
Total	57,720	70,530	53,680	42,750	54,310	62,980	51,380	184,570	144,220	58,230	45,920	49,250
Mean	1,862	2,351	1,732	1,379	1,940	2,032	1,713	5,954	4,807	1,878	1,481	1,642
Ac-ft	114,500	139,900	106,500	84,790	107,700	124,900	101,900	366,100	286,100	115,500	91,080	97,690

Calendar year 1956: Max 5,910 Min 797 Mean 2,162 Ac-ft 1,570,000
Water year 1956-57: Max 8,590 Min 1,060 Mean 2,399 Ac-ft 1,737,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 24 to Feb. 28 (no gage-height record Jan. 31 to Feb. 13, Feb. 15-19; discharge estimated on basis of 3 discharge measurements, weather records, and records for stations at Henrys Fork near Ashton, Teton River near St. Anthony, and Fall River near Squirrel).

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 former Lake, Idaho, post office. Drainage area, 98 sq mi, approximately, including 6 sq mi of Dry Creek basin. Records available, June 1923 to September 1957 (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, 85,100 acre-ft June 14 (gage height, 15.90 ft); minimum, 68,300 acre-ft Sept. 18 (estimated from outflow record). Maximum contents observed during period 1923-57, that of June 14, 1957; minimum observed, 140 acre-ft Nov. 8, 1934 (gage height, 0.03 ft).

Reservoir is formed on natural lake by concrete dam; storage began Sept. 21, 1922; dam completed July 1923. Capacity 79,351 acre-ft between gage heights 0.0 (low-water level of Henrys Lake prior to construction of dam) and 15.0 ft (top of 5-ft flashboards on spillway). Floodwaters of Dry Creek are diverted into Henrys Lake at times (none diverted during water year 1957). 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 1957. Mercury pressure gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Maximum contents observed during year, 15,260 acre-ft June 14 (elevation, 7,210.25 ft); minimum observed, 11,860 acre-ft Aug. 29, Sept. 5 (elevation, 7,198.85 ft). Maximum contents observed during period 1939-57, 15,446 acre-ft July 2, 1943 (elevation, 7,210.85 ft); no contents Oct. 2-5, 1940.

Reservoir is formed by earth-fill, rock-faced dam; storage began Oct. 18, 1939. Capacity, 15,182 acre-ft between elevations, 7,135.0 (sill of trash rack) and 2,210.0 ft (crest of spillway). Water is used for irrigation of lands in Fremont-Madison irrigation district, Idaho. Gage read about twice monthly. Records given herein represent usable contents. Gage-height record and capacity table furnished by Bureau of Reclamation.

Month-end elevation and usable contents, water year October 1956 to September 1957

Date	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	Henrys Lake		Grassy Lake		
Sept.30	a68,900	-	7,203.30	13,100	-
Oct. 31	a70,700	+1,800	-	a12,900	-200
Nov. 30	a72,700	+2,000	7,203.10	13,090	+190
Dec. 31	a74,000	+1,300	-	a13,250	+160
Calendar year 1956	-	+14,900	-	-	+1,250
Jan. 31	a74,700	+700	-	a13,420	+170
Feb. 28	a75,600	+900	7,205.05	13,670	+250
Mar. 31	a76,800	+1,200	7,205.75	13,880	+210
Apr. 30	a79,300	+2,500	-	a13,950	+70
May 31	a83,500	+4,200	-	a14,850	+900
June 30	a83,300	-200	-	a15,230	+380
July 31	a77,700	-5,600	7,208.00	14,560	-670
Aug. 31	a70,400	-7,300	-	a11,860	-2,700
Sept.30	a68,800	-1,600	-	a11,860	0
Water year 1956-57	-	-100	-	-	-1,240

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 1957. 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, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	439	3,310	9,330	9,810	6,680	16	1,820	7,960	9,980	8,050	6,970
2	522	3,460	9,590	9,780	6,840	17	1,960	7,900	10,300	7,970	6,840
3	519	4,090	9,740	9,680	6,760	18	1,900	7,860	10,200	7,720	6,850
4	619	4,640	9,710	9,400	6,800	19	1,910	8,050	10,200	7,990	6,690
5	662	5,510	9,860	9,480	6,880	20	1,920	7,840	10,000	7,940	6,370
6	820	6,740	10,000	9,340	7,180	21	1,940	8,100	9,810	7,910	6,180
7	1,050	7,740	10,100	9,260	7,380	22	1,800	7,640	9,950	7,790	6,030
8	1,360	8,370	10,400	9,080	7,510	23	1,790	7,250	9,950	7,700	5,940
9	1,280	8,680	10,300	9,050	7,340	24	1,820	7,230	9,980	7,670	5,740
10	1,500	9,300	10,300	8,900	7,280	25	1,860	7,320	10,100	7,400	5,740
11	1,880	9,690	10,400	8,770	7,510	26	2,090	7,550	10,200	7,540	5,560
12	1,930	9,730	10,200	8,690	7,280	27	2,380	7,970	10,200	7,560	5,370
13	1,620	9,400	9,600	8,400	7,200	28	2,460	8,450	9,990	7,490	5,300
14	1,660	9,480	9,430	8,300	6,830	29	2,540	8,640	9,820	7,300	5,050
15	1,780	9,120	9,330	8,140	6,900	30	2,800	8,870	9,500	7,190	4,520
						31	2,890	-	9,500	6,990	-
Total							51,521	227,890	307,970	258,290	195,520
Mean							1,662	7,596	9,935	8,332	6,517
Runoff in acre-feet							102,200	452,000	610,800	512,300	387,800

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 1957 (prior to October 1931, irrigation seasons only).

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

Average discharge.--26 years (1931-57), 5,292 cfs (3,831,000 acre-ft per year).

Extremes.--Maximum discharge during year, 22,300 cfs May 23 (gage height, 11.06 ft); minimum daily, 1,780 cfs Jan. 21; minimum gage height, 5.16 ft Jan. 19.

1915-57: 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, which are good. Some regulation by Jackson Lake (see p. 13), Palisades Reservoir (see p. 29), Island Park Reservoir (see p. 33), Henrys and Grassy Lakes (see preceding page). Many diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,280	4,910	3,340	2,650	2,250	5,790	5,250	9,830	16,600	7,500	5,150	4,940
2	3,170	5,000	3,300	2,650	2,300	5,600	5,150	9,830	14,600	7,330	4,940	4,910
3	3,110	4,940	3,410	2,520	2,500	5,100	5,150	9,470	13,500	6,900	5,060	4,490
4	2,930	5,190	3,430	2,640	2,550	4,700	5,150	8,310	12,800	6,670	5,310	4,110
5	2,870	4,040	3,430	2,600	2,700	4,400	5,310	8,350	11,800	6,150	5,410	3,820
6	2,870	3,820	3,440	2,250	2,800	4,250	5,250	9,260	10,300	5,510	4,970	3,110
7	2,830	3,790	3,080	2,040	2,850	*3,770	5,060	13,300	10,700	5,000	4,820	3,030
8	2,800	3,720	3,150	2,300	2,900	3,870	5,060	17,100	12,400	5,030	5,000	3,320
9	2,780	3,520	3,000	2,180	3,000	3,820	5,030	17,500	12,200	5,090	5,030	4,240
10	2,780	3,470	3,200	2,180	2,950	3,890	5,280	17,600	*11,500	4,790	4,820	3,770
11	2,830	3,430	3,450	2,350	3,000	3,990	5,600	18,000	14,900	4,880	4,970	3,540
12	3,030	3,360	*3,470	2,400	3,100	3,870	5,920	18,900	14,000	5,380	5,120	3,720
13	3,090	3,240	3,680	2,650	3,100	3,940	5,950	18,700	11,100	6,270	5,090	3,870
14	3,190	3,220	3,790	2,780	3,050	4,110	5,890	19,700	9,040	6,600	4,970	4,110
15	3,280	*3,050	3,700	2,750	3,200	5,950	5,670	21,200	9,080	6,210	4,940	4,260
16	3,300	3,170	3,560	2,320	3,300	5,950	*6,210	21,400	8,840	4,970	*4,680	4,240
17	3,320	3,220	3,430	2,260	3,400	5,860	6,800	21,000	8,560	*4,740	4,550	4,160
18	3,320	3,360	3,400	2,040	3,500	5,920	6,930	20,600	7,940	5,030	4,490	3,820
19	3,320	3,400	3,460	1,800	3,450	5,950	7,030	20,300	7,060	5,150	4,290	4,110
20	3,360	2,950	3,560	1,850	3,400	5,950	7,030	20,200	6,670	5,510	4,520	4,260
21	3,320	3,070	3,300	1,780	3,450	6,150	6,930	20,800	7,060	5,860	4,520	4,420
22	3,360	2,950	3,040	1,830	3,550	6,830	6,930	22,000	8,280	5,860	4,490	4,420
23	3,300	3,280	2,500	2,200	3,960	6,830	6,540	22,200	9,220	5,280	4,240	*4,360
24	3,680	3,360	2,900	2,300	4,600	6,830	5,600	21,000	9,430	4,760	4,080	4,160
25	3,960	3,450	3,100	2,300	4,240	6,670	6,400	19,700	8,840	4,630	4,260	3,890
26	4,140	3,470	3,230	2,180	4,910	7,030	8,660	18,300	8,380	4,660	4,360	3,790
27	4,310	3,430	3,080	2,100	5,630	7,100	9,120	*18,500	8,010	4,570	4,180	3,610
28	4,680	3,410	2,700	2,000	5,860	6,630	9,180	18,500	7,390	4,910	4,180	3,410
29	4,820	3,430	2,700	1,830	-	5,350	9,150	18,500	6,900	5,280	4,210	3,170
30	4,760	3,390	2,800	2,000	-------	5,190	9,610	17,800	6,960	5,440	4,420	2,760
31	4,760	-------	2,570	2,200	-------	5,150	-------	17,400	-------	5,760	4,710	-------
Total	106,550	108,040	100,200	69,930	95,500	166,440	192,840	535,250	304,060	171,720	145,780	117,820
Mean	3,437	3,601	3,232	2,256	3,411	5,369	6,428	17,270	10,140	5,539	4,703	3,927
Ac-ft	211,300	214,300	198,700	138,700	189,400	330,100	382,500	‡1,062	603,100	340,600	289,200	233,700

Calendar year 1956: Max 29,700 Min 1,400 Mean 7,805 Ac-ft 5,666,000
Water year 1956-57: Max 22,200 Min 1,780 Mean 5,792 Ac-ft 4,194,000

* Discharge measurement made on this day. ‡ Expressed in thousands.

Note.--Stage-discharge relation affected by ice Nov. 19, Dec. 6-10, Dec. 17 to Feb. 22.

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 1957 (prior to October 1931, summer months only). Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--26 years (1931-57), 156 cfs (112,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,040 cfs May 26 (gage height, 7.04 ft) about 1,300 cfs being lost above station to canal diversions and percolation losses; minimum, 4 cfs July 12, 13 (gage height, 1.21 ft).
1913-57: Maximum discharge, that of May 26, 1957; no flow for many days.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	400	266	75		381	180	*750	656	42	29	74
2	154	328	289	74		270	*181	763	621	16	46	66
3	144	472	293	73		251	163	760	367	*10	63	42
4	90	447	231	*72		245	170	758	*340	18	68	40
5	*75	427	231			240	163	758	207	16	81	48
6	86	386	206			235	205	765	53	8	59	35
7	73	369	192			231	270	*802	16	20	44	27
8	41	360	158			235	278	815	38	10	44	25
9	62	353	126			249	244	815	57	11	31	59
10	58	344	151			256	226	830	84	30	21	67
11	92	335	164		80	203	253	836	73	16	32	54
12	144	327	*170			200	259	859	72	32	70	52
13	209	320	171			200	235	893	67	48	94	42
14	234	312	168				292	924	*100	38	45	48
15	227	*304	166				322	937	163	53	44	61
16	210	306	164	75			370	947	155	26	53	71
17	206	359	163				433	945	137	16	*39	61
18	189	339	163				478	942	153	12	47	32
19	184	285	178				516	942	146	*23	47	*38
20	159	285	164				516	934	110	28	35	61
21	129	220	146				470	950	110	35	52	108
22	117	195	137		120	140	439	992	127	31	53	130
23	94	261	116		200		460	1,020	132	23	51	137
24	106	293	91		400		522	*1,030	134	27	43	176
25	164	286	86		600		632	1,040	108	21	23	149
26	221	247	84		*620		678	1,040	92	11	24	118
27	318	256	82		562		675	1,030	98	10	34	117
28	431	265	80		500		533	1,020	64	28	52	88
29	466	271	79		-		569	986	*51	45	35	72
30	457	241	78	*77	-------		660	960	40	49	40	66
31	433	-------	76	77	-------		-------	908	-------	*35	*43	-------
Total	5,711	9,593	4,869	2,323	4,682	5,716	11,392	27,951	4,571	788	1,442	2,164
Mean	184	320	157	74.9	167	184	380	902	152	25.4	46.5	72.1
Ac-ft	11,330	19,030	9,660	4,610	9,290	11,340	22,600	55,440	9,070	1,560	2,860	4,290

Calendar year 1956: Max 607 Min 1 Mean 152 Ac-ft 110,600
Water year 1956-57: Max 1,040 Min 8 Mean 222 Ac-ft 161,100

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 25 to Jan. 8. No gage-height record Nov. 14, Dec. 14-17, Jan. 9-29, Jan. 31 to Feb. 25, Mar. 4-6, 8, Mar. 12 to Apr. 1, Apr. 30; discharge estimated on basis of 6 discharge measurements, weather records, and records for Snake River near Blackfoot.

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 1957. 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, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	553	2,020	4,100	3,890	3,100	16	1,220	3,370	3,950	3,390	2,950
2	674	2,200	4,160	3,860	3,040	17	1,210	3,320	3,950	3,350	2,900
3	686	2,640	3,710	3,850	2,970	18	1,170	3,290	4,050	3,400	2,800
4	698	3,040	3,530	3,880	2,940	19	1,100	3,360	4,030	3,420	2,790
5	719	3,530	4,090	3,680	3,040	20	1,070	3,450	4,050	3,400	2,750
6	930	4,080	4,090	3,620	2,910	21	708	3,430	4,070	3,340	2,610
7	1,250	4,190	4,000	3,630	2,790	22	452	3,320	3,810	3,310	2,440
8	1,280	4,320	3,780	3,730	2,800	23	421	3,120	3,900	3,260	2,390
9	1,320	4,270	3,730	3,770	3,040	24	807	3,310	3,930	3,260	2,380
10	1,380	4,260	3,960	3,720	3,020	25	1,090	3,530	3,840	3,290	2,420
11	1,360	4,300	3,900	3,670	2,890	26	1,200	3,680	3,930	3,380	2,360
12	1,440	4,310	4,040	3,530	2,870	27	1,410	3,670	3,940	3,280	2,340
13	1,390	4,210	4,110	3,460	2,930	28	1,560	3,820	3,950	3,270	2,300
14	1,410	3,970	4,030	3,490	3,040	29	1,650	3,850	4,050	3,170	2,240
15	1,230	3,460	4,000	3,490	2,990	30	1,780	3,960	3,990	3,150	2,040
						31	1,890	-	4,020	3,130	-
Total							35,058	107,280	122,690	108,070	82,080
Mean							1,131	3,576	3,958	3,486	2,736
Runoff in acre-feet							69,540	212,800	243,400	214,400	162,800

The season: Max - Min - Mean - Ac-ft 902,900

Snake River near Blackfoot, Idaho

Location.--Lat 43°07'35", long 112°31'25", in SE¼ sec. 30, T. 3 S., R. 34 E., on right bank 1,000 ft downstream from highway bridge, half a mile (revised) 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 1957. 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.--31 years (1926-57), 4,063 cfs (2,941,000 acre-ft per year).

Extremes.--Maximum discharge during year, 21,700 cfs May 23 (gage height, 9.62 ft); minimum, 414 cfs Sept. 8, 9 (gage height, 0.70 ft).

1910-57: 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. Flow regulated by Jackson Lake (see p. 13), Palisades Reservoir (see p. 29), Henrys and Grassy Lakes (see p. 43), Island Park Reservoir (see p. 33), and Blackfoot Marsh Reservoir, having a combined capacity of 2,883,000 acre-ft. About 694,000 acres of land irrigated by diversion above station.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	4,860	3,120	2,640	2,170	5,490	5,060	*9,450	15,200	*3,160	1,540	2,130
2	1,800	5,030	3,100	2,630	2,220	5,410	*5,070	9,450	13,500	3,040	1,320	2,320
3	1,830	5,110	3,200	2,510	2,440	4,860	4,990	9,510	11,500	*2,680	1,270	2,010
4	1,700	5,350	3,200	*2,670	2,410	4,470	4,940	8,190	10,100	3,220	1,420	1,570
5	*1,660	4,920	3,480	2,570	2,610	4,470	5,140	7,830	8,780	2,200	1,780	1,260
6	1,680	4,150	3,480	2,290	2,760	4,340	5,180	8,190	6,760	1,640	1,720	788
7	1,620	4,040	2,850	2,000	2,780	4,230	5,110	9,540	5,320	1,280	1,410	469
8	1,420	3,980	3,080	2,410	2,860	3,920	5,030	14,800	7,130	1,050	1,420	414
9	1,450	3,840	2,820	2,180	2,900	3,940	4,900	16,100	7,570	1,050	1,490	828
10	1,490	3,700	2,970	2,170	2,840	3,980	5,110	16,400	6,830	828	1,300	1,070
11	1,570	3,660	3,380	2,300	2,960	4,100	5,260	16,600	9,050	594	1,380	780
12	1,860	3,570	*3,420	2,370	3,030	4,010	5,600	17,400	9,840	652	1,720	772
13	2,220	3,500	3,610	2,610	2,960	3,910	5,700	17,800	8,320	1,260	1,960	924
14	2,380	3,450	3,790	2,790	2,940	3,890	5,760	18,200	*5,410	1,900	1,770	1,110
15	2,730	*3,320	3,700	2,760	3,100	4,940	5,680	19,100	5,520	2,170	1,650	1,380
16	3,090	3,370	3,570	2,340	3,090	5,620	5,720	20,100	5,900	1,490	1,610	1,550
17	3,150	3,550	3,420	2,290	3,210	5,600	6,560	20,000	5,660	688	*1,400	1,460
18	3,150	3,590	3,380	2,050	3,340	5,680	6,860	19,700	5,200	718	1,360	1,370
19	3,100	3,660	3,470	1,760	3,290	5,680	7,000	19,600	4,460	*980	1,260	1,260
20	3,140	3,430	3,550	1,840	3,300	5,640	7,060	19,400	3,570	1,130	1,060	1,690
21	3,100	2,970	3,300	1,700	3,350	5,680	7,030	20,000	3,660	1,490	1,380	2,080
22	3,060	2,700	3,020	1,920	3,430	6,230	6,900	21,300	4,610	1,870	1,440	2,410
23	3,060	3,000	2,450	2,140	3,730	6,430	6,960	21,600	5,820	1,600	1,350	2,490
24	3,270	3,120	2,920	2,280	4,350	6,490	6,020	*20,700	6,310	1,160	1,100	2,400
25	3,620	3,240	3,090	2,280	5,070	6,310	5,960	19,300	5,700	804	1,010	2,080
26	4,000	3,240	3,240	2,180	*4,900	6,490	7,930	18,100	5,110	718	1,150	1,830
27	4,290	3,220	3,090	2,110	5,320	6,590	8,840	17,400	4,690	710	1,120	1,880
28	4,630	3,200	2,720	2,020	5,430	6,510	9,420	17,500	4,020	732	1,060	1,660
29	4,920	3,220	2,720	1,830	-	5,510	9,190	*17,300	*3,210	1,200	1,090	1,460
30	4,940	3,150	2,820	*1,900	-------	5,030	9,280	16,800	2,790	1,360	1,290	1,380
31	4,920	-------	2,580	2,100	-------	5,030	-------	15,900	-------	*1,680	*1,540	-------
Total	86,570	111,140	98,540	69,640	92,790	160,480	189,260	503,260	201,540	45,054	43,370	44,825
Mean	2,793	3,705	3,179	2,246	3,314	5,177	6,309	16,230	6,718	1,453	1,399	1,494
Ac-ft	171,700	220,400	195,500	138,100	184,000	318,300	375,400	998,200	399,700	89,360	86,020	88,910

Calendar year 1956: Max 27,000 Min 469 Mean 6,350 Ac-ft 4,610,000
Water year 1956-57: Max 21,600 Min 414 Mean 4,511 Ac-ft 3,266,000

* 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 1957. 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.--40 years (1913-15, 1919-57), 196 cfs (141,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,040 cfs Feb. 25 (gage height, 5.71 ft); minimum, 91 cfs Jan. 27.
1913-15, 1919-57: Maximum discharge, that of Feb. 25, 1957; minimum observed, 65 cfs Oct. 9, 1934 (gage height, 0.81 ft, site and datum then in use).

Remarks.--Records excellent. Flow regulated by Portneuf-Marsh Valley Reservoir (capacity, 23,695 acre-ft, revised) 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 table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.1	89	4.0	482
2.3	127	5.0	759
2.6	186	5.6	990
3.0	268		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	135	135	129	129	293	*162	194	310	234	218	204
2	100	131	135	129	123	226	156	208	312	230	216	206
3	102	129	135	127	121	204	156	216	323	220	216	202
4	104	136	136	129	121	176	156	204	314	208	214	198
5	102	138	142	125	119	180	158	210	304	184	214	188
6	*102	136	138	125	119	172	188	*216	297	144	210	178
7	102	138	131	125	119	172	174	224	285	138	204	170
8	104	138	*129	127	121	206	166	230	272	176	198	168
9	104	138	129	127	119	202	162	234	260	192	200	166
10	106	136	135	127	118	188	162	236	262	194	194	164
11	110	136	146	127	119	168	164	239	247	198	208	158
12	119	135	156	125	119	180	168	253	239	210	208	156
13	121	*136	216	129	118	160	168	304	236	220	206	156
14	108	133	204	138	121	160	168	394	230	222	202	156
15	106	129	168	131	144	162	168	377	228	198	200	154
16	106	136	158	125	140	164	168	346	226	196	198	152
17	106	140	148	125	133	166	168	314	*232	210	172	150
18	108	138	142	121	129	162	166	302	228	210	144	152
19	106	131	140	125	133	162	164	407	224	210	168	144
20	104	133	138	133	140	164	162	522	216	214	170	144
21	104	133	138	*129	140	166	168	480	212	222	164	142
22	106	133	135	129	180	158	170	*458	212	222	162	138
23	110	133	136	127	283	150	192	407	210	220	202	135
24	116	133	136	125	633	150	194	360	200	218	208	135
25	114	133	135	127	*922	154	178	348	192	218	206	129
26	127	133	131	125	956	152	172	329	182	216	206	118
27	142	133	131	125	823	150	168	318	172	*214	208	114
28	138	135	131	127	*509	152	168	316	164	214	*216	112
29	135	133	131	121	-	154	174	314	190	216	196	112
30	135	133	131	121	-------	160	188	310	243	218	200	110
31	136	-------	131	127	-------	164	-------	312	-------	218	202	-------
Total	3,485	4,034	4,427	3,932	6,951	5,377	5,076	9,582	7,222	6,404	6,130	4,611
Mean	112	134	143	127	248	173	169	309	241	207	198	154
Ac-ft	6,910	8,000	8,780	7,800	13,790	10,670	10,070	19,010	14,320	12,700	12,160	9,150

Calendar year 1956: Max 414 Min 91 Mean 172 Ac-ft 125,000
Water year 1956-57: Max 956 Min 100 Mean 184 Ac-ft 133,400

* Discharge measurement made on this day.

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 of downstream side of abandoned highway bridge, 80 ft upstream from highway crossing and 2 miles southwest of McCammon.

Drainage area.--355 sq mi.

Records available.--September 1954 to September 1957.

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

Extremes.--Maximum discharge observed during year, 282 cfs Feb. 25 (gage height, 5.53 ft); maximum gage height observed, 5.75 ft Feb. 16 (backwater from debris); minimum discharge observed, 40 cfs July 9-11; minimum gage height observed, 2.45 ft Jan. 29.

Remarks.--Records good except those for periods of backwater from debris, which are fair. Diversions above station for irrigation. Part of Birch Creek (tributary to Marsh Creek) diverted into Devil Creek in Bear River basin.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	76	61	51	61	128	*91	66	141	57	52	69
2	69	75	59	53	62	118	85	66	134	55	51	72
3	66	75	62	50	60	112	80	65	117	54	50	71
4	61	77	64	50	58	111	77	63	106	53	50	68
5	60	78	68	51	53	109	74	60	99	53	52	65
6	*61	78	73	51	52	112	78	*56	73	51	52	62
7	63	79	60	52	53	112	88	56	69	46	52	62
8	64	80	*55	53	56	114	85	55	66	44	53	60
9	65	81	50	53	57	118	83	57	58	40	54	57
10	66	80	58	54	60	106	78	60	66	40	54	57
11	67	80	76	54	63	106	74	66	67	40	54	57
12	68	82	127	54	84	87	76	111	71	42	55	57
13	76	*83	205	74	94	84	76	136	71	60	56	63
14	68	83	175	120	105	84	74	184	68	57	55	65
15	69	83	98	88	179	90	72	183	69	53	56	65
16	69	83	83	59	256	90	72	160	*80	51	59	63
17	68	83	83	51	154	88	73	145	74	52	60	68
18	67	83	81	49	88	84	72	138	73	54	59	69
19	65	80	80	50	86	84	69	202	71	56	59	74
20	63	76	80	54	105	83	67	218	69	57	58	75
21	63	71	75	*66	120	83	74	192	69	56	57	75
22	64	65	69	63	140	76	77	*179	68	57	56	74
23	65	53	63	62	199	74	78	172	66	60	80	75
24	67	53	62	62	264	71	80	165	63	60	71	75
25	67	66	62	64	*280	71	80	166	61	59	72	76
26	74	63	62	63	265	72	76	166	61	56	71	75
27	78	64	63	60	184	74	76	164	60	*56	71	74
28	74	61	59	54	*138	74	72	164	60	54	*74	75
29	74	60	58	46	-	70	68	162	60	54	77	76
30	75	60	54	47	-------	71	69	161	58	55	66	75
31	76	-------	52	49	-------	83	-------	159	-------	52	66	-------
Total	2,101	2,211	2,377	1,807	3,376	2,839	2,294	3,997	2,268	1,634	1,852	2,049
Mean	67.8	73.7	76.7	58.3	121	91.6	76.5	129	75.6	52.7	59.7	68.3
Ac-ft	4,170	4,390	4,710	3,580	6,700	5,630	4,550	7,930	4,500	3,240	3,670	4,060

Calendar year 1956: Max 250 Min 30 Mean 65.3 Ac-ft 47,440
Water year 1956-57: Max 280 Min 40 Mean 78.9 Ac-ft 57,130

* Discharge measurement made on this day.
Note.--Backwater from debris Feb. 5-20, May 1 to June 10, Aug. 1-27.

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 1957.

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

Average discharge.--44 years (1912-16, 1917-57), 255 cfs (184,600 acre-ft per year).

Extremes.--Maximum discharge during year, 970 cfs Feb. 28 (gage height, 6.52 ft); minimum, 9 cfs July 18 (gage height, 3.46 ft).
1897-99, 1911-57: 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 formed by earth dam completed in 1912 and raised 7 ft in 1950 (capacity, 23,695 acre-ft; 16,410 acre-ft prior to 1950) and Chesterfield Reservoir (capacity, 685 acre-ft). Diversions above station for irrigation of about 33,000 acres.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 24-27)

Oct. 1 to Feb. 21		Feb. 22 to Sept. 30			
4.0	51	3.6	17	5.0	280
4.2	78	3.8	30	5.5	480
4.6	155	4.0	50	6.0	710
5.0	256	4.3	93	6.5	960
5.5	426	4.6	158		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	169	225	228	250	885	363	347	750	93	54	62
2	78	162	225	225	250	675	*347	383	700	93	55	84
3	83	157	225	225	240	548	335	415	665	76	47	84
4	78	180	225	225	230	458	323	415	620	68	40	88
5	*74	236	231	228	210	411	327	387	556	110	41	84
6	74	250	236	b220	210	427	403	391	462	134	41	78
7	*77	259	218	b220	210	395	427	*403	407	95	41	79
8	84	268	*b170	b230	220	407	391	407	375	51	43	76
9	84	262	b140	b220	220	494	371	427	335	47	48	75
10	84	245	202	b220	240	480	367	419	294	31	50	73
11	88	234	262	b220	250	411	375	399	290	24	47	72
12	91	228	309	b230	270	383	379	411	266	24	50	70
13	89	*234	386	b250	290	383	363	530	262	32	51	69
14	96	234	426	b300	320	343	308	715	242	29	55	79
15	98	228	415	b280	397	339	308	785	230	26	61	84
16	101	228	330	242	408	335	315	810	236	29	75	93
17	105	250	289	197	412	335	301	800	*245	17	68	91
18	101	274	265	b210	415	335	298	760	236	22	70	91
19	99	262	253	b230	412	327	301	755	224	29	68	95
20	101	231	248	b260	390	331	301	835	209	38	66	106
21	94	245	248	*b250	376	335	298	895	200	35	68	104
22	91	245	242	b250	351	319	312	905	203	30	79	104
23	94	248	231	b240	543	301	355	*925	185	43	93	101
24	99	234	234	b240	765	287	391	920	172	44	84	102
25	103	220	234	b240	*855	294	367	910	146	43	70	101
26	116	234	228	b240	895	301	335	·880	127	44	75	99
27	135	223	225	b210	940	298	308	845	114	*43	86	101
28	148	228	225	b190	955	290	298	820	104	41	*78	102
29	197	228	215	170	-	294	294	805	97	52	88	102
30	178	228	220	180	-------	335	315	785	86	50	84	101
31	157	-------	225	200	-------	363	-------	775	-------	52	69	-------
Total	3,177	6,924	7,807	7,070	11,524	12,119	10,176	20,259	9,038	1,545	1,945	2,650
Mean	102	231	252	228	412	391	339	654	301	49.8	62.7	88.3
Ac-ft	6,300	13,730	15,480	14,020	22,860	24,040	20,180	40,180	17,930	3,060	3,860	5,260

Calendar year 1956: Max 640 Min 18 Mean 214 Ac-ft 155,200
Water year 1956-57: Max 955 Min 17 Mean 258 Ac-ft 186,900

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 29 to Feb. 14; discharge estimated on basis of weather records and records for station at Topaz, Marsh Creek near McCammon, and other nearby streams.

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 1955 to September 1957.

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

Extremes.--Maximum discharge during year, 675 cfs Feb. 25 (gage height, 7.00 ft), from rating curve extended above 400 cfs on basis of slope-area determination of peak flow; minimum, 4.8 cfs Aug. 4; minimum gage height, 2.00 ft July 28, 29.
1955-57: Maximum discharge, that of Feb. 25, 1957; minimum, that of Aug. 4, 1957; minimum gage height, 1.94 ft July 10, 1955.

Remarks.--Records good except those for period of no gage-height record and those for period of backwater from beaver dams, which are fair. Diversions for irrigation above station. Discharge measurements of Rattlesnake Creek made about once a month to supplement this record (see p. 251).

Rating table, water year 1956-57, except period of backwater from beaver dams (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 29 to Apr. 11)

1.9	4.0	3.5	99
2.1	7.8	4.0	147
2.3	14	4.5	204
2.6	31	5.0	267
3.0	58	5.5	339

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17	18	14	13	41	36	20	20	14	5.9	11
2	9.7	16	18	14	14	38	*33	20	20	13	5.9	10
3	10	18	18	14	14	36	29	20	19	13	5.9	10
4	10	18	18	14	14	33	28	20	18	13	5.7	10
5	9.7	18	18	13	14	35	27	19	18	12	5.4	10
6	12	20	18	13	14	36	36	18	13	9.7	5.4	10
7	*13	20	16	14	14	35	34	*18	13	10	5.5	9.7
8	12	18	18	14	16	36	30	18	16	9.7	5.7	9.7
9	12	18	*16	14	20	34	27	14	14	10	5.9	9.7
10	12	18	18	13	23	33	26	13	15	9.7	5.9	9.4
11	12	18	35	15	22	30	26	11	14	8.9	6.3	9.2
12	13	18	24	15	41	31	27	14	13	8.3	6.8	9.4
13	13	*18	25	16	113	29	26	29	14	8.3	7.2	9.2
14	12	18	33	34	199	27	25	31	13	8.3	6.1	8.9
15	12	17	23	21	263	27	24	32	14	8.3	6.1	9.2
16	12	18	20	a16	299	27	24	30	16	8.6	6.8	10
17	12	18	19	a15	211	27	24	27	*14	7.6	7.0	10
18	13	18	18	a15	135	26	23	26	14	7.8	7.2	10
19	12	16	18	a16	104	26	24	29	13	7.0	7.4	12
20	12	16	18	a16	111	26	24	38	13	7.4	7.4	12
21	12	16	17	*16	103	26	25	48	12	7.4	9.2	12
22	13	16	16	16	141	26	27	38	12	7.4	10	11
23	14	16	16	16	*178	26	29	35	12	6.8	9.4	11
24	15	18	16	16	220	25	27	*36	11	7.2	9.4	11
25	15	18	15	16	*262	25	26	34	10	7.6	9.4	10
26	18	18	15	15	84	26	24	30	11	7.4	9.7	10
27	20	18	14	13	78	25	23	26	14	6.5	10	11
28	20	18	14	16	*48	24	23	24	14	*5.4	10	10
29	18	17	14	13	-	24	22	23	13	5.2	*11	10
30	18	17	14	14	-------	33	21	22	14	5.5	12	11
31	18	-------	14	14	-------	40	-------	21	-------	5.4	11	-------
Total	414.4	528	574	481	2,768	933	800	784	427	266.4	236.6	306.4
Mean	13.4	17.6	18.5	15.5	98.9	30.1	26.7	25.3	14.2	8.59	7.63	10.2
Ac-ft	822	1,050	1,140	954	5,490	1,850	1,590	1,560	847	528	469	608

Calendar year 1956: Max 250 Min 5.5 Mean 20.9 Ac-ft 15,210
Water year 1956-57: Max 299 Min 5.2 Mean 23.3 Ac-ft 16,910

* 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 streams.
Note.--Backwater from beaver dams Aug. 1 to Sept. 30.

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 1957.

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 June 2 (elevation, 4,354.84 ft); minimum, 291,800 acre-ft Sept. 30 (elevation, 4,317.89 ft).
1926-57: 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 (bottom of outlet gate) and 4,354.50 ft (top of spillway radial gates). Small amount of dead storage. Water is used for irrigation by canals diverting from Snake River at Minidoka and Milner Dams. Contents given herein are computed from mean daily elevations; all available for release.

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

Capacity table, (elevation, in feet, and usable contents in thousands of acre-feet)

4,317.0	272	4,340.0	984
4,320.0	341	4,345.0	1,209
4,325.0	469	4,350.0	1,457
4,330.0	616	4,355.0	1,728
4,335.0	787		

Usable contents, in thousands of acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	621	782	1,011	1,227	1,305	1,529	1,671	1,715	1,719	1,541	1,012	538
2	622	791	1,021	1,227	1,309	1,538	1,671	1,716	1,719	1,526	997	525
3	624	801	1,031	1,228	1,314	1,550	1,668	1,713	1,717	1,509	981	513
4	627	816	1,036	1,228	1,322	1,563	1,668	1,712	1,712	1,497	965	501
5	628	829	1,041	1,231	1,327	1,571	1,663	1,710	1,709	1,485	948	490
6	632	839	1,045	1,238	1,331	1,574	1,669	1,704	1,706	1,466	931	478
7	637	847	1,056	1,245	1,336	1,576	1,681	1,700	1,702	1,450	917	465
8	644	853	1,064	1,246	1,341	1,577	1,683	1,696	1,695	1,434	903	449
9	641	859	1,074	1,247	1,346	1,581	1,685	1,697	1,687	1,416	890	437
10	641	868	1,083	1,249	1,353	1,590	1,688	1,702	1,682	1,398	875	425
11	642	880	1,085	1,250	1,360	1,603	1,693	1,703	1,675	1,380	859	413
12	643	891	1,092	1,252	1,367	1,606	1,696	1,703	1,672	1,362	843	401
13	643	893	1,101	1,259	1,373	1,610	1,697	1,706	1,670	1,345	829	390
14	654	901	1,108	1,266	1,379	1,617	1,698	1,708	1,670	1,326	814	376
15	663	907	1,118	1,269	1,385	1,621	1,696	1,707	1,666	1,309	797	365
16	665	910	1,128	1,272	1,392	1,627	1,697	1,708	1,660	1,295	781	355
17	667	914	1,141	1,274	1,400	1,631	1,696	1,712	1,660	1,275	764	345
18	669	927	1,147	1,275	1,410	1,642	1,699	1,715	1,658	1,260	748	334
19	668	941	1,152	1,277	1,418	1,645	1,701	1,715	1,655	1,241	733	326
20	676	946	1,158	1,283	1,425	1,648	1,703	1,707	1,648	1,223	717	320
21	686	952	1,163	1,288	1,432	1,645	1,704	1,706	1,640	1,204	702	316
22	696	957	1,168	1,290	1,440	1,652	1,705	1,706	1,632	1,186	687	312
23	700	961	1,177	1,293	1,450	1,656	1,704	1,707	1,623	1,167	674	309
24	700	966	1,185	1,295	1,462	1,661	1,699	1,708	1,614	1,152	658	307
25	708	977	1,190	1,297	1,478	1,665	1,698	1,707	1,606	1,134	643	305
26	715	987	1,195	1,300	1,492	1,666	1,699	1,706	1,598	1,116	627	303
27	728	992	1,199	1,306	1,504	1,668	1,701	1,703	1,590	1,099	612	300
28	743	996	1,204	1,311	1,518	1,671	1,704	1,703	1,581	1,082	598	297
29	756	1,001	1,208	1,310	--	1,672	1,708	1,707	1,569	1,063	583	296
30	761	1,005	1,216	1,309	-------	1,672	1,711	1,712	1,556	1,047	568	293
31	771	-------	1,224	1,307	-------	1,671	-------	1,716	-------	1,030	551	-------
(†)	4,334.57	4,340.51	4,345.32	4,347.04	4,351.17	4,353.98	4,354.70	4,354.79	4,351.88	4,341.08	4,327.88	4,317.94
(‡)	+148	+234	+219	+83	+211	+153	+40	+5	-160	-526	-479	-258

Calendar year 1956..... ‡ +117
Water year 1956-57..... ‡ -330

† 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 1957. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--31 years (1926-57), 6,804 cfs (4,926,000 acre-ft per year).

Extremes.--Maximum discharge during year, 25,100 cfs May 20 (gage height, 8.90 ft); minimum, 74 cfs Oct. 28 (gage height, 0.90 ft).
1906-57: Maximum daily discharge, 48,400 cfs June 20, 1918 (gage height, 13.5 ft, site and datum then in use); minimum, 50 cfs Oct. 22, 23, Nov. 14-16, 1941.

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

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 5 to Aug. 2)

0.9	73	2.6	600	6.0	9,080
1.3	117	3.0	900	7.0	14,100
1.7	179	3.5	1,390	8.0	19,400
2.0	270	4.0	2,160	9.0	25,300
2.3	420	5.0	5,050		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,450	3,500	*913	4,950	3,120	3,390	8,170	9,890	17,700	12,600	*12,500	11,600
2	4,030	3,520	127	4,950	2,170	3,040	8,170	12,000	17,700	12,400	12,400	11,100
3	3,390	146	3,280	4,950	1,170	1,050	8,170	13,200	17,200	12,700	12,300	10,800
4	3,390	144	3,320	4,330	2,880	3,310	7,940	13,200	14,300	*12,800	12,300	10,500
5	3,370	3,570	*3,170	1,760	2,920	5,210	6,070	13,100	11,300	12,800	12,200	10,300
6	3,370	3,500	2,310	726	2,920	6,070	4,860	13,100	11,300	12,800	11,700	10,300
7	117	3,500	1,470	4,120	2,930	6,070	5,210	14,800	12,400	12,700	11,400	10,100
8	4,610	3,520	755	4,090	2,920	5,960	6,100	16,200	12,800	12,700	11,300	10,000
9	5,820	3,500	129	4,120	2,260	136	6,020	16,200	12,800	12,600	11,200	9,890
10	3,970	111	3,770	4,110	1,250	124	6,020	17,500	12,800	12,600	11,400	9,790
11	3,900	78	3,300	4,150	2,760	4,410	6,070	18,800	11,900	12,400	11,800	9,690
12	5,730	*3,500	2,390	1,850	2,640	4,430	6,410	19,300	11,500	12,400	12,000	9,890
13	80	3,540	2,340	820	2,640	4,430	7,520	20,600	11,200	12,300	12,000	9,930
14	79	3,540	2,350	4,230	2,650	4,430	8,300	21,400	*10,900	12,500	12,600	9,650
15	*4,840	3,570	1,310	4,240	2,670	4,400	8,300	*21,300	10,100	12,600	13,000	9,410
16	4,860	3,570	136	4,230	2,320	4,780	8,170	21,400	9,460	12,500	12,600	9,220
17	4,880	121	3,340	4,220	1,350	3,390	8,040	21,400	9,080	12,500	*12,300	8,530
18	4,880	103	3,380	4,210	2,720	6,120	8,080	22,500	8,990	12,700	12,100	8,220
19	4,900	3,460	3,370	1,930	2,690	6,400	8,480	24,300	9,460	*13,100	11,800	7,690
20	79	3,500	3,310	900	2,700	6,430	*8,900	25,100	10,200	13,200	11,800	7,110
21	77	3,500	3,340	3,600	2,700	6,590	8,900	24,100	10,900	13,300	11,700	*6,790
22	3,630	3,480	1,590	3,610	*2,770	6,590	9,320	23,500	12,200	13,200	11,600	6,640
23	3,550	3,500	528	3,590	2,450	6,620	9,650	23,500	12,100	13,100	11,500	6,600
24	3,570	129	3,410	3,570	1,500	6,620	9,650	23,600	11,600	13,100	11,400	6,480
25	3,590	87	3,350	3,590	2,730	6,940	9,650	23,600	11,800	12,700	11,500	6,180
26	3,590	3,680	3,430	*1,960	2,680	8,080	9,650	23,000	12,000	12,600	11,600	6,030
27	118	3,550	*3,450	1,370	2,420	8,080	9,650	21,000	12,400	12,600	11,700	5,990
28	74	3,560	3,350	5,510	2,470	8,130	9,690	18,400	*12,600	12,800	11,700	5,920
29	3,410	3,560	1,730	5,180	-	8,130	9,790	*17,500	12,600	12,900	11,700	5,880
30	3,550	3,560	670	5,320	------	*8,130	9,790	17,600	12,500	12,800	11,700	5,300
31	3,550	------	3,430	5,270	------	8,170	------	17,700	------	12,700	*11,700	------
Total	100,454	78,599	72,748	111,456	69,400	165,660	240,740	588,790	363,790	394,700	368,500	255,530
Mean	3,240	2,620	2,347	3,595	2,479	5,344	8,025	18,990	12,130	12,730	11,890	8,518
Ac-ft	199,200	155,900	144,300	221,100	137,700	328,600	477,500	1,168,000	721,600	782,900	730,900	506,800

Calendar year 1956: Max 28,100 Min 74 Mean 8,738 Ac-ft 6,343,000
Water year 1956-57: Max 25,100 Min 74 Mean 7,700 Ac-ft 5,574,000

* Discharge measurement made on this day.

Rock Creek near Rockland, Idaho

Location.--Lat 42°31'40", long 112°51'40", 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 3¾ miles upstream from East Fork.

Drainage area.--182 sq mi.

Records available.--May 1955 to September 1957.

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

Extremes.--Maximum discharge during year, 244 cfs Feb. 23 (gage height, 6.1 ft, from floodmarks), from rating curve extended above 60 cfs on basis of slope-area determination of peak flow; no flow for long periods.
1955-57: Maximum discharge, that of Feb. 23, 1957; no flow for long periods each year.

Remarks.--Records fair except those for periods of ice effect or no gage-height record and those above about 100 cfs, which are poor. Practically entire flow diverted for irrigation above station during growing season. Discharge measurements of East Fork made about once a month to supplement this record (see p. 251).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	2.5	26
1.1	.2	3.0	41
1.2	.7	3.5	58
1.4	2.3	4.0	76
1.6	5.1	5.0	115
1.9	11	6.0	219
2.2	18		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	4.3	4.9	4.5	5	14	10	6.8	4.5		0	0
2	1.0	4.8	5.0	4.5	4.5	12	*10	6.6	4.3		0	0
3	1.1	5.1	5.1	4.5	4.5	12	9.3	6.2	4.1		0	0
4	1.1	5.3	5.1	4.5	4.5	12	9.3	6.2	3.7		0	0
5	.5	5.7	5.3	4.5	4.5	12	8.5	6.0	2.3		0	0
6	.1	6.6	5.0	4	4.5	13	10	6.0	.1		0	0
7	.1	5.5	4.5	4	4.5	12	9.3	*6.0	0		0	0
8	*.1	3.7	4.5	4	5.5	13	8.9	5.9	0		0	0.1
9	.1	2.1	*5.2	4	7	12	8.3	4.2	0		0	.1
10	.1	2.3	6.0	4	8	11	8.0	.2	0		0	.1
11	.1	2.5	10	4	8	10	8.0	.1	0		0	.1
12	.2	2.5	7	4	47	10	8.0	.4	0		0	0
13	.2	*2.5	7	4.5	89	9.8	7.8	1.2	0		0	0
14	.1	2.4	9	10	126	9.5	7.6	.9	0		0	0
15	.1	2.4	7	7	116	9.3	7.4	.5	0		0	0
16	.1	2.4	6	6	115	9.1	7.4	.3	0		0	0
17	.2	2.4	5.5	5	107	9.1	7.4	4.2	*0		0	0
18	.2	2.5	5.5	4.5	59	9.1	7.6	2.5	0		0	0
19	.2	2.4	5.5	4.5	45	8.9	7.6	5.5	0		0	0
20	.2	4.0	5	5	58	8.5	7.8	*4.8	0		0	0
21	.2	5.7	5	5	38	8.3	7.8	2.8	0		10	0
22	.2	5.5	5	*5	*63	8.0	8.0	2.9	0		8.5	0
23	.3	5.3	5	5	*91	8.0	7.8	2.4	0		.2	0
24	.2	5.3	5	5	98	7.8	7.4	3.1	0		.1	0
25	.6	5.3	5	5	57	8.0	7.2	2.2	0		.1	0
26	1.8	5.3	4.5	4.5	*41	8.0	7.0	2	0		.1	0
27	1.8	5.1	4.5	4	*36	7.6	7.4	1.8	0		.1	0
28	2.0	5.1	4.5	4.5	19	7.4	7.0	12	0	(*)	.1	*0
29	2.9	4.9	4.5	4	-	7.4	7.0	9.3	0		*0	0
30	3.4	4.9	4.5	4.5	-------	13	6.8	7.2	0		0	0
31	3.8	-------	4.5	4.5	-------	10	-------	6.0	-------		0	-------
Total	24.0	123.8	170.1	148.0	1,265.5	309.8	241.6	126.2	19.0	0	19.2	0.4
Mean	0.77	4.13	5.49	4.77	45.2	9.99	8.05	4.07	0.63	0	0.62	0.01
Ac-ft	48	246	337	294	2,510	614	479	250	38	0	38	0.8

Calendar year 1956: Max 93 Min 0 Mean 5.93 Ac-ft 4,300
Water year 1956-57: Max 126 Min 0 Mean 6.71 Ac-ft 4,850

* Discharge measurement or observation of no flow made on this day.
Note.--Stage-discharge relation affected by ice Nov. 19, 20, Dec. 2, Dec. 6 to Feb. 11 (no gage-height record Dec. 8, Jan. 13-21; discharge estimated on basis of weather records and records for Bannock Creek near Pocatello and other nearby streams).

Raft River at Peterson Ranch, near Bridge, Idaho

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

Drainage area.--412 sq mi.

Records available.--September 1946 to December 1953, May 1955 to September 1957.

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

Average discharge.--9 years (1946-53, 1955-57), 21.3 cfs (15,420 acre-ft per year).

Extremes.--Maximum discharge during year, 77 cfs June 11 (gage height, 2.13 ft); minimum, 3.0 cfs Jan. 16 (gage height, 1.03 ft).
1946-53, 1955-57: 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. Diversions above station for irrigation.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.1	3.6	1.6	28
1.2	5.8	1.8	44
1.3	8.9	2.0	65
1.4	14	2.2	90

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	6.4	8.9	11	8.3	17	*14	13	55	12	5.8	6.7
2	7.4	6.7	8.6	11	8.3	14	23	12	50	11	5.6	6.1
3	7.0	7.0	8.9	10	8.0	14	22	12	51	10	5.6	6.1
4	*6.1	7.4	9.4	10	7.4	14	21	13	54	9.9	5.6	5.8
5	6.4	7.4	9.9	8.6	8.0	14	18	*13	54	9.4	5.6	6.1
6	6.4	7.4	*8.9	8.9	8.0	13	18	12	53	8.9	5.6	5.6
7	5.8	7.0	8.3	8.9	8.3	13	20	12	46	8.6	5.8	5.6
8	5.1	7.0	8.3	10	8.3	14	21	12	41	8.9	5.8	5.6
9	4.9	7.0	8.3	8.9	8.3	22	19	13	34	8.3	5.6	6.1
10	5.1	7.0	8.3	8.9	8.6	20	18	13	47	8.3	5.6	6.4
11	5.4	7.0	10	9.4	8.9	18	18	16	67	8.6	5.6	5.6
12	6.4	*7.0	20	9.4	9.9	16	18	17	44	8.3	5.8	5.6
13	5.8	7.0	28	9.9	10	13	17	17	39	8.6	5.8	5.4
14	6.4	7.0	23	10	11	12	16	23	36	7.7	5.6	5.1
15	6.4	7.0	19	10	27	12	16	31	34	7.4	5.8	5.1
16	7.0	7.4	19	8.6	41	13	15	31	32	7.0	6.4	5.4
17	8.0	7.7	15	8.3	36	13	15	36	29	7.0	6.7	5.4
18	6.7	7.4	13	8.6	38	12	16	37	*26	6.7	5.8	5.8
19	6.7	6.7	15	8.9	32	11	16	38	24	7.4	5.6	6.1
20	7.0	6.7	13	*9.9	36	10	17	44	23	6.7	6.1	5.8
21	7.0	7.0	12	8.9	32	10	19	48	28	6.7	6.1	7.0
22	7.7	8.3	10	8.0	28	9.9	20	51	26	7.4	11	8.6
23	7.0	8.3	11	8.3	33	9.4	20	72	23	7.4	7.7	8.6
24	7.4	8.6	11	9.4	36	9.4	18	*71	21	7.7	6.4	8.3
25	7.7	8.9	12	8.3	28	9.9	17	64	18	*8.6	6.1	6.7
26	7.4	8.6	10	8.0	25	9.4	16	53	16	8.3	6.4	6.1
27	7.7	8.9	11	8.0	*26	8.9	16	47	14	6.7	*6.1	6.1
28	7.4	8.6	10	8.0	20	8.9	16	47	13	5.8	5.8	6.1
29	7.0	8.6	10	7.4	-	8.9	14	47	14	5.8	5.8	6.1
30	6.7	8.6	10	7.0	-------	*12	13	52	12	5.8	5.8	*7.4
31	6.7	-------	11	8.0	-------	14	-------	58	-------	5.6	6.7	-------
Total	207.1	225.6	380.8	278.5	559.3	395.7	527	1,025	1,024	246.5	189.7	186.4
Mean	6.68	7.52	12.3	8.98	20.0	12.8	17.6	33.1	34.1	7.95	6.12	6.21
Ac-ft	411	447	755	552	1,110	785	1,050	2,030	2,030	489	376	370

Calendar year 1956: Max 84 Min 4.9 Mean 14.1 Ac-ft 10,240
Water year 1956-57: Max 72 Min 4.9 Mean 14.4 Ac-ft 10,400

* Discharge measurement made on this day.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--13 years (1944-57), 9.43 cfs (6,830 acre-ft per year).

Extremes.--Maximum discharge during year, 126 cfs June 4 (gage height, 1.99 ft); minimum, 0.3 cfs Nov. 2, Mar. 13; minimum gage height, 1.04 ft Mar. 13, Aug. 4.
1910-11, 1944-57: Maximum discharge observed, 180 cfs May 13, 1910; minimum, 0.1 cfs several times during summers of 1952-54, 1956.

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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	0.8	1.5	23
1.2	2.6	1.6	36
1.3	7.2	1.8	71
1.4	14	2.0	114

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.0					2.1	4.4	90	24	4.4	3.6
2	1.0	.8					1.8	*6.0	94	22	*4.0	2.6
3	1.0	.9					1.8	6.0	*105	21	4.0	2.3
4	*1.0	1.0					1.8	5.4	103	20	1.7	2.3
5	1.1	1.1	(*)				1.8	3.2	112	18	2.3	2.1
6	1.1	1.0				(*)	2.3	4.0	105	16	3.6	1.8
7	1.1	1.1			(*)	1.2	2.1	7.2	96	15	3.6	1.8
8	1.3	1.4					*1.8	12	79	12	3.2	1.6
9	1.6	1.4					1.6	17	88	*10	2.9	1.8
10	1.8	1.4		(*)			1.8	19	88	13	2.9	2.1
11	1.4	1.4					2.1	20	*84	14	2.9	2.1
12	1.6	1.4					2.1	16	86	12	1.8	1.8
13	1.6	1.3				1.1	2.1	18	82	9.0	1.9	1.8
14	1.4	.9				1.1	2.3	*22	65	7.2	2.6	1.6
15	1.4	1.0				1.4	2.3	23	60	6.6	2.3	1.6
16	1.4	1.2	1.2	1.1	1.2	1.6	2.1	24	52	6.6	2.3	1.4
17	1.4	1.4				1.4	2.3	25	44	8.4	2.1	1.4
18	1.3	1.1				1.4	2.1	30	41	9.6	1.8	1.8
19	1.4	1.1				1.4	2.1	58	42	9.0	1.8	2.3
20	1.4					1.6	2.3	58	49	8.4	1.8	2.3
21	1.4					1.4	2.3	49	44	7.8	2.3	2.1
22	1.6					1.0	2.3	41	41	7.8	4.4	2.1
23	1.6	b1.2				1.1	2.9	35	38	7.2	3.6	1.8
24	1.6					1.3	2.3	30	38	7.2	2.6	1.8
25	1.3					1.6	2.1	29	38	6.6	2.6	1.6
26	1.8					1.4	2.1	32	35	6.0	*2.3	1.4
27	1.8					1.4	2.1	39	35	2.6	2.3	1.4
28	1.6					1.6	2.1	49	36	3.6	2.6	1.4
29	1.3	1.2			-	1.8	2.6	63	35	4.9	2.6	1.4
30	1.4				-------	2.9	3.6	75	29	4.9	2.6	1.4
31	*1.4	-------			-------	2.3	-------	86	-------	4.4	4.0	-------
Total	43.1	35.3	37.2	34.1	33.6	43.2	65.1	906.2	1,934	324.8	85.8	56.5
Mean	1.39	1.18	1.2	1.1	1.2	1.39	2.17	29.2	64.5	10.5	2.77	1.88
Ac-ft	85	70	74	68	67	86	129	1,800	3,840	644	170	112

Calendar year 1956: Max 114 Min 0.5 Mean 8.90 Ac-ft 6,460
Water year 1956-57: Max 112 Min -· Mean 9.86 Ac-ft 7,140

Peak discharge (base, 70 cfs).--June 4 (8 p.m.) 126 cfs (1.99 ft).

* Discharge measurement made on this day.
b Stage discharge relation affected by ice.
Note.--No gage-height record Nov. 27 to Mar. 12 (stage-discharge relation affected by ice during most of period); discharge estimated on basis of 4 discharge measurements, weather records, and engineers' notes.

Cassia Creek near Elba, Idaho

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

Drainage area.--84 sq mi, approximately.

Records available.--November 1956 to September 1957.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during period, 233 cfs May 14 (gage height, 4.61 ft); minimum, 4.2 cfs Jan. 3, 5; minimum gage height, 1.52 ft Sept. 7, 8.

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

Rating tables, Nov. 30, 1956, to Sept. 30, 1957, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 16-24)

Nov. 30 to May 24				May 25 to Sept. 30			
1.7	6.8	3.0	75	1.5	5.4	2.4	48
1.9	12	3.5	117	1.7	10	2.7	70
2.2	24	4.0	164	1.9	18	3.0	94
2.5	41	4.5	213	2.1	30	3.8	167

Discharge, in cubic feet per second, November 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			10	9.5	9.0	23	27	38	129	51	11	7.8
2			9.2	9.8	9.5	23	*26	41	131	47	10	7.1
3			10	7.8	9.5	22	26	44	128	44	9.8	7.1
4			10	8.7	8.0	21	22	41	128	41	9.5	7.1
5			10	7.8	8.5	29	25	39	135	39	9.5	6.9
6			8.2	7.5	9.0	22	57	41	152	35	9.0	6.7
7			8.2	8.2	9.5	32	44	*44	145	34	9.2	6.2
8			10	9.2	11	40	40	46	132	33	9.2	6.2
9			9.8	8.7	10	35	36	53	122	31	8.5	6.2
10			12	9.8	10	31	36	53	140	28	8.5	6.4
11			47	10	11	25	37	66	111	30	8.5	6.4
12			26	11	12	25	35	70	103	29	8.5	6.4
13			20	10	12	22	34	122	96	26	7.8	6.4
14			17	a13	29	19	35	204	88	23	7.5	6.4
15			14	a10	26	22	34	165	84	22	7.1	6.4
16			15	a8.5	18	21	33	143	77	21	6.9	6.4
17			12	a7.5	17	20	32	137	69	20	6.9	6.4
18			12	a8	16	19	34	127	*60	21	6.7	6.7
19			12	*9.5	16	19	38	157	55	21	6.4	7.1
20			11	10	16	19	37	148	55	19	7.1	7.3
21			9.5	9.0	15	19	37	144	53	18	9.0	7.3
22			8.5	8.0	22	15	34	195	50	19	9.5	7.3
23			12	8.5	32	16	*35	173	48	16	8.2	7.3
24			11	9.0	25	17	32	161	46	*15	7.8	7.3
25			10	10	29	20	30	*152	45	14	7.5	7.1
26			9.2	9.0	27	20	29	144	45	12	7.8	7.3
27			9.5	7.0	*41	17	28	139	50	12	*7.1	7.1
28			9.8	7.0	27	17	29	143	53	11	6.9	7.1
29			9.8	7.5	-	19	33	140	52	14	7.1	6.9
30		*11	10	8.0	------	*27	36	129	54	15	7.1	*6.7
31		------	10	8.5	------	28	------	125	------	12	7.8	------
Total		-	392.7	276.0	485.0	704	1,011	3,424	2,636	773	253.4	205.0
Mean		-	12.7	8.90	17.3	22.7	33.7	110	87.9	24.9	8.17	6.83
Ac-ft		-	779	547	962	1,400	2,010	6,790	5,230	1,530	503	407

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 Salmon Falls Creek and other nearby streams.
Note.--Stage-discharge relation affected by ice Jan. 17 to Feb. 7.

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 1957.

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, 102,170 acre-ft Mar. 31 (gage height, 45.58 ft); minimum, 61,060 acre-ft Mar. 11 (gage height, 41.98 ft).
1909-57: 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 (sill of powerhouse penstock) and 46.00 ft (top of flashboards). Dead storage below gage height 36.00 ft, about 115,000 acre-ft. Water used for power development and irrigation on Minidoka project of Bureau of Reclamation. Contents given herein are above gage height 36.0 ft. Figures of daily contents computed from mean of twice daily readings.

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

Capacity table (elevation, in feet, and usable contents, in acre-feet)

4,241.9	60,200	4,244.0	83,540
4,242.2	63,480	4,244.5	89,360
4,242.6	67,870	4,245.0	95,180
4,243.0	72,260	4,245.5	101,210
4,243.5	77,900	4,246.0	107,240

Usable contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94,840	79,480	79,590	67,210	73,840	70,950	101,330	94,720	96,270	96,870	94,720	96,870
2	94,490	81,060	76,440	69,630	72,940	71,060	99,520	94,250	96,150	96,630	95,430	98,320
3	93,090	81,850	73,050	72,260	72,050	69,190	100,130	93,900	95,670	94,370	95,910	97,470
4	91,110	77,230	74,180	73,730	69,520	66,660	100,490	94,720	95,550	95,430	96,870	96,990
5	88,430	73,390	75,650	71,390	70,290	66,220	98,920	94,950	94,840	96,390	96,630	96,270
6	87,500	75,420	76,320	67,650	71,170	71,390	96,030	94,490	92,040	95,670	96,630	95,910
7	84,470	77,560	75,420	63,150	72,050	74,970	94,950	94,020	92,390	97,350	96,030	95,790
8	78,130	79,260	73,170	64,800	72,260	76,550	96,390	95,310	92,970	97,960	95,430	93,550
9	81,960	80,830	69,520	66,330	72,260	74,740	94,950	96,390	93,320	98,320	95,310	93,090
10	82,860	81,400	65,670	68,200	71,720	66,550	94,020	96,870	93,090	99,280	93,550	92,390
11	81,510	76,320	68,200	69,850	69,190	61,060	93,790	97,350	93,790	98,800	92,040	91,920
12	84,240	72,940	70,070	70,730	69,850	62,160	93,320	97,840	94,490	98,560	92,510	91,920
13	84,590	72,490	69,960	68,310	70,620	63,480	93,790	97,960	93,900	98,320	93,320	93,090
14	79,260	75,200	69,410	65,890	71,170	65,230	96,870	98,320	95,790	97,110	94,020	94,720
15	74,180	77,680	68,640	67,100	72,600	66,330	98,920	97,590	96,390	95,910	96,390	95,910
16	76,550	78,580	65,670	68,970	72,940	66,220	98,800	97,590	96,750	95,430	98,200	97,110
17	79,260	79,480	62,490	70,950	72,490	67,320	98,320	97,840	97,230	93,790	98,080	98,080
18	81,400	75,420	63,700	72,720	70,620	66,110	97,110	97,470	97,350	94,490	98,560	95,310
19	83,090	71,830	65,450	72,380	71,280	69,850	97,470	97,840	96,270	95,180	98,320	96,870
20	85,870	73,500	66,990	70,620	71,830	73,390	97,590	96,510	94,250	95,670	98,080	96,870
21	80,160	75,980	67,760	66,990	71,830	74,520	97,590	99,040	92,270	95,670	97,840	96,870
22	76,550	77,790	68,750	68,970	72,490	79,710	97,350	97,230	92,740	96,150	97,230	97,470
23	77,680	79,030	67,210	70,730	72,720	83,890	95,180	97,590	94,490	96,270	97,840	97,350
24	76,320	79,710	63,700	71,720	72,940	87,270	95,790	97,840	93,790	97,350	96,750	97,110
25	80,270	75,200	65,670	72,720	71,170	89,940	96,630	98,320	94,020	97,590	96,030	97,230
26	82,410	71,720	67,210	72,490	71,830	95,670	96,150	98,200	93,670	96,870	95,910	96,270
27	83,540	73,390	68,750	71,830	71,940	100,370	96,390	98,080	94,250	95,910	95,180	95,070
28	78,690	75,420	70,290	69,850	71,390	100,490	96,510	97,470	95,670	95,790	95,430	93,670
29	74,740	77,230	70,730	72,720	-	102,050	96,510	96,390	96,390	95,910	95,430	92,160
30	76,320	79,030	69,190	74,740	-------	101,450	95,180	96,630	96,870	95,670	94,720	92,160
31	77,790	-------	65,670	75,080	-------	102,170	-------	96,630	-------	95,430	95,430	-------
(†)	43.49	43.60	42.40	43.25	42.92	45.58	45.00	45.12	45.14	45.02	45.02	44.74
(‡)	-16,700	+1,240	-13,360	+9,410	-3,690	+30,780	-6,990	+1,450	+240	-1,440	0	-3,270

Calendar year 1956..... ‡ -5,280
Water year 1956-57..... ‡ -2,330

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

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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 1957. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--16 years (1941-57), 613 cfs (443,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,800 cfs July 7 (gage height, 10.24 ft); no flow Oct. 20 to Apr. 14.
1908-57: 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	586						0	1,220	1,430	1,730	1,420	1,230
2	612						0	1,300	1,470	1,750	1,350	1,230
3	652						0	1,390	*1,500	1,760	1,350	1,230
4	710						0	1,530	1,550	1,760	1,360	1,230
5	722						0	1,580	1,670	*1,770	1,370	1,220
6	720						0	1,630	1,690	1,770	1,350	1,220
7	712						0	1,650	1,700	1,780	1,380	*1,250
8	*666						0	1,660	1,710	1,780	1,440	1,230
9	590						0	1,660	1,710	1,780	1,460	1,230
10	542						0	1,660	1,650	1,780	1,450	1,160
11	542						0	1,660	1,500	1,780	1,500	1,130
12	546						0	1,420	1,330	1,770	1,540	1,110
13	548						0	896	1,130	1,740	1,580	981
14	532						0	988	986	1,690	1,600	884
15	521						66	1,040	953	1,660	*1,590	891
16	527						153	1,040	864	1,670	1,560	896
17	534						*391	1,040	*816	1,740	1,520	859
18	538						498	*1,040	937	*1,770	1,530	760
19	399						428	903	1,200	1,750	1,520	692
20	0						392	795	1,300	1,730	1,520	692
21	0						392	744	1,290	1,690	1,520	690
22	0						392	712	1,290	1,680	1,490	692
23	0						403	684	1,300	1,680	1,390	752
24	0						506	684	1,490	*1,690	1,320	786
25	0						546	684	1,610	1,690	1,300	822
26	0						578	684	1,640	1,680	1,290	910
27	0						596	831	*1,690	1,680	1,350	949
28	0						596	912	1,720	1,670	1,350	*940
29	0				-		734	1,050	1,730	1,670	1,330	935
30	0				-------		981	1,130	1,730	*1,640	1,310	937
31	0	-------			-------		-------	1,270	-------	1,560	1,240	-------
Total	11,199	0	0	0	0	0	7,652	35,487	42,586	53,290	44,280	29,558
Mean	361	0	0	0	0	0	255	1,145	1,420	1,719	1,428	985
Ac-ft	22,210	0	0	0	0	0	15,180	70,390	84,470	105,700	87,830	58,630

Calendar year 1956: Max 1,780 Min 0 Mean 633 Ac-ft 459,600
Water year 1956-57: Max 1,780 Min 0 Mean 614 Ac-ft 444,400

* 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 1957. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--16 years (1941-57), 482 cfs (349,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,360 cfs July 12; no flow Oct. 21 to Apr. 10. 1908-57: 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	485						0	602	986	1,310	1,270	1,120
2	450						0	760	1,190	1,300	1,270	1,090
3	496						0	848	1,270	1,290	1,260	1,100
4	596						0	880	1,290	1,310	1,240	1,140
5	634						0	925	1,270	1,310	1,200	1,140
6	660						0	1,090	1,260	1,320	1,200	1,120
7	663						0	1,250	1,290	1,330	1,190	1,080
8	637						0	1,310	1,300	1,340	1,160	1,050
9	650						0	1,300	1,300	1,050	1,150	1,050
10	612						0	1,250	1,300	1,320	1,160	1,020
11	525						0	1,240	1,280	1,340	1,160	964
12	437						50	1,220	1,220	1,340	1,160	925
13	345						147	1,130	1,140	1,290	1,210	916
14	297						201	1,000	1,030	1,250	1,230	883
15	282						311	842	977	1,300	1,250	816
16	282						282	758	931	1,290	1,270	718
17	315						263	694	877	1,290	1,260	755
18	341						288	697	940	1,310	1,250	718
19	356						280	604	1,030	1,300	1,240	647
20	122						241	508	1,150	1,300	1,240	592
21	0						246	416	1,180	1,300	1,240	569
22	0						259	360	1,200	1,290	1,210	579
23	0						254	319	1,210	1,290	1,170	632
24	0						244	301	1,230	1,290	1,150	653
25	0						239	297	1,260	1,270	1,140	658
26	0						261	297	1,290	1,250	1,150	653
27	0						275	356	1,310	1,240	1,200	673
28	0						276	437	1,320	1,290	1,240	731
29	0						372	503	1,310	1,340	1,240	720
30	0				-------		485	586	1,310	1,310	1,240	681
31	0	-------			-------		-------	755	-------	1,270	1,200	-------
Total	9,185	0	0	0	0	0	4,974	23,535	35,651	40,030	37,550	25,393
Mean	296	0	0	0	0	0	166	759	1,188	1,291	1,211	846
Ac-ft	18,220	0	0	0	0	0	9,870	46,680	70,710	79,400	74,480	50,370

Calendar year 1956: Max 1,340 Min 0 Mean 523 Ac-ft 379,520
Water year 1956-57: Max 1,340 Min 0 Mean 483 Ac-ft 349,730

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 1957. 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.--31 years (1926-57), 5,772 cfs (4,179,000 acre-ft per year).

Extremes.--Maximum discharge during year, 24,900 cfs May 21 (gage height, 11.96 ft); minimum, 1,260 cfs Nov. 13 (gage height, 3.77 ft).
1895-1957: 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. 57), and other reservoirs, having a combined usable capacity of about 4,700,000 acre-ft; many diversions above station for irrigation.

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

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-6, June 11 to Sept. 30)

4.9	2,640	8.0	10,500
5.4	3,570	10.0	17,100
6.0	4,880	12.0	24,800
7.0	7,480		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,570	2,810	2,790	3,800	4,980	3,260	8,870	8,320	15,500	9,450	9,670	8,460
2	3,410	2,780	2,770	3,950	3,030	3,410	*8,610	9,290	15,200	9,420	9,510	8,580
3	3,140	2,820	2,760	4,060	2,930	3,460	8,150	10,300	14,600	10,200	9,230	8,760
4	3,140	2,860	*2,780	4,490	2,700	3,340	8,040	10,300	12,500	9,610	9,110	8,550
5	3,090	2,900	2,770	*4,650	2,750	3,510	7,340	10,300	9,700	*9,320	*9,260	8,100
6	2,920	2,860	2,800	3,900	2,830	4,130	6,290	10,300	8,640	9,450	9,230	7,840
7	2,860	2,880	2,770	3,620	2,860	5,020	5,240	11,100	9,200	9,360	9,170	*7,960
8	2,930	2,810	2,760	3,620	2,980	5,950	5,920	12,400	9,290	9,360	8,610	8,460
9	*2,970	2,880	2,760	3,690	*3,030	*4,930	6,670	12,700	9,510	9,110	8,900	8,180
10	2,950	2,820	2,710	3,590	2,940	4,090	6,620	13,800	9,570	9,700	9,730	7,930
11	2,970	2,680	2,880	3,590	2,690	3,940	6,590	15,800	9,080	9,640	9,230	7,760
12	2,980	2,710	2,900	3,360	2,720	4,050	6,290	16,600	8,700	9,420	9,140	7,540
13	2,980	2,960	2,770	3,220	2,730	4,000	6,700	18,000	8,670	9,480	8,840	7,210
14	2,940	2,770	2,810	3,400	2,840	3,940	6,210	19,800	8,260	9,770	8,730	6,910
15	2,920	2,820	2,780	3,520	2,860	4,310	7,480	19,800	7,930	10,100	*8,990	6,910
16	2,920	2,660	2,890	3,410	2,890	4,790	8,100	19,400	7,820	9,930	9,230	6,970
17	2,920	2,730	2,760	3,480	2,850	4,810	7,510	19,500	*7,400	9,930	9,110	6,890
18	2,970	2,680	2,760	3,400	2,760	4,790	7,480	20,700	7,290	*9,700	8,990	7,100
19	3,020	2,690	2,760	3,420	2,740	4,830	7,680	22,700	7,650	9,640	*9,020	6,800
20	2,940	2,710	2,760	3,160	2,770	4,860	8,260	23,700	8,700	9,770	8,990	*6,180
21	2,950	2,670	2,880	3,200	2,840	5,240	7,980	24,500	8,410	10,000	8,840	5,380
22	2,880	2,700	2,810	3,060	2,900	5,000	8,440	22,700	9,360	9,960	8,780	5,070
23	2,970	2,640	2,830	3,090	*3,020	4,980	9,200	22,300	8,840	9,610	8,810	5,290
24	2,960	*2,650	*2,820	3,180	3,080	5,020	9,450	22,400	9,020	*9,730	9,230	5,140
25	2,950	2,640	2,800	3,180	2,860	5,120	9,110	22,700	8,810	9,610	9,140	5,050
26	2,930	2,640	2,820	3,180	2,860	5,480	8,760	22,200	9,020	9,510	*9,140	5,050
27	2,960	2,830	2,830	3,140	3,190	7,260	8,640	*20,400	9,080	9,610	9,080	5,120
28	3,000	2,830	2,860	*3,340	3,020	7,980	8,460	17,700	*9,140	9,570	9,140	*5,170
29	2,940	2,830	2,870	4,490	-	7,930	8,610	16,000	9,290	9,540	9,170	5,140
30	3,010	2,780	2,830	4,670	-------	8,210	*8,490	15,800	9,450	*9,510	8,990	4,090
31	3,000	-------	3,040	5,070	-------	8,350	-------	15,700	-------	9,510	8,700	-------
Total	93,090	83,040	87,130	112,930	82,650	155,990	231,190	527,210	285,630	298,520	281,710	203,590
Mean	3,003	2,768	2,811	3,643	2,952	5,032	7,706	17,010	9,521	9,630	9,087	6,786
Ac-ft	184,600	164,700	172,800	224,000	163,900	309,400	458,600	‡1,046	566,500	592,100	558,800	403,800

Calendar year 1956: Max 27,000 Min 2,570 Mean 7,669 Ac-ft 5,567,000
Water year 1956-57: Max 24,500 Min 2,640 Mean 6,692 Ac-ft 4,845,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

Goose Creek above Trapper Creek, near Oakley, Idaho

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

Drainage area.--600 sq mi, approximately.

Records available.--April 1911 to September 1916, March 1919 to September 1957. 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.--43 years (1911-16, 1919-57), 45.4 cfs (32,870 acre-ft per year).

Extremes.--Maximum discharge during year, 319 cfs May 23 (gage height, 3.95 ft); minimum determined, 3.7 cfs Nov. 15 (gage height, 1.33 ft), result of freezeup.
1911-16, 1919-57: Maximum discharge, 1,670 cfs Jan. 23 or Feb. 24, 1943 (gage height, 7.6 ft, from floodmark), from rating curve extended above 600 cfs by logarithmic plotting; no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940, Sept. 14, 1947.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Decreed water rights are reported to apply to about 2,700 acres above station. Diversions for irrigation are made as flow permits to a major part of this acreage. Flow of artesian well, completed in 1935, enters below station. Practically entire flow passing station is stored in Oakley Reservoir (see p. 63).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	3.2	2.3	63
1.4	5.1	2.6	93
1.5	7.6	3.0	147
1.7	16	3.5	230
2.0	36	4.0	330

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	20	21	22	18	85	66	74	170	17	16	7.9
2	8.3	19	21	21	20	71	62	79	154	16	14	8.3
3	*7.9	18	21	19	17	69	*57	85	147	15	13	7.4
4	8.3	18	21	19	16	65	53	*106	142	14	12	6.8
5	8.6	19	21	18	16	67	52	129	142	13	11	6.1
6	8.6	20	*20	17	18	64	57	129	144	13	10	5.6
7	9.3	21	17	16	20	65	67	119	119	12	10	5.1
8	8.6	21	12	18	21	76	68	126	103	11	9.3	4.9
9	9.3	21	9.3	17	22	88	65	152	85	11	9.0	4.7
10	11	21	10	18	22	79	63	164	85	9.6	8.6	4.5
11	12	*22	25	21	23	68	66	178	83	7.4	7.9	4.7
12	16	22	45	22	25	64	70	195	81	7.1	7.6	5.1
13	16	21	60	23	27	58	74	226	77	7.4	7.1	5.1
14	16	18	54	23	30	50	77	254	70	11	6.6	5.1
15	15	16	46	22	80	50	80	287	63	12	6.8	5.4
16	14	17	40	18	100	52	82	200	62	12	6.8	5.1
17	14	22	37	15	100	50	83	308	61	10	7.1	5.4
18	13	20	35	14	85	49	86	295	*58	9.6	6.8	5.8
19	13	18	32	*17	85	48	98	293	50	9.0	6.4	6.8
20	13	13	29	21	100	47	105	291	50	9.0	5.8	8.6
21	14	17	26	19	95	48	105	298	52	8.6	5.1	10
22	14	19	22	15	90	46	94	304	55	11	6.4	10
23	14	21	23	16	110	40	89	312	48	15	9.6	10
24	14	20	24	17	145	40	88	302	42	*16	8.3	10
25	14	21	25	18	160	47	85	*281	38	14	6.4	9.6
26	16	21	24	16	115	48	85	261	37	19	*6.1	9.3
27	20	20	22	15	*113	48	82	239	29	18	6.1	9.0
28	23	20	23	15	109	45	77	225	24	18	5.8	8.3
29	23	21	24	16	-	47	75	207	21	18	5.6	7.9
30	20	22	23	15	-------	55	72	195	18	18	5.6	*8.6
31	20	-------	22	16	-------	62	-------	190	-------	17	7.6	-------
Total	422.5	589	834.3	559	1,782	1,791	2,283	6,604	2,310	398.7	254.4	211.1
Mean	13.6	19.6	26.9	18.0	63.6	57.8	76.1	213	77.0	12.9	8.21	7.04
Ac-ft	838	1,170	1,650	1,110	3,530	3,550	4,530	13,100	4,580	791	505	419

Calendar year 1956: Max 303 Min 2.3 Mean 45.1 Ac-ft 32,780
Water year 1956-57: Max 312 Min 4.5 Mean 49.4 Ac-ft 35,770

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 14-16; 19, 20, Nov. 23 to Dec. 8, Dec. 11-22, Dec. 25 to Feb. 24.

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 1957. 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.--43 years (1911-16, 1919-57), 14.8 cfs (10,710 acre-ft per year).

Extremes.--Maximum discharge during year, 72 cfs Dec. 11 (gage height, 5.45 ft); minimum, 3.3 cfs Dec. 7 (gage height, 4.64 ft).
1911-16, 1919-57: Maximum discharge recorded, 270 cfs Aug. 17, 1941 (gage height, 6.99 ft), from rating curve extended above 100 cfs on basis of velocity-area studies and peak flow over weir (a higher flow may have occurred Aug. 15, 1931); minimum recorded, 2.3 cfs Feb. 22, 1949, result of freezeup.

Remarks.--Records 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 Oakley Canal Co.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

4.7	4.8	5.0	20
4.8	8.3	5.1	28
4.9	14	5.3	50

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	11	11	11	14	14	14	20	32	16	9.3	10
2	9.3	11	10	11	13	14	14	21	30	14	9.3	9.9
3	9.3	11	10	9.9	12	14	*14	23	28	13	8.8	9.9
4	*9.3	11	10	11	11	14	14	*24	28	13	8.8	9.3
5	9.3	11	*11	7.7	11	14	14	23	27	13	8.8	9.3
6	9.3	11	9.3	8.1	11	13	16	23	25	12	8.8	9.3
7	9.3	11	7.1	11	12	15	16	24	24	12	8.8	9.3
8	9.9	11	6.9	12	11	16	15	26	24	12	8.8	9.3
9	10	11	8.3	10	11	15	15	28	24	12	8.8	9.9
10	10	11	12	9.3	11	14	16	30	24	12	8.8	9.9
11	11	*10	26	11	11	12	17	32	23	12	8.8	9.9
12	11	10	24	11	11	12	17	32	22	11	9.3	9.9
13	11	11	16	11	11	12	17	36	21	11	9.3	9.9
14	10	10	15	11	15	12	18	40	21	11	9.3	9.9
15	9.9	10	12	11	15	14	18	38	21	11	9.9	9.9
16	9.3	11	12	8.7	13	13	18	38	20	11	9.9	9.3
17	9.3	11	11	7.0	12	13	18	38	20	10	9.9	9.3
18	9.3	11	11	8.8	12	12	19	40	*19	11	9.3	9.9
19	9.3	9.3	11	*11	12	12	20	48	18	11	9.3	10
20	9.3	10	11	12	13	12	18	44	18	11	9.3	10
21	9.3	11	11	12	14	12	19	42	18	10	9.9	9.9
22	9.9	11	8.4	9.2	19	12	18	44	17	10	11	9.9
23	10	11	12	8.8	29	12	18	43	16	*10	9.3	9.3
24	10	11	10	9.6	18	12	18	42	16	10	9.3	8.8
25	11	11	10	10	20	13	18	*40	16	10	9.3	9.3
26	13	11	9.9	8.3	18	14	18	38	16	10	*9.3	8.8
27	14	11	10	6.6	22	12	18	38	15	9.9	9.3	8.8
28	12	10	10	9.3	*15	12	18	36	15	9.3	9.3	8.8
29	11	11	11	8.0	-	13	18	36	15	9.9	9.9	9.3
30	10	11	11	7.6	-------	14	19	34	15	9.9	9.9	*9.3
31	11	-------	11	9.9	-------	14	-------	32	-------	9.3	10	-------
Total	315.6	322.3	358.9	302.8	397	407	510	1,053	628	347.3	289.8	286.3
Mean	10.2	10.7	11.6	9.77	14.2	13.1	17.0	34.0	20.9	11.2	9.35	9.54
Ac-ft	626	639	712	601	787	807	1,010	2,090	1,250	689	575	568

Calendar year 1956: Max 30 Min 6.2 Mean 13.9 Ac-ft 10,110
Water year 1956-57: Max 48 Min 6.6 Mean 14.3 Ac-ft 10,350

* 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 and 4 miles southwest of Oakley.

Drainage area.--670 sq mi, approximately.

Records available.--October 1912 to September 1957.

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

Extremes.--Maximum contents observed during year, 31,400 acre-ft June 5 (gage height, 89.1 ft); minimum observed, 1,590 acre-ft Oct. 3 (gage height, 20.98 ft).
1912-57: 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 (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 1956-57 (gage height, in feet, and usable contents, in acre-feet)

20.0	1,430	60.0	14,100
25.0	2,320	70.0	19,300
30.0	3,450	80.0	25,200
40.0	6,320	90.0	32,100
50.0	9,900		

Usable contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	3,200	5,020	7,250	8,700	12,900	16,700	20,900	-	29,000	14,400	8,780
2	-	-	-	-	-	-	-	-	-	-	-	-
3	1,590	-	-	-	-	-	17,000	-	31,200	-	-	-
4	-	-	-	-	-	-	-	21,100	-	-	-	-
5	-	-	5,260	-	-	13,500	-	-	31,400	-	13,300	-
6	-	-	-	-	-	-	-	-	-	-	-	6,680
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	7,600	-	-	-	-	-	26,100	-	6,740
9	-	-	-	-	-	14,100	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	30,900	-	-	-
11	-	3,880	-	-	-	-	-	-	-	-	11,900	-
12	-	-	-	-	-	-	-	21,100	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	21,900	-	21,800	-	4,760
15	2,180	4,110	6,000	7,920	9,490	15,000	18,300	22,900	30,300	-	12,000	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	30,100	-	-	-
18	-	-	-	-	-	-	-	-	29,900	-	-	-
19	-	-	-	8,130	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	25,600	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	10,300	-
22	-	-	-	-	-	-	-	26,900	-	17,800	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	20,000	-	29,500	16,800	-	-
25	-	-	-	-	-	-	-	28,400	-	-	-	-
26	-	-	-	-	12,200	-	-	-	28,800	-	9,660	-
27	-	-	-	-	-	16,100	-	29,300	-	-	-	-
28	-	-	-	-	12,600	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	15,200	8,700	-
30	-	a4,960	-	-	-------	-	a20,800	-	a29,000	-	-	1,670
31	a3,140	-------	a7,180	a8,650	-------	a16,500	-------	a30,600	-------	a14,700	a8,750	-------
(†)	-	-	-	-	56.68	-	-	-	-	-	-	21.45
(‡)	+1,710	+1,820	+2,220	+1,470	+3,950	+3,900	+4,300	+9,800	-1,600	-14,300	-5,950	-7,080

Calendar year 1956..... ‡ +700
Water year 1956-57..... ‡ +240

† Elevation, 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.

Minidoka North Side Pump Canal near Burley, Idaho

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

Records available.--October 1956 to September 1957.

Gage.--Rated pumps.

Extremes.--Maximum discharge during year, 244 cfs July 10-25; no flow Oct. 1, 1956, to May 3, 1957.

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

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	72	233	202	167
2								0	76	*236	*207	167
3								0	105	236	202	167
4								*23	110	198	198	162
5								20	*137	236	198	159
6								30	148	241	193	159
7								34	152	238	193	159
8								48	162	242	193	159
9								62	162	242	193	159
10								62	173	244	181	142
11								62	173	244	181	142
12								53	173	244	183	142
13								58	173	244	183	119
14								58	173	244	183	119
15								58	178	244	183	119
16								58	178	244	183	119
17								58	178	*244	183	110
18								53	178	*244	183	110
19								53	*184	244	183	97
20								43	185	244	*178	97
21								43	195	244	*170	90
22								38	199	*244	167	90
23								38	199	244	167	90
24								34	199	244	167	*90
25								34	204	244	167	90
26								34	218	240	167	72
27								34	221	240	167	71
28								48	228	240	167	71
29					-			53	*228	240	167	71
30					-------			53	228	235	165	71
31		-----			-------		-------	58	-------	221	167	-------
Total	0	0	0	0	0	0	0	1,300	5,189	7,422	5,621	3,580
Mean	0	0	0	0	0	0	0	41.9	173	239	181	119
Ac-ft	0	0	0	0	0	0	0	2,580	10,290	14,720	11,150	7,100

Calendar year 1956: Max - Min - Mean - Ac-ft -
Water year 1956-57: Max 244 Min 0 Mean 63.3 Ac-ft 45,840

* Discharge measurement made on this day.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--9 years (1948-57), 26.1 cfs (18,900 acre-ft per year).

Extremes.--Maximum discharge during year, 74 cfs Aug. 6-9; maximum gage height, 1.46 ft July 17, 20, 21; no flow for many days.
1915-57: Maximum discharge, 75 cfs several days during 1953 and 1956; 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.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								30	58	70	72	56
2								14	65	70	*72	55
3								15	65	70	72	59
4								26	65	70	72	59
5								27	*65	70	72	59
6								40	65	67	74	56
7								41	65	70	74	55
8								57	65	70	74	55
9								*57	65	70	72	55
10								57	65	70	72	55
11								57	65	70	72	55
12								57	65	70	72	53
13								57	65	70	72	53
14								57	61	70	72	52
15								57	61	70	72	52
16								58	54	70	72	47
17								58	54	*70	70	43
18								58	54	70	70	43
19								58	*54	70	70	43
20								58	54	72	72	43
21								58	54	72	*71	42
22								58	54	72	70	39
23								56	61	72	70	39
24								56	59	72	70	*39
25								56	61	72	70	29
26								56	61	72	65	27
27								54	61	72	65	27
28								43	61	72	65	27
29					-			59	65	72	65	0
30					-------			59	70	72	63	0
31		-------			-------		-------	58	-------	72	63	-------
Total	0	0	0	0	0	0	0	1,552	1,837	2,191	2,177	1,317
Mean	0	0	0	0	0	0	0	50.1	61.2	70.7	70.2	43.9
Ac-ft	0	0	0	0	0	0	0	3,080	3,640	4,350	4,320	2,610

Calendar year 1956: Max 75 Min 0 Mean 27.7 Ac-ft 20,120
Water year 1956-57: Max 74 Min 0 Mean 24.9 Ac-ft 18,000

* 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 1957. 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.--13 years (1944-57), 76.8 cfs (55,600 acre-ft per year).

Extremes.--1919-57: 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 12,170 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	78	212	*214	254	236
2							0	79	212	241	*254	208
3							0	93	212	241	254	208
4							0	*139	212	241	245	208
5							0	139	*205	241	245	208
6							0	139	232	241	245	208
7							0	160	232	0	245	208
8							0	187	232	0	245	208
9							0	208	232	32	245	208
10							0	212	232	218	245	208
11							0	238	204	241	245	183
12							0	238	204	240	245	*158
13							0	238	204	239	239	158
14							0	238	198	237	239	158
15							0	238	180	236	239	152
16							0	238	180	234	*239	131
17							0	238	180	*233	239	131
18							0	211	180	233	239	131
19							0	211	*180	233	239	131
20							0	211	197	233	239	131
21							0	187	206	233	*239	131
22							0	187	206	233	239	131
23							0	*137	206	233	239	131
24							0	137	206	250	239	131
25							0	137	206	254	239	131
26							0	137	*206	254	239	*131
27							0	137	224	254	236	131
28							0	137	231	254	236	131
29							28	179	231	254	236	131
30					-------		49	187	237	254	236	131
31		-------			-------		-------	204	-------	254	236	-------
Total	0	0	0	0	0	0	77	5,499	6,279	6,782	7,493	4,882
Mean	0	0	0	0	0	0	2.6	177	209	219	242	163
Ac-ft	0	0	0	0	0	0	153	10,910	12,450	13,450	14,860	9,680

Calendar year 1956: Max 236 Min 0 Mean 88.7 Ac-ft 64,420
Water year 1956-57: Max 254 Min 0 Mean 85.0 Ac-ft 61,500

* 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 1957. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--22 years (1935-57), total 990 cfs (716,700 acre-ft per year); Milner-Gooding project, 568 cfs; North Side Canal Co. project, 422 cfs.

Extremes.--Maximum daily discharge during year, 2,660 cfs July 7; no flow for many days. 1930-57: 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 diversion 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	640	510				0	1,740	2,220	2,530	2,520	2,370
2	0	660	510				0	1,810	2,260	*2,540	2,540	*2,320
3	0	730	510				0	1,960	2,290	2,550	2,540	2,290
4	0	720	220				0	2,050	*2,340	2,640	2,520	2,310
5	0	770	0				0	2,090	2,380	2,640	2,520	2,310
6	0	780	0				0	2,090	2,340	2,620	2,490	2,240
7	0	750	0				0	2,160	2,370	2,660	*2,520	2,220
8	0	740	0				0	2,260	2,430	2,650	2,480	2,200
9	0	710	0				0	2,360	2,500	*2,640	2,430	2,250
10	0	720	0				0	2,390	2,570	2,620	2,450	2,280
11	0	750	0				0	2,400	2,550	2,650	2,440	2,280
12	0	770	0				0	2,400	2,560	2,640	2,450	2,250
13	0	760	0				0	2,390	2,570	2,610	2,400	2,260
14	0	800	0				0	2,390	2,590	2,590	2,370	2,260
15	0	840	0				0	2,340	2,520	2,630	2,360	2,260
16	0	860	0				0	2,300	2,520	*2,640	*2,390	*2,260
17	0	820	0				0	2,300	2,530	2,590	2,370	2,230
18	0	740	0				0	2,340	*2,480	2,600	2,380	2,140
19	0	780	0				0	2,220	2,440	2,580	2,350	2,200
20	0	630	0				0	2,150	2,440	2,570	*2,330	2,250
21	0	*490	0				0	2,190	2,460	2,610	2,330	2,190
22	0	510	0				430	2,000	2,480	2,590	2,320	2,120
23	0	510	0				630	*1,980	2,510	*2,580	2,330	2,080
24	0	510	0				560	2,050	2,470	2,530	2,360	2,080
25	0	510	0				620	*2,080	2,500	2,540	2,390	2,050
26	0	510	0				850	2,080	*2,490	2,510	2,380	2,030
27	380	510	0				990	2,090	2,480	2,510	2,380	2,010
28	550	510	0				1,160	2,160	2,490	2,520	2,370	*2,000
29	600	510	0				*1,330	2,190	2,510	*2,530	2,370	1,990
30	730	510	0	------			1,600	2,210	2,540	2,530	2,370	1,400
31	710	------	0	------			------	2,220	------	2,500	2,370	------
Total	2,970	20,050	1,750	0	0	0	8,170	67,390	73,830	80,140	74,820	65,130
Mean	95.8	668	56.5	0	0	0	272	2,174	2,461	2,585	2,414	2,171
Ac-ft	5,890	39,770	3,470	0	0	0	16,210	133,700	146,400	159,000	148,400	129,200
(†)	0	0	0	0	0	0	10,950	73,650	87,650	98,960	91,060	74,780
(‡)	5,890	39,770	3,470	0	0	0	5,260	60,020	58,790	60,000	57,340	54,410

Calendar year 1956: Max 2,620 Min 0 Mean 1,095 Ac-ft 795,000
Water year 1956-57: Max 2,660 Min 0 Mean 1,080 Ac-ft 782,000

* Discharge measurement made on this day.
† To Milner-Gooding project, in acre-feet; total for water year, 437,000 acre-ft.
‡ To North Side Canal Co. project, in acre-feet; total for water year, 345,000 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 1957. 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.--22 years (1935-57), 1,257 cfs (910,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,920 cfs July 10; maximum gage height, 8.68 ft Aug. 2; no flow for several days.
1909-57: 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 period 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 and one discharge measurement furnished by North Side Canal Co.

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

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-13, June 9 to Sept. 30)

0.5	20	4.0	927
.7	41	5.0	1,320
1.0	80	6.0	1,760
1.5	165	7.0	2,210
2.0	282	8.4	2,890
3.0	580		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,700		0	371	b335	336	0	1,710	2,470	*2,800	2,840	2,680
2	1,690		0	374	b330	342	0	1,850	2,560	2,810	2,880	*2,690
3	1,670		0	368	b324	342	0	2,020	2,550	2,800	2,800	2,690
4	1,600		302	365	b324	348	0	*2,170	2,620	2,850	2,750	2,540
5	1,570		*520	371	b324	342	0	2,240	*2,650	2,860	2,740	2,470
6	1,530		496	339	b324	354	0	2,260	2,620	2,860	*2,720	2,400
7	1,480		469	342	b324	359	0	2,250	2,640	2,890	2,740	2,390
8	1,400		466	354	324	374	0	2,390	2,720	*2,890	2,730	2,380
9	1,270		469	327	327	365	470	2,460	2,700	2,880	2,730	2,400
10	1,310		442	313	330	336	1,020	2,450	2,510	2,880	2,760	2,400
11	1,320		430	313	327	310	1,190	2,250	2,380	2,880	2,760	2,380
12	1,080		430	313	322	313	1,180	2,120	*2,330	2,860	2,740	2,390
13	216		442	307	319	327	1,190	2,120	2,290	2,840	2,740	2,410
14	0		436	302	313	333	1,190	2,120	2,270	2,830	2,740	2,240
15	0		451	313	316	336	1,190	*2,110	2,250	2,860	2,730	2,180
16	0		436	319	319	336	1,230	2,120	2,260	2,870	*2,760	2,190
17	0		436	313	319	339	1,210	2,190	2,260	2,840	2,760	*2,100
18	0		430	296	319	336	1,200	2,230	2,260	2,860	2,760	1,890
19	0		430	319	319	336	1,200	2,020	2,410	2,860	2,760	1,730
20	0		427	333	319	327	1,250	2,040	2,600	2,840	2,780	1,680
21	0		427	322	319	327	1,230	2,100	2,660	2,850	2,760	1,660
22	0		430	324	322	348	1,210	2,020	2,650	*2,860	2,770	1,510
23	0		445	307	327	307	1,180	*1,960	2,650	2,860	2,760	1,420
24	0		415	304	327	293	1,240	1,960	2,640	2,860	2,760	1,420
25	0		406	313	333	290	1,250	1,950	2,640	2,850	2,780	1,420
26	0		406	b318	*333	194	1,220	1,950	*2,630	2,840	2,780	1,410
27	0		406	b325	330	148	1,210	2,070	2,650	2,860	2,780	1,410
28	0		406	b320	336	214	1,200	2,130	2,650	2,860	2,780	1,290
29	0		*406	b337	-	*255	1,390	2,150	2,650	*2,860	2,780	1,250
30	0		391	*b337	-------	87	1,710	2,150	2,760	2,870	2,800	1,250
31	0	-------	382	b337	-------	0	-------	2,290	-------	2,880	2,710	-------
Total	17,836	0	12,032	10,196	9,085	9,254	26,350	65,850	75,930	88,510	85,680	60,270
Mean	575	0	388	329	324	299	878	2,124	2,531	2,855	2,764	2,009
Ac-ft	35,380	0	23,870	20,220	18,020	18,360	52,260	130,600	150,600	175,600	169,900	119,500

Calendar year 1956: Max 2,860 Min 0 Mean 1,301 Ac-ft 944,800
Water year 1956-57: Max 2,890 Min 0 Mean 1,263 Ac-ft 914,300

* 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 1957. 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.--31 years (1926-57), 1,755 cfs (1,271,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,790 cfs July 9 (gage height, 10.66 ft); no flow Oct. 14-17.

1909-57: Maximum daily discharge, 4,600 cfs Aug. 12, 1918, including about 1,200 cfs wasted through spillway below station and returned to river; maximum discharge for irrigation use, 3,810 cfs July 21, 1952, July 24, 1953, and July 27, 1955; no flow Sept. 20, 1920, Oct. 14-17, 1956.

Remarks.--Records excellent except those for 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-13, June 10 to Aug. 28)

0.3	12	2.5	216
.6	18	3.0	338
.9	25	4.0	604
1.2	33	6.0	1,290
1.5	49	8.0	2,240
1.7	72	10.5	3,760
2.0	117		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,660	441	499	405	b420	425	37	2,640	3,380	*3,620	3,630	3,400
2	1,650	431	497	412	b420	428	37	2,880	3,530	3,650	3,620	*3,370
3	1,590	431	494	431	b420	433	68	2,930	3,470	3,660	3,600	3,340
4	1,550	431	491	428	b420	431	439	*2,930	3,460	3,660	3,570	3,350
5	1,550	444	*491	446	b420	444	758	2,980	3,470	3,660	3,560	3,290
6	1,530	441	494	444	b420	399	843	3,140	3,500	3,640	*3,560	3,250
7	1,490	420	494	428	b420	366	853	3,220	3,520	3,650	3,550	3,250
8	1,550	444	494	b410	b430	373	*849	3,460	3,460	*3,660	3,510	3,250
9	1,450	524	494	b400	b440	384	698	3,560	3,420	3,680	3,520	3,250
10	1,380	568	494	b410	b440	368	582	3,520	3,360	3,690	3,480	3,190
11	699	565	494	b412	b440	333	*532	3,410	3,270	3,660	3,460	3,040
12	130	565	431	415	b440	328	526	3,260	3,190	3,710	3,520	*2,910
13	12	556	407	407	b440	303	570	3,260	3,130	3,710	3,550	2,850
14	0	529	410	399	b440	300	643	3,300	3,130	3,670	3,550	2,760
15	0	529	410	407	b440	300	716	*3,330	3,000	3,630	3,540	2,750
16	0	513	412	407	b440	300	978	3,350	2,940	*3,630	*3,550	2,760
17	0	497	410	399	b442	300	1,540	3,350	2,870	3,630	3,550	2,770
18	795	486	412	b402	446	300	1,660	3,350	2,870	3,630	3,550	2,720
19	1,160	486	405	405	441	300	1,340	3,230	*2,990	3,690	3,550	2,600
20	1,060	*508	399	410	441	300	1,100	3,070	3,110	3,710	*3,530	2,330
21	831	491	405	410	438	338	1,070	3,020	3,220	3,720	3,520	2,050
22	800	491	394	b400	438	313	1,170	3,010	3,250	*3,680	3,540	1,980
23	800	491	397	b410	446	300	1,380	2,890	3,270	3,670	3,540	1,940
24	772	497	397	b410	446	300	1,410	2,820	3,270	3,670	3,540	1,900
25	710	497	397	b410	446	249	1,460	2,810	3,330	3,670	3,540	1,870
26	610	497	399	b410	*446	174	1,540	2,870	*3,460	3,670	3,540	*1,870
27	568	497	397	b410	438	152	1,620	2,980	3,500	3,670	3,540	1,860
28	590	494	397	b405	428	154	1,800	3,090	3,520	3,670	3,530	1,830
29	478	494	*399	b405	-	76	2,020	3,130	3,540	*3,670	3,520	1,830
30	441	499	399	*b413	-------	37	2,380	3,130	3,590	3,650	3,470	1,830
31	454	-------	399	b415	-------	37	-------	*3,130	-------	3,640	3,420	-------
Total	26,310	14,757	13,512	12,775	12,186	9,245	30,619	97,050	99,020	113,620	109,650	79,390
Mean	849	492	436	412	435	298	1,021	3,131	3,301	3,665	3,537	2,646
Ac-ft	52,190	29,270	26,800	25,340	24,170	18,340	60,730	192,500	196,400	225,400	217,500	157,500

Calendar year 1956: Max 3,750 Min 0 Mean 1,755 Ac-ft 1,274,000
Water year 1956-57: Max 3,720 Min 0 Mean 1,694 Ac-ft 1,226,000

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

Snake River at Milner, Idaho

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

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

Records available.--May 1909 to September 1957. 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.--31 years (1926-57), 2,107 cfs (1,525,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,600 cfs May 21 (gage height, 18.60 ft); minimum, 38 cfs July 14 (gage height, 2.15 ft).
1909-57: 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. 57) and other reservoirs having a combined usable capacity of about 4,700,000 acre-ft. About 1,340,000 acres of land irrigated by 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 table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 10 to June 4)

2.2	39	5.0	726	12.0	7,910
2.6	75	6.0	1,400	14.0	10,600
3.0	128	7.0	2,320	16.0	13,800
3.5	223	8.0	3,500	18.0	17,600
4.0	360	10.0	5,580		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	398	2,040	2,040	2,930	4,740	2,570	8,350	2,560	7,290	*61	266	279
2	731	2,030	2,010	3,220	4,470	2,580	8,870	1,640	6,690	59	282	279
3	626	2,010	2,000	3,390	3,040	2,620	8,330	3,100	6,220	58	293	282
4	290	1,990	*1,970	3,650	2,380	2,800	7,780	3,860	4,770	131	285	298
5	296	2,390	1,990	4,110	2,230	2,790	6,720	3,650	1,640	119	279	296
6	1,340	2,540	1,980	4,090	2,200	3,370	5,710	2,860	180	64	*279	277
7	2,480	2,320	2,000	3,700	2,180	3,750	5,520	2,900	161	71	303	279
8	2,330	2,320	2,000	3,120	2,180	4,590	4,690	3,910	161	70	301	277
9	1,990	2,180	2,000	2,900	2,210	5,560	4,740	3,740	163	66	266	277
10	554	2,050	2,000	2,980	2,260	5,300	*4,890	4,560	666	67	285	285
11	1,870	1,790	1,960	3,230	2,240	4,890	*5,020	7,040	988	64	333	285
12	4,370	1,720	2,000	3,300	2,230	4,060	4,960	8,650	*229	48	330	282
13	5,240	1,480	2,000	3,220	2,200	3,580	5,050	9,700	221	41	285	298
14	4,200	1,520	2,060	2,920	2,200	3,690	5,030	*11,700	532	39	271	226
15	3,910	1,260	2,120	2,860	2,210	3,730	5,030	13,100	109	119	274	200
16	2,080	1,150	2,120	2,910	2,230	4,240	5,760	12,300	75	*279	274	205
17	*924	936	2,180	2,880	2,230	4,580	5,550	12,300	120	246	279	*207
18	2,290	858	2,320	2,750	2,230	4,570	5,110	12,800	74	253	279	205
19	2,260	1,060	2,390	2,940	2,210	4,540	5,170	15,100	53	256	279	221
20	2,390	1,440	2,340	3,090	2,170	4,530	6,310	16,100	52	258	*282	431
21	2,370	1,760	2,220	2,910	2,180	4,160	6,600	17,600	52	271	285	822
22	2,450	1,870	2,100	2,520	2,190	4,560	5,820	16,800	55	285	279	336
23	2,420	1,870	2,190	2,580	2,190	4,790	5,490	*15,900	100	279	274	205
24	2,250	1,870	2,230	2,630	2,210	4,760	6,350	16,000	91	266	274	202
25	2,490	1,860	2,220	2,640	2,230	4,740	6,570	16,000	103	282	279	214
26	2,750	1,860	2,210	2,610	2,210	4,760	6,200	16,000	*63	261	277	214
27	2,620	1,860	2,200	2,610	*2,210	6,170	5,900	14,600	59	*256	277	205
28	2,390	1,880	2,210	2,670	2,490	7,810	5,210	11,300	58	271	274	202
29	2,290	1,960	*2,200	3,030	-	7,830	4,220	8,920	59	282	277	202
30	2,050	2,030	2,210	3,820	-------	7,900	3,150	7,900	62	285	279	202
31	2,000	-------	2,440	*4,510	-------	8,100	-------	*7,960	-------	282	279	-------
Total	66,649	53,904	65,910	96,720	67,950	143,920	174,100	300,550	31,096	5,389	8,779	8,193
Mean	2,150	1,797	2,130	3,120	2,427	4,643	5,803	9,695	1,037	174	283	273
Ac-ft	132,200	106,900	130,700	191,800	134,800	285,500	345,300	596,100	61,680	10,690	17,410	16,250

Calendar year 1956: Max 18,700 Min 190 Mean 3,752 Ac-ft 2,724,000
Water year 1956-57: Max 17,600 Min 39 Mean 2,803 Ac-ft 2,029,000

* 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.

Records available.--April 1950 to September 1957.

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.--7 years, 22.2 cfs (16,070 acre-ft per year).

Extremes.--1950-57: Maximum daily discharge, 27.5 cfs Oct. 3, 4, 1951; minimum daily, 18.5 cfs May 15, 1950, Apr. 23-29, 1956.

Remarks.--Records excellent except those for period of no gage-height record, which are good. 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. 2, Jan. 18, Feb. 22, Apr. 2, June 19, July 22, and estimated on May 26 (0.5 cfs) and Aug. 26 (0.25 cfs). Flow at station is from principal outlet only. On Apr. 2, 1957, a discharge measurement of total spring flow of 23.2 cfs (adjusted for surface inflow) was made.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.0	17
1.1	21
1.2	26
1.3	32

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23.5	23	21	20	20.5	20	19	20	19.5	23.5	25.5	26
2	*24	23	21	20	20.5	20	*19	20.5	19.5	24	26	26
3	24	23	21	20.5	20.5	19.5	19	20.5	19.5	24	26	25.5
4	24	23	21.5	20.5	21	19.5	19	20	20	24.5	25.5	26
5	23.5	23	21.5	20.5	21	19.5	19	20	20	24.5	25.5	25.5
6	23.5	23	21	20.5	20.5	19.5	19	20	20	25	25	25.5
7	23.5	22.5	21	20.5	20.5	19.5	19	20	20	24.5	25	25
8	23.5	22.5	21	20.5	20.5	19	19	20	20.5	24.5	25	25.5
9	23.5	22.5	21	20.5	20.5	19	19	20	21.5	25	24.5	25.5
10	23.5	*22.5	*20.5	20.5	21	19	19	20	21.5	25	24.5	25.5
11	23.5	22	21	21.5	21	19	19	20.5	22	25	24.5	25.5
12	23.5	22	21	21.5	21	19	19.5	20	22.5	25	24.5	25
13	23.5	22	21	21.5	21	19	19.5	20	22	26	24.5	25
14	23.5	22	20.5	21.5	21.5	19	19	19.5	22	26	24.5	25
15	23.5	22	20.5	21	21	19	19	19.5	22	25.5	24	25
16	23.5	21.5	21	21	21	19	19	20	22	25.5	24.5	25
17	23.5	22	20.5	21	20.5	19	19	20.5	22	25.5	24.5	25.5
18	23.5	21.5	21	*21	20.5	19	19.5	20.5	21.5	25.5	24	26.5
19	23.5	21.5	21	21.5	20.5	19	19.5	20.5	*21.5	25.5	23.5	26.5
20	23.5	21.5	20.5	22	21	19	19.5	20	22	25.5	23	26
21	23	21.5	20.5	21.5	21	19	20	20	22	25.5	23	25.5
22	23	21.5	20.5	21.5	*20.5	19	20	20	22	*25	23.5	25
23	23	21.5	20	21.5	21	19	20	19.5	22	25	24	25.5
24	23	21.5	20.5	21.5	21.5	19	19.5	19.5	22.5	25	24.5	25.5
25	23	21	20	21.5	21.5	19	19.5	19.5	22.5	25.5	25	25.5
26	23	21.5	20.5	21.5	21	19	19.5	*19.5	23	25	*25.5	25.5
27	23	21.5	20.5	21.5	21	19	19.5	20	23	25	25	25.5
28	23	21.5	20.5	21.5	20.5	19	19.5	20	23	24.5	25	*25.5
29	23	21	20.5	21.5	-	19	19.5	19.5	23.5	25	25	25.5
30	23	21	20	21	-------	19	*19.5	19.5	23.5	25	25.5	25.5
31	23	-------	20	20.5	-------	19	-------	19.5	-------	25	25	-------
Total	724.5	659.5	642.0	652.5	583.5	593.5	579.0	618.5	648.5	775.0	765.0	765.5
Mean	23.4	22.0	20.7	21.0	20.8	19.1	19.3	20.0	21.6	25.0	24.7	25.5
Ac-ft	1,440	1,310	1,270	1,290	1,160	1,180	1,150	1,230	1,290	1,540	1,520	1,520

Calendar year 1956: Max 24.5 Min 18.5 Mean 20.8 Ac-ft 15,130
Water year 1956-57: Max 26.5 Min 19 Mean 21.9 Ac-ft 15,900

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 11 to Apr. 1; discharge interpolated or estimated on basis of records for nearby springs.

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 1957.

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.--34 years, 2,609 cfs (1,889,000 acre-ft per year).

Extremes.--Maximum discharge during year, 19,200 cfs May 21 (gage height, 18.62 ft); minimum, 26 cfs June 22 (gage height, 1.55 ft); minimum daily, 370 cfs July 9.
1923-57: 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. At times practically entire flow is diverted at Milner during irrigation seasons; no diversion between Milner and Kimberly.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

4.0	332	9.0	2,520
4.5	445	11.0	4,500
5.0	580	13.0	7,170
5.5	740	15.0	10,700
6.0	925	17.0	15,000
7.0	1,350	19.0	20,100
8.0	1,840		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	834	2,470	2,460	3,180	4,850	2,880	8,540	*3,060	7,780	423	771	772
2	993	2,490	2,450	3,360	4,730	2,910	9,160	2,320	7,080	428	710	767
3	1,260	2,450	2,450	3,590	3,470	2,910	8,800	2,610	6,800	403	736	749
4	1,070	2,420	2,430	3,730	2,790	3,060	8,340	4,050	5,720	423	720	741
5	800	2,610	2,410	4,180	2,560	3,080	7,200	4,000	2,860	453	779	796
6	1,060	3,030	*2,410	4,340	2,540	3,440	6,150	3,320	1,250	477	750	796
7	2,780	2,830	2,400	4,040	2,500	3,880	5,790	3,100	625	504	722	770
8	2,930	2,740	2,390	3,440	2,530	4,610	5,150	4,010	447	426	790	755
9	2,730	2,760	2,400	3,160	2,580	5,620	4,900	3,940	512	370	768	735
10	1,480	*2,540	2,430	3,200	2,620	5,530	*5,090	4,450	717	445	691	756
11	1,270	2,360	2,460	3,380	2,620	5,090	5,200	6,780	1,300	439	742	779
12	4,430	2,120	2,410	3,530	2,590	4,430	5,200	8,870	1,230	439	777	775
13	5,410	2,050	2,490	3,450	2,570	3,760	5,220	9,640	814	437	792	767
14	4,670	1,850	2,450	3,240	2,570	3,900	5,260	11,500	641	429	752	781
15	4,110	1,940	2,530	3,100	2,560	3,910	5,200	12,900	905	418	734	680
16	3,480	1,560	2,590	3,140	2,570	4,320	5,820	12,400	567	514	714	707
17	1,120	1,620	2,600	3,130	2,580	4,720	5,960	12,200	504	639	752	705
18	2,400	1,320	2,670	*3,060	2,590	4,740	5,360	12,400	414	655	738	739
19	2,680	1,520	2,780	3,130	2,570	4,690	5,390	14,900	*491	651	736	715
20	2,750	1,940	2,760	3,330	2,530	4,700	6,310	16,000	434	643	765	714
21	2,760	2,050	2,700	3,230	*2,540	4,380	7,000	17,600	421	681	809	1,080
22	2,780	2,290	2,560	2,860	2,580	4,630	6,260	17,500	415	*648	736	1,250
23	2,820	2,290	2,570	2,850	2,580	4,910	5,680	16,100	432	699	741	868
24	2,660	2,290	2,660	2,880	2,580	4,930	6,400	16,000	448	709	704	774
25	2,820	2,290	2,650	2,890	2,630	4,920	6,800	16,000	506	689	*730	690
26	3,000	2,280	2,630	2,910	2,630	4,920	6,550	*16,200	455	676	731	697
27	3,060	2,280	2,610	2,920	2,600	5,760	6,160	14,800	426	694	725	716
28	2,800	2,290	2,610	2,850	2,720	7,860	5,520	11,800	448	690	743	*715
29	2,740	2,320	2,610	3,100	-	8,070	4,640	9,550	410	710	729	691
30	2,610	2,420	2,620	3,700	-------	8,090	3,560	8,240	424	713	750	694
31	2,430	-------	2,660	4,560	-------	8,490	-------	8,340	-------	726	772	-------
Total	78,737	67,420	78,850	103,460	77,780	149,140	182,610	304,580	45,476	17,251	23,109	23,174
Mean	2,540	2,247	2,544	3,337	2,778	4,811	6,087	9,825	1,516	556	745	772
Ac-ft	156,200	133,700	156,400	205,200	154,300	295,800	362,200	604,100	90,200	34,220	45,840	45,960

Calendar year 1956: Max 19,700 Min 551 Mean 4,147 Ac-ft 3,011,000
Water year 1956-57: Max 17,600 Min 370 Mean 3,155 Ac-ft 2,284,000

* 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 1957.

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

Average discharge.--7 years, 230 cfs (166,500 acre-ft per year).

Extremes.--1950-57: 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, May 17, 18, 1956.

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

Rating table, water year 1956-57 (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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	244	228	224	220	220	216	212	212	212	220	236
2	240	244	228	224	220	220	216	*212	212	212	220	236
3	240	244	228	224	220	216	216	212	212	212	220	236
4	240	244	228	224	224	216	216	212	212	212	220	236
5	240	244	228	220	224	220	216	212	212	212	220	236
6	240	244	228	224	220	220	216	212	212	212	220	236
7	240	244	228	224	224	216	212	212	212	212	220	236
8	240	244	228	224	224	216	212	212	212	216	224	236
9	240	240	228	224	224	220	212	212	212	216	224	236
10	240	*240	228	224	224	216	212	212	212	216	224	236
11	244	240	*228	224	224	220	212	212	212	216	228	236
12	240	240	228	220	224	220	212	212	212	216	228	236
13	240	240	228	220	224	220	212	212	212	212	228	236
14	240	240	228	220	224	220	212	212	212	212	228	236
15	240	240	228	220	224	220	212	212	212	212	228	236
16	240	240	228	220	224	220	212	212	212	212	228	236
17	240	240	228	*220	224	220	212	212	212	212	228	236
18	240	240	224	220	220	220	212	212	212	212	228	240
19	240	240	224	220	220	216	212	212	*212	212	228	240
20	244	240	224	220	220	216	212	212	212	212	228	240
21	244	240	224	220	*220	216	212	216	212	212	228	240
22	244	240	224	220	220	216	212	216	212	216	*228	240
23	248	236	224	220	220	216	212	216	216	*216	228	240
24	244	236	224	220	220	216	212	216	212	216	228	240
25	244	232	224	220	220	216	212	216	212	216	228	240
26	244	232	224	220	220	212	212	212	212	216	228	240
27	244	232	224	220	220	212	212	212	216	216	232	*240
28	244	232	224	220	220	212	212	*212	216	220	232	240
29	244	232	224	220	-	*212	212	212	216	220	232	240
30	248	232	224	220	-------	216	212	212	216	220	232	240
31	244	-------	224	220	-------	212	-------	212	-------	220	236	-------
Total	7,500	7,176	7,012	6,860	6,212	6,728	6,384	6,592	6,380	6,648	7,024	7,132
Mean	242	239	226	221	222	217	213	213	213	214	227	238
Ac-ft	14,880	14,230	13,910	13,610	12,320	13,340	12,660	13,080	12,650	13,190	13,930	14,150

Calendar year 1956: Max 248 Min 208 Mean 225 Ac-ft 163,400
Water year 1956-57: Max 248 Min 212 Mean 224 Ac-ft 162,000

* Discharge measurement made on this day.

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 1957.

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.--15 years (1910-12, 1944-57), 35.5 cfs (25,700 acre-ft per year).

Extremes.--Maximum discharge during year, 315 cfs May 20 (gage height, 2.77 ft); minimum, 6.0 cfs Jan. 16, but may have been less during periods of ice effect.
1909-13, 1938-39, 1943-57: Maximum discharge observed, 429 cfs May 21, 1912 (gage height, 10.4 ft, site and datum then in use); minimum observed, 3.6 cfs Aug. 7-12, 1910 (gage height, 0.3 ft, site and datum then in use).

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 12 to Sept. 30)

0.5	5.5	1.4	62
.6	7.9	1.8	108
.7	12	2.4	201
.8	16	3.0	322
1.0	29		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	12	11	13	13	39	34	96	122	32	12	9.4
2	8.3	12	11	13	12	38	33	128	114	27	11	9.0
3	*7.9	12	11	11	11	35	33	150	108	26	11	8.7
4	7.9	12	11	13	b9.5	34	33	*148	96	24	10	8.3
5	7.9	12	11	8.3	b10	37	35	139	90	24	10	8.3
6	7.9	13	9.4	9.4	11	36	46	148	87	22	10	7.9
7	7.9	14	7.4	11	11	45	44	165	80	22	10	7.9
8	8.3	13	b8	15	12	52	45	179	75	21	9.8	7.9
9	8.3	13	9.0	12	12	56	48	199	73	20	9.8	8.3
10	9.0	*12	*14	11	11	54	53	210	74	20	9.0	8.7
11	11	12	22	14	11	49	58	209	64	19	9.0	8.7
12	10	12	28	13	11	47	60	207	61	19	9.0	7.9
13	10	12	25	13	11	42	64	220	57	18	9.0	7.9
14	9.8	11	26	13	14	38	68	236	54	18	8.7	7.9
15	9.4	11	22	12	14	35	69	242	52	17	8.7	7.9
16	9.0	12	21	11	13	34	70	240	53	17	8.7	7.9
17	9.0	14	20	b7	13	32	69	246	48	16	8.3	7.7
18	9.0	14	19	*b9	13	30	70	250	44	16	8.3	8.3
19	9.0	10	18	11	13	29	70	290	*41	16	8.3	9.4
20	9.0	9.4	16	14	14	29	66	309	40	16	8.3	9.4
21	9.0	13	16	12	14	30	63	298	39	15	8.7	9.0
22	9.0	12	13	9.8	*21	28	65	300	37	15	9.0	9.0
23	9.4	12	16	11	29	26	65	302	35	*14	8.7	8.7
24	10	12	16	11	28	26	67	288	32	14	8.3	8.3
25	10	11	15	11	38	28	65	270	32	14	*8.3	7.9
26	18	11	13	b9.5	38	28	62	*248	30	13	8.3	7.7
27	20	11	14	b7.5	48	26	59	216	30	13	8.3	7.7
28	16	11	14	b8.5	43	26	59	198	29	12	8.7	*7.9
29	13	11	14	b10	-	28	65	179	28	13	9.4	8.7
30	12	11	14	b8.5	-------	*33	75	162	30	12	10	8.7
31	14	-------	14	9.4	-------	34	-------	142	-------	12	9.8	-------
Total	317.3	357.4	478.8	341.9	498.5	1,104	1,713	6,614	1,755	557	286.4	251.0
Mean	10.2	11.9	15.4	11.0	17.8	35.6	57.1	213	58.5	18.0	9.24	8.37
Ac-ft	629	709	950	678	989	2,190	3,400	13,120	3,480	1,100	568	498

Calendar year 1956: Max 147 Min 6.1 Mean 29.3 Ac-ft 21,290
Water year 1956-57: Max 309 Min 7 Mean 39.1 Ac-ft 28,310

Peak discharge (base, 130 cfs).--May 20 (8:30 a.m.) 315 cfs (2.77 ft).

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

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 1955 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 3,525 ft (from topographic map).

Extremes.--Maximum discharge during year, 433 cfs May 18 (gage height, 3.57 ft), from rating curve extended above 210 cfs by logarithmic plotting; minimum, 18 cfs Apr. 3 (gage height, 0.37 ft).
1955-57: Maximum discharge, that of May 18, 1957; minimum, that of Apr. 3, 1957.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Flow is principally 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.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	20	1.6	124
.6	31	2.0	173
.8	45	2.5	241
1.0	62	3.0	320
1.3	90	3.5	408

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	51	38	34	a28	27	23	36	39	41	55	79
2	70	51	38	34	a28	27	22	*60	61	39	58	76
3	70	51	41	34	a28	34	22	85	92	41	59	76
4	70	a50	42	34	a28	107	24	122	40	43	58	78
5	69	a50	42	32	a28	30	21	41	38	47	56	78
6	68	a49	39	32	a28	27	21	37	39	44	56	76
7	68	a48	38	56	a35	27	20	31	41	44	56	78
8	68	a48	36	100	45	26	23	35	54	44	54	81
9	69	*47	37	76	44	27	23	133	63	46	52	84
10	68	48	44	32	44	34	24	182	116	43	53	82
11	125	46	*62	32	45	120	24	182	136	42	54	82
12	198	46	68	32	45	88	24	168	146	44	57	82
13	119	47	71	34	46	26	26	110	198	52	56	80
14	62	45	63	34	47	25	29	113	224	47	56	81
15	59	43	38	34	46	26	28	144	227	46	57	83
16	51	44	38	*31	47	26	27	128	221	47	54	84
17	48	44	38	30	46	26	70	129	214	47	54	85
18	48	44	38	30	47	26	118	184	209	47	55	98
19	46	42	37	30	*47	25	155	359	203	47	56	143
20	64	42	37	32	47	26	142	301	*176	45	59	253
21	158	42	36	a30	48	26	71	238	152	*45	*57	234
22	158	42	34	a30	51	24	54	212	119	50	56	220
23	152	42	45	a30	39	23	34	213	99	48	57	158
24	107	41	43	a30	28	24	34	210	75	50	61	161
25	56	41	42	a30	27	24	36	173	58	51	62	*163
26	56	41	36	a30	27	24	36	149	54	51	62	130
27	56	41	34	a30	28	23	39	181	50	52	62	80
28	51	41	34	a29	27	23	143	*96	47	53	62	74
29	51	40	36	a29	-	*24	142	108	44	55	64	70
30	51	41	37	a29	------	24	82	128	43	54	70	69
31	52	------	35	a29	------	23	------	62	------	55	74	--
Total	2,458	1,348	1,297	1,109	1,074	1,042	1,537	4,350	3,278	1,460	1,804	3,218
Mean	79.3	44.9	41.8	35.8	38.4	33.6	51.2	140	109	47.1	58.2	107
Ac-ft	4,880	2,670	2,570	2,200	2,130	2,070	3,050	8,630	6,500	2,900	3,580	6,380

Calendar year 1956: Max 210 Min 21 Mean 58.1 Ac-ft 42,210
Water year 1956-57: Max 359 Min 20 Mean 65.7 Ac-ft 47,560

* 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 streams.

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 1957.

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.--10 years (1947-57), 5,117 cfs (3,705,000 acre-ft per year).

Extremes.--Maximum discharge during year, 21,000 cfs May 22 (gage height, 9.68 ft); minimum, 2,070 cfs June 30 (gage height, 0.60 ft).
1946-57: 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 at times practically entire flow is diverted during irrigation seasons.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.7	2,150	5.0	8,550
1.0	2,400	6.0	10,900
2.0	3,450	8.0	16,100
3.0	4,750	10.0	22,000
4.0	6,450		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,960	4,330	4,170	4,600	6,300	4,330	9,980	*4,800	9,680	2,190	2,700	2,840
2	3,060	4,360	4,160	4,850	6,410	4,360	10,500	4,200	8,940	2,200	2,680	2,860
3	3,260	4,320	4,160	5,120	5,440	4,420	10,300	3,730	8,710	2,190	2,680	2,850
4	3,330	4,290	4,170	5,210	4,380	4,560	9,860	5,530	7,650	2,190	2,690	2,860
5	3,030	4,300	4,150	5,530	4,120	4,600	8,780	5,690	5,170	2,190	2,710	2,870
6	2,940	4,860	4,140	5,900	4,060	4,680	7,630	5,180	3,630	2,220	2,700	2,880
7	4,180	4,690	4,060	5,740	4,000	5,260	7,150	4,630	2,760	2,260	2,670	2,880
8	5,090	*4,540	4,040	5,230	4,030	5,850	6,700	5,120	2,370	2,240	2,660	2,890
9	4,800	4,590	4,030	4,850	4,060	6,870	6,220	5,690	2,300	2,190	2,680	2,930
10	4,170	4,410	4,100	4,680	4,100	7,150	6,490	5,970	2,600	2,190	2,630	2,940
11	3,460	4,230	4,230	4,830	4,120	6,680	6,580	7,840	2,930	2,190	2,570	2,950
12	5,610	3,970	4,190	5,100	4,080	6,130	6,640	10,700	3,450	2,180	2,650	2,950
13	7,220	3,950	4,210	5,050	4,070	5,230	6,660	11,300	3,150	2,210	2,660	2,960
14	7,040	3,710	4,170	4,930	4,080	5,260	6,770	13,000	2,990	2,250	2,670	2,960
15	6,080	3,760	4,170	4,640	4,080	5,330	6,720	14,800	3,100	2,220	2,630	3,000
16	5,720	3,510	4,260	4,660	4,080	5,570	7,130	14,500	3,100	*2,220	2,620	2,960
17	3,430	3,440	4,240	*4,640	4,070	6,100	7,720	14,100	2,820	2,340	2,610	2,940
18	3,790	3,290	4,280	4,590	*4,080	6,120	7,150	14,400	2,600	2,450	2,610	3,020
19	4,500	3,120	*4,430	4,590	4,070	6,100	7,170	17,000	2,540	2,510	2,620	3,090
20	4,630	3,520	4,410	4,880	4,040	6,080	7,890	18,400	*2,510	2,510	*2,650	3,160
21	4,880	3,700	4,370	4,850	4,040	5,850	8,920	19,400	2,470	2,490	2,700	3,200
22	4,940	3,990	4,230	4,490	4,070	5,920	8,250	20,100	2,380	2,540	2,680	3,520
23	4,890	4,030	4,150	4,360	4,110	6,210	7,480	18,300	2,340	2,520	2,660	3,370
24	4,690	4,030	4,280	4,420	4,070	6,300	7,890	18,300	2,300	2,530	2,680	*3,150
25	4,690	4,030	4,260	4,420	4,120	6,280	8,500	18,200	2,290	2,540	2,710	3,040
26	4,930	4,030	4,240	4,420	4,120	6,220	8,390	18,200	2,270	2,540	2,710	2,980
27	5,070	4,030	4,210	4,420	4,110	6,720	7,940	17,000	2,230	2,580	2,700	2,860
28	4,700	4,020	4,200	4,420	4,120	8,920	7,420	14,500	2,230	2,600	2,730	2,880
29	4,620	4,030	4,210	4,560	-	*9,610	6,580	*11,800	2,200	2,630	2,750	2,860
30	4,570	4,110	4,210	5,070	-------	9,580	5,490	10,300	2,150	2,630	2,780	2,820
31	4,370	-------	4,210	6,010	-------	9,860	-------	10,100	-------	2,640	2,800	-------
Total	140,650	121,190	130,340	151,060	120,430	192,150	230,900	362,780	105,860	73,380	82,990	89,470
Mean	4,537	4,040	4,205	4,873	4,301	6,198	7,697	11,700	3,529	2,367	2,677	2,982
Ac-ft	279,000	240,400	258,500	299,600	238,900	381,100	458,000	719,600	210,000	145,500	164,600	177,500

Calendar year 1956: Max 20,800 Min 2,400 Mean 5,869 Ac-ft 4,261,000
Water year 1956-57: Max 20,100 Min 2,150 Mean 4,935 Ac-ft 3,573,000

* 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 1955 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 3,500 ft (by barometer).

Extremes.--Maximum discharge during year, 389 cfs Dec. 11 (gage height, 2.82 ft); minimum daily, 2 cfs several days in April, May, and July.
1955-57: Maximum discharge, that of Dec. 11, 1956; maximum gage height, 2.90 ft Nov. 27, 1955; minimum daily, 1.3 cfs Apr. 4-6, 1956.

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.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 28				Mar. 1 to Sept. 30			
0.4	28	1.8	197	-0.1	2.5	0.7	52
.6	41	2.3	288	0.0	5.5	1.0	85
.9	69	2.8	385	.1	9.3	1.5	157
1.3	121			.3	20	2.0	244
				.5	34	2.5	339

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	154	267	219	a220	316	149	a14	a3	a2	41	47
2	181	206	258	204	223	301	143	*a18	a4	a2	66	54
3	186	207	278	200	a225	280	40	74	a13	a13	71	55
4	195	191	278	199	a230	212	a4	a41	a9	10	68	51
5	181	192	261	214	234	240	a2	a2	a14	18	59	58
6	179	186	245	200	243	269	a2	a12	a10	22	41	60
7	181	183	170	150	248	244	a5	a15	a13	20	46	61
8	192	184	135	190	236	141	39	a2	15	20	45	47
9	209	*184	197	178	239	119	152	88	33	a3	35	62
10	218	227	324	194	239	155	157	61	85	a2	25	94
11	269	265	351	223	239	110	104	94	45	a2	15	141
12	218	258	*334	258	245	86	88	95	112	a6	15	130
13	162	256	316	252	246	129	78	90	116	12	19	104
14	124	254	248	246	250	165	97	134	118	22	20	104
15	54	250	219	*236	252	167	109	157	170	20	24	97
16	41	282	206	218	246	163	122	157	212	16	29	98
17	34	263	*214	199	246	159	147	149	204	*a8	22	122
18	30	216	207	171	252	159	112	180	151	a2	14	151
19	29	199	204	197	*260	152	208	167	89	a13	24	213
20	29	164	225	258	265	140	185	129	*57	17	*14	222
21	188	192	221	246	261	136	167	122	64	17	12	173
22	191	299	124	232	290	134	151	159	67	27	12	144
23	167	299	174	204	337	147	146	187	51	15	12	143
24	160	303	269	243	351	157	180	183	38	15	a8	*140
25	212	299	280	254	336	167	170	129	40	7.2	a10	126
26	271	286	230	237	309	*162	149	97	21	5.9	28	119
27	237	280	181	a225	322	147	168	83	28	11	12	178
28	153	269	194	a220	330	155	167	*52	26	20	15	175
29	140	254	223	a220	-	182	151	63	15	28	23	176
30	144	267	219	a215	-------	159	a16	a13	a3	34	43	201
31	156	-------	202	a215	-------	168	-------	a6	-------	32	52	-------
Total	4,909	7,069	7,254	6,717	7,374	5,421	3,408	2,773	1,826	442.1	920	3,546
Mean	158	236	234	217	263	175	114	89.5	60.9	14.3	29.7	118
Ac-ft	9,740	14,020	14,390	13,320	14,630	10,750	6,760	5,500	3,620	877	1,820	7,030

Calendar year 1956: Max 351 Min 1.3 Mean 138 Ac-ft 100,200
Water year 1956-57: Max 351 Min 2 Mean 142 Ac-ft 102,500

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 2 discharge measurements, partial-day gage-height record, and records for nearby tributaries to Snake River.

Box Canyon Springs near Wendell, Idaho

Location.--Lat 42°42'30", long 114°48'45", in NE¼ sec. 28, T. 8 S., R. 14 E., on left bank 150 ft downstream from waterfall, half a mile upstream from mouth, three-quarters of a mile downstream from source, and 7½ miles southwest of Wendell.

Records available.--April 1950 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,950 ft (from topographic map).

Average discharge.--7 years, 420 cfs (304,100 acre-ft per year).

Extremes.--1950-57: Maximum daily discharge, 480 cfs Sept. 29, 1950; minimum daily, 372 cfs Apr. 12, 1951, Mar. 23-27, 1956, May 4, 1957.

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 Nov. 8, Dec. 18, Jan. 17, Feb. 18, Mar. 26, Sept. 24, and estimated on May 29 (0.5 cfs), June 22 (1 cfs), July 16 (2 cfs), Aug. 21 (2 cfs).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 8-30)

1.4	352
1.5	377
1.7	427
1.9	480

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	458	443	420	412	402	397	392	*374	404	414	424	435
2	458	440	424	412	402	397	390	377	407	414	424	435
3	458	440	424	410	402	397	392	377	410	414	427	437
4	458	437	427	410	402	394	390	374	407	412	424	437
5	458	437	424	410	402	394	390	374	410	414	427	437
6	456	435	422	410	402	394	390	377	412	414	427	437
7	458	432	420	410	402	394	390	382	412	414	427	440
8	458	*432	417	410	400	394	387	384	412	414	427	437
9	458	432	414	410	400	397	384	390	410	412	430	440
10	458	432	420	407	397	397	384	390	407	414	430	440
11	458	432	424	410	397	394	384	392	412	414	430	440
12	458	432	422	410	397	397	384	392	414	414	430	440
13	458	435	422	410	397	394	382	392	414	414	427	440
14	458	432	420	410	394	394	384	394	414	417	430	443
15	458	430	417	407	397	394	384	394	417	417	430	445
16	456	432	417	404	397	394	384	397	414	*420	430	445
17	456	432	417	*407	394	394	384	397	414	420	430	445
18	456	430	*414	407	*397	397	382	400	414	420	432	445
19	453	427	412	407	397	394	382	402	412	420	432	445
20	453	427	412	410	397	394	380	402	412	422	432	443
21	450	424	414	407	397	397	380	402	412	422	*432	443
22	450	424	412	407	397	394	380	402	*410	422	430	443
23	453	422	412	407	397	392	382	402	407	422	430	443
24	450	424	412	407	397	392	380	402	407	422	432	*440
25	448	424	407	407	394	392	380	402	407	422	432	440
26	448	424	410	404	394	*392	380	400	410	422	432	443
27	448	424	412	404	394	392	374	402	412	422	432	443
28	448	424	414	404	397	392	374	404	414	422	432	443
29	448	422	417	404	-	392	377	*407	414	422	435	443
30	448	422	417	404	-------	392	377	407	414	424	435	445
31	445	-------	412	402	-------	392	-------	407	-------	424	435	-------
Total	14,078	12,903	12,928	12,640	11,142	12,220	11,503	12,198	12,335	12,960	13,327	13,232
Mean	454	430	417	408	398	394	383	393	411	418	430	441
Ac-ft	27,920	25,590	25,640	25,070	22,100	24,240	22,820	24,190	24,470	25,710	26,430	26,250

Calendar year 1956: Max 458 Min 372 Mean 417 Ac-ft 303,000
Water year 1956-57: Max 458 Min 374 Mean 415 Ac-ft 300,400

* Discharge measurement made on this day.

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

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

Drainage area.--439 sq mi, approximately.

Records available.--May 1914 to July 1915, October 1948 to September 1957.

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.--9 years (1948-57), 94.2 cfs (68,200 acre-ft per year).

Extremes.--Maximum discharge during year, 825 cfs May 19 (gage height, 4.21 ft); minimum, 15 cfs Jan. 22, but may have been less during period of ice effect; minimum gage height, 1.14 ft Sept. 14.
1914-15, 1948-57: Maximum discharge, 1,170 cfs May 4, 1952 (gage height, 4.82 ft); minimum, 6.8 cfs Dec. 26, 1954 (gage height, 0.93 ft).

Remarks.--Records excellent except those below about 30 cfs, which are good, and those for periods of ice effect or no gage-height record, which are fair. Many diversions above and below station for irrigation.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 14-23)

1.1	13	2.5	192
1.2	18	3.0	325
1.4	31	3.5	500
1.7	58	4.0	715
2.1	109		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*21	28	29	26	b23	66	81	298	464	122	27	23
2	22	26	27	27	b25	66	71	358	468	108	26	22
3	22	26	29	26	22	59	73	*404	496	93	24	21
4	22	27	*29	26	b20	57	73	a450	516	86	24	21
5	21	29	30	b21	b21	58	74	a420	540	81	23	21
6	21	29	b29	b20	21	53	102	a360	528	70	22	20
7	22	29	b20	b21	22	56	123	a360	484	67	23	20
8	23	27	b20	24	22	76	114	a410	442	66	22	19
9	23	*27	b24	b21	22	88	113	a450	425	60	22	19
10	24	28	b26	b21	21	84	122	a500	484	56	22	19
11	27	28	b34	25	22	75	137	a500	355	53	22	20
12	31	27	52	25	22	71	156	a500	289	51	22	20
13	27	27	54	26	22	60	169	a500	273	51	21	18
14	25	26	47	27	37	52	183	a520	257	49	20	16
15	24	25	37	*27	68	59	204	a480	236	45	20	17
16	24	27	40	26	49	59	216	*456	224	43	20	17
17	24	29	37	b25	43	54	211	468	197	39	21	18
18	24	28	35	b22	43	53	206	476	174	*40	20	19
19	24	25	34	b25	47	52	211	688	160	45	19	20
20	24	b22	32	26	*71	53	202	706	162	40	21	21
21	25	26	31	26	69	56	211	594	*183	38	21	21
22	26	27	29	b21	88	55	197	552	167	37	21	21
23	26	27	29	b22	151	54	192	520	149	37	*19	21
24	25	27	29	b24	211	56	185	453	143	37	19	21
25	25	27	29	b27	114	57	183	414	127	36	21	21
26	26	27	28	24	94	64	169	397	123	32	20	21
27	31	27	27	b21	79	*59	160	*418	120	32	20	*21
28	30	27	27	b19	70	59	162	453	122	30	20	21
29	27	28	27	b22	-	64	192	468	125	31	21	21
30	27	27	26	b18	-------	76	241	500	122	31	21	22
31	30	-------	26	b20	-------	81	-------	504	-------	29	23	-------
Total	773	810	973	731	1,519	1,932	4,733	14,577	8,555	1,635	667	602
Mean	24.9	27.0	31.4	23.6	54.2	62.3	158	470	285	52.7	21.5	20.1
Ac-ft	1,530	1,610	1,930	1,450	3,010	3,830	9,390	28,910	16,970	3,240	1,320	1,190

Calendar year 1956: Max 840 Min 17 Mean 105 Ac-ft 76,520
Water year 1956-57: Max 706 Min 16 Mean 103 Ac-ft 74,380

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 2 discharge measurements and records for station near San Jacinto and other nearby streams.
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 bridge, on U. S. Highway 93, 750 ft downstream from Shoshone Creek, and 5 miles north of San Jacinto.

Drainage area.--1,450 sq mi, approximately.

Records available.--September 1909 to June 1910 (gage heights only), June 1910 to September 1916, October 1918 to September 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,120 ft (by barometer). Prior to June 30, 1910, staff gage at nearby site at different datum.

Average discharge.--45 years (1910-16, 1918-57), 134 cfs (97,010 acre-ft per year).

Extremes.--Maximum discharge during year, 1,230 cfs May 20 (gage height, 8.48 ft); minimum observed, 8.3 cfs Aug. 24 (gage height, 2.81 ft).
1909-16, 1918-57: Maximum discharge, between 2,060 and 2,420 cfs Feb. 24, 1943 (gage height exceeded range of recorder, 10.20 ft, but was not more than 1.2 ft higher), from rating curve extended above 1,400 cfs; minimum, 2.8 cfs Nov. 13, 1947, during channel improvement work upstream.

Remarks.--Records good except those for periods of doubtful gage-height record, which are poor. 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 tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 18 to May 10)

Oct. 1 to May 20				May 21 to Sept. 30			
3.7	25	5.5	326	2.8	8.0	5.0	225
4.0	58	6.0	460	3.0	14	5.5	330
4.5	127	7.0	760	3.2	22	6.0	460
5.0	216	8.4	1,200	3.5	40	7.0	760
				4.0	84	8.2	1,140
				4.5	145		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*35	54	51	53	48	205	189	399	709	136	33	20
2	35	53	50	54	52	178	176	454	652	131	32	21
3	35	48	53	45	46	160	160	*535	652	117	31	22
4	36	50	*56	48	38	143	158	595	661	106	30	22
5	35	51	57	44	40	140	157	574	724	97	25	30
6	35	52	54	38	45	130	178	508	694	90	22	31
7	35	54	28	38	48	127	236	505	667	79	20	30
8	36	53	28	48	54	178	236	586	616	71	19	29
9	38	*52	33	40	54	212	228	694	589	66	18	28
10	39	51	46	37	54	214	242	778	634	69	17	29
11	43	51	73	46	59	191	261	799	631	67	16	30
12	48	51	108	56	63	174	284	796	469	61	15	31
13	50	51	152	59	64	157	307	784	405	58	15	31
14	46	50	127	62	70	133	319	847	382	55	15	31
15	44	45	104	*60	173	126	334	871	356	51	15	30
16	43	53	97	53	264	130	344	*844	328	49	14	30
17	43	53	86	40	264	122	348	811	321	48	12	30
18	42	52	80	36	219	114	356	859	270	*51	11	32
19	42	44	76	43	212	112	364	940	234	53	10	34
20	43	31	74	56	266	110	372	1,160	221	50	11	36
21	44	43	63	50	*203	116	390	1,100	*218	46	20	37
22	44	54	47	36	193	120	377	1,020	216	44	20	36
23	45	51	59	40	529	106	404	1,080	193	42	12	36
24	45	52	69	43	523	114	401	1,020	176	42	*8.3	35
25	45	54	59	46	380	114	390	910	158	43	9	35
26	46	52	56	43	316	122	377	820	148	40	10	34
27	52	51	50	37	272	*129	344	*751	142	39	11	*33
28	58	47	54	38	253	122	321	730	137	37	12	33
29	58	48	56	43	-	130	319	739	140	36	14	34
30	52	52	57	37	-------	148	346	745	138	35	17	35
31	54	-------	52	40	-------	184	-------	745	-------	34	20	-------
Total	1,346	1,503	2,055	1,409	4,802	4,461	8,918	23,999	11,881	1,943	534.3	925
Mean	43.4	50.1	66.3	45.5	172	144	297	774	396	62.7	17.2	30.8
Ac-ft	2,670	2,980	4,080	2,790	9,520	8,850	17,690	47,600	23,570	3,850	1,060	1,830

Calendar year 1956: Max 837 Min 5.5 Mean 153 Ac-ft 110,800
Water year 1956-57: Max 1,160 Min 8.3 Mean 175 Ac-ft 126,500

* Discharge measurement made on this day.
Note.--Doubtful gage-height record Aug. 5-23, 25-30, Sept. 1-3; discharge estimated on basis of 1 discharge measurement, recorder record, and records for station near Contact.

Salmon River Canal Co. reservoir near Rogerson, Idaho

Location.--Lat 42°13', long 114°44', in NE¼ sec. 18, T. 14 S., R. 15 E., at dam on Salmon Falls Creek, 7½ miles west of Rogerson.

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

Records available.--January 1922 to September 1957.

Gage.--Wire-weight gage read once daily. Datum of gage is 4,945.8 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Jan. 5, 1955, staff gage at same datum.

Extremes.--Maximum contents observed during year, 83,800 acre-ft June 7, 8 (gage height, 46.00 ft); minimum observed, 6,420 acre-ft Oct. 9, 10 (gage height, 4.90 ft).
1922-57: Maximum contents observed, 123,700 acre-ft May 30, 31, 1922 (gage height, 61.1 ft); minimum observed, 125 acre-ft Sept. 21 to Oct. 5, 1934 (gage height, 0.1 ft).

Remarks.--Reservoir is formed by gravity-section concrete-arch dam completed in 1911; storage began in 1910. Capacity, 182,650 acre-ft between gage heights 0.0 (bottom of outlet tunnel) and 80.0 ft (maximum operating level). Dead storage unknown. Water is used for irrigation of lands in Salmon River Canal Co. project. Figures given herein represent usable contents.

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

Capacity table, water year 1956-57 (gage height, in feet, and usable contents, in acre-feet)

4.0	5,200	30.0	48,800
5.0	6,550	35.0	58,950
10.0	13,800	40.0	69,850
15.0	21,500	45.0	81,450
20.0	30,000	50.0	93,800
25.0	39,100		

Usable contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,620	7,720	9,900	13,400	15,200	23,700	31,800	46,500	82,300	75,700	47,000	20,900
2	6,700	7,790	9,970	13,400	15,200	24,200	32,100	47,100	82,800	75,700	46,000	20,300
3	6,700	7,940	10,000	13,500	15,200	24,700	32,400	47,800	83,000	75,700	45,300	19,700
4	6,770	8,010	10,100	13,600	15,300	25,100	32,600	48,600	83,200	75,800	44,300	19,100
5	6,840	8,080	10,200	13,600	15,400	25,400	32,900	49,500	83,500	75,600	43,500	18,500
6	6,840	8,160	10,300	13,600	15,400	25,700	33,200	50,500	83,700	74,100	42,600	17,800
7	6,920	8,230	10,300	13,700	15,500	25,900	33,600	51,300	83,800	73,000	41,700	17,600
8	6,620	8,300	10,400	13,700	15,600	25,300	33,900	52,100	83,800	71,700	40,900	17,600
9	6,420	8,440	10,400	13,700	15,600	26,500	34,300	53,000	83,700	70,500	40,000	17,600
10	6,420	8,520	10,400	13,800	15,700	26,900	34,800	54,200	83,700	69,300	39,200	17,500
11	6,480	8,590	10,500	13,800	15,800	27,300	35,100	55,400	83,600	68,100	38,400	17,500
12	6,550	8,660	10,500	13,900	15,900	27,600	35,600	56,800	83,600	66,900	37,400	17,500
13	6,700	8,740	10,700	14,000	16,000	28,000	36,000	58,100	83,400	65,800	36,600	17,500
14	6,700	8,810	11,100	14,000	16,100	28,100	36,500	59,500	83,000	64,600	35,800	17,500
15	6,770	8,880	11,500	14,200	16,200	28,400	37,000	60,900	82,800	63,600	34,800	17,500
16	6,840	8,950	11,700	14,200	16,400	28,600	37,400	62,400	82,600	62,400	33,900	17,500
17	6,920	9,020	11,900	14,300	16,600	28,800	38,200	63,900	82,400	61,100	33,000	17,500
18	6,920	9,100	12,100	14,400	17,000	29,100	38,700	65,300	82,400	60,000	32,100	17,500
19	7,000	9,170	12,200	14,500	17,600	29,200	39,500	66,700	81,900	59,000	31,200	17,500
20	7,000	9,170	12,400	14,500	18,000	29,400	40,000	68,100	81,800	57,800	30,300	17,500
21	7,070	9,170	12,400	14,600	18,400	29,600	40,600	69,800	81,600	56,800	29,500	17,500
22	7,140	9,240	12,500	14,600	18,900	29,700	41,200	72,000	81,300	55,700	28,700	17,500
23	7,280	9,240	12,600	14,700	19,400	29,900	41,700	74,000	80,700	54,800	28,000	17,500
24	7,360	9,320	12,600	14,800	19,800	30,100	42,400	75,500	80,500	53,900	27,200	17,500
25	7,430	9,460	12,700	14,800	20,800	30,300	43,000	77,000	79,900	53,000	26,300	17,500
26	7,430	9,530	12,800	14,900	21,800	30,500	43,700	78,100	79,200	52,100	25,500	17,500
27	7,500	9,600	12,900	15,000	22,600	30,700	44,300	79,000	78,500	51,100	24,600	17,500
28	7,500	9,680	13,000	15,100	23,200	30,800	44,900	80,000	77,600	50,400	23,800	17,500
29	7,580	9,750	13,100	15,100	-	31,000	45,400	80,700	76,800	49,600	23,100	17,500
30	7,650	9,820	13,100	15,100	-------	31,300	45,900	81,300	75,800	48,800	22,300	17,500
31	7,650	-------	13,300	15,100	-------	31,500	-------	81,800	-------	47,900	21,600	-------
(†)	5.75	7.25	9.65	10.85	16.00	20.90	28.55	45.15	42.60	29.55	15.05	12.45
(‡)	+1,030	+2,170	+3,480	+1,800	+8,100	+8,300	+14,400	+35,900	-6,000	-27,900	-26,300	-4,100

Calendar year 1956..... ‡ +3,040
Water year 1956-57..... ‡ +10,880

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

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 1957.

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.--1937-57: 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							0	374	0	432	292
2	*0							0	387	0	429	296
3	0							0	438	0	432	302
4	0							0	461	262	429	309
5	0		(*)					0	494	602	425	310
6	0							0	508	610	437	232
7	108							0	523	628	430	0
8	136							0	524	627	421	0
9	70	(*)						0	527	635	418	0
10	0							0	527	642	413	0
11	0							0	516	643	402	0
12	0							0	513	642	397	0
13	0							0	461	631	402	0
14	0							0	416	602	404	0
15	0			(*)				0	371	591	418	0
16	0							0	345	606	427	0
17	0							0	315	603	425	0
18	0							0	288	588	424	0
19	0							29	268	*567	417	0
20	0				(*)			0	287	558	416	0
21	0							0	*310	521	413	0
22	0							0	317	502	413	0
23	0							131	328	487	*411	0
24	0							205	372	472	395	0
25	0							223	450	456	399	*0
26	0							263	483	457	402	0
27	0					(*)		*276	520	453	392	0
28	0							307	548	440	384	0
29	0				-			337	554	441	351	0
30	0				-------			371	374	440	317	0
31	0	-------			-------		-------	375	-------	437	308	-------
Total	314	0	0	0	0	0	0	2,517	12,799	15,143	12,583	1,741
Mean	10.1	0	0	0	0	0	0	81.2	427	488	406	58.0
Ac-ft	623	0	0	0	0	0	0	4,990	25,390	30,040	24,960	3,450

Calendar year 1956: Max 543 Min 0 Mean 120 Ac-ft 87,270
Water year 1956-57: Max 643 Min 0 Mean 124 Ac-ft 89,450

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

Cedar Creek Reservoir near Roseworth, Idaho

Location.--Lat 42°13', long 114°53', near center sec. 12, T. 14 S., R. 13 E., just upstream from right end of dam on Cedar Creek, 10¼ miles south of Roseworth.
Drainage area.--128 sq mi.
Records available.--April to September 1957.
Gage.--Wire-weight gage read intermittently. Altitude of gage is 5,160 ft (by barometer).
Extremes.--Maximum contents observed during period, 18,620 acre-ft June 4 (gage height, 58.48 ft); minimum observed, 10,220 acre-ft Sept. 15 (gage height, 44.40 ft).
Remarks.--Reservoir is formed by earth-fill dam constructed in 1920; storage began in 1921. Total capacity, 29,930 acre-ft at 72.0 ft gage height (crest of spillway). Dead storage not known. Water is used for irrigation of lands in Roseworth tract. Since 1920 water has been diverted from Deadwood Creek (tributary of East Fork Bruneau River) and Devil Creek to House Creek which enters Cedar Creek Reservoir.

Capacity table (gage height, in feet, and contents, in acre-feet)

44.0	10,000	50.0	13,300	56.0	16,910
46.0	11,100	52.0	14,500	58.0	18,260
48.0	12,200	54.0	15,700	60.0	19,760

Contents, in acre-feet, 1957

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	-	18,460	-	-	-	16	-	-	-	15,940	-	10,250
2	-	-	-	-	-	-	17	-	-	18,260	-	-	-
3	-	-	18,580	-	13,540	-	18	-	-	-	-	-	10,280
4	-	-	18,620	-	-	-	19	-	-	18,080	15,570	-	-
5	-	-	18,580	16,630	-	-	20	-	-	-	-	-	-
6	-	14,080	18,580	-	-	-	21	-	-	-	-	11,670	-
7	-	-	-	16,630	13,080	-	22	-	16,600	-	-	-	-
8	-	-	18,580	-	-	-	23	-	-	-	-	-	-
9	-	-	-	-	-	-	24	-	-	-	14,840	-	-
10	-	-	-	-	-	10,440	25	-	-	-	-	-	-
11	-	-	-	-	-	-	26	13,300	-	17,720	-	11,290	10,400
12	11,100	-	-	-	-	-	27	-	-	-	-	-	-
13	-	-	-	15,870	12,420	-	28	-	-	-	-	-	-
14	-	-	-	-	-	-	29	-	-	-	-	-	10,380
15	-	-	-	-	12,200	10,220	30	-	18,050	17,170	-	-	-
							31	-	18,300	-	-	-	-

Cedar Creek near Roseworth, Idaho

Location.--Lat 42°15', long 114°52', in SW¼ sec. 31, T. 13 S., R. 14 E., on right bank 21 ft upstream from stock bridge, 1.7 miles downstream from Cedar Creek Dam, and 8¾ miles south of Roseworth.
Drainage area.--130 sq mi, approximately.
Records available.--May 1909 to December 1914, February to June 1916, May to September 1957.
Gage.--Water-stage recorder and artificial control. Altitude of gage is 5,050 ft (by barometer). Prior to May 1957, staff gage at site 1.8 miles upstream at different datum.
Extremes.--Maximum discharge during period May to September, 88 cfs July 27, 28, July 29 to Aug. 2; maximum gage height, 2.67 ft Aug. 1; minimum observed, 0.3 cfs May 31 (gage height, 0.78 ft).
1909-16, 1957: Maximum daily discharge, 200 cfs (estimated) Mar. 1, 1910 (gage submerged); minimum observed, that of May 31, 1957.
Remarks.--Records good. Flow completely regulated by Cedar Creek Reservoir (see preceding page). Several diversions for irrigation above station. Since 1920 water has been diverted from Deadwood Creek (tributary of East Fork Bruneau River) and Devil Creek to House Creek which enters Cedar Creek Reservoir.

Discharge, in cubic feet per second, 1957

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
May 1	9	June 17	69	July 14	1.8	Aug. 10	74	Sept. 6	43
2-10	a18	18	67	15	1.6	11	74	7	43
11	25	19	67	16	46	12	74	8	43
12-16	a35	20	67	17	75	13	71	9	43
17-22	a45	21	67	18	83	14	67	10	40
23	22	22	67	19	*84	15	64	11	37
24	22	23	67	20	84	16	62	12	37
25-28	a45	24	70	21	84	17	61	13	37
29	*46	25	72	22	83	18	61	14	37
30	23	26	*75	23	82	19	59	15	17
31	*20	27	81	24	83	20	58	16	7.8
June 1	49	28	80	25	84	21	*55	17	9.7
2	51	29	79	26	86	22	52	18	7.7
3	58	30	80	27	88	23	52	19	8.5
4	61	July 1	83	28	87	24	52	20	8.5
5	*65	2	82	29	88	25	52	21	8.5
6	70	3	82	30	88	26	48	22	8.2
7	72	4	81	31	88	27	44	23	8.2
8	73	5	83	Aug. 1	88	28	44	24	8.2
9	74	6	86	2	88	29	44	25	8.2
10	74	7	87	3	81	30	44	26	*8.2
11	74	8	87	4	77	31	44	27	8.2
12	74	9	87	5	77	Sept. 1	44	28	9.1
13	74	10	87	6	77	2	43	29	10
14	73	11	86	7	74	3	43	30	10
15	74	12	86	8	74	4	43		
16	73	13	65	9	74	5	43		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1957	954	-	-	30.8	1,890
June	2,097	81	49	69.9	4,160
July	2,398.4	88	1.6	77.4	4,760
August	1,966	88	44	63.4	3,900
September	722.0	44	7.7	24.1	1,430

* Discharge measurement made on this day.
a Average for period indicated.

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 1955 to September 1957.

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

Extremes.--Maximum discharge during year, 298 cfs Feb. 15 (gage height, 2.89 ft), from rating curve extended above 150 cfs on basis of conveyance study and logarithmic plotting; minimum, 69 cfs July 8, 9, 10, 11 (gage height, 1.57 ft).
1955-57: Maximum, that of Feb. 15, 1958; minimum, 56 cfs Mar. 7, 1956 (gage height, 1.57 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. Diversion by pumping below Salmon River Canal Co. dam and above station for irrigation of 2,400 acres in project of Magic Water Company, Inc.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 19)

1.5	65	2.3	185
1.7	87	2.6	248
2.0	131		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	114	95	92	83	88	94	114	115	73	90	120
2	138	112	94	94	83	90	97	*104	118	74	94	123
3	131	108	95	95	85	90	96	121	108	75	96	121
4	136	108	96	96	86	88	85	114	100	74	96	114
5	131	108	97	95	86	88	83	104	104	77	91	112
6	120	106	96	91	87	88	85	100	97	77	91	103
7	120	106	94	90	82	91	86	90	94	72	94	104
8	123	*106	88	86	86	121	87	94	95	71	97	100
9	120	104	83	88	87	106	131	117	108	72	95	108
10	115	104	90	90	87	96	115	136	133	74	97	114
11	126	106	*102	90	87	91	112	153	126	74	99	109
12	129	106	106	92	87	83	114	181	138	72	99	115
13	125	108	128	92	86	80	125	177	146	74	95	114
14	121	104	114	95	87	85	123	159	155	73	97	108
15	112	103	100	100	196	87	121	166	155	72	95	103
16	102	109	103	*99	170	85	125	164	157	73	90	106
17	88	109	99	94	136	85	125	170	152	*73	91	114
18	86	104	*99	91	117	83	128	181	131	75	94	126
19	86	99	97	85	*104	83	136	191	125	80	94	125
20	86	97	94	90	104	90	117	226	*117	77	*87	125
21	95	95	94	92	100	88	121	181	112	82	85	120
22	128	95	94	91	102	88	125	187	106	81	82	126
23	118	102	90	92	158	90	128	201	100	80	83	125
24	118	100	91	91	148	90	133	205	96	81	86	121
25	118	99	94	86	104	90	131	179	94	87	86	*129
26	125	97	94	90	95	*88	136	164	90	85	94	133
27	123	96	91	88	94	88	134	143	90	83	102	129
28	117	95	90	87	91	90	133	*145	86	81	99	126
29	114	94	92	85	-	92	125	138	86	86	104	131
30	115	95	92	85	-------	92	109	125	72	87	114	133
31	118	-------	91	82	-------	92	-------	117	-------	95	117	-------
Total	3,620	3,089	2,979	2,814	2,918	2,786	3,460	4,647	3,406	2,410	2,934	3,537
Mean	117	103	96.1	90.8	104	89.9	115	150	114	77.7	94.6	118
Ac-ft	7,180	6,130	5,910	5,580	5,790	5,530	6,860	9,220	6,760	4,780	5,820	7,020

Calendar year 1956: Max 166 Min 73 Mean 105 Ac-ft 75,910
Water year 1956-57: Max 226 Min 71 Mean 106 Ac-ft 76,580

* 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 1957.

Gage.--Water-stage recorder. Altitude of gage is 4,780 ft (by barometer). Prior to Aug. 21, 1925, staff gage at site 0.1 mile downstream at different datum. Aug. 21, 1925, to Mar. 25, 1927, staff gage and Mar. 26, 1927, to Sept. 14, 1938, water-stage recorder, at site 250 ft upstream at datum 2.01 ft higher.

Average discharge.--31 years (1926-57), 28.4 cfs (20,560 acre-ft per year).

Extremes.--Maximum discharge during year, 778 cfs May 21 (gage height, 6.00 ft, from floodmarks); no flow for long periods.
1925-57: 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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 5-25)

1.4	0	1.9	5.9	3.0	82
1.5	.4	2.1	13	4.0	230
1.6	1.0	2.3	22	5.0	460
1.7	2.0	2.6	43	6.0	778
1.8	3.6				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.5				6	9	*230	226	18	0	3.6
2	0	.1				4	8	*249	234	19	0	5.1
3	0	0				*3	6	293	230	17	0	5.6
4	0	0				3	7	349	214	16	0	5.4
5	0	1.8				2.5	7.5	505	204	16	0	4.0
6	0	.8				3	8	433	192	15	*0	2.9
7	0	.8			0.3	3	7	*330	181	16	0	2.4
8	0	.4				3.5	5	303	*163	18	0	2.0
9	0	.4				5	4.7	294	144	14	0	1.9
10	0	.5	(*)			7	*5.6	353	133	*14	0	1.9
11	0	*.5				9	6.2	417	121	16	0	2.1
12	0	.6				10	6.5	337	111	16	0	*2.0
13	0	.1			1	10	9.6	614	90	19	0	2.0
14	0	0			3	9	23	647	83	19	0	2.4
15	0	0			3	7	*24	568	78	16	0	2.6
16	0	0	0.2	0.3	3	7	28	568	74	16	0	3.2
17	0	.5			3	7	43	417	76	14	0	1.1
18	0	.7			2.5	7	38	390	66	12	0	0
19	0	0			2	7	52	471	51	12	0	0
20	0	0			1	7	58	627	44	10	0	0
21	0	0			1	6.5	68	756	40	10	0	0
22	0	0			1	5.5	64	*632	47	11	0	0
23	0				2	5	70	488	56	9.3	0	0
24	0				4	5	93	368	46	8.9	0	0
25	0				7	5	100	284	38	7.4	0	0
26	0	.2			10	9	93	240	27	7.1	0	0
27	1.4				11	10	93	210	23	8.0	0	0
28	2.3				10	11	104	202	21	6.8	0	0
29	2.1				-	*12	127	210	18	4.2	.8	0
30	.9			(*)	-------	11	196	230	17	1.9	1.5	0
31	1.6	-------			-------	10	-------	230	-------	0	1.4	-------
Total	8.3	10.3	6.2	9.3	68.1	210.0	1,364.1	12,245	3,048	387.6	3.7	50.2
Mean	0.27	0.34	0.20	0.30	2.43	6.77	45.5	395	102	12.5	0.12	1.67
Ac-ft	16	20	12	18	135	417	2,710	24,290	6,050	769	7.3	100

Calendar year 1956: Max 437 Min 0 Mean 32.2 Ac-ft 23,400
Water year 1956-57: Max 756 Min 0 Mean 47.7 Ac-ft 34,540

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 23 to about Apr. 5. No gage-height record Nov. 23-30, Dec. 4 to Feb. 26, Mar. 3 to Apr. 1, Apr. 3, 5-8; discharge estimated on basis of weather records, 4 discharge measurements, two estimates of flow by observer, 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 1957 (no winter records 1925-28, 1930).

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to May 8, 1927, staff gage at site 175 ft downstream at datum 2.08 ft lower.

Average discharge.--30 years (1921-24, 1928-29, 1931-57), 16.8 cfs (12,160 acre-ft per year).

Extremes.--Maximum discharge during year, 420 cfs May 20 (gage height, 3.26 ft); no flow most of year.
1921-57: Maximum discharge, 858 cfs Apr. 7, 1930 (gage height, 4.77 ft); no flow for long periods.

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

Cooperation.--Water-stage recorder inspected and six discharge measurements furnished by Water District No. 66.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 20-25, June 1)

-0.9	0	-0.4	5.4	1.0	94
-.8	.1	-.3	8.8	1.5	145
-.7	.6	-.1	17	2.0	204
-.6	1.4	.2	33	2.5	269
-.5	3.0	.5	53	3.5	417

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	*f7.6	1.6	*109	131	1.0		
2					0	f2.2	0	*156	109	.7		
3					0	*.4	0	146	102	.6		
4					0	0	0	113	90	a.5		
5					0	0	0	112	79	a.4		
6					0	0	1.5	80	79	a.2	(*)	
7					0	0	a2.0	*62	*69	a.1		
8					0	0	a3.0	52	59	0		
9					0	0	a9.0	55	56	*0		
10			(*)		0	0	*15	80	55	0		
11		(*)			0	0	13	117	*54	0		
12					0	0	6.3	173	46	0		
13					0	0	4.5	208	47	0		
14					0	0	*8.8	161	39	0		
15					0	0	*13	196	50	0		(*)
16					0	0	*16	167	63	0		
17					0	0	22	138	72	0		
18					0	0	9.9	174	50	0		
19					0	0	9.2	212	34	0		
20					0	0	8.1	385	29	0		
21					0	0	14	290	83	0		
22					0	0	24	229	74	0		
23					0	0	*40	*188	48	0		
24					0	0	44	161	34	0		
25					0	0	33	131	26	0		
26					0	0	29	116	21	0		
27					f4.8	0	18	113	20	0		
28					f11	0	21	112	17	0		
29					-	0	*45	115	8.4	0		
30				(*)	-------	0	80	117	2.8	0		
31		-------			-------	2.2	-------	116	-------	0		-------
Total	0	0	0	0	15.8	12.4	490.9	4,584	1,647.2	3.5	0	0
Mean	0	0	0	0	0.56	0.40	16.4	148	54.9	0.11	0	0
Ac-ft	0	0	0	0	31	25	974	9,090	3,270	6.9	0	0

Calendar year 1956: Max 160 Min 0 Mean 9.50 Ac-ft 6,900
Water year 1956-57: Max 385 Min 0 Mean 18.5 Ac-ft 13,400

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

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-eights of a mile upstream from mouth.

Drainage area.--510 sq mi, approximately.

Records available.--April 1921 to September 1957.

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.--36 years, 3.97 cfs (2,870 acre-ft per year).

Extremes.--Maximum discharge during year, 132 cfs May 21 (gage height, 2.98 ft); no flow most of year.
1921-57: 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 excellent. Flow affected by irrigation diversions above Dubois, 14 miles above station, and by heavy channel losses below Dubois.

Cooperation.--Six discharge measurements and occasional inspections of recorder furnished by Water District No. 66.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	0	1.4	9.5
.9	.3	1.6	18
1.0	1.2	1.8	28
1.1	2.4	2.0	42
1.2	4.0	2.5	85
1.3	6.2	3.0	134

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	*63			
2								1.8	60			
3						(*)		*56	52			
4								*42	41			
5								42	*27			
6								24	21		(*)	
7								*15	12			
8								*6.2	*3.6			
9								*3.6	1.6			
10			(*)				(*)	9.5	.9	(*)		
11		(*)						34	.2			
12								62	0			(*)
13								90	0			
14								*90	1.2			(*)
15								90	.6			
16								94	4.2			
17								75	16			
18								85	10			
19								100	.3			
20								114	0			
21								128	5.6			
22								124	38			
23								*113	19			
24								101	6.2			
25								87	.2			
26								75	0			
27							(*)	70	0			
28					-			63	0			
29						(*)		62	0			
30				(*)	-------			60	0			
31		-------			-------		-------	59	-------			-------
Total	0	0	0	0	0	0	0	1,976.1	383.6	0	0	0
Mean	0	0	0	0	0	0	0	63.7	12.8	0	0	0
Ac-ft	0	0	0	0	0	0	0	3,920	761	0	0	0

Calendar year 1956: Max 124 Min 0 Mean 3.95 Ac-ft 2,870
Water year 1956-57: Max 128 Min 0 Mean 6.46 Ac-ft 4,680

* 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.

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

Records available.--April 1921 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 4,774.99 ft above mean sea level, unadjusted. Prior to Oct. 31, 1931, staff gages at or near pumphouse (now used as supplementary gage) at same datum. Oct. 31, 1931, to Sept. 30, 1954, water-stage recorder at site 2.7 miles southwest and 2 miles north of First Owsley pumphouse at same datum.

Extremes.--Maximum contents during year, 29,800 acre-ft May 29, 30; maximum gage height, 6.78 ft May 28 (affected by wind); minimum contents, 3,450 acre-ft Oct. 19; minimum gage height, -0.09 ft Oct. 9 (affected by wind).

1921-57: 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 1957. Other irrigation diversions are made by various means from adjacent lakes and wells and Camas Creek above lake. Area of Mud Lake is varied from time to time by changes in dikes. Figures given herein represent contents above gage height -4.0 ft. Capacity table prepared from surveys made by Geological Survey and adjusted for changes in dikes. High winds are frequent, and stage at recorder during wind does not usually represent the mean for the lake.

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

Revisions.--WSP 1247: Drainage area.

Capacity table, water year 1956-57 (gage height, in feet, and usable 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,820	4,110	6,050	9,730	14,000	17,100	20,000	22,300	29,500	15,200	4,250	4,830
2	3,800	4,110	6,150	9,900	14,200	17,200	20,000	22,400	29,400	15,100	4,090	4,940
3	f3,780	4,150	6,250	10,000	14,200	17,200	20,000	22,600	29,200	14,900	3,930	5,080
4	3,780	4,270	6,380	10,100	g14,400	17,400	20,100	22,900	29,100	14,700	3,820	5,160
5	3,740	4,350	6,480	10,300	g14,600	17,400	f20,300	f23,100	28,700	14,500	f3,720	5,280
6	3,720	4,390	6,640	10,400	g14,800	17,500	20,300	23,500	28,100	14,300	f3,700	5,440
7	3,700	4,430	6,740	10,600	g14,900	17,500	20,400	23,600	27,700	14,000	3,680	f5,630
8	f3,680	4,520	6,850	10,800	g15,000	17,600	20,500	23,900	27,500	13,700	3,670	5,750
9	3,680	4,560	6,960	10,900	g15,100	f17,700	20,700	23,900	26,700	13,300	3,670	5,850
10	3,670	4,600	7,070	11,100	g15,200	17,800	20,700	24,000	26,100	12,900	3,650	6,020
11	3,610	4,620	7,200	11,200	g15,400	f17,900	20,700	f24,000	25,500	12,400	3,630	6,170
12	3,610	4,680	7,320	11,300	g15,500	f18,000	20,800	24,400	24,500	11,900	3,630	6,250
13	f3,590	4,770	7,370	11,500	g15,600	18,000	f20,900	24,600	23,900	f11,400	3,590	6,400
14	3,570	4,810	7,490	11,600	g15,700	18,100	f20,900	24,600	23,100	10,900	3,590	6,530
15	3,540	4,880	7,610	11,700	15,700	18,200	f21,000	24,800	22,500	10,400	3,550	6,580
16	3,500	4,920	7,700	11,800	15,800	18,300	21,000	25,000	22,000	9,900	3,610	6,660
17	3,480	5,010	7,810	11,900	15,900	18,400	f21,100	25,200	21,400	9,350	3,680	6,690
18	f3,480	5,050	7,940	12,100	16,000	18,500	21,200	25,700	20,800	8,890	3,740	6,790
19	3,450	5,100	8,060	12,200	16,100	18,600	21,300	26,400	20,200	8,400	3,840	6,820
20	3,480	5,140	8,180	12,500	16,200	18,700	21,500	26,700	19,800	7,940	3,880	6,790
21	3,480	5,230	8,340	g12,700	16,300	18,800	21,700	27,000	19,300	7,480	f3,910	6,710
22	3,520	5,300	8,470	g12,900	16,400	18,900	21,800	27,500	18,700	7,070	3,910	6,690
23	3,570	5,370	8,600	g13,000	16,700	18,900	21,800	28,000	18,200	6,660	4,010	f6,710
24	3,630	5,440	8,730	g13,200	16,800	19,000	21,900	28,400	17,700	6,300	f4,090	6,690
25	3,720	5,530	8,860	g13,300	16,800	19,200	21,900	28,700	17,300	5,950	f4,150	6,640
26	3,840	5,600	8,950	g13,300	16,900	19,300	21,900	29,200	16,900	5,600	4,230	6,510
27	f3,970	5,680	9,080	g13,400	17,000	19,500	21,900	29,400	16,400	5,300	f4,270	6,460
28	3,990	5,770	9,180	g13,500	17,000	19,500	22,000	29,700	16,000	5,030	f4,370	6,380
29	4,070	5,850	9,320	g13,600	-	19,700	22,100	29,800	15,700	4,810	f4,480	6,300
30	f4,090	5,950	9,450	13,700	-------	19,800	22,100	29,600	15,500	4,640	4,600	6,200
31	f4,090	-------	9,620	13,900	-------	19,900	-------	29,600	-------	4,430	4,730	-------
(†)	0.36	1.20	2.45	3.56	4.27	4.88	5.32	6.67	3.92	0.53	0.67	1.30
(‡)	+230	*1,860	+3,670	+4,280	+3,100	+2,900	+2,200	+7,500	-14,100	-11,070	+300	+1,470

Calendar year 1956..... ‡ -1,380
Water year 1956-57..... ‡ +2,340

† 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 not affected by wind.
g Contents computed not from graph based on once-daily staff-gage readings.

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 5,710 ft (from topographic map of dam sites). Prior to Nov. 16, 1940, staff gage at site 0.2 mile upstream at different datum. Nov. 16, 1940, to May 30, 1950, at site 50 ft downstream at present datum.

Average discharge.--16 years (1941-57), 42.1 cfs (30,480 acre-ft per year).

Extremes.--Maximum discharge during year, 98 cfs May 20 (gage height, 2.93 ft); minimum, 6.4 cfs Mar. 24 (gage height, 1.48 ft).
1940-57: 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	28	23	22	28	27	11	16	68	60	63	58
2	24	26	24	22	28	27	9.3	*32	66	61	63	57
3	24	22	27	22	30	*28	11	41	69	64	62	55
4	24	28	26	21	30	27	12	43	68	61	61	54
5	24	29	31	20	31	28	15	40	72	62	60	53
6	24	29	29	20	30	28	13	42	83	66	*60	52
7	24	30	19	22	30	28	11	53	79	65	60	51
8	24	29	18	22	32	28	11	54	*79	65	60	50
9	24	26	18	24	31	30	13	59	81	*64	59	50
10	24	25	*20	24	28	32	*14	64	82	64	59	50
11	25	*26	21	24	30	30	13	62	79	68	58	50
12	26	26	22	26	29	26	13	74	74	68	57	50
13	26	26	24	26	29	23	12	80	73	68	56	50
14	26	20	28	30	28	22	12	73	74	68	55	49
15	26	18	30	30	28	25	11	79	78	67	55	*48
16	26	22	33	19	27	26	10	67	76	66	55	48
17	26	24	29	20	28	26	10	61	70	64	55	48
18	26	22	34	22	28	24	11	68	67	64	54	48
19	26	16	32	23	28	22	13	88	65	65	54	48
20	26	17	32	24	28	18	13	93	74	64	53	48
21	26	16	31	25	28	14	12	78	83	65	53	48
22	26	16	20	26	28	11	11	74	79	64	60	47
23	27	17	24	*28	27	11	11	70	73	64	59	46
24	28	17	23	28	28	10	10	68	70	65	55	46
25	28	18	23	28	30	11	10	60	67	65	54	45
26	28	18	24	28	28	9.7	11	58	68	66	55	45
27	29	18	20	26	28	9.3	10	56	67	66	55	44
28	28	19	20	27	28	9.3	10	58	63	65	54	43
29	28	20	20	26	-	9.3	10	63	62	65	56	42
30	28	22	20	27	-------	11	12	65	61	64	61	42
31	29	-------	20	28	-------	11	-------	65	-------	63	60	-------
Total	805	670	765	760	806	641.6	345.3	1,904	2,170	2,006	1,781	1,465
Mean	26.0	22.3	24.7	24.5	28.8	20.7	11.5	61.4	72.3	64.7	57.5	48.8
Ac-ft	1,600	1,330	1,520	1,510	1,600	1,270	685	3,780	4,300	3,980	3,530	2,910

Calendar year 1956: Max 101 Min 14 Mean 324 Ac-ft 23,510
Water year 1956-57: Max 93 Min 9.3 Mean 38.7 Ac-ft 28,020

* 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, 5 miles southeast of former Reno Post Office, and 35 miles west of Dubois.

Drainage area.--320 sq mi, approximately.

Records available.--September 1910 to June 1912 (published as "near Kaufman"), April 1921 to January 1923, October 1950 to September 1957.

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.--9 years (1910-11, 1921-22, 1950-57), 79.0 cfs (57,190 acre-ft per year).

Extremes.--Maximum discharge during year, 89 cfs May 14 (gage height, 1.74 ft); maximum gage height, 2.76 ft Jan. 19 (backwater from ice); minimum discharge, 67 cfs Jan. 26 (gage height, 1.53 ft).

1910-12, 1921-23, 1950-57: Maximum discharge, 111 cfs Mar. 24, 1956 (gage height, 1.96 ft); maximum gage height observed, that of Jan. 19, 1957; minimum discharge recorded, 61 cfs Jan. 29, 1951; minimum gage height, 1.47 ft Jan. 30, 1956.

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

Revisions (water years).--WSP 1447: 1911-12.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	66
1.6	75
1.7	85
1.8	95

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	77	77	b76	73	79	76	76	76	72	71	75
2	75	77	77	76	74	79	76	76	75	72	71	75
3	75	77	77	b75	74	79	75	77	75	72	71	77
4	75	77	78	b75	74	79	75	77	75	71	71	77
5	75	77	78	b75	74	79	75	77	75	71	*71	77
6	74	78	77	b75	74	79	76	77	*75	71	72	77
7	74	77	b76	75	75	*79	76	76	74	71	71	77
8	75	77	b76	75	76	79	75	76	74	71	71	77
9	76	77	b75	b74	75	79	*76	77	74	*72	71	77
10	75	77	77	74	75	77	77	78	75	73	71	77
11	76	77	*75	b74	75	76	77	79	75	74	71	77
12	76	*77	73	74	75	76	77	80	74	74	71	*77
13	76	77	74	74	76	76	77	80	73	73	71	77
14	76	b77	74	75	77	b75	77	85	73	73	71	77
15	76	b77	74	74	76	75	76	82	74	73	73	77
16	76	77	74	b73	77	75	77	80	75	73	73	77
17	76	77	b74	b73	77	75	77	79	75	72	73	77
18	76	77	74	b74	77	74	78	79	74	72	73	77
19	76	b76	74	b74	77	75	78	82	73	72	73	76
20	76	b76	74	74	76	75	79	79	77	72	73	76
21	76	76	74	74	75	75	79	78	76	72	74	76
22	76	76	b74	*b74	76	b74	79	78	75	72	74	76
23	76	76	b73	b72	78	74	78	77	73	72	74	77
24	76	76	73	b72	78	75	77	76	72	72	74	77
25	76	77	74	b71	78	75	77	76	72	72	74	77
26	76	77	74	b70	78	76	76	75	72	72	74	77
27	77	77	b74	b70	79	76	76	75	72	72	74	77
28	76	77	75	b70	79	76	76	75	72	72	74	77
29	76	78	76	b70	-	76	76	75	72	72	76	78
30	76	78	b76	b71	-------	76	76	75	72	71	77	78
31	76	-------	76	b72	-------	76	-------	76	-------	71	75	-------
Total	2,346	2,307	2,327	2,275	2,128	2,369	2,300	2,408	2,219	2,234	2,253	2,304
Mean	75.7	76.9	75.1	73.4	76.0	76.4	76.7	77.7	74.0	72.1	72.7	76.8
Ac-ft	4,650	4,580	4,620	4,510	4,220	4,700	4,560	4,780	4,400	4,430	4,470	4,570

Calendar year 1956: Max 85 Min 69 Mean 76.2 Ac-ft 55,280
Water year 1956-57: Max 85 Min 70 Mean 75.3 Ac-ft 54,490

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 19-21, 24-26, Jan. 20, 21, Feb. 1 to Mar. 6; discharge estimated on basis of weather records and records for nearby streams.

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 1957 (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.--17 years (1940-57), 69.1 cfs (50,030 acre-ft per year).

Extremes.--Maximum discharge during year, 230 cfs June 11 (gage height, 4.15 ft); maximum gage height recorded, 6.63 ft Jan. 23 (ice jam); minimum daily discharge, 15 cfs Jan. 26-29.

1921-57: 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, that of Jan. 23, 1957; 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	15	3.6	148
2.5	26	4.0	206
2.8	52	4.4	272
3.2	96		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*58	54	28	27	23	39	49	66	194	154	83	85
2	58	47	28	26	27	39	48	72	198	154	80	81
3	57	43	28	25	26	38	50	82	203	129	77	77
4	55	38	28	23	25	38	50	90	203	120	76	76
5	56	36	29	21	24	38	55	90	206	116	*74	73
6	57	38	29	20	23	38	66	101	*214	116	74	71
7	57	36	25	19	24	*39	64	114	217	116	81	70
8	56	33	21	19	27	38	*62	125	216	*116	78	68
9	58	30	21	19	25	37	60	130	224	112	76	69
10	60	27	24	19	24	35	62	133	227	107	75	70
11	68	26	28	20	25	33	64	141	225	114	76	*62
12	70	*25	*32	22	27	36	63	149	217	117	75	61
13	65	26	32	23	32	36	62	156	217	113	74	61
14	59	23	31	24	37	36	62	159	211	106	74	61
15	58	21	27	20	37	37	63	165	204	100	75	61
16	59	25	28	17	36	40	64	166	202	92	76	60
17	58	28	27	17	35	43	63	165	190	89	75	60
18	57	27	29	18	34	41	64	166	170	86	72	61
19	58	25	28	20	33	42	69	175	161	88	71	68
20	55	23	28	21	33	46	68	180	170	84	71	69
21	51	21	30	18	34	49	68	185	192	91	72	66
22	51	24	27	*17	36	44	65	185	180	90	77	68
23	49	27	26	17	38	43	64	182	170	86	80	71
24	46	27	25	16	39	48	66	180	165	85	75	69
25	44	26	26	16	40	49	66	175	166	81	71	68
26	45	26	27	15	40	50	65	170	161	83	70	68
27	48	26	28	15	39	50	60	170	152	85	72	64
28	46	28	28	15	39	49	58	178	147	82	72	63
29	41	28	28	15	-	51	59	184	149	81	75	68
30	43	28	28	18	-------	50	*62	188	148	81	84	66
31	57	-------	28	21	-------	50	-------	191	-------	83	94	-------
Total	1,700	892	852	603	882	1,302	1,841	4,613	5,699	3,157	2,355	2,035
Mean	54.8	29.7	27.5	19.5	31.5	42.0	61.4	149	190	102	76.0	67.8
Ac-ft	3,370	1,770	1,690	1,200	1,750	2,580	3,650	9,150	11,300	6,260	4,670	4,040

Calendar year 1956: Max 243 Min 20 Mean 65.7 Ac-ft 47,660
Water year 1956-57: Max 227 Min 15 Mean 71.0 Ac-ft 51,430

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 14-16, 19-27, 30, Dec. 2-4, 6-12, 15, 17, 19, 20, Dec. 22 to about Feb. 20. No gage-height record Nov. 2, 5-11, Dec. 30 to Jan. 21, Jan. 23 to Feb. 25, Feb. 27 to Mar. 6; discharge estimated on basis of weather records and records for Medicine Lodge Creek and other nearby streams.

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 1957 (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.--1924-57: Maximum daily discharge, 99 cfs June 13, 1957; no flow during long periods each year.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Canal diverts from Little Lost River in sec. 2, T. 6 N., R. 28 E., for irrigation of lands in project of Blaine County Investment Co.

Cooperation.--Gage readings furnished by Water District No. 9.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*0	4.1					a0.1	4.7	91	52	7.2	3.3
2	0	0					0.1	6.7	92	53	7.2	7.9
3	0	0					8.0	11	92	49	7.2	7.9
4	0	0				a0.1	16	15	94	37	7.2	7.9
5	0	0					13	17	96	34	*6.4	7.9
6	6.1	0					13	20	*97	27	5.7	7.9
7	9.8	0				*.1	16	25	97	23	5.7	7.9
8	9.8	0					16	29	98	*22	5.9	7.9
9	10	0					*15	34	97	22	5.9	7.9
10	11	0					16	39	97	19	7.6	*7.9
11	11	0					17	43	97	16	8.8	7.6
12	11	*0	(*)				17	49	98	19	8.9	7.6
13	11	0			a0		17	55	99	22	8.9	7.6
14	10	0					17	59	98	22	8.9	7.6
15	9.8	0					18	67	98	19	8.9	7.6
16	9.8	0					15	73	97	13	8.9	1.6
17	9.8	0					9.8	74	94	11	8.9	0
18	9.8	0					8.9	75	78	10	8.9	0
19	9.8	0					8.9	77	63	9.2	8.9	0
20	9.8	0				a.1	8.9	80	60	8.9	8.9	0
21	2.4	0					8.9	84	69	9.6	8.9	0
22	0	0		(*)			8.9	85	74	9.8	4.1	0
23	0	0					8.9	86	70	9.6	0	0
24	0	0					8.1	86	66	9.6	0	0
25	0	0					7.6	81	65	8.9	0	0
26	7.3	0			a.1		6.8	76	66	7.6	0	6.3
27	9.8	0					6.0	73	63	*7.2	0	7.6
28	9.8	0					5.1	81	57	7.2	0	7.6
29	9.8	0			-		4.4	87	54	7.2	0	7.6
30	a9.8	0			-------		*4.5	90	53	7.2	0	7.6
31	9.8	-------			-------		-------	90	-------	7.2	0	-------
Total	207.2	4.1	0	0	0.4	3.1	319.9	1,772.4	2,470	579.2	167.9	150.7
Mean	6.68	0.14	0	0	0.01	0.10	10.7	57.2	82.3	18.7	5.42	5.02
Ac-ft	411	8.1	0	0	0.8	6.1	635	3,520	4,900	1,150	333	299

Calendar year 1956: Max 90 Min 0 Mean 12.7 Ac-ft 9,210
Water year 1956-57: Max 99 Min 0 Mean 15.5 Ac-ft 11,260

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge interpolated or estimated on basis of 1 estimate of low flow, observer's notes, and records for Little Lost River near Howe.

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 1957.

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

Average discharge.--13 years, 103 cfs (74,570 acre-ft per year).

Extremes.--Maximum discharge during year, 1,100 cfs June 5 (gage height, 5.61 ft); minimum, 7.1 cfs Mar. 2 (gage height, 1.08 ft).
1944-57: Maximum discharge, 1,270 cfs May 24, 1956 (gage height, 6.18 ft); minimum, that of Mar. 2, 1957.

Remarks.--Records excellent.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.3	14	3.5	350
1.5	26	4.0	510
2.0	63	4.5	690
2.5	119	5.4	1,020
3.0	210		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	27	24	21	20	18	19	90	646	420	88	59
2	34	25	24	22	19	17	19	147	756	385	83	53
3	34	27	26	19	19	20	19	161	909	344	80	49
4	34	31	27	20	19	19	19	136	1,000	306	77	47
5	35	32	26	21	19	19	21	128	*1,020	288	77	45
6	*34	34	25	20	18	19	22	176	992	297	76	44
7	32	*34	20	20	19	19	21	268	877	277	73	42
8	33	32	21	21	19	18	21	*288	778	255	69	41
9	35	34	*23	19	19	18	22	263	697	250	68	41
10	37	34	24	19	19	18	*24	271	576	250	66	41
11	43	34	26	21	20	18	24	260	481	257	64	41
12	42	33	27	20	20	19	23	271	468	244	62	40
13	39	33	27	21	21	*18	24	328	449	227	60	39
14	37	28	25	21	21	17	26	337	398	222	57	39
15	36	24	23	21	20	19	27	344	353	203	57	39
16	35	31	26	18	19	18	27	340	318	182	55	39
17	35	32	22	19	19	18	27	340	280	*172	53	39
18	35	27	25	20	18	17	27	376	260	159	52	39
19	36	25	22	20	19	18	26	424	309	155	*51	41
20	35	24	23	21	19	19	26	376	353	155	50	41
21	34	27	23	18	19	19	27	334	340	144	49	41
22	34	28	21	20	19	18	28	300	321	134	55	39
23	34	28	23	21	19	18	31	266	324	126	54	38
24	34	26	24	19	19	18	33	244	369	119	51	*36
25	32	26	22	20	19	19	31	244	376	115	49	36
26	33	25	21	19	19	18	30	294	372	111	47	35
27	36	25	22	*20	18	18	31	366	376	109	47	34
28	27	24	23	21	18	18	36	420	404	105	47	34
29	29	25	23	19	-	18	47	488	401	103	51	33
30	32	24	22	20	-------	18	64	545	414	99	61	32
31	32	-------	24	20	-------	19	-------	552	-------	93	63	-------
Total	1,072	859	734	621	536	567	822	9,377	15,637	6,306	1,892	1,217
Mean	34.6	28.6	23.7	20.0	19.1	18.3	27.4	302	521	203	61.0	40.6
Cfsm	0.304	0.251	0.208	0.175	0.168	0.161	0.240	2.65	4.57	1.78	0.535	0.356
In.	0.35	0.28	0.24	0.20	0.17	0.18	0.27	3.06	5.10	2.06	0.62	0.40
Ac-ft	2,130	1.700	1,460	1,230	1,060	1,120	1,630	18,600	31,020	12,510	3,750	2,410

Calendar year 1956: Max 1,220 Min 17 Mean 138 Cfsm 1.21 In. 16.46 Ac-ft 100,100
Water year 1956-57: Max 1,020 Min 17 Mean 109 Cfsm 0.956 In. 12.93 Ac-ft 78,620

Peak discharge (base, 300 cfs).--May 19 (3 a.m.) 443 cfs (3.79 ft); June 5 (4:30 a.m.) 1,100 cfs (5.61 ft); July 1 (3 a.m.) 452 cfs (3.82 ft).

* Discharge measurement made on this day.

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 1957 (no winter records 1904, 1906-14, 1920-48).

Gage.--Water-stage recorder. Datum of gage is 6,621.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Apr. 20, 1906, staff gage at site 1¼ miles downstream at different datum. Apr. 20, 1906, to June 6, 1912, staff gage at site 100 ft downstream at different datum. June 7, 1912, to Nov. 14, 1914, staff gage at present site at datum 2.07 ft lower. May 11 to June 16, 1920, staff gage at present site and datum.

Average discharge.--10 years (1904-5, 1948-57), 307 cfs (222,300 acre-ft per year).

Extremes.--Maximum discharge during year, 3,570 cfs June 6 (gage height, 5.27 ft); minimum daily, 55 cfs Dec. 8, 9, Jan. 26-29.
1904-14, 1920-57: 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 periods of ice effect or no gage-height record, which are poor. No regulation. Several small diversions for irrigation 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.

Revisions.--WSP 1287: Drainage area.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	71	3.0	951
1.3	109	3.5	1,420
1.6	188	4.0	2,010
2.0	343	4.5	2,610
2.5	603	5.2	3,480

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	90	75	65	65	70	75	230	2,060	1,630	296	191
2	103	80	75	65	65	70	75	343	2,410	1,450	276	169
3	103	85	80	60	65	75	75	399	2,890	1,190	260	152
4	101	95	85	65	60	75	75	309	3,220	1,050	249	146
5	104	100	80	65	60	75	75	296	*3,390	968	245	141
6	*103	105	75	65	60	75	80	404	3,420	985	249	133
7	101	*106	60	65	60	70	75	597	3,080	928	226	128
8	101	100	55	70	60	70	75	*751	2,800	850	212	124
9	107	100	*55	60	60	70	80	724	2,540	836	208	124
10	124	95	65	60	60	70	*80	785	2,130	850	202	126
11	133	100	80	70	65	70	80	764	1,670	850	198	124
12	133	95	80	65	65	75	80	799	1,600	792	191	120
13	124	95	80	70	65	*70	80	928	1,560	724	185	117
14	115	90	75	70	65	70	85	935	1,340	730	179	115
15	111	80	70	70	60	75	86	976	1,160	678	172	113
16	109	95	75	60	60	70	86	951	1,050	597	172	111
17	106	100	65	60	60	70	87	968	928	*557	166	113
18	106	85	75	60	60	70	88	1,090	895	506	163	113
19	107	80	65	60	65	70	87	1,460	1,010	512	*157	124
20	104	75	70	70	65	75	87	1,190	1,200	518	152	126
21	104	85	70	65	70	75	89	985	1,210	480	146	124
22	103	90	65	60	70	70	93	850	1,110	443	154	120
23	104	90	70	60	70	70	101	764	1,110	418	163	117
24	104	85	70	60	70	70	104	710	1,340	404	154	*113
25	101	85	65	60	75	75	95	691	1,420	389	146	111
26	106	80	65	55	75	70	92	806	1,370	371	141	107
27	115	80	68	*55	75	70	92	1,040	1,390	371	138	106
28	90	75	70	55	75	70	99	1,310	1,560	348	136	104
29	95	75	70	55	-	70	133	1,560	1,550	343	149	104
30	100	75	65	60	-------	70	179	1,700	1,650	339	176	104
31	100	-------	70	65	-------	75	-------	1,830	-------	313	205	-------
Total	3,321	2,671	2,188	1,945	1,825	2,220	2,688	27,145	54,063	21,420	5,868	3,720
Mean	107	89.0	70.6	62.7	65.2	71.6	89.6	876	1,802	691	189	124
Ac-ft	6,590	5,300	4,340	3,860	3,620	4,400	5,330	53,840	107,200	42,490	11,640	7,380

Calendar year 1956: Max 3,260 Min 44 Mean 409 Ac-ft 297,200
Water year 1956-57: Max 3,420 Min 55 Mean 354 Ac-ft 256,000

Peak discharge (base, 900 cfs).--May 19 (11 a.m.) 1,580 cfs (3.64 ft); June 6 (8 a.m.) 3,570 cfs (5.27 ft); June 30 (4 a.m.) 1,780 cfs (3.81 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Oct. 28 to about Mar. 31. No gage-height record Nov. 2-6, Nov. 14 to Dec. 8, Dec. 10 to Feb. 27, Mar. 1-12, Mar. 14 to Apr. 9, Apr. 11-14; discharge estimated on basis of weather records, 7 discharge measurements, and records for station at Wild Horse and Big Wood River at Hailey.

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

Location.--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 1957.

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.--38 years, 72.2 cfs (52,270 acre-ft per year).

Extremes.--Maximum discharge during year, 1,220 cfs June 5; maximum gage height, 5.97 ft July 2 (backwater from Mackay Reservoir); no flow Jan. 1 to Mar. 25.
1919-57: Maximum discharge, 1,360 cfs June 7, 8, 1952; maximum gage height, that of July 2, 1957; no flow for long periods in many years.

Remarks.--Records good except those for periods of backwater from Mackay Reservoir and those below 10 cfs, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation. See page 99 for sum of surface inflow to Mackay Reservoir. Zollinger ditch which bypasses station was reported not flowing Oct. 8, Nov. 9, Dec. 10, Jan. 26, Mar. 14, Apr. 9, May 7, June 4, July 19, Aug. 20, Sept. 24.

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

Revisions (water years).--WSP 1287: 1919-21.

Rating tables, water year 1956-57, except periods of ice effect or backwater from Mackay Reservoir (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 31 to June 2)

Oct. 1 to June 5				July 22 to Sept. 30	
2.5	0	3.6	70	3.5	7
2.6	1	3.9	124	3.6	14
2.7	3	4.3	240	3.8	37
2.8	6	4.6	390	4.1	91
3.0	16	5.0	750	4.4	177
3.3	37	5.4	1,350	4.7	345

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	a7	a2			0	a1	2	621	550	113	27
2	8	a6	2			0	a1	2	750	550	105	24
3	8	a6	a2			0	a1	2	898	530	93	24
4	8	5	a2			0	a1	2	*1,110	500	83	22
5	8	5	a2			0	a1	2	1,210	420	65	20
6	8	5	a2			0	a1	2	1,200	380	57	18
7	8	5	a1			0	a1	*1	1,120	350	54	16
8	*8	4	a1			0	a1	1	977	330	52	14
9	9	*4	b1			0	*1	2	951	320	50	16
10	10	4	*1			0	1	60	863	318	50	16
11	10	4	a2			0	2	109	764	331	48	14
12	10	4	a2			0	2	151	616	357	43	14
13	9	4	a2	(*)		0	2	196	488	302	42	13
14	9	4	a2			*0	2	252	440	280	37	14
15	9	3	1			0	2	280	400	322	33	14
16	9	3	a1			0	2	305	370	288	32	16
17	8	3	a1			0	2	305	360	270	31	14
18	8	3	a1			0	2	336	360	265	31	16
19	8	3	a1			0	2	468	360	*260	28	16
20	8	3	a1			0	2	511	390	246	*26	16
21	8	2	a1			0	2	432	410	280	28	16
22	8	2	a1			0	2	354	420	264	31	14
23	8	2	b1			0	2	a320	430	264	30	13
24	8	2	a1			0	2	a280	430	258	28	*13
25	8	2	a1			0	2	a260	460	220	28	13
26	8	2	a1	(*)		a1	2	248	480	186	26	13
27	8	2	a1			a1	2	305	490	163	24	13
28	8	2	a1			a1	2	384	500	153	24	12
29	7	2	a1		-	a1	2	410	540	143	24	13
30	8	2	b1		-------	a1	2	495	540	135	31	12
31	7	-------	a1		-------	a1	-------	536	-------	126	28	-------
Total	257	105	41	0	0	6	50	7,013	18,948	9,361	1,375	476
Mean	8.3	3.5	1.3	0	0	0.2	1.7	226	63.2	30.2	44.4	15.9
Ac-ft	510	208	81	0	10	12	99	13,910	37,580	18,570	2,730	944

Calendar year 1956: Max 1,310 Min 0 Mean 138 Ac-ft 100,300
Water year 1956-57: Max 1,210 Min 0 Mean 103 Ac-ft 74,640

* 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.
Note.--Stage-discharge relation affected by backwater from Mackay Reservoir May 28-30, June 6 to July 21.

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

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

Records available.--May 1919 to September 1957.

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.--38 years, 58.6 cfs (42,420 acre-ft per year).

Extremes.--Maximum discharge during year, 770 cfs June 5; maximum gage height, 5.61 ft July 2 (backwater from Mackay Reservoir); minimum discharge, 7.2 cfs Jan. 27 (gage height, 1.91 ft).

1919-57: Maximum discharge, 1,200 cfs (estimated) about June 12, 1921 (gage height, 4.45 ft, from floodmark, site and datum then in use); maximum gage height, that of July 2, 1957; minimum discharge, 3.8 cfs Mar. 9, 1956 (gage height, 1.73 ft).

Remarks.--Records good except those for periods of backwater from Mackay Reservoir, which are fair. Diversions above station for irrigation. See page 99 for sum of surface inflow to Mackay Reservoir.

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

Rating table, water year 1956-57, except periods of backwater from Mackay Reservoir (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 23 to May 25, July 24 to Sept. 30)

1.8	6.0	3.0	160
1.9	9.0	3.5	270
2.0	13	4.0	425
2.1	18	4.5	640
2.3	35	5.0	905
2.5	64		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	13	12	9.8	8.4	8.1	8.7	8.1	251	439	25	25
2	16	13	11	9.4	8.4	8.1	8.7	8.1	341	436	24	23
3	16	13	11	9.0	8.4	8.1	8.7	8.1	497	350	24	23
4	16	13	11	9.0	8.4	8.1	8.7	8.4	*645	193	23	23
5	16	13	11	9.0	8.4	8.1	8.7	8.4	727	168	23	22
6	16	13	11	9.0	8.4	8.1	8.7	8.4	703	172	23	22
7	16	13	11	8.7	8.4	8.1	8.7	*8.1	682	163	25	21
8	*16	13	11	8.7	8.4	8.1	8.7	8.1	619	154	25	20
9	17	*13	11	8.7	8.1	8.4	*8.7	8.4	620	122	24	20
10	17	13	*11	8.7	8.1	8.1	8.7	9.0	571	120	24	20
11	17	13	11	8.7	7.8	8.4	8.7	11	455	115	23	20
12	17	13	11	8.7	7.8	8.4	8.7	12	377	100	23	20
13	17	13	11	8.7	7.8	8.4	8.7	13	369	90	22	20
14	16	13	11	8.7	7.8	*8.4	8.7	18	334	80	22	20
15	16	12	11	8.7	7.8	8.4	8.7	24	310	75	22	20
16	16	12	11	8.7	7.8	8.4	8.7	28	253	65	21	19
17	15	12	11	8.7	8.1	8.4	9.0	32	236	40	21	19
18	15	12	11	8.7	8.4	8.4	9.0	38	251	*37	21	20
19	15	12	11	8.7	8.4	8.4	9.0	62	288	35	21	20
20	15	12	11	8.7	8.4	8.4	9.0	110	350	35	*20	20
21	15	12	10	9.0	8.4	8.4	9.4	92	352	40	22	19
22	15	11	10	9.0	8.4	8.4	9.4	71	341	50	25	18
23	15	12	9.8	8.7	8.4	8.4	8.7	59	344	52	24	18
24	15	12	9.8	8.7	8.4	8.4	8.7	50	333	45	22	*18
25	15	12	9.8	8.7	8.4	8.4	8.4	43	394	42	21	18
26	15	12	9.8	*8.7	8.4	8.4	8.4	39	408	35	20	18
27	15	12	9.8	8.1	8.1	8.4	8.4	68	393	31	20	18
28	14	12	9.8	8.7	8.1	8.7	8.4	133	382	30	21	18
29	13	12	9.8	8.4	-	8.7	8.4	142	433	28	22	18
30	14	12	9.8	8.4	-------	8.7	8.1	174	406	27	28	18
31	14	-------	9.8	8.4	-------	8.7	-------	199	-------	26	26	-------
Total	481	373	329.2	271.8	230.1	258.9	261.5	1,501.1	12,665	3,395	707	598
Mean	15.5	12.4	10.6	8.77	8.22	8.35	8.72	48.4	422	110	22.8	19.9
Ac-ft	954	740	653	539	456	514	519	2,980	25,120	6,730	1,400	1,190

Calendar year 1956: Max 713 Min 4.0 Mean 63.1 Ac-ft 45,780
Water year 1956-57: Max 727 Min 7.8 Mean 57.7 Ac-ft 41,800

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by backwater from Mackay Reservoir May 26 to June 2, June 5 to July 23.

Warm Spring Creek (east channel) near Mackay, Idaho

Location.--Lat 43°58'10", long 113°44'30", in NW¼ sec. 4, T. 7 N., R. 23 E., on left bank 700 ft upstream from confluence with west channel and 7½ miles northwest of Mackay.

Records available.--May 1919 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 6,064.60 ft above mean sea level, unadjusted. Prior to May 3, 1920, staff gage at site 100 ft downstream at different datum. May 3, 1920, to Dec. 2, 1938, staff gage at site 200 ft downstream at datum 0.26 ft lower. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--38 years, 31.2 cfs (22,590 acre-ft per year).

Extremes.--Maximum discharge during year, 278 cfs June 6 (gage height, 4.27 ft); minimum, 30 cfs May 8; minimum gage height, 1.90 ft Aug. 18.
1919-57: Maximum discharge, that of June 6, 1957; minimum, 5.2 cfs Apr. 16, 1955 (gage height, 1.35 ft).

Remarks.--Records good. Major portion of flow is return from irrigation, seepage from river channel upstream, and discharge of large spring. See page 99 for sum of surface inflow to Mackay Reservoir.

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

Rating table, water year 1956-57, except period of backwater from Mackay Reservoir (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 3-11, July 22 to Sept. 30)

1.9	28	3.5	157
2.0	34	4.0	207
2.5	70	4.6	277
3.0	110		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	56	51	a49	a49	48	45	32	131	123	44	45
2	48	55	52	a49	a49	47	45	32	141	124	44	44
3	48	54	51	a49	49	48	45	32	188	103	43	44
4	49	54	51	a49	a49	47	44	33	236	97	43	44
5	49	54	52	a49	a49	47	44	33	*268	91	42	44
6	50	55	52	49	a49	47	45	32	276	81	42	44
7	51	54	a52	a49	a48	47	44	*32	276	85	43	44
8	*52	54	a52	a49	a48	47	45	31	267	87	42	46
9	54	*54	a52	a49	a48	48	*44	32	258	88	42	45
10	55	54	*52	a49	48	47	44	34	233	87	40	46
11	56	54	52	a49	a48	48	44	40	187	87	40	46
12	56	54	51	a49	a48	47	44	42	155	83	40	45
13	56	54	51	49	a49	47	42	44	145	83	40	44
14	56	54	52	a49	49	*46	43	52	127	78	40	44
15	56	54	52	a49	49	46	42	57	105	66	40	44
16	56	54	51	a49	49	46	42	60	102	61	39	45
17	55	54	51	a49	49	46	42	63	89	62	39	45
18	55	54	51	a49	49	46	42	66	79	*52	38	45
19	56	54	51	a49	49	46	42	80	76	42	39	46
20	55	53	51	49	49	46	42	100	83	46	*39	46
21	55	53	51	a49	48	46	43	97	93	57	43	47
22	56	53	a51	a49	48	47	42	89	87	54	45	45
23	56	52	51	a49	49	46	40	84	73	50	44	45
24	56	52	50	a49	49	46	40	80	71	51	42	*46
25	56	52	50	a49	48	45	39	78	80	49	41	46
26	56	52	a50	*49	48	46	38	76	86	46	40	47
27	58	52	a50	49	48	47	36	80	89	44	40	47
28	57	51	50	a49	48	47	33	92	87	44	41	47
29	56	51	49	a49	-	46	33	104	90	44	42	47
30	56	51	49	a49	-------	46	33	110	103	44	48	47
31	56	-------	49	a49	-------	45	-------	118	-------	44	46	-------
Total	1,679	1,602	1,580	1,519	1,360	1,444	1,247	1,935	4,281	2,153	1,291	1,360
Mean	54.2	53.4	51.0	49.0	48.6	46.6	41.6	62.4	143	69.5	41.6	45.3
Ac-ft	3,330	3,180	3,130	3,010	2,700	2,860	2,470	3,840	8,490	4,270	2,560	2,700

Calendar year 1956: Max 216 Min 12 Mean 50.0 Ac-ft 36,340
Water year 1956-57: Max 276 Min 31 Mean 58.8 Ac-ft 42,540

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for Warm Springs Creek (west channel) and records for other stations above Mackay Reservoir.

Warm Spring Creek (west channel) near Mackay, Idaho

Location.--Lat 43°58'00", long 113°44'30", in NW¼ sec. 4, T. 7 N., R. 23 E., on right bank 500 ft upstream from confluence with east channel and 7½ miles northwest of Mackay.

Records available.--May 1919 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 6,064.46 ft above mean sea level, unadjusted. Prior to May 4, 1920, at datum 0.54 ft lower. May 4, 1920, to Dec. 2, 1938, at datum 0.46 ft higher. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--38 years, 96.0 cfs (69,500 acre-ft per year).

Extremes.--Maximum discharge during year, 346 cfs June 5, 6; maximum gage height, 3.82 ft July 2; minimum discharge, 60 cfs May 7, 8, 9 (gage height, 1.34 ft).
1919-57: 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 or backwater from Mackay Reservoir, which are good. Major portion of flow is return flow from irrigation, seepage from river channel upstream, and discharge of large spring. See following page for sum of surface inflow to Mackay Reservoir.

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	96	90	89	84	83	89	63	166	188	81	88
2	99	96	90	89	84	83	89	63	180	190	81	87
3	99	96	92	90	83	83	90	63	229	167	81	87
4	100	96	92	89	84	83	90	63	286	150	82	87
5	101	94	92	a89	84	83	90	63	*328	141	82	87
6	101	94	90	89	84	82	90	62	340	127	81	87
7	102	94	90	89	84	82	90	*62	330	142	83	86
8	*102	94	90	90	84	82	90	60	309	149	83	93
9	106	*93	92	89	84	83	*90	61	306	150	83	92
10	107	94	*92	89	84	82	88	63	289	155	83	93
11	108	94	92	a88	84	82	89	68	249	147	82	93
12	107	94	90	a88	83	82	88	70	216	140	82	93
13	105	94	90	88	82	82	88	71	208	145	81	93
14	105	93	90	88	84	*82	87	78	185	142	81	92
15	106	93	90	89	84	82	84	84	157	117	81	92
16	105	93	90	89	83	82	86	87	155	106	81	92
17	104	93	90	a89	83	83	84	89	135	108	81	93
18	104	93	92	a89	83	83	83	93	120	*96	81	93
19	104	92	92	a89	83	83	83	112	116	85	81	93
20	102	92	92	89	83	84	83	129	127	90	*82	a93
21	102	93	a92	a89	83	84	83	122	145	95	88	a93
22	101	93	a92	a89	83	84	80	111	132	104	88	93
23	100	93	92	a89	84	84	78	105	113	101	86	a93
24	99	93	90	a89	82	86	76	101	106	96	84	*93
25	99	93	90	a89	83	86	75	100	116	95	83	94
26	98	93	89	*89	83	86	74	99	126	90	83	94
27	100	93	89	a88	83	88	70	107	128	87	84	94
28	100	92	89	87	83	88	64	123	131	87	84	94
29	99	92	89	86	--	88	63	136	137	87	86	94
30	100	90	89	86	-------	89	63	150	151	84	92	95
31	98	-------	89	85	-------	89	-------	160	-------	82	89	-------
Total	3,162	2,803	2,808	2,744	2,335	2,603	2,477	2,818	5,716	3,743	2,580	2,751
Mean	102	93.4	90.6	88.5	83.4	84.0	82.6	90.9	191	121	83.2	91.7
Ac-ft	6,270	5,560	5,570	5,440	4,630	5,160	4,910	5,590	11,340	7,420	5,120	5,460

Calendar year 1956: Max 323 Min 84 Mean 122 Ac-ft 88,770
Water year 1956-57: Max 340 Min 60 Mean 100 Ac-ft 72,470

* 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.
Note.--Backwater from Mackay Reservoir May 27-31, June 6 to July 22.

Surface inflow to Mackay Reservoir, near Mackay, Idaho

Drainage area.--766 sq mi.

Records available.--May 1919 to September 1957. Prior to October 1952, published with records of Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho.

Average discharge.--38 years, 258 cfs (186,800 acre-ft per year).

Extremes.--1919-57: Maximum daily discharge, 2,760 cfs June 12, 1921; minimum daily, 75 cfs May 10-12, 1935.

Remarks.--Records good except those for periods of no discharge record for Big Lost River, east and west channels, which are fair. 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	171	172	155	148	141	139	144	105	1,170	1,300	263	185
2	171	170	155	147	141	138	144	105	1,410	1,300	254	178
3	171	169	156	148	140	139	145	105	1,810	1,150	241	178
4	173	168	156	147	141	138	144	106	2,280	940	231	176
5	174	166	157	147	141	138	144	106	2,530	820	212	173
6	175	167	155	147	141	137	145	104	2,520	760	203	171
7	177	166	154	147	140	137	144	103	2,410	740	205	167
8	178	165	154	148	140	137	145	100	2,170	720	202	173
9	186	164	156	147	140	139	144	103	2,140	680	199	173
10	189	165	156	147	140	137	142	166	1,960	680	197	175
11	191	165	157	146	140	138	144	228	1,660	680	193	173
12	190	165	154	146	139	137	143	275	1,360	680	188	172
13	187	165	154	146	139	137	141	324	1,210	620	185	170
14	186	164	155	146	141	136	141	400	1,080	580	180	170
15	187	162	154	147	141	136	137	445	972	580	176	170
16	186	162	153	147	140	136	139	480	880	520	173	172
17	182	162	153	147	140	137	137	489	820	480	172	171
18	182	162	155	147	140	137	136	533	810	450	171	174
19	183	161	155	147	140	137	136	722	840	422	169	175
20	180	160	155	147	140	138	136	850	950	417	167	175
21	180	160	154	147	139	138	137	743	1,000	472	181	175
22	180	159	154	147	139	139	133	625	980	472	189	170
23	179	159	154	147	141	138	129	568	960	467	184	169
24	178	159	151	147	139	140	127	511	940	450	176	170
25	178	159	151	147	139	139	124	481	1,050	406	173	171
26	177	159	150	147	139	141	122	462	1,100	357	169	172
27	181	159	150	145	139	144	116	560	1,100	325	168	172
28	179	157	150	145	139	145	107	732	1,100	314	170	171
29	175	157	149	143	-	144	106	792	1,200	302	174	172
30	178	155	149	143	-------	145	106	929	1,200	290	199	172
31	175	-------	149	142	-------	144	-------	1,010	-------	278	189	-------
Total	5,579	4,883	4,760	4,539	3,919	4,305	4,038	13,262	41,612	18,652	5,953	5,185
Mean	180	163	154	146	140	139	135	428	1,387	602	192	173
Ac-ft	11,070	9,690	9,440	9,000	7,770	8,540	8,010	26,300	82,540	37,000	11,810	10,280

Calendar year 1956: Max 2,500 Min 128 Mean 374 Ac-ft 271,200
Water year 1956-57: Max 2,530 Min 100 Mean 320 Ac-ft 231,450

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 1957.

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, 44,710 acre-ft June 28 (gage height, 66.75 ft); minimum observed, 9,920 acre-ft Oct. 3 (gage height, 31.90 ft).
1919-57: Maximum contents observed, that of June 28, 1957; no available contents during periods in 1919-20, 1924, 1926, 1929, 1931-35; minimum gage height observed, 6.3 ft Aug. 5, 1934.

Remarks.--Reservoir is formed by earth- and rock-fill dam, which was reconstructed in 1917-18; storage impounded by original dam not recorded. Crest of spillway was raised 5 ft in September 1956. Capacity is 44,370 acre-ft between gage heights 7.0 (bottom of outlet tunnel) and 66.5 ft (crest of spillway). Dead storage reported to be about 125 acre-ft. Water is used for irrigation of about 33,000 acres in Big Lost River irrigation district. About 9,000 acres irrigated from Big Lost River and tributaries above reservoir. Considerable seepage around dam because of its porous foundation, but the greater part of this water returns to Big Lost River between reservoir and station below reservoir, near Mackay. Figures given herein represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Water District No. 27.

Capacity table, water year 1956-57 (gage height, in feet, and usable contents, in acre-feet)

30.0	8,730	50.0	24,680
35.0	12,020	55.0	30,020
40.0	15,760	60.0	35,900
45.0	19,940	67.0	45,050

Usable contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,050	15,760	22,330	27,600	31,380	34,080	36,400	37,800	40,540	44,230	29,850	10,910
2	9,980	16,030	22,440	27,710	31,500	34,140	36,460	37,800	39,950	44,300	28,740	11,180
3	9,920	16,350	22,540	27,870	31,610	34,260	36,520	37,800	39,430	44,300	27,600	11,460
4	10,020	16,550	22,910	28,030	31,710	34,320	36,580	37,800	39,500	43,890	26,540	11,600
5	10,050	16,750	23,100	28,140	31,790	34,440	36,640	37,800	40,220	43,350	25,500	11,950
6	10,100	16,960	23,310	28,270	31,900	34,500	36,710	37,800	41,270	43,210	24,480	12,160
7	10,150	17,200	23,490	28,410	32,020	34,560	36,770	37,670	42,140	43,350	23,290	12,380
8	10,250	17,410	23,690	28,520	32,080	34,680	36,830	37,420	42,340	43,620	22,140	12,560
9	10,310	17,610	23,880	28,690	32,190	34,740	36,890	37,140	41,600	43,890	21,210	12,880
10	10,410	17,860	24,030	28,850	32,310	34,800	36,950	36,890	41,270	44,030	20,300	13,030
11	10,540	18,200	24,180	28,960	32,370	34,920	37,020	36,640	41,530	44,030	19,500	13,320
12	10,710	18,370	24,380	29,130	32,480	34,990	37,080	36,950	42,140	44,100	18,630	13,400
13	10,910	18,580	24,580	29,180	32,540	35,050	37,140	37,020	42,610	44,030	17,950	13,510
14	11,150	18,800	24,730	29,350	32,660	35,170	37,200	37,390	43,420	43,960	17,280	13,540
15	11,320	19,060	24,890	29,460	32,780	35,230	37,240	37,270	43,960	43,960	16,390	13,580
16	11,530	19,320	25,090	29,570	32,840	35,290	37,270	37,020	43,960	43,890	15,600	13,690
17	11,740	19,450	25,300	29,680	32,890	35,350	37,290	36,770	43,960	43,620	14,750	13,770
18	12,090	19,580	25,400	29,800	33,010	35,410	37,390	36,460	43,820	43,350	13,990	13,840
19	12,380	19,760	25,550	29,960	33,070	35,470	37,420	36,640	43,690	43,150	13,320	13,920
20	12,670	20,120	25,760	30,080	33,190	35,530	37,470	37,140	43,760	42,880	12,600	13,990
21	12,960	20,340	25,910	30,220	33,310	35,660	37,520	37,900	43,960	41,770	11,880	14,070
22	13,180	20,520	26,120	30,270	33,370	35,720	37,640	38,660	44,230	41,270	11,320	14,220
23	13,470	20,750	26,220	30,380	33,540	35,780	37,710	38,400	44,440	40,480	11,050	14,370
24	13,770	20,930	26,330	30,530	33,600	35,840	37,730	38,400	44,500	39,430	10,840	14,520
25	13,990	21,210	26,540	30,640	33,720	35,900	37,730	39,240	44,500	38,400	10,840	14,710
26	14,220	21,390	26,700	30,760	33,780	35,960	37,760	39,820	44,530	36,890	10,910	14,820
27	14,520	21,580	26,800	30,870	33,900	36,020	37,770	40,610	44,560	34,800	10,950	14,860
28	14,750	21,760	26,980	30,950	33,960	36,110	37,800	41,600	44,710	33,960	10,950	15,060
29	14,980	21,950	27,180	31,100	-	36,210	37,800	42,070	44,640	33,190	10,780	15,210
30	15,250	22,140	27,280	31,150	-------	36,270	37,800	41,530	44,570	32,080	10,780	15,360
31	15,520	-------	27,410	31,270	-------	36,330	-------	40,800	-------	30,980	10,710	-------
(†)	39.88	47.51	52.72	56.16	58.46	60.38	61.52	63.73	66.48	55.24	33.29	39.60
(‡)	+5,570	+6,590	+5,270	+3,820	+2,690	+2,340	+1,430	+2,850	+3,690	-14,050	-19,450	+4,600

Calendar year 1956..... ‡ +12,730
Water year 1956-57..... ‡ +5,350

† Gage height, in feet, interpolated to midnight, at end of month.
‡ Change in contents, in acre-feet.
Note.--Daily contents as given are computed from once-daily staff-gage readings usually made between 8 and 10 a.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 1957 (seasonal records only 1912-14, 1919-20, 1923-26, 1930, 1937).

Gage.--Water-stage recorder and sharp-crested weir. Datum of gage is 5,989.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1936, and June 24, 1938, to Apr. 24, 1939, staff gage and Oct. 1, 1936, to June 23, 1938, water-stage recorder, at several sites 1,300 to 1,600 ft upstream at various datums.

Extremes.--1912-14, 1919-57: Maximum daily discharge, 46 cfs May 30, 1951; no flow at times most years.

Remarks.--Records excellent except those Nov. 12 to Apr. 7, 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 219 acre-ft during year (52 in June, 103 in July, 52 in August, and 12 in September).

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

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	1.3	0.5					0	5.8	33	24	8.0
2	4.0	1.3	.5					0	7.6	33	22	6.4
3	4.6	1.3	.5					0	10	34	21	6.2
4	3.7	1.3	.5				0.1	0	*15	33	20	5.2
5	4.2	1.2	.5					0	21	32	20	5.5
6	4.2	1.1	.4		0.1			0	26	29	21	5.0
7	4.2	1.1	.4	0.2				*0	29	33	22	5.0
8	5.2	*1.1	.4				*.2	.1	30	33	22	5.2
9	6.2	1.1	b.4				.2	.1	30	33	24	10
10	*6.2	1.1	*.4				.2	.1	26	29	24	15
11	6.0	1.3					.2	.1	26	25	24	15
12	5.7	1.3					.2	0	27	24	25	16
13	3.6	1.3					.2	.1	26	22	27	21
14	2.3	1.3				(*)	.3	0	26	22	27	28
15	2.2	1.2					.7	.1	26	24	29	31
16	1.6	1.2	.4				.7	.1	26	25	21	31
17	.8	1.2					.8	.1	25	23	18	31
18	1.9	1.2					.8	0	25	21	19	27
19	3.7	1.2					.8	0	24	*21	*18	22
20	2.6	1.2			0		.8	0	29	20	18	22
21	1.0	1.2		.1			.5	0	27	18	19	21
22	1.6	1.3					.4	0	21	18	20	19
23	2.0	1.3					0	0	21	21	18	19
24	.8	1.3					0	0	24	23	16	*18
25	.9	1.3					0	0	27	23	16	18
26	.8	.9	.3				0	0	27	25	15	18
27	.8	.5		**.1			0	0	29	27	18	17
28	.8	.5					0	1.6	33	26	21	17
29	.8	.5			-		0	3.3	34	27	21	17
30	1.2	.5		.1	-------		0	3.7	33	29	21	18
31	1.3	-------			-------		-------	3.7	-------	25	15	-------
Total	88.8	33.6	11.9	4.5	1.1	0	7.7	13.1	736.4	811	646	497.5
Mean	2.86	1.12	0.38	0.15	0.04	0	0.26	0.42	24.5	26.2	20.8	16.6
Ac-ft	176	67	24	8.9	2.2	0	15	26	1,460	1,610	1,280	987

Calendar year 1956: Max 34 Min - Mean 8.94 Ac-ft 6,490
Water year 1956-57: Max 34 Min 0 Mean 7.81 Ac-ft 5,660

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

Note.--No gage-height record Nov. 12-17, 19-24, Nov. 26 to Dec. 1, Dec. 3-8, Dec. 11 to Mar. 13, Mar. 15-26, Mar. 29 to Apr. 7; discharge interpolated or estimated on basis of 4 discharge measurements, weather records, 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 1957.

Gage.--Water-stage recorder. Datum of gage is 5,946.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to May 12, 1912, and June 5, 1912, to Apr. 28, 1913, staff gages at sites within 1 mile upstream at different datums. May 12 to June 4, 1912, staff gages at site 1½ miles upstream (above Sharp ditch) at different datums. Apr. 29, 1913, to Mar. 15, 1915, staff gage at site 1 mile downstream (below Streeter ditch) at different datum.

Average discharge.--41 years (1904-5, 1912-14, 1919-57), 280 cfs (202,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,400 cfs June 8 (gage height, 5.55 ft); minimum, 55 cfs Nov. 3 (gage height, 1.46 ft).
1903-6, 1912-15, 1919-57: 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. 100).

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

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 14 to Nov. 11)

1.6	60	3.0	610
1.8	100	4.0	1,250
2.1	194	5.5	2,360
2.5	350		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	259	80	82	96	a108	117	122	128	1,600	1,190	820	125
2	236	76	82	96	a108	117	122	128	1,790	1,230	808	108
3	204	69	82	96	108	117	122	128	*1,890	1,310	808	87
4	191	73	82	96	a108	117	122	128	2,000	1,260	814	87
5	174	73	82	98	a110	120	122	128	2,080	1,070	808	87
6	167	73	85	98	a110	120	122	160	2,130	832	814	89
7	167	73	85	98	a110	120	122	*194	2,260	712	802	89
8	167	73	85	98	a110	122	*122	233	2,350	594	772	89
9	167	*73	85	100	a110	122	122	262	2,310	616	724	87
10	*167	73	*85	100	111	122	122	262	1,910	682	700	87
11	160	73	85	103	a112	122	122	262	1,420	706	628	120
12	138	a73	85	103	a112	122	122	262	1,040	712	572	150
13	131	a74	85	103	a112	122	122	a280	945	700	566	150
14	117	a74	85	103	a112	*122	122	380	945	682	594	144
15	106	74	87	103	a112	122	122	522	959	664	646	141
16	85	74	87	103	a114	122	125	622	980	640	652	141
17	76	74	87	103	a114	122	122	616	959	640	628	144
18	74	74	87	106	a114	122	125	566	898	640	577	144
19	74	74	89	106	a114	122	125	456	790	*640	*560	147
20	74	74	89	106	a114	122	125	456	766	640	544	141
21	78	74	89	106	a116	122	125	456	772	670	516	134
22	78	74	89	106	a116	122	125	578	796	754	440	125
23	78	76	89	106	a116	122	128	652	856	850	364	125
24	80	78	89	108	a116	122	128	300	874	886	298	*125
25	80	80	89	108	117	122	125	157	931	910	218	125
26	80	80	91	108	117	122	125	201	952	917	204	125
27	80	80	91	*108	117	122	125	177	966	924	204	120
28	80	80	93	a108	117	122	125	254	1,070	966	233	117
29	80	80	96	a108	-	122	125	917	1,180	945	270	117
30	80	80	96	a108	-------	122	125	1,220	1,170	880	278	114
31	80	-------	96	a108	-------	122	-------	1,330	-------	832	196	-------
Total	3,808	2,256	2,709	3,197	3,155	3,756	3,708	12,415	39,589	25,694	17,058	3,584
Mean	123	75.2	87.4	103	113	121	124	400	1,320	829	550	119
Ac-ft	7,550	4,470	5,370	6,340	6,260	7,450	7,350	24,620	78,520	50,960	33,830	7,110

Calendar year 1956: Max 2,500 Min 69 Mean 380 Ac-ft 276,100
Water year 1956-57: Max 2,350 Min 69 Mean 331 Ac-ft 239,800

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

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 5,240 ft (by barometer). Prior to Oct. 14, 1952, at site 800 ft upstream at datum 3.08 ft higher.

Average discharge.--11 years, 63.9 cfs (46,260 acre-ft per year).

Extremes.--Maximum discharge during year, 909 cfs June 11 (gage height, 6.07 ft); minimum, 20 cfs Oct. 2 (gage height, 2.82 ft), but may have been less during period of ice effect.

1946-57: Maximum discharge, 1,050 cfs Mar. 23, 1956 (gage height, 6.32 ft); minimum, 0.4 cfs June 1, 2, 1955 (gage height, 2.10 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Station is below all large diversions for irrigation in Big Lost River Valley. Flow regulated by Mackay Reservoir (see p. 100). About 42,000 acres of land irrigated by diversions from river and tributaries above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.8	18	4.5	258
3.0	29	5.0	415
3.2	43	5.5	615
3.5	75	6.2	980
4.0	153		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*24	83	59	49	30	46	40	27	642	144	39	96
2	22	76	59	48	35	46	39	27	685	182	36	120
3	22	75	59	47	33	45	39	26	715	220	36	108
4	24	75	59	45	32	46	38	28	745	233	36	101
5	27	79	61	43	37	44	38	27	*790	237	*33	95
6	27	79	60	45	36	42	39	25	800	220	32	85
7	27	76	58	46	34	*43	40	25	780	157	30	83
8	27	74	54	47	37	45	*38	27	765	113	30	75
9	28	76	53	42	36	46	38	28	785	84	27	*62
10	31	75	52	41	34	45	37	30	848	56	27	56
11	36	74	51	45	38	44	38	39	892	52	27	46
12	41	*73	*50	49	38	46	39	55	775	48	27	33
13	47	71	51	48	36	45	38	79	454	55	27	34
14	54	64	53	45	38	44	38	112	261	62	25	45
15	48	62	54	40	40	43	36	146	202	64	25	49
16	43	64	55	35	39	43	34	178	184	56	25	52
17	46	69	55	30	38	42	32	233	176	*50	28	56
18	50	69	54	28	35	42	33	287	170	48	25	56
19	61	60	53	29	39	42	37	359	142	48	26	63
20	62	55	52	30	43	42	39	398	104	58	24	64
21	61	54	53	27	41	42	40	429	85	67	25	62
22	62	55	50	*25	45	42	38	443	73	65	28	60
23	59	55	52	23	45	42	36	443	68	58	29	60
24	56	58	52	22	45	42	34	502	69	50	30	64
25	60	58	52	22	45	42	34	478	69	42	29	61
26	61	58	52	22	45	41	34	339	80	43	28	60
27	68	59	52	22	44	39	33	293	91	42	27	55
28	68	59	52	22	45	39	31	287	82	41	24	48
29	64	59	52	22	-	39	28	279	80	39	27	35
30	73	58	51	22	-------	39	*28	387	104	40	32	32
31	84	-------	50	27	-------	39	-------	526	-------	42	42	-------
Total	1,463	2,002	1,670	1,088	1,083	1,327	1,086	6,562	11,716	2,716	906	1,916
Mean	47.2	66.7	53.9	35.1	38.7	42.8	36.2	212	391	87.6	29.2	63.9
Ac-ft	2,900	3,970	3,310	2,160	2,150	2,630	2,150	13,020	23,240	5,390	1,800	3,800

Calendar year 1956: Max 962 Min 4.8 Mean 93.0 Ac-ft 67,510
Water year 1956-57: Max 892 Min 22 Mean 91.9 Ac-ft 66,520

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 19, 20, Dec. 7-11, 19, 20, Dec. 22 to Mar. 3 (no gage-height record Jan. 19-21, Feb. 9-27; discharge estimated on basis of weather records and records 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 1957.

Gage.--Water-stage recorder. Altitude of gage is 3,000 ft (from topographic map).

Average discharge.--6 years, 7.72 cfs (5,590 acre-ft per year).

Extremes.--1951-57: 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 3 cfs and those for periods of no gage-height record, which are fair. Brailsford ditch diverts from Lewis Spring for irrigation.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	a7.5	5.6	7.5	8.0	8.5	0.6	13	12	12	a13	9.8
2	12	a7.5	5.6	8.0	8.0	8.5	1.4	13	12	12	13	9.4
3	12	a7.5	5.6	8.0	8.3	8.5	1.4	13	12	12	13	9.4
4	13	a7.5	5.6	8.0	8.3	8.5	1.4	13	12	12	13	9.1
5	13	a7.5	5.6	8.0	8.0	8.5	1.4	13	12	12	13	9.4
6	13	a7.5	5.8	8.0	8.0	a8.5	1.2	13	12	11	12	11
7	13	*7.5	5.8	8.0	8.0	a8.5	2.3	13	12	11	12	11
8	13	7.5	5.8	8.0	8.0	a8.5	1.1	12	12	11	12	11
9	13	7.5	6.0	8.0	8.0	a8.5	1.0	12	12	11	13	12
10	11	7.5	6.0	8.0	7.8	a8.5	1.8	12	12	11	13	11
11	9.4	7.8	5.8	8.3	7.2	a8.5	8.1	12	12	11	13	11
12	9.4	7.8	5.8	8.3	7.5	a8.8	11	12	12	11	12	11
13	8.3	7.8	5.8	8.0	7.2	a8.8	11	12	12	10	12	11
14	7.8	7.5	5.8	*8.0	7.0	a8.8	11	11	12	10	11	a11
15	7.8	7.0	5.8	8.3	7.8	a8.8	11	11	12	*10	13	a11
16	7.5	6.0	6.0	8.3	8.5	a9.0	12	11	12	10	13	*11
17	7.5	5.0	*6.2	8.3	8.5	a9.0	12	11	12	10	12	11
18	7.5	5.0	6.0	8.3	8.5	a9.0	12	12	12	10	12	11
19	7.5	5.0	5.8	8.5	8.8	a9.0	12	11	12	10	*13	11
20	7.5	5.0	6.0	8.5	8.8	a9.0	12	11	12	10	13	11
21	7.5	5.0	5.6	8.5	8.8	9.1	12	11	12	9.1	13	11
22	7.5	5.0	5.8	8.5	8.8	9.1	12	11	12	8.3	13	11
23	7.5	5.0	5.8	8.5	8.8	9.1	12	11	*12	3.5	12	11
24	7.5	5.2	5.6	8.5	8.8	9.4	12	11	12	a.2	12	11
25	7.5	5.2	5.8	8.5	8.8	9.4	12	11	12	a.2	12	11
26	7.5	5.2	5.8	8.5	8.8	9.1	12	11	10	9.2	a12	11
27	7.5	5.4	7.0	8.5	*8.5	9.4	12	*11	9.3	15	a12	10
28	a7.5	5.2	8.3	8.5	8.5	5.6	12	11	12	14	a11	10
29	a7.5	5.4	8.0	8.3	-	a.2	12	11	12	14	11	10
30	a7.5	5.4	8.0	8.3	-------	a.2	*12	12	12	14	11	10
31	a7.5	-------	8.8	8.3	-------	a.2	-------	12	-------	a13	10	-------
Total	287.7	190.9	190.9	255.2	230.0	244.5	245.7	364	355.3	317.5	380	319.1
Mean	9.28	6.36	6.16	8.23	8.21	7.89	8.19	11.7	11.8	10.2	12.3	10.6
Ac-ft	571	379	379	506	456	485	487	722	705	630	754	633

Calendar year 1956: Max 15 Min 0.4 Mean 8.17 Ac-ft 5,930
Water year 1956-57: Max 15 Min 0.2 Mean 9.26 Ac-ft 6,710

* 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 spring stations.

Riley Creek below Lewis Spring, near Hagerman, Idaho

Location.--Lat 42°45'50", long 114°51'30", in SE¼NW¼ sec. 6, T. 8 S., R. 14 E., on left bank 560 ft downstream from confluence of Riley Creek springs and Lewis Spring, an eighth of a mile downstream from U. S. Fish Hatchery, and 4 miles southeast of Hagerman.

Records available.--June 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,955 ft (from topographic map). Prior to June 17, 1955, at site 1,200 ft downstream at different datum.

Average discharge.--6 years, 63.1 cfs (45,680 acre-ft per year), excluding diversion from Bickel Spring.

Extremes.--1951-57: Maximum daily discharge, 78 cfs Nov. 14, 15, 20-23, 1953; minimum daily, 50 cfs July 7, 21, 22, 29, 30, Oct. 3-5, 1956.

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. Beginning about Aug. 30, 1957, water was diverted from Bickel Spring to Riley Creek above station. Records include the diversion which is estimated to total 10 acre-ft in August and 190 acre-ft in September.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.4	46
1.5	54
1.6	61
1.7	69

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	60	62	59	59	56	*66	56	56	56	54	61
2	51	59	62	59	59	56	66	56	56	56	55	60
3	50	59	62	59	58	56	66	56	55	57	55	62
4	50	59	63	58	58	56	67	56	55	57	55	63
5	50	59	63	58	59	56	67	56	56	57	56	62
6	51	59	63	58	59	56	67	56	55	57	56	58
7	52	*59	63	58	59	57	67	56	55	56	56	57
8	52	60	63	59	59	57	67	56	56	56	56	59
9	52	60	63	59	59	57	65	56	55	56	56	60
10	54	60	63	59	59	57	64	56	55	56	57	61
11	56	60	63	59	58	57	59	56	54	56	56	63
12	56	60	63	59	58	57	56	56	54	56	56	63
13	56	61	63	60	57	57	56	56	54	56	56	63
14	58	61	63	*59	57	57	56	56	55	56	58	63
15	58	61	63	60	56	57	56	56	55	*56	56	63
16	58	62	63	60	56	58	56	56	56	56	56	*63
17	59	63	*63	60	56	57	55	56	55	56	56	64
18	60	63	63	60	56	56	56	56	54	56	56	65
19	60	63	63	60	56	56	56	56	54	56	*56	66
20	60	63	63	60	56	56	56	57	54	56	55	67
21	60	63	63	60	56	56	56	58	54	56	55	67
22	60	63	62	59	56	56	56	58	54	56	55	67
23	60	63	62	59	56	56	56	59	*54	60	55	67
24	60	62	62	59	56	56	56	58	54	63	55	64
25	60	61	63	59	56	57	56	58	54	63	55	64
26	60	61	62	60	56	57	56	58	55	56	55	65
27	60	61	60	60	*56	57	56	*58	56	53	55	66
28	60	61	59	59	56	61	56	58	55	54	55	65
29	60	62	59	59	-	66	56	57	55	54	56	61
30	60	62	59	59	-------	66	*56	56	55	54	59	63
31	60	-------	59	59	-------	67	-------	56	-------	54	59	-------
Total	1,754	1,830	1,927	1,835	1,602	1,787	1,784	1,755	1,645	1,747	1,731	1,892
Mean	56.6	61.0	62.2	59.2	57.2	57.6	59.5	56.6	54.8	56.4	55.8	63.1
Ac-ft	3,480	3,630	3,820	3,640	3,180	3,540	3,540	3,480	3,260	3,470	3,430	3,750

Calendar year 1956: Max 65 Min 50 Mean 57.7 Ac-ft 41,880
Water year 1956-57: Max 67 Min 50 Mean 58.3 Ac-ft 42,220

* Discharge measurement made on this day.

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 1957. Monthly discharge only for October 1937, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,727.7 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, by stadia levels. Prior to Jan. 3, 1950, at site 340 ft upstream at same datum.

Extremes.--Maximum discharge during year, 29,100 cfs May 22 (gage height, 15.06 ft); minimum, 957 cfs May 4 (gage height, 3.03 ft); minimum daily, 5,920 cfs July 2.
1937-57: 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 except those for period of no gage-height record, which are good. Flow regulated by Lower Salmon Falls powerplant and many reservoirs above station. At times practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

6.4	5,720	10.0	14,000
7.0	6,920	12.0	19,600
8.0	9,130	15.0	28,900

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,770	8,790	8,900	8,630	10,700	8,940	14,600	8,540	13,600	6,040	6,940	7,460
2	7,870	9,600	9,000	9,430	10,600	8,920	14,600	8,320	13,000	5,920	7,050	7,600
3	8,320	9,400	8,900	9,740	10,000	8,250	15,200	8,000	12,800	6,200	7,260	7,620
4	8,420	9,000	8,840	9,780	8,970	9,030	13,100	9,770	11,700	6,470	6,950	7,400
5	8,120	9,370	8,980	10,000	8,400	9,380	13,200	9,290	9,570	6,290	7,130	7,610
6	8,640	10,200	*8,880	10,200	8,180	9,020	12,100	9,740	7,570	6,040	7,080	7,380
7	8,120	*9,080	8,770	10,100	8,000	9,430	11,400	8,250	7,190	6,480	7,040	7,520
8	9,980	9,560	8,380	9,970	8,570	10,800	11,000	9,160	6,440	6,560	7,040	7,370
9	9,800	9,500	8,520	9,710	8,410	10,900	10,600	9,820	6,340	6,350	7,160	7,640
10	9,420	9,580	9,240	8,940	8,090	11,100	10,100	9,700	6,660	6,410	6,900	7,530
11	8,580	9,080	8,700	9,090	8,690	12,000	10,900	11,500	7,290	6,480	6,940	7,640
12	10,500	9,360	9,070	9,560	8,750	10,500	11,200	13,400	7,740	6,150	7,120	a7,500
13	12,400	8,910	8,880	9,620	7,610	9,730	10,600	16,200	7,870	6,270	6,880	a8,300
14	12,300	8,630	8,950	9,760	8,380	9,500	10,600	16,000	7,660	6,480	6,990	a7,000
15	11,300	8,120	9,020	9,440	8,500	10,100	10,600	18,900	7,870	*6,340	6,980	a7,900
16	10,800	8,640	8,510	*9,330	8,300	10,100	11,400	19,500	8,160	6,290	6,960	*6,980
17	8,610	8,350	8,750	9,320	8,600	9,780	11,700	18,800	7,780	6,560	7,260	7,630
18	8,690	8,120	9,050	9,060	8,800	10,600	11,900	18,800	7,500	6,640	6,760	7,750
19	9,140	7,780	8,840	9,360	8,240	10,400	11,500	21,800	7,300	6,700	*6,890	7,840
20	9,440	8,090	9,000	8,620	8,440	10,600	11,500	23,500	7,090	6,680	7,120	8,020
21	9,140	8,590	9,270	9,660	8,500	10,000	13,100	24,000	7,020	6,650	7,000	8,080
22	10,100	8,620	8,980	8,630	8,590	10,300	12,500	26,100	7,060	6,660	6,980	8,170
23	9,380	8,940	9,350	8,780	8,790	10,200	12,900	23,900	*6,680	6,700	7,160	8,180
24	10,400	9,060	8,640	8,720	8,530	11,000	11,500	23,600	6,480	6,760	6,900	8,180
25	9,760	8,840	8,720	8,890	8,780	*10,600	12,500	23,500	6,580	6,740	7,160	7,850
26	10,100	8,710	9,280	9,100	8,920	10,700	12,800	23,400	6,490	6,880	6,980	7,900
27	10,500	9,210	8,680	8,400	*6,610	11,500	12,900	22,600	6,400	6,840	7,260	7,540
28	9,580	8,680	8,780	9,160	8,830	12,100	11,200	*19,900	6,290	6,940	7,180	7,680
29	9,500	8,780	8,540	8,580	-	14,100	10,300	17,000	6,560	6,780	7,420	7,740
30	9,110	8,700	8,880	8,570	-------	14,000	*9,620	15,400	6,260	7,020	7,320	7,370
31	9,760	-------	8,910	10,200	-------	13,600	-------	15,500	-------	6,980	7,380	-------
Total	295,550	267,290	275,210	288,350	243,580	327,180	357,120	503,890	236,950	202,300	219,190	230,380
Mean	9,534	8,910	8,878	9,302	8,699	10,550	11,900	16,250	7,898	6,526	7,071	7,679
Ac-ft	586,200	530,200	545,900	571,900	483,100	649,000	708,300	999,500	470,000	401,300	434,800	457,000

Calendar year 1956: Max 26,200 Min 5,720 Mean 10,400 Ac-ft 7,553,000
Water year 1956-57: Max 26,100 Min 5,920 Mean 9,444 Ac-ft 6,837,000

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station at King Hill.

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 1957.

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.--9 years, 173 cfs (125,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,200 cfs probably on June 4 (gage height, 5.55 ft); minimum, 17 cfs Mar. 14 (gage height, 1.83 ft).
1948-57: Maximum discharge, 1,620 cfs May 24, 1956 (gage height, 6.44 ft); minimum recorded, 14 cfs sometime during period Jan. 1-22, 1951 (gage height, 1.52 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, 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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 2 to Sept. 3)

2.0	27	3.5	328
2.2	46	4.0	520
2.5	88	5.0	955
3.0	185	6.0	1,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	67	62	47	50	41	46	393	919	512	132	93
2	74	67	64	48	48	40	47	436	a1,040	472	131	88
3	74	70	68	41	45	57	*50	456	a1,100	424	127	86
4	74	83	*65	37	46	*47	52	*393	a1,150	382	123	83
5	74	88	64	40	45	53	57	374	a1,180	349	121	82
6	74	85	59	43	44	45	59	492	a1,180	342	121	78
7	72	78	39	48	45	51	56	564	a1,100	321	119	77
8	74	74	29	52	48	50	58	592	a1,030	295	116	75
9	75	74	43	53	47	50	64	621	*1,020	*283	114	75
10	86	*74	65	51	41	46	77	645	901	276	112	77
11	119	75	66	52	45	42	78	672	806	267	109	77
12	100	74	71	54	45	51	74	694	775	270	107	77
13	88	74	71	54	47	44	71	775	734	255	105	75
14	83	64	64	53	47	39	83	734	654	244	103	75
15	80	49	51	52	44	52	90	706	582	225	102	75
16	78	83	65	41	42	47	90	681	508	209	102	74
17	77	80	45	39	43	46	93	694	440	202	100	74
18	78	61	62	43	42	46	96	748	412	192	98	*75
19	80	45	47	47	44	46	91	896	432	185	96	78
20	75	52	42	52	53	46	91	757	468	183	95	77
21	75	58	48	51	47	47	95	637	468	174	*95	77
22	74	66	41	47	50	44	98	552	448	170	95	75
23	75	66	44	*b49	50	45	121	492	432	165	93	72
24	74	62	58	b49	46	45	132	460	468	161	91	74
25	74	61	59	b48	42	46	118	456	480	157	90	72
26	78	64	52	b45	51	44	112	500	472	152	90	71
27	78	61	53	b43	51	44	121	582	508	148	88	71
28	62	61	58	b46	44	45	163	654	528	146	90	69
29	61	65	57	b46	-	46	244	718	508	146	93	69
30	78	65	53	b46	-------	47	332	*784	512	142	98	69
31	80	-------	53	b50	-------	48	-------	802	-------	136	96	-------
Total	2,419	2,046	1,718	1,467	1,292	1,440	2,959	18,960	21,255	7,587	3,252	2,290
Mean	78.0	68.2	55.4	47.3	46.1	46.5	98.6	612	708	245	105	76.3
Cfsm	0.569	0.498	0.404	0.345	0.336	0.339	0.720	4.47	5.17	1.79	0.766	0.557
In.	0.66	0.56	0.47	0.40	0.35	0.39	0.80	5.15	5.77	2.06	0.88	0.62
Ac-ft	4,800	4,060	3,410	2,910	2,560	2,860	5,870	37,610	42,160	15,050	6,450	4,540

Calendar year 1956: Max 1,510 Min 31 Mean 228 Cfsm 1.66 In. 22.66 Ac-ft 165,500
Water year 1956-57: Max 1,180 Min 29 Mean 183 Cfsm 1.34 In. 18.11 Ac-ft 132,300

Peak discharge (base, 400 cfs).--Nov. 4 (4:30 p.m.) 428 cfs (3.77 ft), result of release from ice or snow jam upstream; May 19 (1 a.m.) 991 cfs (5.03 ft); probably June 4 (time unknown) 1,200 cfs (5.55 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station at Hailey and for Warm Springs Creek near Ketchum.
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 1957.

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.--16 years (1941-57), 86.2 cfs (62,410 acre-ft per year).

Extremes.--Maximum discharge during year, 635 cfs May 19 (gage height, 3.29 ft); minimum, 14 cfs Jan. 26 (gage height, 0.68 ft).
1940-57: Maximum discharge, 883 cfs May 25, 1956 (gage height, 4.02 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 excellent except those for periods of no gage-height record, which are fair. Diversions above station for irrigation of about 200 acres. Small diversions from Guyer Hot Springs for recreational purposes bypasses station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	20	1.8	171
1.0	37	2.3	301
1.2	61	3.0	536
1.4	93	4.0	876

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	37	36	31	30	30	37	210	492	140	57	49
2	39	37	36	32	29	30	37	220	522	134	56	46
3	38	37	36	28	29	31	*41	230	553	126	54	45
4	39	40	*36	27	29	*31	44	*207	567	120	53	44
5	38	42	36	27	28	32	48	184	560	117	53	44
6	37	42	36	27	28	30	54	243	539	109	52	42
7	37	41	30	30	29	31	51	307	482	104	52	41
8	38	41	25	35	29	31	52	320	431	*102	51	40
9	44	41	36	32	27	32	58	346	390	97	50	41
10	44	*41	38	31	28	31	73	366	359	95	49	41
11	58	42	38	32	28	29	76	407	311	91	48	41
12	52	42	38	33	28	33	70	393	295	90	46	40
13	45	42	36	33	28	29	68	380	277	88	45	40
14	42	37	35	33	27	27	79	373	251	86	45	39
15	41	32	33	31	27	32	83	376	230	83	45	37
16	41	40	36	28	27	31	84	366	210	79	44	34
17	41	41	29	27	27	30	83	359	186	78	44	36
18	41	38	35	28	27	30	91	403	178	76	43	*40
19	42	29	31	31	28	31	76	584	175	74	42	42
20	40	35	32	30	29	33	76	492	180	73	42	41
21	40	38	33	30	29	34	76	393	175	72	*41	40
22	39	38	26	*34	31	33	74	327	167	68	42	39
23	40	38	30	32	32	31	90	286	160	67	45	39
24	39	38	36	31	33	33	98	257	156	66	42	39
25	39	37	34	31	33	34	86	249	154	64	42	38
26	41	37	32	25	33	33	81	268	150	61	41	38
27	44	37	33	26	33	34	83	301	150	60	41	36
28	34	36	35	29	33	35	120	336	150	60	42	33
29	34	37	34	27	-	36	160	373	148	61	47	37
30	42	36	33	27	-------	37	180	*420	144	60	49	39
31	42	-------	32	30	-------	38	-------	448	-------	58	51	-------
Total	1,270	1,149	1,046	928	819	992	2,319	10,424	8,742	2,659	1,454	1,201
Mean	41.0	38.3	33.7	29.9	29.2	32.0	77.3	336	291	85.8	46.9	40.0
Ac-ft	2,520	2,280	2,070	1,840	1,620	1,970	4,600	20,680	17,340	5,270	2,880	2,380

Calendar year 1956: Max 835 Min 23 Mean 117 Ac-ft 84,800
Water year 1956-57: Max 584 Min 25 Mean 90.4 Ac-ft 65,450

Peak discharge (base, 300 cfs).--May 19 (2 to 3 a.m.) 635 cfs (3.29 ft); June 4 (11 p.m.) 587 cfs (3.15 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 27-30, Jan. 11-21, Jan. 31 to Mar. 3, Apr. 24, Apr. 28 to May 3, Aug. 4-20; discharge estimated on basis of recorded range in stage, weather records, and records for nearby streams in Malad River basin.

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 1957.

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, 68 cfs May 1, July 24; maximum gage height, 3.46 ft Jan. 27 (ice jam); minimum discharge, 1.8 cfs Feb. 7 (gage height, 1.48 ft).
1915-57: 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	a17	14	b11	b9.0	*10	17	58	51	54	41	27
2	15	a16	14	9.8	b9.0	10	16	53	53	53	38	24
3	15	a15	14	b9.0	b9.0	12	*17	53	54	46	38	22
4	14	a16	*15	b8.5	b9.0	11	18	*50	54	41	37	20
5	16	a18	15	b8.0	b9.0	12	19	46	52	38	36	20
6	14	a20	15	b8.0	b8.5	10	24	48	52	38	35	19
7	14	a20	b11	b8.5	b9.0	11	23	50	49	36	36	18
8	14	a19	b9.0	b9.5	9.5	11	24	44	40	32	31	17
9	15	a19	b9.5	b9.5	9.0	12	25	42	*35	*31	26	17
10	15	a19	12	b9.0	b8.0	13	27	42	32	29	25	17
11	23	*20	14	b9.5	b8.5	12	30	41	30	28	24	17
12	26	20	15	b10	8.7	13	29	41	40	27	23	16
13	22	20	16	10	9.0	12	28	42	38	26	22	15
14	20	18	14	10	8.7	b10	30	40	32	25	20	15
15	18	15	13	10	8.4	12	33	40	28	23	18	15
16	17	17	14	b9.0	8.1	13	33	40	26	20	17	14
17	17	20	12	b8.0	8.1	12	33	38	31	18	15	14
18	17	17	12	b7.5	8.1	11	32	38	28	16	13	*14
19	17	b12	13	b7.5	8.4	12	35	27	28	16	12	15
20	17	b10	11	b8.0	9.5	12	36	21	31	14	*11	16
21	17	11	b10	b7.5	9.3	13	38	18	31	14	10	15
22	18	12	b9.5	*b7.5	9.5	12	37	17	29	13	12	14
23	18	14	b8.5	b8.0	11	12	40	16	30	10	12	13
24	17	14	10	b8.0	11	14	44	15	37	42	10	13
25	17	14	b11	b8.0	12	16	42	20	39	63	9.9	12
26	19	14	b11	b7.5	12	14	40	42	40	58	10	12
27	20	14	b11	b7.0	12	14	39	44	41	56	10	12
28	18	14	12	b7.5	11	15	44	45	46	53	16	11
29	16	14	12	b7.5	-	16	53	*47	46	52	23	11
30	21	14	11	b7.5	-------	17	61	49	49	49	26	11
31	19	-------	11	b8.5	-------	18	-------	50	-------	45	29	-------
Total	535.3	483	379.5	264.8	262.3	392	967	1,217	1,172	1,066	685.9	476
Mean	17.3	16.1	12.2	8.54	9.37	12.6	32.2	39.3	39.1	34.4	22.1	15.9
Ac-ft	1,060	958	753	525	520	778	1,920	2,410	2,320	2,110	1,360	944

Calendar year 1956: Max 72 Min 5.0 Mean 19.1 Ac-ft 13,860
Water year 1956-57: Max 63 Min 7.0 Mean 21.6 Ac-ft 15,660

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

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 1957. 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, 42 years, 427 cfs (309,100 acre-ft per year).

Extremes.--Maximum discharge during year, 3,930 cfs June 5 (gage height, 5.69 ft); minimum, 110 cfs Jan. 27 (gage height, 0.40 ft), but may have been less during period of ice effect.

1915-57 (river only): Maximum discharge, 4,640 cfs May 24, 1956 (gage height, 6.62 ft); maximum gage height, 8.66 ft June 12, 1921, present datum; practically no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.

1915-57 (combined): Maximum daily discharge, 4,500 cfs June 6, 7, 1938; minimum daily, 15 cfs Dec. 27, 1921.

Remarks.--Records good. Water diverted around station through Big Wood Slough (see preceding page). Total flow of river at Hailey (combined flow of Big Wood River and Big Wood Slough) is given on following page. Diversions for irrigation of about 10,300 acres 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 tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 1-5)

Oct. 1 to Mar. 31		Apr. 1 to Sept. 30			
0.5	122	0.7	143	3.0	1,150
.7	154	1.0	210	4.0	1,950
1.0	217	1.5	365	5.0	3,010
		2.0	575	5.6	3,800
		2.5	840		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	203	173	156	152	*151	190	834	2,400	1,340	314	240
2	212	192	171	154	151	147	188	972	2,830	1,230	310	224
3	208	190	175	147	144	158	*200	1,060	3,310	1,080	307	213
4	208	201	*175	b134	144	154	208	*966	3,490	1,020	304	208
5	210	212	179	b132	146	162	221	870	3,560	984	300	202
6	208	a220	179	b130	139	151	246	1,010	3,700	948	297	198
7	206	a220	154	b134	140	152	237	1,280	3,490	918	291	195
8	206	a215	b123	151	147	154	240	1,470	*3,020	894	282	190
9	215	a215	132	b149	144	162	257	1,460	2,740	*829	278	190
10	220	*212	162	b145	136	162	288	1,570	2,380	824	272	190
11	274	215	173	152	139	156	307	1,620	2,020	812	266	190
12	292	215	177	154	140	165	300	1,670	1,950	780	263	185
13	258	220	184	158	142	152	297	*1,760	1,870	746	260	185
14	240	208	181	158	142	146	320	1,760	1,630	719	254	183
15	230	177	169	154	140	160	348	1,690	1,420	686	252	181
16	227	199	175	142	137	160	351	1,650	1,260	635	246	176
17	225	203	164	b130	139	158	354	1,680	1,120	610	240	174
18	222	186	165	b132	137	152	358	1,860	1,040	585	232	*174
19	233	162	164	b137	139	156	358	2,820	1,040	570	229	183
20	227	149	156	b150	147	160	354	2,500	1,090	562	221	183
21	233	154	156	b145	146	167	373	2,030	1,090	530	*224	181
22	227	164	144	*b145	147	162	365	1,740	1,040	508	229	178
23	230	171	b134	151	158	160	389	1,560	1,030	490	234	174
24	225	173	152	b150	162	167	445	1,390	1,140	425	226	172
25	225	173	162	149	162	171	417	1,330	1,160	377	224	165
26	230	173	158	b135	164	165	393	1,380	1,140	365	218	163
27	240	171	158	b125	165	165	381	1,590	1,160	358	218	159
28	217	169	164	b135	160	171	425	1,730	1,300	351	210	155
29	206	173	162	b130	-	175	570	*1,940	1,270	344	221	153
30	233	175	160	b130	-------	184	714	2,130	1,320	340	237	153
31	225	-------	160	149	-------	196	-------	2,300	-------	323	246	-------
Total	7,022	5,710	5,041	4,443	4,109	5,001	10,094	49,622	57,010	21,183	7,905	5,517
Mean	227	190	163	143	147	161	336	1,601	1,900	683	255	184
Ac-ft	13,930	11,330	10,000	8,810	8,150	9,920	20,020	98,420	113,100	42,020	15,680	10,940

Calendar year 1956: Max 4,280 Min 105 Mean 641 Ac-ft 465,500
Water year 1956-57: Max 3,700 Min 123 Mean 500 Ac-ft 362,300

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

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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	219	220	187	167	161	161	207	892	2,450	1,390	355	267
2	227	208	185	164	160	157	204	1,020	2,880	1,280	348	248
3	223	205	189	156	153	170	217	1,110	3,360	1,130	345	235
4	222	217	190	142	153	165	226	1,020	3,540	1,060	341	228
5	226	230	194	140	155	174	240	916	3,610	1,020	336	222
6	222	240	194	138	148	161	270	1,060	3,750	986	332	217
7	220	240	165	142	149	163	260	1,330	3,540	954	327	213
8	220	234	132	160	156	165	264	1,510	3,060	926	313	207
9	230	234	142	158	153	174	282	1,500	2,780	860	304	207
10	235	231	174	154	144	175	315	1,610	2,410	853	297	207
11	297	235	187	162	148	168	337	1,660	2,050	840	290	207
12	318	235	192	164	149	178	329	1,710	1,990	807	286	201
13	280	240	200	168	151	164	325	1,800	1,910	772	282	200
14	260	226	195	168	151	156	350	1,800	1,660	744	274	198
15	248	192	182	164	148	172	381	1,730	1,450	709	270	196
16	244	216	189	151	145	173	384	1,690	1,290	655	263	190
17	242	223	176	138	147	170	387	1,720	1,150	628	255	188
18	239	203	177	140	145	163	390	1,900	1,070	601	245	188
19	250	174	177	144	147	168	393	2,850	1,070	586	241	198
20	244	159	167	158	156	172	390	2,520	1,120	576	232	199
21	250	165	166	152	155	180	411	2,050	1,120	544	234	196
22	245	176	154	152	156	174	402	1,760	1,070	521	241	192
23	248	185	142	159	169	172	429	1,580	1,060	500	246	187
24	242	187	162	158	173	181	489	1,400	1,180	467	236	185
25	242	187	173	157	174	187	459	1,350	1,200	440	234	177
26	249	187	169	142	176	179	433	1,420	1,180	423	228	175
27	260	185	169	132	177	179	420	1,630	1,200	414	228	171
28	235	183	176	142	171	186	469	1,780	1,350	404	226	166
29	222	187	174	138	-	191	623	1,990	1,320	396	244	164
30	254	189	171	138	-------	201	775	2,180	1,370	389	263	164
31	244	-------	171	158	-------	214	-------	2,350	-------	368	275	-------
Total	7,557	6,193	5,421	4,706	4,370	5,393	11,061	50,838	58,190	22,243	8,591	5,993
Mean	244	206	175	152	156	174	369	1,640	1,940	718	277	200
Ac-ft	14,990	12,280	10,750	9,330	8,670	10,700	21,940	100,800	115,400	44,120	17,040	11,890

Calendar year 1956: Max 4,340 Min 112 Mean 660 Ac-ft 479,400
Water year 1956-57: Max 3,750 Min 132 Mean 522 Ac-ft 377,900

Big Wood River near Bellevue, Idaho

Location.--Lat 43°19'30", long 114°19'30", in SE¼NW¼ sec. 21, T. 1 S., R. 18 E., on right bank 2½ miles upstream from flow line of Magic Reservoir, 3¾ miles upstream from Camas Creek, and 10 miles southwest of Bellevue.

Drainage area.--823 sq mi.

Records available.--July 1911 to September 1957 (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 three-quarters of a mile downstream at different datum.

Average discharge.--19 years (1915-16, 1921-22, 1939-41, 1942-57), 295 cfs (213,600 acre-ft per year).

Extremes.--Maximum discharge during year, 3,360 cfs June 5; maximum gage height, 5.32 ft May 19; minimum daily discharge, 45 cfs Feb. 10-12, 20; minimum gage height observed, 2.06 ft Feb. 20.

1911-57: Maximum discharge, 4,130 cfs May 25, 1956 (gage height, 6.00 ft); 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 poor. Diversions for irrigation of about 36,400 acres above station. Storage above station is negligible.

Cooperation.--Water-stage recorder inspected by employees of Water District No. 7 AB.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 26 to Jan. 10, Apr. 17 to May 18, June 3-7)

Oct. 1 to June 7				June 8 to Sept. 30			
1.9	34	3.1	440	1.8	69	3.5	1,060
2.1	61	3.5	710	2.0	122	4.0	1,550
2.3	100	4.0	1,150	2.3	251	4.5	2,130
2.5	152	4.5	1,710	2.6	420	4.9	2,660
2.7	222	5.0	2,470	3.0	680		
2.9	320	5.5	3,550				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	171	65	60	50	160	110	647	1,920	868	116	126
2	107	168	63	61	50	*135	105	766	2,240	844	113	113
3	105	162	*63	60	50	130	102	846	2,560	757	113	107
4	105	158	63	b56	50	100	*105	798	2,880	687	110	101
5	105	138	63	55	50	85	110	703	3,060	638	107	95
6	102	138	63	55	50	81	119	*774	2,990	596	107	90
7	100	138	61	52	50	96	119	924	2,640	561	107	87
8	100	135	b60	50	50	122	117	1,040	*2,320	528	107	80
9	100	135	60	50	50	112	117	1,110	2,110	456	104	78
10	110	135	58	50	45	102	122	1,180	1,900	438	104	78
11	130	132	63	52	45	96	141	1,320	1,530	*396	107	80
12	171	*132	68	54	45	94	155	1,420	1,310	360	104	*83
13	178	132	96	52	50	90	162	1,540	1,180	344	104	85
14	165	130	79	50	60	87	171	1,550	1,010	316	101	95
15	155	124	74	50	55	87	199	1,530	884	300	98	92
16	146	119	74	50	52	96	214	1,510	799	251	98	92
17	141	130	74	50	50	100	222	1,480	701	236	98	92
18	146	119	72	50	49	100	231	1,540	596	241	101	*90
19	149	83	74	52	48	102	222	2,380	528	222	107	90
20	149	77	74	56	45	105	244	2,430	516	207	107	87
21	149	75	72	56	47	105	249	1,950	522	180	107	95
22	146	77	68	55	50	98	218	1,710	504	159	*110	92
23	146	79	61	*54	60	96	222	1,470	486	122	110	95
24	149	79	60	52	100	94	254	1,300	522	116	98	98
25	152	81	60	51	300	98	267	1,190	568	*119	90	95
26	174	81	58	50	300	100	254	1,210	575	119	90	90
27	188	81	56	50	250	98	236	1,340	610	119	95	85
28	174	81	55	50	200	98	244	1,430	680	122	95	80
29	158	77	56	50	-	102	320	1,570	757	122	122	76
30	162	66	56	50	-------	105	500	*1,640	836	119	148	76
31	184	-------	58	50	-------	107	-------	1,800	-------	116	155	-------
Total	4,358	3,433	2,027	1,633	2,301	3,181	5,851	42,098	39,734	10,659	3,333	2,723
Mean	141	114	65.4	52.7	82.2	103	195	1,358	1,324	344	108	90.8
Ac-ft	8,640	6,810	4,020	3,240	4,560	6,310	11,610	83,500	78,810	21,140	6,610	5,400

Calendar year 1956: Max 3,600 Min 33 Mean 467 Ac-ft 339,300
Water year 1956-57: Max 3,060 Min 45 Mean 332 Ac-ft 240,600

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 5-22, Jan. 23 to Feb. 17, Feb. 21 to Mar. 1, Mar. 3, 4; discharge estimated on basis of weather records, inflow-outflow study of Magic Reservoir, and records for nearby streams.

Camas Creek near Blaine, Idaho

Location.--Lat 43°20', long 114°33', in sec. 15, T. 1 S., R. 16 E., on left bank a quarter of a mile north of Macon siding on Hill City branch of Oregon Short Line Railroad, three-eighths of a mile downstream from Willow Creek, 2¼ miles upstream from backwater of Magic Reservoir, and 4 miles southeast of Blaine.

Drainage area.--648 sq mi.

Records available.--May 1912 to September 1921 and April 1923 to October 1925 (fragmentary), March 1926 to September 1944 (no winter records), October 1944 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 4,870 ft (by barometer).

Average discharge.--13 years (1944-57), 187 cfs (135,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,570 cfs Mar. 31 (gage height, 8.73 ft); minimum, 3.2 cfs Aug. 21, 24.
1912-57: 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 about 10 cfs, which are good, and those for periods of no gage-height record or ice effect, 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 table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19 to June 11, Aug. 19-24)

1.0	2.9	2.1	54	5.0	725
1.2	6.8	2.5	96	6.0	1,120
1.5	16	3.0	172	7.0	1,600
1.8	32	4.0	409	9.0	2,790

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	15	20	21	17	b820	1,930	364	501	42	9.8	3.9
2	4.4	12	20	21	17	*b820	1,450	396	462	40	8.4	3.9
3	4.4	12	*21	21	17	b1,000	1,430	409	437	38	7.9	3.8
4	4.4	13	21	20	17	1,610	*1,420	401	420	35	7.1	3.9
5	4.8	12	21	19	17	1,370	1,350	369	412	35	6.1	4.1
6	5.3	14	21	18	17	1,040	1,500	353	406	28	6.1	3.9
7	5.0	14	18	18	17	1,010	1,460	*361	382	23	6.4	3.8
8	5.0	14	17	18	17	1,130	1,210	379	346	21	7.1	3.8
9	5.3	14	19	18	17	1,120	1,100	412	300	19	7.1	3.8
10	5.7	14	22	18	15	870	830	443	285	18	6.1	3 9
11	9.5	15	30	19	16	732	746	504	247	17	5.5	3.9
12	14	15	55	20	18	760	708	596	213	16	5.0	3.9
13	12	17	326	20	20	546	686	599	182	*15	4.4	3.9
14	11	16	242	19	23	379	669	567	168	17	4.1	3.9
15	10	14	213	18	20	401	564	558	154	16	4.1	4.1
16	10	14	161	17	19	431	552	576	148	15	3.9	4.1
17	10	18	104	17	18	465	468	537	135	11	3.8	4.3
18	11	16	70	17	17	495	417	558	105	10	3.8	4.3
19	10	13	50	17	17	567	437	982	101	8.7	3.4	*4.3
20	10	12	40	20	18	697	431	1,080	89	12	3.4	4.3
21	9.8	12	35	19	30	806	412	966	82	12	*3.4	4.1
22	9.8	13	30	18	150	704	398	806	78	10	3.4	4.1
23	10	14	28	*17	500	599	398	736	71	9.8	3.4	4.1
24	10	14	26	16	800	534	385	718	62	9.5	3.2	4.1
25	11	14	25	16	1,600	638	359	655	56	8.7	3.4	4.1
26	13	16	23	16	1,400	784	320	549	46	8.7	3.4	4.4
27	17	16	22	16	b1,000	910	292	483	42	9.0	3.4	4.4
28	16	19	21	16	b900	1,070	282	448	42	9 8	3.4	4.6
29	12	19	20	16	-	1,290	292	440	42	9.0	3.6	4.8
30	14	20	19	16	-------	1,700	328	*522	42	8.2	3.8	4.8
31	*16	-------	20	16	-------	2,250	-------	516	-------	9.8	3.9	-------
Total	294.8	441	1,760	558	6,734	27,548	22,824	17,283	6,056	541.2	151.8	123.3
Mean	9.51	14.7	56.8	18.0	240	889	761	558	202	17.5	4.90	4.11
Ac-ft	585	875	3,490	1,110	13,360	54,640	45,270	34,280	12,010	1,070	301	245

Calendar year 1956: Max 4,080 Min 3.1 Mean 282 Ac-ft 204,500
Water year 1956-57: Max 2,250 Min 3.2 Mean 231 Ac-ft 167,200

Peak discharge (base, 500 cfs).--Dec. 13 (2 p.m.) 774 cfs (5.14 ft); about Feb. 25 (time and discharge unknown); Mar. 4 (7 p.m.) 2,320 cfs (8.26 ft); Mar. 21 (12:30 a.m.) 902 cfs (5.48 ft); Mar. 31 (8 p.m.) 2,570 cfs (8.73 ft); May 20 (7 p.m.) 1,130 cfs (6.15 ft); May 30 (6 p.m.) 704 cfs (5.09 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 16, 20-22, Dec. 7-11, Dec. 18 to Jan. 22, Jan. 24 to Feb. 26, July 12; 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, 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 1957.

Gage.--Staff gage read once or twice daily. Datum of gage is 4,800 ft above datum of Idaho Irrigation Co., which is reported to be about 137 ft below mean sea level. Prior to Apr. 1, 1937, tape or staff gages at dam. Datum of gages prior to Oct. 1, 1942, was 4,800 ft lower.

Extremes.--Maximum contents observed during year, 191,900 acre-ft May 19-21 (gage height, 135.1 ft); minimum observed, 86,170 acre-ft Sept. 30 (gage height, 99.3 ft).
1909-57: 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 (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.

Capacity table, water year 1956-57 (gage height, in feet, and usable contents, in acre-feet)

95.0	76,940	120	139,500
100.0	87,730	130	172,600
110	111,900	135.5	193,500

Usable contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103,000	112,900	119,000	126,900	131,400	153,000	185,300	190,300	191,100	187,200	153,300	112,900
2	103,300	113,200	119,000	126,900	131,600	-	186,100	190,700	191,500	186,400	152,000	111,900
3	102,800	113,400	119,200	127,200	131,600	157,600	186,100	190,700	191,500	186,400	150,700	110,600
4	103,500	113,700	119,200	127,200	131,900	160,300	186,100	190,700	191,500	186,400	149,100	109,800
5	104,000	114,200	119,200	127,400	132,200	163,000	186,100	190,700	191,500	186,400	147,500	108,800
6	140,300	114,500	119,500	127,400	132,200	166,500	186,400	190,700	191,500	185,700	145,600	108,000
7	104,300	115,000	119,500	127,700	132,500	169,400	187,600	190,700	191,100	185,300	144,100	107,000
8	104,500	115,300	119,500	127,700	132,500	171,900	188,000	190,700	191,100	184,900	142,800	106,000
9	104,500	115,800	119,800	128,000	132,800	175,200	187,600	191,100	190,700	184,500	141,600	105,000
10	104,800	116,000	120,000	128,000	132,800	174,100	187,200	191,100	190,700	183,800	140,100	104,000
11	105,300	116,600	120,300	128,300	133,100	173,700	186,800	191,100	190,300	182,600	138,600	103,000
12	105,500	116,600	120,600	128,500	133,100	173,000	186,800	191,000	190,300	181,900	136,800	101,800
13	105,800	116,800	120,900	128,500	133,300	172,200	186,800	190,700	190,300	180,700	135,700	101,100
14	106,300	116,600	121,400	128,800	133,600	171,200	187,600	190,300	190,300	179,600	134,200	100,300
15	106,500	116,300	122,200	128,800	133,600	171,200	188,000	190,300	189,500	178,500	132,800	99,370
16	107,000	115,800	123,000	129,100	133,900	171,500	188,800	190,700	189,500	177,000	131,600	98,410
17	107,300	115,500	123,600	129,100	133,900	172,200	189,200	190,700	189,500	175,500	130,200	97,460
18	107,500	115,800	123,800	129,400	134,200	173,000	189,500	190,700	189,500	174,100	129,100	96,500
19	107,800	116,000	124,400	129,400	134,200	173,300	189,900	191,100	189,200	172,600	127,700	95,560
20	108,300	116,300	124,900	129,700	134,200	173,700	189,900	191,900	188,800	171,200	126,600	94,850
21	108,300	116,600	125,200	129,700	134,500	174,400	190,300	191,900	188,400	169,700	125,200	93,920
22	108,800	116,800	125,500	129,900	134,500	174,400	190,300	191,500	188,000	168,300	124,400	93,220
23	109,300	117,100	125,800	130,200	134,800	175,200	190,300	190,700	187,600	166,900	123,300	91,830
24	109,600	117,400	126,000	130,500	136,000	174,800	189,900	190,300	187,200	165,500	121,900	90,910
25	109,800	117,400	126,000	130,800	138,000	174,800	189,900	190,700	186,800	163,700	120,900	90,220
26	110,100	117,600	126,300	130,800	142,500	174,800	189,900	190,700	186,400	162,400	119,800	89,540
27	110,600	117,900	126,300	130,800	146,600	175,200	189,900	190,700	186,400	160,600	118,400	88,860
28	111,100	118,200	126,300	131,100	150,400	176,300	189,900	190,700	186,100	159,300	117,400	87,960
29	111,600	118,400	126,600	131,100	-	177,400	189,900	190,700	185,700	157,900	116,000	87,060
30	112,100	118,700	126,600	131,100	-------	179,200	189,900	190,700	186,100	156,300	115,000	86,400
31	112,600	-------	126,600	131,100	-------	181,900	-------	191,100	-------	154,900	113,900	-------
(†)	110.3	112.6	115.5	117.1	123.5	132.5	134.6	134.9	133.6	124.9	110.8	99.4
(‡)	+9,600	+6,100	+7,900	+4,500	+19,300	+31,500	+8,000	+1,200	-5,000	-31,200	-41,000	-27,500

Calendar year 1956..... ‡ +74,500
Water year 1956-57..... ‡ -16,600

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

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 4,665 ft (by barometer).

Average discharge.--45 years (1912-57), 431 cfs (312,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,680 cfs May 20 (gage height, 7.88 ft); minimum, 7.5 cfs Nov. 18.
1911-57: 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 by employees of Water District No. 7 AB.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 20 to June 17)

1.9	4.0	3.5	326
2.0	11	4.0	571
2.3	41	5.0	1,220
2.7	95	7.0	2,780
3.0	156	8.0	3,650

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	10	9.6	9.6	9.6	11	1,210	751	2,560	820	899	639
2	13	10	9.6	9.6	10	12	1,580	1,010	2,670	826	892	621
3	14	10	9.6	9.6	10	12	1,560	1,210	2,830	833	886	610
4	15	10	9.6	9.6	10	13	*1,550	1,230	3,000	833	879	588
5	15	10	*10	9.6	9.6	*13	1,300	1,190	3,160	826	872	577
6	15	9.6	9.6	9.6	9.6	12	1,200	*1,150	3,240	846	852	577
7	15	10	8.9	9.6	10	13	1,400	1,170	3,050	852	840	577
8	15	10	8.9	10	10	14	1,400	1,360	*2,890	846	840	577
9	15	10	8.9	9.6	9.6	816	1,350	1,590	2,580	866	840	577
10	15	10	8.9	9.6	9.6	1,470	1,180	1,710	2,400	920	833	577
11	15	10	8.9	9.6	9.6	1,360	1,040	1,960	2,110	940	833	577
12	14	*11	8.9	9.6	9.6	1,290	840	2,230	1,680	*961	826	577
13	14	10	8.9	10	9.6	1,140	537	2,340	1,540	975	764	577
14	13	392	8.9	9.6	10	559	533	2,090	1,510	975	807	571
15	13	431	8.9	9.6	10	262	539	2,140	1,280	975	801	571
16	13	426	8.9	9.6	9.6	262	460	2,200	1,020	996	801	571
17	13	132	8.9	8.9	10	262	486	2,200	837	989	782	566
18	13	8.9	8.9	8.9	10	339	544	2,200	879	989	770	566
19	13	8.9	8.9	9.6	9.6	481	616	2,710	879	982	757	566
20	13	8.9	8.9	10	10	533	656	3,610	852	975	745	*560
21	12	8.9	8.9	9.6	10	633	685	3,480	826	975	721	544
22	11	8.9	8.9	9.6	10	709	685	3,200	807	947	*709	522
23	11	8.2	8.9	9.6	12	715	703	2,760	795	926	709	522
24	11	8.2	8.9	*9.6	11	715	668	2,300	776	926	709	522
25	11	8.2	8.9	9.6	12	715	621	2,270	757	926	703	522
26	11	8.9	8.9	9.6	12	668	605	2,170	764	926	703	522
27	10	8.9	8.9	13	12	605	593	2,130	764	926	697	522
28	10	8.9	8.9	9.6	12	605	571	2,120	801	920	697	522
29	10	8.9	8.9	9.6	-	610	577	2,120	820	913	685	522
30	11	9.6	9.6	9.6	-------	616	633	2,210	820	913	679	248
31	10	-------	9.6	9.6	-------	644	-------	*2,380	-------	906	656	-------
Total	397	1,625.9	281.9	300.8	287.0	16,109	26,322	63,191	48,897	28,429	24,187	16,590
Mean	12.8	54.2	9.09	9.70	10.2	520	877	2,038	1,630	917	780	553
Ac-ft	787	3,220	559	597	569	31,950	52,210	125,300	96,990	56,390	47,970	32,910

Calendar year 1956: Max 4,310 Min 4.6 Mean 706 Ac-ft 512,400
Water year 1956-57: Max 3,610 Min 8.2 Mean 621 Ac-ft 449,500

* 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 1957. 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, 1,400 cfs May 19 (gage height, 3.75 ft); minimum recorded, 34 cfs Mar. 14; minimum gage height recorded, 0.80 ft Sept. 7.
1920-26, 1941-42, 1944-57: Maximum discharge, 3,110 cfs Dec. 22, 1955 (gage height, 6.34 ft, from floodmark), from rating curve extended above 1,800 cfs; minimum recorded, 14 cfs Aug. 29, 30, 1926.

Remarks.--Records good except those for periods of no gage-height record, which are fair. 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 table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 14-29, Sept. 3-20, 22-30)

0.9	38	1.7	228	3.0	870
1.1	66	2.0	345	3.5	1,190
1.4	132	2.5	585	4.0	1,530

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	60				88	104	381	700	337	77	56
2	*47	a55				88	99	435	744	309	73	52
3	44	a58				82	122	*465	804	273	70	51
4	44	a62				71	129	412	840	232	66	50
5	47	a66				68	171	381	834	239	64	47
6	44	a71				64	232	417	822	239	64	46
7	44	a72				64	167	510	768	207	60	44
8	44	68				80	167	550	668	200	58	43
9	47	68				95	210	560	612	196	57	44
10	52	68				91	243	555	596	193	57	44
11	64	71				77	210	590	490	*190	56	47
12	68	73				77	190	612	455	174	56	47
13	62	*73	†60			64	210	678	440	161	52	46
14	58	62				60	235	706	376	161	50	46
15	57	51				71	*228	712	345	149	48	46
16	58	68				66	207	712	329	135	50	44
17	57	68				64	204	717	281	129	48	*44
18	57	52				63	210	798	269	122	47	44
19	57	46				71	228	1,300	*285	122	46	50
20	57	a50				84	221	1,100	321	119	*46	51
21	57	a60				93	269	912	325	111	44	51
22	58	a60				82	250	840	297	104	44	51
23	63	a58				73	269	734	289	99	46	50
24	64	a58				75	281	668	317	93	44	51
25	64	a56				79	232	618	325	91	44	50
26	68	a56				73	218	590	321	86	44	47
27	77	a54				73	207	602	321	84	46	44
28	66	a54			*104	80	221	624	345	82	46	44
29	60	a54			-	95	297	*651	341	82	51	44
30	70	a52			-------	124	358	673	363	84	60	44
31	71	-------			-------	138	-------	678	-------	79	58	-------
Total	1,773	1,824	-	-	-	2,473	6,389	20,181	14,223	4,882	1,672	1,418
Mean	57.2	60.8	-	-	-	79.8	213	651	474	157	53.9	47.3
Ac-ft	3,520	3,620	-	-	-	4,910	12,670	40,030	28,210	9,680	3,320	2,810

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

* Discharge measurement made on this day.
† Result of discharge measurement.
a No gage-height record; discharge estimated on basis of weather records and records for Little Wood Reservoir, Little Wood River near Carey, and nearby streams.
b Stage-discharge relation affected by ice.

Little Wood Reservoir near Carey, Idaho

Location.--Lat 43°25'30", long 114°01'30", in NW¼NW¼ sec. 13, T. 1 N., R. 20 E., at gage-control structure near right end of dam on Little Wood River 8½ miles northwest of Carey.

Drainage area.--279 sq mi.

Records available.--October 1955 to September 1957.

Gage.--Staff gage read once daily usually about 10 a.m. Datum of gage is 5,100 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum contents during year, 12,810 acre-ft May 19 (gage height, 99.2 ft, from spillway rating and discharge record below reservoir); minimum observed, 88 acre-ft Oct. 2, but was less during period Oct. 3-10.
1955-57: Maximum contents, that of May 19, 1957; minimum observed, that of Oct. 2, 1956.

Remarks.--Reservoir is formed by earth- and rock-fill dam constructed in 1939. Capacity of reservoir is 12,180 acre-ft between gage heights 27.4 (bottom of outlet gates) and 97.4 ft (top of stop logs in spillway). Water is used for irrigation of land near Carey.

Cooperation.--Gage readings furnished by Little Wood Reservoir Co. and Water District No. 11 C. Capacity curve furnished by Bureau of Reclamation.

Capacity table, water year 1956-57 (elevation, in feet, and contents, in acre-feet)

31.0	87	60.0	2,660
35.0	226	70.0	4,440
40.0	490	80.0	6,760
45.0	869	90.0	9,660
50.0	1,340	100.0	13,090

Contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	5,556	8,989	12,290	-	-	-	-	-
2	88	-	-	-	5,682	9,156	12,280	12,440	-	-	-	-
3	-	-	-	-	5,772	9,330	12,300	-	-	-	-	-
4	-	-	-	-	5,862	9,470	12,300	-	-	12,320	-	-
5	-	-	-	-	5,957	9,629	12,340	-	-	-	-	-
6	-	-	-	-	5,805	9,741	12,360	-	-	-	-	-
7	-	-	-	-	6,138	9,874	12,330	-	-	-	-	-
8	-	-	-	3,240	6,234	10,010	12,310	-	-	-	-	-
9	-	-	-	3,338	6,332	10,240	12,330	-	-	-	-	-
10	-	-	-	3,436	6,406	10,430	12,360	-	-	11,860	-	-
11	-	-	-	3,489	6,476	10,590	12,370	-	-	-	-	-
12	-	-	-	3,572	6,596	10,790	12,330	-	-	-	-	-
13	-	1,658	2,110	3,791	6,688	10,940	12,350	-	-	-	-	-
14	-	-	-	3,886	6,786	-	-	-	-	-	-	-
15	-	-	-	3,941	6,881	11,210	12,350	-	-	-	-	-
16	-	-	-	4,000	6,972	11,340	-	-	-	-	-	-
17	-	-	-	4,128	7,064	11,470	-	-	-	-	-	1,125
18	-	-	-	4,223	7,157	11,600	-	-	12,380	-	-	1,096
19	-	-	-	4,317	7,252	11,730	-	-	-	-	-	1,087
20	-	-	-	4,424	7,364	11,860	-	-	-	-	1,616	-
21	-	-	-	4,525	7,477	12,110	-	-	-	-	-	1,125
22	-	-	-	4,618	7,585	12,200	-	-	-	-	-	-
23	-	-	-	4,716	7,717	12,240	-	-	12,390	-	-	1,134
24	-	-	-	4,807	7,862	12,250	-	-	-	-	-	-
25	-	-	1,968	4,898	8,056	12,270	-	-	-	-	-	-
26	-	-	-	4,991	8,301	12,270	-	-	-	-	-	-
27	-	-	-	5,094	8,549	12,270	-	-	-	-	1,439	-
28	-	-	-	5,181	8,793	12,280	-	-	-	-	-	-
29	-	-	-	5,273	-	12,290	-	12,490	-	-	-	-
30	-	a2,020	-	5,370	-------	12,300	e12,410	-	e12,420	-	-	a1,040
31	a840	-------	a2,560	5,463	-------	12,310	-------	e12,500	-------	a5,620	a1,430	-------
(†)	-	-	-	74.64	87.12	97.76	e98.05	e98.30	e98.09	-	-	-
(‡)	+718	+1,180	+540	+2,903	+3,330	+3,517	+100	+90	-80	-6,800	-4,190	-390

Calendar year 1956..... ‡ -7,820
Water year 1956-57..... ‡ +918

† 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-outflow study.
e Gage height computed from stage-discharge relation for spillway.

Little Wood River below reservoir, near Carey, Idaho

Location.--Lat 43°25'30", long 114°01'30", in N½ sec. 13, T. 1 N., R. 20 E., on left bank a quarter of a mile downstream from Little Wood River Dam, three-quarters of a mile upstream from Little Fish Creek, and 8½ miles northwest of Carey.

Drainage area.--280 sq mi.

Records available.--October 1955 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 5,107.33 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum discharge during year, 1,580 cfs May 19 (gage height, 5.31 ft); minimum observed, 0.9 cfs Jan. 25 (gage height, 0.73 ft).
1955-57: Maximum discharge, that of May 19, 1957; minimum observed, that of Jan. 25, 1957.

Remarks.--Records excellent except those for periods of no gage-height record, which are fair. Storage in Little Wood Reservoir (capacity, 12,180 acre-ft, revised) began Feb. 12,1941. Flow also slightly affected by storage in Campbell Reservoir (capacity, 125 acre-ft) on South Fork Muldoon Creek. 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.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19 to June 12)

0.7	0.3	2.0	210
.8	2.5	2.5	355
.9	7.1	3.0	540
1.0	18	4.0	970
1.2	47	5.0	1,480
1.5	100		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	3.5	42	2.8	1	3	122	352	676	349	233	47
2	*55	3.5	44	2.8	1	2.5	*104	*400	727	314	205	41
3	47	3.1	46	2.8	1	2.5	124	428	799	272	200	40
4	46	3.1	50	2.8	1	2	135	389	844	252	193	40
5	46	3.1	50	2.8	1	2	168	345	866	233	181	40
6	46	3.1	55	2	1	2	250	369	862	233	186	44
7	46	3.1	74	1	1	3	186	442	768	252	188	53
8	46	75	66	1	1	4	177	512	676	258	193	52
9	47	92	47	1	1	4	200	540	632	295	193	58
10	50	74	34	1	1	3.5	239	520	608	*289	184	72
11	57	74	32	1	1	3	233	552	496	260	161	83
12	65	76	32	1	1	2.5	191	584	457	239	150	79
13	63	*74	*32	1	1	2.5	208	648	446	244	148	74
14	60	74	36	1	1	2.5	233	680	403	255	150	74
15	63	72	42	1	1	2.5	241	688	365	283	148	72
16	50	72	42	1	1	2.5	215	672	349	280	141	72
17	58	72	47	1	1	2.5	205	684	301	275	135	*61
18	57	72	57	1	1	3	210	763	*278	269	118	53
19	57	72	58	1	1	4	231	1,380	283	280	102	46
20	55	72	58	1	1	5	226	1,280	320	286	*89	40
21	57	41	58	1	1	7	255	990	333	283	74	40
22	61	7.1	58	1	1.5	18	250	907	311	289	60	46
23	65	13	58	1	2	40	250	781	295	298	44	55
24	63	13	33	1	4	74	272	684	314	292	36	47
25	37	13	3.1	*.9	4	79	233	620	326	295	52	47
26	4.8	15	3.1	1	4	76	213	572	323	295	58	53
27	4.8	26	3.1	1	3.5	76	198	572	317	286	55	57
28	4.3	34	3.1	1	*3.5	81	203	588	349	272	55	57
29	4.3	34	3.1	1	-	96	252	620	342	266	53	57
30	3.9	36	2.8	1	-------	122	317	640	362	258	52	57
31	3.9	-------	2.8	1	-------	152	-------	636	-------	241	47	-------
Total	1,380.0	1,225.6	1,174.1	40.9	43.5	879.5	6,341	19,838	14,428	8,493	3,884	1,657
Mean	44.5	40.9	37.9	1.32	1.55	28.4	211	640	481	274	125	55.2
Ac-ft	2,740	2,430	2,330	81	86	1,740	12,580	39,350	28,620	16,850	7,700	3,290

Calendar year 1956: Max 1,060 Min 2.8 Mean 213 Ac-ft 154,600
Water year 1956-57: Max 1,380 Min 0.9 Mean 163 Ac-ft 117,800

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 3-24, Jan. 26 to Feb. 27, Mar. 1-23; discharge estimated on basis of weather records, 2 discharge measurements, and records for station near Carey and for Little Wood Reservoir.

Little Wood River near Carey, Idaho

Location.--Lat 43°23', long 114°00', in E½ sec. 30, T. 1 N., R. 21 E., on right bank a third of a mile upstream from West Canal, 1 1/3 miles upstream from East Canal, 2 miles downstream from Little Fish Creek, 3 miles downstream from Little Wood Reservoir, and 6 miles northwest of Carey.

Drainage area.--312 sq mi.

Records available.--April 1904 to May 1905 (gage heights only), September 1926 to November 1942, April 1943 to September 1957. 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.--30 years (1926-42, 1943-57), 135 cfs (97,740 acre-ft per year).

Extremes.--Maximum discharge during year, 1,630 cfs May 19 (gage height, 6.78 ft); minimum, 1.6 cfs Feb. 6, 7, 16 (gage height, 1.55 ft).
1904-5, 1926-57: 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 for periods of ice effect, which are fair. Diversions above station for irrigation of about 6,450 acres. Storage in Little Wood Reservoir (capacity, 12,180 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	2.1	2.5	52	4.5	590
1.7	3.9	2.8	90	5.0	780
1.8	6.2	3.2	168	5.5	1,000
2.0	14	3.6	276	6.5	1,460
2.2	25	4.0	410		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*57	b6.0	43	b3.9	b2.1	b13	122	364	676	340	215	51
2	54	b6.5	43	b3.9	b2.1	b9.2	*102	*413	724	318	200	46
3	46	b6.9	45	b3.9	b2.1	8.2	118	444	792	276	197	43
4	44	6.9	49	b3.9	b2.1	8.8	128	413	825	255	187	43
5	45	6.9	50	b3.7	2.1	10	161	370	840	238	175	44
6	45	7.2	52	b3.7	2.1	8.2	249	390	835	235	178	46
7	44	7.2	70	b3.5	2.1	16	185	452	756	249	182	53
8	46	59	86	b3.0	2.1	22	168	526	672	255	182	52
9	46	94	50	b2.6	2.1	28	192	550	636	295	182	56
10	49	74	35	b2.6	2.3	21	249	535	622	*289	175	68
11	56	74	35	b2.6	2.3	b18	270	566	520	261	155	83
12	64	74	33	b2.6	2.3	21	213	598	468	238	140	82
13	64	*72	*35	b2.6	2.5	b18	226	651	448	243	142	77
14	60	72	38	2.6	2.5	b17	258	680	406	252	144	77
15	64	71	43	2.5	2.6	17	276	700	361	282	146	76
16	48	71	43	2.5	2.6	18	235	676	346	282	142	75
17	59	71	47	b2.5	b2.6	18	221	696	302	276	134	*70
18	56	71	57	b2.5	b2.6	18	226	776	*276	273	120	63
19	57	70	58	b2.5	b2.6	18	249	1,440	279	282	105	56
20	56	70	58	b2.5	2.8	17	238	1,290	311	289	*95	51
21	56	48	59	b2.5	2.8	20	273	1,000	330	286	83	50
22	58	b8.5	b59	b2.5	2.8	29	273	930	308	292	70	53
23	63	16	b59	b2.5	5.6	71	273	812	292	302	56	62
24	64	17	43	b2.5	27	76	295	704	305	289	43	53
25	46	18	b6.2	*b2.5	85	79	255	648	321	292	56	52
26	8.5	18	b4.6	b2.4	52	77	229	594	321	292	59	52
27	7.8	26	b3.9	b2.4	41	79	215	594	314	279	56	56
28	7.2	34	b3.9	b2.3	*b24	82	215	606	343	273	56	53
29	6.5	34	b3.9	b2.3	-	92	258	*633	334	267	56	53
30	6.9	37	b3.9	b2.2	-------	118	330	648	352	258	54	53
31	6.0	-------	b3.9	b2.2	-------	150	-------	648	-------	240	52	-------
Total	1,389.9	1,247.1	1,200.3	86.4	286.8	1,197.4	6,702	20,347	14,315	8,498	3,837	1,749
Mean	44.8	41.6	38.7	2.79	10.2	38.6	223	656	477	274	124	58.3
Ac-ft	2,760	2,470	2,380	171	569	2,380	13,290	40,360	28,390	16,860	7,610	3,470

Calendar year 1956: Max 1,040 Min 3.9 Mean 216 Ac-ft 157,000
Water year 1956-57: Max 1,440 Min 2.1 Mean 167 Ac-ft 120,700

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

MALAD RIVER BASIN

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 1957 (1923-35, irrigation seasons only).

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer).

Average discharge.--24 years (1920-22, 1935-57), 154 cfs (111,500 acre-ft per year).

Extremes.--Maximum daily discharge during year, 320 cfs Feb. 27; maximum gage height recorded, 3.86 ft Jan. 29, but probably was higher during period of no gage-height record; minimum discharge, 86 cfs June 8 (gage height, 1.17 ft), but may have been less during periods of ice effect.

1920-57: Maximum discharge recorded, 357 cfs Dec. 24, 1955 (gage height, 3.70 ft); maximum gage height recorded, 4.57 ft Jan. 22, 1950 (ice jam); minimum discharge, 26 cfs June 2, 1920 (gage height, 0.48 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of about 9,000 acres above station. Two small canals bypass station. Records of discharge do not include water bypassed around station at times of 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	84	2.5	221
1.5	114	3.0	276
2.0	166	3.5	333

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	199	234	180	159	160	*300	206	142	161	148	138	194
2	196	224	180	159	170	280	*198	141	153	153	135	200
3	*188	216	179	156	170	244	191	*139	138	155	134	194
4	187	210	*179	b145	160	220	187	136	125	155	132	186
5	188	209	179	b140	155	209	184	135	113	154	126	184
6	188	211	180	b125	155	198	189	132	104	156	123	181
7	185	216	160	b125	155	190	190	125	94	159	128	180
8	179	216	b150	b135	160	216	185	122	88	161	132	177
9	180	211	b150	b140	170	241	180	136	90	153	135	168
10	184	209	b180	b130	170	244	178	139	110	*149	134	166
11	194	207	b200	b130	170	213	176	145	114	145	130	164
12	207	206	196	b150	170	204	176	189	114	143	131	162
13	219	*202	194	155	160	207	174	229	114	146	130	164
14	218	197	214	157	180	194	169	252	113	150	127	168
15	212	192	190	154	190	186	168	211	115	150	128	167
16	208	189	186	153	190	191	163	213	124	141	132	165
17	206	192	184	b135	190	202	162	216	124	140	132	161
18	206	198	182	b120	190	207	162	210	115	148	128	*156
19	206	195	180	b110	190	208	166	243	114	153	130	153
20	208	187	178	b145	190	211	169	267	119	146	*132	152
21	204	184	177	*b140	190	213	177	236	119	143	132	154
22	202	181	174	b135	190	202	175	213	123	145	136	153
23	202	181	b170	b130	190	191	169	221	*124	139	142	152
24	207	182	167	b120	200	189	163	234	127	144	150	152
25	207	184	166	b105	230	191	156	230	126	143	152	149
26	210	182	164	b95	300	194	155	214	130	142	150	153
27	224	184	163	b90	320	190	154	197	132	141	145	152
28	234	181	162	b90	310	189	152	191	135	138	148	145
29	229	184	161	100	-	192	149	*186	138	139	153	145
30	220	182	161	120	-------	200	147	177	144	139	167	144
31	225	-------	160	145	-------	202	-------	166	-------	137	179	-------
Total	6,322	5,946	5,446	4,093	5,375	6,518	5,170	5,787	3,640	4,555	4,271	4,941
Mean	204	198	176	132	192	210	172	187	121	147	138	165
Ac-ft	12,540	11,790	10,800	8,120	10,660	12,930	10,250	11,480	7,220	9,030	8,470	9,800

Calendar year 1956: Max 285 Min 63 Mean 167 Ac-ft 121,500
Water year 1956-57: Max 320 Min 88 Mean 170 Ac-ft 123,100

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

Note.--Flow in bypass channel, which carries water around gage, measured as 2.37 cfs Oct. 3; 3.74 cfs Nov. 13; 1.80 cfs Dec. 4; no flow Jan. 21; 81.8 cfs Mar. 1; 23.0 cfs Apr. 2; 3.09 cfs May 3; 21.1 cfs May 29; 4.45 cfs June 23; 1.25 cfs (est.) July 10; 0.90 cfs Aug. 20; 0.79 cfs Sept. 18. No gage-height record Jan. 29 to Feb. 28; discharge estimated on basis of weather records, records for Little Wood River at Shoshone and near Richfield, and for other nearby streams.

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 1957 (irrigation seasons only prior to 1955 except 1913, 1921).

Gage.--Water-stage recorder. Altitude of gage is 4,270 ft (by barometer). Prior to Sept. 5, 1918, staff gage at site 500 ft downstream at datum 0.92 ft lower. Sept. 5, 1918, to Apr. 13, 1920, staff gage and Apr. 14, 1920, to May 20, 1954, water-stage recorder, at site 500 ft downstream at datum 0.08 ft higher than present datum.

Average discharge.--5 years (1912-13, 1920-21, 1954-57), 156 cfs (112,900 acre-ft per year).

Extremes.--Maximum discharge during year, 652 cfs May 21 (gage height, 477 ft); maximum gage height, 7.3 ft or more (ice jam) during period Jan. 28 to Feb. 25; minimum discharge, 74 cfs Aug. 13 (gage height, 2.32 ft), but may have been less during period of ice effect.

1911-57: Maximum discharge recorded, 868 cfs May 3, 1938 (gage height, 3.97 ft, site and datum then is use); maximum gage height recorded, 8.60 ft Feb. 21, 1956 (ice jam); minimum discharge recorded, 7.6 cfs June 24, 25, 1920 (gage height, 0.52 ft, site and datum then in use).

Remarks.--Records excellent except those for periods of sluggish intake, which are fair, and 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, 12,180 acre-ft), Fish Creek Reservoir (capacity, 13,700 acre-ft), and three small reservoirs on tributaries (combined capacity, 690 acre-ft). River above Silver Creek is dry a large part of the time because of channel losses and irrigation diversions above Carey.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 26 to Mar. 4)

2.3	72	3.4	247
2.5	94	3.8	341
2.8	136	4.4	512
3.1	187	5.0	731

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	187	162	145	140	341	169	185	431	122	94	142
2	141	191	160	144	145	285	*173	*193	408	126	94	150
3	*138	183	160	140	160	254	171	204	386	132	93	152
4	138	180	162	135	160	218	166	208	351	121	88	150
5	139	178	162	130	145	202	164	196	324	117	88	146
6	144	176	160	110	145	193	162	178	262	113	82	142
7	144	176	150	110	145	183	166	174	234	115	82	138
8	142	178	130	110	145	180	167	183	191	114	84	136
9	142	178	130	120	155	202	166	202	132	113	86	133
10	149	178	140	120	155	220	164	212	*127	103	87	130
11	157	176	170	110	155	212	164	216	144	107	80	130
12	159	176	190	130	155	191	173	251	111	*103	80	124
13	164	176	175	145	145	182	176	314	88	100	81	122
14	169	*176	*180	145	155	180	171	357	83	103	80	126
15	169	171	182	145	165	174	176	378	83	104	82	128
16	166	167	166	140	175	171	183	375	87	100	80	128
17	164	169	164	130	175	173	166	372	89	94	90	*122
18	164	169	160	110	175	176	157	383	84	97	86	115
19	164	169	159	95	170	180	160	431	80	108	87	113
20	164	166	157	120	170	178	169	555	80	100	*88	113
21	166	165	155	*135	175	178	171	*645	82	97	88	118
22	164	165	150	130	190	174	178	586	83	98	88	120
23	166	165	150	120	220	167	176	572	86	95	92	114
24	167	164	150	105	240	162	169	545	88	95	98	108
25	169	164	152	95	260	164	176	535	89	94	103	108
26	173	164	150	90	*331	164	167	506	98	97	104	114
27	178	164	150	80	405	162	162	472	100	95	100	121
28	182	164	152	80	400	160	157	*460	99	93	97	117
29	189	162	152	80	-	160	154	460	104	92	97	115
30	187	162	151	100	-------	160	162	466	110	94	111	113
31	183	-------	148	120	-------	162	-------	457	-------	97	126	-------
Total	4,980	5,159	4,879	3,669	5,356	5,908	5,035	11,271	4,714	3,239	2,816	3,788
Mean	161	172	157	118	191	191	168	364	157	104	90.8	126
Ac-ft	9,880	10,230	9,680	7,280	10,620	11,720	9,990	22,360	9,350	6,420	5,590	7,510

Calendar year 1956: Max 496 Min 63 Mean 172 Ac-ft 125,000
Water year 1956-57: Max 645 Min 80 Mean 167 Ac-ft 120,600

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 21-23, Dec. 7-13, 22-24, Dec. 26 to about Feb. 20. No gage-height record Jan. 10, 11, 14-20, Jan. 28 to Feb. 25; discharge estimated on basis of weather records and records for stations at Shoshone, Silver Creek near Picabo, and Malad River near Gooding. Intake sluggish Mar. 1 to Apr. 16, May 23-28.

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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 1957 (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, 676 cfs May 22 (gage height, 6.83 ft), but may have been more during period of ice effect; maximum gage height, 9.42 ft Feb. 27 (ice jam); minimum discharge recorded, 30 cfs Oct. 3.

1922-57: Maximum discharge recorded, that of May 22, 1957; maximum gage height, that of Feb. 27, 1957; practically no flow July 29, 1931, Oct. 3, 1938.

Remarks.--Records excellent except those for period of shifting control, which are good, and those for periods of no gage-height record or ice effect, 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.

Rating tables, water year 1956-57, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1, 2		Oct. 3 to Sept. 30			
0.5	32	0.7	29	3.0	290
.8	51	1.0	49	3.5	372
1.4	97	1.5	87	4.0	429
		2.0	132	5.0	529
		2.5	193	6.8	674

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	117	139	137	130	511	*94	*259	565	505	505	500
2	34	126	137	136	130	362	89	305	545	498	515	506
3	*30	126	137	b125	140	280	92	384	552	487	520	486
4	32	125	139	b115	140	250	89	449	543	494	520	480
5	45	127	*135	100	130	*218	81	462	546	506	510	471
6	45	118	134	96	130	223	82	474	516	495	506	455
7	43	119	119	92	130	165	84	440	485	494	509	443
8	45	108	100	98	130	153	109	451	483	501	514	433
9	50	104	108	b110	140	188	133	493	498	496	502	433
10	52	107	115	b110	140	203	129	515	515	493	493	443
11	58	106	158	94	140	209	126	529	518	497	492	447
12	67	106	175	110	140	196	100	560	525	*510	492	447
13	70	106	166	b130	130	178	110	566	523	511	498	430
14	75	*106	154	b135	140	180	130	574	527	512	480	434
15	81	103	161	b140	150	173	130	605	538	513	470	445
16	86	127	158	131	160	159	138	590	531	519	480	441
17	85	166	151	118	160	157	133	571	525	514	486	442
18	83	163	153	82	160	153	138	585	519	516	486	426
19	82	132	150	70	155	164	149	632	499	521	485	*421
20	86	144	146	b95	155	163	154	629	510	520	476	442
21	87	151	141	b120	160	163	160	643	515	515	470	450
22	89	154	b140	b120	170	161	150	666	522	521	*466	451
23	83	161	b140	100	230	158	113	607	527	521	456	430
24	82	152	b140	78	350	148	172	585	525	515	460	421
25	86	146	b145	b75	480	144	211	*601	515	509	483	399
26	94	148	b140	70	550	144	246	597	511	507	496	379
27	96	144	b140	70	b650	143	261	571	502	502	495	372
28	98	141	143	65	b600	141	238	*552	490	500	491	374
29	100	139	143	65	-	141	236	579	489	502	483	376
30	114	137	143	80	-------	106	238	588	499	503	492	382
31	118	-------	139	100	-------	92	-------	579	-------	503	498	-------
Total	2,288	3,909	4,389	3,167	6,020	5,826	4,315	16,641	15,558	15,700	15,229	13,059
Mean	73.8	130	142	102	215	188	144	537	519	506	491	435
Ac-ft	4,540	7,750	8,710	6,280	11,940	11,560	8,560	33,010	30,860	31,140	30,210	25,900

Calendar year 1956: Max 580 Min 30 Mean 297 Ac-ft 215,700
Water year 1956-57: Max 666 Min 30 Mean 291 Ac-ft 210,500

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 2, Jan. 23, Jan. 26 to Feb. 26, Mar. 3, 4; discharge estimated on basis of weather records and records for stations near Richfield, Silver Creek near Picabo, and Malad River near Gooding. Shifting-control method used Oct. 3 to Jan. 25.

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 1957 (fragmentary October 1923 to September 1926; no winter records for water years 1923, 1936-37, 1942, irrigation seasons only for water years 1927-35). Prior to October 1950, published as Big Wood River near Gooding.

Gage.--Water-stage recorder. Altitude of gage is 3,345 ft (from topographic map). Prior to Apr. 13, 1921, staff gage at same site and datum.

Average discharge.--25 years (1916-22, 1937-41, 1942-57), 237 cfs (171,600 acre-ft per year).

Extremes.--Maximum discharge during year, 2,930 cfs Feb. 26 (gage height, 8.55 ft), but may have been more during period of ice effect; maximum gage height, 10.06 ft Feb. 24 (ice jam); minimum, 3.8 cfs Oct. 16, 17 (gage height, 0.68 ft).
1916-57: 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 for periods of ice effect, which are poor. Diversions for irrigation of about 155,000 acres above station. Flow regulated by Magic Reservoir (see p. 114) and by several smaller reservoirs on tributaries and affected by deliveries from canals diverting from Snake River at Milner.

Revisions (water years).--WSP 1347: 1934.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 25, 26, May 27 to June 10)

0.6	2.4	3.0	254
.7	4.3	4.0	453
.9	10	5.0	745
1.1	19	6.0	1,140
1.4	40	7.0	1,720
2.0	106	8.0	2,520

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	222	225	139	100	903	*376	259	1,310	74	91	154
2	82	228	209	139	110	617	795	276	1,330	67	106	155
3	*54	220	240	133	120	429	1,090	335	1,420	57	127	167
4	47	230	249	130	120	*311	1,100	460	1,500	37	155	162
5	34	243	*244	119	130	266	1,100	557	1,590	44	148	139
6	34	236	225	110	130	280	909	512	1,640	51	132	123
7	34	261	162	95	130	230	843	*353	1,620	35	137	101
8	33	264	147	110	120	266	1,010	160	1,440	28	146	68
9	32	240	125	115	120	230	953	223	1,350	28	150	64
10	34	241	130	110	130	208	937	406	1,300	18	133	81
11	39	246	222	100	130	1,040	790	572	1,130	18	120	103
12	41	236	254	90	130	1,020	868	897	868	27	116	120
13	54	241	238	120	133	933	587	1,120	626	*38	114	134
14	43	*236	212	130	148	787	361	1,190	572	60	110	136
15	16	232	198	140	161	393	378	1,050	647	85	88	170
16	4.0	266	236	130	180	144	427	1,160	540	58	70	*162
17	21	225	203	120	184	116	415	1,180	382	64	76	172
18	47	280	219	100	170	102	470	1,200	299	81	88	191
19	42	249	219	80	166	88	404	1,750	254	89	97	209
20	43	270	203	80	168	156	415	2,120	209	96	87	208
21	45	243	196	110	164	236	491	2,510	198	103	72	224
22	46	252	160	125	174	296	515	2,520	238	103	59	281
23	54	246	180	125	400	446	537	2,410	203	110	*43	288
24	56	264	217	*105	2,000	443	557	1,910	182	101	34	233
25	59	266	200	80	*2,100	436	784	1,570	161	97	36	224
26	70	233	182	70	2,120	436	790	1,560	137	88	44	200
27	76	235	168	70	2,090	406	714	1,450	112	92	68	190
28	74	227	178	65	1,260	339	686	*1,260	97	91	76	185
29	73	236	178	60	-	337	566	1,190	72	86	87	182
30	76	232	173	60	-------	341	427	1,200	68	77	96	198
31	102	-------	150	90	-------	353	-------	1,250	-------	82	136	-------
Total	1,611.0	7,300	6,142	3,250	13,088	12,588	20,295	34,610	21,495	2,085	3,042	5,024
Mean	52.0	243	198	105	467	406	676	1,116	716	67.3	98.1	167
Ac-ft	3,200	14,480	12,180	6,450	25,960	24,970	40,250	68,650	42,630	4,140	6,030	9,960

Calendar year 1956: Max 2,680 Min 1.6 Mean 385 Ac-ft 279,200
Water year 1956-57: Max 2,520 Min 4.0 Mean 358 Ac-ft 258,900

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 9, Jan. 7-13, Jan. 16 to Feb. 12, Feb. 23, 24.

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 1957 (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.--1930-57: Maximum daily discharge, 348 cfs July 2, 1956; no flow or small flow from leakage at headgate during nonirrigation seasons and other periods when gates were closed.

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

Revisions (water years).--WSP 723: 1930.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312					0	a155	331	329	327	326	326
2	312					0	a155	331	329	331	326	326
3	312					0	a155	331	329	332	328	327
4	312					0	a155	331	329	332	328	327
5	312					0	a155	331	329	329	325	326
6	300		(*)			0	a155	331	329	328	324	326
7	277	(*)				0	a155	331	328	326	325	326
8	277					0	a155	328	328	327	325	326
9	277					0	*155	332	329	329	326	326
10	145					0	155	334	329	328	326	324
11	2					0	208	334	323	326	323	318
12	2					0	243	334	320	326	319	318
13	2					0	243	334	322	326	319	320
14	2			(*)		0	243	335	323	327	320	322
15	2					0	244	334	324	*327	56	323
16	2					0	244	334	324	326	2	324
17	2					0	284	334	322	327	117	318
18	2					0	301	333	318	330	328	313
19	2					0	300	324	320	332	*328	313
20	2					0	299	320	319	332	328	314
21	2					0	299	313	312	331	330	313
22	2					0	299	316	310	331	330	317
23	2					0	298	321	*301	331	330	*321
24	2					0	299	321	291	327	332	320
25	2					a0	299	321	44	327	332	321
26	a2					a6	299	322	2	326	331	321
27	a2				(*)	a10	298	*321	90	326	330	321
28	a2					a10	316	326	311	326	330	321
29	a1				-	a100	*326	328	323	326	329	322
30	a0				-------	a155	332	329	325	326	330	322
31	a0	-------			-------	a155	-------	329	-------	326	329	-------
Total	2,873	0	0	0	0	436	7,224	10,174	8,812	10,171	9,332	9,642
Mean	92.7	0	0	0	0	14.1	241	328	294	328	301	321
Ac-ft	5,700	0	0	0	0	865	14,330	20,180	17,480	20,170	18,510	19,120

Calendar year 1956: Max 348 Min 0 Mean 159 Ac-ft 115,200
Water year 1956-57: Max 335 Min 0 Mean 161 Ac-ft 116,400

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of weather records and observer's notes.

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 1957.

Gage.--Water-stage recorder. Datum of gage is 2,492.3 ft above mean sea level, by stadia levels. May 13, 1909, to Mar. 1, 1910, staff gage on left bank at present site at datum 2.20 ft higher. Mar. 7 to Aug. 16, 1910, staff gage three-quarters of a mile upstream at different datum. Aug. 17, 1910, to Oct. 7, 1928, staff gage at present site and datum.

Extremes.--Maximum discharge during year, 30,300 cfs May 22 (gage height, 12.70 ft); minimum, 2,030 cfs Feb. 6, 14; minimum gage height, 2.65 ft Feb. 14; minimum daily discharge, 7,120 cfs July 2.
1909-57: 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 by many reservoirs above station. Practically entire flow at Milner diverted at times during some irrigation seasons; flow at King Hill is then derived largely from springs and seepage entering below Milner. About 1,590,000 acres of land irrigated by diversions from river and its tributaries above station. Records of chemical analyses for the water year 1957 are given in WSP 1523.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

5.0	5,730	9.0	16,500
6.0	7,840	11.0	23,700
7.0	10,300	13.0	31,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,590	10,400	10,500	10,300	13,000	11,700	16,900	9,700	16,300	7,240	8,160	8,920
2	9,060	11,500	10,500	11,100	12,000	11,500	16,200	9,940	15,200	7,120	8,360	9,000
3	9,920	10,700	10,600	11,600	11,700	10,100	17,200	9,220	15,600	7,440	8,600	8,950
4	9,280	10,600	10,400	11,100	11,100	11,200	16,100	10,500	14,800	7,300	8,380	8,720
5	9,480	11,400	*11,000	11,200	10,100	10,500	15,700	10,700	12,900	7,660	8,280	9,330
6	9,890	11,700	10,800	12,000	9,900	11,300	14,800	11,800	10,500	7,320	8,540	8,650
7	9,420	11,400	10,500	11,300	9,660	11,200	13,600	9,760	10,800	7,370	8,320	9,120
8	10,700	11,100	9,940	11,600	9,900	12,200	13,700	10,600	9,010	7,900	8,540	8,930
9	11,100	11,300	10,100	11,500	9,890	12,700	12,400	10,800	8,940	7,360	8,520	8,750
10	10,600	11,200	11,200	10,600	9,740	13,200	12,600	11,000	9,170	7,600	8,410	8,720
11	10,300	10,700	10,200	10,500	10,700	14,100	13,000	11,800	9,720	7,820	8,370	9,090
12	11,400	11,200	10,900	10,600	9,790	13,600	13,300	14,800	9,420	7,420	8,140	8,900
13	13,500	10,700	10,700	11,400	10,700	12,300	12,500	18,200	9,840	7,400	8,100	9,680
14	14,300	*10,400	10,400	*11,600	8,520	11,600	12,300	17,900	9,270	*7,620	8,370	8,440
15	12,300	9,550	10,700	11,400	10,400	12,500	13,800	20,700	9,860	7,700	8,520	9,320
16	11,900	10,700	10,900	10,100	10,300	11,100	12,900	21,500	9,290	7,570	8,800	9,070
17	10,700	9,500	10,500	11,100	10,000	11,200	12,800	20,900	9,740	7,820	8,820	8,970
18	10,100	10,400	10,700	11,000	10,600	12,600	13,800	20,800	8,660	7,760	7,940	9,360
19	10,400	9,700	10,800	10,900	9,120	12,000	12,900	24,100	8,900	7,830	*8,310	9,580
20	10,800	9,740	11,100	10,300	10,600	12,100	13,100	26,000	7,840	7,920	8,620	*9,530
21	9,900	10,000	10,900	10,500	9,810	12,100	14,200	26,700	8,200	8,000	8,080	9,850
22	11,400	10,300	10,400	10,100	10,400	11,800	15,000	29,200	8,290	7,780	8,340	9,520
23	11,600	11,000	10,300	10,700	10,200	11,500	15,100	27,300	7,820	8,080	8,300	10,300
24	11,700	10,400	9,960	9,820	12,200	12,500	13,300	26,500	*8,300	7,810	8,220	9,460
25	11,100	10,600	10,200	10,600	14,000	*12,800	13,300	25,900	8,260	8,040	8,320	9,660
26	11,100	10,400	11,400	10,900	*14,100	12,700	14,800	25,700	8,030	8,020	8,360	9,730
27	12,000	11,100	10,500	10,100	14,200	12,700	14,800	*25,100	7,980	8,240	8,500	9,000
28	11,200	10,500	10,700	10,700	12,500	13,600	12,200	22,500	7,740	7,980	8,600	9,280
29	11,100	10,400	10,000	10,500	-	16,100	*13,500	19,200	7,610	8,280	8,680	9,080
30	10,900	10,400	10,700	9,940	-------	15,100	11,600	17,900	7,360	8,140	8,440	9,520
31	11,300	-------	10,300	a11,000	-------	15,300	-------	17,700	-------	8,300	8,790	------
Total	338,040	318,990	327,800	336,060	305,130	384,900	417,400	564,420	295,350	239,840	260,930	276,430
Mean	10,900	10,630	10,570	10,840	10,900	12,420	13,910	18,210	9,845	7,737	8,417	9,214
Ac-ft	670,500	632,700	650,200	666,600	605,200	763,400	827,900	‡1,120	585,800	475,700	517,500	548,300

Calendar year 1956: Max 28,900 Min 7,040 Mean 12,160 Ac-ft 8,825,000
Water year 1956-57: Max 29,200 Min 7,120 Mean 11,140 Ac-ft 8,064,000

* Discharge measurement made on this day.
‡ Expressed in thousands.
a No gage-height record; discharge estimated on basis of records for station below lower Salmon Falls.

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 1957 (irrigation seasons only 1924-29, 1931-35, 1938-45).

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,330 ft (by barometer). Prior to May 4, 1924, staff gage and May 4, 1924, to Sept. 30, 1929, water-stage recorder, at site 30 ft downstream at datum 0.07 ft lower.

Extremes.--1924-29, 1931-57: Maximum daily discharge, 182 cfs Jan. 1, 1943; no flow at times in most years.

Remarks.--Records good except those for periods of no gage-height record or ice effect, 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	4.2	1.5	8	11	95	13	85	63	79	48	59
2	a6.5	2.9	1.5	7.5	10	83	13	98	66	78	48	59
3	a6.5	2.3	*1.5	7.5	10	72	13	108	67	78	48	59
4	a6.5	2.1	2.9	7.5	10	65	22	105	67	78	48	53
5	19	2.1	*2.9	7.5	10	82	39	104	67	77	48	46
6	22	2.1	2.5	7.5	10	75	41	97	67	76	47	45
7	23	2.1	2.0	7.5	10	86	33	84	67	75	47	46
8	23	1.9	1.7	7.5	11	97	30	71	67	75	47	46
9	23	1.9	2.0	7.5	11	107	32	63	67	75	47	46
10	23	1.9	2.5	8	12	81	39	61	*66	*75	55	46
11	24	1.9	12	8.5	12	69	40	63	64	74	55	46
12	22	1.9	19	9	11	68	58	64	63	74	55	46
13	21	2.1	9.2	9.5	*11	59	64	63	54	72	55	46
14	20	1.7	12	9	45	55	61	56	47	71	55	46
15	18	1.7	12	7	31	51	57	56	46	71	55	43
16	18	1.7	13	*8	30	52	54	54	45	70	55	43
17	20	1.7	12	7	30	55	52	53	57	70	62	43
18	29	1.7	11	7	29	57	51	57	58	70	62	43
19	27	1.7	11	7	30	64	49	76	66	69	61	43
20	25	1.7	10	8	31	67	50	87	67	69	63	43
21	17	1.7	9.5	8.5	32	71	50	87	66	69	62	43
22	a5.0	1.7	9	8.5	43	66	54	85	67	68	*60	43
23	*4.8	1.7	9	8.5	109	62	54	82	65	67	60	43
24	4.8	1.7	9.2	8	113	60	*51	78	69	67	60	43
25	4.2	1.7	9	8	134	*63	54	74	77	63	60	42
26	7.2	1.7	8.5	7.5	177	62	64	71	76	59	66	42
27	6.0	1.7	8.5	7	*179	41	62	68	85	51	67	42
28	4.5	1.6	8	7	117	35	63	64	84	49	65	42
29	3.8	1.6	8	7	-	43	71	63	84	49	60	42
30	4.8	1.5	8	7	-------	60	85	60	84	49	60	42
31	5.6	-------	8	9	-------	39	-------	63	-------	49	59	-------
Total	452.6	57.9	236.9	242.0	1,269	2,042	1,419	2,300	1,988	2,116	1,740	1,371
Mean	14.6	1.93	7.64	7.81	45.3	65.9	47.3	74.2	66.3	68.3	56.1	45.7
Ac-ft	898	115	470	480	2,520	4,050	2,810	4,560	3,940	4,200	3,450	2,720

Calendar year 1956: Max 125 Min 1.5 Mean 42.1 Ac-ft 30,580
Water year 1956-57: Max 179 Min 1.5 Mean 41.7 Ac-ft 30,210

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, records for Moore Creek above Robie Creek, near Arrowrock, and other nearby stations.
Note.--Stage-discharge relation affected by ice Nov. 20 to Dec. 3, Dec. 6-10, 21-23, Dec. 25 to Feb. 14.

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 1957. Monthly discharge only for October 1928, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to Sept. 23, 1953, at same site at datum about 1.6 ft higher.

Average discharge.--8 years (1928-32, 1953-57), 51.3 cfs (37,140 acre-ft per year).

Extremes.--Maximum discharge during year, 614 cfs June 5 (gage height, 5.11 ft); minimum, 3.9 cfs Jan. 17; minimum gage height, 2.11 ft Sept. 24.
1928-33, 1953-57: Maximum discharge, that of June 5, 1957; minimum, 1.6 cfs Nov. 30, 1954; minimum gage height, that of Sept. 24, 1957.

Remarks.--Records good except those for period of shifting control, which are fair. No regulation or diversion above station.

Rating tables, water year 1956-57, except period of shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 9				June 10 to Sept. 30			
2.4	6.5	3.5	152	2.1	7.5	3.1	134
2.5	10	4.0	257	2.3	18	3.5	218
2.6	17	4.5	374	2.5	35	4.0	341
2.8	37	5.0	496	2.8	77	4.4	449
3.0	63	5.5	622				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	9.9	8.3	9.9	8.3	24	38	170	471	305	36	17
2	8.3	13	7.5	11	7.9	24	36	188	494	278	34	16
3	8.3	9.5	9.5	9.5	7.5	23	37	*182	541	243	32	15
4	7.9	12	*9.5	7.5	7.2	22	36	150	566	232	31	15
5	7.9	13	9.1	7.2	7.9	22	39	152	576	203	30	15
6	7.9	13	8.3	7.9	7.5	20	68	196	534	196	30	14
7	7.9	13	6.8	8.7	7.5	27	65	239	478	192	30	13
8	8.3	13	7.2	9.9	7.5	37	71	273	466	177	29	13
9	8.7	12	9.1	8.7	7.5	38	81	296	464	167	27	13
10	8.7	12	12	9.5	7.5	37	86	278	*399	154	26	14
11	15	12	15	11	7.5	32	86	268	341	146	25	14
12	17	12	32	10	7.5	30	86	248	325	138	25	13
13	12	12	22	9.9	8.3	26	84	253	328	130	24	12
14	11	11	20	9.5	29	22	91	244	290	124	24	12
15	9.9	8.3	15	*9.1	15	25	101	*222	258	112	23	12
16	9.5	14	18	7.5	14	23	96	226	225	99	23	12
17	9.5	12	11	6.5	13	22	89	250	198	93	22	12
18	9.5	9.1	15	8.3	14	22	86	285	196	86	21	14
19	9.5	8.3	13	9.5	15	22	79	454	236	81	21	16
20	9.5	7.9	9.9	9.9	*17	22	77	388	295	*74	21	14
21	9.5	10	11	8.7	19	25	74	314	300	67	21	13
22	9.1	10	7.9	7.2	19	24	76	312	*268	61	21	12
23	9.5	9.5	12	8.7	27	24	73	314	275	55	20	12
24	*10	9.5	13	8.7	28	23	73	305	290	53	*18	11
25	10	8.7	9.5	8.3	27	25	68	294	331	48	18	10
26	12	9.1	9.5	8.3	27	29	63	312	338	48	18	*10
27	19	8.3	9.1	6.8	29	27	62	348	344	46	18	10
28	15	8.3	9.9	8.3	28	*27	69	384	364	43	18	10
29	11	9.1	10	6.8	-	29	105	398	370	42	18	10
30	12	9.1	11	7.2	-------	37	139	434	344	40	18	10
31	13	-------	10	8.3	-------	38	-------	427	-------	37	18	-------
Total	324.7	318.6	371.1	268.3	420.6	828	2,234	8,804	10,905	3,770	740	384
Mean	10.5	10.6	12.0	8.65	15.0	26.7	74.5	284	364	122	23.9	12.8
Ac-ft	644	632	736	532	834	1,640	4,430	17,460	21,630	7,480	1,470	762

Calendar year 1956: Max 521 Min 6.8 Mean 62.4 Ac-ft 45,330
Water year 1956-57: Max 576 Min 6.5 Mean 80.5 Ac-ft 58,250

Peak discharge (base, 200 cfs).--May 9 (1:30 a.m.) 331 cfs (4.29 ft); May 19 (4:30 a.m.) 501 cfs (4.95 ft); June 5 (2 a.m.) 614 cfs (5.11 ft); June 29 (5 a.m.) 391 cfs (4.19 ft).

* Discharge measurement made on this day.
Note.--Shifting-control method used May 20 to June 9.

East Fork Bruneau River below Three Creek, near Three Creek, Idaho

Location.--Lat 42°10', long 115°13', in NE¼ sec. 31, T. 14 S., R. 11 E., on left bank, 1 mile downstream from Three Creek and 7 miles northwest of Three Creek Post Office.

Drainage area.--210 sq mi, approximately.

Records available.--May to September 1953, November 1953 to November 1954, January 1955, March 1955 to September 1957 (fragmentary May, August, November 1953, June to November 1954, January, March, June to August 1955).

Gage.--Water-stage recorder. Altitude of gage, 5,150 ft (by barometer). Prior to Aug. 30, 1955, staff gage at site at Salls Ranch about 3 miles downstream at different datum.

Extremes.--Maximum discharge during year, 451 cfs May 19 (gage height, 7.43 ft); minimum, 4.1 cfs Oct. 1 (gage height, 2.65 ft).
1953-57: Maximum discharge recorded, that of May 19, 1957; minimum recorded, 1.1 cfs Sept. 11, 12, 13, 1955 (gage height, 2.32 ft).

Remarks.--Records good except those for periods of ice effect, which are 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, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-10)

Oct. 1 to May 18				May 19 to Sept. 30			
2.5	3.4	3.5	51	2.9	7.0	4.0	80
2.6	5.2	4.0	97	3.0	9.5	5.0	180
2.8	10	5.0	197	3.2	18	6.0	290
3.0	17	6.0	301	3.5	39	7.2	425
3.2	28	7.0	406				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	10	7.5	9	9	20	56	76	248	57	14	13
2	4.4	9.7	7	10	8.5	20	49	109	220	49	14	12
3	5.0	8.5	8	8.5	8	21	46	161	204	44	13	11
4	5.0	9.0	*8.5	7	8	21	43	166	204	39	13	9.5
5	5.0	12	8	7	8	24	45	131	192	37	12	9.5
6	5.0	13	7.5	7	8	22	58	138	177	32	12	9.5
7	5.0	11	6.5	8	8	43	75	179	156	30	12	9.0
8	5.2	9.7	6.5	9	8	36	92	230	149	29	13	9.0
9	5.6	9.5	9	8	8	34	77	271	159	26	13	9.0
10	6.5	9.5	14	9	8	33	79	308	195	25	12	9.2
11	12	9.5	35	10	8	31	79	344	139	24	12	9.9
12	12	9.2	21	11	8	30	80	335	115	23	12	10
13	9.0	9.5	16	11	29	28	77	297	111	22	12	11
14	8.2	9.5	17	11	33	27	76	313	99	18	12	10
15	7.7	9.0	12	*10	30	28	79	*327	105	16	12	11
16	7.4	9.7	13	8.5	25	28	83	376	102	16	12	11
17	7.4	10	11	7.5	17	27	82	403	85	16	12	12
18	7.9	10	11	9	18	28	88	369	77	15	13	12
19	8.2	8	10	10	19	27	96	*423	68	14	16	15
20	7.9	7	10	11	*22	26	86	397	66	14	16	15
21	7.9	9	10	10	19	27	82	379	78	14	14	14
22	7.9	9	8.5	9	46	27	76	*406	*73	14	12	14
23	8.2	9	11	9.5	79	27	70	421	66	*14	12	13
24	*8.2	8.5	11	9.5	48	28	62	413	58	16	*12	13
25	9.2	8.5	10	9.5	32	30	61	377	54	13	12	13
26	9.7	8	9	9	27	37	59	351	51	13	13	*13
27	9.7	8	9	8.5	24	33	56	334	53	14	12	12
28	9.2	8	9	7	22	*33	54	320	51	14	12	9.5
29	9.0	8	9	6	-	34	57	327	53	16	13	9.9
30	9.2	8	10	8	-------	41	66	297	52	16	14	11
31	10	-------	9	9	-------	50	-------	300	-------	14	14	-------
Total	237.0	277.3	344.0	276.5	587.5	921	2,089	9,278	3,460	704	397	340.0
Mean	7.65	9.24	11.1	8.92	21.0	29.7	69.6	299	115	22.7	12.8	11.3
Ac-ft	470	550	682	548	1,170	1,830	4,140	18,400	6,860	1,400	787	674

Calendar year 1956: Max 179 Min 3.1 Mean 22.3 Ac-ft 16,210
Water year 1956-57: Max 423 Min 4.4 Mean 51.8 Ac-ft 37,510

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 1, 3, 4, 14, 15, Nov. 17 to Dec. 11, Dec. 15, 17, 18, Dec. 21 to Feb. 19, Mar. 14.

East Fork Bruneau River near Hot Spring, Idaho

Location (revised).--Lat 42°33'25", long 115°30'35", in SW¼NW¼ sec. 15, T. 10 S., R. 8 E., on right bank at Winter Camp Ranch, 10 miles upstream from mouth and 20 miles southeast of Hot Spring.

Drainage area.--620 sq mi, approximately.

Records available.--August 1910 to November 1914, February to April 1915, December 1948 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 3,864.7 ft, datum of 1929, supplementary adjustment of 1947 (levels by Topographic Division). Prior to Dec. 10, 1948, staff gage at approximately present site at different datum.

Average discharge.--12 years (1910-14, 1949-57), 32.9 cfs (23,820 acre-ft per year).

Extremes.--Maximum discharge during year, 463 cfs May 20 (gage height, 7.12 ft); minimum, 0.6 cfs Oct. 1 (gage height, 1.49 ft).

1910-15, 1948-57: Maximum discharge recorded, that of May 20, 1957, but may have been more during period of ice effect Mar. 7, 8, 1911; maximum gage height observed, 10.8 ft (corrected) 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 in use, during spring of 1910.

Correction.--The maximum gage height for water year 1911 has been corrected to 10.8 ft Mar. 8, 1911, superseding figure published in WSP 413 and 1317.

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 the East Fork, to Cedar Creek Reservoir in Salmon Falls Creek bason for irrigation.

Revisions (water years).--WSP 1397: 1949.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 24, Apr. 9-24, May 3-19, July 5-17)

Oct. 1 to Feb. 15				Feb. 16 to Sept. 30			
1.5	0.5	1.8	4.4	1.8	3.5	3.0	62
1.6	1.2	2.0	10	1.9	5.8	4.0	139
1.7	2.5	2.3	22	2.0	8.8	5.0	232
				2.3	20	6.0	338
				2.6	36	7.0	456

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	9.7	9	10	8	32	46	53	308	45	10	12
2	.8	8.8	8.5	10	8	31	53	62	271	47	8.8	11
3	.8	8.0	*10	11	7.5	28	49	84	244	43	9.2	9.2
4	1.1	6.9	10	9	7	29	45	129	229	40	7.6	8.2
5	1.1	12	10	7	7	29	42	164	225	35	7.3	7.6
6	1.1	12	9	7	7	31	44	147	213	33	7.3	6.1
7	1.7	13	8	7	7	32	52	137	*199	30	7.0	6.4
8	2.0	13	7.5	8	7	42	65	162	181	24	7.3	5.6
9	2.5	11	7.5	9	7	47	91	203	172	23	7.3	5.3
10	2.4	10	11	8	7	40	78	236	182	*22	6.4	5.6
11	3.6	10	19	9	7	39	76	274	206	20	6.4	5.8
12	5.6	9.7	30	10	7	38	78	302	165	20	7.0	6.1
13	14	10	38	11	*7	36	78	313	134	19	6.7	7.0
14	11	10	20	10	8	32	74	*280	125	20	7.0	8.5
15	8.1	9	21	*9.5	20	28	72	283	115	17	7.3	8.5
16	7.2	9.5	15	9	35	35	73	303	117	15	6.7	8.5
17	6.4	12	16	8	25	34	80	337	114	12	7.0	8.5
18	5.4	11	13	7	20	32	83	396	94	12	7.6	8.8
19	5.6	11	12	8	22	32	86	376	83	11	7.6	9.9
20	6.2	8	11	9	25	31	103	422	70	11	*7.6	11
21	6.4	10	11	10	23	30	93	*416	67	10	10	14
22	6.4	10	9	9	40	30	86	385	75	9.9	11	13
23	6.6	10	11	8.5	52	30	*75	415	74	7.3	7.9	12
24	*6.9	10	11	9	115	29	70	438	66	6.7	4.6	11
25	7.2	9.5	10	9	65	*30	60	425	58	7.3	4.9	11
26	7.8	9	10	9	53	30	56	382	53	8.8	4.4	11
27	8.8	9	9	8	43	35	52	353	49	8.2	5.3	9.9
28	9.1	9	9	7.5	36	34	50	336	48	7.6	7.9	9.5
29	8.1	9	8	6.0	-	33	48	324	43	8.5	10	9.5
30	8.8	9	10	5.5	-------	34	47	328	45	9.5	9.9	8.8
31	9.4	-------	10	7.5	-------	38	-------	309	-------	10	9.9	-------
Total	172.8	299.1	393.5	265.5	675.5	1,031	2,005	8,774	4,025	592.8	234.9	269.3
Mean	5.57	9.97	12.7	8.56	24.1	33.3	66.8	283	134	19.1	7.58	8.98
Ac-ft	343	593	780	527	1,340	2,040	3,980	17,400	7,980	1,180	466	534

Calendar year 1956: Max 144 Min 0.2 Mean 21.2 Ac-ft 15,370
Water year 1956-57: Max 438 Min 0.7 Mean 51.3 Ac-ft 37,160

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 3, 7-10, Nov. 14 to Feb. 22.

Bruneau River near Hot Spring, Idaho

Location.--Lat 42°46'17", long 115°43'10", in SE¼ sec. 34, T. 7 S., R. 6 E., on right bank at Dunham Ranch, 1 mile downstream from Hot Creek, 1½ miles south of Hot Spring Post Office, 9 miles southeast of Bruneau, and 19 miles (revised) downstream from East Fork.

Drainage area.--2,010 sq mi, approximately.

Records available.--July 1909 to March 1915, October 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 2,598.5 ft above mean sea level, datum of 1929 (levels by Topographic Division). 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.--19 years (1909-14, 1943-57), 408 cfs (295,400 acre-ft per year).

Extremes.--Maximum discharge during year, 4,080 cfs May 20 (gage height, 9.86 ft); minimum, 40 cfs Dec. 9 (gage height, 3.45 ft).
1909-15, 1943-57: Maximum discharge, 6,500 cfs (revised) Mar. 1, 1910 (gage height, 13.0 ft, present site and datum), from floodmark, from rating curve extended above 1,200 cfs; minimum observed, 40 cfs Jan. 23, Nov. 29, 1911, Dec. 9, 1956.
Revisions.--Maximum discharge observed for the water year 1910 has been revised to 6,500 cfs Mar. 1, 1910 (gage height, 13.0 ft, present site and datum), superseding figure published in WSP 292 and 1317.

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 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 3-30)

3.5	46	5.5	715
3.8	94	6.0	1,030
4.2	185	7.0	1,700
4.6	316	8.0	2,430
5.0	481	10.0	4,140

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	119	75	102	113	574	516	908	2,300	824	137	88
2	64	115	86	107	126	430	477	1,050	2,300	737	135	88
3	65	109	*92	100	117	384	421	1,190	2,350	680	130	88
4	65	104	109	98	113	324	451	1,160	2,430	606	128	84
5	65	109	122	84	109	294	421	1,080	2,450	566	124	81
6	65	119	109	77	107	320	481	1,100	2,430	516	119	79
7	65	119	86	55	107	309	812	1,300	*2,230	494	115	77
8	65	126	49	84	111	610	700	1,530	*2,000	468	113	73
9	67	133	50	88	115	794	680	1,790	1,900	434	111	73
10	69	135	87	79	115	742	695	1,870	1,830	*404	109	72
11	75	133	135	88	113	561	759	1,890	1,610	376	104	73
12	81	130	165	113	111	438	788	1,990	1,390	359	100	75
13	113	128	362	124	*117	409	776	2,020	1,300	343	98	77
14	107	128	477	139	119	332	776	*2,040	1,230	320	96	77
15	96	117	466	133	222	280	824	1,920	1,120	309	92	77
16	92	102	270	*115	435	320	862	1,880	1,040	287	90	77
17	88	124	240	92	451	324	818	2,020	940	263	88	79
18	86	119	188	59	355	277	764	2,130	818	249	86	79
19	86	111	170	55	280	280	764	2,760	759	236	86	79
20	86	81	162	98	294	280	737	3,920	806	224	*84	86
21	86	75	128	113	347	309	720	*3,140	895	211	81	96
22	86	90	109	107	328	343	700	2,640	869	200	81	94
23	*88	88	98	98	672	305	*690	2,550	824	194	83	92
24	92	92	113	96	1,040	273	665	2,500	812	182	81	90
25	92	92	142	92	921	*273	650	2,320	830	180	77	88
26	96	88	113	83	974	305	602	2,150	876	168	75	86
27	100	88	79	67	*843	468	566	2,100	876	160	75	84
28	117	86	83	52	973	388	543	2,150	895	158	73	81
29	128	84	84	61	-	359	592	2,190	934	153	77	81
30	124	79	79	69	-------	400	742	2,250	882	148	84	81
31	119	-------	102	79	-------	579	-------	2,380	-------	144	90	-------
Total	2,692	3,223	4,632	2,807	9,728	12,284	19,992	61,918	41,926	10,593	3,022	2,455
Mean	86.8	107	149	90.5	347	396	666	1,997	1,398	342	97.5	81.8
Ac-ft	5,340	6,390	9,190	5,570	19,300	24,360	39,650	122,800	83,160	21,010	5,990	4,870

Calendar year 1956: Max 2,390 Min 49 Mean 378 Ac-ft 274,700
Water year 1956-57: Max 3,920 Min 49 Mean 480 Ac-ft 347,600

* 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 1957. Remote registering water-stage recorder in channel leading to Grand View Irrigation District canal. Datum of gage is at mean sea level (levels of Idaho Power Co.).

Reservoir is formed by earth-fill and rock-faced dam. Storage began in February 1952. Total capacity, 250,000 acre-ft at elevation 2,455 ft (top of spillway gates), of which about 50,000 acre-ft will be controlled storage. Reservoir is used for power generation in plant of Idaho Power Co. Elevations and area-elevation curve furnished by Idaho Power Co.

Month-end elevations and total contents at 12 p.m., October 1956 to September 1957

Date	Elevation (feet)	Contents (acre-feet)
Oct. 31, 1956	2,453.43	238,400
Nov. 30	2,454.03	242,800
Dec. 31	2,454.98	249,900
Jan. 31, 1957	2,453.20	236,800
Feb. 28	2,455.13	251,000
Mar. 31	2,455.20	251,500
Apr. 30	2,454.43	245,700
May 31	2,455.40	253,000
June 30	2,454.70	247,800
July 31	2,454.73	248,000
Aug. 31	2,454.47	246,100
Sept. 30	2,454.22	244,200

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 1957.

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, 34,700 cfs May 23 (gage height, 11.84 ft); minimum, 6,860 cfs Aug. 28 (gage height, 3.55 ft); minimum daily, 7,130 cfs July 14.

1912-57: 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 except those for period of no gage-height record, which are good. 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 above) 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,100	11,100	11,000	11,600	a9,300	15,100	13,300	10,300	19,500	7,470	7,610	8,640
2	9,720	10,700	11,500	11,000	a14,200	13,900	17,700	9,570	17,800	7,750	7,890	8,730
3	9,720	12,100	9,900	12,900	a9,000	14,200	20,600	9,720	17,300	7,980	8,350	8,580
4	10,400	11,300	9,660	13,100	9,720	13,700	18,100	11,900	17,700	7,950	8,820	8,610
5	10,800	12,100	10,900	12,800	11,800	10,300	16,500	11,500	17,500	7,220	8,000	8,820
6	12,000	11,500	11,000	11,400	12,800	12,700	16,300	11,500	13,800	7,610	7,860	9,000
7	12,400	12,600	11,700	11,600	*11,600	14,500	16,200	11,800	12,700	7,750	7,750	8,850
8	12,500	12,700	11,900	12,300	11,500	13,300	15,300	12,900	12,700	7,410	8,440	8,610
9	11,100	12,800	10,100	12,000	11,400	14,400	14,400	13,500	13,800	7,770	8,470	8,700
10	*9,570	12,000	10,900	12,500	9,990	14,800	13,900	12,800	13,900	7,720	8,530	9,330
11	9,420	9,660	11,400	12,100	8,120	13,800	13,500	14,100	10,600	8,380	8,180	8,610
12	10,100	11,800	10,100	11,300	10,200	14,600	14,100	11,100	10,800	7,690	7,860	8,760
13	12,500	12,200	10,300	9,150	12,600	14,800	14,300	14,100	10,500	7,500	7,790	9,210
14	13,000	12,100	10,700	8,060	10,500	14,500	13,400	13,900	10,700	7,130	7,550	9,630
15	12,700	*12,300	11,000	11,300	9,000	14,200	12,800	*20,200	10,100	7,780	7,640	9,180
16	12,500	11,000	11,400	12,700	9,450	14,500	14,900	22,500	9,510	7,920	8,210	9,480
17	12,500	8,910	11,500	11,700	11,500	11,700	*14,400	23,200	10,700	7,220	8,060	9,330
18	10,600	7,800	10,900	12,900	10,600	*10,100	14,400	22,700	10,700	7,330	8,880	8,880
19	10,200	9,450	11,200	13,500	12,000	14,400	14,400	23,200	10,900	8,090	8,090	9,990
20	11,100	10,700	*11,400	12,100	10,900	14,800	15,000	28,100	9,900	7,550	8,470	9,780
21	11,000	11,300	12,200	10,800	11,500	14,600	14,000	29,700	*9,000	7,550	8,670	9,840
22	9,600	10,900	14,200	13,100	10,200	12,800	14,100	30,200	8,850	8,000	7,860	10,100
23	10,100	9,840	11,900	10,400	11,300	13,000	15,200	31,500	7,190	*7,580	7,500	10,100
24	12,100	10,600	8,790	10,100	11,400	12,100	16,000	29,200	7,190	7,920	8,270	9,870
25	12,600	11,200	9,150	9,840	12,300	11,300	14,100	28,800	8,380	7,550	7,330	10,100
26	13,400	10,700	9,210	10,100	15,400	13,800	15,200	28,000	9,120	8,120	7,860	10,400
27	11,800	11,600	11,600	10,100	17,000	14,200	13,800	*27,400	9,600	7,750	8,530	9,780
28	11,000	11,600	13,300	8,240	16,100	13,000	15,400	26,000	8,730	7,950	*7,640	9,450
29	11,600	12,100	13,300	a13,200	-	11,400	14,200	23,600	7,750	7,690	8,940	9,660
30	11,900	12,100	11,200	a12,100	-------	12,400	14,100	20,100	8,610	8,150	8,270	9,720
31	11,200	-------	10,400	a9,000	-------	10,700	-------	20,200	-------	8,030	8,350	-------
Total	349,130	336,760	343,710	352,990	321,380	413,600	449,200	609,290	345,530	239,210	252,670	279,740
Mean	11,260	11,230	11,090	11,390	11,480	13,340	14,970	19,650	11,520	7,716	8,151	9,325
Ac-ft	692,500	668,000	681,700	700,100	637,400	820,400	891,000	‡1,209	685,300	474,500	501,200	554,900

Calendar year 1956: Max 33,800 Min 7,130 Mean 12,610 Ac-ft 9,157,000
Water year 1956-57: Max 31,500 Min 7,130 Mean 11,760 Ac-ft 8,516,000

* Discharge measurement made on this day. ‡ Expressed in thousands.
a No gage-height record; discharge estimated on basis of powerplant records at Swan Falls furnished by Idaho Power Co.

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 1957. Month-end contents for some periods, published in WSP 1317.

Gage.--Gage readings obtained about twice a month 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, 33,990 acre-ft Apr. 16 (gage height, 80.7 ft); minimum observed, 16,460 acre-ft Oct. 25.
1938-57: 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 (sill of outlet gate) and 80.0 ft (spillway crest). No dead storage. Water is used for irrigation on Duck Valley project.

Cooperation.--Most of gage-height record and base data for capacity table furnished by Office of Indian Affairs.

Capacity table, water year 1956-57 (gage height, in feet, and total contents, in acre-feet)

69.0	16,160	76.0	25,850
70.0	17,370	78.0	29,150
72.0	19,965	80.0	32,690
74.0	22,790	81.0	34,550

Total contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	18,580	26,260	-	-	-	-	-	-
2	-	16,640	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	33,620	-	-	-	-
4	-	-	-	-	-	-	-	-	33,340	-	-	-
5	17,250	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	19,500
7	-	-	17,010	-	-	-	-	-	-	-	-	-
8	-	-	-	17,880	-	-	33,620	-	-	-	-	-
9	-	16,700	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	27,640	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	17,010	-	-	-	-	-	-	-	-	-	-	-
13	-	-	17,370	-	-	-	-	-	-	-	-	18,640
14	-	-	-	-	-	-	-	-	-	-	22,210	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	16,760	-	-	-	-	33,990	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	16,640	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	b16,810	-	-	19,440	-	-	-	-	-	-	17,500
24	-	-	-	-	-	-	-	-	-	-	-	-
25	16,460	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	a25,120	-	-	-	31,430	-	-	-
29	-	-	-	-	-	30,540	-	-	-	-	-	-
30	-	16,890	-	-	-------	-	a33,680	-	a30,800	-	-	a17,090
31	a16,600	-------	b17,680	a18,550	-------	a31,160	-------	a33,380	-------	a24,380	a20,210	-------
(†)	-	69.6	70.5	-	-	-	-	-	-	-	-	-
(‡)	-1,100	+290	+790	+870	+6,570	+6,040	+2,520	-300	-2,580	-6,420	-4,170	-3,120

Calendar year 1956..... ‡ +16,520
Water year 1956-57..... ‡ -610

† 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 1957. 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.--29 years (1917-25, 1936-57), 43.4 cfs (31,420 acre-ft per year), unadjusted.

Extremes.--Maximum daily discharge during year, 352 cfs May 20; no flow Nov. 1 to Apr. 4. 1916-25, 1936-57: 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 except those for periods of no gage-height record, which are fair. Small diversions above station for irrigation. Flow regulated by Wild Horse Reservoir beginning Mar. 18, 1938 (see preceding page).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 6-25)

0.4	0	1.1	2.0	2.2	31
.5	.1	1.3	3.5	2.6	66
.6	.2	1.5	5.8	3.0	123
.7	.3	1.7	9.7	3.5	221
.9	.9	1.9	16	4.1	352

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35						0	149	147	158	54	50
2	35						0	156	134	158	54	50
3	35						0	*160	121	158	53	50
4	35						0	164	*111	158	53	50
5	32						a60	156	100	158	53	50
6	29						a100	149	87	158	53	50
7	29						a140	149	78	158	53	50
8	29			(*)			*162	156	72	158	53	50
9	29						178	162	71	120	53	50
10	29						210	168	82	*92	53	50
11	24						206	184	81	92	52	50
12	21						242	204	72	92	52	50
13	21		(*)				236	204	64	92	52	49
14	21						236	196	57	92	*52	49
15	21						250	188	52	92	52	49
16	20						*242	188	50	82	52	49
17	19						219	186	48	67	52	49
18	19						208	184	45	67	52	49
19	19						198	287	41	67	51	49
20	19						190	352	57	67	51	41
21	19						184	327	71	67	51	34
22	10						176	305	62	67	51	34
23	1.5				(*)		164	281	54	67	51	*34
24	1.5						154	252	72	67	51	34
25	*1.4						147	223	116	67	50	34
26	a1.2						134	198	158	63	50	34
27	a1.0						127	182	158	54	50	26
28	a.8						125	166	*158	54	50	21
29	a.6				-		132	160	158	54	50	21
30	a.4				-------		139	156	158	54	50	22
31	a.2	-------			-------		-------	156	-------	50	50	-------
Total	558.6	0	0	0	0	0	4,559	6,148	2,735	2,954	1,604	1,278
Mean	18.0	0	0	0	0	0	152	198	91.2	95.3	51.7	42.6
Ac-ft	1,110	0	0	0	0	0	9,040	12,190	5,420	5,860	3,180	2,530

Calendar year 1956: Max 136 Min 0 Mean 21.1 Ac-ft 15,300
Water year 1956-57: Max 352 Min 0 Mean 54.3 Ac-ft 39,330

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

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 1957.

Gage.--Water-stage recorder. Datum of gage is 5,425 ft above mean sea level, unadjusted.

Average discharge.--18 years, 147 cfs (106,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,450 cfs May 19 (gage height, 9.34 ft); minimum not determined, occurred during period of ice effect.
1939-57: 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, which are fair. Numerous diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 132).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-30, Nov. 5-13, 17, Feb. 25 to May 8, June 19 to July 19)

1.0	9.3	3.0	140	7.0	650
1.3	22	4.0	232	8.0	880
1.6	38	5.0	341	8.6	1,050
2.0	63	6.0	476	9.2	1,350

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	21	21		17	157	266	578	646	225	70	55
2	42	21	22		17	139	241	640	602	213	71	55
3	42	21	22		17	121	255	*652	557	207	70	55
4	43	22	21		17	121	229	598	*518	201	70	54
5	44	24	20		18	153	259	582	482	198	68	55
6	42	27	16		19	152	490	611	437	190	67	55
7	40	27	14		20	334	501	692	394	190	67	54
8	40	24	10	(*)	23	442	*485	787	364	188	66	53
9	41	22	12		22	336	505	854	347	185	66	54
10	41	22	20		21	262	557	864	370	*134	64	55
11	52	21	80		23	206	598	859	318	123	60	56
12	50	20	200		25	187	611	918	291	114	58	55
13	45	22	*145		28	154	603	*1,010	271	116	57	56
14	42	18	90		40	142	619	976	242	113	*55	56
15	41	20	50		65	144	666	912	244	113	53	57
16	40	22	35	17	60	131	*656	902	241	113	53	57
17	38	21	27		55	119	594	880	208	98	55	57
18	38		25		60	129	572	902	185	90	53	60
19	38		22		70	134	547	1,220	158	90	54	64
20	38		20		65	139	523	1,320	153	84	53	62
21	38		18		100	152	504	1,230	188	83	54	55
22	38		20		200	127	501	1,140	174	85	55	48
23	34		22		*380	118	476	1,070	156	85	55	*47
24	23	21	21		350	126	464	994	146	84	53	47
25	*21		20		420	181	424	920	165	83	55	46
26	30		20		303	225	399	857	207	80	54	45
27	36		20		*361	165	384	809	226	77	53	44
28	30		21		212	164	401	778	*228	74	54	38
29	24		21		-	192	464	740	233	73	54	34
30	23		20		-------	281	532	707	230	72	54	34
31	22	-------	20		-------	254	-------	703	-------	72	55	-------
Total	1,158	648	1,095	527	3,008	5,687	14,326	26,685	8,981	3,853	1,826	1,563
Mean	37.4	21.6	35.3	17.0	107	183	478	861	299	124	58.9	52.1
Ac-ft	2,300	1,290	2,170	1,050	5,970	11,280	28,420	52,930	17,810	7,640	3,620	3,100

Calendar year 1956: Max 753 Min 10 Mean 132 Ac-ft 96,180
Water year 1956-57: Max 1,320 Min 10 Mean 190 Ac-ft 137,600

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Oct. 31 to Nov. 4, Nov. 14-16, Nov. 18 to Feb. 24.

South Fork Owyhee River near Whiterock, Nev.

Location.--Lat 41°48', long 116°29', in NE¼ sec. 16, T. 45 N., R. 49 E., on left bank 500 ft downstream from Rye Grass Creek, 1¾ miles upstream from Chimney Creek, and 17 miles northwest of Whiterock.

Records available.--October 1955 to September 1957.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 3,420 cfs May 20 (gage height, 7.17 ft); minimum, 1.8 cfs Sept. 3.
1955-57: Maximum discharge, that of May 20, 1957; no flow Oct. 1-12, 1955.

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 23, 24, Mar. 1 to Apr. 20, Apr. 23 to May 9)

1.6	0.8	2.5	171
1.7	2.7	3.0	345
1.8	6.6	4.0	860
1.9	19	5.0	1,550
2.0	37	7.0	3,270

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	25	33		26	192	640	475	914	122	59	2.5
2	*5.0	25	35		26	171	575	535	812	136	54	2.2
3	5.0	25	36		26	186	555	555	762	177	49	2.0
4	5.5	31	35		26	201	505	635	740	142	47	2.5
5	5.5	35	32		27	399	*465	657	750	128	42	2.7
6	6.0	39	29		28	404	545	580	718	111	35	2.7
7	6.0	*39	25		29	701	590	535	*646	100	27	3.0
8	5.5	39	20	(*)	32	696	545	605	600	98	27	3.0
9	6.0	39	21		31	555	500	750	600	98	25	2.7
10	6.6	37	*23		30	417	475	830	740	*95	25	3.0
11	9.5	37	40		32	333	470	956	657	90	25	3.2
12	12	35	100		34	300	485	1,720	510	87	24	3.6
13	17	39	170		36	271	480	*2,300	445	84	*22	3.0
14	20	36	300		60	204	470	1,800	363	84	20	3.0
15	16	36	250		100	227	470	1,530	430	82	20	3.9
				26								
16	13	39	120		90	253	455	*1,480	408	79	19	3.6
17	12	42	70		80	260	465	1,330	337	77	17	6.6
18	11	38	40		90	320	515	1,260	220	77	13	11
19	11	35	35		95	372	668	2,430	227	71	5.0	12
20	14		30		90	304	745	*3,160	217	*71	3.9	14
21	24		28		150	286	824	2,560	214	71	3.9	14
22	33		30		*355	289	824	2,130	198	71	3.6	*14
23	37		32		408	271	734	1,960	183	71	3.6	12
24	35		30		470	300	646	1,640	171	69	3.2	12
25	33	33	28		324	354	580	1,350	154	69	2.7	12
26	33		28		282	560	530	1,140	139	69	2.7	12
27	35		28		*324	465	485	1,020	*134	69	2.7	12
28	33		28		260	408	445	956	134	71	2.2	17
29	30		29		-	386	412	896	131	71	2.5	20
30	27		30		-------	435	*404	974	139	69	2.5	25
31	26	-------	28		-------	465	-------	993	-------	64	2.7	-------
Total	538.6	1,034	1,763	806	3,561	10,985	16,502	39,742	12,693	2,773	591.2	240.2
Mean	17.4	34.5	56.9	26.0	127	354	550	1,282	423	89.5	19.1	8.01
Ac-ft	1,070	2,050	3,500	1,600	7,060	21,790	32,730	78,830	25,180	5,500	1,170	476

Calendar year 1956: Max 1,330 Min 5.0 Mean 142 Ac-ft 103,200
Water year 1956-57: Max 3,160 Min 2.0 Mean 250 Ac-ft 181,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Oct. 24, 29, 31, Nov. 1-3, 14-16, Nov. 18 to Feb. 3. No gage-height record Feb. 4-22 (stage-discharge relation affected by ice most of period); discharge estimated on basis of 1 discharge measurement, weather records, and records for Owyhee River above China diversion dam, near Owyhee.

Jordan Creek above Lone Tree Creek, near Jordan Valley, Oreg.

Location.--Lat 42°52', long 116°57', in SE¼NE¼ sec. 29, T. 6 S., R. 5 W., on right bank half a mile downstream from proposed 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.

Records available.--April 1955 to September 1957. 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.--9 years (1945-52, 1955-57), 217 cfs (157,100 acre-ft per year).

Extremes.--Maximum discharge during year, 2,870 cfs Feb. 23 (gage height, 8.07 ft); minimum, 3.0 cfs Oct. 6, 7-9, 10, Sept. 30; minimum gage height, 1.40 ft Oct. 6, 7-9, 10. 1945-53, 1955-57: Maximum discharge, 3,250 cfs Apr. 14, 1952 (gage height, 5.57 ft, site and datum then in use); no flow part of each day Oct. 4, 5, 1948.

Remarks.--Records fair except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 5-26, Nov. 16 to Dec. 22, Feb. 1-26)

Oct. 1 to Nov. 15		Nov. 16 to Sept. 30			
1.5	3.0	1.5	2.1	3.0	160
1.6	4.0	1.6	3.3	3.5	291
1.8	8.0	1.7	5.4	4.0	460
2.1	18	1.8	9.0	5.0	925
2.4	37	2.0	20	6.0	1,580
2.7	69	2.3	46	7.0	2,430
		2.6	85		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	36	25	38	30	715	625	952	625	66	*4.7	3.8
2	5.2	34	29	36	31	656	508	986	560	63	4.6	3.8
3	4.4	34	32	34	28	516	480	*969	520	59	4.8	3.8
4	3.1	37	32	31	25	496	460	848	461	53	4.8	3.8
5	3.2	36	30	28	26	670	560	795	450	48	4.8	3.8
6	3.1	41	26	30	*27	737	1,070	785	397	45	4.6	3.8
7	3.0	47	25	32	30	1,170	750	930	348	42	4.8	3.8
8	3.0	48	24	30	33	1,090	688	1,010	306	28	5.1	3.8
9	*3.0	45	30	28	34	980	720	1,060	279	*36	4.8	*3.7
10	3.2	46	35	36	35	697	848	1,090	250	35	4.8	3.5
11	5.0	47	150	38	37	*560	980	1,180	210	34	5.1	3.5
12	6.0	46	286	40	40	634	986	1,450	183	35	4.8	3.3
13	5.4	45	249	40	45	468	980	1,380	162	30	4.8	3.3
14	4.2	*42	270	38	55	372	1,050	1,310	158	24	4.6	3.3
15	4.0	29	165	34	190	386	1,050	1,110	169	21	4.4	3.3
16	4.0	45	147	30	178	414	*947	1,060	195	21	4.8	3.3
17	4.0	45	106	25	143	380	876	1,040	*160	21	4.4	3.5
18	5.2	45	108	30	106	372	805	1,140	145	20	4.4	3.6
19	16	27	*88	35	117	376	735	1,500	137	16	4.8	3.8
20	18.	27	74	35	154	404	674	*1,360	131	4.6	4.6	4.0
21	16	32	77	30	131	439	643	1,100	127	3.5	4.4	4.0
22	16	34	61	25	696	358	674	964	119	3.8	4.6	4.0
23	18	32	65	28	1,300	316	688	864	93	4.8	4.6	4.0
24	20	29	55	30	1,240	322	670	775	85	4.8	4.8	4.0
25	19	26	52	27	*1,270	422	594	710	81	4.6	4.8	3.8
26	55	27	50	25	1,730	472	544	684	74	4.6	5.1	3.6
27	79	26	48	25	2,110	404	528	674	72	4.6	5.1	4.2
28	49	26	46	25	936	394	584	666	78	4.8	3.8	4.4
29	37	27	44	23	-	464	720	648	78	5.1	3.8	3.6
30	38	28	42	24	-------	638	*876	652	71	4.8	3.8	3.2
31	46	-------	40	27	-------	674	-------	630	-------	5.1	3.8	-------
Total	501.2	1,089	2,511	957	10,777	16,996	22,313	30,322	6,724	752.1	143.1	111.3
Mean	16.2	36.3	81.0	30.9	385	548	744	978	224	24.3	4.62	3.71
Ac-ft	994	2,160	4,980	1,900	21,380	33,710	44,260	60,140	13,340	1,490	284	221

Calendar year 1956: Max 2,490 Min 2.2 Mean 266 Ac-ft 192,800
Water year 1956-57: Max 2,110 Min 3.0 Mean 255 Ac-ft 184,900

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6-11, Dec. 23 to Feb. 15.

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 1957.

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.--8 years, 981 cfs (710,200 acre-ft per year).

Extremes.--Maximum discharge during year, 16,200 cfs Feb. 27 (gage height, 12.03 ft); minimum, 82 cfs Sept. 17 (gage height, 0.76 ft).
1949-57: Maximum discharge, 27,800 cfs Apr. 14, 1952 (gage height, 15.60 ft); minimum, 42 cfs Aug. 12, 1954.
Flood of Apr. 14, 1952, reported by local resident as highest in 70 years.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Flow regulated by Antelope Reservoir (capacity, 36,600 acre-ft), Wild Horse Reservoir (see p. 132), and numerous small reservoirs. Diversions above station for irrigation.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 27				Feb. 28 to Sept. 30			
0.9	80	2.0	390	0.7	72	4.0	1,540
1.0	102	3.0	850	1.0	127	5.0	2,470
1.5	230	4.0	1,540	1.5	250	7.0	5,480
				2.0	410	9.0	9,100
				3.0	860	11.0	13,500

Note.--Same as following table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	192	120	240	130	5,890	2,390	1,930	2,720	480	220	98
2	89	197	120	220	125	3,870	2,480	1,980	2,550	450	200	98
3	87	219	130	200	120	2,900	2,320	2,120	2,310	400	180	96
4	91	213	140	190	140	2,160	2,100	2,300	2,100	380	170	96
5	93	213	150	180	150	2,570	2,050	2,390	1,980	350	160	96
6	93	184	140	150	155	4,290	2,230	2,450	1,800	320	140	92
7	93	227	130	170	154	5,500	2,650	2,390	1,700	300	*135	90
8	95	299	120	160	160	8,380	2,730	2,270	1,600	300	138	86
9	95	302	110	150	160	8,990	2,510	2,370	1,500	300	125	86
10	95	260	100	150	162	5,110	*2,420	2,690	1,400	300	121	85
11	110	254	*177	160	164	3,620	2,460	3,370	1,400	300	121	85
12	114	239	855	170	174	2,660	2,510	3,960	*1,400	300	121	85
13	117	227	2,100	180	190	2,350	2,550	5,680	1,300	300	115	85
14	120	222	2,410	170	242	2,090	2,550	6,230	1,200	300	113	85
15	122	210	1,930	160	554	1,800	2,550	5,450	1,100	300	113	85
16	120	200	1,400	150	720	1,640	2,560	4,940	1,050	300	109	85
17	*117	200	1,000	140	1,180	1,650	2,480	4,460	1,000	300	109	83
18	120	210	765	140	1,540	1,820	2,400	4,260	1,000	300	107	85
19	130	200	582	150	1,400	1,820	2,570	4,660	980	300	107	88
20	132	180	458	160	1,400	2,010	2,650	9,750	950	300	107	92
21	130	160	362	160	1,440	2,100	3,050	9,620	920	300	107	94
22	127	150	305	150	1,890	1,960	3,560	7,100	900	300	*105	96
23	120	150	245	*145	5,410	1,720	3,360	6,010	800	300	103	99
24	124	150	260	140	7,600	1,490	2,760	5,700	750	300	99	99
25	124	150	300	130	8,020	1,470	2,450	4,950	700	300	99	101
26	130	150	250	120	*10,500	2,160	2,260	4,320	650	300	98	103
27	144	140	220	110	13,200	2,140	2,120	3,810	600	300	98	103
28	190	130	200	100	9,690	2,030	2,090	3,430	550	280	96	103
29	170	120	200	100	-	1,840	1,990	3,150	500	260	98	103
30	167	120	210	110	-------	2,070	1,920	2,880	500	250	96	103
31	180	-------	220	130	-------	2,170	-------	*2,730	-------	240	96	-------
Total	3,728	5,868	15,709	4,785	66,770	90,270	74,720	129,350	37,910	9,710	3,806	2,785
Mean	120	196	507	154	2,385	2,912	2,491	4,173	1,264	313	123	92.8
Ac-ft	7,390	11,640	31,160	9,490	132,400	179,000	148,200	256,600	75,190	19,260	7,550	5,520

Calendar year 1956: Max 17,300 Min 74 Mean 1,091 Ac-ft 792,000
Water year 1956-57: Max 13,200 Min 83 Mean 1,220 Ac-ft 883,400

Peak discharge (base, 3,000 cfs).-- Dec. 14 (7 a.m.) 3,080 cfs (5.45 ft); Feb. 27 (2.30 p.m.) 16,200 cfs (12.03 ft); Mar. 8 (8 p.m.) 10,300 cfs (9.59 ft); Apr. 22 (10 p.m.) 3,990 cfs (6.08 ft); May 14 (1 p.m.) 6,550 cfs (7.63 ft); May 21 (10:30 p.m.) 11,500 cfs (10.13 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Nov. 15 to Dec. 10, Dec. 24 to Jan. 22, June 6-11, June 13 to Aug. 6; discharge estimated on basis of weather records, recorded range in stage, and records for Malheur River near Drewsey and Donner und Blitzen River near Frenchglen. Stage-discharge relation affected by ice Jan. 23 to Feb. 6.

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Owyhee Reservoir at Owyhee Dam, near Nyssa, Oreg.

Location.--Lat 43°38'30", long 117°14'40", in sec. 20, T. 22 S., R. 45 E., near left abutment on Owyhee dam, 21 miles southwest of Nyssa.

Drainage area.--11,160 sq mi, approximately.

Records available.--October 1932 to September 1957.

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, 1,136,000 acre-ft May 22 (elevation, 2,671.08 ft); minimum observed, 800,000 acre-ft Oct. 10 (elevation, 2,641.31 ft).
1932-57: Maximum contents observed, 1,140,000 acre-ft Apr. 15, 1952 (elevation, 2,671.40 ft); minimum observed since full capacity was attained on May 7, 1936, 462,700 acre-ft Oct. 10, 1955 (elevation, 2,599.44 ft).

Remarks.--Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,122,000 acre-ft between elevations 2,367.5 (bottom of sluice gates) and 2,670 ft (top of spillway gate), 715,000 acre-ft between elevations 2,590.2 (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 miles downstream.

Cooperation.--Record of elevations furnished by Bureau of Reclamation.

Month-end elevation and usable contents, water year October 1956 to September 1957

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,642.77	814,300	-
Oct. 31	2,642.30	809,700	-4,600
Nov. 30	2,643.90	825,500	+15,800
Dec. 31	2,647.30	860,100	+34,600
Calendar year 1956	-	-	+310,200
Jan. 31	2,648.84	876,100	+16,000
Feb. 28	2,661.60	1,019,000	+142,900
Mar. 31	2,668.64	1,105,000	+86,000
Apr. 30	2,670.00	1,122,000	+17,000
May 31	2,670.10	1,123,000	+1,000
June 30	2,667.07	1,085,000	-38,000
July 31	2,659.20	990,500	-94,500
Aug. 31	2,650.58	894,500	-96,000
Sept.30	2,643.28	819,400	-75,100
Water year 1956-57	-	-	+5,100

Owyhee River below Owyhee Dam, Oreg.

Location.--Lat 43°39'10", long 117°15'00", 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 1957.

Gage.--Water-stage recorder. Datum of gage is 2,343.67 ft above mean sea level (levels by Bureau of Reclamation).

Average discharge.--25 years (1932-57), 366 cfs (265,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,460 cfs May 21 (gage height, 9.33 ft); minimum daily determined, 4 cfs Oct. 22 to Dec. 31.
1929-57: 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 preceding page), by Wild Horse Reservoir since March 1938 (see p. 132), and by many smaller reservoirs.

Cooperation.--Water-stage recorder inspected by employees of Bureau of Reclamation.

Revisions (water years).--WSP 983: 1941-42. WSP 1397: 1930, 1933, 1946.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 10				Mar. 11 to Sept. 30			
-0.8	3	0.5	70	0.0	34	3.0	720
-.6	6	1.0	134	.5	74	4.0	1,250
-.4	11	1.5	220	1.0	136	6.0	2,880
-.2	18	2.0	350	1.5	230	8.0	5,350
0.0	29	3.0	720	2.0	360	9.4	7,580

Note.--Same as following table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57					6	2,820	1,350	1,840	201	170	160
2	52					6	2,810	864	1,740	191	183	146
3	40					6	2,830	702	880	195	199	140
4	40					485	2,770	900	536	199	199	140
5	40					820	2,430	995	500	199	199	140
6	40					788	1,800	1,080	400	201	185	140
7	41					1,300	2,490	1,130	375	201	*176	140
8	41					3,560	*2,580	1,420	363	201	183	139
9	41					5,500	2,680	1,740	339	201	181	139
10	35					5,660	2,700	1,760	315	201	165	139
11	5					5,050	2,690	1,800	*295	203	161	139
12	5					4,550	2,700	3,630	210	203	161	133
13	5					4,390	2,710	5,440	148	203	161	129
14	5					2,840	2,760	5,540	139	205	163	123
15	5					1,580	1,800	5,660	146	205	165	118
16	5	4	4	5	6	1,290	1,480	5,280	151	191	168	118
17	5					1,380	1,720	3,970	160	191	176	117
18	*5					1,440	1,870	3,050	176	174	189	117
19	5					1,530	1,500	3,190	178	158	193	109
20	5					1,610	772	3,520	178	158	193	104
21	5					1,690	366	6,200	178	158	181	104
22	4					1,780	366	7,260	178	165	178	104
23	4					1,800	648	6,720	178	168	*176	103
24	4					626	1,370	6,180	179	170	176	97
25	*4					34	2,250	5,350	193	154	176	89
26	4					34	2,440	3,310	205	145	165	89
27	4					702	2,470	2,350	207	146	160	89
28	4					2,470	2,330	1,960	207	146	160	84
29	4				-	2,770	2,180	1,900	212	148	160	81
30	4				-------	2,620	1,740	1,940	214	148	160	81
31	4	-------			-------	2,720	-------	1,960	-------	160	160	-------
Total	522	120	124	155	168	61,037	61,872	98,151	11,020	5,589	5,422	3,551
Mean	16.8	4	4	5	6	1,969	2,062	3,166	367	180	175	118
Ac-ft	1,040	238	246	307	333	121,100	122,700	194,700	21,860	11,090	10,750	7,040

Calendar year 1956 : Max 193 Min - Mean 73.0 Ac-ft 52,970
Water year 1956-57 : Max 7,260 Min - Mean 679 Ac-ft 491,400

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 11-17, 19-24, Oct. 26 to Mar. 3, June 5, 6; discharge interpolated.

Boise River near Twin Springs, Idaho

Location.--Lat 43°40', long 115°44', in sec. 27, T. 4 N., R. 6 E., on right bank a quarter of a mile upstream from Birch Creek, 1½ miles upstream from maximum flow line of Arrowrock Reservoir, 4 miles downstream from Twin Springs, and 13 miles upstream from Arrowrock.

Drainage area.--830 sq mi, approximately.

Records available.--March 1911 to September 1957.

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.--46 years, 1,180 cfs (854,300 acre-ft per year).

Extremes.--Maximum discharge during year, 8,730 cfs May 19 (gage height, 7.48 ft); minimum, 257 cfs Jan. 18 (gage height, 1.82 ft), but may have been less during periods of ice effect or no gage-height record.

1911-57: Maximum discharge, 11,200 cfs May 24, 1956 (gage height, 8.76 ft); maximum gage height, 9.59 ft Feb. 3, 1956 (ice jam); minimum discharge, 109 cfs Dec. 10, 1944; minimum gage height, 1.56 ft Dec. 15, 16, 1935.

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 7-21, May 30 to June 13)

1.8	250	4.0	2,260
2.1	376	5.0	3,770
2.5	625	6.0	5,440
3.0	1,050	7.0	7,320
3.5	1,610	8.0	9,430

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*392	478	390	440	430	1,250	1,220	*4,390	6,520	2,570	604	425
2	392	454	410	470	450	1,100	*1,140	5,110	6,880	*2,390	590	408
3	392	425	484	410	440	1,000	1,180	5,420	*7,540	2,130	569	392
4	387	442	466	340	440	883	1,200	4,780	7,870	1,960	562	381
5	398	460	448	340	430	831	1,410	4,390	7,890	1,780	542	376
6	392	472	430	350	410	756	2,270	4,970	7,680	1,730	536	371
7	381	*484	408	380	410	748	1,950	6,070	6,440	1,680	529	362
8	387	466	338	410	410	797	1,770	6,310	5,890	1,570	516	357
9	425	466	333	430	400	974	1,800	6,120	5,140	1,490	510	352
10	436	478	496	390	390	1,060	2,030	6,290	4,390	1,420	496	357
11	569	503	632	380	380	984	2,220	5,930	4,280	1,340	484	362
12	555	503	822	420	380	1,010	2,340	5,980	4,150	1,280	478	362
13	478	510	883	430	*376	892	2,330	6,290	3,950	1,190	466	357
14	448	472	*919	*430	392	797	2,500	6,410	3,430	1,140	454	352
15	425	371	724	410	387	814	2,780	5,980	3,040	1,070	448	347
16	425	454	640	360	425	806	2,620	6,200	2,690	1,010	442	347
17	414	536	569	310	466	814	2,500	6,260	2,430	964	436	342
18	414	510	542	285	478	797	2,340	6,880	2,460	928	425	357
19	460	376	536	310	503	856	2,260	8,410	2,690	883	419	398
20	419	320	442	450	529	946	2,390	7,200	3,020	856	414	387
21	414	390	448	430	516	1,010	2,440	5,800	2,930	840	408	376
22	408	420	414	410	510	955	2,560	*4,870	2,690	806	408	371
23	419	430	470	400	583	865	2,980	4,280	2,570	772	*403	362
24	442	420	542	380	901	840	3,040	3,900	2,720	748	408	357
25	430	390	440	350	1,350	856	2,620	3,870	2,820	716	392	*352
26	510	400	350	300	*1,550	831	2,260	4,070	2,600	700	398	347
27	618	400	350	280	1,770	822	2,090	4,530	2,600	678	398	342
28	510	400	400	290	1,470	865	2,330	4,970	2,900	662	398	333
29	430	400	400	300	-	928	3,140	5,480	2,740	655	403	338
30	510	410	410	330	------	1,100	3,850	5,960	2,690	632	419	338
31	562	------	440	360	------	1,240	------	6,270	------	611	436	------
Total	13,842	13,240	15,576	11,575	17,176	28,427	67,560	173,390	125,640	37,201	14,391	10,908
Mean	447	441	502	373	613	917	2,252	5,593	4,188	1,200	464	364
Cfsm	0.539	0.531	0.605	0.449	0.739	1.10	2.71	6.74	5.05	1.45	0.559	0.439
In.	0.62	0.59	0.70	0.52	0.77	1.27	3.03	7.77	5.63	1.67	0.64	0.49
Ac-ft	27,460	26,260	30,890	22,960	34,070	56,380	134,000	343,900	249,200	73,790	28,540	21,640

Calendar year 1956: Max 10,800 Min 320 Mean 1,779 Cfsm 2.14 In. 29.17 Ac-ft 1,291,000
Water year 1956-57: Max 8,410 Min 280 Mean 1,449 Cfsm 1.75 In. 23.70 Ac-ft 1,049,000

Peak discharge (base, 3,700 cfs).--May 3 (4 a.m.) 5,850 cfs (6.14 ft); May 19 (7 a.m.) 8,730 cfs (7.48 ft); June 5 (4 to 5:30 a.m.) 8,390 cfs (7.32 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 20 to Dec. 2, Dec. 23, Dec. 25 to about Feb. 7. No gage-height record Jan. 10-12, Jan. 24 to Feb. 12, Apr. 15, 16, 29, 30; 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 1957.

Gage.--Water-stage recorder. Altitude of gage is 4,220 ft (from topographic map of Bureau of Reclamation).

Average discharge.--12 years, 828 cfs (599,400 acre-ft per year).

Extremes.--Maximum discharge during year, 5,880 cfs June 6; maximum gage height, 6.93 ft May 19; minimum discharge, 148 cfs Dec. 9 (gage height, 1.10 ft), but may have been less during period of no gage-height record.
1945-57: Maximum discharge, 7,580 cfs May 24, 1956 (gage height, 8.62 ft); minimum, 30 cfs Feb. 10, 1949 (gage height, 0.60 ft), result of snowslide upstream.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 4-6)

1.1	148	3.0	1,100
1.3	202	4.0	2,060
1.6	298	5.0	3,200
2.0	457	7.0	5,880
2.5	730		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	229	261	229	235	a240	371	517	2,680	4,430	1,650	355	261
2	223	254	229	238	a240	355	498	2,920	4,790	1,510	343	248
3	220	242	258	217	a235	355	532	3,000	5,280	1,370	331	238
4	220	248	264	214	232	343	569	2,730	5,530	1,240	328	232
5	226	284	261	205	a225	339	664	2,410	*5,600	1,120	320	226
6	226	302	254	208	a230	313	870	2,640	5,600	1,080	313	220
7	223	295	223	a220	a230	316	758	*3,370	4,890	1,030	305	214
8	226	278	174	a230	226	331	737	3,520	4,360	964	302	205
9	264	274	171	a240	226	359	793	3,530	3,870	*919	295	202
10	274	274	235	a230	220	363	940	3,660	3,360	884	291	205
11	375	278	316	a220	*214	343	1,030	3,690	3,160	849	278	205
12	371	278	375	a250	217	367	1,020	3,650	3,060	814	267	208
13	305	281	395	254	217	335	1,000	3,760	2,910	800	267	208
14	278	254	363	251	229	289	1,070	3,910	2,590	737	264	205
15	264	196	298	248	229	324	1,160	3,800	2,280	688	258	205
16	258	251	281	223	220	328	1,140	3,690	2,040	652	258	199
17	251	305	261	196	220	328	1,130	3,690	1,830	616	251	196
18	*251	267	245	199	226	326	1,080	4,170	1,800	575	245	199
19	264	*195	258	200	232	331	1,070	5,460	1,910	547	238	214
20	254	190	199	a250	242	367	1,120	4,720	2,000	537	235	220
21	251	229	194	a240	251	407	1,160	3,900	1,980	517	*232	207
22	248	251	199	a230	251	387	*1,180	3,330	1,860	498	232	214
23	351	248	202	a220	274	375	1,390	*2,900	1,790	475	232	211
24	258	238	232	a210	328	379	1,520	2,630	1,850	453	229	205
25	254	220	226	a200	399	391	1,330	2,540	1,850	440	226	205
26	288	214	208	a180	423	*383	1,170	2,680	1,750	428	223	208
27	309	211	208	a170	432	395	1,120	3,040	1,870	415	226	205
28	261	211	*226	a160	403	411	1,280	3,400	1,920	403	229	202
29	235	223	238	a190	-	428	1,710	3,760	1,820	399	235	214
30	288	235	242	a200	------	466	2,280	3,990	1,740	391	245	*217
31	298	-----	242	a210	-----	542	-----	4,090	------	375	267	------
Total	8,143	7,487	7,706	6,758	7,311	11,347	31,838	107,260	89,720	23,376	8,320	6,398
Mean	263	250	249	218	261	366	1,061	3,460	2,991	754	268	213
Cfsm	0.414	0.394	0.392	0.343	0.411	0.576	1.67	5.45	4.71	1.19	0.422	0.335
In.	0.48	0.44	0.45	0.40	0.43	0.66	1.86	6.28	5.25	1.37	0.49	0.37
Ac-ft	16,150	14,850	15,280	13,400	14,500	22,510	63,150	212,700	178,000	46,370	16,500	12,690

Calendar year 1956: Max 7,310 Min 171 Mean 1,124 Cfsm 1.77 In. 24.09 Ac-ft 815,900
Water year 1956-57: Max 5,600 Min 170 Mean 865 Cfsm 1.36 In. 18.48 Ac-ft 626,100

Peak discharge (base, 2,000 cfs).--May 19 (10 a.m.) 5,710 cfs (6.93 ft); June 6 (5 a.m.) 5,880 cfs (6.90 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, inflow-outflow study of Anderson Ranch Reservoir, and records for Boise River near Twin Springs 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, October 1923 to September 1957.

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, 1924-57: Maximum daily discharge, 77 cfs Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.--Records good. 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, 1957

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	0	0	51	49	47	16	a50	45	51	48	0
2	0	0	51	49	a47	17	50	45	51	48	0
3	0	0	51	49	47	18	a50	44	51	48	0
4	0	0	51	49	47	19	a50	44	50	49	0
5	0	*22	50	49	46	20	50	44	49	49	0
6	11	a38	51	49	46	21	21	44	48	*48	0
7	*29	38	51	48	46	22	0	44	49	49	0
8	46	a38	51	48	46	23	0	44	49	48	0
9	56	37	51	48	46	24	0	44	49	48	0
10	63	a37	*51	48	39	25	0	44	49	48	0
11	59	a37	51	48	a32	26	0	44	49	48	0
12	a50	40	51	48	a32	27	0	44	49	48	0
13	50	45	51	48	a32	28	0	43	49	48	0
14	a50	45	51	48	a32	29	0	43	49	48	0
15	50	45	51	48	13	30	0	48	49	48	0
						31	0	-	49	47	-
Total							735	1,086	1,554	1,496	598
Mean							23.7	36.2	50.1	48.3	19.9
Runoff in acre-feet							1,460	2,150	3,080	2,970	1,190

Calendar year 1956: Max 61 Min 0 Mean 17.8 Ac-ft 12,910
Water year 1956-57: Max 63 Min 0 Mean 15.0 Ac-ft 10,850

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge interpolated between gate changes.
Note.--No flow Oct. 1 to Apr. 30.

Anderson Ranch Reservoir total surface inflow determination

During 1956 and 1957, three field runs were made to determine total surface flow entering Anderson Ranch Reservoir, the proportion of unmeasured surface flow to flow recorded at the regular tributary stations, and to furnish information for inflow-outflow studies on the reservoir.

Discharges in the table are results of current-meter measurements or estimates except those for regular gaging stations, which are mean daily flows. Mean daily flow for Lime Creek and Fall Creek for May 7, 1957, was estimated on basis of current-meter measurements and records for South Fork Boise River near Featherville.

Point of Determination	Discharge, in cubic feet per second		
	June 15, 1956	Sept. 7, 1956	May 7, 1957
Gaging station South Fork Boise River near Featherville.	3,340	235	3,370
Tributaries between gaging stations South Fork Boise River near Featherville and Lime Creek near Bennett.	20.8	3.51	67.3
Gaging station Lime Creek near Bennett.	142	23	411
Tributaries between Lime Creek gaging station and Anderson Ranch Dam.	12.1	2.31	14.5
Tributaries between gaging stations South Fork Boise River near Featherville and Fall Creek near Anderson Ranch Dam.	4.81	.76	8.80
Gaging station Fall Creek near Anderson Ranch Dam.	202	16	434
Tributaries between Fall Creek gaging station and Anderson Ranch Dam.	19.0	2.41	48.6
Total at regular gaging stations	3,684	274	4,215
Total miscellaneous inflow	56.71	8.99	139.2

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 1957.

Gage.--Staff gage or supplementary pressure gage in powerhouse read once daily. Datum of gage is at mean sea level (surveys by Bureau of Reclamation).

Extremes.--Maximum contents observed during year, 465,300 acre-ft June 25 (elevation, 4,196.24 ft); minimum observed, 216,900 acre-ft Feb. 16 (elevation, 4,130.40 ft).
1945-57: Maximum contents observed, 472,800 acre-ft June 1, 1956 (elevation, 4,197.81 ft); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 145,000 acre-ft Mar. 23, 1956 (elevation, 4,103.22 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft between elevations 3,992 and 4,196 ft (top of spillway gates). Elevation of spillway crest, 4,174 ft, and of top of dam, 4,206 ft. Dead storage below 3,992 ft is 28,980 acre-ft. Figures given herein represent usable contents. Water is used for irrigation in Boise Valley and for power production.

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

Capacity table (elevation, in feet, and usable contents, in acre-feet)

4,130.0	215,700	4,165.0	332,800
4,135.0	230,500	4,170.0	352,000
4,140.0	246,100	4,175.0	371,800
4,145.0	262,300	4,180.0	392,400
4,150.0	279,100	4,185.0	413,900
4,155.0	296,500	4,190.0	436,300
4,160.0	314,400	4,198.0	473,700

Usable contents, in acre-feet, at 8 a.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	402,500	413,900	380,000	318,500	246,100	226,800	249,100	304,000	440,100	464,000	425,900	353,600
2	402,200	414,300	377,900	316,500	243,900	228,100	249,100	309,500	442,000	463,500	423,700	354,300
3	402,400	414,300	375,000	314,400	241,300	229,700	248,800	316,000	444,100	463,700	421,700	354,700
4	402,500	414,400	372,700	312,600	240,200	230,600	249,200	321,700	447,700	463,700	419,600	355,100
5	402,600	414,400	370,800	309,800	238,100	231,700	249,600	327,200	451,500	463,300	417,400	355,500
6	402,700	414,200	368,400	307,800	235,600	232,300	251,700	333,200	455,600	463,000	415,000	356,000
7	403,000	414,300	366,000	305,300	233,600	233,300	253,700	338,200	459,200	462,400	412,900	356,400
8	403,200	413,900	363,400	302,100	231,400	234,200	255,300	344,100	460,400	461,800	410,700	356,700
9	403,600	412,900	360,900	300,000	229,100	235,400	255,900	350,000	459,800	461,000	408,500	357,100
10	404,300	411,600	357,800	297,800	226,800	236,400	256,700	355,900	459,200	460,000	406,400	357,600
11	404,800	411,200	357,100	295,300	224,700	237,500	258,200	362,300	459,500	458,800	404,100	358,000
12	405,800	411,600	359,900	293,500	222,400	238,700	260,400	368,700	460,900	457,900	401,700	358,300
13	406,400	410,100	359,500	290,700	220,400	239,600	262,300	376,500	462,200	457,100	399,200	358,800
14	407,300	408,500	358,200	288,700	218,900	240,100	265,300	384,500	463,100	455,900	396,900	359,200
15	407,400	406,800	356,100	287,100	217,400	240,300	268,700	392,200	472,800	455,600	394,500	359,600
16	407,800	404,800	354,700	284,000	216,900	240,200	271,100	398,600	464,000	454,300	392,400	359,800
17	408,100	403,100	352,600	281,700	217,300	240,800	273,000	404,800	464,600	453,200	390,000	360,400
18	408,100	400,900	350,100	279,100	218,000	241,800	275,200	410,400	464,200	451,600	387,800	360,900
19	408,500	399,200	348,700	277,400	217,600	241,900	276,700	419,000	463,700	450,100	385,400	361,100
20	408,900	396,900	346,000	274,700	217,400	242,100	278,200	427,200	464,000	448,600	382,800	361,600
21	409,200	394,400	343,700	272,600	217,000	242,600	280,000	436,700	464,200	447,100	380,400	361,900
22	409,700	392,900	341,500	270,900	217,000	242,900	283,300	437,200	464,500	445,400	378,100	362,400
23	410,000	392,700	339,500	267,900	217,100	243,000	285,000	436,300	464,300	443,500	375,500	362,900
24	410,600	392,400	337,000	265,600	218,000	243,900	287,900	434,300	464,100	441,700	373,200	363,300
25	410,800	390,800	335,200	263,300	219,700	244,600	289,700	434,200	465,300	439,900	370,600	363,700
26	411,700	390,300	332,500	261,000	221,200	244,100	291,500	433,600	464,400	438,000	368,700	364,300
27	412,000	389,000	330,600	258,700	223,300	243,800	292,900	434,100	464,200	436,100	366,000	364,800
28	412,100	386,300	326,900	256,400	225,300	244,200	295,500	435,400	463,600	434,000	362,800	365,000
29	412,600	384,700	325,000	253,800	-	244,300	298,800	436,600	463,800	432,000	360,800	365,400
30	413,700	383,000	323,200	251,700	-------	245,000	300,800	437,800	464,100	429,900	358,200	366,000
31	413,800	-------	320,900	249,700	-------	248,000	-------	438,500	-------	428,000	356,500	-------
(†)	84.97	77.73	61.80	41.15	33.26	40.59	56.24	90.48	95.99	88.18	71.15	73.54
(‡)	+11,600	-30,800	-62,100	-71,200	-24,400	+22,700	+52,800	+137,700	+25,600	-36,100	-71,500	+9,500

Calendar year 1956..... ‡ +71,400
Water year 1956-57..... ‡ -36,200

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

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 1957 (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.--14 years, 998 cfs (772,500 acre-ft per year).

Extremes.--Maximum discharge during year, 5,840 cfs June 5 (gage height, 8.12 ft); minimum, 3.8 cfs Mar. 2, 3 (gage height, 1.22 ft).

1943-57: Maximum discharge, 9,850 cfs May 25, 1956 (gage height, 10.56 ft); minimum, 0.3 cfs Feb. 16, 1950 (gage height, 0.99 ft), but may have 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. 142) for irrigation of about 5,000 acres of land in vicinity of Mountain Home. Flow regulated by Anderson Ranch Reservoir (see preceding page) beginning Dec. 15, 1945.

Cooperation.--Water-stage recorder inspected by Bureau of Reclamation.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.2	3.0	2.3	168	5.0	1,890
1.4	12	2.6	276	6.0	2,930
1.6	26	3.0	450	7.0	4,190
1.8	50	3.5	730	8.0	5,660
2.0	86	4.0	1,050		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	460	137	1,530	1,530	1,500	7.0	892	1,370	4,130	2,050	1,510	530
2	243	568	1,540	1,530	1,490	5.0	984	585	4,550	1,700	1,500	113
3	212	476	1,530	1,530	1,490	7.0	846	866	4,480	1,530	1,500	112
4	140	188	1,540	1,530	1,490	217	919	645	4,480	1,520	1,500	32
5	160	562	1,420	1,530	1,490	36	944	224	*4,470	1,520	1,500	32
6	121	315	1,540	1,530	1,480	22	656	1,040	4,480	1,520	1,500	32
7	118	464	1,550	1,530	1,480	22	628	966	4,670	1,510	1,500	32
8	200	1,040	1,550	1,520	1,480	22	909	1,560	5,090	1,500	1,420	32
9	126	1,010	1,550	1,520	1,480	179	1,430	1,560	4,760	1,500	1,510	32
10	126	687	1,350	1,520	1,480	44	1,030	1,540	3,740	*1,480	1,510	32
11	129	220	129	1,520	*1,480	149	644	1,540	2,970	1,520	1,500	32
12	124	1,010	417	1,520	1,400	59	646	1,080	2,790	1,390	1,510	32
13	124	1,150	1,340	1,520	1,420	204	346	944	2,790	1,390	1,520	32
14	126	1,250	1,430	1,520	992	437	137	976	2,790	1,410	1,520	32
15	129	1,230	1,480	1,520	1,000	478	613	1,260	2,250	1,100	1,440	32
16	171	1,160	1,340	1,520	23	306	806	1,460	2,000	1,350	1,440	32
17	*313	1,470	1,570	1,510	15	17	610	1,690	2,170	1,420	1,520	32
18	132	1,180	1,550	1,510	500	421	880	1,710	2,280	1,420	1,440	33
19	132	*1,350	1,530	1,480	505	445	952	1,310	2,170	1,460	1,520	33
20	129	1,490	1,520	1,520	508	*461	938	2,540	2,110	1,500	1,520	33
21	129	1,530	1,530	1,520	455	464	150	3,780	2,110	1,510	1,520	33
22	132	221	1,530	1,520	437	488	*1,040	4,800	2,110	1,510	*1,530	33
23	132	528	1,350	1,520	15	255	276	4,790	2,090	1,520	1,530	33
24	134	1,080	1,530	1,520	9.5	160	1,280	*3,710	1,660	1,520	1,450	32
25	132	270	1,530	1,520	6.6	918	1,080	3,390	1,950	1,520	1,530	32
26	179	1,300	1,530	1,520	8.5	759	1,050	3,450	2,320	1,510	1,530	32
27	132	1,230	1,530	1,520	9.0	530	342	3,210	2,290	1,500	1,530	32
28	132	1,530	*1,530	1,510	8.0	398	231	3,510	2,120	1,500	1,450	32
29	164	1,460	1,530	1,510	-	550	1,350	4,160	2,050	1,510	1,530	32
30	151	1,450	1,340	1,510	-------	355	1,520	4,480	2,050	1,510	1,220	*32
31	132	-------	1,540	1,500	-------	144	-------	4,330	-------	1,510	1,540	-------
Total	4,964	27,556	43,876	47,080	23,651.6	8,559.0	24,129	68,476	89,920	46,410	46,240	1,625
Mean	160	919	1,415	1,519	845	276	804	2,209	2,997	1,497	1,492	54.2
Ac-ft	9,850	54,660	87,030	93,380	46,910	16,980	47,860	135,800	178,400	92,050	91,720	3,220

Calendar year 1956: Max 9,770 Min 40 Mean 1,410 Ac-ft 1,024,000
Water year 1956-57: Max 5,090 Min 5.0 Mean 1,185 Ac-ft 857,900

* 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, 14 miles east of Boise.

Drainage area.--2,210 sq mi, approximately.

Records available.--October 1917 to September 1957.

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 Feb. 27 (elevation, 3,218.0 ft); minimum observed, 10,260 acre-ft Sept. 3 (elevation, 3,046.0 ft).
1917-57: Maximum contents observed, 301,200 acre-ft May 29, 1948 (elevation, 3,219.1 ft); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

Remarks.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft in 1937; storage began in 1915. Capacity, 286,600 acre-ft between elevations 2,974 (9.5 ft above sluice gate sill) and 3,216 ft (highest position of movable crest of spillway). Silt deposition at dam has raised the lower storage level and decreased the capacity of the reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Beginning Oct. 1, 1952, contents applied from revised table, which is the original table reduced by amounts varying from 347 acre-ft at elevation 2,974 ft to 5,000 acre-ft at elevation 3,085 ft and above. Water is used for irrigation in Boise Valley.

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

Capacity table (elevation, in feet, and usable contents, in acre-feet)

3,040.0	8,270	3,140.0	107,500
3,050.0	11,920	3,160.0	146,000
3,060.0	16,770	3,180.0	189,500
3,080.0	30,000	3,200.0	240,000
3,100.0	49,000	3,218.0	292,800
3,120.0	75,000		

Usable contents, in acre-feet, at about 8 a. m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,360	58,380	146,000	238,200	235,800	288,500	276,600	235,600	257,200	281,700	160,300	17,970
2	14,320	59,810	150,200	238,200	239,500	287,500	277,800	233,800	262,700	281,400	155,400	11,280
3	16,240	61,760	154,200	238,400	243,400	286,600	279,300	230,600	269,100	279,900	150,600	10,260
4	17,640	63,840	158,400	238,400	247,300	285,700	280,200	227,300	276,600	277,500	145,600	12,360
5	18,990	65,400	162,400	238,400	251,200	285,000	281,700	222,800	284,100	275,100	141,600	13,040
6	20,480	67,350	165,700	238,400	254,900	283,800	282,900	216,900	290,000	271,800	137,000	14,220
7	22,000	69,400	169,400	238,400	258,600	282,600	283,800	215,000	291,200	268,500	132,000	15,460
8	23,130	71,500	173,400	238,400	262,100	281,400	284,400	214,500	290,900	264,700	127,000	16,500
9	24,440	74,580	176,900	238,700	265,900	281,100	283,200	215,000	290,600	261,500	121,800	17,640
10	26,150	78,000	180,800	238,000	269,100	281,700	282,900	215,600	288,800	258,100	116,900	18,700
11	27,540	80,550	184,400	239,000	273,300	281,400	282,000	216,100	286,300	254,300	112,200	19,750
12	29,380	82,350	187,200	239,000	276,900	281,100	281,700	216,100	282,900	250,600	107,300	20,920
13	30,800	85,700	190,500	239,200	278,100	280,800	280,800	215,600	281,100	246,700	102,400	21,940
14	32,320	89,060	195,500	239,700	279,600	279,900	279,600	215,600	280,500	242,200	97,300	22,860
15	33,520	92,370	200,500	239,700	280,500	279,300	278,100	215,300	281,100	237,400	92,200	24,090
16	34,540	95,940	205,000	239,700	280,200	278,700	277,800	215,600	279,300	232,700	87,620	25,140
17	35,620	99,680	209,200	239,700	279,000	278,400	277,800	216,600	276,900	228,000	82,820	26,080
18	37,600	103,900	214,000	238,700	276,900	277,500	276,900	218,200	274,500	223,100	78,300	26,950
19	39,000	107,500	217,900	237,900	276,000	276,900	276,300	222,800	274,200	218,200	73,600	27,920
20	40,400	111,100	222,100	237,100	275,100	276,600	275,700	227,500	274,200	213,500	68,700	28,990
21	41,500	115,400	226,000	236,900	275,400	276,900	275,700	231,700	275,700	208,800	63,840	30,000
22	42,700	119,400	229,900	236,400	277,500	276,900	273,900	236,100	276,900	204,200	58,640	31,120
23	43,940	121,200	233,800	236,400	279,300	276,900	274,200	240,000	277,800	199,800	52,840	31,920
24	45,260	123,200	237,100	235,800	282,600	276,000	270,300	242,800	278,700	195,300	49,120	32,880
25	46,580	126,000	237,900	235,600	286,600	275,400	267,600	242,200	279,000	190,700	45,700	33,760
26	48,010	128,000	237,900	235,300	290,000	276,000	262,100	241,400	279,900	186,000	42,800	34,630
27	49,720	131,600	237,900	234,500	292,800	276,000	255,700	241,100	280,500	181,400	39,900	35,620
28	51,880	134,800	237,900	234,000	290,300	275,700	248,400	241,400	281,400	176,900	36,250	36,430
29	53,320	138,400	237,900	233,200	-	275,400	241,400	243,600	282,300	172,500	31,920	37,240
30	54,760	142,400	237,900	233,000	-------	275,700	237,900	247,600	282,300	168,500	27,690	38,140
31	56,430	-------	237,900	232,200	-------	276,300	-------	252,600	-------	164,500	22,730	-------
(†)	3,106.1	3,158.2	3,199.2	3,197.0	3,217.2	3,212.6	3,199.2	3,204.5	3,214.6	3,168.8	3,070.0	3,089.6
(‡)	+46,560	+85,970	+95,500	-5,700	+58,100	-14,000	-38,400	+14,700	+29,700	-117,800	-141,770	+15,410

Calendar year 1956..... ‡ -24,200
Water year 1956-57..... ‡ +28,270

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

Bannock Creek near Idaho City, Idaho

Location.--Lat 43°48'30", long 115°46'30", in SE¼SW¼ sec. 32, T. 6 N., R. 6 E., on right bank three-quarters of a mile upstream from West Fork (revised), 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 1957.

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.--8 years (1939-41, 1951-57), 2.27 cfs (1,643 acre-ft per year).

Extremes.--Maximum discharge during year, 24 cfs May 12 (gage height, 1.65 ft); minimum, 0.2 cfs Mar. 14 (gage height, 0.15 ft).
1939-41, 1950-57: Maximum discharge, 33 cfs Apr. 26, 1952 (gage height, 1.95 ft); 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 excellent except those for periods of ice effect or no gage-height record and those below 1.0 cfs, which are fair. No regulation or diversion.

Revisions (water years).--WSP 1447: 1952.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	0.4	0.6	1.8	1.2	10
.4	.7	.8	3.9	1.4	15
.5	1.1	1.0	6.6	1.6	22

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.1	b0.8	b0.9	1.1	3.2	5.0	13	8.3	1.9	0.7	0.6
2	.7	1.0	b.8	b.9	1.1	2.8	5.0	14	7.8	1.8	.7	.5
3	.7	1.1	b.8	b.9	1.1	2.7	5.0	*16	7.3	1.8	.7	.5
4	.7	1.0	.8	b.8	1.1	2.6	5.1	16	6.6	1.7	.7	.5
5	*.7	1.0	.8	b.8	1.0	2.6	6.7	16	6.2	1.6	.6	.5
6	.7	1.1	.8	b.8	1.0	2.4	9.1	17	5.8	1.5	.7	.4
7	.7	1.1	.8	b.9	1.0	2.5	a8.0	18	a5.5	1.5	.6	.4
8	.7	*1.1	.8	b.9	1.0	2.8	a7.5	19	5.2	1.5	.6	.4
9	.7	1.1	.8	b.8	1.0	3.3	a7.5	18	5.0	1.4	.6	.5
10	.9	1.1	b.9	b.8	1.0	3.4	a8.5	18	4.6	1.3	.6	.5
11	1.1	1.1	b1.2	b.8	1.0	3.4	a9.5	17	4.4	1.2	.6	*.5
12	1.0	1.0	*1.6	b.8	1.0	4.1	a9.5	18	4.1	1.2	.6	.5
13	.9	1.1	1.7	b.9	1.0	b3.8	a9.5	18	4.1	1.1	.6	.5
14	.8	.9	1.4	.9	1.1	b3.5	a10	18	4.0	1.1	.6	.5
15	.8	.9	1.3	b.8	1.1	3.4	a11	18	3.8	*1.1	.5	.4
16	.8	1.0	1.3	b.8	1.1	3.4	a11	20	3.5	1.0	.5	.4
17	.8	1.3	1.2	b.8	1.0	3.4	a10	19	3.3	1.0	.5	.4
18	1.0	1.1	1.2	.8	1.0	*3.2	a9.5	20	3.1	1.0	.5	.5
19	.9	.8	1.1	.8	1.0	3.3	a9.5	22	*3.0	1.0	.5	.5
20	.8	1.1	1.0	.9	1.1	3.4	a10	*21	3.0	.9	.5	.5
21	.8	1.1	b1.0	.8	1.0	3.4	a12	19	2.7	.9	.5	.5
22	.9	1.0	b1.0	.8	b1.1	3.3	*13	18	2.6	.9	.5	.5
23	1.0	1.0	b1.0	.8	b1.3	3.2	a13	17	2.5	.8	.5	.5
24	1.0	1.0	b1.0	.8	b2.0	3.3	a12	15	2.4	.8	.5	.5
25	1.0	.9	1.0	.8	b4.0	3.4	a11	13	2.3	.8	.5	*.5
26	1.8	.9	b.9	.8	b4.2	3.4	a11	12	2.4	.8	*.5	.5
27	1.6	.9	b.9	.8	4.2	3.5	a10	11	2.3	.8	.5	.5
28	1.2	b.8	b.9	a.7	3.4	3.6	a10	11	2.2	.8	.5	.5
29	1.2	b.8	b.9	a.7	-	4.1	a11	10	2.1	.8	.5	.5
30	1.6	b.8	b.9	a.7	------	4.7	*12	9.3	1.9	.7	.6	.5
31	1.2	------	b.9	*1.1	------	5.0	------	8.9	------	.7	.6	------
Total	29.4	30.2	31.5	25.6	42.0	104.1	281.9	500.2	122.0	35.4	17.6	14.5
Mean	0.95	1.01	1.02	0.83	1.50	3.36	9.40	16.1	4.07	1.14	0.57	0.48
Cfsm	0.211	0.224	0.227	0.184	0.333	0.747	2.09	3.58	0.904	0.253	0.127	0.107
In.	0.24	0.25	0.26	0.21	0.35	0.86	2.33	4.13	1.01	0.29	0.15	0.12
Ac-ft	58	60	62	51	83	206	559	992	242	70	35	29

Calendar year 1956: Max 19 Min 0.6 Mean 3.03 Cfsm 0.673 In. 9.14 Ac-ft 2,200
Water year 1956-57: Max 22 Min 0.4 Mean 3.38 Cfsm 0.751 In. 10.20 Ac-ft 2,450

Peak discharge (base, 4.5 cfs).--Feb. 26 (5:30 p.m.) 5.7 cfs (0.94 ft); Mar. 12 (8 a.m.) 4.5 cfs (0.85 ft); Apr. 5 (10 p.m.) 11 cfs (1.26 ft); Apr. 22 (4 to 10 p.m.) 13 cfs (1.35 ft); May 12 (6.30 p.m.) 24 cfs (1.65 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for 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 1957.

Gage.--Water-stage recorder. Altitude of gage is 3,120 ft (from topographic map).

Average discharge.--7 years, 349 cfs (252,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,210 cfs Apr. 6 (gage height, 6.45 ft); maximum gage height, 6.46 ft Feb. 25 (ice jam); minimum discharge, 28 cfs Aug. 24, 25, 27, 28; minimum gage height, 1.90 ft Sept. 10.
1950-57: Maximum discharge, 5,440 cfs Dec. 23, 1955 (gage height, 9.55 ft); minimum, 16 cfs Sept. 2-11, 1955; minimum gage height, 1.86 ft Sept. 6, 7, 1955.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions above station and from Robie Creek for irrigation of about 900 acres.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 26				Feb. 27 to Sept. 30			
2.1	46	2.9	173	1.8	24	3.0	220
2.3	65	3.2	260	2.0	40	3.5	396
2.6	107	3.6	405	2.2	61	4.0	635
				2.4	87	5.0	1,220
				2.7	142	6.2	2,020

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	124	78	115	110	700	1,030	1,250	1,080	220	53	41
2	52	107	83	120	110	620	962	1,320	1,050	209	52	39
3	*51	99	97	105	110	580	998	*1,360	1,060	192	51	36
4	50	97	99	95	100	500	986	1,250	1,030	182	49	34
5	51	96	93	90	100	550	1,200	1,170	1,010	171	47	33
6	50	101	91	95	100	550	1,960	1,190	968	159	45	32
7	50	109	87	100	100	580	1,560	1,270	878	154	46	31
8	50	*105	61	100	110	650	1,430	1,300	842	149	46	30
9	55	105	62	95	120	800	1,410	1,270	784	138	44	30
10	64	105	90	90	115	780	1,460	1,280	690	129	43	30
11	83	109	280	90	110	700	1,510	1,310	646	123	41	33
12	91	111	332	100	110	800	1,560	1,320	598	119	39	33
13	81	120	393	110	120	650	1,600	1,420	572	110	38	33
14	73	118	*350	105	140	580	1,680	1,470	552	107	37	33
15	70	88	251	100	150	560	1,730	1,420	522	*101	35	33
16	66	102	212	90	150	580	1,560	1,500	480	98	34	34
17	65	130	190	85	140	580	1,490	1,460	435	95	34	33
18	67	139	170	85	130	580	1,400	1,560	405	92	33	34
19	81	94	160	90	130	600	1,320	1,930	*392	89	32	39
20	78	90	140	100	140	660	1,320	*1,780	388	86	31	43
21	73	97	140	100	150	700	1,340	1,560	376	86	30	45
22	71	101	140	90	160	*640	*1,340	1,410	348	83	30	44
23	77	99	130	95	200	587	1,360	1,270	329	80	29	42
24	85	96	150	100	340	582	1,300	1,180	314	76	29	41
25	87	93	125	90	570	640	1,160	1,140	297	72	28	*41
26	122	88	110	85	1,000	640	1,030	1,120	280	67	*29	39
27	163	84	110	80	1,280	646	938	1,100	276	66	28	38
28	128	83	115	80	962	668	932	1,110	260	63	29	36
29	104	83	125	75	-	745	1,050	1,120	244	60	33	38
30	135	84	115	75	------	932	*1,180	1,120	232	58	36	38
31	173	------	115	*90	------	1,080	------	1,130	------	56	41	------
Total	2,500	3,057	4,694	2,920	7,057	20,460	39,776	41,090	17,338	3,490	1,172	1,086
Mean	80.6	102	151	94.2	252	660	1,326	1,325	578	113	37.8	36.2
Cfsm	0.202	0.256	0.378	0.236	0.632	1.65	3.32	3.32	1.45	0.283	0.095	0.091
In.	0.23	0.28	0.44	0.27	0.66	1.91	3.71	3.83	1.62	0.33	0.11	0.10
Ac-ft	4,960	6,060	9,310	5,790	14,000	40,580	78,890	81,500	34,390	6,920	2,320	2,150

Calendar year 1956: Max 2,350 Min 42 Mean 445 Cfsm 1.12 In. 15.18 Ac-ft 323,200
Water year 1956-57: Max 1,960 Min 28 Mean 396 Cfsm 0.992 In. 13.49 Ac-ft 286,900

Peak discharge (base, 800 cfs).--Feb. 26 (7:30 p.m.) 1,690 cfs (5.77 ft); probably Mar. 10, time and discharge unknown; Apr. 6 (4:30 a.m.) 2,210 cfs (6.45 ft); May 19 (8:30 a.m.) 2,000 cfs (6.17 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 9-11, about Dec. 25 to Feb. 26. No gage-height record Oct. 1, 2, Dec. 17 to Jan. 30, Mar. 1-21; discharge estimated on basis of weather records, recorded range in stage, and records for Robie Creek near Arrowrock and Boise River near Twin Springs.

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 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,080 ft (from topographic map).

Average discharge.--7 years, 9.40 cfs (6,800 acre-ft per year).

Extremes.--Maximum discharge during year, 92 cfs Apr. 5 (gage height, 2.24 ft); minimum, 0.6 cfs Aug. 20, 21, 22, 23; minimum gage height, 0.78 ft Aug. 20, 21, 22, 23, Sept. 7. 1950-57: Maximum discharge, 163 cfs Dec. 23, 1955 (gage height, 2.67 ft); minimum, 0.1 cfs several days in August and September 1955; minimum gage height, 0.58 ft Aug. 11, 30, 31, 1955.

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	0.7	1.2	6.0	1.8	33
.9	1.4	1.4	12	2.0	52
1.0	2.5	1.6	20	2.2	78

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.2	3.1	3.6	3.7	29	41	30	12	3.2	0.9	0.8
2	1.7	3.8	3.1	b3.2	3.7	26	38	30	11	3.0	.8	.8
3	1.7	3.7	3.2	b3.1	3.6	24	35	*32	10	2.6	.8	.8
4	1.7	3.8	3.4	b3.0	3.6	21	33	29	9.0	2.6	.9	1.1
5	*2.0	3.8	3.0	b3.0	3.6	24	52	26	8.2	2.5	.8	.9
6	1.8	4.2	3.0	b3.1	3.6	21	68	25	7.4	2.1	.8	.9
7	1.7	4.4	2.8	b3.2	3.6	24	54	24	7.2	2.1	.8	.8
8	1.6	*4.0	b2.6	b3.3	3.6	27	49	23	7.2	2.0	1.0	.8
9	1.8	4.0	b3.0	b3.3	3.6	32	45	22	7.4	1.7	1.0	.8
10	2.6	4.0	3.7	b3.1	3.4	32	44	22	7.2	1.6	1.0	.8
11	3.8	4.2	13	b3.1	3.4	29	46	21	6.5	1.6	1.0	1.0
12	3.4	4.0	10	3.4	3.6	33	47	22	6.2	1.5	.9	1.0
13	3.6	5.0	19	3.6	*3.6	27	48	22	6.2	1.5	.9	1.0
14	3.4	4.4	*13	3.6	4.2	24	49	25	6.5	1.5	.8	1.1
15	3.2	3.7	9.0	3.7	4.2	23	45	27	6.7	*1.4	.8	1.1
16	3.2	3.8	7.4	3.6	4.2	24	43	25	6.7	1.3	.9	1.1
17	2.8	4.2	6.2	b3.1	4.4	24	43	23	6.2	1.2	.8	1.1
18	3.1	3.8	5.8	b2.9	4.2	24	39	27	6.0	1.1	.8	1.2
19	3.2	3.0	5.2	b3.0	4.4	25	38	34	5.8	1.3	.7	1.5
20	3.0	3.4	b4.8	b3.5	4.6	28	38	*34	*5.6	1.3	.7	1.5
21	2.6	3.4	b4.6	b3.6	4.4	30	41	31	5.4	1.3	.7	1.7
22	2.6	3.4	b4.5	b3.5	4.6	*27	*39	28	5.2	1.4	.7	2.0
23	3.0	3.4	5.2	b3.4	*9.0	25	38	25	4.8	1.3	*.7	1.6
24	3.0	3.2	4.4	b3.3	14	24	38	23	4.0	1.1	.7	1.8
25	3.2	3.4	4.2	b3.0	*23	27	32	21	4.2	1.1	.7	*1.8
26	5.8	3.6	b3.8	b2.9	56	28	29	20	4.6	1.0	.8	1.7
27	6.0	3.4	b3.6	b2.8	50	27	27	18	4.4	1.0	.8	1.7
28	4.0	3.2	b3.8	b2.8	35	27	26	17	4.0	1.0	.8	1.8
29	3.7	3.1	4.0	b2.9	-	32	27	16	3.6	1.0	.8	1.7
30	5.2	3.2	3.8	b3.1	------	38	29	14	3.2	1.0	.8	1.6
31	5.2	------	3.8	*3.7	------	44	------	13	------	.9		------
Total	95.3	112.7	170.0	100.4	272.8	850	1,221	749	192.4	49.2	25.4	37.5
Mean	3.07	3.76	5.48	3.24	9.74	27.4	40.7	24.2	6.41	1.59	0.82	1.25
Cfsm	0.194	0.238	0.347	0.205	0.616	1.73	2.58	1.53	0.406	0.101	0.052	0.079
In.	0.22	0.27	0.40	0.24	0.64	2.00	2.87	1.76	0.45	0.12	0.06	0.09
Ac-ft	189	224	337	199	541	1,690	2,420	1,490	382	98	50	74

Calendar year 1956: Max 71 Min 0.8 Mean 10.7 Cfsm 0.677 In. 9.22 Ac-ft 7,760
Water year 1956-57: Max 68 Min 0.7 Mean 10.6 Cfsm 0.671 In. 9.12 Ac-ft 7,690

Peak discharge (base, 35 cfs).--Feb. 26 (4 a.m.) 88 cfs (2.23 ft); Mar. 9 (5 p.m.) 41 cfs (1.84 ft); Mar. 12 (10 a.m.) 38 cfs (1.81 ft); Mar. 20 (11 p.m.) 39 cfs (1.82 ft); Mar. 31 (3 to 4 p.m.) 49 cfs (1.92 ft); Apr. 5 (9:30 p.m.) 92 cfs (2.24 ft); May 19 (7 to 8 p.m.) 38 cfs (1.83 ft).

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

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 1957.

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, 294,050 acre-ft June 20 (elevation, 3,055.33 ft); minimum, 62,760 acre-ft Sept. 30 (elevation, 2,938.52 ft).
1954-57: Maximum contents, 305,130 acre-ft June 25, 1955 (elevation, 3,059.32 ft); minimum since near-full capacity was attained on June 25, 1955, 29,250 acre-ft Oct. 15, 1955 (elevation, 2,905.69 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft between elevations 2,824.0 (floor of outlet tunnel) and 3,060.0 ft (spillway crest). Minimum proposed operating level, 2,905.0 ft (28,770 acre-ft), but all storage can be released. Water is stored for flood control and irrigation of lands in Boise Valley.

Cooperation.--Gage-height record and capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

2,930.0	52,710	3,000.0	162,790
2,940.0	64,600	3,020.0	205,580
2,960.0	92,370	3,040.0	253,570
2,980.0	125,090	3,060.0	307,040

Usable contents, in acre-feet, at 12 p.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142,600	99,030	106,020	148,310	271,250	282,090	209,040	196,790	253,020	292,450	289,530	270,750
2	136,750	99,280	106,210	152,210	272,100	278,980	205,400	196,810	255,660	292,260	289,390	266,750
3	131,270	99,560	106,470	156,090	272,310	275,580	201,860	197,540	258,440	292,070	289,230	259,440
4	125,700	99,800	106,680	159,930	271,600	271,960	198,030	197,770	260,260	291,880	288,820	251,200
5	120,110	100,050	106,880	163,670	270,750	267,490	194,580	197,630	260,670	291,820	288,220	243,120
6	114,400	100,330	107,110	167,550	269,780	261,550	196,300	197,210	264,230	292,120	288,220	234,940
7	108,690	100,620	107,340	171,350	268,790	256,420	203,590	197,250	268,740	292,370	288,280	266,580
8	102,950	100,880	107,450	175,190	267,820	251,120	211,910	198,160	272,410	292,370	288,250	218,710
9	97,220	101,170	107,550	179,140	266,650	245,960	220,780	199,010	275,260	292,210	288,030	210,830
10	95,020	101,410	107,760	183,000	265,350	240,670	230,460	199,950	277,390	291,930	287,710	203,000
11	94,550	101,710	108,430	186,810	263,740	235,530	231,230	200,870	281,020	291,800	287,270	195,220
12	94,460	101,990	109,280	190,720	263,170	230,630	230,320	201,830	284,050	291,690	287,000	187,390
13	94,390	102,260	110,220	194,640	263,350	225,390	228,370	202,910	286,300	291,470	286,760	179,860
14	94,300	102,550	111,030	198,630	263,610	220,160	226,630	204,360	287,900	291,360	286,430	172,460
15	94,390	102,790	111,630	202,940	264,470	214,840	224,910	206,170	288,930	291,380	285,750	165,110
16	94,580	102,840	112,110	207,400	265,690	209,450	222,420	208,220	289,960	291,190	284,890	157,980
17	94,790	103,030	112,530	211,980	266,860	211,910	219,720	209,750	291,490	291,190	284,130	150,760
18	94,950	103,300	112,910	216,560	268,090	216,840	216,750	211,500	292,750	291,380	283,540	143,940
19	95,240	103,570	113,280	221,080	269,290	222,330	213,660	214,840	293,690	291,580	282,790	136,990
20	95,450	103,810	113,550	225,630	269,970	227,870	210,280	218,410	294,020	291,410	282,440	130,060
21	95,590	104,020	113,850	230,130	269,050	233,480	206,690	221,460	294,020	291,270	282,300	123,520
22	95,810	104,250	114,050	234,600	267,430	238,950	202,890	230,920	294,020	291,190	282,200	116,940
23	96,020	104,470	114,300	239,000	265,970	242,400	201,070	233,440	293,850	291,170	280,830	110,450
24	96,270	104,700	116,920	243,440	264,860	240,450	200,020	235,620	293,610	291,080	279,010	103,830
25	96,580	104,920	120,920	247,900	265,090	236,750	199,660	237,700	293,170	290,890	277,940	97,140
26	96,970	105,110	124,790	252,430	270,600	232,420	199,570	239,660	292,700	290,840	276,590	90,410
27	97,310	105,290	128,700	256,830	279,860	228,090	199,260	241,510	292,780	290,870	274,680	83,550
28	97,650	105,450	132,640	261,240	283,270	223,800	198,610	243,420	292,640	290,780	273,780	76,600
29	97,950	105,630	136,570	265,660	-	219,760	297,700	245,530	292,260	290,650	273,020	69,680
30	98,310	105,830	140,460	269,940	-------	216,100	197,370	248,030	292,400	290,460	272,020	62,760
31	98,710	-------	144,410	271,170	-------	212,650	-------	250,520	-------	290,020	271,280	-------
(†)	2,964.12	2,968.59	2,990.58	3,046.82	3,051.37	3,023.09	3,016.34	3,038.79	3,054.73	3,053.86	3,046.86	2,938.52
(‡)	-49,580	+7,120	+38,580	+126,760	+12,100	-70,620	-15,280	+53,150	+41,880	-2,380	-18,740	-208,520

Calendar year 1956..... ‡ +65,150
Water year 1956-57..... ‡ -85,530

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

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 usstream from diversion dam for New York Canal, 7½ miles downstream from mouth of 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 1957. 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.--20 years (1895-96, 1897-1903, 1905-6, 1907-16, 1954-57), 3,059 cfs (2,215,000 acre-ft per year).

Extremes.--Maximum discharge during year, 10,600 cfs June 6-10; minimum, 1 cfs Oct. 16 to Feb. 3, Mar. 18-22, when gates were closed.
1895-1916, 1954-57: Maximum discharge observed, 35,500 cfs June 14, 1896; no flow Oct. 17, 1954, to Feb. 18, 1955, Feb. 20, 1955, during building of gate structure at Lucky Peak Dam.

Remarks.--Records excellent except those below 10 cfs, which are poor. Discharge measurements generally made 2 or 3 times a month,except when gates were closed. Daily discharge computed frmm gate ratings. Flow regulated by Lucky Peak Reservoir (see preceding page), Arrowrock Reservoir (see p. 145), and Anderson Ranch Reservoir (see p. 143). Small diversions from tributaries upstream for irrigation.

Cooperation.--Records of gate operation, stage in Lucky Peak Reservoir, and gate rating curves furnished by Corps of Engineers.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,100	1	1	1	1	4,280	4,900	*9,180	8,740	5,190	4,710	4,420
2	3,000	1	1	1	1	4,610	4,880	9,510	8,760	*5,190	4,670	4,400
3	2,880	1	1	*1	1	4,610	4,920	9,580	8,750	5,190	4,650	4,290
4	*2,920	1	1	1	492	4,610	4,920	9,580	9,330	5,160	4,650	4,250
5	2,980	1	1	1	546	*5,030	5,860	9,580	*10,200	5,120	4,590	4,250
6	3,020	*1	1	1	615	5,460	4,450	9,630	10,500	5,110	4,560	4,220
7	3,040	1	1	1	*615	5,520	1,090	9,430	10,600	5,110	4,590	4,170
8	3,050	1	1	1	615	5,570	1,050	9,040	10,600	5,110	4,590	4,140
9	3,050	1	1	1	751	5,590	1,060	9,040	10,600	5,100	4,590	4,140
10	1,270	1	1	1	829	5,590	602	9,060	9,690	5,110	4,590	4,120
11	413	1	1	1	964	5,570	5,280	9,060	8,190	5,080	4,590	4,070
12	188	1	1	1	1,070	5,550	6,270	9,070	7,660	5,060	4,590	*4,030
13	164	1	1	1	1,090	5,510	6,860	9,070	6,970	5,060	4,580	3,980
14	164	1	1	1	1,090	*5,490	6,870	8,970	6,250	5,060	*4,580	3,850
15	55	1	1	1	1,090	5,450	6,880	*8,730	6,070	5,060	4,580	3,770
16	1	1	1	1	1,090	5,430	7,060	8,660	6,090	5,060	4,580	3,740
17	1	1	1	1	1,090	1,800	*7,160	8,940	5,740	5,060	4,570	3,750
18	1	1	1	1	1,090	1	7,170	9,150	5,230	4,930	4,570	3,770
19	1	1	1	1	1,090	1	7,160	8,740	5,050	4,790	4,570	3,610
20	1	1	1	1	1,090	1	7,360	8,490	5,050	4,960	4,640	3,560
21	1	1	1	1	1,090	1	7,460	8,560	4,940	4,940	4,640	3,460
22	1	1	1	1	1,090	1	7,520	5,210	4,800	4,860	4,630	3,400
23	1	1	1	1	1,090	1,080	7,790	8,670	4,860	4,770	4,620	3,410
24	1	1	1	1	1,090	3,710	*8,050	8,760	4,860	4,740	4,620	*3,480
25	1	1	1	1	1,080	4,700	8,120	8,780	*4,920	*4,720	4,180	3,520
26	1	1	1	1	*1,090	5,010	8,120	8,780	5,120	4,670	4,190	3,540
27	1	1	1	1	1,510	5,010	8,120	8,800	4,950	4,640	*4,560	3,540
28	1	1	1	1	3,110	*5,020	8,130	8,820	5,080	4,620	4,580	3,570
29	1	1	1	1	-	4,940	8,570	*8,760	5,150	4,610	4,530	3,570
30	1	1	1	1	-------	4,880	8,810	8,700	5,190	4,600	4,480	3,550
31	1	-------	1	1	-------	4,920	-------	8,720	-------	4,710	4,440	-------
Total	29,310	30	31	31	26,370	124,945	182,492	275,070	209,940	153,390	141,510	115,570
Mean	945	1.0	1.0	1.0	942	4,030	6,083	8,873	6,998	4,948	4,565	3,852
Ac-ft	58,140	60	61	61	52,300	247,800	362,000	545,600	416,400	304,200	280,700	229,200

Calendar year 1956 : Max 9,470 Min 1 Mean 4,005 Ac-ft 2,907,000
Water year 1956-57 : Max 10,600 Min 1 Mean 3,448 Ac-ft 2,497,000

* Discharge measurement made on this day.
Note.--Discharge Oct. 16 to Feb. 3, Mar. 18-22, when gates at dam were closed, estimated on basis of 2 discharge measurements.

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 1957. 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, 174,700 acre-ft May 16, 19 (gage height, 29.75 ft); minimum observed, 26,920 acre-ft Aug. 30 (gage height, 9.08 ft, upper pool; 8.05 ft, lower pool).

1917-57: Maximum contents observed, 178,900 acre-ft Apr. 27, 28, 1922, Apr. 24, 1932 (gage height, 30.18 ft); minimum observed, 5,390 acre-ft Oct. 22, 1924 (gage height, 3.27 ft, upper pool; 0.85 ft, lower pool).

Remarks.--Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-ft, between gage heights 0.0 (sill of outlet gates) and 30.0 ft (maximum operating level). Dead storage, about 13,000 acre-ft. Below gage height 12.0 ft, reservoir divides into two pools. In addition to water received from local drainage, reservoir receives water from Boise River through New York Canal of Boise project. Water is used for irrigation of lower project lands. Figures given herein represent usable contents.

Cooperation.--Gage readings and capacity table furnished by Board of Control for Boise project.

Capacity table (gage height, in feet, and usable contents, in acre-feet)

8.0	24,380	20.0	93,040
10.0	33,180	22.0	107,900
12.0	43,080	24.0	123,700
14.0	54,060	26.0	140,500
16.0	66,110	28.0	158,200
18.0	79,110	30.0	177,200

Usable contents, in acre-feet, at about 8 a.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75,770	93,760	97,400	101,400	103,800	148,300	153,100	173,000	165,900	114,000	64,360	27,660
2	78,170	93,900	97,470	101,500	103,900	150,300	155,000	172,100	163,700	112,000	63,000	28,240
3	79,710	94,120	97,620	101,500	103,900	151,400	156,800	171,300	161,600	109,800	61,600	29,240
4	81,340	94,190	97,840	101,600	104,000	151,500	158,700	170,800	159,700	107,700	60,320	30,180
5	83,120	94,330	98,060	101,700	104,100	152,100	160,400	170,700	157,500	105,700	59,060	30,710
6	84,080	94,480	98,200	101,800	105,200	151,900	162,500	170,700	155,300	103,500	57,750	31,400
7	85,750	94,620	98,350	101,800	106,400	151,900	164,400	171,200	153,900	101,200	56,390	32,190
8	87,560	94,700	98,500	101,900	107,700	151,700	166,200	171,500	151,800	99,160	54,870	33,250
9	88,830	94,840	98,720	102,000	109,000	151,700	167,900	171,900	150,500	97,250	53,320	34,130
10	90,600	94,990	99,010	102,100	110,400	151,500	169,800	172,300	148,700	95,350	52,010	35,300
11	91,740	95,280	99,460	102,100	111,900	151,500	171,100	172,600	147,500	93,400	50,150	36,680
12	91,960	95,420	99,610	102,200	113,700	151,400	171,600	173,200	146,500	91,530	48,710	37,970
13	91,740	95,570	99,750	102,200	115,700	151,400	172,000	173,600	144,700	89,610	47,180	39,530
14	91,310	95,720	99,900	102,400	117,800	151,200	172,200	174,100	143,400	87,840	45,560	41,100
15	91,030	95,720	100,100	102,400	119,700	151,200	172,500	174,500	142,000	85,950	44,280	42,690
16	91,390	95,790	100,100	102,400	121,800	151,200	173,000	174,700	140,800	84,220	42,740	44,280
17	91,310	95,790	100,300	102,500	123,700	150,900	173,100	174,500	139,600	82,360	41,580	45,770
18	91,460	95,860	100,300	102,600	125,800	150,900	173,200	174,500	138,600	80,730	40,300	47,340
19	91,600	96,010	100,400	102,700	127,800	150,900	173,200	174,700	137,100	79,240	39,430	48,600
20	91,670	96,080	100,500	102,800	129,900	150,900	173,200	174,400	135,400	77,700	38,200	49,540
21	91,820	96,220	100,600	102,800	132,000	150,900	173,200	174,100	133,600	76,230	36,970	51,780
22	91,820	96,300	100,700	103,100	134,100	150,900	173,500	173,800	131,800	75,110	35,750	53,550
23	91,890	96,370	100,700	103,100	135,900	150,700	173,600	173,700	130,200	74,190	34,550	55,160
24	92,030	96,370	100,800	103,200	138,200	150,600	173,800	173,800	128,400	72,880	33,450	56,800
25	92,320	96,520	100,900	103,300	140,200	150,300	174,000	174,100	126,600	71,840	32,210	58,220
26	92,680	96,660	100,900	103,300	142,400	150,200	174,500	174,300	124,600	70,550	30,750	59,720
27	92,820	96,810	101,000	103,400	144,500	150,000	174,600	174,100	122,400	69,460	29,180	60,930
28	93,040	96,960	101,000	103,600	146,500	150,000	174,600	173,300	120,500	68,320	28,090	62,090
29	93,180	97,100	101,200	103,600	-	149,800	174,500	171,900	118,100	67,430	27,690	63,560
30	93,320	97,250	101,200	103,700	-------	149,800	173,900	170,200	115,800	66,490	26,920	64,860
31	93,610	-------	101,300	103,700	-------	151,200	-------	168,100	-------	65,550	27,030	-------
(†)	20.08	20.58	21.13	21.45	26.69	27.22	29.67	29.06	23.02	15.91	(a)	15.80
(‡)	+19,350	+3,640	+4,050	+2,400	+42,800	+4,700	+22,700	-5,800	-52,300	-50,250	-38,520	+37,830

Calendar year 1956..... ‡ +15,140
Water year 1956-57..... ‡ -9,400

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Upper pool, 9.00 ft; lower pool, 8.20 ft.

Diversions from Boise River between near Boise and at Boise gaging stations, Idaho

Between near Boise and at Boise gaging stations (prior to 1955 water year, published as between Dowling Ranch and Boise gaging stations), six principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during period April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-57, 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 1957 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, 45,470 acre-ft, February, 46,180 acre-ft; March, 4,830 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 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							1,040	2,460	3,350	3,630	3,580	3,510
2							1,040	2,940	3,340	3,640	3,580	3,500
3							1,040	3,080	3,370	3,640	3,580	3,470
4							1,000	3,100	3,460	3,640	3,590	3,480
5							1,130	3,100	3,460	3,630	3,600	3,470
6							1,130	3,180	3,460	3,630	3,590	3,470
7							971	3,250	3,470	3,640	3,580	3,450
8							971	3,250	3,480	3,630	3,570	3,440
9							997	3,280	3,470	3,640	3,570	3,440
10							1,000	3,280	3,480	3,640	3,560	3,420
11							330	3,320	3,470	3,620	3,580	3,420
12							330	3,290	3,470	3,620	3,580	3,360
13							330	3,260	3,470	3,630	3,570	3,360
14							401	3,160	3,350	3,630	3,580	3,280
15							455	2,940	3,270	3,630	3,570	3,210
16							491	2,760	3,290	3,620	3,520	3,160
17							496	2,900	3,270	3,620	3,510	3,160
18							526	2,960	3,290	3,620	3,510	3,170
19							526	2,890	3,280	3,620	3,510	3,120
20							518	2,260	3,280	3,620	3,510	3,090
21							878	2,250	3,620	3,620	3,520	3,060
22							883	2,260	3,610	3,600	3,530	2,940
23							964	2,380	3,640	3,560	3,520	2,910
24							1,060	2,470	3,650	3,580	3,520	2,990
25							1,250	2,480	3,610	3,560	2,920	3,060
26							1,250	2,440	3,630	3,560	2,900	3,100
27							1,280	2,870	3,640	3,570	3,540	3,120
28							1,300	3,310	3,640	3,550	3,530	3,110
29							1,520	3,260	3,630	3,570	3,530	3,170
30					-------		2,000	3,260	3,630	3,550	3,520	3,150
31		-------			-------		-------	3,260	-------	3,560	3,510	-------
Total							27,107	90,900	104,080	111,870	108,780	97,590
Mean							904	2,932	3,469	3,609	3,509	3,253
Ac-ft							53,770	180,300	206,400	221,900	215,800	193,600

Calendar year	: Max	Min	Mean	Ac-ft	
Water year	: Max	Min	Mean	Ac-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 Bridge at Boise.

Drainage area.--2,760 sq mi, approximately.

Records available.--March 1938 to September 1939 (gage heights only), February 1940 to September 1957.

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, 6,910 cfs June 8 (gage height, 7.28 ft); minimum daily, 6.0 cfs Jan. 28-31.

1940-57: Maximum discharge, 21,000 cfs Apr. 20, 1943 (gage height, 10.00 ft, site and datum then in use); minimum, 1.3 cfs Feb. 3, 1955 (gage height, 2.21 ft); minimum daily, that of Jan. 28-31, 1957.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Arrowrock Reservoir (see p. 145), Anderson Ranch Reservoir (see p. 143), and Lucky Peak Reservoir (see p. 149). New York, Ridenbaugh, and four smaller canals (see p. 152) divert between station near Boise and this station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	6.0	2.8	46	4.0	770
2.5	12	3.0	90	4.5	1,520
2.6	20	3.3	194	5.0	2,470
2.7	31	3.6	375	6.0	4,510
				7.5	7,300

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	447	19	11	8.4	b6.5	3,010	4,030	6,450	5,390	1,560	1,160	874
2	415	17	11	9.0	b7.0	4,130	4,030	6,420	5,390	*1,560	1,140	887
3	407	18	11	9.0	b7.5	4,640	4,030	6,380	5,330	1,570	1,100	835
4	368	18	11	8.4	b8.0	4,620	4,010	6,400	5,710	1,560	1,100	747
5	399	18	11	9.0	b25	*4,970	4,760	6,400	6,510	1,520	1,080	*758
6	399	17	11	7.8	b35	5,530	4,330	6,380	6,800	1,490	*1,080	736
7	399	15	11	7.8	b35	5,570	279	6,180	6,850	1,490	1,080	701
8	407	16	10	8.4	b35	5,570	135	5,780	6,870	1,490	1,080	655
9	423	17	10	7.8	b35	5,620	107	5,780	6,850	1,490	1,080	666
10	549	15	11	7.2	b32	5,640	98	5,820	6,210	1,470	1,100	678
11	512	15	18	7.2	b30	5,620	4,120	5,850	4,950	1,440	1,100	634
12	334	15	15	7.8	*26	5,600	5,800	5,910	4,210	1,420	1,100	613
13	225	25	17	7.8	23	5,550	6,420	5,930	3,720	1,420	1,100	634
14	209	*26	14	*8.4	26	5,530	6,420	5,930	2,890	1,440	1,080	592
15	190	18	14	8.4	27	5,490	6,440	5,960	*2,710	1,420	1,080	531
16	60	17	12	7.2	26	5,510	*6,550	6,030	2,670	1,400	1,070	531
17	32	16	11	7.2	23	2,850	6,620	6,110	2,390	1,400	1,070	531
18	*29	15	11	7.2	22	135	*6,610	6,270	1,830	1,330	1,080	531
19	26	14	11	a7.0	23	90	6,620	6,340	1,520	1,160	1,070	502
20	22	14	11	b7.0	32	76	6,550	6,270	1,470	1,290	1,070	493
21	20	13	11	b7.0	52	71	6,530	*6,380	1,420	1,320	1,080	502
22	18	14	10	b7.0	58	62	6,530	3,360	1,190	1,270	1,060	439
23	20	13	11	b7.5	115	378	6,660	6,300	1,270	1,240	1,060	439
24	18	13	9.6	b6.5	96	3,550	6,760	6,380	1,240	1,160	1,060	455
25	18	14	9.0	b6.5	90	4,640	6,760	6,400	1,300	1,160	1,060	455
26	21	13	9.0	a6.5	131	5,020	6,720	6,290	1,330	1,120	1,030	455
27	21	12	8.4	a6.5	312	5,020	6,700	5,940	1,300	1,080	970	447
28	18	13	8.4	a6.0	1,800	5,060	6,660	5,660	1,380	1,070	1,030	439
29	20	11	8.4	a6.0	-	4,760	6,640	5,550	1,470	1,070	984	439
30	22	11	8.4	a6.0	-------	4,090	6,550	5,440	1,540	1,040	942	439
31	21	-------	8.4	a6.0	-------	4,030	-------	5,400	-------	1,130	900	-------
Total	6,069	472	343.6	229.5	3,138.0	122,432	154,469	185,690	103,710	41,580	32,996	17,638
Mean	196	15.7	11.1	7.40	112	3,949	5,149	5,990	3,457	1,341	1,064	588
Ac-ft	12,040	936	682	455	6,220	242,800	306,400	368,300	205,700	82,470	65,450	34,980

Calendar year 1956: Max 6,840 Min 8.4 Mean 2,237 Ac-ft 1,624,000
Water year 1956-57: Max 6,870 Min 6.0 Mean 1,832 Ac-ft 1,326,000

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station near Boise.
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 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,721.70 ft above mean sea level, unadjusted.

Extremes.--Maximum discharge during year, 244 cfs Feb. 26 (gage height, 2.85 ft); no flow for long periods.
1954-57: Maximum discharge, that of Feb. 26, 1957; no flow for long periods.

Remarks.--Records good except those for period of no gage-height record and those below about 1.0 cfs, which are poor. Diversions above station for irrigation.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	1.6	8.8
1.1	.1	1.7	13.5
1.2	.6	1.8	20
1.3	1.3	2.0	38
1.4	2.9	2.2	67
1.5	5.3	2.4	111

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.3	0.2	0.6	b0.5	26	26	1.9	15	0.2		
2	0	.2	.2	.6	.8	23	24	2.6	11.5	.1		
3	*0	.2	.2	.5	.7	22	22	*6.7	8.8	.1		
4	0	.2	.3	.6	.6	23	20	5.1	7.8	.1		
5	0	.1	.2	.6	.6	28	24	4.3	7.0	.1		
6	0	*0	.2	.6	b.5	26	31	4.1	6.4	.2		
7	0	0	.2	*.6	a.5	*32	25	4.1	6.0	.2		
8	0	0	.2	.6	a.7	34	25	3.6	6.7	.2		
9	0	0	.2	.5	a.8	29	22	2.7	6.0	*.1		
10	0	0	.3	b.5	a1.0	23	20	2.9	5.1	.1		
11	0	0	2.6	.5	a1.2	23	20	4.8	4.6	.1		
12	0	0	2.4	.5	a1.6	35	21	9.1	4.1	.1		
13	0	.1	*2.3	.6	a1.8	27	19.5	13.5	4.1	.1		
14	0	.1	2.1	.5	a2.0	26	15.5	20	4.1	.1		
15	0	.1	1.5	.5	a3.5	26	*14	24	*4.3	.1		
16	0	.1	1.6	.3	a4.0	29	14	27	4.1	.1		
17	0	.1	1.2	b.2	a2.5	33	16	26	3.4	.1		
18	0	.1	1.1	b.2	*2.1	29	13	34	3.1	.1		
19	0	.1	1.0	b.2	2.3	29	9.3	59	2.7	.1	(*)	
20	0	.1	.9	b.5	2.3	28	5.3	50	2.7	0		(*)
21	0	.1	b.6	b.5	1.9	29	7.0	44	1.6	0		
22	0	.1	.4	b.5	2.6	27	7.4	39	1.1	0		
23	0	.1	.6	b.5	*50	26	5.3	*36	.5	*0		
24	0	.1	.6	b.3	76	22	6.0	34	.5	0		
25	0	.1	b.5	b.3	54	24	6.7	31	.4	0		
26	0	.2	.4	b.2	*95	22	6.4	28	.2	0		
27	0	*.2	b.3	b.2	51	21	5.3	26	.3	0		(*)
28	.1	.2	.6	b.2	32	18	4.8	24	.3	0		
29	.1	.2	.6	b.2	-	*18	4.6	20	.2	0		
30	.2	.2	.6	*b.2	-------	17.5	2.9	18	.2	0		
31	.5	-------	.6	b.3	-------	30	-------	17.5	-------	0		-------
Total	0.9	3.3	24.7	13.1	392.5	805.5	443.0	622.9	122.8	2.3	0	0
Mean	0.03	0.11	0.80	0.42	14.0	26.0	14.8	20.1	4.09	0.07	0	0
Ac-ft	1.8	6.5	49	26	779	1,600	879	1,240	244	4.6	0	0

Calendar year 1956: Max 22 Min 0 Mean 2.51 Ac-ft 1,820
Water year 1956-57: Max 95 Min 0 Mean 6.66 Ac-ft 4,830

* Discharge measurement 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 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,692.80 ft above mean sea level, unadjusted.

Extremes.--Maximum discharge during year, 339 cfs Feb. 26 (gage height, 4.70 ft); minimum, 0.1 cfs at times in August and September; minimum gage height, 1.09 ft Oct. 2, 7. 1954-57: Maximum discharge, that of Feb. 26, 1957; minimum, 0.1 cfs Oct. 21-29, 1954, Sept. 4, 5, 1956, and at times in August and September 1957; minimum gage height, 1.08 ft Sept. 6, 1954, Sept. 27, 1956.

Remarks.--Records good except those for periods of no gage-height record and those below about 1.0 cfs, which are fair. Diversions upstream for irrigation.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	1.2	2.0	2.7	2.3	56	69	25	52	0.7	0.2	0.1
2	.2	1.3	2.3	2.5	3.1	53	58	25	46	.7	.2	.1
3	*.2	1.3	2.7	1.6	2.7	61	51	*31	40	.6	.2	.1
4	.2	1.3	2.7	1.7	2.5	58	45	31	34	.6	.2	.1
5	.2	*1.3	2.7	1.9	2.5	88	67	27	30	.6	.4	.1
6	.2	1.3	2.9	2.0	2.3	73	108	25	27	.8	.4	.1
7	.2	1.3	2.7	*2.0	2.3	*92	88	23	25	1.0	.4	.1
8	.2	1.2	2.5	2.7	2.7	94	80	23	28	.7	.4	.1
9	.4	1.3	2.5	2.5	2.7	95	79	22	27	*.6	.4	.1
10	.2	1.6	3.3	1.9	2.5	80	79	16.5	23	.7	.6	.1
11	.2	1.4	9.7	2.0	3.1	79	79	30	22	.5	.3	.1
12	.2	1.4	9.4	2.5	3.5	121	83	45	20	.4	.3	.2
13	1.3	1.9	*8.5	2.7	3.7	89	83	56	18	.3	.3	.2
14	2.3	2.5	8.5	2.7	11.5	82	72	85	18	.3	.3	.2
15	1.9	1.9	6.7	2.7	17	80	*69	94	*16.5	.4	.3	.2
16	1.7	2.3	6.0	1.6	18	87	60	94	14.5	.4	.4	.2
17	1.7	2.5	5.1	1.3	11	105	61	86	11	.2	.6	.2
18	1.9	2.7	4.8	1.4	*8.9	94	51	112	9.4	.2	.6	.2
19	2.0	2.5	4.2	1.4	9.4	92	47	176	8.1	.2	*.5	.2
20	2.0	2.3	3.7	2.9	8.9	92	47	153	8.1	.2	.4	*.2
21	2.0	2.3	3.7	2.7	8.9	95	57	147	5.7	.2	.4	.2
22	2.3	2.3	1.9	2.5	8.9	82	52	139	3.9	.2	.2	.2
23	2.3	1.7	3.5	2.3	*166	72	47	*122	2.7	*.2	.3	.2
24	1.6	1.7	3.5	2.5	160	66	42	108	1.9	.2	.3	.2
25	1.6	1.7	2.0	1.9	126	78	38	89	1.7	.2	.4	.2
26	1.4	1.6	1.7	1.6	*184	60	34	86	1.6	.2	.2	.2
27	1.3	*1.7	1.6	a1.6	122	49	32	80	1.4	.2	.2	.2
28	1.3	1.9	2.7	a1.8	82	43	29	77	1.6	.3	.2	.2
29	1.3	1.7	2.9	a2.2	-	*45	28	72	1.2	.4	.2	.2
30	1.2	1.9	2.7	*2.3	-------	47	27	66	1.0	.4	.2	.3
31	1.2	-------	2.7	2.3	-------	81	-------	57	-------	.4	.2	-------
Total	34.9	53.0	121.8	66.4	998.4	2,389	1,762	2,222.5	500.3	13.0	10.2	5.0
Mean	1.13	1.77	3.93	2.14	35.7	77.1	58.7	71.7	16.7	0.42	0.33	0.17
Ac-ft	69	105	242	132	1,980	4,740	3,490	4,410	990	26	20	9.9

Calendar year 1956: Max 69 Min 0.2 Mean 9.19 Ac-ft 6,680
Water year 1956-57: Max 184 Min 0.1 Mean 22.4 Ac-ft 16,210

* Discharge measurement made on this day.
a No gage-height record; discharge computed 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 January 1957 (discontinued).

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,545.82 ft, unadjusted.

Extremes.--Maximum discharge during period October 1956 to January 1957, 23 cfs Oct. 10 (gage height, 3.39 ft); no flow for several days in January.
1954-57: Maximum discharge, 149 cfs Dec. 23, 1955; maximum gage height, 4.86 ft May 14, 1956; no flow for long periods.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions upstream for irrigation. Canals waste water into creek above station.

Rating table, Oct. 31, 1956, to Jan. 31, 1957 (gage height, in feet, and discharge, in cubic feet per second)

2.5	0	2.9	3.2
2.6	.1	3.0	5.9
2.7	.4	3.2	13
2.8	1.3	3.4	24

Discharge, in cubic feet per second, 1956-57

Day	Oct.	Nov.	Dec.	Jan.	Day	Oct.	Nov.	Dec.	Jan.	Day	Oct.	Nov.	Dec.	Jan.
1	13	0.5	0.2	0.2	11	17	0.3	1.1	0	21	0.9	0.2	1.4	0.4
2	12	.4	.2	.1	12	4.2	.3	6.0	0	22	.9	.2	.2	.3
3	*15	.4	.2	.1	13	2.6	.3	*4.8	.1	23	.9	.2	.8	.2
4	18	.4	.2	.1	14	2.0	.3	6.9	.3	24	.8	.2	1.2	.1
5	19	*.4	.2	0	15	1.6	.3	4.4	.3	25	.9	.2	.2	.2
6	20	.4	.1	0	16	1.3	.3	3.9	0	26	1.3	.2	.1	0
7	19	.4	.1	*0	17	1.2	.3	2.8	0	27	.9	*.2	.1	a0
8	19	.4	.1	0	18	1.2	.3	2.4	0	28	.7	.2	.1	a0
9	20	.3	.1	0	19	1.0	.2	2.0	0	29	.6	.2	.2	a0
10	21	.3	.1	0	20	.9	.2	1.5	.2	30	.6	.2	.2	*a0
										31	.5	-	.2	a.1
Total											218.0	8.7	42.0	2.7
Mean											7.03	0.29	1.35	0.09
Runoff in acre-feet											432	17	83	54

Calendar year 1956: Max 81 Min 0 Mean 18.1 Ac-ft 13,170

* 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.

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 1947-57 in reports of Geological Survey. Records of daily diversion for each canal from 1916 to 1957 on file in office of Idaho State Reclamation Engineer. Diversions usually made also during October and March; no record available.

Records show summation of discharge for these diversions. Staff gages on diversions read daily or several times weekly, and discharge measurements made frequently. Field data obtained and records summarized under direction of E. B. Karn, watermaster for Boise River.

Discharge, in cubic feet per second, 1957

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	0	1,820	2,340	2,420	2,110	1,900	16	176	1,740	2,040	2,360	2,100	1,400
2	0	2,020	2,380	2,420	2,150	1,890	17	323	1,710	2,040	2,350	2,130	1,420
3	0	1,990	2,430	2,440	2,140	1,830	18	323	1,730	2,060	2,330	2,110	1,400
4	0	1,890	2,380	2,400	2,150	1,790	19	394	1,400	2,000	2,080	2,110	1,380
5	0	1,910	2,390	2,380	2,140	1,800	20	452	1,150	1,850	2,260	2,100	1,350
6	0	1,920	2,400	2,390	2,180	1,740	21	492	1,090	1,820	2,250	2,090	1,290
7	0	1,920	2,380	2,380	2,180	1,670	22	534	1,100	2,160	2,230	2,100	1,270
8	0	1,970	2,350	2,330	2,160	1,650	23	648	1,210	2,250	2,210	2,080	1,270
9	0	1,970	2,200	2,340	2,130	1,630	24	701	1,310	2,280	2,180	2,080	1,220
10	0	1,980	2,150	2,420	2,170	1,580	25	764	1,450	2,330	2,170	2,050	1,220
11	0	1,960	2,130	2,430	2,180	1,520	26	956	1,590	2,350	2,140	2,060	1,220
12	38	1,890	2,110	2,390	2,170	1,500	27	1,100	1,910	2,380	2,120	2,060	1,240
13	38	1,870	2,140	2,360	2,130	1,460	28	1,190	2,040	2,330	2,130	2,060	1,220
14	137	1,850	2,090	2,380	2,140	1,440	29	1,470	2,150	2,360	2,100	2,010	1,220
15	178	1,780	2,040	2,360	2,130	1,410	30	1,710	2,250	2,380	2,060	1,960	1,190
							31	-	2,300	-	2,050	1,930	-
Total								11,624	54,870	66,540	70,860	65,290	44,120
Mean								387	1,770	2,218	2,286	2,106	1,471
Runoff in acre-feet								23,060	108,800	132,000	140,500	129,500	87,510

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 1957 (irrigation seasons 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, 7,400 cfs May 19 (gage height, 7.56 ft); minimum, 124 cfs June 25 (gage height, 1.48 ft); minimum daily, 131 cfs June 26.
1920-57: Maximum discharge, 20,500 cfs Apr. 20, 1943 (gage height, 10.43 ft); minimum observed, 10 cfs Aug. 18, 21, 1920.

Remarks.--Records excellent. 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. 145), Anderson Ranch Reservoir (see p. 143), and Lucky Peak Reservoir (see p. 149). Records of chemical analyses and water temperature for the water year 1957 are given in WSP 1523.

Revisions (water years).--WSP 1347: 1930.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 24-26, Mar. 1-7, May 9 to June 11, Aug. 2-18)

1.4	106	2.5	580	5.0	3,110
1.7	193	3.0	960	6.0	4,560
2.0	306	4.0	1,910	7.6	7,240

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	548	896	664	567	473	3,240	4,860	5,440	4,250	306	236	497
2	548	872	657	567	491	4,120	4,770	5,250	4,240	315	262	503
3	541	848	657	567	485	5,070	4,740	5,560	4,280	302	251	497
4	554	848	657	560	479	5,250	4,740	5,820	4,200	328	247	485
5	541	*840	650	560	479	5,360	4,750	5,900	4,990	360	258	*428
6	497	824	643	560	485	6,040	5,990	5,940	5,670	310	*210	411
7	509	816	*629	560	491	6,310	2,710	5,870	5,800	290	221	450
8	554	800	615	567	497	6,410	1,200	5,390	6,040	*324	239	455
9	580	800	608	548	509	6,430	1,080	5,390	6,210	355	228	444
10	615	800	615	548	534	6,430	896	5,360	6,190	332	221	497
11	920	784	664	548	587	6,410	1,980	5,430	4,930	319	214	515
12	1,170	776	671	541	*643	6,670	5,780	5,670	3,560	302	236	541
13	1,090	792	650	541	629	6,530	6,550	5,820	3,370	302	258	548
14	1,000	784	636	*534	608	*6,450	6,820	5,870	2,640	294	255	560
15	1,210	768	629	528	904	6,400	6,770	6,040	2,150	341	251	522
16	1,200	760	629	522	968	6,360	*6,800	6,090	2,130	337	262	485
17	1,080	760	622	522	848	6,090	6,960	5,990	1,980	332	274	461
18	1,060	752	615	515	643	1,720	6,800	6,190	1,460	395	282	444
19	1,050	728	608	515	601	1,190	6,800	7,170	952	438	315	497
20	1,000	720	608	515	622	1,080	6,790	7,060	*685	390	294	534
21	984	713	615	534	594	1,020	6,840	*6,940	497	422	306	541
22	952	706	601	515	601	968	6,750	5,560	350	450	328	548
23	968	699	594	509	636	912	6,700	5,150	217	433	324	497
24	960	685	587	515	2,710	2,570	6,870	6,570	182	406	328	467
25	960	685	580	509	*2,670	4,820	6,890	6,380	143	385	328	467
26	1,040	678	580	479	2,120	5,680	6,870	6,090	131	375	400	467
27	1,040	678	580	438	1,750	5,670	6,740	5,560	199	337	411	467
28	992	678	574	455	1,810	5,670	6,570	4,960	196	310	422	422
29	952	671	574	450	-	5,670	6,300	4,670	203	302	479	395
30	944	664	574	450	-------	5,010	5,870	4,450	251	286	485	450
31	936	-------	567	467	-------	4,820	-------	4,370	-------	243	491	-------
Total	26,995	22,825	19,153	16,206	24,867	146,370	164,186	177,950	78,096	10,621	9,316	14,495
Mean	871	761	618	523	888	4,722	5,473	5,740	2,603	343	301	483
Ac-ft	53,540	45,270	37,990	32,140	49,320	290,300	325,700	353,000	154,900	21,070	18,480	28,750

Calendar year 1956: Max 6,920 Min 239 Mean 2,192 Ac-ft 1,591,000
Water year 1956-57: Max 7,170 Min 131 Mean 1,948 Ac-ft 1,410,000

* Discharge measurement made on this day.

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.

Records available.--June 1920 to September 1921, November, December 1921, March, April 1922, April to September 1923, June 1926 to September 1957. Monthly discharge only for some periods, published in WSP 1317. March to September 1914 at site 13 miles upstream; records not equivalent owing to inflow from several creeks.

Gage.--Water-stage recorder. Datum of gage is 3,479.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Apr. 27, 1923, water-stage recorder or staff gage at site half a mile downstream at different datum. Apr. 27, 1923, to June 6, 1939, water-stage recorder at site 7 miles downstream at different datum.

Average discharge.--31 years (1926-57), 172 cfs (124,500 acre-ft per year).

Extremes.--Maximum discharge during year, 10,700 cfs Feb. 24 (gage height, 13.20 ft), from rating curve extended above 3,500 cfs on basis of contracted-opening determination of peak flow; minimum, 1.8 cfs Aug. 10 (gage height, 2.53 ft).

1920-23, 1926-57: Maximum discharge, that of Feb. 24, 1957; no flow at times.

Revisions.--The maximum discharge for the water year 1952 has been revised to 9,030 cfs Mar. 25, 1952 (gage height, 12.90 ft), superseding figure published in WSP 1247.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of about 13,000 acres above station.

Revisions (water years).--WSP 1093: 1927. WSP 1287: Drainage area. WSP 1397: 1921, 1927-31, 1937, drainage area (former site). Revised figures of discharge, in cubic feet per second, for high-water period in water year 1952, superseding those published in WSP 1247, are given herewith:

1952	
Mar. 25	3,980
26	4,890

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
March 1952	27,858	4,890	80	899	55,260
Water year 1951-52	-	4,890	4.2	378	274,400
Calendar year 1952	-	4,890	4.2	370	268,800

Revised peak discharge.--1952: Mar. 25 (10:30 p.m.) 9,030 cfs (12.90 ft); Apr. 6 (10 a.m.) 4,390 cfs (11.61 ft).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	115	55	60	60	1,070	822	590	285	18	15	5.3
2	17	86	60	60	58	826	642	604	288	17	14	5.3
3	29	88	65	58	55	681	604	618	318	15	12	5.7
4	36	103	*70	55	60	600	618	611	305	12	13	6.5
5	20	114	65	50	70	*1,030	681	656	268	10	8.4	6.5
6	19	119	60	49	68	866	906	688	245	10	3.0	6.9
7	19	112	55	50	80	*1,020	894	594	243	9.0	2.8	6.9
8	19	98	51	55	90	1,120	770	604	243	3.0	2.2	6.5
9	23	91	46	50	100	1,070	*774	750	235	9.0	*2.0	6.1
10	25	90	55	55	100	806	810	702	*201	10	2.0	6.5
11	37	88	103	60	100	*611	850	688	167	13	2.2	6.5
12	81	85	322	60	110	866	898	681	136	*14	2.4	6.5
13	67	84	248	65	143	664	1,100	625	122	14	2.6	6.5
14	56	85	185	60	209	502	992	618	111	14	3.2	6.1
15	55	74	131	55	322	496	1,190	586	111	13	4.0	5.7
16	50	72	115	50	385	614	*1,030	511	109	13	4.0	5.3
17	48	86	105	45	318	555	938	445	101	14	4.3	4.9
18	46	96	100	50	183	514	878	457	88	13	4.6	4.9
19	*45	74	96	60	124	632	818	758	80	12	*4.9	5.3
20	46	59	81	63	107	650	814	622	104	12	5.7	5.7
21	45	67	75	65	100	541	798	511	70	12	5.7	6.1
22	44	67	70	*60	116	424	774	448	46	13	5.7	6.1
23	42	66	74	60	2,470	368	709	403	43	14	5.7	6.5
24	45	67	80	58	*5,310	365	674	370	41	14	5.3	6.9
25	47	70	75	55	3,920	460	618	332	33	14	4.6	7.7
26	67	64	60	50	3,890	541	562	305	32	14	4.0	9.5
27	85	62	56	45	3,470	475	530	*280	29	14	4.0	10
28	84	60	50	40	1,670	445	527	280	25	15	4.0	10
29	70	58	48	40	-	478	534	282	23	17	4.3	11
30	241	55	51	50	-------	600	562	292	21	17	4.6	16
31	234	-------	55	60	-------	706	-------	288	-------	16	4.9	-------
Total	1,754	2,455	2,763	1,693	23,688	20,596	23,317	16,199	4,123	411.0	165.1	209.4
Mean	56.6	81.8	89.1	54.6	846	664	777	523	137	13.3	5.33	6.98
Ac-ft	3,480	4,870	5,480	3,360	46,980	40,850	46,250	32,130	8,180	815	327	415

Calendar year 1956: Max 2,160 Min 6.4 Mean 278 Ac-ft 201,800
Water year 1956-57: Max 5,310 Min 2.0 Mean 267 Ac-ft 193,100

Peak discharge (base, 800 cfs).--Feb. 24 (11 p.m.) 10,700 cfs (13.20 ft); Mar. 5 (11 a.m.) 1,240 cfs (7.36 ft); Mar. 12 (11 a.m.) 1,080 cfs (7.04 ft); Apr. 1 (1 a.m.) 858 cfs (6.52 ft); Apr. 6 (8 p.m.) 1,110 cfs (7.10 ft); Apr. 15 (5 p.m.) 1,290 cfs (7.46 ft); May 19 (3:30 a.m.) 838 cfs (6.47 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 27 to Dec. 3, Dec. 5-7, 21, 22, 24-26, Dec. 31 to Jan. 4, Jan. 8-19, Jan. 22 to Feb. 12.

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 1957. Monthly discharge only for some periods, published in WSP 1317. Figures of discharge for January 1906 to March 1907, published in WSP 272 and 370, have been found to be unreliable and should not be used. Published as Middle Fork of Malheur River at Riverside, 1906-7, as Middle Fork of Malheur River above South Fork, at Riverside, 1909-10, as Malheur River above South Fork, at Riverside, in WSP 370, 1906-10, and as Malheur River at Warm Springs reservoir site, near Riverside, 1914-17.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,305 ft (by barometer). Jan. 3, 1906, to May 25, 1910, staff or chain gages at several sites about 3 miles downstream, 200 ft upstream from South Fork, at various datums. Dec. 9, 1914, to July 24, 1917, water-stage recorder and Mar. 18, 1919, to Apr. 27, 1920, staff gage, at sites about 1 mile upstream at different datums. Apr. 28, 1920, to Sept. 28, 1949, staff or hook gages at sites within 80 ft of present site and at present datum.

Average discharge.--38 years (1919-57), 165 cfs (119,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,280 cfs Apr. 14 (gage height, 6.38 ft); minimum daily, 0.1 cfs Oct. 13 to Dec. 31.

1909-10, 1915-17, 1919-57: Maximum discharge observed, 7,200 cfs Mar. 1, 1910 (gage height, 10.7 ft, site and datum then in use), from rating curve extended above 820 cfs by logarithmic plotting; no flow at times.

Remarks.--Records good above 10 cfs and poor below. Flow completely regulated since November 1919 by Warmsprings Reservoir (see p. 164). Diversions for irrigation of 13,000 acres above station.

Revisions (water years).--WSP 833: 1936. WSP 1063: 1942-45. WSP 1397: 1909-10, 1917. WSP 1447: 1955. See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.5	0	3.7	74
2.7	1	4.0	143
2.8	2	4.5	340
3.0	7	5.0	590
3.2	16	6.5	1,340
3.4	32		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112					34	625	530	490	610	390	400
2	108					5	670	550	510	615	390	375
3	99					4	635	585	495	605	390	375
4	92					2	605	615	485	615	390	375
5	88					2	615	635	515	615	390	375
6	80					2	710	675	555	590	390	375
7	80					2	850	665	575	580	390	370
8	80					3	860	635	585	575	390	370
9	80					3	*820	665	*585	585	*390	370
10	82					4	805	720	575	585	390	370
11	82					6	840	750	565	*585	385	370
12	32					9	875	770	520	580	385	365
13				(**)		12	970	720	495	565	380	350
14					0.5	15	1,130	680	490	565	375	340
15		0.1	0.1	0.2		20	1,220	630	480	565	370	326
16						31	1,230	590	480	550	380	322
17						43	1,160	530	480	540	390	318
18						47	1,090	505	485	535	390	300
19	(**)					54	1,000	570	490	535	390	277
20						100	950	645	485	500	390	268
21	.1					230	940	620	490	465	385	259
22						300	900	550	515	450	410	254
23						313	850	485	515	450	420	250
24						313	790	435	530	450	420	238
25						322	705	400	565	435	420	218
26						370	640	370	610	425	430	188
27						400	595	340	635	405	425	170
28					20	405	560	318	615	400	410	167
29					-	405	530	308	600	395	410	167
30					-------	430	525	390	600	390	405	170
31		-------			-------	505	-------	460	-------	390	400	-------
Total	1,016.9	3.0	3.1	6.2	33.5	4,391	24,695	17,341	16,015	16,150	12,270	9,072
Mean	32.8	0.1	0.1	0.2	1.20	142	823	559	534	521	396	302
Ac-ft	2,020	6.0	6.1	12	66	8,710	48,980	34,400	31,770	32,030	24,340	17,990

Calendar year 1956: Max 645 Min - Mean 174 Ac-ft 126,000
Water year 1956-57: Max 1,230 Min - Mean 277 Ac-ft 200,300

* Discharge measurement made on this day.
** Field estimate made on this day.
Note.--No gage-height record Oct. 13 to Feb. 27; discharge estimated on basis of field estimates.

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 3 miles upstream from Warm Springs Creek, 4 miles upstream from Agency Valley Dam, and 4 miles northwest of Beulah.

Drainage area.--355 sq mi.

Records available.--January to September 1914, June 1936 to September 1957. 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.--21 years (1936-57), 127 cfs (91,940 acre-ft per year).

Extremes.--Maximum discharge during year, 1,600 cfs Feb. 24 (gage height, 3.50 ft), from rating curve extended above 620 cfs by logarithmic plotting; minimum, 28 cfs Nov. 1, 1914, 1936-57: Maximum discharge, that of Feb. 24, 1957; maximum gage height, 4.60 ft Mar. 26, 1940; minimum discharge determined, 12 cfs Jan. 27, 1948.

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). WSP 1397: 1914, 1937, 1941-42, 1944, 1950.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 24				Feb. 25 to Sept. 30			
-0.2	31	1.5	435	0.1	31	1.5	325
0.0	56	2.0	650	.5	78	2.0	530
.2	90	3.0	1,240	1.0	180	3.0	1,130
.5	147	3.5	1,600				
1.0	275						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	40	55	58	50	288	275	360	275	67	40	49
2	52	46	60	60	48	208	236	396	294	64	40	45
3	52	55	65	55	45	168	245	392	281	63	40	44
4	52	61	*66	50	50	200	248	384	266	60	41	43
5	52	56	53	50	60	294	314	400	248	59	41	43
6	50	64	50	50	60	288	368	380	239	56	39	43
7	50	61	45	50	60	388	297	353	225	56	40	42
8	52	59	45	52	70	565	297	388	233	54	43	40
9	52	59	50	50	90	416	318	428	208	53	*44	39
10	59	59	61	50	90	266	353	416	*188	51	44	39
11	69	61	150	55	90	210	356	412	172	50	44	39
12	79	62	158	60	100	251	424	412	158	49	44	38
13	70	64	97	60	120	160	400	408	148	49	43	38
14	62	59	85	58	150	132	416	408	141	49	43	37
15	59	48	69	55	200	168	416	380	143	46	43	37
16	59	72	69	50	250	172	*384	342	131	46	42	36
17	58	79	61	45	200	145	376	332	120	44	41	35
18	59	72	56	45	150	165	360	400	108	43	40	35
19	*59	55	52	50	100	188	360	456	103	42	39	37
20	58	60	49	55	90	195	346	416	110	40	*40	36
21	56	62	45	60	80	170	350	368	108	39	40	36
22	55	65	42	*60	100	131	339	332	96	40	41	35
23	53	65	50	58	200	114	332	300	86	40	42	35
24	49	66	52	55	1,400	136	318	278	83	39	42	36
25	59	64	55	50	1,200	198	287	257	81	36	42	36
26	66	60	50	45	1,200	190	266	242	80	37	42	36
27	72	60	46	40	800	165	260	248	80	38	42	38
28	52	58	45	35	400	168	266	*257	75	37	45	39
29	48	55	45	35	-	210	297	275	71	38	46	41
30	103	55	50	40	-------	260	336	272	68	39	48	44
31	69	-------	55	45	-------	325	-------	266	-------	39	52	-------
Total	1,837	1,802	1,931	1,581	7,453	6,934	9,840	10,958	4,619	1,463	1,313	1,171
Mean	59.3	60.1	62.3	51.0	266	224	328	353	154	47.2	42.4	39.0
Ac-ft	3,640	3,570	3,830	3,140	14,780	13,750	19,520	21,730	9,160	2,900	2,600	2,320

Calendar year 1956: Max 806 Min 35 Mean 155 Ac-ft 112,700
Water year 1956-57: Max 1,400 Min 35 Mean 139 Ac-ft 100,900

Peak discharge (base, 500 cfs).--Feb. 24 (time unknown) 1,600 cfs (3.50 ft); Mar. 7 (10 p.m.) 758 cfs (2.43 ft); May 18 (8 p.m.) 560 cfs (2.06 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 9-21, Jan. 25 to Feb. 28; discharge estimated on basis of weather records, recorded range in stage, records for Malheur River near Drewsey, and computed inflow to Agency Valley Reservoir. Stage-discharge relation affected by ice Nov. 20-23, Nov. 26 to Dec. 3, Dec. 6-9, 11, 18, 19, 21, 23-26, Dec. 28 to Jan. 8, Jan. 22-24, and at times during 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.

Records available.--June 1926 to September 1957. Published as "near Beulah" June 1926 to September 1935.

Gage.--Water-stage recorder. Datum of gage is 3,262.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. June 26, 1926, to Apr. 24, 1936, water-stage recorder at site 1 mile downstream at different datum. Apr. 25, 1936, to Sept. 30, 1949, staff gage at site 20 ft downstream at present datum.

Average discharge.--22 years (1935-57), 134 cfs (97,010 acre-ft per year).

Extremes.--Maximum discharge during year, 464 cfs May 5 (gage height, 2.58 ft); no flow Oct. 13 to Nov. 30.
1926-57: Maximum discharge, 7,000 cfs May 7, 1942 (gage height, 8.4 ft, from flood-mark), from computation of peak flow over dam, caused by failure of gates at Agency Valley Dam; no flow at times.

Remarks.--Records good except those below 10 cfs, which are poor. Flow regulated by Agency Valley Reservoir since December 1935 (see p. 164). Diversions for irrigation of about 3,000 acres above station. Prior to Apr. 25, 1936, station was below intake of diversions for irrigation of about 120 acres below station.

Revisions (water years).--WSP 1397: 1927-32, 1934, drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 15 to June 3)

-0.1	0.1	0.7	44
0.0	.4	1.0	82
.1	2.0	1.5	170
.2	5.0	2.0	280
.3	10	3.0	560
.5	25		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146		0.1	0.2	0.5	4.3	230	320	312	315	352	262
2	128		.1	.2	.5	4.7	268	335	315	315	352	258
3	123		.1	.2	.5	4.3	270	362	330	312	352	258
4	122		**.1	.2	.6	4.3	270	395	345	310	358	255
5	120		.1	.2	.6	**4.3	270	449	362	310	362	238
6	120		.1	.2	.6	5.0	312	458	368	308	360	216
7	118		.1	.2	.6	6.0	345	452	335	308	355	206
8	118		.1	.2	.6	7.0	348	425	320	308	355	206
9	116		.1	.2	.7	8.0	*355	422	300	305	*355	200
10	115		.1	.2	.7	8.0	355	422	*290	305	355	194
11	115		.1	.3	.7	8.5	355	422	290	305	352	206
12	41		.1	.3	.7	9.0	355	422	295	*302	350	180
13	0		.1	.3	.8	9.0	378	413	295	300	350	166
14	0		.1	.3	.8	9.0	422	407	292	300	350	166
15	0		.1	.3	.8	9.0	437	401	282	300	348	166
16	0		.1	.3	.8	9.0	*446	375	280	335	348	166
17	0		.1	.3	.8	9.5	446	368	280	355	345	164
18	0		.1	.3	.9	9.0	443	370	298	362	345	164
19	*0		.1	.3	.9	8.5	410	392	298	365	342	162
20	0		.1	.3	.9	8.5	370	401	295	362	*340	162
21	0		.1	.4	.9	7.5	360	419	295	342	338	160
22	0		.1	.4	1.0	8.5	362	419	290	348	335	152
23	0		.1	.4	1.0	10	362	404	305	360	332	134
24	0		.1	.4	1.0	11	345	372	315	360	330	122
25	0		.1	.4	1.0	125	315	342	315	360	330	122
26	0		.1	.4	1.5	196	308	310	315	358	328	122
27	0		.1	.4	4.0	198	285	278	315	358	330	122
28	0		.1	.5	4.3	196	278	*282	315	358	348	120
29	0		.1	.5	-	196	280	285	315	355	322	120
30	0		.1	.5	-------	196	292	288	315	355	302	*120
31	0	-------	.1	.5	-------	196	-------	302	-------	355	282	-------
Total	1,382	0	3.1	9.8	28.7	1,484.9	10,272	11,712	9,277	10,291	10,603	5,289
Mean	44.6	0	0.10	0.32	1.02	47.9	342	378	309	332	342	176
Ac-ft	2,740	0	6.1	19	57	2,950	20,370	23,230	18,400	20,410	21,030	10,490

Calendar year 1956: Max 668 Min 0 Mean 158 Ac-ft 114,800
Water year 1956-57: Max 458 Min 0 Mean 165 Ac-ft 119,700

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
Note.--No gage-height record Oct. 13 to Feb. 25; discharge estimated on basis of 1 observation of no flow, 1 field estimate, weather records, and records for Agency Valley Reservoir.

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 southwest of Vale.

Drainage area.--3,010 sq mi, approximately.

Records available.--April 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 2,424.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--8 years, 208 cfs (150,600 acre-ft per year).

Extremes.--Maximum discharge during year, 12,300 cfs Feb. 24 (gage height, 11.5 ft, from floodmark), from rating curve extended above 1,700 cfs on basis of slope-area determination of peak flow; minimum, 28 cfs Jan. 2 (gage height, 1.67 ft).
1949-57: Maximum discharge, that of Feb. 24, 1957; minimum, 12 cfs Oct. 27, 1955. The two greatest floods known occurred in March 1894 and March 1910, on basis of records for former station near Namorf.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Flow regulated by Warmsprings and Agency Valley Reservoirs (see p. 164). Vale-Oregon Canal diverts as much as 600 cfs on left bank at Namorf in sec. 31, T. 20 S., R. 41 E., for irrigation of about 31,000 acres, largely below the station. Many small diversions for irrigation above station.

Revisions (water years).--WSP 1217: 1949-50(M). WSP 1397: 1950.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 24

1.7	31	4.0	940
2.0	74	5.0	1,800
2.2	112	6.0	2,910
2.5	185	7.0	4,210
3.0	375	9.0	7,390
3.5	620		

Feb. 25 to Sept. 30

2.1	85	3.0	370
2.3	129	3.5	620
2.5	181		

Note.--Same as preceding table above 3.5 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	136	50	42	45	1,500	1,060	425	330	297	214	193
2	81	114	51	42	44	900	1,170	366	313	297	207	181
3	79	106	*48	42	42	600	1,150	510	281	301	190	159
4	76	96	50	41	40	*604	1,070	858	265	305	184	159
5	72	92	45	40	40	993	1,040	982	249	309	187	154
6	69	90	42	40	45	1,190	*1,070	814	261	309	196	149
7	64	88	40	40	50	1,400	1,220	782	313	297	193	146
8	61	87	38	40	55	1,220	1,320	746	325	285	*193	144
9	60	79	35	40	60	*898	1,230	740	338	273	196	144
10	60	78	48	40	50	674	1,210	752	321	285	193	136
11	74	74	60	40	55	515	1,200	984	*293	*293	196	136
12	98	72	104	42	60	795	1,230	1,630	309	297	193	139
13	148	72	96	45	80	1,210	1,300	1,150	297	297	196	134
14	130	69	98	47	100	758	1,450	1,090	269	281	190	132
15	96	68	90	45	150	598	*1,560	982	265	289	184	127
16	66	66	83	40	200	674	1,520	926	245	281	184	124
17	63	66	78	35	150	776	1,530	1,020	242	265	184	124
18	*61	64	72	38	120	592	1,480	968	242	285	178	127
19	54	63	69	40	110	560	1,430	1,200	265	309	181	124
20	52	61	68	42	100	545	1,320	1,340	242	325	176	124
21	50	58	64	*40	90	555	1,290	1,030	231	301	173	118
22	48	57	58	40	150	614	1,300	947	220	269	170	113
23	*48	55	52	38	1,000	604	1,210	849	231	257	184	115
24	47	54	54	36	*6,000	582	1,120	758	242	249	184	111
25	45	52	50	35	5,000	576	968	644	217	245	181	108
26	58	51	48	34	5,000	704	870	555	253	242	181	104
27	90	48	45	32	4,000	849	734	*460	301	238	165	96
28	88	48	42	30	2,000	842	644	343	313	238	162	89
29	81	52	40	35	-	863	545	257	305	231	184	89
30	92	48	40	40	-------	905	510	238	293	214	184	*91
31	139	-------	42	45	-------	968	-------	285	-------	204	196	-------
Total	2,333	2,164	1,800	1,226	24,836	25,064	34,751	24,631	8,271	8,568	5,779	3,890
Mean	75.3	72.1	58.1	39.5	887	809	1,158	795	276	276	186	130
Ac-ft	4,630	4,290	3,570	2,430	49,260	49,710	68,930	48,850	16,410	16,990	11,460	7,720

Calendar year 1956: Max 1,900 Min 35 Mean 196 Ac-ft 142,500
Water year 1956-57: Max 6,000 Min 30 Mean 393 Ac-ft 284,200

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 29 to Mar. 3; discharge estimated on basis of weather records, slope-area determination of peak flow, and records for Malheur River near Drewsey. Stage-discharge relation affected by ice Dec. 6-10, Dec. 25 to Jan. 3, Jan. 5-13, 15-28.

Bully Creek near Vale, Oreg.

Location.--Lat 43°57'30", long 117°20'30", in SW¼ sec. 33, T. 18 S., R. 44 E., on right bank 5 miles southwest of Vale and 7 miles upstream from mouth.

Drainage area.--570 sq mi, approximately.

Records available.--May 1933 to September 1934, November 1934, March 1935, March, April 1936, June 1937 to September 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,313 ft (by levels to reference point furnished by Union Pacific Railroad). Prior to Mar. 15, 1937, water-stage recorder or staff gage at site 2 miles upstream at different datum. Mar. 15, 1937, to Jan. 1, 1940, water-stage recorder at present site at datum 0.38 ft higher.

Average discharge.--21 years (1933-34, 1937-57), 41.7 cfs (30,190 acre-ft per year).

Extremes.--Maximum discharge during year, 8,980 cfs Feb. 24 (gage height, 10.5 ft, from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area determination of peak flow; minimum, 11 cfs Dec. 22, Jan. 2 (gage height, 0.71 ft).
1933-34, 1937-57: Maximum discharge, that of Feb. 24, 1957; no flow at times.

Remarks.--Records good 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. WSP 1397: 1948. WSP 1447: Drainage area.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 24				Feb. 25 to Sept. 30			
0.7	11	2.5	250	0.8	13	2.5	370
.8	15	3.0	395	1.0	24	3.0	570
1.0	25	4.0	810	1.2	42	4.0	1,090
1.2	38	5.0	1,420	1.6	98	5.0	1,790
1.5	68	6.0	2,250	2.0	190	6.0	2,650
2.0	140	7.0	3,300				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	120	19	19	b17	a400	160	27	22	18	19	21
2	19	51	20	19	b17	a300	135	25	23	17	21	20
3	19	36	*20	19	b16	a350	125	33	26	16	22	19
4	20	31	20	18	17	a450	121	43	26	17	22	21
5	19	29	20	15	17	530	121	52	26	16	22	19
6	17	28	19	17	b15	a580	133	62	29	16	23	20
7	18	30	19	18	b16	635	123	52	29	16	23	21
8	18	32	18	18	16	594	*110	50	35	*17	*22	22
9	19	32	20	b17	b15	*546	105	57	41	16	22	22
10	19	30	21	b15	b16	a400	100	54	36	17	21	21
11	34	30	24	b16	b16	*264	95	43	*34	17	28	21
12	a35	29	24	b17	b16	358	108	65	33	17	30	21
13	a28	29	23	18	b17	342	112	62	40	16	35	22
14	a23	27	22	18	18	250	101	48	40	15	33	21
15	a20	27	21	18	26	222	*86	48	50	16	29	21
16	a18	26	20	b16	44	274	80	67	54	18	26	19
17	a18	26	21	b15	55	295	80	54	53	19	21	18
18	*18	24	21	16	36	239	78	37	54	17	23	17
19	18	22	20	b17	29	225	80	114	57	17	23	18
20	17	23	b19	17	24	222	70	113	49	18	24	19
21	17	21	b18	*17	23	218	61	125	43	19	24	18
22	*17	21	17	b16	21	184	64	113	31	19	25	20
23	17	21	b17	b17	55	163	83	98	25	19	26	21
24	16	20	18	18	*3,110	148	72	98	21	21	28	21
25	18	20	18	b16	*1,870	150	54	86	21	21	28	23
26	42	20	b17	b15	2,620	155	46	76	21	23	25	22
27	46	20	b16	b14	1,620	142	39	*74	21	30	26	21
28	21	19	b16	b12	a700	133	34	68	19	29	28	21
29	23	b18	b17	b13	-	133	31	68	18	29	27	21
30	48	b18	b18	b15	-------	152	27	54	18	23	26	*23
31	208	-------	b19	b17	-------	150	-------	30	-------	19	24	-------
Total	890	880	602	513	10,462	9,204	2,634	1,996	995	588	776	614
Mean	28.7	29.3	19.4	16.5	374	297	87.8	64.4	33.2	19.0	25.0	20.5
Ac-ft	1,770	1,750	1,190	1,020	20,750	18,260	5,220	3,960	1,970	1,170	1,540	1,220

Calendar year 1956: Max 560 Min 5.0 Mean 46.9 Ac-ft 34,070
Water year 1956-57: Max 3,110 Min 12 Mean 82.6 Ac-ft 59,820

Peak discharge (base, 130 cfs).--Oct. 12 (time unknown) 166 cfs (2.21 ft); Oct. 31 (2 a.m.) 344 cfs (2.83 ft); Feb. 24 (8 p.m.) 8,980 cfs (10.5 ft); Feb. 26 (10:30 p.m.) 3,780 cfs (7.07 ft); Mar. 7 (9 a.m.) about 700 cfs; Mar. 12 (7 p.m.) 474 cfs (2.76 ft); May 19 (9 to 10 a.m.) 178 cfs (1.96 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for North Fork Malheur River above Agency Valley Reservoir, near Beulah and Malheur River near Drewsey.
b Stage-discharge relation affected by ice.

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 northwest of Riverside. Drainage area, 1,100 sq mi, approximately. Records available, January 1920 to October 1929, December 1929 to September 1957. Wire-weight gage read once daily with some exceptions March to September, and about once each week October to March. 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, 194,900 acre-ft Apr. 13, 16 (elevation, 3,406.84 ft); minimum observed, 75,790 acre-ft Sept. 30 (elevation, 3,375.32 ft). Maximum contents observed during period 1920-57, 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 Oct. 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 flashboards). Dead storage, 1,400 acre-ft below elevation 3,327 ft, not included in records. Storage began in 1919. Water used to irrigate lands on both sides of river between Namorf and Ontario. Data for computing capacity table furnished by Bureau of Reclamation.

Agency Valley Reservoir.--Lat 43°55', long 118°09', in SE¼ sec. 15, T. 19 S., R. 37 E., in control house at dam on North Fork Malheur River, a quarter of a mile northwest of Beulah. Drainage area, 440 sq mi, approximately. Records available, December 1935 to September 1957. Pressure gage with mercury column read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation); add 7.49 ft to obtain mean sea level elevation, datum of 1929, supplementary adjustment of 1947.

Maximum contents observed during year, 60,580 acre-ft May 21 (elevation, 3,340.35 ft); minimum observed, 7,410 acre-ft Sept. 30 (elevation, 3,297.45 ft). Maximum contents observed during period 1935-57, 62,770 acre-ft May 3, 1941 (elevation, 3,341.50 ft); no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Oct. 4, 1955.

Reservoir is formed by earth-fill, rock-faced dam. Storage began in December 1935. Capacity, 59,920 acre-ft between elevations 3,263.21 (bottom of outlet tunnel) and 3,340 ft (top of spillway gates); with gates open the capacity is 32,220 acre-ft. No dead storage. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation. Capacity table furnished by Bureau of Reclamation.

Revisions.--WSP 1397: Drainage area.

Other reservoirs.--There are several other reservoirs in the Malheur River basin, all with less than 3,500 acre-ft capacity except Willow Creek No. 3 Reservoir near Malheur, which has a capacity of 49,000 acre-ft.

Month-end elevation and contents, water year October 1956 to September 1957

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	Warmsprings Reservoir			Agency Valley Reservoir		
Sept.30	-	a87,300	-	3,303.93	11,690	-
Oct. 31	3,379.30	88,260	+960	3,304.90	12,440	+750
Nov. 30	-	a93,660	+5,400	3,309.30	16,260	+3,820
Dec. 31	-	a99,900	+6,240	3,313.45	20,510	+4,250
Calendar year 1956	-	-	+77,620	-	-	+7,870
Jan. 31	3,383.95	103,400	+3,500	3,316.40	23,860	+3,350
Feb. 28	3,398.38	157,400	+54,000	3,329.40	41,600	+17,740
Mar. 31	-	a193,200	+35,800	3,339.35	58,700	+17,100
Apr. 30	3,406.31	192,400	-800	3,340.07	60,050	+1,350
May 31	3,406.00	191,000	-1,400	3,340.08	60,070	+20
June 30	-	a163,100	-27,900	3,335.40	51,520	-8,550
July 31	3,390.30	125,500	-37,600	3,324.23	33,930	-17,590
Aug. 31	3,382.09	97,300	-28,200	3,308.05	15,080	-18,850
Sept.30	3,375.32	75,790	-21,510	3,297.45	7,410	-7,670
Water year 1956-57	-	-	-11,510	-	-	-4,280

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 1957.

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.--16 years, 902 cfs (653,000 acre-ft per year).

Extremes.--Maximum discharge during year, 5,840 cfs June 5 (gage height, 6.78 ft); minimum daily, 220 cfs Jan. 18; minimum gage height, 2.60 ft Dec. 22.
1941-57: Maximum discharge, 7,050 cfs May 24, 1956 (gage height, 7.45 ft); minimum, 148 cfs Dec. 9, 1944 (gage height, 2.40 ft).

Remarks.--Records excellent except those for periods of no gage-height record, which are good, and those for periods of ice effect, which are fair. No regulation. Several small diversions for irrigation and placer mining, the return flow from which enters river above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	255	3.5	726	5.0	2,420
2.8	324	4.0	1,180	6.0	4,120
3.0	413	4.5	1,760	6.8	5,890

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	390	404	375	330	310	a480	496	1,810	4,360	2,060	629	a450
2	385	390	380	340	310	a450	485	2,110	4,660	*1,970	609	a440
3	380	385	404	317	300	a420	502	2,250	5,130	1,810	609	a430
4	375	390	380	280	*300	a410	514	1,980	5,500	1,680	596	a420
5	*375	385	353	270	290	a410	596	1,920	5,660	1,540	576	a410
6	366	404	341	277	280	a390	726	2,280	5,540	1,500	564	a400
7	366	408	332	328	280	a390	676	2,700	4,860	1,470	558	a390
8	371	394	281	390	290	a400	662	2,880	4,470	1,380	a550	a390
9	371	394	337	380	280	a440	690	2,990	4,060	1,320	a540	385
10	394	404	375	330	270	a470	780	3,040	3,540	1,290	a530	380
11	456	413	413	330	270	a440	803	2,910	3,350	1,240	520	*380
12	451	413	*413	370	270	a470	853	3,120	*3,260	1,210	514	371
13	408	*424	451	360	270	*408	837	3,300	3,090	1,180	502	371
14	394	385	424	320	280	390	906	3,300	2,740	1,120	*496	366
15	385	349	390	310	300	399	1,000	3,020	2,440	1,070	485	362
16	375	418	380	290	306	394	971	3,140	2,170	1,000	479	358
17	371	451	358	240	306	399	952	3,240	1,980	952	473	358
18	380	413	358	220	306	390	887	3,540	1,940	906	467	362
19	404	324	349	240	313	413	879	4,060	2,060	870	462	a390
20	375	332	306	330	317	440	896	3,560	2,270	845	456	a380
21	375	366	345	320	309	456	915	*2,960	2,240	820	451	371
22	371	390	284	310	317	429	*952	2,600	2,090	795	445	366
23	380	380	366	300	349	413	1,120	2,350	2,020	780	445	362
24	385	380	366	280	456	408	1,150	2,280	2,100	757	440	353
25	380	370	313	260	545	413	1,000	2,340	2,150	734	435	349
26	418	370	302	250	564	404	896	2,520	2,040	719	429	349
27	462	380	317	240	576	399	862	2,850	2,000	698	424	345
28	408	375	328	230	526	408	1,000	3,190	2,180	690	a425	345
29	385	380	332	240	-	440	1,390	3,580	2,130	676	a430	341
30	440	385	341	270	------	467	1,690	3,970	2,110	662	a440	341
31	435	------	353	290	------	508	------	4,160	------	648	a460	------
Total	12,211	11,656	11,047	9,242	9,490	13,148	26,086	89,950	94,140	34,392	15,439	11,315
Mean	394	389	356	298	339	424	870	2,902	3,138	1,109	498	377
Cfsm	0.864	0.853	0.781	0.654	0.743	0.930	1.91	6.36	6.88	2.43	1.09	0.827
In.	1.00	0.95	0.90	0.75	0.77	1.07	2.13	7.34	7.68	2.80	1.26	0.92
Ac-ft	24,220	23,120	21,910	18,330	18,820	26,080	51,740	178,400	186,700	68,220	30,620	22,440

Calendar year 1956: Max 6,840 Min 281 Mean 1,192 Cfsm 2.61 In. 35.60 Ac-ft 865,300
Water year 1956-57: Max 5,660 Min 220 Mean 926 Cfsm 2.03 In. 27.57 Ac-ft 670,600

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for station near Garden Valley and for Boise River near Twin Springs.
Note.--Stage-discharge relation affected by ice Nov. 23-26, Dec. 2, 4, Jan. 1, 2, 4, 5, Jan. 9 to Feb. 15.

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 1957.

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, 5,336.21 ft June 11; minimum observed, 5,284.82 ft Oct. 1.

1935-57: Maximum elevation observed, 5,337.1 ft June 1, 2, 1943; minimum observed, 5,205.0 ft Sept. 18 to Oct. 11, 1951, when reservoir was drained for repairs.

Remarks.--Reservoir is formed by concrete-arch dam, completed in 1930; storage began Nov. 2, 1930. Reported capacity, 160,400 acre-ft between elevations 5,230.0 ft (minimum operating level because of fish 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 and, since 1956, as supplemental irrigation supply for Emmett Irrigation district and other users. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir. Discharge of 1.36 cfs was measured in this canal Aug. 20.

Cooperation.--Gage readings furnished by Bureau of Reclamation.

Elevation, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	284.82	288.38	291.12	-	296.30	298.54	301.28	307.14	331.10	335.27	323.54	319.54
2	284.95	288.55	291.12	293.94	296.34	298.60	301.40	307.68	331.57	335.22	323.60	318.88
3	285.00	288.62	291.32	-	296.40	298.76	301.47	308.34	332.14	335.18	323.67	318.20
4	285.10	288.74	291.40	-	296.48	298.83	301.56	308.92	332.72	335.14	323.72	317.50
5	285.18	288.92	291.47	-	296.52	298.97	301.64	309.51	333.27	335.08	323.80	316.80
6	285.27	288.96	291.56	-	296.55	299.02	301.78	310.17	334.37	335.04	323.84	316.11
7	285.36	289.06	291.62	-	-	299.14	301.89	310.90	335.28	334.94	323.90	315.41
8	285.42	289.14	291.70	294.53	296.70	299.20	301.98	311.68	335.80	334.76	323.98	314.68
9	285.53	289.25	291.76	294.54	296.81	299.30	302.08	312.54	336.12	334.56	324.04	313.98
10	285.64	289.38	291.82	294.57	296.83	299.46	302.23	313.41	336.13	334.32	324.10	313.22
11	285.80	289.43	291.90	294.62	-	299.50	302.37	314.30	336.21	334.20	324.13	312.52
12	285.98	289.50	292.20	294.76	-	299.75	302.48	315.30	336.17	334.02	324.19	311.80
13	286.10	289.62	292.34	294.86	-	299.85	302.72	316.14	336.16	333.72	324.24	311.07
14	286.20	289.73	292.50	294.95	297.10	299.90	302.90	317.12	336.10	333.31	324.28	310.31
15	286.30	289.77	292.64	295.04	297.15	299.90	303.14	318.14	336.02	332.81	324.34	309.60
16	286.43	289.86	292.74	295.07	297.19	300.00	303.26	319.09	335.90	332.25	324.38	308.82
17	286.48	289.98	292.78	-	-	300.04	303.50	320.08	335.80	331.60	324.42	308.08
18	286.57	290.10	292.90	-	-	300.15	303.72	321.10	335.71	330.90	324.48	307.30
19	286.76	290.17	292.98	-	-	300.24	303.88	322.38	335.64	330.16	324.53	306.53
20	286.83	290.28	292.98	295.43	297.28	300.30	304.00	323.52	335.62	329.39	324.58	305.78
21	286.90	290.36	293.10	295.48	297.50	300.39	304.30	324.42	335.63	328.57	324.63	304.96
22	287.02	290.44	293.10	295.50	297.64	300.46	304.46	325.18	335.60	327.74	324.67	304.17
23	287.13	290.52	293.25	295.60	297.80	300.52	304.72	325.86	335.54	326.83	324.72	303.38
24	287.27	290.57	293.39	295.68	297.84	300.61	304.94	326.52	335.51	325.90	324.68	302.59
25	287.38	290.63	293.43	295.74	298.16	300.70	305.30	327.16	335.46	324.85	324.41	301.76
26	287.57	290.72	293.47	-	298.21	300.77	305.50	327.84	335.43	324.08	323.74	300.94
27	287.68	290.80	293.49	-	298.46	300.79	305.74	328.58	335.40	323.54	323.10	300.02
28	287.79	290.89	293.50	-	298.50	300.93	305.94	329.38	335.37	323.28	322.26	299.29
29	287.96	290.97	-	-	-	301.03	306.28	329.95	335.33	323.32	321.45	298.40
30	288.15	291.05	-	-	-------	301.10	306.67	330.54	335.31	323.40	320.80	297.56
31	288.25	-------	f293.75	f296.20	-------	301.15	-------	330.65	-------	323.48	320.16	-------

f Gage height estimated on basis of adjacent records.

Note.--Add 5,000 ft to obtain elevation above mean sea level. Gage read at 7 a.m. Oct. 1-15, about 10 a.m. Oct. 16 to May 9, and at 6:30 a.m. May 10 to Sept. 30.

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 1957. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

Gage.--Water-stage recorder. Datum of gage is 5,180.52 ft above mean sea level (levels by Bureau of Reclamation). Datum of Geological Survey levels (1952, preliminary) is 22.8 ft higher. Prior to June 22, 1935, water-stage recorder at site 600 ft upstream at datum 5.85 ft higher. June 22 to Sept. 30, 1935, staff gage at site 20 ft upstream at datum 2.00 ft higher. Oct. 1, 1935, to Aug. 3, 1955, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--31 years (1926-57), 221 cfs (160,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,040 cfs July 24 (gage height, 8.65 ft); minimum recorded, 0.7 cfs Oct. 14 (gage height, 0.76 ft).

1926-57: Maximum discharge, 2,580 cfs July 14, 1953; maximum gage height, 8.93 ft June 7, 1956; no flow or small amount of leakage from reservoir for long periods during 1934-37 when gates in dam were closed.

Remarks.--Records excellent except those below 10 cfs, which are fair, and those for periods of no gage-height record or backwater from Wilson Creek, which are poor. Flow regulated by Deadwood Reservoir (see preceding page).

Revisions (water years).--WSP 1123: 1943. Figures of daily discharge for period May 8 to June 1, 1956, have been revised to a flat estimate of 3 cfs, superseding figures published in WSP 1447. Revised monthly and water year figures are given herewith:

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1956	6,139	952	-	198	12,180
June	28,841	1,900	3	961	57,210
Water year 1955-56	130,918.8	2,020	.5	358	259,700

Rating table, water year 1956-57, except period of backwater from Wilson Creek (gage height, in feet, and discharge, in cubic feet per second)

0.9	1.6	1.7	24	4.0	325
1.0	2.6	2.0	44	5.0	575
1.1	4.1	2.5	96	6.0	900
1.3	8.6	3.0	163	8.0	1,740
1.5	15	3.5	239		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.0	2.0	2.2					1,050	450	3.4	1,000
2	1.8	1.9	2.0	2.1					1,050	424	3.2	996
3	1.8	1.9	2.0	2.2					1,060	400	3.4	992
4	1.8	2.0	2.0						1,120	376	3.4	988
5	1.7	2.1	2.0				3.0	3.5	422	352	3.4	984
6	1.8	2.0	2.0						189	400	3.5	984
7	1.9	2.0	2.0						562	523	3.8	980
8	1.8	2.1	2.0			2.0			850	555	4.0	976
9	1.7	2.1	2.0						1,030	604	9.5	976
10	1.9	2.0	2.0						1,130	450	6.0	972
11	1.9	2.0	1.9						1,130	453	3.4	968
12	1.9	2.0	2.0						1,090	625	2.8	964
13	1.9	2.1	2.1						1,070	790	2.8	964
14	1.7	2.1	2.2						1,020	928	2.6	960
15	2.0	2.1	2.2		2.0				952	1,040	2.6	960
16	2.0	2.0	2.2					3.0	860	1,160	2.6	960
17	1.9	2.1	2.2	2.0					780	*1,260	2.8	956
18	2.0	2.1	2.2						725	1,290	2.8	*956
19	2.0	2.1	2.2				3.5		*694	1,320	2.6	952
20	2.0	2.0	2.2						688	1,380	*2.8	948
21	1.9	2.0	2.2						682	1,420	2.8	940
22	1.9	2.0	2.2						646	1,480	2.6	936
23	*2.0	2.0	2.3						613	1,520	64	932
24	1.9	2.0	2.2			2.5		18	590	1,520	199	928
25	2.0	2.0	2.2					3.0	564	1,400	1,000	924
26	2.1	2.0	2.2					3.0	547	968	1,000	920
27	2.1	2.0	2.3					7.0	531	557	1,170	912
28	2.0	2.0	2.3					274	512	163	1,280	908
29	2.0	2.0	2.2		-			1,050	488	3.4	992	904
30	2.1	2.0	2.3		-------			1,040	469	3.2	1,000	900
31	2.0	-------	2.2		-------		-------	1,040	-------	3.2	1,000	-------
Total	59.3	60.7	66.0	62.5	56.0	70.0	101.0	3,507.5	23,114	23,817.8	7,781.8	28,640
Mean	1.91	2.02	2.13	2.02	2.00	2.26	3.37	113	770	768	251	955
Ac-ft	118	120	131	124	111	139	200	6,960	45,850	47,240	15,430	56,810

Calendar year 1956: Max 2,020 Min 15 Mean 344 Ac-ft 249,500
Water year 1956-57: Max 1,520 Min - Mean 239 Ac-ft 173,200

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 4 to Apr. 15; discharge estimated on basis of records for adjacent periods and weather records. Backwater from Wilson Creek Apr. 16 to May 28.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,090 ft (from river-profile map). Prior to Aug. 3, 1926, staff gage at datum 0.98 ft higher. Aug. 3, 1926, to Dec. 5, 1933, staff gage at present datum.

Average discharge.--36 years, 1,302 cfs (942,600 acre-ft per year).

Extremes.--Maximum discharge during year, 8,790 cfs June 5 (gage height, 7.00 ft); minimum, 262 cfs Feb. 12 (gage height, 1.61 ft), but may have been less during period of ice effect.

1921-57: 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, which are good. Small diversions above station. Flow regulated by Deadwood Reservoir (see p. 166).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 1 to Sept. 30)

1.5	250	3.0	1,570	5.0	4,560
1.7	375	3.5	2,190	6.0	6,710
2.0	600	4.0	2,890	7.0	9,030
2.5	1,050				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	520	576	438	417	390	898	870	2,800	7,060	2,960	833	1,560
2	512	528	452	431	400	833	833	3,220	7,380	*2,830	815	1,540
3	498	505	505	389	390	770	851	3,540	7,930	2,640	797	1,520
4	498	544	490	360	*390	694	860	3,140	8,390	2,470	770	1,520
5	498	536	475	350	380	676	936	3,020	8,230	2,290	753	1,500
6	490	552	460	370	370	626	1,340	3,350	7,400	2,220	744	1,480
7	482	576	445	420	360	626	1,240	4,150	6,850	2,330	736	1,480
8	*490	544	350	500	375	702	1,180	4,410	6,660	2,290	719	1,470
9	498	544	390	490	368	788	1,190	4,640	6,300	2,270	702	1,460
10	505	552	505	430	349	815	1,310	4,820	5,710	2,150	685	1,460
11	642	568	617	430	349	770	1,350	4,560	*5,450	2,000	668	1,460
12	642	568	685	480	336	833	1,430	4,700	5,250	2,090	660	*1,460
13	568	*584	728	460	349	*753	1,450	5,000	5,110	2,230	642	1,440
14	536	536	719	420	368	676	1,530	5,040	4,640	2,310	*626	1,440
15	520	424	608	400	389	694	1,750	4,720	4,150	2,320	608	1,430
16	505	536	576	370	375	668	1,680	4,820	3,740	2,400	600	1,420
17	505	634	528	310	382	710	1,630	4,980	3,430	2,460	592	1,420
18	520	592	512	290	389	676	1,540	5,490	3,300	2,450	584	1,440
19	584	445	*498	300	403	694	1,500	6,460	3,350	2,450	576	1,460
20	528	382	417	400	417	744	1,540	5,690	3,560	2,450	568	1,440
21	512	460	438	420	403	779	1,570	*4,660	3,560	2,500	560	1,430
22	505	505	396	400	410	744	*1,640	4,050	3,330	2,490	552	1,420
23	520	505	445	390	498	694	1,880	3,650	3,190	2,530	544	1,400
24	536	490	528	370	728	668	1,970	3,560	3,220	2,490	685	1,400
25	528	475	424	340	1,020	668	1,750	3,560	3,270	2,570	1,240	1,390
26	600	468	370	320	1,120	651	1,530	3,790	3,130	2,090	1,550	1,390
27	685	460	380	310	1,150	634	1,450	4,190	3,040	1,650	1,620	1,370
28	592	452	417	300	1,020	651	1,570	4,600	3,190	1,320	1,830	1,360
29	520	460	424	310	-	702	2,070	6,130	3,120	917	1,630	1,350
30	617	460	424	350	-------	779	2,660	6,550	3,060	879	1,570	1,350
31	651	-------	445	370	-------	870	-------	6,870	-------	851	1,570	-------
Total	16,807	15,461	15,089	11,897	13,878	22,486	44,100	140,160	146,000	67,897	27,029	43,260
Mean	542	515	487	384	496	725	1,470	4,521	4,867	2,190	872	1,442
Ac-ft	33,340	30,670	29,930	23,600	27,530	44,600	87,470	278,000	289,600	134,700	53,610	85,800

Calendar year 1956: Max 9,490 Min 350 Mean 1,986 Ac-ft 1,442,000
Water year 1956-57: Max 8,390 Min 290 Mean 1,545 Ac-ft 1,119,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 8, 9, 26, 27, Jan. 4 to Feb. 7 (no gage-height record Jan. 12, 13, Jan. 27 to Feb. 3; discharge estimated on basis of weather records and records for nearby stations.

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,805 ft (from river-profile map). Prior to Sept. 12, 1922, staff gage at same datum.

Average discharge.--36 years, 1,759 cfs (1,273,000 acre-ft per year).

Extremes.--Maximum discharge during year, 11,200 cfs June 5 (gage height, 9.96 ft); minimum daily, 420 cfs Jan. 18; minimum gage height recorded, 0.45 ft Jan. 18.
1921-57: Maximum discharge, 13,800 cfs May 17, 1927 (gage height, 10.6 ft, from floodmarks); minimum, 225 cfs Dec. 15, 1935, Jan. 26, 1936, Dec. 26, 1939.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Small diversions above station for irrigation. Flow regulated by Deadwood Reservoir (see p. 166).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	405	3.0	2,170	6.0	5,450
.6	495	4.0	3,130	8.0	8,200
1.0	705	5.0	4,230	10.0	11,300
2.0	1,370				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	650	813	628	650	590	1,850	1,910	4,850	9,390	*3,540	970	1,710
2	634	741	628	656	600	1,640	1,800	5,450	9,870	3,380	940	1,670
3	622	700	723	628	600	1,450	1,810	5,900	10,400	3,160	920	1,650
4	*622	735	694	540	600	1,300	1,780	5,450	10,800	2,960	900	1,630
5	622	723	672	540	*595	1,260	2,000	5,280	10,600	2,760	880	1,610
6	617	735	656	585	580	1,180	2,770	5,520	9,800	2,640	860	1,610
7	612	783	634	666	585	1,190	2,500	6,460	8,980	2,740	850	1,590
8	612	741	535	771	595	1,380	2,370	6,940	8,520	2,690	840	1,570
9	634	*735	535	747	590	1,600	2,390	7,230	8,000	2,630	825	1,570
10	644	747	717	650	555	1,680	2,610	7,440	7,200	2,510	810	1,570
11	807	777	858	644	555	1,550	2,730	7,160	*6,880	2,330	800	1,570
12	832	783	1,060	717	555	*1,770	2,900	7,400	6,620	2,380	790	*1,560
13	747	813	1,150	711	555	1,570	2,960	7,750	6,450	2,520	780	1,550
14	694	765	1,180	656	585	1,380	3,210	7,880	5,900	2,610	765	1,540
15	666	612	988	622	606	1,340	3,690	7,640	5,360	2,590	*759	1,530
16	656	717	890	565	612	1,310	3,380	7,550	4,820	2,680	747	1,530
17	644	851	819	468	612	1,400	3,220	7,600	4,410	2,720	735	1,520
18	650	825	783	420	617	1,340	3,040	8,290	4,230	2,710	723	1,540
19	783	644	*759	430	634	1,390	2,960	9,720	4,250	2,710	711	1,610
20	688	535	644	500	656	1,470	3,000	8,650	4,470	2,690	700	1,570
21	661	634	644	620	644	1,570	3,090	7,260	4,450	2,750	688	1,550
22	656	678	590	600	644	1,460	3,210	*6,440	4,170	2,730	683	1,530
23	683	683	639	580	771	1,360	*3,520	5,830	3,970	2,770	678	1,520
24	711	666	789	560	1,270	1,320	3,580	5,610	3,970	2,780	765	1,500
25	694	650	644	530	2,250	1,340	3,150	5,520	3,980	2,770	1,210	1,500
26	795	644	540	500	2,640	1,290	2,800	5,750	3,840	2,330	1,650	1,490
27	1,010	634	545	470	2,850	1,260	2,600	6,190	3,710	1,920	1,700	1,480
28	851	622	612	460	2,230	1,280	2,780	6,700	3,820	1,530	1,940	1,460
29	741	644	628	480	-	1,400	3,540	8,110	3,750	1,150	1,790	1,460
30	890	644	628	510	-------	1,650	4,510	8,680	3,640	1,050	1,710	1,450
31	974	-------	666	550	-------	1,920	-------	9,060	-------	1,000	1,720	-------
Total	22,102	21,274	22,458	18,026	25,176	44,900	85,810	215,310	186,250	77,730	30,839	46,640
Mean	713	709	724	581	899	1,448	2,860	6,945	6,208	2,507	995	1,555
Ac-ft	43,840	42,200	44,540	35,750	49,940	89,060	170,200	427,100	369,400	154,200	61,170	92,510

Calendar year 1956: Max 12,900 Min 535 Mean 2,674 Ac-ft 1,941,000
Water year 1956-57: Max 10,800 Min 420 Mean 2,182 Ac-ft 1,580,000

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 18 to Feb. 4, July 28 to Aug. 14; discharge estimated on basis of weather records and records for station near Garden Valley, North Fork Payette River near Banks, and Payette River near Horseshoe Bend.

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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 1957 (fragmentary prior to Nov. 23, 1943). Prior to October 1942, published as "at Lardo."

Gage.--Water-stage recorder. Datum of gage is 4,982.73 ft above mean sea level, unadjusted. Prior to Aug. 26, 1931, staff gage at site 25 ft downstream at datum 2.0 ft higher. Aug. 26, 1931, to Nov. 22, 1943, staff gage at site 75 ft downstream at present datum.

Extremes.--Maximum gage height during year, 7.05 ft June 30, July 1; minimum, 1.65 ft Dec. 4.
1921-57: Maximum gage height observed, 8.75 ft July 13, 1935; minimum observed, 0.95 ft Oct. 3, 1931.

Remarks.--Flow from Payette Lake is regulated within natural range by taintor gates and removable stoplogs of a buttress and slab-type dam completed in November 1943. During period 1923 to 1943 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been effected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres. No capacity table has been developed. Water is used for irrigation in 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.94	2.12	1.67	1.70	1.77	1.92	1.99	3.07	6.12	7.02	6.45	6.09
2	5.76	2.07	1.67	1.71	1.76	1.91	1.98	3.34	6.36	6.97	6.45	6.09
3	5.59	2.04	1.66	1.71	1.77	1.90	1.97	3.52	6.49	6.88	6.42	6.08
4	5.42	2.00	1.68	1.70	1.77	1.90	1.96	3.66	6.51	6.80	6.41	6.07
5	5.26	1.97	1.69	1.69	1.77	1.92	2.02	3.81	6.53	6.70	6.40	6.06
6	5.10	1.95	1.69	1.68	1.76	1.94	2.02	3.93	6.48	6.64	6.41	6.06
7	4.95	1.92	1.68	1.70	1.76	1.95	2.02	4.12	6.20	6.62	6.41	6.05
8	4.82	1.90	1.67	1.73	1.76	1.95	2.02	4.42	6.35	6.60	6.39	6.04
9	4.57	1.88	1.69	1.73	1.75	1.97	2.02	4.85	6.16	6.58	6.38	6.00
10	4.32	1.87	1.74	1.72	1.74	1.97	2.03	5.07	5.94	6.57	6.38	5.98
11	4.05	1.85	1.83	1.73	1.73	1.98	2.04	5.21	5.56	6.59	6.36	5.98
12	3.85	1.84	1.84	1.72	1.72	2.02	2.16	5.40	5.43	6.60	6.34	5.96
13	3.64	1.87	1.84	1.73	1.71	2.01	2.21	5.72	5.40	6.60	6.34	5.95
14	3.42	1.85	1.83	1.73	1.70	1.99	2.28	5.71	5.28	6.58	6.30	5.93
15	3.23	1.85	1.85	1.73	1.70	1.98	2.31	5.63	5.18	6.56	6.30	5.93
16	3.06	1.86	1.85	1.73	1.69	2.00	2.32	5.65	5.20	6.56	6.28	5.91
17	2.88	1.86	1.83	1.72	1.68	2.00	2.33	5.65	5.35	6.56	6.28	5.91
18	2.79	1.85	1.83	1.71	1.68	1.98	2.33	5.94	5.59	6.56	6.26	5.92
19	2.67	1.82	1.82	1.74	1.68	1.97	2.34	6.20	5.84	6.55	6.25	5.91
20	2.57	1.80	1.81	1.78	1.68	1.98	2.38	6.00	6.05	6.54	6.24	5.90
21	2.49	1.79	1.81	1.77	1.68	1.97	2.42	5.60	6.14	6.55	6.23	5.90
22	2.39	1.77	1.79	1.77	1.70	1.95	2.45	5.29	6.18	6.53	6.21	5.89
23	2.35	1.76	1.79	1.77	1.74	1.94	2.50	5.04	6.32	6.52	6.18	5.88
24	2.27	1.75	1.78	1.77	1.83	1.93	2.55	4.91	6.52	6.52	6.17	5.87
25	2.27	1.74	1.77	1.76	1.85	1.95	2.56	4.89	6.62	6.52	6.16	5.87
26	2.26	1.73	1.75	1.75	1.93	1.94	2.56	4.99	6.70	6.51	6.14	5.80
27	2.28	1.72	1.74	1.74	1.93	1.93	2.55	5.16	6.84	6.51	6.12	5.60
28	2.22	1.70	1.74	1.73	1.92	1.92	2.58	5.35	6.85	6.51	6.12	5.42
29	2.18	1.70	1.73	1.72	-	1.97	2.68	5.55	6.96	6.50	6.12	5.27
30	2.21	1.68	1.72	1.72	-------	1.97	2.86	5.66	7.05	6.48	6.10	5.12
31	2.16	-------	1.71	1.75	-------	1.99	-------	5.90	-------	6.48	6.11	-------

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 1957. Prior to October 1942, published as "at Lardo."

Gage.--Water-stage recorder. Altitude of gage is 4,970 ft (by barometer). Prior to Oct. 14, 1908, staff gage at site 1 mile downstream at different datum. Oct. 14, 1908, to Dec. 18, 1923, staff gages at sites near present gage at present datum.

Average discharge.--46 years (1908-16, 1919-57), 357 cfs (258,500 acre-ft per year).

Extremes.--Maximum discharge during year, 3,100 cfs June 6 (gage height, 6.65 ft); minimum, 12 cfs Sept. 19, 20 (gage height, 1.47 ft).
1908-17, 1919-57: 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, and those for period of no gage-height record June 7 to July 8, which are poor. 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 employee of U. S. Forest Service.

Revisions.--WSP 963: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.4	9.1	2.3	89.8	4.0	770
1.6	17.4	2.6	154	5.0	1,490
1.8	29.9	3.0	275	6.0	2,430
2.0	48.3	3.5	486	7.0	3,480

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	467	149	51	52	63	88	105	438	2,600	700	31	20
2	448	137	48	53	63	90	101	564	2,790	870	31	20
3	429	126	47	52	63	88	101	696	2,970	820	30	20
4	406	115	*46	52	63	87	99	782	3,040	770	29	20
5	389	107	48	51	63	90	105	866	*3,050	720	29	20
6	372	103	48	50	62	88	113	953	3,070	550	29	20
7	355	97	47	52	61	94	111	*1,050	2,900	320	29	20
8	343	92	46	*54	61	95	111	1,210	2,880	310	29	18
9	583	88	45	55	59	95	113	1,480	2,880	*297	29	16
10	812	83	52	54	58	97	117	1,730	2,620	229	29	15
11	733	80	60	54	56	99	121	1,860	2,350	142	29	14
12	660	78	66	54	55	107	140	1,990	2,140	142	29	14
13	597	82	68	55	54	108	159	2,250	1,650	144	29	13
14	527	83	68	56	53	107	176	2,390	1,550	142	26	13
15	472	78	68	56	52	103	190	2,310	1,300	142	26	13
16	420	78	70	56	52	103	193	2,300	1,200	110	25	14
17	376	83	67	55	51	108	196	2,310	700	83	25	*14
18	339	82	67	55	51	103	198	2,400	750	82	24	14
19	312	75	67	56	*51	*101	201	2,730	900	82	24	13
20	279	71	64	64	51	99	207	2,710	925	82	24	12
21	255	70	67	64	51	101	219	2,420	950	83	25	13
22	226	70	64	63	53	99	235	2,110	1,000	71	*22	13
23	210	63	63	63	56	97	248	1,870	700	52	21	13
24	190	59	63	63	66	95	261	1,730	450	50	20	13
25	*181	56	60	61	74	97	268	1,680	550	48	20	13
26	181	55	58	59	83	95	268	1,710	600	46	21	164
27	187	54	58	58	90	94	268	1,810	650	44	21	481
28	176	54	56	56	90	92	275	1,950	700	37	21	457
29	162	53	55	55	-	95	305	2,130	700	32	21	438
30	165	52	54	54	-------	99	359	2,250	700	32	21	393
31	157	-------	53	58	-------	103	-------	2,410	-------	32	21	-------
Total	11,409	2,473	1,794	1,740	1,705	3,017	5,563	55,089	49,265	7,264	790	2,321
Mean	368	82.4	57.9	56.1	60.9	97.3	185	1,777	1,642	234	25.5	77.4
Ac-ft	22,630	4,910	3,560	3,450	3,380	5,980	11,030	109,300	97,720	14,410	1,570	4,600

Calendar year 1956: Max 3,510 Min 17 Mean 464 Ac-ft 337,000
Water year 1956-57: Max 3,070 Min 12 Mean 390 Ac-ft 282,500

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 22-26, Jan. 28 to Feb. 18, June 7 to July 8; discharge estimated on basis of records for Payette Lake, Cascade Reservoir, and records for other nearby streams.

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 1957.

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.--12 years, 152 cfs (110,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,800 cfs June 2 (gage height, 8.15 ft); minimum, 10 cfs Sept. 28, 29, 30; minimum gage height, 1.88 ft Sept. 29, 30.

1945-57: Maximum discharge, 2,600 cfs June 3, 1948 (gage height, 9.19 ft), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum, 5.5 cfs Nov. 9, 1952 (gage height, 1.62 ft).

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

Rating table, water year 1956-57, 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
2.1	13	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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	21	22	22	21	52	40	401	1,150	334	34	18
2	13	19	23	22	21	46	40	447	1,350	294	32	16
3	12	22	25	21	21	42	42	419	1,310	282	31	15
4	12	22	*25	19	21	40	41	414	1,230	232	29	15
5	12	21	24	19	21	38	52	469	1,260	216	28	14
6	12	25	24	20	21	38	59	498	*1,100	212	30	14
7	12	27	23	21	20	37	52	*582	844	183	29	13
8	12	24	21	22	21	42	53	746	1,310	166	27	13
9	12	25	24	*22	20	48	59	902	943	*153	26	13
10	17	27	24	21	20	50	67	768	746	140	25	13
11	28	30	25	22	21	45	71	802	705	128	24	13
12	27	29	29	23	20	43	84	1,070	705	119	23	13
13	24	34	34	23	20	40	84	1,350	587	109	22	12
14	20	27	35	22	21	35	104	922	462	99	21	12
15	18	29	29	21	20	39	104	826	382	90	21	12
16	18	30	28	18	20	38	91	850	334	83	20	11
17	18	30	25	16	21	38	91	838	351	78	19	11
18	20	28	26	18	21	37	92	1,100	414	72	19	*15
19	27	21	24	19	21	37	99	1,230	472	69	18	18
20	21	22	22	20	*22	*38	101	814	505	65	18	15
21	20	26	24	20	22	38	118	618	419	62	*17	14
22	19	25	22	19	23	37	126	519	367	60	16	13
23	20	24	24	19	25	36	141	475	377	55	16	12
24	*19	24	22	18	30	37	140	495	430	52	15	12
25	18	23	22	17	55	36	117	553	404	48	15	11
26	22	23	21	17	75	35	104	676	354	46	15	11
27	27	22	21	18	107	35	102	779	367	44	15	11
28	23	21	21	20	72	35	135	876	391	41	16	10
29	23	22	22	20	-	39	244	971	370	39	16	10
30	24	23	23	20	------	40	351	1,000	342	38	18	10
31	25	------	23	21	------	42	------	1,140	------	36	19	------
Total	588	746	759	620	823	1,233	3,004	23,550	19,981	3,645	674	390
Mean	19.0	24.9	24.5	20.0	29.4	39.8	100	760	666	118	21.7	13.0
Cfsm	0.389	0.509	0.501	0.409	0.601	0.814	2.04	15.5	13.6	2.41	0.444	0.266
In.	0.45	0.57	0.58	0.47	0.63	0.94	2.28	17.91	15.20	2.77	0.51	0.30
Ac-ft	1,170	1,480	1,510	1,230	1,630	2,450	5,960	46,710	39,630	7,230	1,340	774

Calendar year 1956:	Max	1,530	Min	12	Mean	175	Cfsm	3.58	In.	48.81	Ac-ft	127,300
Water year 1956-57:	Max	1,350	Min	10	Mean	153	Cfsm	3.13	In.	42.61	Ac-ft	111,100

Peak discharge (base, 850 cfs).--May 13 (8 a.m.) 1,580 cfs (7.90 ft); May 19 (2 a.m.) 1,500 cfs (7.82 ft); June 2 (9:30 p.m.) 1,800 cfs (8.15 ft); June 8 (8:30 p.m.) 1,690 cfs (8.03 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 1, 2, 14, 15, Nov. 19 to Dec. 2, Dec. 8, Dec. 17 to Feb. 26, Mar. 14 (no gage-height record Jan. 21 to Feb. 19; discharge estimated on basis of weather records and records for station below Lake Irrigation District Canal and Johnson Creek at Yellow Pine).

Lake Fork Reservoir near McCall, Idaho

Location.--Lat 44°54', long 116°03', in NW¼NW¼ sec. 13, T. 18 N., R. 3 E., at outlet gate near center of dam on Lake Fork Payette River, 3 miles east of McCall.

Drainage area.--64 sq mi, approximately.

Records available.--April 1926 to September 1957 (fragmentary).

Gage.--Staff gage and graduations on concrete gate-control structure of dam; gage read once or twice daily during irrigation season. Datum of gage is at mean sea level (levels by Lake Irrigation District).

Extremes.--Maximum contents observed during year, 19,390 acre-ft June 29, July 3 (elevation, 5,118.54 ft); practically no storage during winter months.
1926-57: 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 (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 and are computed from elevations as observed. There is some usable storage below elevation 5,101.0 ft, but natural flow passing through reservoir when outlet gates are operating prevents withdrawal of storage to elevation of sill of gates. Elevation in reservoir during water year 1957 reported below 5,101.0 ft as follows: Jan. 10, 5,100.33 ft; Feb. 19, 5,100.11 ft.

Cooperation.--Elevation record and capacity table furnished by Lake Irrigation District.

Capacity table (elevation, in feet, and contents, in acre-feet)

5,101.0	0	5,110.0	6,770
5,102.0	481	5,112.0	9,380
5,103.0	969	5,114.0	12,320
5,104.0	1,500	5,116.0	15,390
5,106.0	2,810	5,119.0	20,140
5,108.0	4,550		

Contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	-	14,990	19,330	11,910	2,610
2							-	-	15,540	19,330	11,540	2,420
3							-	-	15,450	19,380	11,120	2,240
4							-	-	-	19,350	10,750	2,070
5							-	-	15,570	19,330	10,360	1,920
6							-	-	15,570	19,330	10,010	1,800
7							-	7,660	15,140	19,270	9,620	1,690
8							-	-	15,290	19,140	9,240	1,590
9							-	-	15,820	18,970	8,920	1,520
10							-	-	15,360	18,830	8,570	1,440
11							-	12,560	15,360	18,590	8,240	1,390
12							-	-	16,070	18,430	7,900	1,330
13							-	-	16,530	18,170	7,600	1,270
14							-	-	16,940	17,920	7,250	1,210
15							-	14,740	17,030	17,650	6,970	1,150
16							-	-	17,220	17,350	6,630	1,090
17							-	-	17,250	17,030	6,300	1,050
18							1,020	-	17,510	16,880	6,050	1,020
19						96	-	-	17,820	16,420	5,720	979
20							-	15,120	18,270	16,100	5,450	931
21							-	-	18,590	15,790	5,160	-
22							-	14,000	18,670	15,480	4,860	-
23							-	-	18,750	15,140	4,600	775
24							-	-	18,970	14,770	4,340	-
25	1,680						-	-	18,750	14,460	4,080	692
26							-	-	19,200	14,090	3,840	-
27							-	-	19,200	13,750	3,580	657
28							-	-	19,330	13,390	3,370	-
29					-		2,130	14,430	19,360	13,050	3,150	-
30					-------		a3,000	-	19,350	12,680	2,970	a381
31		-------			-------		-------	a15,000	-------	12,290	2,790	-------
(†)	-					-	-	-	5,118.51	5,113.98	5,105.98	-
(‡)	-					-	-	+12,000	+4,350	-7,060	-9,500	-2,409

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Contents estimated on basis of records for Lake Fork above Jumbo Creek, Lake Irrigation District Canal, and Lake Fork below Lake Irrigation District Canal.

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 1957 (irrigation seasons only 1927-34, 1942, 1946).

Gage.--Staff gage read once daily. Altitude of gage is 5,090 ft (from topographic map). Prior to May 1947, staff gage at same site at different datum.

Extremes.--1926-57: 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 below 10 cfs, which are poor. No diversion between headgate and station. Canal diverts from right bank of Lake Fork Payette River in SW¼ sec. 13, T. 18 N., R. 3 E., for irrigation of 6,800 acres near McCall and Norwood, in the Lake Irrigation District project.

Cooperation.--Gage readings furnished by Lake Irrigation District.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							1.5	15	188	136	74
2	0							1.5	24	188	139	74
3	0		(*)					1.5	26	188	138	71
4	0							1.5	28	185	136	68
5	0							1.5	47	184	136	61
6	0							1.5	*66	184	135	58
7	0						0	*1.6	80	184	130	45
8	0							1.5	92	184	127	38
9	0							1.5	95	184	124	38
10	0			(*)				2.0	101	*177	112	38
11	1							2.0	109	172	108	36
12	4							2.0	128	166	112	36
13	2							2.5	140	159	111	36
14	0							2.5	148	157	108	36
15	0							2.5	151	153	107	33
16	4							2.5	155	152	102	*32
17	7							2.5	160	149	97	32
18	6							2.5	162	147	96	32
19	4				(*)	(*)		2.5	169	150	93	32
20	3							2.6	172	151	92	32
21	3						1	2.5	175	150	*87	29
22	3							3.0	177	149	85	28
23	3							5.5	177	149	84	28
24	3.5							5.5	177	147	83	28
25	*3.4							5.5	184	147	82	28
26	3.5							5.5	188	144	80	28
27	3.5							5.5	188	143	78	28
28	3.5							5.5	188	142	78	28
29	3.5				-			5.6	188	141	78	28
30	2				-------			5.5	188	141	78	28
31	0	-------			-------		-------	8.2	-------	138	75	-------
Total	62.9	0	0	0	0	0	18	97.5	3,898	4,993	3,227	1,183
Mean	2.03	0	0	0	0	0	0.6	3.15	130	161	104	39.4
Ac-ft	125	0	0	0	0	0	36	193	7,730	9,900	6,400	2,350

Calendar year 1956: Max 184 Min 0 Mean 41.3 Ac-ft 30,020
Water year 1956-57: Max 188 Min 0 Mean 36.9 Ac-ft 26,730

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1-24, Oct. 26 to May 6, May 8-19, 21-28, 30; discharge estimated on basis of 4 discharge measurements or field estimates, records for Lake Fork Payette River below Lake Irrigation District Canal, and inflow-outflow study of Lake Fork Reservoir.

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 1957.

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

Average discharge.--17 years, 131 cfs (94,840 acre-ft per year).

Extremes.--Maximum discharge during year, 1,290 cfs June 3 (gage height, 6.31 ft); minimum, 13 cfs Oct. 16, 17 (gage height, 2.37 ft).
1940-57: 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 periods of no gage-height record, which are fair. Flow regulated by Lake Fork Reservoir (see p. 173). Lake Irrigation District Canal diverts above station for irrigation of about 6,800 acres.

Revisions (water years).--WSP 963: 1941.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	9.6	3.5	154
2.4	14	4.0	280
2.5	19	4.5	440
2.7	33	5.0	640
2.9	53	5.5	870
3.2	95	6.5	1,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	188	35	28	26	43	52	146	1,070	163	72	51
2	22	163	34	28	25	44	53	161	1,140	133	73	48
3	22	139	*34	b28	25	46	53	174	1,250	93	73	40
4	22	119	34	b29	25	46	53	181	1,230	92	73	34
5	22	104	34	b29	25	48	54	185	1,200	55	71	32
6	21	92	34	b30	25	48	58	190	*1,180	68	71	28
7	21	82	34	30	25	48	60	*197	950	61	69	31
8	21	75	33	29	24	48	61	206	910	58	66	27
9	21	69	33	29	24	49	64	238	1,050	71	64	21
10	22	66	34	*28	24	52	66	331	766	73	65	20
11	20	61	35	28	24	53	71	430	409	*69	61	18
12	16	58	35	28	24	54	73	631	313	79	57	17
13	19	58	35	28	24	54	75	940	298	81	57	17
14	22	55	35	28	23	53	85	1,060	283	78	57	17
15	21	53	36	b28	23	53	90	950	216	79	54	18
16	17	52	37	28	23	53	95	900	169	81	53	*18
17	13	52	37	28	23	52	100	865	167	81	54	17
18	14	50	37	28	23	52	95	910	152	81	52	17
19	17	48	37	28	*23	*52	108	1,130	161	79	52	15
20	17	46	36	28	23	51	111	1,100	172	71	53	15
21	17	44	36	27	b24	52	117	890	197	68	*55	17
22	17	43	34	27	24	52	121	721	204	69	54	18
23	17	42	34	27	25	51	123	622	163	71	53	17
24	16	41	34	27	27	50	127	567	174	71	52	16
25	*16	40	33	27	29	50	125	555	194	71	49	16
26	16	39	b32	27	32	50	125	575	197	71	53	15
27	16	38	b32	26	37	49	127	636	176	69	60	17
28	16	38	32	26	41	49	129	712	185	68	54	23
29	16	37	31	26	-	49	129	816	202	68	49	22
30	121	36	31	26	-------	50	135	895	202	66	50	19
31	214	-------	31	26	-------	51	-------	990	-------	68	51	-------
Total	874	2,028	1,059	860	720	1,552	2,735	18,904	14,980	2,406	1,827	681
Mean	28.2	67.6	34.2	27.7	25.7	50.1	91.2	610	499	77.6	58.9	22.7
Ac-ft	1,730	4,020	2,100	1,710	1,430	3,080	5,420	37,500	29,710	4,770	3,620	1,350

Calendar year 1956: Max 1,390 Min 13 Mean 150 Ac-ft 108,600
Water year 1956-57: Max 1,250 Min 13 Mean 133 Ac-ft 96,440

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 16 to Feb. 18 and Mar. 13-18 (ice affected most of periods); discharge estimated on basis of records for station above Jumbo Creek and other nearby streams.

Cascade Reservoir at Cascade, Idaho

Location.--Lat 44°31'30", long 116°03'05", in NE¼NE¼ sec. 26, T. 14 N., R. 3 E., just upstream from left abutment of dam on North Fork Payette River, half a mile downstream from Willow Creek and three-quarters of a mile northwest of Cascade.

Drainage area.--620 sq mi.

Records available.--January to December 1948 (fragmentary), January 1949 to September 1957.

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, 727,000 acre-ft June 10, 11 (elevation, 4,828.89 ft); minimum observed, 328,400 acre-ft Oct. 25 (elevation, 4,810.86 ft).
1948-57: Maximum contents observed, that of June 10, 11, 1957; no contents at times during March and September 1948.

Remarks.--Reservoir is formed by earth-fill dam completed in May 1949. Storage began Nov. 7, 1947. Capacity, 703,200 acre-ft between elevations 4,766 (4.0 ft above sill of outlet tunnel) and 4,828 ft (top of spillway gates). Figures 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 (elevation, in feet, and contents, in acre-feet)

4,808.0	280,100	4,824.0	601,400
4,812.0	348,600	4,828.0	703,200
4,816.0	424,600	4,830.0	757,200
4,820.0	508,500		

Contents, in acre-feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356,300	336,800	344,300	356,200	359,100	378,000	409,200	499,300	653,800	703,200	654,600	505,000
2	353,800	337,600	344,300	356,300	359,400	379,900	410,800	500,800	664,000	703,200	649,700	501,000
3	351,300	338,300	344,700	356,500	359,800	380,600	412,800	503,000	675,100	703,200	644,600	497,300
4	348,900	338,600	344,800	356,500	360,200	381,800	414,100	506,300	688,700	703,200	639,600	493,000
5	346,400	338,600	345,000	356,700	360,500	382,700	415,700	509,600	699,200	702,700	634,800	489,700
6	344,300	338,400	345,400	356,500	360,900	383,700	418,700	512,500	707,200	702,400	629,800	488,400
7	342,000	338,600	345,700	356,200	361,200	384,600	420,700	515,800	715,200	701,600	624,500	486,700
8	340,000	339,000	345,900	356,300	361,600	385,600	422,700	518,900	720,500	701,100	619,300	483,500
9	337,400	339,300	345,700	356,500	362,000	386,500	425,600	524,100	724,600	700,300	614,100	479,800
10	334,900	339,500	346,100	356,700	362,200	388,400	427,600	529,100	727,000	699,000	608,900	476,600
11	334,400	339,700	347,300	356,900	362,300	390,300	429,600	535,400	727,000	697,400	603,500	473,200
12	334,000	340,000	348,600	357,100	362,700	393,200	433,700	542,700	725,100	695,800	598,200	469,800
13	333,300	340,400	350,400	357,200	362,900	395,200	436,700	551,000	722,700	695,000	592,800	466,700
14	332,300	340,700	351,800	357,400	362,900	396,100	439,700	561,900	718,700	693,900	587,500	463,500
15	331,600	341,100	352,900	357,600	363,100	397,100	444,800	573,700	714,900	692,900	582,200	460,400
16	330,900	341,100	353,400	357,600	363,100	398,500	449,900	583,200	709,800	691,800	577,000	457,300
17	330,200	341,600	353,600	357,400	363,300	399,400	453,000	589,700	703,200	691,100	571,800	454,400
18	329,500	342,300	353,600	357,600	362,500	400,000	457,100	595,300	702,100	690,300	566,300	451,500
19	329,100	343,100	353,800	357,600	361,800	400,800	461,200	603,800	702,400	689,500	561,000	449,900
20	329,800	343,400	354,000	357,800	360,900	401,400	465,400	616,100	702,400	688,700	555,600	447,200
21	330,500	343,800	354,200	358,100	360,000	402,200	469,600	631,000	703,700	687,600	550,300	445,600
22	329,300	344,100	354,300	358,500	359,100	403,100	474,300	635,500	703,700	687,100	544,500	443,400
23	328,800	344,500	354,500	358,900	363,100	403,700	478,500	637,300	703,200	686,100	538,800	440,900
24	328,600	344,800	354,700	358,700	363,800	404,300	482,800	636,000	702,400	685,000	533,100	438,500
25	328,400	345,000	354,900	358,500	365,800	404,900	484,600	633,500	702,400	684,000	529,700	436,100
26	328,800	344,800	355,100	358,300	368,600	405,500	486,700	631,500	701,600	681,900	525,900	433,700
27	330,900	344,700	355,200	358,100	373,300	406,100	489,300	629,800	702,400	678,300	522,500	431,200
28	332,300	344,500	355,400	358,300	375,200	406,500	491,700	628,500	703,200	673,900	519,600	428,800
29	332,600	344,700	355,600	358,500	-	406,900	494,300	629,300	703,200	669,700	516,000	426,400
30	334,700	344,700	355,800	358,700	-------	407,600	497,500	635,500	703,200	664,800	512,300	424,300
31	336,100	-------	356,000	358,900	-------	408,800	-------	643,600	-------	659,700	508,500	-------
(†)	4,811.30	4,811.78	4,812.41	4,812.57	4,813.45	4,815.20	4,819.50	4,825.70	4,828.00	4,826.33	4,820.00	4,815.98
(‡)	-24,200	+8,600	+11,300	+2,900	+16,300	+33,600	+88,700	+146,100	+59,600	-43,500	-151,200	-84,200

Calendar year 1956..... ‡ +98,200
Water year 1956-57..... ‡ +64,000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Daily contents computed from once-daily staff-gage readings made at 7 a.m. Oct. 1-21, at 3 p.m. Oct. 22 to Mar. 31, and at 6 a.m. Apr. 1 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 Boise Payette Lumber Company (formerly 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 1957.

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.--16 years, 1,030 cfs (745,700 acre-ft per year).

Extremes.--Maximum discharge during year, 5,430 cfs June 11 (gage height, 4.74 ft); minimum, 9.5 cfs Apr. 20, 22 (gage height, -0.05 ft).
1941-57: 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 good except those for periods of no gage-height record, which are fair. Flow regulated by Cascade Reservoir (see preceding page), Payette Lake (see p. 170), Lake Fork Reservoir (see p. 173), and occasionally by milldam at Cascade. Diversions above station for irrigation of about 37,000 acres.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 1 to June 17)

Oct. 1 to Apr. 30				May 1 to Sept. 30			
0	12	1.0	264	0.8	154	2.5	1,910
.1	20	1.3	436	1.0	237	3.0	2,780
.2	30	1.6	660	1.3	409	4.0	4,060
.4	59	2.0	1,040	1.6	653	5.0	5,440
.6	104	2.5	1,720	2.0	1,110		
.8	172	3.0	2,640				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,960	317	306	211	a250	264	122	1,040	1,340	1,210	2,510	1,680
2	1,860	317	306	206	225	249	26	1,150	1,360	1,220	2,580	1,680
3	1,750	393	206	206	a210	240	29	1,180	*785	1,220	2,620	1,700
4	1,670	463	206	206	a250	240	28	1,190	1,250	1,220	2,530	1,770
5	1,640	556	*211	206	a250	240	35	1,170	2,750	1,110	2,460	1,820
6	1,580	578	206	245	264	240	35	1,170	3,340	1,010	2,610	1,800
7	1,660	311	206	470	264	244	31	1,170	3,890	1,010	2,670	1,730
8	1,720	198	206	225	264	264	34	*1,180	4,710	*992	2,710	1,640
9	1,640	202	206	206	225	269	36	1,210	5,190	992	2,680	1,640
10	1,620	235	211	*211	225	259	34	1,220	5,310	992	2,750	1,680
11	1,640	206	215	220	259	244	34	1,240	5,310	992	2,790	1,710
12	1,560	235	211	225	230	244	38	1,250	5,190	805	2,780	1,580
13	1,400	244	215	225	249	240	32	715	5,190	653	2,770	1,460
14	1,270	275	215	225	323	240	45	513	5,160	581	2,790	1,540
15	1,150	269	211	225	323	240	31	1,190	5,100	581	2,780	1,560
16	970	269	202	254	317	240	22	1,820	5,100	572	2,840	*1,480
17	850	259	206	254	317	240	22	1,990	3,300	572	2,890	1,370
18	786	220	206	259	424	240	19	1,870	1,530	572	2,900	1,340
19	603	264	206	225	*534	244	14	164	1,530	563	*2,910	1,320
20	594	275	206	220	586	244	51	994	1,530	572	2,900	1,300
21	603	269	206	249	603	*244	235	2,910	*1,700	572	2,880	1,260
22	*611	215	206	264	611	254	*96	4,380	1,930	572	2,860	1,250
23	611	264	206	269	329	244	157	4,980	1,890	572	2,840	1,300
24	548	215	206	264	240	244	230	4,980	1,590	572	1,800	1,360
25	490	206	206	254	264	394	235	4,960	1,460	1,070	2,260	1,340
26	497	264	206	215	290	408	235	4,960	1,140	1,500	1,710	1,320
27	340	280	206	a290	285	413	235	4,960	967	1,820	1,680	1,320
28	202	264	206	a250	280	413	240	4,750	1,100	2,180	1,710	1,260
29	194	275	206	a250	-	432	240	3,100	1,210	2,430	1,950	1,220
30	264	269	211	a250	-------	374	434	1,340	1,210	2,440	1,950	1,250
31	317	-------	206	a250	-------	264	-------	1,320	-------	2,530	1,780	-------
Total	32,600	8,607	6,634	7,529	8,891	8,609	3,055	66,066	83,062	33,697	77,890	44,680
Mean	1,052	287	214	243	318	278	102	2,131	2,769	1,087	2,513	1,489
Ac-ft	64,660	17,070	13,160	14,930	17,640	17,080	6,060	131,000	164,800	66,840	154,500	88,620

Calendar year 1956: Max 4,350 Min 176 Mean 1,131 Ac-ft 820,800
Water year 1956-57: Max 5,310 Min 14 Mean 1,045 Ac-ft 756,400

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of supplementary staff-gage readings, observer's notes on regulation at Cascade Dam, and records for station near Banks.

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 1957.

Gage.--Water-stage recorder. Datum of gage is 3,081.13 ft above mean sea level, unadjusted.

Average discharge.--10 years, 1,379 cfs (998,400 acre-ft per year).

Extremes.--Maximum discharge during year, 6,390 cfs May 24 (gage height, 11.76 ft); minimum, 135 cfs Dec. 9 (gage height, 3.62 ft).
1947-57: 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 or no gage-height record, which are good. Flow regulated by Payette Lake (see p. 170), Lake Fork Reservoir (see p. 173), Cascade Reservoir (see p. 176), and occasionally by milldam at Cascade. Many diversions from tributary above station for irrigation.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.0	213	8.0	2,280
4.5	348	9.0	3,180
5.0	513	10.0	4,200
5.5	710	11.0	5,390
6.0	940	12.0	6,730
7.0	1,520		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,140	482	339	315	370	1,120	812	1,700	2,840	*1,480	2,600	1,740
2	2,020	464	437	318	364	950	577	2,300	2,920	1,460	2,610	1,720
3	1,980	454	379	295	330	789	573	2,500	2,910	1,440	2,700	1,760
4	*1,820	569	318	b280	315	689	584	2,700	2,010	1,420	2,600	1,760
5	1,800	600	309	b260	*354	648	681	2,700	3,580	1,390	2,550	1,870
6	1,730	736	301	b270	360	615	1,070	2,570	4,360	1,210	2,600	1,860
7	1,740	693	295	b450	354	600	896	2,610	4,600	1,170	2,700	1,840
8	1,850	414	240	b420	364	762	872	*2,690	5,250	1,160	2,750	1,720
9	1,850	*357	281	b300	376	935	896	2,830	6,030	1,140	2,700	1,700
10	1,740	351	330	b300	336	950	1,020	2,960	6,160	1,120	2,750	1,690
11	1,850	385	401	b300	324	803	1,080	3,120	*6,280	1,110	2,850	1,790
12	1,840	351	454	b320	357	*719	1,180	3,250	6,200	1,080	2,800	1,720
13	1,700	401	496	342	327	623	1,270	3,700	6,090	863	2,800	*1,540
14	1,510	398	528	336	367	580	1,510	2,710	6,000	753	2,800	1,550
15	1,390	389	454	333	437	588	1,710	3,150	5,950	723	*2,740	1,620
16	1,250	408	398	295	431	569	1,330	3,710	5,860	714	2,760	1,560
17	990	437	389	327	428	561	1,250	4,120	5,530	702	2,890	1,460
18	990	454	389	295	421	546	1,210	4,340	2,590	697	2,900	1,400
19	911	336	370	345	569	546	1,130	3,580	2,250	693	2,940	1,380
20	697	392	*336	327	689	561	1,090	2,400	2,210	689	2,940	1,370
21	732	395	348	301	723	588	1,160	3,840	2,150	697	2,920	1,340
22	719	389	270	364	766	561	1,410	*5,210	2,310	689	2,900	1,320
23	740	330	304	379	771	550	*1,250	6,170	2,410	681	2,870	1,350
24	732	370	385	351	565	535	1,300	6,350	2,190	676	2,640	1,400
25	643	315	339	345	668	558	1,250	6,300	1,880	697	1,930	1,410
26	660	312	309	318	1,040	685	1,150	6,280	1,820	1,350	1,860	1,400
27	798	364	304	270	1,470	697	1,050	6,250	1,350	1,710	1,710	1,390
28	492	364	306	364	1,320	706	1,000	6,300	1,380	1,980	1,700	1,350
29	370	367	304	360	-	753	1,100	5,880	1,520	2,460	1,880	1,300
30	398	373	304	364	-------	877	1,300	3,270	1,510	2,500	1,980	1,320
31	492	-------	330	373	-------	965	-------	2,860	-------	2,570	1,960	-------
Total	38,574	12,650	10,947	10,217	15,196	21,629	32,711	118,350	108,140	37,024	79,330	46,630
Mean	1,244	422	353	330	543	698	1,090	3,818	3,605	1,194	2,559	1,554
Ac-ft	76,510	25,090	21,710	20,270	30,140	42,900	64,880	234,700	214,500	73,440	157,300	92,490

Calendar year 1956: Max 5,310 Min 240 Mean 1,528 Ac-ft 1,109,000
Water year 1956-57: Max 6,350 Min 240 Mean 1,456 Ac-ft 1,054,000

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Apr. 23 to May 5; Aug. 4-14, Sept. 14-30; discharge estimated on basis of 1 discharge measurement, recorded range in stage, weather records, and records for station at Cascade and Payette River near Horseshoe Bend.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,625.61 ft above mean sea level, unadjusted. Prior to Nov. 23, 1912, staff gage at site 1½ 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.--48 years, 3,208 cfs (2,322,000 acre-ft per year).

Extremes.--Maximum discharge during year, 15,400 cfs June 5 (gage height, 12.59 ft); minimum daily, 700 cfs Jan. 19, 27; minimum gage height, 2.41 ft Dec. 9, Jan. 6.
1906-16, 1919-57: 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 except those for periods of ice effect, which are good. Flow regulated by Deadwood Reservoir (see p. 166), Payette Lake (see p. 170), Lake Fork Reservoir (see p. 173), and Cascade Reservoir (see p. 176). Diversions from tributaries above station for irrigation of about 50,000 acres.

Cooperation.--Water-stage recorder inspected by employee of Idaho Power Company.

Revisions.--WSP 533: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 8 to Feb. 24)

2.4	680	7.0	3,910
2.7	760	8.0	5,230
3.0	860	9.0	6,760
4.0	1,330	10.0	8,740
5.0	1,950	11.0	11,000
6.0	2,800	12.5	15,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,830	1,380	1,050	1,060	960	3,460	*3,040	7,200	12,600	*5,160	3,570	3,470
2	*2,690	1,260	1,050	1,040	980	2,980	2,660	*8,450	13,100	5,020	3,540	3,410
3	2,660	1,200	1,210	1,030	980	2,580	2,600	9,060	*13,700	4,750	3,620	3,440
4	2,490	1,320	1,080	884	970	2,300	2,600	8,870	13,200	4,540	3,560	3,400
5	2,460	1,360	1,060	832	970	2,250	2,860	8,660	14,700	4,320	3,380	3,470
6	2,380	1,490	1,020	811	960	2,110	4,200	8,680	14,500	4,020	3,450	3,460
7	2,360	1,560	988	*880	960	2,090	3,810	9,780	13,900	4,040	3,570	3,450
8	2,480	1,260	904	1,350	970	2,450	3,610	10,400	14,100	3,980	3,590	3,310
9	2,520	1,140	853	1,170	980	2,900	3,630	10,800	14,500	3,890	3,540	3,280
10	2,430	1,140	1,110	1,010	930	3,030	3,980	11,200	13,800	3,780	3,500	3,260
11	2,680	1,200	1,350	988	*900	2,750	4,220	11,000	13,500	3,560	3,590	3,370
12	2,750	1,190	1,670	1,120	930	3,100	4,530	11,300	13,200	3,570	3,590	3,300
13	2,520	1,260	1,770	1,140	920	2,630	4,730	12,000	12,800	3,500	3,550	*3,130
14	2,270	*1,240	1,890	1,090	980	2,340	5,130	11,300	12,200	3,460	3,560	3,080
15	2,130	1,060	1,610	1,080	1,080	2,270	5,980	11,400	11,500	3,410	*3,550	3,180
16	1,970	1,120	1,440	940	1,080	2,220	5,310	11,600	10,800	3,480	3,540	3,130
17	1,740	1,330	1,340	840	1,070	2,330	5,050	12,200	10,200	3,510	3,660	3,020
18	1,710	1,370	1,290	750	1,060	2,200	4,840	13,000	7,020	3,500	3,650	2,980
19	1,760	1,060	1,250	700	1,290	2,240	4,640	14,000	6,490	3,500	3,690	3,040
20	1,490	964	*1,110	900	1,470	2,330	4,660	11,700	6,690	3,470	3,660	2,990
21	1,440	1,080	1,060	1,000	1,520	2,470	4,910	11,500	6,680	3,530	3,620	2,930
22	1,430	1,120	1,020	1,000	1,540	2,310	5,290	12,100	6,540	3,500	3,590	2,900
23	1,480	1,060	984	1,000	1,750	2,150	*5,400	*12,400	6,410	3,540	3,550	2,870
24	1,520	1,080	1,290	1,000	2,150	2,060	5,540	12,400	6,220	3,540	3,550	2,930
25	1,400	1,020	1,110	920	3,320	2,110	5,020	12,300	5,980	3,550	3,010	2,930
26	1,500	1,000	960	800	*4,320	2,180	4,440	12,500	5,810	3,750	3,610	2,910
27	1,870	1,050	936	700	4,960	2,150	4,100	13,000	5,260	3,680	3,410	2,880
28	1,500	1,060	996	850	4,130	2,160	4,230	13,500	5,310	3,560	3,670	2,850
29	1,160	1,060	1,020	860	-	2,330	5,080	14,600	5,370	3,610	3,690	2,780
30	1,300	1,060	1,020	880	-------	2,800	6,270	12,500	5,260	3,550	3,690	2,750
31	1,560	-------	1,080	900	-------	3,230	-------	12,300	-------	3,570	3,680	-------
Total	62,480	35,494	36,521	29,525	44,130	76,510	132,360	351,700	301,340	117,840	110,430	93,900
Mean	2,015	1,183	1,178	952	1,576	2,468	4,412	11,350	10,040	3,801	3,562	3,130
Ac-ft	123,900	70,400	72,440	58,560	87,530	151,800	262,500	697,600	597,700	233,700	219,000	186,200

Calendar year 1956: Max 15,200 Min 853 Mean 4,344 Ac-ft 3,153,000
Water year 1956-57: Max 14,700 Min 700 Mean 3,814 Ac-ft 2,761,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 7, 8, Jan. 16 to Feb. 18.

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,400 ft (from topographic map).

Average discharge.--32 years, 3,010 cfs (2,179,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,200 cfs May 19 (gage height, 11.31 ft); minimum, 0.7 cfs Jan. 7 (gage height, -1.49 ft), when gates in dam were closed; minimum daily, 0.7 cfs Jan. 7.
1925-57: Maximum discharge, 22,800 cfs May 1, 1938; maximum gage height, 12.98 ft Dec. 22, 1955; minimum daily discharge, that of Jan. 7, 1957.

Remarks.--Records excellent except those below 100 cfs, which are fair. 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. 176), Deadwood Reservoir (see p. 166), Payette Lake (see p. 170), and Lake Fork Reservoir (see p. 173).

Cooperation.--Gage-height record collected in cooperation with Bureau of Reclamation.

Revisions (water years).--WSP 1153: 1946(m), 1948(m).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 26 to June 22)

-1.5	0.7	-0.1	33	1.8	430	5.0	4,150
-1.3	1.6	.2	55	2.2	705	6.0	5,800
-1.0	4.3	.6	105	2.6	1,090	7.0	7,710
-.7	9.1	1.0	175	3.0	1,540	9.0	12,100
-.4	18	1.4	280	4.0	2,770	11.0	17,200

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,060	1,820	1,220	1,360	1,090	5,300	4,610	7,150	12,500	3,680	1,850	1,970
2	1,890	1,540	1,160	333	1,120	4,480	3,960	8,360	12,800	3,480	1,790	1,840
3	1,900	1,330	1,260	a.9	960	3,720	3,790	8,950	13,500	3,170	1,890	1,940
4	1,960	1,300	1,290	*.9	1,040	3,290	3,680	8,820	13,000	2,950	1,850	*1,860
5	1,820	1,450	1,290	a.8	980	3,620	3,850	8,680	14,100	*2,690	*1,740	1,900
6	1,780	1,530	1,670	a.8	1,040	3,220	5,570	8,470	14,100	2,380	1,680	1,920
7	1,660	1,840	1,540	*.7	950	3,290	5,070	9,530	13,500	2,330	1,830	1,970
8	1,800	1,790	1,970	244	991	3,470	4,710	10,300	13,600	2,330	1,910	1,890
9	1,900	1,340	1,820	1,320	1,040	3,660	4,660	*10,600	14,100	2,210	1,900	1,850
10	1,820	1,310	1,240	1,110	1,020	4,280	4,960	11,200	13,200	2,140	1,840	1,900
11	2,080	1,420	967	868	*980	3,890	5,240	11,200	12,800	1,900	1,900	2,010
12	2,180	1,480	1,820	1,120	896	5,650	5,490	11,700	12,500	1,860	1,910	2,010
13	2,090	1,490	1,860	1,160	862	4,150	5,640	13,000	12,100	1,840	1,900	1,890
14	1,860	1,490	1,860	1,010	853	3,330	5,930	13,000	11,400	1,790	1,860	1,830
15	1,900	1,370	1,940	1,220	910	3,270	7,270	13,200	10,700	1,680	1,860	1,900
16	2,010	1,290	1,900	914	1,090	3,220	6,290	13,100	10,000	1,760	1,850	1,960
17	1,760	1,370	1,850	826	1,190	3,440	5,850	13,500	9,400	1,770	1,960	1,900
18	1,670	1,670	1,730	722	1,200	3,270	*5,600	14,100	6,460	1,780	1,970	1,900
19	1,940	1,090	1,370	602	1,190	*3,330	5,320	16,500	5,460	1,770	2,020	1,920
20	1,860	1,010	1,740	918	1,260	3,150	5,270	13,700	5,660	1,830	1,970	1,960
21	1,600	1,080	1,100	1,020	1,340	2,740	5,550	12,600	*5,620	1,780	1,950	1,950
22	1,610	1,120	1,640	1,040	1,420	1,780	5,910	12,800	5,410	1,760	1,900	1,900
23	1,670	1,010	1,450	1,000	1,770	1,850	5,910	13,100	5,240	1,830	1,900	1,890
24	1,780	1,120	889	1,060	4,280	1,910	5,890	13,000	5,020	1,760	1,880	1,920
25	1,860	1,110	1,510	973	6,860	3,050	5,020	12,700	4,720	1,830	1,440	1,970
26	1,720	*904	1,060	846	7,710	3,200	4,240	12,900	4,500	1,940	2,010	1,960
27	2,180	397	657	1,090	8,840	3,020	3,830	13,200	3,960	1,950	1,760	1,970
28	1,900	1,020	847	938	6,690	3,020	3,820	*14,000	3,920	1,790	2,020	1,970
29	*1,480	1,060	1,010	939	-	3,190	4,710	14,900	3,960	1,880	2,100	1,940
30	1,610	1,050	1,480	1,000	-------	3,930	6,030	12,900	3,830	1,830	2,090	1,880
31	2,220	-------	887	954	-------	4,980	-------	12,100	-------	1,830	2,140	-------
Total	57,570	39,401	44,027	24,591.1	59,572	107,700	153,670	369,260	277,060	65,520	58,670	57,670
Mean	1,857	1,313	1,420	793	2,128	3,474	5,122	11,910	9,235	2,114	1,893	1,922
Ac-ft	114,200	78,150	87,330	48,780	118,200	213,600	304,800	732,400	549,500	130,000	116,400	114,400

Calendar year 1956: Max 14,700 Min 657 Mean 3,970 Ac-ft 2,882,000
Water year 1956-57: Max 16,500 Min 0.7 Mean 3,602 Ac-ft 2,608,000

* Discharge measurement made on this day.
a Stage below intakes; discharge estimated on basis of 3 discharge measurements, recorder graph, and records for station near Payette.

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 1957. 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.--22 years, 3,169 cfs (2,294,000 acre-ft per year).

Extremes.--Maximum discharge during year, 17,700 cfs May 19 (gage height, 11.53 ft); minimum, 227 cfs Jan. 9 (gage height, 3.70 ft); minimum daily, 243 cfs Jan. 7.
1935-57: Maximum discharge, 23,400 cfs May 2, 1938; maximum gage height, 12.75 ft Dec. 23, 1955; minimum discharge, 180 cfs Oct. 13, 20, 1935 (gage height, 2.04 ft); minimum daily, 200 cfs Oct. 5, 1935.

Remarks.--Records excellent except those for period of ice effect, 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. WSP 1397: 1949(m), 1952, 1953-54(m).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 1 to May 2, June 19 to Sept. 30)

3.7	227	5.5	1,890	8.0	7,170
4.0	368	6.0	2,710	9.0	9,810
4.5	740	6.5	3,690	10.0	12,800
5.0	1,240	7.0	4,810	11.5	17,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,020	2,510	1,500	1,370	1,410	6,500	5,780	6,450	11,500	3,200	1,400	1,940
2	2,060	2,150	1,660	1,410	1,450	5,500	4,580	7,340	11,800	3,040	1,400	1,740
3	1,890	1,880	1,360	379	1,250	4,650	4,090	8,270	12,400	2,780	1,420	1,720
4	1,980	1,750	1,640	*281	1,350	4,020	4,040	8,720	12,300	2,460	1,460	1,830
5	1,880	1,850	1,630	295	1,260	4,150	4,060	8,560	12,700	2,310	*1,410	1,760
6	1,830	1,830	1,970	247	1,330	3,930	5,520	8,070	13,200	2,000	1,240	*1,830
7	1,780	2,170	*1,930	243	1,250	3,980	5,730	8,770	12,900	1,740	1,340	1,860
8	1,780	2,260	2,040	251	1,290	4,000	5,110	9,520	12,600	*1,740	1,420	1,830
9	1,860	1,860	2,180	826	1,340	4,170	4,880	*9,960	13,300	1,640	1,440	1,780
10	1,960	1,760	1,840	1,470	1,310	4,720	5,060	10,700	12,800	1,540	1,410	1,820
11	2,120	1,760	1,440	1,160	1,240	4,490	5,410	11,000	12,300	1,380	1,360	1,890
12	2,640	1,850	2,140	1,170	1,150	6,590	5,660	11,300	12,000	1,280	1,460	1,980
13	2,670	1,830	2,330	1,370	1,130	5,780	5,900	12,300	11,700	1,320	1,410	1,900
14	2,300	1,860	2,280	1,320	*1,130	4,240	5,970	13,100	*11,100	1,260	1,370	1,790
15	2,250	1,780	2,300	1,360	1,120	3,820	7,320	13,500	10,300	1,200	1,380	1,810
16	2,310	1,620	2,330	1,230	1,350	3,760	6,810	13,200	9,550	1,210	1,400	1,920
17	2,100	1,700	2,260	1,140	1,580	3,910	6,210	13,500	8,990	1,250	1,430	1,880
18	1,980	2,060	2,120	1,010	1,460	3,840	*5,990	13,400	7,050	1,320	1,560	1,830
19	2,250	1,560	1,960	1,010	1,460	*3,580	5,620	16,700	5,020	1,320	1,650	1,880
20	2,530	1,420	1,920	1,020	1,510	3,690	5,550	14,900	5,020	1,320	1,610	1,940
21	2,140	1,330	1,770	1,300	1,510	3,540	5,680	13,000	5,180	1,350	1,600	1,940
22	2,070	1,590	1,660	1,360	1,610	2,120	5,990	13,000	4,920	1,370	1,560	1,880
23	2,070	1,380	1,820	1,340	2,570	2,090	5,900	13,200	4,760	1,370	1,570	1,890
24	2,200	1,470	1,530	1,350	8,510	2,100	5,950	13,200	4,530	1,360	1,530	1,890
25	2,060	1,540	1,500	1,260	*10,200	2,550	5,780	12,800	4,280	1,380	1,520	1,900
26	2,600	1,280	1,650	1,180	9,070	3,710	5,110	12,700	4,020	1,420	1,360	1,900
27	2,660	1,340	1,270	1,400	10,600	3,240	4,580	12,800	3,630	1,520	1,560	1,940
28	2,800	1,390	927	1,240	8,170	3,200	4,280	12,100	3,300	1,480	1,520	1,940
29	*2,020	1,400	1,280	1,240	-	3,280	4,560	13,600	3,380	1,440	1,720	1,900
30	2,100	1,400	1,450	1,300	-------	4,000	5,550	13,200	3,320	1,460	1,880	1,860
31	2,930	-------	1,520	1,230	-------	4,880	-------	11,400	-------	1,300	1,900	-------
Total	67,840	51,580	55,207	32,762	78,610	124,030	162,670	361,260	259,850	50,760	46,290	55,970
Mean	2,188	1,719	1,781	1,057	2,808	4,001	5,422	11,650	8,662	1,637	1,493	1,866
Ac-ft	134,600	102,300	109,500	64,980	155,900	246,000	322,700	716,500	515,400	100,700	91,810	111,000

Calendar year 1956: Max 14,600 Min 927 Mean 3,969 Ac-ft 2,881,000
Water year 1956-57: Max 16,700 Min 243 Mean 3,690 Ac-ft 2,671,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 27 to Feb. 13.

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 up upstream from Beaver Creek.

Drainage area.--36.5 sq mi.

Records available.--September 1936 to September 1957.

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.--21 years, 44.3 cfs (32,070 acre-ft per year).

Extremes.--Maximum discharge during year, 434 cfs Apr. 14 (gage height, 4.60 ft); minimum, 1.0 cfs Feb. 12 (gage height, 0.95 ft).
1936-57: Maximum discharge, 1,320 cfs Dec. 22, 1955 (gage height, 7.17 ft), from rating curve extended above 600 cfs on basis of slope-area determination of peak flow; minimum, 0.7 cfs Oct. 1, 1955; minimum gage height, that of Feb. 12, 1957.

Remarks.--Records good except those for periods of ice effect or shifting control, 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 1956-57, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

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	5.0	567
2.2	54		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	10	6.6	7.4	b6.2	*137	177	208	38	11	7.4	6.8
2	6.8	9.5	6.6	7.4	b6.2	99	173	232	36	9.9	7.1	6.6
3	6.8	9.2	7.1	7.4	6.6	85	177	270	33	10	6.8	7.0
4	6.8	9.5	7.4	7.4	6.6	74	*163	250	30	9.9	6.6	5.1
5	6.6	8.5	7.4	b6.9	6.6	67	214	222	28	13	6.3	7.1
6	6.6	9.9	7.7	6.8	b6.0	59	242	*193	26	4.9	6.8	4.4
7	6.8	9.9	7.7	7.4	b5.8	65	220	169	26	7.4	7.4	5.6
8	6.8	10	b6.8	7.1	b5.6	82	216	162	34	7.7	6.6	5.1
9	6.8	*9.5	7.1	7.4	b6.0	92	226	198	32	8.0	6.6	4.4
10	7.4	9.5	7.7	7.4	b6.0	100	248	188	26	7.4	6.3	4.9
11	11	10	8.8	7.1	b5.8	91	256	171	24	8.0	6.0	5.6
12	14	11	9.9	7.1	b5.6	88	336	162	22	9.5	6.0	5.3
13	13	12	15	7.4	4.7	77	367	177	22	9.5	5.8	5.1
14	11	11	15	7.4	4.9	69	392	179	22	9.5	5.8	5.1
15	8.5	8.8	13	7.4	5.1	67	375	158	22	9.5	5.6	5.3
16	8.0	9.9	12	b7.0	5.1	67	304	132	20	9.2	5.6	4.9
17	7.7	10	10	b6.5	5.1	66	262	114	18	8.8	5.6	4.7
18	7.4	9.5	*11	b6.0	5.3	66	239	118	16	*10	5.6	5.1
19	8.5	8.2	10	6.8	5.3	74	229	128	*16	8.4	5.6	5.6
20	8.0	8.2	9.9	6.8	5.3	85	218	115	17	9.2	5.6	*5.6
21	7.4	8.2	9.5	b6.5	5.3	97	254	102	15	8.8	5.8	5.3
22	7.4	8.2	9.2	6.8	5.6	86	268	94	14	8.5	*6.0	5.1
23	8.0	8.8	9.2	6.6	8.2	80	268	90	13	8.8	6.6	5.1
24	8.2	7.4	9.2	*b6.5	18	78	248	78	12	8.2	6.3	5.1
25	8.0	7.7	8.8	b6.2	41	83	200	71	12	8.2	6.3	4.9
26	9.5	7.7	8.5	b5.5	101	87	158	64	11	7.7	6.6	6.2
27	14	8.0	8.0	b5.0	206	91	128	58	12	7.7	6.6	5.1
28	12	6.6	7.4	b5.5	184	94	118	52	11	7.4	6.6	4.9
29	9.2	6.8	7.1	b6.0	-	134	136	50	11	7.4	7.7	4.7
30	13	7.1	7.1	b6.0	-------	196	180	*48	11	7.4	5.8	5.5
31	13	-------	7.1	b6.0	-------	204	-------	43	-------	7.1	6.3	-------
Total	275.0	270.6	277.8	208.7	682.9	2,840	6,992	4,296	630	268.0	195.7	161.2
Mean	8.87	9.02	8.96	6.73	24.4	9.16	233	139	21.0	8.65	6.31	5.37
Ac-ft	545	537	551	414	1,350	5,630	13,870	8,520	1,250	532	388	320

Calendar year 1956: Max 474 Min 6.0 Mean 52.4 Ac-ft 38,040
Water year 1956-57: Max 392 Min 4.4 Mean 46.8 Ac-ft 33,910

Peak discharge (base, 280 cfs).--Apr. 14 (8 to 11 p.m.) 434 cfs (4.60 ft); May 3 (4:30 a.m.) 288 cfs (3.77 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Shifting-control method used Feb. 26 to Mar. 10, Apr. 12-19.

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 1957 (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, 26.15 ft June 23; minimum observed, 11.65 ft Oct. 15.
1924, 1926-57: 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.--Twenty-three gage readings furnished by Lost Valley Reservoir Co.

Revisions.--WSP 833: Drainage area.

Daily gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	-	26.10	-	-
2								-	-	-	-	16.25
3								-	24.40	-	-	-
4								-	-	-	-	-
5								-	-	26.14	21.48	-
6								-	-	-	-	15.77
7								24.10	-	-	-	-
8				11.94				-	25.30	-	-	-
9								-	-	-	20.3	-
10								-	-	25.60	-	-
11								-	-	-	-	15.17
12								-	-	-	-	-
13								-	-	-	-	14.91
14								-	-	-	-	-
15	11.65							-	25.90	25.80	-	-
16								-	-	-	-	-
17								23.85	-	-	-	14.49
18								-	26.04	-	-	-
19								-	-	24.40	-	-
20					12.71			-	-	-	-	-
21						16.93		-	-	-	-	14.04
22								-	-	-	-	-
23								-	26.15	-	18.25	13.79
24								-	-	-	-	-
25								-	-	22.40	-	-
26								23.00	-	-	17.61	-
27								-	-	-	-	-
28							23.90	-	-	-	-	-
29					-			-	-	-	-	12.08
30								23.43	26.10	22.50	-	-
31			11.80					-		-	-	

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 November 1929 (fragmentary); March 1930 to September 1957.

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 datum.

Average discharge.--27 years(1930-57), 39.2 cfs (28,380 acre-ft per year).

Extremes.--Maximum discharge during year, 352 cfs May 4 (gage height, 3.06 ft); minimum daily, 0.1 cfs Nov. 8 to Dec. 30; minimum gage height recorded, 0.50 ft many days during November.

1910-14, 1920-21, 1924-57: 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 below 10 cfs, which are fair, and those for periods of no gage-height record, which are poor. No diversion between reservoir and station; practically entire flow diverted below station during irrigation season. Flow regulated since 1910 by Lost Valley Reservoir (see preceding page).

Cooperation.--Water-stage recorder inspected occasionally by employees of Lost Valley Reservoir Co.

Revisions.--WSP 833: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.6	0.1	1.1	3.2	2.0	63
.7	.2	1.2	5.4	2.3	112
.8	.4	1.3	8.5	2.6	190
.9	.8	1.5	18	2.9	300
1.0	1.6	1.7	32	3.2	420

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	36	0.1			7.6	8.2	236	1.8	7.9	61	62
2	42	38	.1			7.6	8.2	268	1.6	8.2	61	48
3	42	36	.1			7.6	8.2	320	1.8	8.5	61	36
4	41	35	.1			7.6	8.2	348	1.4	8.5	61	36
5	41	35	.1	6.0		7.6	8.5	332	1.4	27	61	36
6	41	34	.1			7.6	8.5	304	1.2	50	58	36
7	41	27	.1			7.9	8.9	*280	1.0	48	58	36
8	41	.1	.1	*6.3		7.9	8.9	272	.8	46	58	36
9	41	.1	.1			7.9	8.9	296	.7	46	58	36
10	41	.1	.1		7.0	7.9	8.9	320	.6	46	58	36
11	41	.1	.1			7.9	9.3	328	.6	46	58	36
12	41	.1	.1			7.9	9.3	336	1.0	45	57	36
13	41	.1	.1			7.9	9.7	340	2.3	45	57	36
14	41	.1	.1			7.9	10	340	5.2	45	57	36
15	41	.1	.1			7.9	21	312	7.0	52	56	36
16	40	.1	.1			7.9	49	280	8.2	63	56	36
17	39	.1	.1			7.6	71	246	9.3	63	56	36
18	38	.1	.1			7.9	90	232	10	63	56	36
19	38	.1	.1			7.9	106	246	12	*63	61	35
20	38	.1	.1	6.5	*7.3	7.9	116	256	12	63	66	35
21	38	.1	.1		7.3	*7.9	137	242	13	63	66	*35
22	38	.1	.1		7.3	7.9	155	222	14	63	66	35
23	38	.1	.1		7.3	7.9	172	204	14	63	*66	35
24	37	.1	.1		7.3	7.9	181	194	15	63	66	35
25	36	.1	.1		7.3	7.9	175	181	15	63	64	34
26	36	.1	.1		7.6	7.9	163	140	14	63	64	34
27	36	.1	.1		7.6	8.2	144	46	14	62	64	34
28	36	.1	.1		7.6	8.2	165	61	14	62	64	34
29	36	.1	.1		-	8.2	218	71	14	62	63	33
30	36	.1	.1		-------	8.2	218	*65	13	62	63	32
31	36	-------	3		-------	8.2	-------	1.9	-------	61	63	-------
Total	1,215	241.3	6.0	197.8	199.6	244.3	2,304.7	7,319.9	219.9	1,531.1	1,884	1.097
Mean	39.2	8.04	0.19	6.38	7.13	7.88	76.8	236	7.33	49.4	60.8	36.6
Ac-ft	2,410	479	12	392	396	485	4,570	14,520	436	3,040	3,740	2,180

Calendar year 1956: Max 388 Min 0.1 Mean 52.9 Ac-ft 38,420
Water year 1956-57: Max 348 Min 0.1 Mean 45.1 Ac-ft 32,660

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 2 to Jan. 7, Jan. 9 to Feb. 19; discharge estimated on basis of weather records, reported gate change at Lost Valley Reservoir, 1 discharge measurement, and records for nearby streams.

Weiser River near Cambridge, Idaho

Location.--Lat 44°35', long 116°38', in NE¼ sec. 1, T. 14 N., R. 3 W., on left bank 100 ft upstream from road bridge, 2¼ miles northeast of Cambridge, and 2½ miles upstream from Rush Creek.

Drainage area.--605 sq mi.

Records available.--March 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,660 ft (by barometer). Prior to Apr. 23, 1939, staff gage and Apr. 24, 1939, to Dec. 21, 1955, water-stage recorder at site 35 ft downstream from road bridge at different datum. Dec. 22, 1955, to Aug. 28, 1956, wire-weight gage at bridge 2½ miles downstream at different datum.

Average discharge.--18 years, 670 cfs (485,100 acre-ft per year).

Extremes.--Maximum discharge during year, 7,600 cfs Feb. 26 (gage height, 9.73 ft); minimum, 40 cfs July 30 (gage height, 1.51 ft).
1939-57: Maximum discharge, 10,100 cfs Dec. 22, 1955 (gage height, 13.9 ft, from floodmark, site and datum then in use); minimum, 23 cfs Oct. 1, 1943.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow partly regulated by Lost Valley Reservoir (see p. 183) and other reservoirs. Diversions above station for irrigation of about 9,200 acres.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting control method used Mar. 1-28)

Oct. 1 to Feb. 28				Mar. 1 to Sept. 30			
2.2	89	5.0	1,910	1.5	38	4.0	1,330
2.4	141	6.0	2,850	1.7	78	5.0	2,180
2.6	212	7.0	3,910	2.0	170	6.0	3,210
3.0	405	8.0	5,100	2.5	380	7.0	4,360
3.5	700	9.0	6,450	3.0	650		
4.0	1,060						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	422	113	b160	135	2,300	1,790	2,600	1,810	298	78	78
2	94	320	127	b150	135	1,740	1,510	2,810	1,890	272	78	78
3	94	291	135	144	135	1,350	*1,430	2,810	1,890	251	76	74
4	96	273	138	b140	133	1,190	1,310	*2,770	1,730	231	74	65
5	99	251	133	b150	135	1,550	1,460	2,720	1,660	211	74	60
6	94	242	133	b160	133	1,490	1,910	2,490	1,550	207	76	56
7	94	*255	119	178	127	2,000	1,630	2,490	1,330	223	83	56
8	94	234	b96	b180	124	2,360	1,510	2,650	1,510	200	81	54
9	94	204	b120	b170	133	2,440	1,500	3,230	1,390	185	81	52
10	103	201	141	b140	130	2,080	1,620	3,240	1,130	174	78	54
11	167	201	185	b150	127	1,710	1,660	3,290	1,030	163	78	56
12	225	201	350	b160	133	2,180	2,500	3,540	949	156	78	56
13	238	212	721	171	130	1,520	3,330	3,550	879	146	76	56
14	178	216	593	174	133	1,250	3,360	3,440	830	143	71	56
15	154	174	454	161	144	1,190	3,450	3,140	764	133	69	56
16	141	193	551	108	144	1,420	2,810	2,920	*686	139	67	56
17	138	225	449	b100	141	1,520	2,400	2,780	632	136	63	56
18	138	225	460	91	148	1,320	2,150	3,250	602	*136	63	56
19	164	161	*410	111	154	1,320	2,040	4,280	578	133	65	65
20	148	151	350	133	154	1,320	1,950	4,050	608	130	67	65
21	138	174	345	148	144	1,420	2,160	3,320	560	124	71	*65
22	133	164	b300	151	144	1,190	2,290	2,850	510	127	67	63
23	138	158	320	148	182	1,030	2,290	2,530	465	124	71	63
24	151	154	278	148	984	935	2,200	2,270	450	114	*71	60
25	148	148	b230	*133	2,810	984	1,930	2,100	420	111	71	60
26	204	141	b220	119	5,350	977	1,630	2,040	405	114	71	63
27	430	b136	b200	111	5,130	928	1,450	1,960	395	97	74	65
28	291	127	212	124	*3,150	921	1,430	*1,940	375	97	74	63
29	229	130	189	130	-	1,070	1,790	1,990	352	100	76	65
30	1,070	124	b180	130	-------	1,570	2,270	1,910	324	89	76	67
31	700	-------	b170	133	-------	2,040	-------	1,860	-------	83	78	-------
Total	6,279	6,108	8,422	4,406	20,622	46,315	60,760	86,820	27,704	4,847	2,276	1,839
Mean	203	204	272	142	736	1,494	2,025	2,801	923	156	73.4	61.3
Ac-ft	12,450	12,120	16,700	8,740	40,900	91,860	120,500	172,200	54,950	9,610	4,510	3,650

Calendar year 1956: Max 3,320 Min 60 Mean 721 Ac-ft 523,700
Water year 1956-57: Max 5,350 Min 52 Mean 757 Ac-ft 548,200

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

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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 1957.

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.--19 years, 39.1 cfs (28,310 acre-ft per year).

Extremes.--Maximum discharge during year, 510 cfs Feb. 26 (gage height, 4.17 ft, from graph based on gage readings); minimum observed, 1.5 cfs Aug. 22; minimum gage height, 1.10 ft Aug. 1, 2, 4, 22.

1938-57: Maximum discharge observed, that of Feb. 26, 1957, 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 doubtful gage-height record or ice effect, which are poor. Several diversions above station for irrigation.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 21-26, May 25-29)

1.1	1.2	2.0	52
1.2	2.7	2.5	122
1.3	5.2	3.0	205
1.5	12	3.5	306
1.7	24		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	14	11	11	11	114	72	113	188	20	2.0	2.4
2	3.2	12	11	11	11	91	66	*116	d200	20	1.8	2.4
3	3.7	12	11	10	11	82	65	107	d210	21	2.1	2.4
4	4.0	14	11	9.5	10	72	*65	107	d200	17	2.0	2.0
5	3.7	14	11	9.0	10	85	72	102	188	16	2.1	2.1
6	4.2	13	10	9.0	10	77	70	98	161	15	2.4	2.0
7	4.7	*14	9.5	9.5	10	102	69	112	135	15	3.0	1.8
8	4.7	14	9.0	9.5	11	130	65	114	133	15	3.2	2.0
9	5.9	13	8.0	9.0	12	130	65	138	112	14	3.0	2.2
10	8.5	14	10	9.0	12	114	66	143	100	14	3.0	2.2
11	12	14	12	9.0	11	98	66	d160	88	14	3.4	2.1
12	14	14	16	10	12	101	98	d180	74	12	3.4	2.2
13	11	14	14	10	12	85	119	d200	69	12	3.0	2.2
14	10	14	13	11	12	75	119	d200	66	12	3.0	2.0
15	9.3	15	13	10	12	75	113	d180	59	10	3.0	2.2
16	8.5	16	12	10	12	79	101	d170	54	10	3.0	2.6
17	8.5	15	13	9.0	12	79	96	173	*47	*8.9	2.7	2.6
18	8.5	16	13	8.5	12	79	89	217	47	8.5	2.7	2.7
19	8.5	15	*13	9.5	12	81	89	238	45	7.8	2.6	3.0
20	8.5	14	13	10	12	81	84	169	45	7.2	2.7	3.0
21	8.5	14	13	10	12	77	92	140	41	5.9	2.1	*2.7
22	8.2	12	13	9.5	14	74	85	124	37	4.4	1.6	2.7
23	9.3	12	14	9.5	21	70	84	107	37	4.2	2.0	2.7
24	9.3	12	14	9.0	42	69	82	104	35	3.7	*2.0	2.7
25	9.3	12	13	*9.0	*78	66	81	116	34	3.4	2.4	2.6
26	13	12	11	9.0	286	61	77	124	30	3.4	2.4	2.7
27	15	12	11	8.5	*185	61	74	135	29	2.6	2.2	2.6
28	14	12	11	8.0	151	60	74	d150	28	2.7	2.1	3.0
29	12	12	12	8.5	-	66	89	*161	27	2.6	2.4	3.0
30	30	11	11	9.0	-------	65	98	d170	23	2.2	2.4	3.4
31	16	-------	11	10	-------	86	-------	181	-------	2.2	2.4	-------
Total	289.0	402	367.5	293.5	1,016	2,585	2,485	4,549	2,542	306.7	78.1	74.2
Mean	9.32	13.4	11.9	9.47	36.3	83.4	82.8	147	84.7	9.89	2.52	2.47
Ac-ft	573	797	729	582	2,020	5,130	4,930	9,020	5,040	608	155	147

Calendar year 1956: Max 246 Min 1.8 Mean 45.7 Ac-ft 33,180
Water year 1956-57: Max 286 Min 1.6 Mean 41.1 Ac-ft 29,730

* Discharge measurement made on this day.
d Doubtful gage-height record; discharge estimated on basis of records for adjacent periods and records for Little Weiser River near Indian Valley and other nearby streams.
Note.--Stage-discharge relation affected by ice Dec. 6-11, Dec. 25 to Feb. 13.

Little Weiser River near Indian Valley, Idaho

Location.--Lat 44°30', long 116°24', in NE¼ sec. 1, T. 13 N., R. 1 W., on left bank 60 ft downstream from barn at Richardson Ranch, 1 mile upstream from diversion feeding into C. Ben Ross Reservoir, and 4¾ miles southeast of Indian Valley.

Drainage area.--81.9 sq mi.

Records available.--June 1920 to February 1921, March to June 1923, February 1924 to October 1927, April 1938 to September 1957.

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.--22 years (1924-27, 1938-57), 107 cfs (77,460 acre-ft per year).

Extremes.--Maximum discharge during year, 1,750 cfs May 14 (gage height, 5.59 ft), from rating curve extended above 650 cfs by logarithmic plotting; minimum, 2.9 cfs Dec. 8 (gage height, 0.09 ft); minimum gage height, -0.03 ft Sept. 18.
1920-21, 1923-27, 1938-57: Maximum discharge observed, about 1,840 cfs Feb. 4, 1925; minimum recorded, that of Dec. 8, 1956.

Remarks.--Records excellent except those above 600 cfs, which are good, and those for periods of ice effect, which are fair. One small diversion above station. Many diversions below station for irrigation including feeder canal to C. Ben Ross Reservoir.

Revisions (water years).--WSP 1347: 1923.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 24 to May 14)

Oct. 1 to May 18				May 19 to Sept. 30			
0.3	8.1	2.0	177	-0.1	6.0	1.5	113
.4	11	2.5	306	0.0	8.2	2.0	192
.6	18	3.0	460	.2	14	2.5	307
.8	27	3.5	625	.4	23	3.0	455
1.0	40	4.0	840	.7	41	4.0	840
1.3	64	4.5	1,100	1.0	63	5.0	1,410
1.6	101						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	49	16	23	18	210	220	402	626	116	27	12
2	11	40	20	22	17	173	191	434	678	108	26	11
3	10	39	22	14	16	145	177	412	698	102	25	10
4	10	36	22	14	16	128	*162	425	670	97	24	9.8
5	10	33	19	19	16	139	217	*402	674	89	22	9.5
6	10	44	20	22	17	135	259	396	614	83	25	9.0
7	10	*43	16	24	16	164	220	438	538	79	24	9.2
8	10	39	8.9	24	17	218	210	470	626	74	22	9.2
9	10	38	18	22	16	225	215	556	513	69	22	9.5
10	13	40	21	17	16	191	233	539	452	66	21	9.5
11	30	41	76	22	16	173	243	612	417	64	22	9.2
12	31	41	93	22	16	235	303	653	398	60	22	9.2
13	22	48	112	22	16	173	298	724	345	57	19	9.0
14	17	39	83	22	18	143	350	945	302	55	18	8.7
15	15	30	72	19	19	137	329	925	274	52	18	8.2
16	15	37	79	11	20	141	292	775	239	51	17	7.8
17	15	44	64	11	20	153	278	728	230	49	17	7.8
18	17	39	62	12	22	149	270	880	*227	*47	15	11
19	28	19	*56	14	22	153	267	1,120	227	44	13	11
20	18	32	49	18	22	151	254	860	241	41	13	9.5
21	16	30	49	20	20	155	300	674	206	39	12	*8.7
22	16	28	28	20	22	131	300	586	187	37	12	8.2
23	18	26	46	19	163	115	289	530	174	37	*11	8.0
24	18	26	41	18	506	109	267	530	172	35	11	7.8
25	19	24	31	*18	441	119	233	484	160	34	11	8.0
26	40	24	24	16	798	114	202	507	152	33	11	9.0
27	97	21	21	14	454	107	195	520	146	32	11	8.7
28	48	21	32	12	*281	104	228	552	138	31	11	8.5
29	39	20	28	12	-	156	295	*580	130	30	11	8.7
30	102	18	26	14	------	218	356	583	122	30	12	8.5
31	75	------	24	16	------	262	------	622	------	28	11	------
Total	800	1,009	1,278.9	553	3,041	4,926	7,653	18,864	10,576	1,769	536	274.2
Mean	25.8	33.6	41.3	17.8	109	159	255	609	353	57.1	17.3	9.14
Cfsm	0.315	0.410	0.504	0.217	1.33	1.94	3.11	7.44	4.31	0.697	0.211	0.112
In.	0.36	0.46	0.58	0.25	1.38	2.24	3.48	8.57	4.80	0.80	0.24	0.12
Ac-ft	1,590	2,000	2,540	1,100	6,030	9,770	15,180	37,420	20,980	3,510	1,060	544

Calendar year 1956: Max 740 Min 8.9 Mean 121 Cfsm 1.48 In. 20.18 Ac-ft 88,150
Water year 1956-57: Max 1,120 Min 7.8 Mean 140 Cfsm 1.71 In. 23.28 Ac-ft 101,700

Peak discharge (base, 400 cfs).--Feb. 26 (1:30 p.m.) 1,480 cfs (5.23 ft); May 14 (6 p.m.) 1,750 cfs (5.59 ft); May 19 (12:30 a.m.) 1,420 cfs (5.03 ft); June 8 (6:30 p.m.) 860 cfs (4.04 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 31 to Jan. 2, Jan. 18 to Feb. 4.

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 1957 (fragmentary).

Gage.--Staff gage. Altitude of gage is 3,190 ft (by barometer).

Extremes.--Maximum gage height observed during year, 54.2 ft Mar. 1; minimum observed, 26.7 ft Sept. 30.

1923-57: Maximum gage height observed, 56.3 ft Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, Sept. 25 to Dec. 1, 1929, Oct. 22 to Dec. 3, 1952.

Remarks.--Reservoir is formed by earth dam completed in 1910 and raised in 1920-21. Spillway crest is at gage height 54.9 ft, and bottom of outlet tunnel is at gage height 6.56 ft. Approximate contents is 51,700 acre-ft between gage height 8.0 and 55.0 ft, based on capacity table computed by the Geological Survey in 1927 and extended above 43.0 ft by the Idaho Department of Reclamation in 1935. No usable contents below gage height 7.0 ft. Crane Creek Reservoir Administration Board reports no flow over spillway during the year.

Cooperation.--Gage readings furnished by Crane Creek Reservoir Administration Board.

Revisions.--WSP 833: Drainage area.

Gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33.1	-	-	-	-	54.2	49.4	48.0	-	47.0	-	-
2	-	36.9	-	-	-	53.8	-	48.02	47.6	-	42.3	-
3	-	-	-	-	-	-	49.15	-	47.6	-	-	33.4
4	-	-	-	-	42.1	-	49.0	-	-	-	41.8	-
5	-	-	-	-	-	-	-	-	-	46.8	-	-
6	-	37.25	-	-	-	-	-	48.3	47.5	-	-	-
7	-	-	-	-	-	-	-	-	47.5	-	-	32.4
8	32.5	-	-	-	-	53.2	48.5	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	40.5	-
10	32.5	-	-	-	-	-	-	-	-	-	-	31.05
11	-	-	-	-	-	-	-	-	-	46.4	-	-
12	-	-	38.8	-	42.0	-	-	49.1	-	-	39.6	-
13	-	-	-	-	-	53.4	-	49.4	-	46.2	-	30.2
14	-	-	-	-	-	-	-	-	47.6	-	-	-
15	-	-	-	41.9	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	47.5	49.7	47.35	45.55	38.4	29.0
17	-	-	-	-	-	52.6	-	49.6	-	-	-	28.7
18	-	-	-	-	-	-	-	-	-	-	37.8	-
19	-	-	41.00	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	47.3	45.0	37.2	-
21	-	37.7	-	-	-	-	-	49.0	-	44.6	-	28.2
22	-	-	-	-	-	50.4	-	-	-	-	-	28.13
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	44.2	-	-	47.3	-	-	-	27.8
25	-	-	-	-	48.6	-	-	-	-	-	-	-
26	-	-	-	42.05	51.3	48.3	-	-	-	-	35.5	-
27	-	37.8	-	-	53.47	47.8	-	-	47.2	-	35.21	-
28	-	-	-	-	54.0	-	-	47.51	-	43.4	-	-
29	-	-	41.6	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-------	-	-	-	-	-	34.3	26.7
31	-	-------	-	-	-------	-	-------	-	-------	-	-	-------

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 1957.

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.--36 years (1912-15, 1924-57), 75.3 cfs (54,510 acre-ft per year).

Extremes.--Maximum discharge during year, 973 cfs Mar. 2 (gage height, 5.09 ft); no flow for long periods.
1910-16, 1924-57: 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. Flow regulated since 1911 by Crane Creek Reservoir (see preceding page). No large diversion above station.

Cooperation.--Water-stage recorder inspected by Crane Creek Reservoir Administration Board.

Revisions (water years).--WSP 833: Drainage area. WSP 963: 1941(M). WSP 1347: 1925, 1927.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.56	0	1.9	12	3.5	193
1.6	.4	2.0	18	4.0	345
1.7	3.3	2.5	59	4.5	600
1.8	7.3	3.0	114	5.1	980

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	0.1			0	959	264	7.8	11	21	191	124
2	48	.1			0	959	415	*7.3	12	21	191	124
3	48	.1			0	959	*415	6.5	15	21	228	139
4	48	.1			3.5	959	410	6.5	17	22	228	146
5	47	.1			9.5	959	410	6.5	17	32	225	146
6	47	*.1			9.5	959	363	6.9	17	79	243	146
7	47	0			9.5	959	174	9.5	19	79	249	148
8	23	0			9.5	952	390	8.6	22	79	249	150
9	.1	0			9.5	959	294	7.8	22	79	246	150
10	.1	0			9.5	959	294	6.9	20	79	246	150
11	.1	0			9.5	959	294	6.9	20	86	243	150
12	.1	0			9.5	959	291	286	20	102	243	150
13	.1	0			9.5	959	291	690	20	130	240	139
14	.1	0			9.5	959	294	852	20	151	240	130
15	0	0			9.5	952	294	845	20	150	240	127
16	0	0			9.5	952	104	838	*20	*146	240	120
17	0	0			9.5	952	.6	653	21	146	238	114
18	0	0			9.5	945	.4	884	20	145	211	113
19	0	0	(*)		9.5	938	.4	884	20	145	189	113
20	0	0			9.5	945	.4	884	19	144	197	112
21	0	0			9.5	945	.4	884	19	163	204	106
22	0	0			9.5	924	.4	878	19	197	204	*100
23	0	0			9.5	890	.4	871	19	195	204	100
24	0	0			275	890	.4	568	19	193	202	86
25	0	0			738	884	.4	12	19	193	202	66
26	0	0		(*)	931	858	.4	13	19	193	200	65
27	.1	0			*959	635	.4	.12	20	193	*197	64
28	.1	0			966	16	.4	*11	20	193	197	63
29	.1	0			-	14	.4	11	20	191	195	63
30	.2	0			-------	14	4.8	11	20	189	164	62
31	.1	-------			-------	13	-------	11	-------	191	126	-------
Total	357.2	0.6	0	0	4,053.0	25,186	5,007.2	10,179.2	566	3,948	6,672	3,466
Mean	11.5	0.02	0	0	145	812	167	328	18.9	127	215	116
Ac-ft	708	1.2	0	0	8,040	49,960	9,930	20,190	1,120	7,830	13,230	6,870

Calendar year 1956: Max 648 Min 0 Mean 90.1 Ac-ft 65,370
Water year 1956-57: Max 966 Min 0 Mean 163 Ac-ft 117,900

* Discharge measurement or observation of no flow made on this day.
Note.--Stage-discharge relation affected by ice Dec. 12 to Feb. 4. No gage-height record Nov. 21 to Dec. 11, Dec. 13, 20-28, Dec. 30 to Jan. 14, Jan. 16 to Feb. 3, Feb. 4-11, 13-17; discharge estimated on basis of trend of flow, 1 observation of no flow, and record of gate change.

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 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,240 ft (by barometer).

Average discharge.--36 years (1921-57), 83.8 cfs (60,670 acre-ft per year).

Extremes.--Maximum discharge during year, 3,170 cfs Feb. 26 (gage height, 6.23 ft); minimum, 0.7 cfs Apr. 26 (gage height, 1.52 ft); minimum daily, 1.2 cfs Apr. 30.
1920-57: Maximum discharge, that of Feb. 26, 1957; no flow for part of May 1, 1956; minimum daily, 0.2 cfs May 3, 1956; minimum gage height, 1.30 ft Jan. 21, 1922.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Crane Creek Reservoir (see p. 188). Several small ditches divert above station for irrigation.

Revisions.--WSP 833: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	0.5	2.1	19	4.0	505
1.6	1.6	2.4	40	4.5	930
1.7	3.5	2.7	73	5.0	1,470
1.8	6.2	3.0	128	5.5	2,090
1.9	9.6	3.5	272		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	15	5.6	5.5	4.5	1,020	198	2.5	7.1	12	160	113
2	49	11	5.5	5.0	5.0	1,000	*410	5.1	7.1	12	165	111
3	49	9.2	5.5	4.5	5.5	1,030	420	7.1	7.8	12	198	122
4	49	8.5	5.5	4.5	6.0	1,040	420	11	8.1	17	204	133
5	48	*8.1	5.5	4.5	10	1,200	420	9.2	8.8	13	204	133
6	46	8.1	5.5	4.5	14	1,060	415	9.2	9.6	53	216	133
7	45	7.8	5.5	4.5	14	1,150	150	*9.2	10	66	222	133
8	41	7.5	5.0	*4.8	15	1,080	410	11	11	66	222	138
9	11	7.5	6.5	4.8	15	1,010	317	10	11	68	226	133
10	6.5	7.5	6.5	4.0	14	970	309	11	12	68	222	138
11	9.2	6.8	47	4.0	14	980	309	12	11	68	222	138
12	12	6.8	52	4.5	14	1,430	313	162	12	86	216	138
13	9.2	6.8	33	4.8	14	1,030	309	603	13	96	219	130
14	7.5	6.8	21	5.0	16	1,000	313	794	15	124	219	115
15	6.8	6.8	14	4.8	16	1,010	309	840	*14	*130	219	113
16	6.2	6.5	14	4.0	17	1,020	192	830	12	133	219	111
17	6.5	6.5	18	3.5	18	1,020	15	657	15	130	216	105
18	6.8	6.5	15	3.5	16	1,000	11	890	17	128	192	105
19	7.1	6.2	14	3.7	15	1,000	10	1,080	16	128	165	105
20	6.8	6.2	11	4.0	16	1,000	9.2	920	16	126	168	105
21	6.5	6.2	9.2	4.3	15	990	10	890	15	128	173	103
22	6.2	5.9	7.8	4.5	15	970	12	890	15	165	173	94
23	6.5	5.6	7.8	4.5	48	940	10	890	13	165	178	*91
24	6.8	5.6	7.5	4.5	808	920	7.8	697	8.1	168	181	87
25	8.1	5.6	7.1	4.3	1,320	910	6.5	28	12	165	184	64
26	18	5.6	6.5	4.0	*1,900	880	5.1	18	11	168	*181	63
27	119	*5.6	6.0	4.0	1,360	749	5.6	*15	12	168	184	63
28	24	5.6	5.5	4.0	1,110	63	5.3	12	11	173	184	58
29	11	5.6	6.0	4.0	-	34	4.2	11	9.6	173	181	58
30	184	5.6	6.0	4.0	------	55	*1.2	12	10	170	162	58
31	39	------	5.5	4.0	------	133	------	11	------	168	118	------
Total	900.7	213.0	370.5	134.5	6,835.0	27,694	5,326.9	10,347.3	350.2	3,347	5,993	3,191
Mean	29.1	7.10	12.0	4.34	244	893	178	334	11.7	108	193	106
Ac-ft	1,790	422	735	267	13,560	54,930	10,570	20,520	695	6,640	11,890	6,330

Calendar year 1956: Max 1,150 Min 0.2 Mean 102 Ac-ft 74,230
Water year 1956-57: Max 1,900 Min 1.2 Mean 177 Ac-ft 128,300

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 2-8, Dec. 26 to Feb. 13.

Weiser River near Weiser, Idaho

Location.--Lat 44°16'50", long 116°47'00", in NW¼ sec. 23, T. 11 N., R. 4 W., on right bank 0.4 mile upstream from county road bridge, 1¾ miles downstream from Crane Creek, and 9½ miles northeast of Weiser.

Drainage area.--1,460 sq mi, approximately.

Records available.--March 1890 to June 1891, December 1894 to October 1896, April to September 1897, March 1898 to November 1899, March 1900 to December 1904, October 1910 to December 1914, October 1952 to September 1957. Published as "at Weiser" prior to 1900.

Gage.--Water-stage recorder. Altitude of gage is 2,220 ft (by barometer). Prior to October 1952, staff gages at several sites downstream within 2½ miles of present site at various datums.

Average discharge.--14 years (1895-96, 1898-99, 1900-1904, 1911-14, 1952-57), 1,240 cfs (897,700 acre-ft per year).

Extremes.--Maximum discharge during year, 19,000 cfs Feb. 27 (gage height, 10.81 ft); minimum, 118 cfs Oct. 9, 10 (gage height, 1.66 ft).

1890-91, 1894-1904, 1910-14, 1952-57: Maximum discharge observed, 19,900 cfs Dec. 23, 1955 (gage height, 11.06 ft); minimum observed, 14 cfs Aug. 7, 1911 (gage height, 2.80 ft, site and datum then in use).

Flood of Mar. 19, 1932, reached a discharge of about 17,500 cfs.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow partly regulated by Crane Creek Reservoir (see p. 188), Lost Valley Reservoir (see p. 183), and other small reservoirs. Diversions above station for irrigation of about 22,000 acres.

Revisions (water years).--WSP 1347: 1895-1905, 1953(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	108	3.5	1,060	7.0	6,940
2.0	220	4.0	1,550	8.0	9,700
2.5	420	5.0	2,910	10.0	16,100
3.0	690	6.0	4,730		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	818	210	250	220	*6,140	3,400	3,160	3,050	450	247	207
2	174	608	215	240	220	4,970	*2,860	3,490	3,160	415	251	207
3	176	500	235	230	220	4,040	2,610	3,510	3,300	374	276	220
4	179	465	440	220	220	3,890	2,400	3,470	3,100	340	291	234
5	171	*430	230	230	220	5,240	2,330	3,580	2,930	311	287	223
6	168	406	230	250	220	5,060	3,220	3,250	2,830	327	299	214
7	165	425	210	270	210	6,700	2,560	3,180	2,380	331	311	204
8	162	406	170	*290	200	6,940	2,560	3,420	2,470	323	323	210
9	127	370	210	270	220	6,480	2,370	3,910	2,620	299	323	198
10	132	348	280	220	210	5,600	2,460	4,230	2,030	280	323	198
11	208	344	370	240	210	4,590	2,590	4,260	1,830	261	327	204
12	327	348	980	250	220	7,060	3,350	4,850	1,660	269	323	210
13	370	344	1,310	270	210	4,810	4,830	5,580	1,570	265	327	204
14	299	374	1,200	280	220	3,870	4,590	5,710	1,420	295	319	191
15	261	344	848	260	230	3,640	4,970	5,690	*1,320	*303	311	188
16	240	311	988	180	230	3,820	4,090	5,390	1,150	323	307	185
17	230	348	916	160	230	4,420	3,350	4,910	1,000	272	291	179
18	227	415	811	150	240	3,730	3,000	5,310	932	272	272	179
19	237	352	804	180	260	3,460	2,770	7,940	908	272	244	179
20	254	276	642	210	260	3,350	2,640	7,320	956	261	240	191
21	230	295	602	230	240	3,470	2,810	5,960	908	261	247	194
22	214	299	475	240	240	3,150	3,110	5,160	825	303	254	185
23	214	284	455	230	450	2,770	2,980	4,690	755	319	265	*185
24	227	272	480	230	2,600	2,560	2,880	4,190	710	307	261	182
25	244	255	390	210	7,220	2,530	2,590	3,200	672	291	269	154
26	319	245	310	190	12,900	2,540	2,230	3,100	624	295	*272	146
27	876	*230	320	180	14,900	2,260	1,960	3,080	608	295	272	146
28	787	215	320	190	8,380	1,520	1,860	*3,030	564	287	276	143
29	470	230	300	210	-	1,520	2,130	3,160	531	284	276	146
30	1,700	215	280	210	-------	2,500	*2,720	3,060	490	272	256	140
31	1,540	-------	270	215	-------	3,400	-------	3,080	-------	265	210	-------
Total	11,113	10,772	15,301	6,985	51,400	126,030	88,220	133,870	47,303	9,422	8,752	5,646
Mean	358	359	494	225	1,836	4,065	2,941	4,318	1,577	304	282	188
Ac-ft	22,040	21,370	30,350	13,850	102,000	250,000	175,000	265,500	93,820	18,690	17,360	11,200

Calendar year 1956: Max 7,120 Min 127 Mean 1,186 Ac-ft 861,100
Water year 1956-57: Max 14,900 Min 127 Mean 1,410 Ac-ft 1,021,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 25 to Dec. 5, Dec. 7-12, Dec. 24 to Feb. 24.

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 1957 (winter records fragmentary prior to 1950).

Gage.--Water-stage recorder. Altitude of gage is 2,160 ft (by barometer).

Extremes.--1920-57: Maximum daily discharge, 223 cfs June 24, 1957; no flow at times when gates were closed.

Remarks.--Records excellent except those below about 20 cfs, which are good, and those for periods of 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	124	0.9	0.4	0.3	0.2	1.0	0.4	154	195	217	197	178
2	124	.9	.4	.3	.2	1.0	*.4	157	196	217	197	174
3	124	.9	.4	.2	.2	1.0	.4	156	199	216	200	178
4	120	.9	.4	.2	.2	.9	.4	157	201	216	198	176
5	114	*.9	.4	.2	.2	.9	.4	156	204	216	205	177
6	110	.9	.4	.2	.2	.9	.4	160	208	182	206	177
7	107	.9	.4	*.2	.2	.9	.4	166	208	19	206	173
8	110	.8	.4	.2	.2	.8	.3	168	208	128	207	172
9	102	.8	.3	.2	.2	.8	.3	172	210	171	206	174
10	92	.8	.3	.2	.2	.8	.3	178	208	191	206	172
11	65	.8	.5	.2	.2	.8	.3	184	212	196	204	175
12	2.7	.7	1.0	.2	.2	.7	.3	185	212	196	206	169
13	2.1	.7	1.0	.2	.2	1.3	.3	186	213	193	206	159
14	1.7	.7	.9	.2	.2	1.2	.3	187	211	200	205	157
15	1.7	.7	.8	.2	.2	1.0	.3	185	*212	*200	204	156
16	1.5	.7	.7	.2	.2	1.0	.3	184	212	201	207	156
17	1.3	.6	.7	.2	.2	.9	.3	185	212	204	206	155
18	1.1	.6	.6	.2	.2	.8	55	187	216	208	205	155
19	1.1	.6	*.5	.2	.2	.7	100	188	217	213	191	153
20	1.0	.6	.5	.2	.2	.6	101	184	221	209	184	151
21	1.0	.6	.5	.2	.2	.6	101	181	222	203	194	149
22	.9	.6	.5	.2	.6	.6	104	179	220	208	196	*148
23	.9	.5	.5	.2	.8	.5	110	178	222	205	199	149
24	.8	.5	.4	.2	.9	.5	119	184	223	204	197	138
25	.8	.5	.4	.2	1.0	.5	132	184	221	206	198	75
26	.7	.5	.4	.2	*6.0	.5	132	186	221	208	198	133
27	.8	.5	.4	.2	2.4	.5	135	187	220	209	*197	130
28	.9	.5	.4	.2	1.1	.5	134	*189	220	208	195	128
29	1.0	.5	.3	.2	-	.4	137	192	218	204	192	129
30	1.0	.4	.3	.2	-------	.4	*148	196	218	204	189	124
31	1.0	-------	.3	.2	-------	.4	-------	196	-------	204	174	-------
Total	1,216.0	20.5	15.4	6.4	17.0	23.4	1,513.8	5,531	6,380	6,056	6,175	4,640
Mean	39.2	0.68	0.50	0.21	0.61	0.75	50.5	178	213	195	199	155
Ac-ft	2,410	41	31	13	34	46	3,000	10,970	12,650	12,010	12,250	9,200

Calendar year 1956: Max 220 Min 0 Mean 94.8 Ac-ft 68,790
Water year 1956-57: Max 223 Min 0.2 Mean 86.6 Ac-ft 62,660

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 19 to Nov. 4, Nov. 6 to Jan. 6, Jan. 8 to Feb. 25, Mar. 1-12, Mar. 15 to Apr. 1, Apr. 3-17; discharge estimated on basis of weather records, trend of flow, and records for Weiser River near Weiser.

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 1957.

Gage.--Staff gage read twice daily. Crest-stage indicator since July 16, 1957. Altitude of gage is 2,830 ft (from topographic map). Prior to Feb. 9, 1951, staff gages at sites within 1,000 ft upstream at different datums.

Average discharge.--22 years (1911-13, 1937-57), 41.2 cfs (29,830 acre-ft per year).

Extremes.--Maximum discharge observed during year, 602 cfs Feb. 26 (gage height, 3.40 ft, from floodmarks); minimum observed, 1.1 cfs Aug. 24, 25, 26, 27, Sept. 8 (gage height, 0.52 ft).

1911-13, 1920, 1937-57: 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 25				Feb. 26 to Sept. 30			
1.0	1.5	1.4	36	0.5	0.9	1.4	53
1.1	5.0	1.6	74	.6	2.5	1.7	93
1.2	12	1.8	123	.7	4.8	2.0	152
1.3	23			.8	8.2	2.5	287
				.9	13	3.0	455
				1.1	26		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	9.7	6.5	9.0	7.5	130	124	*168	64	14	3.9	2.1
2	2.5	8.1	5.0	9.5	7.5	112	110	166	60	14	3.7	2.1
3	2.5	6.8	5.6	9.0	7.5	92	*103	159	57	14	3.5	2.1
4	2.5	8.1	6.5	8.5	8.1	72	96	185	52	14	3.3	2.1
5	2.5	12	6.5	8.5	8.9	87	120	180	49	14	3.5	1.7
6	2.5	*12	6.5	8.5	8.0	75	108	143	45	14	3.7	1.7
7	2.5	16	6.0	9.0	7.0	110	103	139	44	14	3.7	1.4
8	2.5	12	5.0	9.0	7.5	161	107	145	43	13	3.5	1.3
9	2.5	12	6.5	8.5	8.0	132	118	143	43	12	3.3	2.1
10	3.6	12	10	8.5	8.5	126	134	143	41	12	3.1	2.1
11	8.9	12	16	8.5	8.0	86	150	125	32	12	3.1	2.1
12	12	12	26	9.0	7.5	107	203	161	26	12	2.9	2.1
13	8.9	12	20	9.0	6.8	80	203	173	31	12	2.7	1.9
14	5.6	12	18	9.5	6.8	73	195	141	31	10	2.5	2.1
15	4.5	8.9	15	9.0	6.8	73	170	134	*29	8.2	2.5	2.1
16	4.0	8.9	15	8.5	6.2	73	170	126	28	*8.6	2.1	1.9
17	4.5	9.7	14	8.0	6.6	69	152	110	26	8.2	2.1	2.1
18	4.0	9.7	14	7.5	6.8	73	145	132	26	7.4	1.7	2.5
19	4.0	8.1	*14	8.5	6.8	80	148	236	26	7.4	1.7	2.3
20	4.0	8.1	14	8.5	6.8	82	148	195	22	7.4	1.7	2.5
21	4.0	8.1	14	8.0	6.8	81	157	173	22	6.6	1.7	3.7
22	4.0	6.8	13	8.5	6.8	75	161	157	20	6.6	1.4	*2.5
23	4.0	8.9	12	8.0	6.8	65	157	148	20	6.6	1.4	2.7
24	5.0	8.0	11	8.0	84	68	148	114	20	6.6	1.3	3.3
25	6.2	7.5	11	8.0	*118	68	141	107	18	6.0	1.1	3.1
26	8.9	7.5	10	*8.0	*390	68	124	95	17	4.8	1.3	3.3
27	14	7.5	9.5	7.5	239	74	116	98	17	4.8	*1.4	3.1
28	8.1	7.0	9.5	6.5	*152	73	118	*92	17	4.2	1.7	2.5
29	8.9	6.5	9.0	7.0	-	96	134	84	16	3.9	2.1	2.1
30	31	7.0	8.5	7.5	-------	130	139	77	16	3.7	2.1	2.1
31	16	-------	9.0	7.5	-------	157	-------	74	-------	3.7	2.1	-------
Total	196.6	284.9	346.6	258.5	1,151.0	2,848	4,202	4,324	958	285.7	75.8	68.7
Mean	6.34	9.50	11.2	8.34	41.1	91.9	140	139	31.9	9.22	2.45	2.29
Ac-ft	390	565	687	513	2,280	5,650	8,330	8,580	1,900	567	150	136

Calendar year 1956: Max 373 Min 1.0 Mean 42.4 Ac-ft 30,760
Water year 1956-57: Max 390 Min 1.1 Mean 41.1 Ac-ft 29,750

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice Nov. 24 to Dec. 1, Dec. 4-10, Dec. 22 to Feb. 3, Feb. 6-12, 17, 21.

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 1957. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,086.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1914, staff gage half a mile downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, staff gage at present site and datum.

Extremes.--Maximum discharge during year, 66,400 cfs May 24 (gage height, 12.61 ft); minimum, 10,000 cfs July 15 (gage height, 3.11 ft).

1910-57: 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. Dirunal fluctuation caused by Swan Falls powerplant. Diversions for irrigation of about 2,456,000 acres above station (1946 determination).

Revisions (water years).--WSP 1317: 1918.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 24 to Mar. 5, Sept. 19-30)

3.0	9,700	7.0	28,500
4.0	13,600	8.0	34,500
5.0	17,900	10.0	47,400
6.0	22,900	12.6	65,900

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,600	17,900	15,800	13,100	14,100	36,500	30,500	*32,400	43,300	13,200	11,200	12,700
2	15,100	17,300	15,200	15,600	11,700	33,700	*30,100	29,900	42,800	12,300	10,900	13,100
3	14,800	15,000	15,200	13,200	16,800	31,000	34,300	28,800	42,000	12,100	11,000	12,900
4	14,800	17,200	13,700	14,900	13,600	30,800	33,600	31,400	40,400	12,000	11,700	13,600
5	15,400	16,800	14,100	15,100	11,900	31,700	34,000	33,500	39,700	12,000	12,100	12,700
6	15,100	*16,200	14,600	14,800	14,300	30,400	35,000	33,100	41,000	10,800	11,100	13,200
7	16,600	16,600	15,200	13,700	15,600	33,400	35,000	32,900	37,800	10,900	11,000	13,400
8	17,000	18,000	15,600	*14,000	14,800	37,600	30,900	34,500	35,800	11,100	10,800	13,200
9	17,100	17,600	16,200	14,800	14,600	39,000	29,300	36,300	37,300	10,800	11,600	12,800
10	16,300	17,200	14,900	15,400	14,500	40,000	28,100	38,600	35,000	10,300	11,700	12,500
11	15,800	17,100	14,400	15,600	13,900	38,600	28,100	38,100	33,100	11,000	11,800	14,300
12	16,000	15,400	16,700	15,400	11,000	40,800	31,200	41,600	31,100	11,000	11,900	13,400
13	17,100	15,400	16,300	14,800	13,100	40,800	36,200	43,400	29,800	10,700	10,900	13,400
14	18,500	16,800	16,000	13,500	14,900	37,100	37,100	47,500	*28,300	10,600	12,100	13,400
15	19,300	16,800	16,100	11,100	14,700	33,700	38,500	54,200	27,000	10,200	11,000	14,600
16	18,900	16,600	16,400	13,800	13,100	32,200	35,600	54,300	25,300	*10,500	10,900	13,800
17	18,200	15,800	16,500	15,600	13,700	33,300	35,900	56,000	23,800	10,800	11,100	14,200
18	18,000	14,000	16,500	14,400	15,200	28,500	35,500	55,600	22,200	10,800	11,600	13,800
19	16,800	12,400	16,000	15,400	14,400	22,500	34,600	60,000	19,400	10,600	12,300	13,000
20	16,100	12,800	15,300	16,000	15,800	26,000	33,500	62,600	18,900	11,300	11,900	14,400
21	16,400	14,500	16,000	15,800	14,800	26,500	34,300	62,200	18,100	11,000	11,600	14,500
22	16,300	15,100	16,000	13,700	15,500	25,300	34,100	65,100	16,300	11,500	12,100	14,800
23	14,900	15,000	18,000	16,100	14,800	22,900	32,600	64,100	16,000	11,500	11,300	*14,700
24	15,000	13,600	16,200	13,900	29,000	22,200	34,400	65,600	14,000	11,300	10,900	14,600
25	17,000	14,800	13,000	13,900	56,100	22,800	35,800	62,700	13,200	11,400	11,900	14,800
26	18,400	14,600	12,900	12,300	55,700	23,800	33,200	59,900	13,600	10,900	*10,800	14,600
27	19,800	*14,400	12,400	12,200	*58,600	26,800	33,400	*56,700	14,000	11,700	11,400	15,200
28	19,200	15,100	14,300	12,900	45,500	27,100	31,400	54,500	14,800	11,100	12,200	14,600
29	16,500	15,600	16,600	11,200	-	28,000	32,300	52,900	13,700	11,500	11,800	14,300
30	17,400	15,600	16,800	14,900	-------	27,800	32,400	50,700	12,700	11,300	13,100	14,200
31	19,900	-------	15,600	15,600	-------	29,600	-------	43,900	-------	11,200	12,900	-------
Total	522,300	471,200	478,500	442,700	571,700	960,400	‡1,000.9	‡1,483	800,400	347,400	358,600	414,700
Mean	16,850	15,710	15,440	14,280	20,420	30,980	33,360	47,840	26,680	11,210	11,570	13,820
Ac-ft	‡1,036	934,600	949,100	878,100	‡1,134	‡1,905	‡1,985	‡2,941	‡1,588	689,100	711,300	822,500

Calendar year 1956: Max 55,400 Min 10,300 Mean 21,840 Ac-ft 15,850,000
Water year 1956-57: Max 65,600 Min 10,200 Mean 21,510 Ac-ft 15,570,000

* 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 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 1957.

Gage.--Staff gage above elevation 3,803.3 ft, reference marks for lower readings; gage read once daily. Datum of gage is at mean sea level, Bureau of Reclamation bench mark (to convert elevations to datum of 1929, add 0.12 ft). Prior to Nov. 4, 1941, reference mark or mercury pressure gage at same site and datum.

Extremes.--Maximum contents observed during year, 25,220 acre-ft Apr. 9-14, May 3-7 (elevation, 3,820.0 ft); minimum observed, 1,160 acre-ft Sept. 30 (elevation, 3,782.4 ft). 1938-57: Maximum contents observed, 25,770 acre-ft Apr. 13, 1942 (elevation, 3,820.6 ft); no contents Sept. 5 to Oct. 4, 1955.

Remarks.--Reservoir is formed by earth-fill dam with concrete spillway and outlet works, completed by Bureau of Reclamation in 1937; storage began Feb. 19, 1938. Capacity, 25,220 acre-ft between elevations 3,776.5 (bottom of outlet gates) and 3,820.0 ft (top of radial gates on spillway when closed). Dead storage, 600 acre-ft below elevation 3,776.5 ft. Records given herein represent usable contents. Water used for irrigation in the Burnt River Irrigation District near Hereford and Bridgeport. Contents computed from capacity table based on surveys by Bureau of Reclamation.

Month-end elevation and usable contents, water year October 1956 to September 1957

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,789.2	3,650	-
Oct. 31	3,783.95	1,600	-2,050
Nov. 30	3,786.4	2,480	+880
Dec. 31	3,794.0	6,060	+3,580
Calendar year 1956	-	-	-5,640
Jan. 31	3,799.4	9,220	+3,160
Feb. 28	3,808.3	15,370	+6,150
Mar. 31	3,816.15	21,780	+6,410
Apr. 30	3,819.1	24,400	+2,620
May 31	3,818.4	23,770	-630
June 30	3,811.5	17,860	-5,910
July 31	3,801.9	10,840	-7,020
Aug. 31	3,791.7	4,850	-5,990
Sept.30	3,782.4	1,160	-3,690
Water year 1956-57	-	-	-2,490

Note.--Gage read between 4 and 7:30 p.m.

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 miles upstream from Van Cleve ditch, 0.7 mile downstream from South Fork, and 7 miles west of Hereford.

Drainage area.--309 sq mi.

Records available.--March to September 1915, April to September 1916, October 1928 to September 1957. 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 at different datum. June 29, 1932, to Sept. 16, 1937, water-stage recorder at site 300 ft upstream at different datum. Sept. 17, 1937, to Sept. 30, 1943, water-stage recorder at present site at datum 3.29 ft higher.

Average discharge.--29 years (1928-57), 81.4 cfs (58,930 acre-ft per year).

Extremes.--Maximum discharge during year, 795 cfs Apr. 14 (gage height, 4.83 ft); minimum, 6.0 cfs for many days in January and February.

1915-16, 1928-57: Maximum discharge, 2,220 cfs Apr. 17, 1943 (gage height, 7.35 ft, present datum), from rating curve extended above 1,300 cfs by logarithmic plotting; maximum gage height, 7.85 ft Apr. 16, 1943, present datum, just before concrete control washed out; no flow at times; minimum discharge before construction of Unity Reservoir Dam, 1.6 cfs Aug. 31, 1935.

Remarks.--Records good except those for periods of shifting control, which are fair. Diversions for irrigation of 8,700 acres above station. Eldorado ditch diverts as much as 34 cfs from several tributaries above station for irrigation in Willow Creek basin. A transmountain diversion from headwaters of John Day River delivers 12 cfs to North Fork Burnt River for irrigation. Flow regulated since 1938 by Unity Reservoir (see preceding page).

Revisions (water years).--WSP 903: 1939. WSP 1397: 1916, 1930, 1933(M).

Rating tables, water year 1956-57, except periods of shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 11				Apr. 12 to Sept. 30			
1.3	6.0	3.0	150	1.8	33	3.5	295
1.5	12	3.5	255	2.0	50	4.0	440
1.7	20	4.0	400	2.5	105	5.0	880
2.0	38	4.5	600	3.0	185		
2.5	83						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	31	17	16	6.2	14	214	205	136	132	114	58
2	44	31	17	16	6.2	14	216	239	141	126	112	58
3	41	31	17	16	6.2	14	220	270	142	153	112	58
4	*41	31	17	16	6.0	14	238	318	142	160	111	54
5	42	31	17	16	6.0	15	255	377	141	152	110	47
6	42	31	17	16	6.0	15	*325	377	108	147	127	47
7	39	31	16	16	6.0	16	346	374	141	142	142	46
8	30	31	16	16	6.0	50	361	374	138	136	141	46
9	30	31	16	16	6.0	87	370	374	*135	132	128	46
10	30	31	16	16	6.0	82	448	374	130	138	122	45
11	30	31	16	16	6.0	80	586	371	126	138	*120	50
12	30	24	17	15	6.0	127	*755	371	118	130	112	64
13	30	17	16	7.5	6.0	125	780	297	105	101	*105	64
14	30	*17	16	6.8	6.0	125	775	262	105	125	104	63
15	30	17	16	6.8	6.5	125	750	262	116	152	104	69
16	31	17	16	6.5	6.8	150	725	227	128	142	102	74
17	31	17	16	6.5	6.8	172	695	*209	131	141	101	74
18	31	17	16	6.5	7.0	164	675	209	148	140	104	73
19	31	17	16	6.2	7.0	164	455	211	152	138	117	65
20	31	17	16	6.0	7.0	160	312	211	138	138	116	50
21	30	17	16	6.0	7.0	160	290	211	132	138	114	48
22	30	17	16	6.0	7.0	160	265	207	126	136	112	48
23	30	17	16	6.0	7.2	158	258	203	122	135	114	47
24	30	17	16	6.0	8.8	156	243	201	108	134	106	46
25	*30	17	16	6.0	12	156	233	199	113	134	98	46
26	30	17	16	6.0	15	158	233	199	*141	134	95	*46
27	31	17	16	6.0	15	160	221	165	140	132	87	46
28	31	17	16	6.0	14	182	181	133	138	117	85	46
29	31	17	16	*6.0	-	196	191	120	135	116	84	44
30	31	17	16	6.2	-------	200	201	116	132	116	75	39
31	31	-------	16	6.2	-------	206	-------	114	-------	114	60	-------
Total	1,035	671	503	310.2	211.7	3,605	11,817	7,780	3,908	4,169	3,334	1,607
Mean	33.4	22.4	16.2	10.0	7.56	116	394	251	130	134	108	53.6
Ac-ft	2,050	1,330	998	615	420	7,150	23,440	15,430	7,750	8,270	6,610	3,190

Calendar year 1956: Max 735 Min 6.8 Mean 141 Ac-ft 102,100
Water year 1956-57: Max 780 Min 6.0 Mean 107 Ac-ft 77,250

* Discharge measurement made on this day.
Note.--Shifting-control method used May 27 to June 25, July 3 to Sept. 18.

Burnt River near Bridgeport, Oreg.

Location.--Lat 44°32'20", long 117°41'20", in SW¼ sec. 3, T. 12 S., R. 41 E., on left bank half a mile downstream from Dark Canyon, 4½ miles upstream from Deer Creek, and 5 miles northeast of Bridgeport.

Drainage area.--650 sq mi, approximately.

Records available.--October 1956 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 3,223.22 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum discharge during year, 1,270 cfs Feb. 26 (gage height, 5.43 ft); minimum daily, 16 cfs Jan. 25.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Unity Reservoir (see p. 195). Many diversions for irrigation above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30			
0.9	19	2.5	290	1.3	42	3.0	390
1.1	34	3.5	580	1.6	76	4.0	720
1.4	67	5.0	1,100	2.0	147	5.0	1,100
1.9	150						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.*	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a48	54	b42	b30	a24	221	305	242	127	106	64	76
2	a48	52	b40	b34	a32	150	298	253	116	110	66	75
3	a48	51	b42	b40	a30	120	285	278	121	112	66	73
4	*50	50	b36	b36	a22	106	288	308	123	110	60	72
5	48	50	b36	b44	*b19	108	300	345	119	118	61	72
6	46	48	b30	b50	b20	120	330	393	123	116	59	70
7	47	47	b26	b55	a19	148	376	462	137	121	55	62
8	48	47	a30	59	a19	198	394	456	155	118	55	54
9	47	46	a40	b65	a20	230	436	450	175	114	56	55
10	45	45	a50	b70	a19	258	454	447	155	110	62	51
11	47	45	a55	73	a20	221	493	*450	147	112	58	49
12	60	45	a60	75	a20	200	*664	438	147	108	60	51
13	55	45	a55	62	a19	189	814	429	141	105	64	52
14	55	*39	a50	53	a24	211	888	384	143	101	*67	50
15	53	37	a50	41	a28	209	880	315	135	91	61	54
16	55	37	a55	b36	a26	204	868	312	139	93	61	53
17	57	36	a50	b40	a24	202	860	*330	145	96	55	51
18	55	36	a55	b36	a36	226	839	318	135	91	61	53
19	55	b30	a46	a34	a32	235	818	305	137	90	66	52
20	58	b34	*38	b36	a28	235	772	300	151	88	70	51
21	58	b34	b36	b38	a24	*242	548	280	160	86	68	51
22	53	b32	b32	b32	a30	238	456	265	155	84	66	51
23	52	b34	b36	b26	a100	230	414	255	153	84	70	49
24	51	b38	b40	b20	a500	223	372	238	145	84	72	49
25	52	b40	b36	b16	*a750	223	345	231	133	78	72	48
26	54	b42	32	a18	1,090	223	325	211	133	76	72	*48
27	58	*b42	b32	a17	*715	223	305	206	143	73	72	48
28	57	b40	b30	a20	462	216	290	181	*141	72	80	47
29	54	b44	b32	a26	-	218	275	158	114	71	82	48
30	59	b42	b30	a30	-------	248	246	137	110	71	85	47
31	59	-------	b32	a22	-------	290	-------	137	-------	64	88	-------
Total	1,632	1,262	1,254	1,234	4,152	6,365	14,938	9,514	4,158	2,953	2,054	1,662
Mean	52.6	42.1	40.5	39.8	148	205	498	307	139	95.3	66.3	55.4
Ac-ft	3,240	2,500	2,490	2,450	8,240	12,620	29,630	18,870	8,250	5,860	4,070	3,300

Calendar year 1956: Max - Min - Mean - Ac-ft -
Water year 1956-57: Max 1,090 Min 16 Mean 140 Ac-ft 101,500

Peak discharge (base, 350 cfs).--Feb. 26 (4 to 5 a.m.) 1,270 cfs (5.43 ft); Apr. 14 (11 a.m.) 908 cfs (4.52 ft); May 7 (1 to 3 p.m.) 468 cfs (3.26 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for stations near Hereford and at Huntington.
b Stage-discharge relation affected by ice.

Burnt River at Huntington, Oreg.

Location.--Lat 44°21'30", long 117°16'20", in NE¼ sec. 13, T. 14 S., R. 44 E., on right bank half a mile northwest of Huntington and 3½ miles upstream from mouth.

Drainage area.--1,093 sq mi.

Records available.--September 1928 to September 1932, October 1956 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 2,104.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Sept. 13, 1928, to Sept. 30, 1932, staff gage at site 200 ft upstream at different datum.

Extremes.--Maximum discharge during year, 2,190 cfs Feb. 26 (gage height, 6.39 ft); minimum, 19 cfs Dec. 8 (gage height, 0.99 ft), but may have been less during periods of ice effect or no gage-height record.
1928-32, 1956-57: Maximum discharge, that of Feb. 26, 1957; no flow at times.

Remarks.--Records good. Flow regulated since 1938 by Unity Reservoir (see p. 195). Diversions for irrigation of about 28,000 acres above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 14				Apr. 15 to Sept. 30			
1.0	19	2.5	310	1.1	34	2.3	260
1.2	31	3.5	680	1.4	64	3.0	490
1.5	67	5.0	1,400	1.7	113	4.0	900
1.9	147	6.0	1,960				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	95	40	57	a36	430	400	308	182	117	58	92
2	64	92	52	60	a38	310	396	302	172	107	57	80
3	*66	90	37	54	a36	256	382	341	152	107	63	77
4	64	88	45	b50	a34	233	375	371	148	107	65	77
5	57	86	45	b55	*b36	265	386	406	133	105	60	80
6	46	86	43	b60	b30	242	414	427	133	104	54	80
7	43	86	34	b65	b26	298	428	490	150	107	56	68
8	46	86	28	b75	b25	358	438	434	215	107	51	59
9	48	84	48	b85	b26	392	462	490	210	94	49	56
10	51	82	56	b90	b25	358	473	480	202	91	46	52
11	64	82	81	b95	b28	344	492	476	182	91	45	52
12	95	82	129	b90	b28	328	612	466	172	89	48	52
13	88	82	120	b80	b26	295	716	469	165	91	51	52
14	77	*79	105	66	b30	289	845	476	165	89	*49	51
15	76	67	86	b50	b36	295	890	472	172	84	46	51
16	77	67	81	b46	b34	316	880	410	168	78	42	54
17	79	69	72	b40	b32	316	845	*385	168	78	47	48
18	a80	63	76	a42	b44	304	840	427	170	80	44	47
19	a85	57	70	a40	b42	319	800	455	158	74	41	49
20	a90	51	*70	a38	b40	319	792	424	168	70	51	51
21	a90	54	69	a40	b36	*331	672	392	175	70	59	51
22	84	53	51	a36	52	328	536	378	178	72	58	48
23	82	49	56	a30	163	316	469	357	168	75	60	49
24	81	49	66	a24	829	304	438	341	162	80	75	41
25	86	47	49	a20	1,170	307	410	326	142	75	77	43
26	90	45	72	a22	*1,760	304	388	302	140	70	74	38
27	94	42	79	a20	*1,140	304	364	281	*150	68	64	*38
28	94	36	72	a24	726	304	357	263	145	63	67	36
29	90	45	59	a30	-	310	344	235	135	63	83	37
30	107	42	54	a36	-------	344	320	220	122	63	83	38
31	105	-------	61	a32	-------	389	-------	205	-------	58	89	-------
Total	2,363	2,036	2,006	1,552	6,528	9,808	16,164	11,869	4,902	2,627	1,812	1,647
Mean	76.2	67.9	64.7	50.1	233	316	539	383	163	84.7	58.5	54.9
Ac-ft	4,690	4,040	3,980	3,080	12,950	19,450	32,060	23,540	9,720	5,210	3,590	3,270

Calendar year 1956: Max - Min - Mean - Ac-ft -
Water year 1956-57: Max 1,760 Min 20 Mean 173 Ac-ft 125,600

Peak discharge (base, 500 cfs).--Feb. 26 (5:30 p.m.) 2,190 cfs (6.39 ft); Apr. 14 (8 p.m.) 950 cfs (4.10 ft); May 18 (8:30 p.m.) 568 cfs (3.22 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for stations at Bridgeport and near Hereford.
b Stage-discharge relation affected by ice.

Powder River near Baker, Oreg.

Location.--Lat 44°39'20", long 117°52'30", in NE¼ sec. 36, T. 10 S., R. 39 E., on right bank 700 ft downstream from Stices Gulch and 8½ miles south of Baker.

Drainage area.--219 sq mi.

Records available.--December 1903 to August 1914, July 1926 to September 1957. Monthly discharge only for some periods, published in WSP 1317. Published as "near Baker City" December 1903 to December 1905, and as "at Salisbury" January 1906 to August 1914, October 1928 to September 1951.

Gage.--Water-stage recorder and concrete bag-filled control. Datum of gage is 3,632.31 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Dec. 20, 1903, to Feb. 29, 1912, staff gage at site 400 ft upstream at different datum. Mar. 1, 1912, to Aug. 1, 1914, and June 16, 1926, to Oct. 16, 1933, staff gage at site 0.4 mile downstream at different datum.

Average discharge.--40 years (1904-13, 1926-57), 112 cfs (81,080 acre-ft per year).

Extremes.--Maximum discharge during year, 701 cfs May 19, June 3 (gage height, 4.32 ft); maximum gage height, 5.78 ft Feb. 24 (ice jam); minimum discharge, 6.5 cfs Sept. 10, 15, 16 (gage height, 1.09 ft).
1903-14, 1926-57: Maximum discharge, 1,820 cfs Mar. 20, 1910 (gage height, 7.05 ft, site and datum then in use, from graph based on gage readings), from rating curve extended above 660 cfs; no flow Aug. 31, 1909, Sept. 7, 1931.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Slight regulation by mining operations above station. Many small diversions for irrigation above station. At times Auburn ditch diverts water into the basin above station.

Revisions (water years).--WSP 813: 1935. WSP 1093: Drainage area. WSP 1397: 1904-13, 1929-31, 1940, 1942, 1949-50.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from beaver dam Oct. 1-4)

Oct. 1 to Dec. 11				Dec. 12 to Sept. 30			
1.1	6.0	1.7	59	1.1	6.9	2.0	116
1.3	15	2.0	104	1.3	19	3.0	325
1.5	35			1.5	39	5.0	905

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	22	22	40	25	176	365	536	533	56	19	10
2	9.2	22	23	38	24	144	292	584	647	56	18	8.9
3	9.2	22	23	35	25	130	278	581	671	55	18	8.9
4	*9.6	23	25	30	30	120	262	557	626	54	18	8.9
5	10	24	22	30	26	138	*306	620	575	52	17	8.4
6	10	25	20	30	*25	142	392	584	539	49	16	7.9
7	9.6	26	19	32	26	200	342	524	464	49	16	7.9
8	10	26	18	31	28	308	306	557	*455	47	14	7.9
9	11	26	25	30	25	299	299	635	392	46	14	7.4
10	14	26	39	30	26	242	352	629	330	42	13	6.9
11	16	26	90	30	30	202	542	626	292	39	*13	6.9
12	18	26	129	32	28	186	524	635	251	37	14	7.4
13	15	27	113	34	27	153	497	650	231	38	*14	6.9
14	14	*26	91	35	26	134	452	629	233	36	14	6.9
15	13	26	78	30	28	134	415	554	240	35	13	6.9
16	13	25	70	25	30	138	378	515	206	32	13	6.9
17	13	24	67	20	30	134	360	*491	182	30	13	6.9
18	13	20	61	22	28	134	332	593	161	29	13	6.9
19	14	20	*56	25	26	140	318	671	149	28	13	6.9
20	14	24	52	30	25	*157	330	563	140	28	12	6.9
21	*14	26	46	28	30	153	318	464	134	27	10	6.9
22	14	28	42	30	56	138	299	398	125	29	11	6.9
23	14	27	45	25	155	a125	287	355	118	30	11	6.9
24	14	26	40	20	320	a120	271	338	108	27	11	6.9
25	18	25	38	18	*144	a115	242	328	93	26	10	6.9
26	22	24	36	15	262	a115	216	342	*86	27	10	6.9
27	23	23	35	15	260	a120	198	365	85	26	9.4	*6.9
28	21	23	38	18	214	a150	212	388	75	24	9.4	7.4
29	20	24	36	20	-	a200	308	485	69	23	10	7.4
30	26	25	35	20	-------	a300	461	488	60	21	13	7.9
31	27	-------	38	22	-------	a400	-------	488	-------	21	11	-------
Total	457.8	737	1,472	840	1,979	5,347	10,154	16,173	8,270	1,119	410.8	223.6
Mean	14.8	24.6	47.5	27.1	70.7	172	338	522	276	36.1	13.3	7.45
Ac-ft	908	1,460	2,920	1,670	3,930	10,610	20,140	32,080	16,400	2,220	815	444

Calendar year 1956: Max 1,240 Min 8.5 Mean 174 Ac-ft 126,200
Water year 1956-57: Max 671 Min 6.9 Mean 129 Ac-ft 93,600

Peak discharge (base, 300 cfs).--Feb. 24 (3 p.m.) 506 cfs (3.67 ft); Mar. 9 (10:30 p.m.) 358 cfs (3.13 ft); Apr. 1 (time unknown) 418 cfs (3.37 ft); Apr. 6 (8 a.m.) 410 cfs (3.34 ft); Apr. 11 (1:30 a.m.) 569 cfs (3.88 ft); May 19 (6 a.m.) 701 cfs (4.32 ft); June 3 (10 a.m.) 701 cfs (4.32 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for station near Robinette.
Note.--Stage-discharge relation affected by ice Nov. 17-19, Nov. 23 to Dec. 9, Dec. 11, Dec. 19 to Feb. 21, Feb. 24.

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 1957 (discontinued).

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.--29 years, 534 cfs (386,600 acre-ft per year).

Extremes.--Maximum discharge during year, 4,570 cfs May 18 (gage height, 5.72 ft); minimum, 82 cfs Sept. 8 (gage height, 0.33 ft).
1928-57: Maximum discharge, 5,500 cfs May 27, 1956 (gage height, 6.38 ft); minimum observed, 18 cfs Sept. 2-10, 1931.

Remarks.--Records excellent except those for periods of ice effect, which are good. Many diversions for irrigation above station. 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 (water years).--WSP 1217: Drainage area. WSP 1397: 1929, 1936, 1949.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	77	2.0	780
.7	164	3.0	1,540
1.1	300	4.0	2,500
1.5	490	6.0	4,960

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	181	151	b240	b280	1,530	1,440	1,560	2,370	564	113	117
2	143	170	159	b260	b260	1,360	1,320	1,800	3,020	535	115	111
3	*138	178	159	250	b240	1,170	1,280	1,850	3,260	505	120	109
4	141	175	172	228	b280	1,100	1,240	2,040	3,340	480	124	99
5	138	172	159	b200	b260	1,090	1,280	2,090	3,390	455	133	95
6	133	184	151	b190	*b240	1,160	1,440	2,090	3,260	435	133	97
7	136	186	131	b220	b260	1,420	1,440	2,110	2,750	400	141	103
8	146	181	113	b260	b280	1,490	1,360	2,220	2,810	381	146	103
9	143	178	156	b220	b240	1,460	1,380	2,310	2,310	354	138	93
10	146	178	170	260	b260	1,360	1,420	2,390	1,970	340	138	97
11	195	178	239	276	276	1,320	1,410	2,580	1,790	300	136	97
12	236	178	340	280	280	1,260	1,480	2,900	1,640	296	133	103
13	228	184	358	288	272	1,120	1,600	2,940	1,530	300	129	107
14	205	178	272	292	268	1,020	1,740	2,880	1,330	300	124	103
15	195	*172	236	280	272	955	1,840	2,740	1,100	253	*115	105
16	195	175	228	208	284	976	1,770	*2,750	969	250	111	109
17	192	186	208	141	296	948	1,640	2,650	906	250	107	115
18	205	178	218	131	276	906	1,560	3,590	906	236	117	120
19	212	148	*215	156	264	920	1,490	3,740	955	202	113	124
20	205	143	199	246	250	899	1,420	3,170	906	189	115	131
21	199	156	202	b220	242	899	1,440	2,790	780	195	113	133
22	199	167	159	327	256	*857	1,390	2,490	732	186	109	129
23	208	167	195	350	1,010	822	1,340	2,300	702	181	111	122
24	205	161	195	327	2,060	787	1,310	2,140	732	164	109	122
25	232	159	167	250	1,730	768	1,220	1,970	702	148	101	120
26	253	156	148	192	3,350	768	1,120	1,870	678	148	93	113
27	253	156	141	b180	2,900	768	1,020	1,830	*684	141	99	101
28	225	146	164	b200	1,950	794	990	1,880	720	129	115	101
29	199	161	159	b220	-	871	1,120	1,940	648	122	117	103
30	208	161	156	b200	-------	1,130	1,360	1,990	606	117	126	99
31	202	-------	b200	b240	-------	1,390	-------	2,200	-------	117	131	-------
Total	5,863	5,093	5,920	7,332	18,836	33,318	41,860	73,800	47,496	8,673	3,725	3,281
Mean	189	170	191	237	673	1,075	1,395	2,381	1,583	280	120	109
Ac-ft	11,630	10,100	11,740	14,540	37,360	66,090	83,030	146,400	94,210	17,200	7,390	6,510

Calendar year 1956: Max 4,950 Min 113 Mean 894 Ac-ft 648,600
Water year 1956-57: Max 3,740 Min 93 Mean 699 Ac-ft 506,200

Peak discharge (base, 1,100 cfs).--Feb. 26 (9 a.m. to 1 p.m.) 3,650 cfs (5.01 ft); Mar. 9 (11 a.m.) 1,520 cfs (2.97 ft); Apr. 15 (4 to 8 a.m.) 1,850 cfs (3.37 ft); May 18 (12 p.m.) 4,570 cfs (5.72 ft); June 6 (12:30 a.m.) 3,800 cfs (5.13 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 1957.

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, 69,800 cfs May 23 (gage height, 19.70 ft); minimum, 7,490 cfs Jan. 30 (gage height, 7.07 ft).
1923-57: 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. Diversions for irrigation of about 2,594,000 acres above station (1946 determination).

Revisions (water years).--WSP 1347: 1925.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

7.5	8,480	14.0	36,500
8.0	9,870	16.0	47,700
9.0	13,100	18.0	59,500
10.0	16,900	20.0	71,700
12.0	25,900		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,300	19,600	15,800	14,700	15,300	42,900	*33,700	35,000	45,700	13,300	11,300	13,200
2	15,000	18,000	15,800	14,900	13,900	37,300	32,000	34,700	45,400	13,800	11,300	13,200
3	15,300	16,900	15,300	15,100	13,100	34,200	34,200	*32,000	45,300	12,700	11,000	13,300
4	15,000	16,000	15,000	14,000	18,100	32,400	35,800	33,600	44,800	12,600	11,300	13,500
5	15,000	17,300	14,200	15,300	14,400	32,500	35,800	35,200	42,200	12,500	11,900	13,300
6	15,200	16,500	13,800	15,400	14,000	33,800	36,300	37,200	43,500	12,200	12,100	13,200
7	16,000	16,900	15,200	14,900	15,200	32,400	38,000	35,400	43,000	11,200	11,200	13,500
8	16,800	*17,100	15,300	13,900	16,100	38,200	35,000	37,200	39,800	11,400	11,200	13,600
9	17,400	18,100	16,100	*14,500	14,900	40,700	32,700	38,500	39,300	11,500	11,200	13,200
10	17,300	17,800	16,100	15,200	14,900	41,400	31,300	41,000	38,800	11,000	11,900	12,900
11	16,500	17,600	14,700	15,700	14,800	41,200	30,900	41,500	36,300	10,800	11,900	13,500
12	16,300	16,900	15,800	15,800	13,200	40,000	31,800	43,100	34,800	11,100	11,900	13,800
13	16,800	14,800	17,400	15,500	11,800	43,800	37,100	46,400	32,300	11,400	11,700	13,500
14	17,400	16,400	16,500	15,100	13,700	40,000	39,600	48,700	31,200	11,000	11,400	13,600
15	19,200	16,900	16,700	12,900	15,900	36,700	40,800	53,900	29,400	10,800	12,000	14,100
16	19,500	16,800	16,300	11,800	14,100	34,400	40,000	57,500	28,000	10,300	11,000	14,200
17	18,900	16,500	16,900	14,200	13,500	34,000	38,500	58,500	*26,000	*11,000	11,000	14,000
18	18,600	15,300	16,900	15,200	14,300	34,000	38,400	60,000	24,300	11,200	11,600	14,000
19	18,400	13,600	16,800	14,600	15,600	26,900	37,800	62,100	23,200	10,900	11,900	13,600
20	16,700	12,300	15,900	16,000	15,000	25,800	36,500	68,100	20,800	10,900	12,400	13,600
21	16,300	13,500	16,100	16,600	16,000	28,400	36,800	66,400	20,000	11,700	11,700	14,700
22	16,800	14,600	16,200	15,100	15,100	28,400	36,900	66,900	18,700	11,500	12,000	*15,100
23	16,100	15,200	16,700	14,600	15,700	26,200	34,800	68,900	17,500	11,700	12,200	14,700
24	14,900	14,400	18,100	16,000	19,000	24,000	36,800	67,000	16,500	11,900	*11,400	14,900
25	15,800	14,000	15,900	14,100	45,000	24,400	36,500	67,200	14,600	11,500	11,300	15,300
26	17,600	14,600	12,900	13,100	62,400	24,300	37,000	63,300	13,900	11,500	11,900	14,600
27	19,300	14,700	13,000	12,400	*63,800	27,500	35,000	60,000	14,700	11,300	11,000	14,800
28	20,500	*14,500	13,100	12,100	58,100	28,700	34,500	57,000	15,200	11,800	11,800	15,000
29	18,800	15,500	15,200	11,500	-	30,200	33,100	*55,300	14,900	11,500	12,500	14,500
30	16,900	15,400	16,900	9,140	-------	30,500	35,100	53,600	14,200	11,700	12,200	14,000
31	18,900	-------	17,000	16,500	-------	31,800	-------	48,800	-------	11,400	13,400	-------
Total	528,500	477,700	487,600	445,840	586,900	‡1,027	‡1,072.5	‡1,574	874,300	359,100	362,600	418,400
Mean	17,050	15,920	15,730	14,380	20,960	33,130	35,750	50,770	29,140	11,580	11,700	13,950
Ac-ft	‡1,048	947,500	967,100	884,300	‡1,164	‡2,037	‡2,127	‡3,122	‡1,734	712,300	719,200	829,900

Calendar year 1956: Max 57,500 Min 10,800 Mean 23,120 Ac-ft 16,780,000
Water year 1956-57: Max 68,900 Min 9,140 Mean 22,510 Ac-ft 16,290,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

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Snake River near Joseph, Idaho

Location.--Lat 45°49', long 116°45', in SW¼ sec. 18, T. 4 N., R. 49 E., on left bank at China Gulch, a quarter of a mile downstream from Mountain Sheep dam site, 0.7 mile upstream from Imnaha River, 0.9 mile downstream from Divide Creek, 13 miles west of Joseph, 22 miles west of Whitebird, and at mile 53.2 from Lewiston.

Drainage area.--73,800 sq mi, approximately.

Records available.--April 1955 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 940.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum discharge during year, 76,700 cfs probably on May 23 (gage height, 21.5 ft, from floodmarks, backwater from Imnaha River); minimum daily, 10,500 cfs Jan. 30.
1955-57: Maximum discharge, that of May 23, 1957; minimum, 9,940 cfs Aug. 19, 1955 (gage height, 1.29 ft).

Remarks.--Records excellent except those for periods of backwater from Imnaha River and those for periods of no gage-height record, which are good. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. Diversions for irrigation of about 2,613,000 acres above station (1946 determination).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,500	20,400	16,000	17,000	16,400	55,000	35,300	37,100	51,000	15,000	11,700	13,700
2	15,300	18,900	16,500	14,100	14,700	42,000	34,900	37,900	48,000	14,700	11,800	13,300
3	15,400	18,200	16,200	16,700	14,500	37,000	34,600	35,900	48,000	14,300	11,600	13,700
4	15,300	15,900	16,000	14,100	16,900	34,000	38,000	35,000	47,000	13,700	11,300	13,400
5	15,200	17,800	14,700	15,300	16,200	*34,200	37,500	37,700	46,000	13,600	12,300	14,200
6	15,700	17,600	15,000	16,000	13,900	35,000	38,600	39,500	46,000	13,500	12,700	13,200
7	15,200	16,700	14,800	15,800	14,800	34,100	39,600	38,800	46,000	12,500	12,100	13,600
8	16,800	17,500	15,800	14,600	16,100	37,800	38,500	39,300	45,000	12,100	11,700	13,800
9	17,200	18,400	15,900	14,700	15,600	42,600	35,000	42,900	42,000	12,300	11,400	13,800
10	17,400	18,300	16,800	15,300	15,100	44,400	33,600	45,500	41,000	11,900	12,100	13,200
11	17,000	18,000	16,200	16,200	15,000	45,000	32,900	47,100	40,000	11,300	12,200	12,800
12	17,200	*18,000	15,400	16,500	14,800	42,500	33,100	47,500	38,000	11,800	12,400	14,800
13	16,700	16,800	18,000	16,300	11,400	44,500	37,800	52,500	36,000	11,700	12,700	13,800
14	17,200	15,800	18,300	15,600	13,500	43,400	41,900	54,700	34,000	11,800	*11,300	13,800
15	18,600	17,400	17,300	*15,000	15,100	39,900	43,400	58,800	32,000	11,600	12,700	13,700
16	19,500	17,500	17,600	11,700	15,800	36,400	44,000	63,900	30,000	11,200	11,800	15,200
17	19,300	17,400	17,600	13,500	14,000	35,200	40,700	63,800	28,000	10,800	11,200	14,100
18	18,800	16,800	17,700	15,700	14,300	36,000	40,700	65,000	27,000	11,500	11,500	14,600
19	18,600	15,200	17,600	14,800	15,600	31,300	40,100	68,000	25,100	11,800	12,200	14,300
20	17,800	13,400	17,300	16,000	15,300	26,200	39,200	72,000	*23,000	11,200	12,700	13,600
21	16,700	13,200	16,500	16,600	16,400	29,700	38,500	71,000	21,800	11,700	12,700	14,500
22	16,800	15,000	17,100	16,800	15,600	29,900	39,200	72,000	21,100	12,100	11,900	15,000
23	17,200	15,500	16,900	14,400	16,200	28,200	38,700	74,000	19,200	12,200	12,700	15,500
24	15,900	15,800	18,600	16,500	17,800	26,000	36,800	72,000	18,600	12,200	11,900	14,800
25	15,500	14,200	17,500	14,900	38,000	25,600	38,500	72,000	16,700	12,200	11,300	15,100
26	17,400	15,500	14,700	14,500	66,000	26,200	39,200	68,000	15,600	12,100	12,100	15,200
27	18,900	15,200	13,600	13,000	66,000	27,000	36,800	64,000	15,400	11,700	11,200	14,700
28	20,200	15,100	13,200	13,000	62,000	29,900	36,500	62,000	16,100	12,200	11,600	15,300
29	20,300	15,500	14,600	12,500		-	35,100	59,000	16,900	11,800	12,500	15,200
30	18,000	16,400	17,200	10,500	-------	32,200	*36,900	57,000	15,700	12,200	12,500	14,600
31	18,000	-------	17,600	13,000	-------	32,900	-------	54,000	-------	12,000	13,300	-------
Total	534,600	497,400	508,200	460,600	597,000	‡1,094.6	‡1,135.6	‡1,707.9	950,200	380,700	373,100	426,500
Mean	17,250	16,580	16,390	14,860	21,320	35,310	37,850	55,090	31,670	12,280	12,040	14,220
Ac-ft	‡1,060	986,600	‡1,008	913,600	‡1,184	‡2,171	‡2,252	‡3,388	‡1,885	755,100	740,000	846,000

Calendar year 1956: Max 62,800 Min 10,700 Mean 24,030 Ac-ft 17,450,000
Water year 1956-57: Max 74,000 Min 10,500 Mean 23,740 Ac-ft 17,190,000

* Discharge measurement made on this day.
‡ Expressed in thousands.
Note.--No gage-height record Jan. 27-31, Feb. 3, Feb. 26 to Mar. 4, May 18 to June 18; discharge estimated on basis of weather records and records for station at Oxbow and nearby streams. Stage-discharge relation affected by backwater from Imnaha River Dec. 11-20, Feb. 23-25, May 1-17, June 24 to July 30.

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 1957.

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.--29 years, 488 cfs (353,300 acre-ft per year).

Extremes.--Maximum discharge during year, 6,650 cfs May 19 (gage height, 6.80 ft); minimum, 46 cfs Jan. 27 (gage height, 1.31 ft).
1928-57: Maximum discharge, that of May 19, 1957; minimum observed, 16 cfs Nov. 22, 1931.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversions for irrigation of 4,000 acres above station. Since 1934, one diversion of less than 10 cfs around station for irrigation below station. Water is diverted from Sheep Creek and tributaries above station for irrigation of 6,500 acres in Wallowa River basin.

Revisions (water years).--WSP 883: 1938. WSP 1217: Drainage area. WSP 1397: 1929, 1932(M), 1949.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 18				May 19 to Sept. 30			
1.5	76	3.5	970	1.7	123	3.5	1,070
1.8	139	4.0	1,430	2.1	234	4.5	2,220
2.3	285	5.0	2,810	2.5	400	6.3	5,400
3.0	620	6.0	4,560	3.0	680		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	193	177	201	b200	764	540	*1,650	2,110	736	234	154
2	177	190	190	201	b180	662	510	1,840	2,450	701	227	149
3	174	196	207	196	b190	572	505	1,960	2,560	694	218	141
4	172	198	207	137	207	515	495	1,980	2,420	638	208	139
5	172	198	180	112	190	480	540	1,900	2,400	614	204	141
6	172	204	172	106	182	435	614	1,890	2,480	620	227	137
7	169	218	137	146	172	440	614	1,870	2,050	590	221	137
8	169	*218	b110	180	169	475	590	1,910	2,140	554	211	134
9	172	218	b180	167	167	550	596	2,300	1,850	524	201	137
10	172	224	210	162	162	560	656	2,320	1,570	512	198	137
11	234	231	293	b200	159	545	701	2,510	1,460	495	195	*134
12	244	228	301	207	162	520	757	3,490	*1,340	480	192	134
13	224	234	321	207	162	470	813	4,040	1,290	460	181	132
14	198	224	305	204	159	*425	994	3,910	1,200	440	181	130
15	187	198	293	196	172	401	1,280	3,750	1,110	425	181	130
16	185	221	285	134	174	396	1,110	3,560	998	415	175	130
17	182	228	268	b100	174	401	1,000	3,080	940	396	172	130
18	187	215	*264	84	185	392	922	3,840	940	368	169	139
19	204	177	257	b110	196	401	922	5,260	1,020	350	167	146
20	187	180	250	b170	190	440	890	4,500	1,020	342	164	141
21	182	228	220	b200	187	470	938	*3,430	924	332	162	134
22	177	207	201	190	190	455	1,000	2,760	860	337	162	132
23	187	193	b180	187	296	425	1,010	2,450	806	314	162	132
24	193	196	b200	169	805	420	946	2,220	860	302	156	128
25	182	190	190	146	1,060	425	855	2,030	844	290	154	125
26	193	187	187	137	1,500	415	778	1,940	828	278	151	125
27	212	180	187	86	1,300	406	715	1,940	836	270	151	123
28	198	162	182	b100	946	406	736	1,990	884	259	156	123
29	190	169	193	b120	-	430	986	2,080	836	259	162	125
30	207	187	198	b100	-------	490	1,430	2,020	785	*252	162	125
31	215	-------	207	*b150	-------	540	-------	2,070	-------	241	159	-------
Total	5,897	6,092	6,752	4,805	9,836	14,726	24,443	82,490	41,811	13,488	5,663	4,024
Mean	190	203	218	155	351	475	815	2,661	1,394	435	183	134
Ac-ft	11,700	12,080	13,390	9,530	19,510	29,210	48,480	163,600	82,930	26,750	11,230	7,980

Calendar year 1956: Max 3,980 Min 110 Mean 742 Ac-ft 538,600
Water year 1956-57: Max 5,260 Min 84 Mean 603 Ac-ft 436,400

Peak discharge (base, 1,300 cfs).--Feb. 26 (7:30 p.m.) 1,930 cfs (4.42 ft); Apr. 15 (2 to 5 a.m.) 1,370 cfs (3.94 ft); May 19 (3 a.m.) 6,650 cfs (6.80 ft); June 3 (3 a.m.) 2,850 cfs (4.92 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 April 1911 (gage heights only), May 1911 to October 1913, May 1921 to September 1957. 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.--38 years (1911-13, 1921-57), 198 cfs (143,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,460 cfs June 6 (gage height, 3.34 ft); minimum, 69 cfs Mar. 14 (gage height, 0.78 ft), but may have been less during period of ice effect.

1910-13, 1921-57: Maximum discharge, 2,000 cfs May 24, 1956 (gage height, 3.92 ft); minimum, 40 cfs (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Remarks.--Records excellent except those for period 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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	68	1.5	216	3.0	1,110
1.0	95	2.0	428	3.5	1,580
1.2	134	2.5	720		

'Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	*121	95	92	94	100	97	433	1,020	547	151	109
2	119	113	99	90	92	100	97	583	1,070	524	141	104
3	117	113	100	85	90	95	99	612	1,240	480	136	104
4	117	113	99	80	88	92	99	552	1,310	433	134	102
5	119	121	100	80	86	94	104	593	1,380	399	130	99
6	117	126	94	84	85	*97	109	769	1,410	389	130	95
7	115	124	92	90	85	94	104	853	1,290	384	128	95
8	117	113	*86	90	85	100	102	825	1,230	365	124	94
9	121	117	92	90	85	100	106	860	1,150	*342	121	95
10	128	111	95	90	85	94	113	853	*964	329	115	97
11	177	115	100	95	85	92	119	846	868	320	111	95
12	161	109	100	100	85	99	126	*940	846	312	109	95
13	139	113	100	100	85	95	124	940	860	307	*106	95
14	128	95	100	95	85	89	139	1,050	776	290	106	94
15	121	92	100	90	86	97	*148	996	668	270	104	94
16	121	111	100	80	86	95	148	1,000	576	251	104	94
17	119	119	96	80	86	94	148	924	513	237	104	94
18	121	111	98	80	86	94	144	972	480	226	102	*99
19	130	94	96	85	86	90	153	1,160	486	216	100	104
20	121	97	92	92	86	90	163	964	541	210	97	102
21	121	102	90	94	88	92	180	776	558	204	97	100
22	115	106	90	*92	88	89	197	681	513	197	97	97
23	124	102	92	90	90	89	230	643	480	197	95	95
24	121	100	90	88	97	90	226	612	486	185	95	95
25	117	97	86	84	90	94	191	599	502	180	94	94
26	130	94	84	78	94	89	180	624	508	180	95	92
27	139	92	88	76	102	90	191	681	502	172	94	90
28	121	90	90	78	97	92	234	748	530	166	95	89
29	111	92	90	84	-	94	299	811	541	166	100	89
30	113	95	92	90	------	95	365	908	547	161	104	90
31	117	------	92	95	------	99	------	980	------	156	106	------
Total	3,856	3,198	2,918	2,717	2,477	2,914	4,735	24,798	23,845	8,795	3,425	2,891
Mean	124	107	94.1	87.6	88.5	94.0	158	800	795	284	110	96.4
Cfsm	0.705	0.608	0.535	0.498	0.503	0.534	0.898	4.55	4.52	1.61	0.625	0.548
In.	0.81	0.68	0.62	0.57	0.52	0.62	1.00	5.24	5.04	1.86	0.72	0.61
Ac-ft	7,650	6,340	5,790	5,390	4,910	5,780	9,390	49,190	47,300	17,440	6,790	5,730

Calendar year 1956:	Max	1,900	Min	84	Mean	312	Cfsm	1.77	In.	24.17	Ac-ft 226,800
Water year 1956-57:	Max	1,410	Min	76	Mean	237	Cfsm	1.35	In.	18.29	Ac-ft 171,700

Peak discharge (base, 600 cfs).--May 14 (9 p.m.) 1,340 cfs (3.23 ft); June 6 (10 a.m.) 1,460 cfs (3.34 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 6 to Feb. 22.

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 1957.

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.--32 years, 663 cfs (480,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,480 cfs June 6 (gage height, 4.27 ft); minimum daily, 280 cfs Jan. 17.
1925-57: Maximum discharge, 5,070 cfs May 27, 1956 (gage height, 4.62 ft); 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	280	2.0	1,170
1.0	320	3.0	2,450
1.2	430	4.0	4,020
1.5	660	4.5	4,870

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	451	*500	412	390	380	406	382	1,080	3,020	2,070	572	382
2	444	479	430	370	370	400	376	1,360	3,260	2,040	532	382
3	437	479	450	360	360	420	382	1,500	3,660	1,930	516	388
4	444	486	450	330	370	400	382	1,410	3,950	1,780	508	382
5	451	500	440	290	370	410	388	1,470	4,240	1,680	493	376
6	451	516	430	300	360	*376	400	1,800	4,410	1,590	479	360
7	451	508	410	330	350	400	388	2,000	4,220	1,540	479	355
8	451	486	*370	380	370	406	394	2,060	3,990	1,460	465	355
9	460	479	410	380	360	406	394	2,180	3,710	*1,390	451	350
10	470	479	430	360	350	400	400	2,300	*3,270	1,340	437	355
11	590	486	440	360	370	388	406	2,340	2,940	1,290	424	360
12	580	465	450	410	360	418	424	*2,540	2,820	1,240	418	355
13	520	479	460	420	360	406	418	2,540	2,760	1,200	*412	350
14	500	444	450	420	380	382	444	2,690	2,560	1,150	406	350
15	500	418	420	400	370	406	*465	2,630	2,300	1,100	400	345
16	500	486	440	340	360	400	444	2,600	2,040	1,040	394	345
17	490	508	406	280	360	400	444	2,520	1,820	972	388	345
18	490	493	424	300	360	394	437	2,690	1,670	910	382	355
19	500	412	406	320	370	388	451	3,180	1,650	870	376	*382
20	490	424	382	350	390	388	472	2,810	1,810	830	370	376
21	480	437	394	370	394	388	486	2,420	1,910	810	370	370
22	470	465	365	*b380	400	376	524	2,170	1,780	800	370	376
23	490	444	382	360	412	370	588	2,000	1,720	760	365	370
24	480	430	394	370	424	376	604	1,870	1,730	714	365	388
25	470	424	365	360	418	382	524	1,810	1,800	687	360	400
26	520	418	355	320	430	370	500	1,850	1,850	669	355	400
27	560	412	b345	290	437	370	524	2,000	1,860	636	360	388
28	490	406	370	320	418	376	612	2,210	1,980	612	360	382
29	460	412	380	350	-	376	760	2,440	2,030	596	370	382
30	500	418	380	380	------	382	920	2,720	2,060	588	382	382
31	510	------	390	400	------	382	------	2,900	------	580	382	------
Total	15,100	13,793	12,630	10,990	10,653	12,142	14,333	68,090	78,820	34,874	12,941	11,086
Mean	487	460	407	355	380	392	478	2,196	2,627	1,125	417	370
Cfsm	0.910	0.860	0.761	0.664	0.710	0.733	0.893	4.10	4.91	2.10	0.779	0.692
In.	1.05	0.96	0.88	0.76	0.74	0.84	1.00	4.73	5.48	2.42	0.90	0.77
Ac-ft	29,950	27,360	25,050	21,800	21,130	24,080	28,430	135,100	156,300	69,170	25,670	21,990

Calendar year 1956: Max 4,970 Min 320 Mean 1,022 Cfsm 1.91 In. 25.99 Ac-ft 741,800
Water year 1956-57: Max 4,410 Min 280 Mean 809 Cfsm 1.51 In. 20.53 Ac-ft 586,000

Peak discharge (base, 1,700 cfs).--May 19 (7 a.m.) 3,320 cfs (3.57 ft); June 6 (12:30 a.m.) 4,480 cfs (4.27 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 9-31, Dec. 2-7, 9-16, Dec. 28 to Jan. 21, Jan. 23 to Feb. 20, Mar. 3-5; discharge estimated on basis of weather records, recorded range in stage, 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 1957. 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.--36 years, 985 cfs (713,100 acre-ft per year).

Extremes.--Maximum discharge during year, 7,670 cfs June 5 (gage height, 10.17 ft); minimum, 296 cfs sometime during period Jan. 15-21, while clock was stopped (gage height, 1.80 ft), but may have been less during periods of ice effect.
1921-57: Maximum discharge, 10,300 cfs May 24, 1956 (gage height, 11.60 ft); minimum, 160 cfs (estimated) Nov. 25-30, 1929.

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 6,000 acres.

Revisions (water years).--WSP 1347: 1931.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	337	5.0	2,090	8.0	4,880
2.5	590	6.0	2,910	9.0	6,080
3.0	820	7.0	3,830	10.2	7,710
4.0	1,380				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	608	680	521	530	b470	483	458	1,840	5,630	2,720	790	556
2	604	*626	547	520	b460	470	454	2,280	6,130	2,640	761	547
3	594	630	564	500	454	508	466	2,480	6,740	2,470	738	543
4	594	653	560	430	462	483	462	2,160	7,220	2,300	720	538
5	617	676	547	380	462	496	483	2,200	7,560	2,130	707	521
6	612	698	551	410	449	462	517	2,720	7,490	2,010	684	504
7	612	680	*b510	440	433	491	491	3,310	6,980	1,950	680	491
8	617	648	b460	500	475	*504	496	3,450	6,520	1,860	666	491
9	630	653	b500	500	470	504	513	3,550	*5,920	1,770	648	487
10	640	644	b550	450	437	487	560	3,690	5,110	*1,700	630	496
11	810	662	b570	450	462	458	581	*3,660	4,640	1,650	612	500
12	795	640	586	540	449	504	604	3,960	4,430	1,590	599	496
13	720	658	604	540	449	487	577	4,310	4,260	1,540	590	487
14	689	586	594	520	475	445	626	4,510	3,880	1,470	581	483
15	680	530	564	520	458	496	*671	4,410	3,460	1,410	*586	479
16	684	622	594	450	441	500	671	4,280	3,090	1,340	564	479
17	676	658	547	340	437	487	680	4,290	2,750	1,270	560	479
18	666	630	581	370	437	479	671	4,520	2,550	1,190	543	496
19	694	521	547	400	441	466	671	5,220	2,570	1,150	538	*530
20	666	530	508	460	470	466	707	4,620	2,750	1,100	526	521
21	662	560	530	460	466	479	734	3,930	2,840	1,080	521	513
22	644	581	496	450	483	437	785	3,470	2,630	1,060	526	508
23	671	564	534	*b450	500	441	910	3,220	2,520	1,040	521	504
24	666	547	556	b460	530	445	955	3,030	2,560	976	521	517
25	653	530	513	b460	521	462	830	3,010	2,600	945	504	530
26	707	526	491	b410	508	433	770	3,250	2,600	925	504	530
27	761	517	500	b360	526	424	775	3,670	2,600	890	508	517
28	666	513	510	b400	500	454	945	4,120	2,720	860	508	504
29	628	526	520	b440	-	454	1,300	4,550	2,760	850	526	504
30	684	526	520	b460	------	462	1,640	5,060	2,740	825	543	508
31	698	------	540	b480	------	470	------	5,360	------	805	551	------
Total	20,646	18,015	16,715	14,080	13,125	14,637	21,003	114,130	126,250	45,516	18,438	15,259
Mean	666	600	539	454	469	472	700	3,682	4,208	1,468	595	509
Cfsm	0.792	0.713	0.641	0.540	0.558	0.561	0.832	4.38	5.00	1.75	0.707	0.605
In.	0.91	0.80	0.74	0.62	0.58	0.65	0.93	5.05	5.58	2.01	0.82	0.67
Ac-ft	40,950	35,730	33,150	27,930	26,030	29,030	41,660	226,400	250,400	90,280	36,570	30,270

Calendar year 1956: Max 9,800 Min 390 Mean 1,582 Cfsm 1.88 In. 25.62 Ac-ft 1,148,000
Water year 1956-57: Max 7,560 Min 340 Mean 1,199 Cfsm 1.43 In. 19.36 Ac-ft 868,400

Peak discharge (base, 2,350 cfs).--May 2 (12 p.m.) 2,800 cfs (5.88 ft); May 19 (8 a.m.) 5,400 cfs (8.45 ft); June 5 (10 p.m.) 7,670 cfs (10.17 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 28 to Jan. 22; discharge estimated on basis of weather records, recorded range in stage, and records for station at Challis and other nearby streams.

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 1957.

Gage.--Water-stage recorder. Datum of gage is 5,163.99 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 1,450 cfs (1,050,000 acre-ft per year).

Extremes.--Maximum discharge during year, 12,700 cfs June 6 (gage height, 9.89 ft); minimum, 333 cfs Jan. 21 (gage height, 1.48 ft), but may have been less during period of ice effect.

1928-57: Maximum discharge, 15,400 cfs May 25, 1956 (gage height, 10.95 ft); minimum, 160 cfs Dec. 14, 1940.

Remarks.--Records excellent except those for period of ice effect, which are good. Diversions for irrigation of about 10,000 acres above station.

Revisions (water years).--WSP 1043: Drainage area. The figure of runoff for water year 1954 has been corrected to 1,226,000 acre-ft, superseding that published in WSP 1347.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	465	4.0	2,150	8.0	8,400
2.0	560	5.0	3,390	9.0	10,600
2.5	840	6.0	4,850	10.0	13,000
3.0	1,190	7.0	6,480		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	931	984	792	726	750	732	670	2,320	8,400	4,680	1,370	918
2	*931	*905	798	720	740	709	648	2,810	9,230	4,520	1,330	879
3	931	898	879	665	704	750	670	3,320	10,500	4,220	1,290	872
4	924	957	860	555	720	744	665	2,870	11,400	3,890	1,250	860
5	938	984	828	520	768	744	687	2,810	12,400	3,640	1,210	846
6	931	998	822	545	744	704	738	3,210	12,400	3,520	1,170	822
7	931	991	*720	610	714	756	704	4,220	11,400	3,390	1,150	798
8	931	957	632	720	756	810	698	4,660	10,500	3,210	1,110	792
9	957	950	676	726	774	810	720	4,700	*9,490	3,080	1,090	786
10	964	938	898	670	714	750	774	4,960	8,150	2,990	1,060	786
11	1,140	957	898	654	687	676	822	*4,940	7,290	2,940	1,030	792
12	1,240	938	905	822	732	726	860	5,380	6,980	*2,810	998	786
13	1,110	950	886	810	709	*709	828	5,900	6,800	2,730	970	774
14	1,060	886	872	798	744	638	834	6,120	6,170	2,630	950	762
15	1,030	774	816	786	720	709	*905	6,260	5,510	2,530	*944	756
16	1,030	892	853	682	682	709	905	6,040	4,960	2,370	931	750
17	1,010	964	792	510	676	709	918	6,020	4,440	2,240	924	750
18	998	950	828	540	665	692	912	6,210	4,100	2,100	912	762
19	1,030	786	798	570	665	682	912	7,250	4,100	2,030	898	*822
20	1,000	714	698	700	709	687	931	6,620	4,430	1,970	872	834
21	984	810	726	700	709	704	964	5,720	4,550	1,920	860	822
22	964	872	676	670	714	643	998	5,050	4,260	1,850	872	816
23	970	860	714	*680	744	643	1,120	4,680	4,100	1,810	872	810
24	991	834	804	680	798	654	1,250	4,400	4,240	1,720	853	804
25	957	810	726	680	834	670	1,140	4,310	4,370	1,660	840	816
26	1,000	798	660	610	810	643	1,040	4,620	4,340	1,620	828	810
27	1,080	786	665	520	834	626	1,010	5,290	4,380	1,560	828	792
28	970	774	704	500	792	654	1,110	5,940	4,660	1,510	828	768
29	905	780	720	620	-	660	1,520	6,610	4,640	1,480	846	762
30	984	786	714	680	------	682	2,070	7,400	4,700	1,460	886	762
31	1,010	------	750	720	------	682	------	7,870	------	1,400	912	------
Total	30,832	26,483	24,110	20,389	20,608	21,707	28,023	158,510	202,890	79,480	30,884	24,109
Mean	995	883	778	658	736	700	934	5,113	6,763	2,564	996	804
Cfsm	0.553	0.491	0.432	0.366	0.409	0.389	0.519	2.84	3.76	1.42	0.553	0.447
In.	0.64	0.55	0.50	0.42	0.43	0.45	0.58	3.27	4.19	1.64	0.64	0.50
Ac-ft	61,150	52,530	47,820	40,440	40,880	43,060	55,580	314,400	402,400	157,600	61,260	47,820

Calendar year 1956: Max 14,900 Min 450 Mean 2,352 Cfsm 1.31 In. 17.80 Ac-ft 1,707,000
Water year 1956-57: Max 12,400 Min 500 Mean 1,830 Cfsm 1.02 In. 13.81 Ac-ft 1,325,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 17 to Feb. 2.

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 1957.

Gage.--Water-stage recorder. Datum of gage is 5,369.3 ft (levels by Topographic Division). Prior to Sept. 27, 1944, staff gage and Sept. 27, 1944, to Nov. 10, 1948, water-stage recorder, at site 350 ft downstream at datum 0.64 ft lower. Nov. 11, 1948, to Aug. 11, 1956, water-stage recorder at present site at datum 0.64 ft lower.

Average discharge.--14 years, 46.2 cfs (33,450 acre-ft per year).

Extremes.--Maximum discharge during year, 401 cfs June 7 (gage height, 5.07 ft); minimum, 7.2 cfs Mar. 14, but may have been less during periods of ice effect or no gage-height record.

1943-57: Maximum discharge, 508 cfs June 1, 1956; maximum gage height, 6.30 ft May 24, 1956; minimum discharge, 5.7 cfs Mar. 11, 29, 1950.

Remarks.--Records good except those for periods of ice effect, shifting control, or no gage-height record, all of which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	20	14	b12	b10	9.8	14	46	210	133	51	43
2	*27	19	14	b11	9.5	9.5	14	58	257	130	51	40
3	26	*20	14	b10	10	9.5	14	75	263	125	50	39
4	25	21	13	b10	10	9.3	14	83	292	119	49	38
5	25	21	13	b11	10	9.3	15	85	333	113	47	37
6	24	21	13	b11	10	9.3	15	93	369	106	47	37
7	24	20	*b11	b11	9.5	11	15	102	389	102	49	35
8	25	20	b10	b11	10	11	15	*110	386	98	49	35
9	25	20	b12	b11	10	12	15	117	*368	93	47	36
10	25	19	b12	b11	9.5	10	16	118	338	90	46	36
11	30	20	b12	b11	10	9.8	18	119	315	88	45	35
12	29	19	13	b12	9.5	9.8	18	127	301	*84	45	35
13	26	20	12	b12	10	*9.3	18	144	288	81	45	34
14	25	17	12	11	10	b9.0	*18	172	268	77	43	34
15	24	17	12	10	9.5	9.3	18	190	248	74	*44	33
16	23	17	12	b9.5	9	9.5	18	181	231	71	44	31
17	22	16	12	b9	9	9.8	19	172	214	69	44	30
18	22	15	12	b10	9	9.8	19	176	202	68	44	31
19	22	b14	12	b10	9	20	19	190	193	67	43	33
20	22	b15	b11	b11	9	21	20	180	192	65	43	*32
21	22	b17	b12	b11	9	17	20	158	187	61	43	31
22	21	15	b11	b11	9.3	15	21	138	175	59	43	30
23	21	15	b12	*b11	9.5	13	21	130	166	58	40	29
24	21	14	b11	9.8	10	13	22	120	160	56	38	28
25	21	14	b11	9.3	12	13	22	115	156	57	38	25
26	22	14	b10	9.5	11	13	22	116	151	57	37	25
27	23	15	b10	10	12	13	21	123	149	55	38	23
28	20	15	b10	10	10	13	23	136	145	53	39	24
29	19	15	b11	10	-	13	29	154	140	55	41	25
30	22	15	b11	b10	-------	14	39	186	136	52	43	25
31	22	-------	b12	b10	-------	14	-------	222	-------	51	43	-------
Total	735	520	367	326.1	275.3	369.0	572	4,136	7,222	2,467	1,369	969
Mean	23.7	17.3	11.8	10.5	9.83	11.9	19.1	133	241	79.6	44.2	32.3
Ac-ft	1,460	1,030	728	647	546	732	1,130	8,200	14,320	4,890	2,720	1,920

Calendar year 1956: Max 496 Min 9.0 Mean 69.5 Ac-ft 50,460
Water year 1956-57: Max 389 Min 9.0 Mean 53.0 Ac-ft 38,320

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 27-29, Feb. 3-21; discharge estimated on basis of weather records, records for Johnson Creek at Yellow Pine, and other streams in Salmon River basin. Shifting-control method used May 1 to July 31.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Staff gage read once daily. Datum of gage is 4,636.95 ft above mean sea level, adjustment of 1912.

Average discharge.--28 years, 210 cfs (152,000 acre-ft per year).

Extremes.--Maximum discharge observed during year, 796 cfs June 8; maximum gage height observed, 3.91 ft June 7; minimum discharge observed, 111 cfs May 8 (gage height, 1.88 ft).

1929-57: Maximum discharge observed, that of June 8, 1957; maximum gage height observed, 4.37 ft May 25, 1956 (backwater from Salmon River); minimum discharge observed, 74 cfs May 19, 1955 (gage height, 1.66 ft).

Remarks.--Records good except those for periods of no gage-height record or backwater from Salmon River, which are fair. Diversions for irrigation of about 12,500 acres above station.

Rating table, water year 1956-57, except periods of backwater from Salmon River (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 4-31)

1.8	97	2.5	281
2.0	136	3.0	490
2.2	187	3.7	825

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	207	a275	250	228	232	261	261	190	136	222	184	190
2	*207	a275	247	228	219	254	250	158	c158	232	187	193
3	207	*274	247	228	219	254	244	163	c262	244	184	196
4	213	a275	247	225	222	250	244	160	c445	244	182	199
5	225	a275	*247	219	225	250	250	134	c676	241	179	199
6	a232	a275	247	219	225	250	250	128	c671	241	176	204
7	238	a275	241	216	222	247	247	a120	c725	241	174	204
8	238	a275	238	a219	222	261	247	*111	c796	235	171	207
9	241	a275	241	222	225	267	244	115	*c777	232	171	210
10	244	a275	241	222	228	264	244	119	c723	232	165	210
11	250	a275	a241	222	228	264	*232	113	558	228	160	213
12	271	a275	a241	225	228	*257	241	115	490	*225	158	216
13	278	a275	241	225	228	264	235	119	454	219	158	213
14	278	a275	244	225	232	254	235	132	432	213	163	213
15	278	a275	241	222	232	244	232	136	414	210	*163	210
16	271	a275	244	222	235	244	235	141	383	213	158	213
17	267	a260	244	222	235	254	238	141	334	219	155	213
18	267	a260	241	216	232	250	235	146	318	216	150	216
19	271	a260	241	216	232	250	238	165	303	210	153	219
20	a270	a260	238	228	235	250	244	182	296	207	155	*222
21	a270	a260	238	228	235	247	241	190	296	207	160	228
22	a270	261	238	228	235	247	235	174	285	204	160	228
23	a270	261	238	225	235	244	225	163	261	202	163	232
24	a270	257	235	*222	254	244	222	155	232	199	168	235
25	a270	a256	235	213	278	244	219	150	213	199	168	235
26	a270	254	232	205	271	244	216	155	204	196	168	235
27	a270	a254	232	200	264	244	210	153	204	193	168	238
28	a270	254	228	205	264	244	207	148	202	190	174	238
29	a270	254	228	213	-	244	204	132	204	184	179	238
30	a270	250	228	213	-------	254	196	138	207	184	184	241
31	a275	-------	228	219	-------	247	-------	146	-------	182	187	-------
Total	7,928	8,000	7,422	6,820	6,592	7,792	7,021	4,492	11,659	6,664	5,225	6,508
Mean	256	267	239	220	235	251	234	145	389	215	169	217
Ac-ft	15,720	15,870	14,720	13,530	13,080	15,460	13,930	8,910	23,130	13,220	10,360	12,910

Calendar year 1956: Max 334 Min 90 Mean 212 Ac-ft 153,900
Water year 1956-57: Max 796 Min 111 Mean 236 Ac-ft 170,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, and records for nearby streams.
c Backwater from Salmon River.

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 1957. 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.--42 years (1912-16, 1919-57), 1,918 cfs (1,389,000 acre-ft per year).

Extremes.--Maximum discharge during year, 14,300 cfs June 6 (gage height, 7.23 ft); maximum gage height, 8.04 ft Jan. 27 (ice jam); minimum daily discharge, 850 cfs Jan. 5, 17; minimum gage height, 2.08 ft Jan. 6.

1912-16, 1919-57: Maximum discharge, 16,500 cfs May 25, 1956 (gage height, 8.25 ft); maximum gage height, 9.62 ft Jan. 8, 1942 (ice jam); minimum discharge, 242 cfs Jan. 8, 1937 (gage height, 1.50 ft).

Remarks.--Records excellent except those for periods of ice effect or shifting control, which are fair. Diversions above station for irrigation.

Revisions (water years).--WSP 1043: Drainage area. WSP 1317: 1916.

Rating tables, water year 1956-57, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 31				Aug. 1 to Sept. 30	
2.2	1,060	5.0	6,860	2.8	1,050
2.8	1,730	6.0	10,200	3.1	1,380
3.4	2,660	7.0	13,600	3.4	1,760
4.0	3,950	8.0	17,000		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	1,590	1,290	1,200	1,200	1,270	1,190	2,290	10,400	5,510	1,760	1,250
2	1,280	1,540	1,280	1,200	1,200	1,200	1,150	2,620	11,000	5,390	1,700	1,250
3	1,280	1,490	1,340	1,100	1,150	1,220	1,140	3,220	11,800	5,210	1,630	1,250
4	*1,310	1,490	1,370	900	1,150	1,250	1,140	3,500	12,800	4,680	1,560	1,250
5	1,340	*1,540	1,360	850	1,250	1,230	1,140	3,280	13,600	4,410	1,500	1,220
6	1,340	1,590	*1,240	900	1,200	1,230	1,180	3,330	14,100	4,180	1,450	1,190
7	1,360	1,590	1,150	1,000	1,150	1,180	1,200	4,200	14,000	3,980	1,420	1,170
8	1,360	1,560	1,000	1,200	1,200	1,260	1,170	5,010	*13,100	3,810	1,400	1,150
9	1,420	1,510	1,080	1,200	1,250	1,290	1,170	5,330	12,600	3,620	1,390	1,130
10	1,460	1,500	1,260	1,100	1,200	1,290	1,200	5,720	11,500	3,500	1,360	1,130
11	1,510	1,490	1,410	1,050	1,100	*1,200	*1,270	*5,760	10,000	3,460	1,330	1,130
12	1,670	1,490	1,400	1,200	1,200	1,170	1,340	6,160	9,120	3,350	1,280	1,120
13	1,690	1,490	1,410	1,350	1,150	1,180	1,360	6,800	8,590	3,260	1,260	1,090
14	1,610	1,480	1,380	1,300	1,200	1,130	1,320	7,530	7,900	*3,180	1,230	1,070
15	1,570	1,410	1,340	1,300	1,150	1,090	1,340	8,000	7,240	3,070	1,200	1,080
16	1,550	1,340	1,300	1,100	1,200	1,150	1,380	7,700	6,540	2,930	*1,180	1,070
17	1,550	1,480	1,320	850	1,100	1,150	1,380	7,570	5,970	2,770	1,180	1,060
18	1,540	1,510	1,270	900	1,100	1,160	1,370	7,600	5,390	2,640	1,170	1,070
19	1,530	1,460	1,290	960	1,100	1,150	1,380	8,520	5,100	2,550	1,160	1,100
20	1,540	1,300	1,250	1,150	1,150	1,150	1,390	9,350	5,130	2,520	1,140	1,160
21	1,530	1,280	1,120	1,150	1,200	1,160	1,410	8,320	5,600	2,430	1,120	1,180
22	1,530	1,350	1,150	1,150	1,200	1,150	1,420	7,280	5,330	2,360	1,110	1,170
23	1,490	1,400	1,100	1,150	1,250	1,100	1,440	6,540	4,960	2,290	1,120	*1,160
24	1,510	1,380	1,200	1,150	1,300	1,100	1,530	5,940	4,950	2,210	1,100	1,150
25	1,500	1,350	1,200	*1,150	1,350	1,110	1,610	5,630	5,010	2,150	1,070	1,160
26	1,510	1,310	1,100	1,000	1,350	1,130	1,500	5,600	5,010	2,090	1,060	1,160
27	1,600	1,290	1,050	900	1,370	1,110	1,410	6,100	5,010	2,060	1,050	1,140
28	1,620	1,280	1,100	920	1,350	1,100	1,390	6,960	5,210	1,990	1,070	1,100
29	1,510	1,260	1,170	1,000	-	1,130	1,480	7,830	5,510	1,940	1,110	1,090
30	1,490	1,290	1,200	1,100	-------	1,160	1,870	8,820	5,450	1,920	1,150	1,110
31	1,590	-------	1,250	1,200	-------	1,180	-------	9,810	-------	1,850	1,240	-------
Total	46,070	43,040	38,380	33,680	33,770	36,380	40,270	192,320	247,920	97,310	39,500	34,360
Mean	1,486	1,435	1,238	1,086	1,206	1,174	1,342	6,204	8,264	3,139	1,274	1,145
Ac-ft	91,380	85,370	76,130	66,800	66,980	72,160	79,870	381,500	491,700	193,000	78,350	68,150

Calendar year 1956: Max 16,300 Min 811 Mean 2,915 Ac-ft 2,116,000
Water year 1956-57: Max 14,100 Min 850 Mean 2,419 Ac-ft 1,751,000

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 6-9, 21-23, Dec. 25 to Feb. 26 (no gage-height record Jan. 28-30). Shifting-control method used June 23 to Aug. 6.

Texas Creek near Leadore, Idaho

Location.--Lat 44°35', long 113°20', in NW¼SW¼ sec. 35, T. 15 N., R. 26 E., on right bank 50 ft downstream from Nez Perce Creek, half a mile upstream from county road bridge, and 6½ miles south of Leadore.

Drainage area.--73 sq mi, approximately; 74 sq mi, approximately, at former site.

Records available.--June 1955 to September 1957. Records for November 1938 to July 1939 at site half a mile downstream not equivalent owing to diversions.

Gage.--Water-stage recorder. Altitude of gage is 6,280 ft (by barometer). November 1938 to July 1939, staff gage at site half a mile downstream at different datum.

Extremes.--Maximum discharge during year, 70 cfs June 30 (gage height, 3.57 ft); maximum gage height recorded, 4.38 ft Jan. 31, Feb. 1 (ice jam); minimum discharge, 8.8 cfs Aug. 9 (gage height, 2.87 ft).

1955-57: Maximum discharge, 116 cfs Mar. 25, 1956 (gage height, 3.94 ft), from rating curve extended above 50 cfs by logarithmic plotting; maximum gage height, that of Jan. 31, Feb. 1, 1957; minimum discharge, 4.3 cfs Aug. 31, 1955 (gage height, 2.72 ft).

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

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-21)

2.8	7	3.2	36
2.9	13	3.5	64
3.0	20		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	30	26	25	b23	27	36	*39	22	38	17	30
2	13	b28	26	25	23	27	34	36	26	30	16	24
3	12	b29	26	24	23	27	36	35	30	26	16	22
4	13	31	26	b21	23	27	33	45	30	24	14	22
5	14	30	27	b23	23	27	32	35	31	23	*14	21
6	12	34	27	b24	23	28	34	31	34	22	12	20
7	13	34	b26	b26	22	29	30	26	*35	22	11	19
8	17	32	23	b25	23	30	37	25	34	*22	11	19
9	23	32	26	b25	23	30	*46	28	34	21	10	20
10	22	33	28	b25	22	29	45	29	42	19	11	19
11	26	34	*b29	b26	23	28	43	28	31	22	11	*19
12	26	*33	b29	b27	22	*28	40	44	26	22	12	19
13	21	32	29	b26	22	28	41	39	24	22	11	19
14	20	b29	29	b24	22	28	50	57	26	22	14	24
15	19	b25	28	b22	21	29	50	47	33	21	17	23
16	19	26	28	20	21	29	43	26	51	19	20	23
17	22	30	27	19	21	30	42	22	34	18	21	22
18	23	29	26	22	22	30	40	22	24	19	22	23
19	26	b23	26	23	23	31	40	40	22	24	22	28
20	26	b24	26	23	23	34	42	45	28	23	21	30
21	24	26	26	23	22	34	44	34	39	22	22	31
22	23	29	b25	23	23	30	40	30	40	22	22	28
23	26	27	b25	*b22	25	30	41	26	33	22	22	27
24	30	27	26	21	28	30	37	25	29	21	21	26
25	30	26	25	21	29	30	34	22	29	19	21	25
26	32	b25	b23	b22	29	32	33	22	30	19	21	25
27	34	b24	b23	b23	28	33	33	21	30	18	20	23
28	30	b23	24	b23	28	34	35	21	26	16	20	22
29	28	24	24	b22	-	35	40	21	25	15	22	22
30	29	25	24	b23	-------	44	40	22	34	13	31	22
31	31	-------	24	b23	-------	45	-------	23	-------	14	32	-------
Total	696	854	807	721	660	953	1,171	966	932	660	557	697
Mean	22.5	28.5	26.0	23.3	23.6	30.7	39.0	31.2	31.1	21.3	18.0	23.2
Ac-ft	1,380	1,690	1,600	1,430	1,310	1,890	2,320	1,920	1,850	1,310	1,100	1,380

Calendar year 1956: Max 100 Min 6.4 Mean 21.3 Ac-ft 15,480
Water year 1956-57: Max 57 Min 10 Mean 26.5 Ac-ft 19,180

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 8-10, Jan. 16-22, 24, 25, Feb. 2 to Mar. 11, Mar. 22-29, Apr. 3-8; discharge estimated on basis of weather records, records for Lemhi River near Lemhi, and other nearby streams.

Lemhi River near Lemhi, Idaho

Location.--Lat 44°55', long 113°37', in sec. 4, T. 18 N., R. 24 E., near center of span on downstream side of private bridge on Langfitt Ranch, 3½ miles downstream from Hayden Creek and 4½ miles north of Lemhi.

Drainage area.--890 sq mi, approximately.

Records available.--November 1938 to August 1939, April 1955 to September 1957.

Gage.--Staff gage read once daily; crest-stage indicator since Apr. 29, 1955. Datum of gage is 4,971.7 ft above mean sea level, adjustment of 1929 (levels by Corps of Engineers).

Extremes.--Maximum discharge during year, 1,840 cfs probably June 7 (gage height, 4.48 ft); minimum observed, 139 cfs Aug. 17, 18, 20-22; minimum gage height, 1.58 ft Sept. 14. 1938-39, 1955-57: Maximum discharge, that of June 7, 1957; minimum observed, 93 cfs Sept. 3-7, 1955; minimum gage height observed, 1.41 ft Aug. 27, 1939.

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

Revisions (water years).--WSP 1397: 1939.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Jan. 15, Sept. 14-30)

1.6	136	3.0	735
1.9	221	3.5	1,080
2.2	330	4.0	1,460
2.6	500	4.5	1,860

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	245	193	b210	a200	228	255	314	1,220	877	272	228
2	215	221	193	b210	a195	228	241	322	1,350	863	262	231
3	215	235	199	b190	a195	235	248	350	1,560	780	248	231
4	*212	*245	206	b180	a190	221	241	500	1,660	716	235	231
5	209	*245	206	b170	a190	221	241	455	a1,700	652	224	238
6	196	258	*206	b180	a190	221	255	460	a1,750	610	218	231
7	190	266	b190	b190	a190	224	248	482	1,830	562	212	228
8	206	258	a180	b210	a190	241	248	515	*1,740	535	199	218
9	228	252	a190	b200	a190	255	262	*545	1,790	505	193	218
10	238	252	a200	b200	a185	255	262	592	1,570	486	184	212
11	245	252	206	199	a190	235	*272	586	1,460	478	176	206
12	272	252	206	193	a180	*228	272	748	1,300	468	170	206
13	272	252	206	187	a180	228	276	748	1,100	437	159	206
14	280	238	206	187	b190	206	290	814	1,000	437	149	206
15	269	209	199	187	b180	221	286	919	940	419	149	212
16	262	221	206	b170	b180	228	280	856	975	*398	*146	212
17	248	231	199	b160	b180	228	272	780	996	378	139	212
18	248	231	206	b175	b180	241	272	754	912	370	141	221
19	262	206	206	b185	b180	241	272	877	912	402	146	238
20	252	b190	206	b195	b185	235	280	1,020	940	394	139	272
21	252	206	206	b190	b180	221	283	1,020	1,050	378	139	*269
22	245	212	b190	b190	b180	221	283	968	989	378	139	231
23	245	206	b210	b190	209	221	283	912	940	374	144	228
24	245	199	b210	*b185	228	221	276	800	905	362	149	252
25	248	199	b190	a170	241	228	269	761	905	354	154	252
26	255	193	b185	a160	248	228	272	735	877	346	149	245
27	255	193	b195	a170	248	228	266	774	884	334	154	238
28	248	b180	b200	a175	241	235	266	842	898	318	159	238
29	235	b185	b200	a170	-	241	280	933	884	306	157	231
30	238	193	b205	a175	-------	262	294	1,020	884	276	182	231
31	245	-------	b215	a190	-------	262	-------	1,120	-------	269	280	-------
Total	7,439	6,725	6,215	5,743	5,515	7,188	8,045	22,522	35,921	14,462	5,567	6,872
Mean	240	224	200	185	197	232	268	727	1,197	467	180	229
Ac-ft	14,760	13,340	12,330	11,390	10,940	14,260	15,960	44,670	71,250	28,680	11,040	13,630

Calendar year 1956: Max 1,050 Min 124 Mean 272 Ac-ft 197,400
Water year 1956-57: Max 1,830 Min 139 Mean 362 Ac-ft 262,200

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, records for Texas Creek, and other nearby streams.
b Stage-discharge relation affected by ice.

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 1957.

Gage.--Staff gage read once daily. Altitude of gage is 3,280 ft (from river-profile map).

Average discharge.--13 years, 259 cfs (187,500 acre-ft per year).

Extremes.--Maximum discharge observed during year, 2,490 cfs June 4 (gage height, 4.10 ft); minimum daily, 70 cfs Jan. 17.
1944-57: Maximum discharge observed, 2,740 cfs May 25, 1956 (gage height, 4.30 ft); maximum gage height observed, 4.4 ft Jan. 6, 1947 (backwater from ice); minimum discharge observed, 30 cfs Feb. 10, 1953 (gage height, -0.21 ft).

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation of about 1,000 acres above station.

Revisions (water years).--WSP 1063: 1945.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 23 to July 14)

0.2	70	1.6	495	3.0	1,410
.4	106	2.0	715	4.0	2,300
.8	198	2.5	1,030	4.5	2,800
1.2	326				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	91	95	90	85	87	106	436	2,160	537	153	130
2	98	73	100	95	85	87	106	486	2,200	516	153	126
3	*98	82	105	85	85	95	102	542	2,280	516	153	126
4	98	89	105	75	80	87	106	590	2,490	495	148	122
5	98	102	*105	80	80	91	112	767	2,390	477	148	110
6	98	*128	95	85	80	98	112	834	2,290	467	148	106
7	95	126	90	100	80	98	108	956	2,000	458	144	106
8	95	108	85	100	85	98	112	1,110	1,910	405	144	106
9	95	106	95	95	85	98	116	*1,270	1,520	337	139	102
10	96	102	100	95	80	95	120	1,670	1,380	326	130	102
11	108	102	100	100	80	*78	128	1,580	*1,200	326	130	102
12	110	102	110	100	80	87	*135	1,700	1,140	319	130	98
13	110	98	125	95	75	84	141	1,620	1,090	*312	126	98
14	106	95	122	95	80	98	133	1,700	1,020	297	126	98
15	106	87	118	90	80	106	133	1,700	996	287	122	95
16	102	84	118	80	80	106	137	1,620	891	280	*116	95
17	98	84	106	70	80	106	146	1,630	828	256	114	95
18	98	98	98	80	80	102	150	1,690	767	250	110	110
19	102	102	95	85	80	87	150	1,860	756	247	110	118
20	98	102	91	90	80	93	155	1,960	756	235	110	114
21	98	110	100	90	85	96	167	1,710	767	229	110	*112
22	102	105	90	90	90	93	172	1,550	767	229	110	114
23	102	105	100	85	95	93	188	1,470	715	229	106	110
24	102	100	100	85	105	89	193	1,310	680	212	106	106
25	106	100	90	*80	115	85	167	1,160	657	204	106	102
26	118	100	85	80	120	82	172	1,230	623	204	106	102
27	122	95	85	85	110	85	167	1,390	601	204	102	98
28	106	90	90	85	95	91	212	1,900	590	190	118	98
29	102	90	90	80	-	95	247	2,080	569	177	126	95
30	102	100	90	80	------	95	315	2,180	547	165	130	95
31	106	------	100	80	------	98	------	2,180	------	160	130	------
Total	3,177	2,956	3,078	2,705	2,435	2,883	4,508	43,881	36,580	9,546	3,904	3,191
Mean	102	98.5	99.3	87.3	87.0	93.0	150	1,416	1,219	308	126	106
Cfsm	0.193	0.186	0.188	0.165	0.164	0.176	0.284	2.68	2.30	0.582	0.238	0.200
In.	0.22	0.21	0.22	0.19	0.17	0.20	0.32	3.08	2.57	0.67	0.27	0.22
Ac-ft	6,300	5,860	6,110	5,370	4,830	5,720	8,940	87,040	72,560	18,930	7,740	6,330

Calendar year 1956: Max 2,740 Min 50 Mean 319 Cfsm 0.603 In. 8.23 Ac-ft 231,800
Water year 1956-57: Max 2,490 Min 70 Mean 326 Cfsm 0.616 In. 8.34 Ac-ft 235,700

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 22 to Dec. 13, Dec. 21 to Feb. 28.

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 3,160 ft (from river-profile map). Prior to May 4, 1947, wire-weight gage at site 1.3 miles upstream at datum 3,168.69 ft above mean sea level, unadjusted. May 4, 1947, to Sept. 17, 1951, staff gage at site 200 ft downstream from wire-weight gage at datum 1.28 ft higher than datum of wire-weight gage.

Average discharge.--13 years, 3,091 cfs (2,238,000 acre-ft per year).

Extremes.--Maximum discharge during year, 20,900 cfs June 6 (gage height, 11.54 ft); minimum daily, 1,200 cfs Jan. 5, 17.
1944-57: Maximum discharge, 24,900 cfs May 26, 1956 (gage height, 13.00 ft); minimum daily, 800 cfs Jan. 31, Feb. 1, 1951.

Remarks.--Records excellent except those for period of ice effect, which are fair. Diversions for irrigation of about 88,000 acres above station.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 5-22)

2.0	1,200	4.0	3,590	8.0	11,400
2.5	1,640	5.0	5,190	10.0	16,300
3.0	2,200	6.0	7,090	12.0	21,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,830	2,240	1,750	1,700	1,700	2,290	1,870	3,260	15,200	7,090	2,230	1,750
2	1,840	2,180	1,800	1,700	1,700	2,040	1,810	3,780	16,100	7,010	2,150	1,750
3	*1,840	2,100	1,900	1,500	1,650	2,000	1,750	4,470	17,300	6,770	2,120	1,740
4	1,860	2,100	2,000	1,300	1,650	1,970	1,730	5,390	18,700	6,340	2,040	1,740
5	1,880	2,160	*1,900	1,200	1,700	1,980	1,740	5,550	19,800	5,900	1,960	1,730
6	1,870	*2,260	1,800	1,300	1,650	1,960	1,810	5,690	20,600	5,530	1,870	1,690
7	1,890	2,290	1,600	1,400	1,600	1,950	1,810	6,380	20,400	5,260	1,840	1,670
8	1,880	2,260	1,500	1,700	1,700	2,040	1,760	7,570	19,400	5,040	1,780	1,630
9	1,900	2,210	1,550	1,700	1,750	2,160	1,750	8,770	18,300	4,780	1,750	1,590
10	2,010	2,160	1,700	1,600	1,700	2,280	1,810	*9,550	16,500	4,580	1,740	1,580
11	2,120	2,160	2,000	1,500	1,600	*1,970	1,860	9,500	*14,400	4,440	1,700	1,580
12	2,260	2,150	2,000	1,600	1,700	1,880	*1,940	9,850	13,000	4,310	1,680	1,570
13	2,450	2,180	2,000	1,900	1,600	1,810	1,980	10,600	12,300	*4,180	1,640	1,580
14	2,400	2,130	1,950	1,800	1,700	1,700	1,980	11,300	11,500	4,140	1,610	1,540
15	2,300	2,040	1,900	1,800	1,650	1,670	2,000	11,700	10,600	3,940	1,590	1,530
16	2,240	1,960	1,900	1,500	1,600	1,670	2,020	11,800	9,660	3,770	*1,580	1,530
17	2,240	2,020	1,850	1,200	1,600	1,740	2,020	11,500	8,900	3,530	1,560	1,510
18	2,200	2,140	1,800	1,300	1,600	1,800	2,020	11,400	8,100	3,340	1,550	1,550
19	2,200	2,010	1,800	1,400	1,600	1,770	2,010	12,300	7,470	3,180	1,520	1,620
20	2,190	1,820	1,750	1,500	1,650	1,770	2,060	14,400	7,490	3,190	1,500	1,710
21	2,180	1,840	1,600	1,600	1,700	1,810	2,100	13,500	8,040	3,150	1,480	*1,780
22	2,150	1,880	1,600	1,600	1,700	1,740	2,180	12,100	7,970	3,080	1,470	1,800
23	2,140	1,920	1,550	1,600	1,800	1,700	2,180	11,000	7,470	3,040	1,460	1,760
24	2,140	1,920	1,600	1,600	2,000	1,650	2,240	10,200	7,130	2,900	1,450	1,740
25	2,150	1,890	1,700	*1,500	2,200	1,670	2,320	9,610	7,110	2,800	1,430	1,720
26	2,180	1,840	1,600	1,400	2,400	1,670	2,260	9,350	7,130	2,720	1,440	1,720
27	2,290	1,770	1,500	1,250	2,740	1,660	2,100	9,790	7,110	2,690	1,410	1,690
28	2,300	1,750	1,500	1,300	2,550	1,660	2,040	10,700	7,110	2,560	1,430	1,640
29	2,230	1,750	1,650	1,400	-	1,690	2,190	11,800	7,210	2,470	1,480	1,590
30	2,140	1,750	1,650	1,600	-------	1,800	2,660	13,100	7,050	2,400	1,560	1,630
31	2,190	-------	1,750	1,700	-------	1,850	-------	14,400	-------	2,330	1,640	-------
Total	65,490	60,880	54,150	47,150	50,190	57,350	60,000	300,310	359,050	126,460	51,660	49,660
Mean	2,113	2,029	1,747	1,521	1,792	1,850	2,000	9,687	11,970	4,079	1,666	1,655
Ac-ft	129,900	120,800	107,400	93,520	99,550	113,800	119,000	595,700	712,200	250,800	102,500	98,500

Calendar year 1956: Max 24,400 Min 1,130 Mean 3,973 Ac-ft 2,884,000
Water year 1956-57: Max 20,600 Min 1,200 Mean 3,513 Ac-ft 2,544,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 29 to Feb. 26.

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 1957. 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.--29 years (1928-57), 237 cfs (171,600 acre-ft per year).

Extremes.--Maximum discharge during year, 2,270 cfs June 4 (gage height, 6.31 ft); minimum, 42 cfs Mar. 27 (gage height, 2.22 ft), but may have been less during period of no gage-height record.

1928-57: Maximum discharge, 2,980 cfs May 24, 1956 (gage height, 6.96 ft); minimum recorded, 31 cfs Apr. 14, 1945 (gage height, 2.12 ft).

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

Revisions.--WSP 738: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	52	3.0	195	5.0	1,120
2.5	84	3.5	360	6.0	1,960
2.8	144	4.0	565	7.0	3,020

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	108	85	85	70	75	67	336	1,690	529	161	116
2	112	104	90	85	70	75	67	412	1,920	500	158	112
3	108	108	95	75	70	75	67	444	2,100	468	156	108
4	106	108	95	65	70	75	67	440	2,140	436	149	108
5	108	110	90	70	70	75	70	468	2,190	408	149	106
6	106	114	85	75	70	75	69	596	2,120	388	146	104
7	104	110	80	85	65	*77	67	715	1,850	368	144	102
8	108	110	75	80	68	77	69	788	1,690	350	142	100
9	116	106	75	80	65	77	70	906	1,490	332	137	102
10	129	108	75	80	65	72	74	936	*1,320	325	135	102
11	168	106	80	85	65	70	76	954	1,220	*304	133	102
12	151	106	85	85	65	71	77	1,050	1,220	297	131	100
13	126	104	90	80	65	72	77	1,160	1,160	304	129	100
14	118	95	90	80	65	69	84	1,190	1,030	276	*126	98
15	114	90	90	75	65	74	88	1,210	900	262	124	98
16	112	105	90	60	65	72	88	1,380	788	249	122	97
17	110	105	90	60	65	70	88	1,420	715	240	122	95
18	112	95	90	70	65	69	88	1,600	695	231	118	*100
19	120	85	85	75	65	70	91	1,500	715	228	116	104
20	112	90	85	75	65	70	95	1,220	771	219	114	102
21	118	95	85	75	65	72	102	1,040	750	210	114	100
22	106	95	85	75	65	69	116	936	685	213	114	98
23	110	95	80	70	65	72	135	912	645	210	114	97
24	110	90	80	65	70	72	140	912	650	198	112	95
25	106	90	75	65	70	72	122	942	650	192	112	93
26	114	90	75	65	75	67	118	1,060	625	187	110	93
27	120	85	75	70	75	66	124	1,200	606	182	110	91
28	108	85	80	70	75	69	161	1,320	601	173	112	89
29	104	85	80	70	-	70	216	1,440	578	173	116	89
30	108	85	85	70	------	70	290	1,580	552	168	120	89
31	116	------	85	70	------	70	------	1,640	------	166	118	------
Total	3,572	2,962	2,605	2,290	1,893	2,229	3,063	31,607	34,066	8,786	3,964	2,990
Mean	115	98.7	84.0	73.9	67.6	71.9	102	1,020	1,136	283	128	99.7
Cfsm	0.833	0.715	0.609	0.536	0.490	0.521	0.739	7.39	8.23	2.05	0.928	0.722
In.	0.96	0.80	0.70	0.62	0.51	0.60	0.83	8.52	9.18	2.37	1.07	0.81
Ac-ft	7,080	5,880	5,170	4,540	3,750	4,420	6,080	62,690	67,570	17,430	7,860	5,930

Calendar year 1956: Max 2,830 Min 58 Mean 361 Cfsm 2.62 In. 35.65 Ac-ft 262,400
Water year 1956-57: Max 2,190 Min 60 Mean 274 Cfsm 1.99 In. 26.97 Ac-ft 198,400

Peak discharge (base, 930 cfs).--May 18 (11 p.m.) 1,770 cfs (5.80 ft); June 4 (10 to 11 p.m.) 2,270 cfs (6.31 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 14 to about Feb. 25, Mar. 11-14. No gage-height record Dec. 1 to Mar. 6; discharge estimated on basis of weather records, records for Valley Creek at Stanley, Johnson Creek at Yellow Pine, and other nearby streams.

Bear Valley Creek near Cape Horn, Idaho

Location.--Lat 44°26', long 115°17', in sec. 29, T. 13 N., R. 10 E., on right bank 250 ft downstream from Fir Creek, 3 miles upstream from mouth, and 7 miles northwest of Cape Horn.

Drainage area.--180 sq mi, approximately.

Records available.--September 1921 to September 1928 (fragmentary), October 1928 to September 1957. 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.--29 years (1928-57), 291 cfs (210,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,700 cfs June 5 (gage height, 4.92 ft); minimum daily, 80 cfs Dec. 9, 10; minimum gage height recorded, 1.16 ft Nov. 14.
1921-57: Maximum discharge, 3,860 cfs May 27, 1956 (gage height, 5.87 ft), from rating curve extended above 2,300 cfs by logarithmic plotting; minimum recorded, 28 cfs Nov. 11, 1931.

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

Revisions.--WSP 573: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	72	2.5	580
1.3	110	3.0	910
1.5	157	4.0	1,730
2.0	327	5.0	2,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	125	100	100	100	105	105	425	2,230	482	160	130
2	121	120	105	95	95	105	105	514	2,330	455	157	123
3	121	120	105	90	95	100	105	586	2,450	425	154	119
4	121	125	105	85	95	100	110	574	2,480	397	152	117
5	121	135	100	85	90	100	110	628	2,500	379	147	114
6	119	135	95	95	90	100	110	770	2,490	357	144	110
7	119	135	95	100	90	100	110	973	2,220	340	144	110
8	121	130	90	100	90	105	105	1,050	2,010	327	142	108
9	128	120	80	100	90	105	105	1,150	1,870	307	140	108
10	144	120	80	100	90	100	110	1,250	*1,580	295	134	108
11	185	120	*90	105	90	100	115	1,240	1,460	*283	132	108
12	191	115	95	105	90	105	115	1,410	1,390	276	130	108
13	163	115	100	105	90	100	120	1,630	1,430	291	128	108
14	147	105	105	100	90	100	130	1,730	1,270	268	*125	108
15	137	105	105	95	85	105	134	1,720	1,170	257	123	108
16	132	115	105	85	85	105	147	1,970	1,000	247	121	108
17	128	125	100	85	85	105	154	2,090	875	240	121	108
18	130	125	100	90	85	100	154	2,140	833	230	119	*114
19	168	115	100	95	85	100	160	2,420	826	223	117	128
20	157	105	100	100	85	*100	163	1,940	896	216	114	123
21	144	105	95	100	90	102	171	1,520	861	210	114	119
22	140	110	95	95	95	100	179	1,420	757	207	114	114
23	137	110	95	95	100	100	213	1,350	692	200	117	112
24	137	105	95	90	100	100	230	1,460	672	194	114	110
25	132	100	90	90	95	100	200	1,490	646	191	114	110
26	140	100	90	85	105	100	182	1,620	628	188	114	108
27	152	95	95	85	105	100	179	1,770	610	185	112	106
28	142	95	95	85	100	100	207	1,880	580	177	114	104
29	130	95	95	90	-	105	291	2,050	544	171	121	104
30	130	100	95	95	------	105	361	2,250	514	168	125	104
31	121	------	100	100	------	105	------	2,240	------	163	132	------
Total	4,281	3,425	2,995	2,925	2,585	3,157	4,680	45,260	39,814	8,349	3,995	3,359
Mean	138	114	96.6	94.4	92.3	102	156	1,460	1,327	269	129	112
Cfsm	0.767	0.633	0.537	0.524	0.513	0.567	0.867	8.11	7.37	1.49	0.717	0.622
In.	0.88	0.71	0.62	0.60	0.53	0.65	0.97	9.35	8.23	1.72	0.83	0.69
Ac-ft	8,490	6,790	5,940	5,800	5,130	6,260	9,280	89,770	78,970	16,560	7,920	6,660

Calendar year 1956: Max 3,670 Min 80 Mean 453 Cfsm 2.52 In. 34.28 Ac-ft 329,100
Water year 1956-57: Max 2,500 Min 80 Mean 342 Cfsm 1.90 In. 25.78 Ac-ft 247,600

Peak discharge (base, 1,200 cfs).--May 19 (3 to 5 a.m.) 2,500 cfs (4.74 ft); June 5 (10 to 11 a.m.) 2,700 cfs (4.92 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 1 to Mar. 20, Mar. 22-28. No gage-height record Dec. 3-5, 8-10, Dec. 27 to Mar. 19, Mar. 22 to Apr. 14; discharge estimated on basis of weather records, 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 1957.

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.--13 years, 512 cfs (370,700 acre-ft per year).

Extremes.--Maximum discharge during year, 4,440 cfs June 2 (gage height, 6.67 ft); minimum determined, 75 cfs Jan. 17 (discharge measurement).
1944-57: 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 determined, 48 cfs Dec. 14, 1955 (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 table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	84	2.5	405	5.0	2,670
1.7	113	3.0	760	6.0	3,720
1.9	157	3.5	1,190	7.0	4,800
2.1	219	4.0	1,660		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	163	150	140	145	150	166	947	3,710	1,020	297	219
2	180	163	160	130	145	150	166	1,130	3,980	965	292	209
3	177	180	170	110	145	150	172	1,330	4,080	920	288	199
4	174	189	160	110	140	150	169	1,250	3,840	848	279	196
5	177	*183	150	120	140	150	180	1,360	*3,820	776	270	193
6	174	199	140	130	140	150	189	1,490	3,780	752	275	189
7	177	196	130	130	130	150	180	1,670	3,160	720	275	189
8	174	186	140	140	140	160	180	1,970	2,990	672	270	183
9	177	183	160	140	135	170	196	2,320	2,740	640	261	180
10	183	183	170	150	130	170	227	2,320	2,310	*608	249	183
11	199	196	180	150	135	170	246	2,340	2,080	586	249	183
12	212	196	180	160	130	170	266	2,640	2,000	565	246	182
13	199	209	189	160	130	160	270	2,940	1,910	551	242	180
14	189	193	180	140	135	150	283	2,940	1,660	537	238	178
15	186	155	166	110	130	160	292	2,720	1,470	498	230	176
16	180	206	166	95	125	160	279	2,800	1,330	478	230	174
17	183	206	152	*85	125	160	283	2,760	1,220	459	223	*172
18	183	189	163	100	130	155	279	2,810	1,190	441	219	206
19	202	143	160	120	130	*152	288	2,990	1,250	435	216	223
20	189	152	155	130	130	160	297	2,700	1,410	423	212	199
21	189	219	145	140	130	163	335	2,320	1,420	411	212	199
22	183	189	140	140	140	157	361	2,060	1,280	411	209	196
23	183	169	135	130	150	155	388	1,910	1,150	411	206	193
24	180	155	135	110	170	157	400	1,790	1,180	383	202	186
25	180	140	135	95	180	157	356	1,790	1,210	366	199	183
26	189	133	120	100	190	152	321	1,990	1,140	366	199	180
27	216	131	115	110	190	150	306	2,320	1,140	345	196	177
28	186	130	110	120	160	155	350	2,630	1,170	335	199	172
29	180	130	120	130	-	160	586	3,390	1,110	330	206	172
30	189	130	140	140	------	166	832	3,590	1,060	321	209	172
31	193	------	150	145	------	172	------	3,710	------	311	238	------
Total	5,766	5,196	4,666	3,910	4,000	4,891	8,843	70,927	61,790	16,884	7,336	5,643
Mean	186	173	151	126	143	158	295	2,288	2,060	545	237	188
Cfsm	0.396	0.368	0.321	0.268	0.304	0.336	0.628	4.87	4.38	1.16	0.504	0.400
In.	0.46	0.41	0.37	0.31	0.32	0.39	0.70	5.61	4.89	1.34	0.58	0.45
Ac-ft	11,440	10,310	9,250	7,760	7,930	9,700	17,540	140,700	122,600	33,490	14,550	11,190

Calendar year 1956: Max 4,960 Min 70 Mean 660 Cfsm 1.40 In. 19.11 Ac-ft 478,800
Water year 1956-57: Max 4,080 Min 85 Mean 548 Cfsm 1.17 In. 15.83 Ac-ft 396,500

Peak discharge (base, 2,000 cfs).--May 13 (7 to 10 p.m.) 3,040 cfs (5.35 ft); June 2 (11 p.m.) 4,440 cfs (6.67 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 28 to Dec. 12, Dec. 21 to about Feb. 25. No gage-height record Jan. 9-16, Jan. 27 to Mar. 18, Sept. 12-16; discharge estimated on basis of 3 discharge measurements, weather records, records for Johnson Creek at Yellow Pine, Panther Creek near Shoup, and other nearby streams.

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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 1957.

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.--29 years, 145 cfs (105,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,510 cfs June 3 (gage height, 6.15 ft); minimum daily, 30 cfs Jan. 17; minimum gage height recorded, 2.45 ft Mar. 27.
1928-57: Maximum discharge, 1,620 cfs May 27, 1956 (gage height, 6.33 ft); minimum recorded, 14 cfs Nov. 3, 1952 (gage height, 2.23 ft), but may have been less during period of ice effect.

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

Revisions (water years).--WSP 1043: 1943.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	25	4.0	397
2.5	34	4.5	615
2.7	56	5.0	875
3.0	107	5.5	1,140
3.5	227	6.0	1,430

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	50	40	43	43	62	56	367	1,240	286	66	50
2	40	48	45	45	42	58	55	432	1,340	267	65	46
3	38	45	*46	40	42	56	59	473	1,390	248	64	44
4	38	46	45	35	42	54	58	534	*1,390	224	62	43
5	38	44	45	38	42	53	70	516	1,370	210	61	42
6	38	58	43	40	42	50	85	*534	1,320	196	62	42
7	38	55	42	*42	40	51	76	615	1,120	183	62	41
8	40	48	38	42	43	66	80	675	1,040	*173	61	40
9	42	48	45	40	47	73	88	864	925	161	58	40
10	46	49	45	40	40	70	103	815	826	154	55	41
11	65	53	45	43	43	64	113	810	780	145	53	41
12	62	51	51	45	40	58	119	969	775	138	53	40
13	51	63	82	43	41	55	125	964	710	131	51	38
14	49	45	58	43	42	52	147	996	615	125	51	38
15	46	45	50	42	39	55	159	986	529	121	49	38
16	44	51	48	35	39	53	145	952	465	115	49	38
17	43	53	43	30	40	51	145	942	448	111	49	38
18	50	48	45	35	*39	*50	142	1,070	456	107	48	*56
19	65	40	42	38	40	50	151	1,160	477	105	*46	56
20	49	45	38	40	41	50	156	969	524	101	46	48
21	48	50	45	40	40	50	166	805	452	98	46	46
22	46	50	40	38	41	48	196	737	413	94	46	44
23	*46	48	45	36	45	46	221	700	397	90	46	43
24	45	45	44	36	62	46	205	665	401	86	45	41
25	44	45	38	32	80	49	168	670	386	85	44	38
26	55	43	38	33	83	48	151	737	359	85	43	41
27	68	40	40	37	85	48	154	800	352	81	43	40
28	50	40	42	40	70	49	189	885	345	78	43	38
29	46	40	42	38	-	53	279	1,040	327	76	45	38
30	48	45	43	40	------	55	341	1,060	306	71	48	38
31	49	------	45	42	------	58	------	1,190	------	70	53	------
Total	1,468	1,431	1,378	1,211	1,333	1,681	4,202	24,932	21,478	4,215	1,613	1,267
Mean	47.4	47.7	44.5	39.1	47.6	54.2	140	804	716	136	52.0	42.2
Cfsm	0.515	0.518	0.484	0.425	0.517	0.589	1.52	8.74	7.78	1.48	0.565	0.459
In.	0.59	0.58	0.56	0.49	0.54	0.68	1.70	10.08	8.68	1.70	0.65	0.51
Ac-ft	2,910	2,840	2,730	2,400	2,640	3,330	8,330	49,450	42,600	8,360	3,200	2,510

Calendar year 1956: Max 1,530 Min 38 Mean 212 Cfsm 2.30 In. 31.40 Ac-ft 154,100
Water year 1956-57: Max 1,390 Min 30 Mean 181 Cfsm 1.97 In. 26.76 Ac-ft 131,300

Peak discharge (base, 600 cfs).--May 19 (3 a.m.) 1,270 cfs (5.71 ft); June 3 (11:30 p.m.) 1,510 cfs (6.15 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 2, 3, 5, 15, 16, Nov. 19 to Dec. 10, Dec. 17, Dec. 19 to Feb. 19, Feb. 21, Mar. 1, 2, 13, 14, 23 (no gage-height record Jan. 17 to Feb. 17; discharge estimated on basis of 3 discharge measurements, weather records, 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 1957.

Gage.--Water-stage recorder. Datum of gage is 4,657.70 ft above mean sea level, datum of 1929, unadjusted.

Average discharge.--29 years, 340 cfs (246,200 acre-ft per year).

Extremes.--Maximum discharge during year, 4,210 cfs June 2 (gage height, 6.74 ft); minimum, 50 cfs Jan. 17 (gage height, 1.02 ft).
1928-57: Maximum discharge, 5,440 cfs May 27, 1956 (gage height, 7.64 ft); minimum, 21 cfs Nov. 30, 1954 (gage height, 0.66 ft).

Remarks.--Records excellent except those below about 100 cfs, which are good. Small diversion from Johnson Creek basin to Deadwood River basin (see Remarks for Deadwood Reservoir near Lowman).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.0	50	3.0	770
1.2	77	4.0	1,420
1.5	135	5.0	2,300
1.8	215	6.0	3,390
2.1	323	7.0	4,610
2.5	507		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	94	82	82	74	79	87	541	3,090	820	154	110
2	94	91	89	86	72	77	86	693	3,470	764	152	100
3	91	100	94	74	72	79	89	798	3,710	720	149	94
4	89	106	*94	66	72	77	89	861	*3,680	655	142	91
5	89	100	89	71	71	77	94	951	3,650	602	137	89
6	89	108	89	76	71	76	98	*1,040	3,440	571	137	87
7	87	108	86	84	68	79	96	1,230	2,800	532	137	86
8	87	104	77	82	71	86	98	1,400	2,640	492	133	82
9	96	104	94	*80	70	89	102	1,630	2,280	*458	129	82
10	104	106	92	80	66	87	112	1,650	2,000	430	124	82
11	120	110	94	84	70	84	118	1,620	1,910	402	120	82
12	129	106	94	86	66	86	127	1,990	1,870	375	118	82
13	118	114	96	82	68	82	133	2,490	1,690	357	116	80
14	110	94	94	82	70	74	142	2,370	1,480	332	114	80
15	106	80	92	80	65	81	149	2,230	1,340	311	110	77
16	104	110	92	65	65	82	147	2,380	1,190	292	108	77
17	102	114	87	61	66	82	152	2,400	1,120	277	106	76
18	104	102	92	70	65	*80	154	2,560	1,140	266	104	*89
19	122	74	87	74	66	79	159	2,820	1,210	262	102	106
20	112	84	76	77	68	80	164	2,140	1,520	252	*100	100
21	108	102	89	76	*66	80	180	1,710	1,310	241	100	98
22	104	96	76	74	70	79	200	1,580	1,130	235	98	96
23	104	94	91	72	79	76	232	1,520	1,060	222	96	91
24	*98	91	91	72	96	82	248	1,590	1,080	209	94	86
25	96	91	74	65	98	82	228	1,620	1,040	203	91	82
26	104	89	74	65	102	80	215	1,940	981	200	91	80
27	114	82	77	68	98	80	209	2,150	969	188	89	77
28	104	80	80	74	84	80	252	2,330	957	180	91	76
29	102	82	80	70	-	82	366	2,710	909	175	92	74
30	106	86	82	71	------	86	487	2,860	867	167	104	74
31	104	------	87	72	------	89	------	3,040	------	159	118	------
Total	3,193	2,902	2,691	2,321	2,069	2,515	5,013	56,844	55,533	11,349	3,556	2,586
Mean	103	96.7	86.8	74.9	73.9	81.1	167	1,834	1,851	366	115	86.2
Cfsm	0.484	0.454	0.408	0.352	0.347	0.381	0.784	8.61	8.69	1.72	0.540	0.405
In.	0.56	0.51	0.47	0.41	0.36	0.44	0.88	9.93	9.70	1.98	0.62	0.45
Ac-ft	6,330	5,760	5,340	4,600	4,100	4,990	9,940	112,700	110,100	22,510	7,050	5,130

Calendar year 1956: Max 4,860 Min 74 Mean 527 Cfsm 2.47 In. 33.68 Ac-ft 382,600
Water year 1956-57: Max 3,710 Min 61 Mean 413 Cfsm 1.94 In. 26.31 Ac-ft 298,600

Peak discharge (base, 1,800 cfs).--May 19 (2 a.m.) 3,180 cfs (5.88 ft); June 2 (9 to 10 p.m.) 4,210 cfs (6.74 ft).

* Discharge measurement made on this day.

Mud Creek near Tamarack, Idaho

Location.--Lat 45°00', long 116°21', in sec. 9, T. 19 N., R. 1 E., on left bank 0.5 mile upstream from Little Mud Creek, 3¼ miles northeast of Tamarack, and 5 miles upstream from mouth.

Drainage area.--15.8 sq mi.

Records available.--April 1937 to September 1939 (fragmentary), October 1939 to September 1943 (discharge measurements only), September 1945 to September 1957.

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.--12 years (1945-57), 19.6 cfs (14,190 acre-ft per year).

Extremes.--Maximum discharge during year, 188 cfs May 13 (gage height, 3.92 ft); maximum gage height, 6.29 ft Feb. 27 (backwater from ice); minimum discharge, 1.0 cfs Sept. 2; minimum gage height, 2.21 ft Nov. 5, Feb. 5.
1937-38, 1945-57: Maximum discharge, 395 cfs Apr. 27, 1952 (gage height, 5.00 ft); maximum gage height recorded, that of Feb. 27, 1957; minimum discharge, 0.2 cfs Nov. 19, 20, 1952.

Remarks.--Records good except those below 10 cfs, which are fair, and those for periods of ice effect, which are poor. No regulation or diversion.

Revisions (water years).--WSP 1153: 1948.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	0.9	2.7	17
2.3	2.4	2.9	34
2.4	4.7	3.2	70
2.5	7.7	3.5	112
2.6	12	4.0	202

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.0	2.4	2.5	2.5	*37	46	136	16	4.5	1.8	1.6
2	1.7	3.6	2.6	2.5	2.5	25	46	145	16	4.2	1.8	1.6
3	1.7	4.0	2.7	2.4	2.6	20	46	165	13	4.5	1.7	1.4
4	1.8	3.6	2.6	2.1	2.6	18	*44	147	12	4.2	1.7	1.4
5	1.8	4.0	2.6	2.2	2.5	16	57	128	11	4.2	1.8	1.4
6	1.8	3.8	2.5	2.3	2.4	14	70	*109	10	4.0	2.6	1.4
7	1.8	3.8	2.4	2.4	2.4	15	70	102	10	3.8	2.6	1.4
8	1.8	4.0	2.3	2.5	2.5	16	70	103	13	3.8	2.2	1.4
9	1.8	*4.0	2.5	2.4	2.5	19	76	122	10	3.8	2.0	1.4
10	2.4	4.2	2.6	2.4	2.4	21	86	128	10	3.8	2.0	1.2
11	3.6	4.5	2.6	2.4	2.5	21	93	140	8.9	3.6	1.8	1.2
12	4.7	4.7	2.8	2.6	2.4	20	108	152	8.5	3.3	1.7	1.2
13	4.0	6.2	3.5	2.5	2.5	18	130	178	8.5	3.1	1.6	1.2
14	3.3	5.9	3.3	2.5	2.4	17	147	184	9.3	3.0	1.6	1.2
15	2.6	4.0	3.1	2.4	2.3	14	152	176	8.5	3.1	1.6	1.2
16	2.2	4.1	2.8	2.3	2.3	13	125	156	7.4	2.9	1.6	1.2
17	2.2	4.2	2.6	2.2	2.3	13	110	138	6.8	2.9	1.6	1.2
18	2.6	4.0	*2.6	2.1	2.3	13	106	143	6.5	*2.9	1.6	1.7
19	3.3	3.2	2.5	2.2	2.4	16	108	158	*6.5	2.9	1.6	1.6
20	2.4	3.2	2.3	2.3	2.4	19	110	140	6.5	2.9	1.6	*1.4
21	2.2	3.2	2.6	*2.4	2.4	22	131	138	6.5	2.9	1.4	1.4
22	2.2	3.2	2.3	2.2	2.5	22	142	120	5.9	2.6	*1.4	1.2
23	2.6	3.5	2.5	2.1	3.5	21	145	103	5.6	2.6	1.4	1.2
24	2.6	3.2	2.6	2.0	5.0	19	128	82	5.3	2.4	1.2	1.2
25	3.1	3.0	2.4	1.9	11	20	104	66	5.3	2.4	1.2	1.2
26	3.8	3.0	2.2	1.8	25	20	86	51	5.3	2.2	1.2	1.2
27	5.6	3.0	2.3	1.7	55	22	78	41	5.0	2.2	1.2	1.2
28	4.5	2.5	2.4	2.1	50	22	82	32	4.7	2.2	1.6	1.2
29	3.8	2.5	2.4	2.2	-	34	100	24	4.7	2.0	1.6	1.4
30	4.0	2.6	2.5	2.4	------	44	122	*21	4.5	2.0	1.7	1.4
31	5.0	------	2.6	2.5	------	50	------	19	------	1.8	2.2	------
Total	88.6	112.7	80.1	70.5	203.1	661	2,918	3,547	251.2	96.8	52.6	39.9
Mean	2.86	3.76	2.58	2.27	7.25	21.3	97.3	114	8.37	3.12	1.70	1.33
Cfsm	0.181	0.238	0.163	0.144	0.459	1.35	6.16	7.22	0.530	0.197	0.108	0.084
In.	0.21	0.27	0.19	0.17	0.48	1.56	6.87	8.35	0.59	0.23	0.12	0.09
Ac-ft	176	224	159	140	403	1,310	5,790	7,040	498	192	104	79

Calendar year 1956: Max 190 Min 1.2 Mean 23.1 Cfsm 1.46 In. 19.92 Ac-ft 16,780
Water year 1956-57: Max 184 Min 1.2 Mean 22.3 Cfsm 1.41 In. 19.13 Ac-ft 16,120

Peak discharge (base, 100 cfs).--Apr. 14 (9:30 p.m.) 165 cfs (3.80 ft); Apr. 22 (7 to 9 p.m.) 156 cfs (3.75 ft); May 3 (3 to 4 a.m.) 184 cfs (3.90 ft); May 13 (3 to 9 p.m.) 188 cfs (3.92 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 1, Nov. 15 to Mar. 6.

Little Salmon River at Riggins, Idaho

Location.--Lat 45°24'50", long 116°19'30", in SE¼SW¼ sec. 15, T. 24 N., R. 1 E., on right bank 250 ft upstream from highway bridge, half a mile upstream from mouth, and three-quarters of a mile southwest of Riggins.

Drainage area.--576 sq mi.

Records available.--February 1951 to February 1955, September 1956 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 1,760 ft (from topographic map).

Extremes.--Maximum discharge during period September 1956 to September 1957, 5,720 cfs June 2 (gage height, 7.00 ft); minimum recorded, 142 cfs Sept. 17, 18, 30, 1957 (gage height, 1.15 ft), but may have been less during period of no gage-height record.

1951-55, 1956-57: Maximum discharge, that of June 2, 1957; maximum gage height, 7.39 ft June 13, 1953; minimum discharge, 116 cfs Feb. 20, 1955; minimum gage height recorded, that of Sept. 17, 18, 30, 1957.

Flood about June 1, 1948, reached a discharge of 9,200 cfs (slope-area determination).

Remarks.--Records excellent except those above 2,000 cfs, which are good, and those for periods of no gage-height record, which are fair. Diversions for irrigation of about 13,600 acres above station.

Discharge, in cubic feet per second, 1956

Sept.28	*216
29	216
30	209

* Discharge measurement made on this day.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 15 to June 6, June 21 to Aug. 29)

1.1	128	3.0	1,150
1.3	185	4.0	1,970
1.5	256	5.0	3,030
2.0	500	6.5	5,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	205	352	226	223	210	1,240	1,240	2,050	*4,040	982	256	185
2	202	302	226	223	210	*1,010	1,110	2,350	4,550	914	252	175
3	199	285	238	219	210	849	1,220	2,520	4,480	940	245	170
4	192	281	238	202	210	726	1,140	2,500	4,310	836	238	165
5	192	272	230	209	210	656	*1,210	2,540	4,340	764	234	160
6	195	289	223	202	210	584	1,460	2,560	3,870	719	249	155
7	192	306	209	212	205	602	1,360	2,590	3,190	668	260	155
8	195	297	182	223	215	726	1,220	*2,830	3,710	638	252	155
9	195	289	223	216	210	862	1,180	3,620	3,420	608	249	150
10	202	293	234	216	200	982	1,200	3,430	2,970	578	234	150
11	241	306	252	219	210	836	1,230	3,370	2,720	*536	230	150
12	272	297	268	219	200	778	1,380	3,740	2,490	512	*226	150
13	306	306	306	216	205	693	2,140	3,980	2,140	489	230	150
14	276	302	320	216	205	596	2,070	3,660	1,940	466	219	145
15	252	272	302	216	205	578	2,130	3,460	1,810	444	202	145
16	241	285	297	179	205	554	1,820	3,560	1,620	423	199	145
17	234	*293	281	160	205	578	1,570	3,490	1,560	402	195	*144
18	241	297	*281	170	205	578	1,430	4,050	1,680	386	192	150
19	264	245	272	180	205	602	1,360	4,400	1,730	366	195	158
20	252	256	256	190	205	680	1,340	3,760	1,680	357	192	161
21	245	268	252	*190	202	771	1,440	3,070	1,570	347	190	155
22	241	264	234	185	205	726	1,520	2,680	1,460	342	185	152
23	260	256	245	180	276	626	1,520	2,530	1,400	333	185	152
24	272	252	249	180	584	590	1,480	2,480	*1,430	320	180	150
25	272	249	230	170	752	596	1,330	2,530	1,360	310	175	150
26	285	241	223	170	1,100	620	1,160	2,750	1,240	302	170	147
27	357	238	223	180	1,370	620	1,050	3,070	1,240	289	170	147
28	371	226	223	190	1,520	632	1,070	3,340	1,220	285	175	147
29	320	226	223	185	-	732	1,320	3,630	1,140	276	197	144
30	347	230	223	190	------	1,110	1,700	3,780	1,050	268	199	144
31	428	------	226	200	------	1,300	------	3,870	------	264	195	------
Total	7,946	8,275	7,615	6,130	10,149	23,033	42,400	98,190	71,360	15,364	6,570	4,606
Mean	256	276	246	198	362	743	1,413	3,167	2,379	496	212	154
Ac-ft	15,760	16,410	15,100	12,160	20,130	45,690	84,100	194,800	141,500	30,470	13,030	9,140

Calendar year 1956: Max - Min - Mean - Ac-ft -
Water year 1956-57: Max 4,550 Min 144 Mean 826 Ac-ft 598,300

Peak discharge (base, 2,000 cfs).--Apr. 13 (1 p.m.) 2,290 cfs (4.34 ft); May 19 (2 a.m.) 5,280 cfs (6.66 ft); June 2 (9:30 p.m.) 5,720 cfs (7.00 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 17 to Feb. 13, Aug. 21-28, Sept. 1-16; discharge estimated on basis of 1 discharge measurement, weather records, records for Johnson Creek near Yellow Pine, South Fork Salmon River near Knox, 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 1957.

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.--45 years, 10,888 cfs (7,883,000 acre-ft per year).

Extremes.--Maximum discharge during year, 82,400 cfs June 6 (gage height, 30.39 ft); minimum, 2,430 cfs Jan. 19 (gage height, 11.44 ft).

1910-17, 1919-57: Maximum discharge, 106,000 cfs May 24, 1956 (gage height, 33.05 ft); minimum, 1,580 cfs Dec. 11, 1932 (gage height, 10.23 ft), from rating curve extended below 2,200 cfs.

Maximum stage known, about 37.5 ft, June 1894, present datum (discharge, 120,000 cfs).

Remarks.--Records excellent except those for period of ice effect, 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.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,720	5,690	4,120	4,080	4,400	8,170	7,210	19,500	*71,000	23,200	6,960	5,010
2	4,650	5,460	4,240	4,220	4,400	7,270	7,000	23,200	73,900	22,400	6,720	5,020
3	4,590	5,270	4,650	4,260	4,400	*6,660	6,940	28,500	79,100	21,900	6,540	4,900
4	4,540	5,140	5,170	4,120	4,500	6,380	6,810	30,800	80,100	20,700	6,460	4,740
5	4,520	5,270	5,420	3,770	4,500	6,220	6,940	32,600	80,900	19,000	6,300	4,610
6	4,520	5,630	5,080	3,380	4,400	5,960	*7,590	34,500	81,800	17,800	6,260	4,540
7	4,500	6,060	4,750	3,270	4,290	5,820	7,860	36,600	76,200	16,800	6,280	4,470
8	4,500	6,040	4,290	3,460	4,220	5,940	7,640	*41,700	71,700	15,900	6,100	4,340
9	4,500	5,760	4,070	3,860	4,190	6,420	7,420	50,500	69,500	15,200	5,920	4,290
10	4,610	5,650	3,950	3,830	4,120	7,040	7,640	54,700	60,800	14,400	5,720	4,220
11	4,930	*5,670	4,650	4,000	4,100	7,140	8,170	53,700	54,800	13,800	5,590	4,220
12	5,440	5,710	5,380	4,120	4,030	6,680	8,740	55,000	50,500	*13,300	5,460	4,260
13	5,980	5,840	5,820	4,170	4,150	6,280	9,800	61,100	47,800	12,700	*5,360	4,220
14	5,960	5,920	5,900	4,290	4,080	5,960	10,300	65,100	44,300	12,400	5,250	4,170
15	5,670	5,670	5,900	4,590	4,120	5,610	10,800	64,800	40,400	12,000	5,120	4,140
16	5,400	5,270	5,630	4,410	4,220	5,400	10,600	64,200	36,700	11,500	5,020	4,070
17	5,310	5,170	*5,330	3,690	4,120	5,610	10,100	64,000	33,200	11,000	4,920	*4,050
18	5,270	5,570	5,140	2,940	4,080	5,710	9,830	63,700	31,100	10,500	4,840	4,080
19	5,360	5,520	5,010	2,500	4,120	5,820	9,730	67,400	30,000	10,000	4,790	4,340
20	5,460	4,990	4,930	*3,060	3,980	6,000	9,700	70,300	30,000	9,860	4,700	4,750
21	5,400	4,560	4,660	3,400	4,150	6,300	9,960	64,600	31,800	9,660	4,650	4,680
22	5,340	4,840	4,320	3,700	4,200	6,380	10,700	57,500	31,000	9,480	4,540	4,700
23	5,270	5,120	4,260	3,800	4,240	6,100	11,200	53,100	28,300	9,220	4,520	4,660
24	5,250	4,950	4,240	4,000	4,840	5,800	11,500	48,800	*27,200	9,030	4,480	4,520
25	5,230	4,880	4,290	3,900	5,860	5,710	11,500	46,000	26,800	8,700	4,390	4,410
26	5,210	4,720	4,270	3,600	7,250	5,740	10,800	46,000	26,100	8,420	4,340	4,340
27	5,550	4,480	3,920	3,000	9,100	5,710	10,100	48,800	25,700	8,190	4,310	4,310
28	6,040	4,310	3,610	2,900	9,220	5,610	9,660	53,600	25,500	7,940	4,310	4,240
29	5,800	4,190	3,480	3,100	-	5,670	10,700	60,000	24,900	7,660	4,390	4,150
30	5,550	4,140	3,540	3,600	------	6,300	14,600	65,300	24,000	7,440	4,660	4,050
31	5,650	------	3,800	4,000	------	6,890	------	68,900	------	7,190	4,830	------
Total	160,720	157,490	143,820	115,020	133,280	192,300	281,540	‡1,594.5	‡1,415.1	397,290	163,730	132,500
Mean	5,185	5,250	4,639	3,710	4,760	6,203	9,385	51,440	47,170	12,820	5,282	4,417
Cfsm	0.383	0.387	0.342	0.274	0.351	0.458	0.693	3.80	3.48	0.946	0.390	0.326
In.	0.44	0.43	0.39	0.32	0.37	0.53	0.77	4.38	3.88	1.09	0.45	0.36
Ac-ft	318,800	312,400	285,300	228,100	264,400	381,400	558,400	‡3,163	‡2,807	788,000	324,800	262,800

Calendar year 1956: Max 140,000 Min 2,920 Mean 15,670 Cfsm 1.16 In. 15.73 Ac-ft 11,370,000
Water year 1956-57: Max 81,800 Min 2,500 Mean 13,390 Cfsm 0.988 In. 13.41 Ac-ft 9,694,000

* Discharge measurement made on this day.
‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Jan. 19 to Feb. 6.

Grande Ronde River at La Grande, Oreg.

Location.--Lat 45°21', long 118°08', near center sec. 36, T. 2 S., R. 37 E., on left bank 2 miles northwest of La Grande and 5 miles downstream from Fivepoint Creek.

Drainage area.--678 sq mi.

Records available.--October 1903 to September 1915, February 1918 to September 1923, October 1925 to September 1957. Monthly discharge only for some periods, published in WSP 1317. Published as "at Hilgard" 1903-15.

Gage.--Water-stage recorder. Datum of gage is 2,830.86 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Nov. 6, 1903, to Sept. 30, 1915, staff gage at site 5 miles upstream, 1,000 ft downstream from Fivepoint Creek, at various datums. Feb. 16, 1918, to June 28, 1923, and Oct. 1, 1925, to Nov. 24, 1931, staff gage at site 1 mile downstream at various datums.

Average discharge.--49 years, 384 cfs (278,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,850 cfs Apr. 5 (gage height, 7.12 ft, from floodmark); minimum, 17 cfs Sept. 13-18 (gage height, 1.30 ft).
1903-15, 1918-23, 1925-57: Maximum discharge, 8,880 cfs Mar. 18, 1932 (gage height, 8.90 ft), from rating curve extended above 4,300 cfs; minimum, 3.9 cfs Aug. 26, 1940 (gage height, 1.23 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Since 1915, slight regulation by city of La Grande reservoir on Beaver Creek (capacity, about 900 acre-ft). Diversions for irrigation of about 400 acres above station. Since 1909, city of La Grande has diverted about 3 cfs from Beaver Creek above station for domestic water supply.

Revisions (water years).--WSP 768: 1933. WSP 1397: 1904-11, 1913, 1915, 1919-20, 1922-23, 1926, 1929-31, 1936-37, 1939, 1942.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 24				Feb. 25 to Sept. 30			
1.2	25	2.5	390	1.3	17	2.5	375
1.4	43	3.0	660	1.4	28	3.0	640
1.7	91	3.5	990	1.5	44	4.0	1,340
2.0	170			1.7	89	6.0	3,390
				2.0	177		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*31	55	46	139	60	1,180	1,750	1,430	706	115	34	28
2	31	48	48	118	55	950	1,360	1,780	834	115	34	25
3	31	46	55	113	65	800	1,250	2,020	700	124	34	*22
4	30	50	60	b100	70	650	1,210	1,750	640	115	34	21
5	30	50	50	b100	70	650	3,160	1,620	574	97	34	20
6	29	52	42	90	60	700	*3,110	1,530	536	92	38	19
7	28	66	40	100	50	800	2,070	1,430	465	87	38	18
8	28	64	b38	100	*b55	900	1,670	1,450	460	82	36	18
9	29	61	b46	110	b60	950	1,510	*1,560	406	77	34	18
10	33	58	b60	110	b65	900	1,490	1,510	362	75	31	18
11	40	56	b200	120	b70	850	1,570	1,760	330	72	31	18
12	43	58	801	110	b60	800	2,010	2,070	318	70	*28	18
13	44	*58	636	120	b60	750	2,210	2,120	302	70	26	18
14	43	61	515	100	b60	700	2,060	2,690	310	70	25	17
15	39	50	425	90	b70	650	1,870	2,960	322	70	24	18
16	38	48	435	70	b65	650	1,640	2,570	298	65	22	18
17	40	70	345	60	b55	700	1,480	2,220	302	65	22	17
18	42	80	*345	65	b60	750	1,360	2,660	239	63	21	19
19	46	60	290	70	65	*790	1,260	2,930	227	61	20	25
20	44	46	225	80	65	834	1,160	2,450	216	59	20	28
21	42	48	221	75	50	772	1,100	1,980	205	59	19	28
22	40	50	158	80	65	688	1,020	1,690	188	61	19	27
23	40	55	174	75	90	622	939	1,420	177	65	19	*26
24	42	55	174	70	500	658	876	1,210	*167	61	19	24
25	46	50	123	60	1,120	827	790	1,060	158	57	19	22
26	50	48	91	55	2,180	932	718	939	155	52	19	21
27	55	46	121	46	*2,230	841	676	841	155	48	19	22
28	55	46	b110	48	1,580	855	700	778	139	46	19	26
29	55	44	b110	50	-	1,160	841	736	130	46	20	27
30	50	44	b120	55	-------	1,640	1,190	700	121	44	25	27
31	55	------	129	60	-------	1,940	-------	700	-------	41	30	-------
Total	1,249	1,623	6,233	2,639	9,055	26,889	44,050	52,564	10,142	2,224	813	653
Mean	40.3	54.1	201	85.1	323	867	1,468	1,696	338	71.7	26.2	21.8
Ac-ft	2,480	3,220	12,360	5,230	17,960	53,330	87,370	104,300	20,120	4,410	1,610	1,300

Calendar year 1956: Max 5,020 Min 28 Mean 646 Ac-ft 468,900
Water year 1956-57: Max 3,160 Min 17 Mean 433 Ac-ft 313,700

Peak discharge (base, 1,900 cfs).--Feb. 26 (11 p.m.) 3,250 cfs (5.88 ft); Mar. 31 (7 to 9 p.m.) 2,080 cfs (4.81 ft); Apr. 5 (about 7 p.m.) 4,850 cfs (7.12 ft); Apr. 13 (5 a.m.) 2,510 cfs (5.22 ft); May 3 (3 a.m.) 2,140 cfs (4.87 ft); May 14 (7:30 p.m.) 3,330 cfs (5.95 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 16 to Nov. 5, Nov. 19 to Dec. 7, Jan. 6 to Feb. 7, Feb. 19-24, Mar. 2-18; discharge estimated on basis of recorded range in stage, weather records, and records for station near Elgin.

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 1957. Monthly discharge only for some periods, published in WSP 1317.
Gage.--Water-stage recorder. Datum of gage is 3,081.76 ft above mean sea level, datum of 1929, supplementary adjustment of 1947 (Oregon State Highway Department bench mark). Prior to Nov. 28, 1938, staff gages at several sites within 1¾ miles of present site at various datums. Nov. 28, 1938, to May 16, 1939, water-stage recorder at site 400 ft downstream at datum 4.29 ft lower.
Average discharge.--34 years (1911-12, 1918-19, 1925-57), 120 cfs (86,880 acre-ft per year).
Extremes.--Maximum discharge during year, 946 cfs May 18 (gage height, 3.51 ft); maximum gage height, 3.93 ft Dec. 11 (backwater from ice); minimum discharge, 13 cfs Nov. 1.
1911-12, 1915, 1918-19, 1925-57: Maximum discharge, 1,740 cfs May 27, 1948 (gage height, 4.57 ft); minimum, 6.5 cfs Feb. 4, 1955 (gage height, 0.44 ft), result of freezeup.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No regulation. Several small diversions for irrigation of about 130 acres above station. Since 1937, diversion to Big Creek in Powder River basin for irrigation of up to 3,300 acres.
Revisions (water years).--WSP 1397: 1912-13, 1919, 1926, 1928-33, 1937, 1939, 1940(M), 1941-43, 1950.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 6-18)

Oct. 1 to Dec. 11		Dec. 12 to Sept. 30			
0.6	18	0.6	21	2.0	270
.8	38	.8	38	2.5	450
1.0	63	1.0	60	3.3	830
1.3	112	1.5	143		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	20	26	49	22	152	240	565	555	123	42	28
2	27	30	28	50	24	135	220	640	680	118	41	27
3	*27	28	30	48	26	119	200	635	665	112	40	*27
4	27	26	28	42	26	107	200	595	625	105	40	27
5	27	28	24	36	26	103	300	550	*615	99	40	26
6	26	40	22	42	22	105	398	518	555	97	40	25
7	26	35	20	46	24	118	315	530	442	92	39	25
8	26	32	18	44	26	129	240	580	442	88	38	25
9	26	31	30	48	28	150	235	*635	362	82	38	25
10	38	31	32	55	30	152	240	610	315	78	36	25
11	39	32	100	50	26	137	249	620	279	77	35	24
12	42	31	260	55	*26	129	276	610	273	74	35	24
13	39	38	118	50	30	114	282	575	261	71	*34	24
14	31	30	86	40	32	107	315	535	246	70	33	24
15	30	*30	76	30	30	105	324	506	218	66	32	24
16	30	32	67	22	26	103	303	510	192	63	31	24
17	29	35	60	28	28	102	285	510	180	60	30	24
18	31	29	*58	34	28	100	270	765	180	58	30	26
19	45	20	53	40	24	102	276	795	190	56	29	27
20	29	22	49	38	20	*105	270	645	185	54	29	27
21	28	24	49	40	22	110	261	518	170	53	28	26
22	27	30	47	36	24	109	*249	446	161	52	28	25
23	27	28	46	30	30	97	252	402	156	52	27	*24
24	27	26	42	26	80	110	240	382	158	52	27	24
25	28	24	50	22	*129	130	218	386	*154	50	27	24
26	31	24	46	18	205	140	195	406	152	49	27	23
27	32	22	44	19	208	130	188	446	147	47	28	23
28	27	20	44	20	*170	130	220	482	145	46	29	24
29	26	22	48	20	-	160	315	498	139	45	29	24
30	31	24	50	22		220	454	502	129	43	31	24
31	30		50	22	-	260	- - - -	530	- - - -	43	33	- - - -
Total	936	844	1,701	1,122	1,392	3,970	8,030	16,927	8,971	2,175	1,026	749
Mean	30.2	28.1	54.9	36.2	49.7	128	268	546	299	70.2	33.1	25.0
Ac-ft	1,860	1,670	3,370	2,230	2,760	7,870	15,930	33,570	17,790	4,310	2,040	1,490

Calendar year 1956: Max 922 Min 18 Mean 146 Ac-ft 106,100
Water year 1956-57: Max 795 Min 18 Mean 131 Ac-ft 94,890

Peak discharge (base, 500 cfs).--May 18 (8:30 p.m.) 946 cfs (3.51 ft); June 2 (10 p.m.) 770 cfs (3.18 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 21 to Feb. 11, Mar. 24 to Apr. 4; discharge estimated on basis of weather records and records for Grande Ronde River at LaGrande and near Elgin. Stage-discharge relation affected by ice Nov. 19 to Dec. 12, Dec. 25-30, Jan. 3-20, Feb. 12-24.

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 State Highway 82, 1½ miles downstream from Willow Creek, and 3¾ miles south of Elgin.

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

Records available.--August 1955 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 2,660.31 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum discharge during year, 4,190 cfs May 20 (gage height, 10.42 ft); minimum, 22 cfs Aug. 30 (gage height, 0.79 ft).

1955-57: Maximum discharge, 5,220 cfs May 12, 1956 (gage height, 11.78 ft); minimum, 21 cfs Sept. 3-5, 1955 (gage height, 0.73 ft).

Flood in May 1948 reached a stage of 2,672.9 ft on Corps of Engineers' gage at bridge an eighth of a mile downstream (discharge, 5,690 cfs, discharge measurement).

Floods in 1894 and 1917 were mucher higher, based on Corps of Engineers' flood profiles.

Remarks.--Records excellent except those for periods of ice effect, which are good. Many diversions for irrigation in valley above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 12				Dec. 13 to Sept. 30			
0.9	36	2.3	270	0.8	23	3.0	460
1.3	82	3.0	445	1.1	53	5.0	1,190
1.7	150	4.0	740	1.5	107	8.0	2,650
				2.0	201	11.0	4,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	150	115	288	150	3,040	2,340	1,840	1,760	258	45	26
2	*55	150	118	308	160	2,560	2,440	2,120	1,800	241	46	28
3	56	135	113	272	170	2,260	2,320	2,460	1,820	227	48	*30
4	56	129	137	260	170	2,020	2,210	2,790	1,760	227	45	30
5	54	139	131	225	170	1,860	2,250	2,880	1,700	218	44	30
6	54	139	113	240	180	1,840	3,400	2,860	1,640	201	44	29
7	47	139	100	200	150	2,101	4,080	2,810	1,570	185	45	30
8	44	156	95	200	*120	2,340	3,640	2,730	1,480	175	45	28
9	42	164	90	220	150	2,720	3,180	2,740	1,410	161	44	27
10	45	158	108	265	150	2,940	2,910	2,790	1,300	143	45	26
11	46	152	178	248	140	2,720	2,750	2,790	1,180	128	44	26
12	49	150	696	262	130	2,420	2,700	2,930	1,060	118	*42	26
13	58	*152	1,290	245	130	2,180	2,910	3,170	950	104	42	25
14	62	156	1,220	230	130	1,920	3,090	3,330	870	95	41	26
15	64	164	1,030	216	130	1,660	3,110	*3,740	850	89	40	27
16	127	152	886	195	140	1,490	3,000	4,050	814	86	38	26
17	196	154	798	150	150	1,460	2,820	3,950	734	81	36	25
18	154	178	*696	130	160	1,460	2,620	3,780	657	75	35	25
19	124	176	643	140	170	1,500	2,460	3,970	598	73	34	24
20	115	154	559	150	160	*1,500	2,320	4,160	562	74	33	25
21	117	131	502	170	150	1,510	2,220	3,950	535	74	31	27
22	111	137	466	170	170	1,460	2,120	3,610	520	73	29	28
23	108	152	394	170	250	1,360	2,020	3,280	490	72	28	28
24	108	150	403	170	494	1,290	1,920	2,960	*427	70	27	27
25	111	152	370	170	1,360	1,300	1,840	2,660	391	65	26	26
26	122	139	328	160	2,520	1,420	1,740	2,430	360	61	26	25
27	137	137	315	150	3,410	1,460	1,600	2,240	342	55	25	25
28	146	120	275	150	*3,590	1,440	1,480	2,080	328	53	24	26
29	150	120	272	150	-	1,480	1,460	1,960	310	52	23	27
30	144	118	282	160		1,740	1,600	1,880	280	50	23	29
31	140		288	160		2,040	----	1,810		48	24	----
Total	2,896	4,403	13,011	6,224	14,954	58,400	74,550	90,770	28,498	3,632	1,122	807
Mean	93.4	147	420	201	534	1,884	2,485	2,928	950	117	36.2	26.9
Ac-ft	5,740	8,730	25,810	12,350	29,660	115,800	147,900	180,000	56,520	7,200	2,230	1,600

Calendar year 1956: Max 5,180 Min 42 Mean 1,052 Ac-ft 763,600
Water year 1956-57: Max 4,160 Min 23 Mean 820 Ac-ft 593,500

Peak discharge (base, 3,000 cfs).--Feb. 28 (5 to 6 a.m.) 3,720 cfs (9.73 ft); Apr. 7 (6 to 7 a.m.) 4,150 cfs (10.36 ft); May 20 (8:30 a.m.) 4,190 cfs (10.42 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 7-9, Jan. 6-9, Jan. 17 to Feb. 23.

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 1957. Prior to October 1952, records published separately as East Fork Wallowa River near Joseph and Wallowa Falls powerplant tailrace near Joseph.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,517.69 ft above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark). Prior to Apr. 8, 1950, staff gage at same site and datum.

Average discharge.--33 years, 21.0 cfs (15,200 acre-ft per year).

Extremes.--Maximum discharge observed during year, 188 cfs June 5, from river rating curve extended from 79 to 175 cfs by logarithmic plotting; minimum daily, 12 cfs for many days January to April.

1924-57: Maximum discharge, 450 cfs July 25, 1937 (no flow in powerplant tailrace), from rating curve extended above 80 cfs by logarithmic plotting; minimum daily, 6.6 cfs Feb. 13, 1927.

Remarks.--Records good. All records presented herein include flow in Wallowa Falls powerplant tailrace of Pacific Power & Light Co. Most of low flow is diverted at dam 1 mile upstream into a conduit 1 mile above Wallowa Falls powerhouse and discharged into West Fork a quarter of a mile below powerhouse.

Revisions (water years).--WSP 1217: Drainage area. WSP 1247: 1931, 1937(M), 1948-49, records for river station; 1948, records for tailrace station.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	17	15	15	12	14	12	23	74	48	25	19
2	19	17	15	15	12	13	12	25	111	49	25	18
3	19	18	16	14	13	13	12	27	113	47	24	18
4	19	17	15	14	13	13	12	28	124	43	24	18
5	19	18	15	14	13	13	12	26	131	44	24	18
6	19	19	15	14	13	13	12	26	134	47	25	17
7	18	18	14	14	13	13	12	29	124	48	24	17
8	18	*18	15	14	13	13	12	32	121	46	24	18
9	17	17	16	14	13	13	12	39	103	45	23	18
10	19	17	17	14	13	13	12	38	83	44	22	17
11	21	17	18	14	13	15	12	60	*93	43	22	*17
12	23	16	18	14	13	12	12	78	86	41	21	17
13	21	14	18	14	13	13	12	65	76	39	21	17
14	19	16	17	14	13	*13	14	63	69	39	21	17
15	19	18	16	13	13	13	13	57	61	38	20	17
16	19	18	16	14	12	12	13	57	54	37	20	16
17	19	17	16	14	12	12	13	59	51	35	20	15
18	19	17	*16	14	12	12	13	91	52	34	20	17
19	19	17	16	14	12	12	12	74	53	31	19	17
20	18	17	15	14	12	12	13	61	52	29	16	17
21	18	16	15	14	12	12	13	*55	49	31	19	17
22	18	17	15	14	13	12	13	48	49	31	16	17
23	19	16	15	14	14	13	13	47	48	30	19	14
24	18	16	15	13	14	12	13	43	50	29	18	13
25	19	17	15	13	14	12	12	46	47	27	18	17
26	18	16	14	13	17	12	12	48	48	28	19	15
27	18	15	14	13	15	12	12	53	48	26	19	15
28	17	15	14	13	14	12	14	58	50	25	19	16
29	17	16	14	12	-	12	18	58	51	*26	20	16
30	17	15	14	*13	-	12	*21	61	48	26	20	16
31	19	-	14	13	-	12	-	64	-	25	20	-
Total	581	502	478	426	366	390	388	1,539	2,253	1,131	647	501
Mean	18.7	16.7	15.4	13.7	13.1	12.6	12.9	49.6	75.1	36.5	20.9	16.7
Cfsm	1.87	1.67	1.54	1.37	1.31	1.26	1.29	4.96	7.51	3.65	2.09	1.67
In.	2.16	1.87	1.78	1.58	1.36	1.45	1.44	5.72	8.38	4.21	2.41	1.86
Ac-ft	1,150	996	948	845	726	774	770	3,050	4,470	2,240	1,280	994

Calendar year 1956: Max 118 Min 9.8 Mean 28.3 Cfsm 2.83 In. 38.48 Ac-ft 20,520
Water year 1956-57: Max 134 Min 12 Mean 25.2 Cfsm 2.52 In. 34.22 Ac-ft 18,240

* Discharge measurement made on this day.

Wallowa Lake near Joseph, Oreg.

Location.--Lat 45°20'20", long 117°13'30", in NW¼ sec. 5, T. 3 S., R. 45 E., on trashrack structure near west end of Wallowa Lake Dam, three-quarters of a mile southeast of Joseph.

Drainage area.--52 sq mi, approximately.

Records available.--November 1903 to July 1906 (gage heights only), January 1912 to March 1914, May to September 1915 (gage heights and change in contents only), October 1925 to June 1926, December 1926 to September 1957. Month-end contents only for some periods, published in WSP 1317. November 1903 to March 1905 published as Wallowa River at Joseph. Change in contents for January 1912 to March 1914 and May to September 1915 published with records for Wallowa River at Joseph.

Gage.--Staff gage read once daily. Datum of gage is 4,355.66 ft above mean sea level, datum of 1929. Nov. 12, 1903, to July 28, 1906, Jan. 13, 1912, to Mar. 31, 1914, May 21 to Sept. 25, 1915, staff gages at several sites within half a mile of present site at different datums.

Extremes.--Maximum contents observed during year, 47,830 acre-ft June 5-7 (gage height, 29.85 ft); minimum observed, 19,650 acre-ft Sept. 7-10, 27, 28 (gage height, 12.60 ft).
1925-57: Maximum contents observed, that of June 5-7, 1957; minimum observed, 4,790 acre-ft Oct. 10, 1929 (gage height, 3.10 ft).

Remarks.--Reservoir is formed by concrete dam. Capacity, 42,750 acre-ft between gage heights 0.0 (sill of outlet gates) and 26.8 ft (spillway crest). About 5,300 acre-ft dead storage above outlet gates, since channel is about 3.4 ft above outlet gates. Dead storage below outlet gates not known. Records are based on capacities above outlet gates.

Month-end gage height and contents, water year October 1956 to September 1957

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	18.30	28,790	-
Oct. 31	19.40	30,570	+1,780
Nov. 30	20.25	31,960	+1,390
Dec. 31	20.85	32,940	+980
Calendar year 1956	-	-	+10,100
Jan. 31	21.15	33,420	+480
Feb. 28	21.70	34,330	+910
Mar. 31	22.50	35,640	+1,310
Apr. 30	23.90	37,950	+2,310
May 31	28.95	46,320	+8,370
June 30	26.65	42,500	-3,820
July 31	18.20	28,620	-13,880
Aug. 31	12.85	20,050	-8,570
Sept. 30	12.70	19,810	-240
Water year 1956-57	-	-	-8,980

† 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, December 1926 to September 1957. 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 different datums.
Average discharge.--30 years (1927-57), 125 cfs (90,500 acre-ft per year), adjusted for storage and diversion.
Extremes.--Maximum discharge during year, 1,200 cfs June 5 (gage height, 4.75 ft); minimum daily, 15 cfs Apr. 15-25.
1903-15, 1926-57: Maximum discharge, that of June 5, 1957; no flow at times.
Remarks.--Records good. Monthly discharges adjusted for storage in Wallowa Lake (see preceding page) and diversions from Wallowa Lake by Silver Lake Canal and Joseph powerplant (plant destroyed July 1956). Silver Lake Canal diverts at Wallowa Lake Dam for irrigation of 4,900 acres northeast of Joseph. City of Joseph diverts less than 1 cfs from Wallowa Lake for municipal use.
Revisions (water years).--WSP 1397: 1906.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 14-28)

Oct. 1 to May 12		May 13 to Sept. 30			
1.2	14	1.1	11	2.5	247
1.5	42	1.2	18	3.0	370
2.0	114	1.3	27	4.0	720
		1.6	66	4.7	1,160
		2.0	138		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	29	41	36	34	28	27	27	562	332	256	86
2	28	29	41	36	34	32	27	26	634	320	215	86
3	30	29	41	36	34	32	27	26	874	302	197	84
4	30	29	41	36	34	32	27	26	968	308	197	69
5	30	29	42	36	34	32	27	26	*1,130	325	203	62
6	30	27	42	36	34	32	27	26	1,020	340	208	62
7	30	27	42	35	34	32	27	26	*898	340	193	53
8	31	27	42	35	34	32	27	27	975	362	182	51
9	32	*27	42	35	33	32	27	28	880	394	178	40
10	32	27	42	35	33	31	27	28	795	427	174	40
11	33	27	42	35	33	29	27	47	*730	457	176	40
12	33	27	42	35	33	29	27	100	675	505	170	40
13	33	27	*42	35	33	*29	27	267	487	526	165	40
14	33	27	42	35	*33	28	23	379	424	499	170	39
15	33	27	42	35	33	32	15	397	379	496	172	39
16	33	28	42	35	33	36	15	*412	350	499	172	39
17	33	28	42	35	33	36	15	421	365	*496	182	51
18	33	28	42	35	33	36	15	484	385	490	184	52
19	33	28	42	35	33	36	15	658	*388	484	180	52
20	33	28	42	35	33	36	15	614	373	463	174	52
21	33	28	42	35	33	35	15	*493	368	451	172	52
22	29	28	42	*35	33	30	15	436	352	433	172	52
23	26	28	42	35	33	27	15	403	350	421	165	52
24	*25	*28	42	35	33	27	*15	391	376	400	155	*51
25	25	28	41	34	33	27	15	365	409	385	153	51
26	25	28	41	34	29	27	18	350	391	355	153	37
27	25	28	39	34	25	27	26	360	373	345	136	25
28	25	28	36	34	25	27	28	373	382	340	132	25
29	25	28	36	34	-	27	28	394	365	320	132	24
30	27	33	36	34	-------	27	27	418	340	*285	104	24
31	29	-------	36	34	-------	27	-------	490	-------	275	91	-------
Total	917	840	1,269	1,084	912	950	666	8,518	16,998	12,375	5,313	1,470
Mean	29.6	28.0	40.9	35.0	32.6	30.6	22.2	275	567	399	171	49.0
Ac-ft	1,820	1,670	2,520	2,150	1,810	1,880	1,320	16,900	33,720	24,550	10,540	2,920

Adjusted for change in contents in Wallowa Lake and diversion by Silver Lake Canal

Mean	62.6	56.0	60.8	46.4	52.4	55.0	63.7	415	574	274	106	60.0
Cfsm	1.20	1.08	1.17	0.892	1.01	1.06	1.22	7.98	11.0	5.27	2.04	1.15
In.	1.39	1.20	1.35	1.03	1.05	1.22	1.37	9.19	12.31	6.08	2.35	1.29
Ac-ft	3,850	3,330	3,740	2,850	2,910	3,380	3,790	25,490	34,130	16,870	6,520	3,570

Observed

Calendar year 1956:	Max	483	Min	2.1	Mean	102	Ac-ft 73,760
Water year 1956-57:	Max	1,130	Min	15	Mean	141	Ac-ft 101,800

Adjusted

Calendar year 1956:	Mean	†171	Cfsm	†3.29	In.	†44.73	Ac-ft	†124,100
Water year 1956-57:	Mean	152	Cfsm	2.92	In.	39.83	Ac-ft	110,400

* Discharge measurement made on this day.
† Adjusted also for diversion by Joseph powerplant tailrace January to July 1956 (plant destroyed).

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 1957. 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.--33 years (1924-57), 72.3 cfs (52,340 acre-ft per year).

Extremes.--Maximum discharge during year, 816 cfs June 5 (gage height, 4.07 ft); minimum, 7.1 cfs Feb. 1 (gage height, 1.47 ft).
1915, 1924-57: Maximum discharge, 1,110 cfs June 9, 1948 (gage height, 3.55 ft); maximum gage height, 4.69 ft June 13, 1955 (backwater from debris); minimum discharge, 2.8 cfs Mar. 2, 1955 (gage height, 1.22 ft), result of ice jam upstream.

Remarks.--Records good except those for period of shifting control, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1397: 1915, 1925-28.

Rating tables, water year 1956-57, except period of shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 10		Dec. 11 to May 31		June 1 to Sept. 30	
1.7	16	1.6	12	2.0	5.0
1.9	29	1.7	17	2.1	11
2.0	39	1.9	33	2.2	20
		2.1	55	2.5	65
		2.4	110	2.9	165
		2.7	225	3.4	355
		3.0	400	4.0	760

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	23	21	25	19	20	20	103	410	220	85	38
2	34	23	23	26	19	19	20	119	452	216	79	36
3	33	25	24	24	18	20	20	119	490	209	77	36
4	32	26	23	21	18	20	20	119	680	195	75	36
5	31	28	21	24	17	20	24	125	*704	212	73	34
6	31	*32	20	*25	17	20	23	128	584	216	71	34
7	30	30	18	26	17	21	23	152	*470	202	67	34
8	29	29	19	27	18	21	23	189	483	195	63	34
9	30	28	23	28	18	23	24	235	355	192	62	34
10	36	28	34	27	17	22	26	220	297	189	62	34
11	33	28	43	28	17	21	27	265	*289	192	58	36
12	33	28	38	28	17	20	28	348	297	183	55	36
13	32	28	40	28	17	*20	28	348	262	177	53	34
14	30	23	*36	28	17	19	32	335	230	168	51	33
15	30	21	36	28	17	19	32	323	212	156	51	32
16	30	23	34	26	17	19	32	287	189	*150	48	32
17	*29	29	32	27	17	19	33	293	*180	141	48	30
18	31	27	31	26	17	18	33	400	192	128	48	29
19	30	21	30	26	17	18	34	374	212	125	46	28
20	30	21	29	26	17	18	35	*311	209	122	46	26
21	28	24	28	25	16	18	37	270	189	130	44	24
22	28	25	23	25	17	18	37	240	186	135	44	21
23	28	24	25	25	20	17	37	225	198	120	42	19
24	27	23	27	25	21	18	37	220	223	115	42	16
25	27	23	24	24	20	18	36	225	212	108	42	16
26	28	23	23	24	29	18	36	245	209	105	40	13
27	26	22	24	24	23	18	36	287	251	100	40	12
28	26	21	24	23	20	18	43	329	254	92	40	10
29	26	21	25	22	-	20	64	354	237	100	39	10
30	26	21	25	22	------	20	*86	380	230	*98	39	9.2
31	26	------	25	*22	------	20	------	394	------	92	38	------
Total	926	748	848	785	514	600	986	7,962	9,386	4,783	1,668	816.2
Mean	29.9	24.9	27.4	25.3	18.4	19.4	32.9	257	313	154	53.8	27.2
Cfsm	0.965	0.803	0.884	0.816	0.594	0.626	1.06	8.29	10.1	4.97	1.74	0.877
In.	1.11	0.90	1.02	0.94	0.62	0.72	1.18	9.55	11.26	5.74	2.00	0.98
Ac-ft	1.840	1,480	1,680	1,560	1,020	1,190	1,960	15,790	18,620	9,490	3,310	1,620

Calendar year 1956: Max 525 Min 18 Mean 95.4 Cfsm 3.08 In. 41.87 Ac-ft 69,230
Water year 1956-57: Max 704 Min 9.2 Mean 82.3 Cfsm 2.65 In. 36.02 Ac-ft 59,560

Peak discharge (base, 400 cfs).--May 18 (6 p.m.) 494 cfs (3.32 ft); June 5 (7 p.m.) 816 cfs (4.07 ft).

* Discharge measurement made on this day.

Note.--Shifting-control method used May 8 to June 9.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,650 ft (by barometer). Aug. 27, 1912, to Sept. 25, 1915, staff gage at site 500 ft upstream at different datum. July 21, 1925, to Sept. 30, 1929, water-stage recorder at site 100 ft upstream at datum about 1.5 ft higher. Oct. 1, 1929, to Dec. 15, 1953, water-stage recorder at site 85 ft downstream at datum 1.00 ft higher.

Average discharge.--33 years (1912-13, 1925-57), 192 cfs (139,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,170 cfs June 2 (gage height, 6.84 ft); minimum recorded, 28 cfs Dec. 7 (gage height, 0.71 ft).
1912-15, 1925-57: 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 fair. Flow slightly regulated since 1916 by Minam Lake (usable capacity, about 1,000 acre-ft). Diversions for irrigation of about 130 acres of which about 20 acres are below station.

Revisions (water years).--WSP 1397: 1913, 1942.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 9-20, May 31, June 1)

Oct. 1 to June 1				June 2 to Sept. 30			
0.7	27	3.0	440	0.6	27	3.0	490
1.0	62	4.0	720	1.0	68	4.0	825
1.5	130	6.0	1,580	1.5	142	5.0	1,240
2.0	215			2.0	237	7.0	2,270

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	38	42	51	b55	74	80	445	1,380	674	134	50
2	42	37	45	52	a50	67	78	492	1,880	640	122	47
3	42	40	54	48	a46	62	76	480	1,860	622	112	46
4	42	37	54	b42	a50	58	74	495	*1,740	571	108	*45
5	42	40	52	b46	a55	58	98	515	*1,800	601	108	44
6	40	*56	42	b46	a46	57	101	520	1,760	618	106	42
7	40	50	b40	b46	b40	66	92	564	*1,280	553	98	41
8	39	46	b36	45	b46	72	88	681	1,330	520	91	41
9	40	46	52	45	b50	79	92	822	1,060	490	86	41
10	46	46	89	b44	45	76	101	724	*952	472	85	40
11	62	46	125	46	a50	72	103	804	904	463	81	40
12	58	46	106	*45	a44	*70	113	1,150	964	433	76	41
13	56	52	129	45	a38	65	117	1,120	864	400	67	42
14	49	42	*98	45	a40	61	132	948	692	370	66	42
15	46	44	85	45	38	62	134	786	559	342	65	43
16	48	52	82	b42	38	62	132	783	475	315	64	44
17	45	72	75	b38	b36	61	*127	*828	448	284	62	44
18	52	56	*74	b36	b34	60	127	1,200	514	248	61	42
19	54	b48	70	b42	b34	60	130	1,090	618	227	60	40
20	49	54	66	b50	b36	60	134	748	629	221	58	42
21	48	51	63	a55	b36	58	139	597	556	244	57	44
22	42	48	58	a55	42	56	140	508	550	270	56	45
23	*44	*45	58	a50	44	54	140	462	608	229	55	46
24	40	43	58	a44	55	56	142	450	724	207	53	47
25	45	42	b55	b38	63	57	140	495	710	193	52	36
26	48	40	b50	b34	129	54	134	588	688	183	49	34
27	48	40	50	a38	102	54	134	699	814	177	49	35
28	43	40	b50	a40	82	55	134	853	839	161	52	34
29	40	42	b48	a36	--	66	231	988	783	*166	55	35
30	40	42	b46	*b40	-------	78	*340	1,070	713	161	57	36
31	42	-------	52	b50	-------	84	-------	1,200	-------	147	58	-------
Total	1,416	1,381	2,004	1,379	1,424	1,974	3,803	23,105	28,694	11,202	2,303	1,249
Mean	45.7	46.0	64.6	44.5	50.9	63.7	127	745	956	361	74.3	41.6
Ac-ft	2,810	2,740	3,970	2,740	2,820	3,930	7,540	45,830	56,910	22,220	4,570	2,480

Calendar year 1956: Max 1,800 Min 36 Mean 258 Ac-ft 187,000
Water year 1956-57: Max 1,880 Min 34 Mean 219 Ac-ft 158,600

Peak discharge (base, 1,100 cfs).--May 12 (11 to 12 p.m.) 1,280 cfs (5.50 ft); May 18 (10 p.m.) 1,440 cfs (5.81 ft); June 2 (9 p.m.) 2,170 cfs (6.84 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Bear Creek near Wallowa and Hurricane Creek near Joseph.

b Stage-discharge relation affected by ice.

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 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,250 ft (by barometer). Apr. 13 to Sept. 16, 1915, staff gage at site 1 mile upstream at different datum. Apr. 22, 1924, to Nov. 2, 1931, water-stage recorder at site 1½ miles upstream at different datum.

Average discharge.--33 years (1924-57), 112 cfs (81,080 acre-ft per year).

Extremes.--Maximum discharge during year, 1,240 cfs June 2 (gage height, 3.07 ft); minimum daily, 10 cfs Oct. 1-10, Feb. 18-21, Sept. 6, 7, but may have been less during periods of ice effect.
1915, 1924-57: Maximum discharge, 1,620 cfs Apr. 22, 1936 (gage height, 3.82 ft, from floodmark), from rating curve extended above 930 cfs; minimum daily, 3 cfs Jan. 20, Feb. 1, 1937.

Remarks.--Records fair. No regulation. Diversions for irrigation of about 43 acres above station. Water for irrigation of about 440 acres in Lostine River basin diverted from Little Bear Creek, a tributary above station, in sec. 32, T. 1 S., R. 43 E.

Revisions (water years).--WSP 1397: 1915, 1927, 1929-30, 1932, 1936-40, 1945, 1949.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 19 to Sept. 30)

0.9	10	2.0	230
1.0	17	2.5	540
1.2	36	3.0	1,130
1.5	86		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	16	28	36	15	128	120	500	718	234	34	14
2	10	18	32	34	14	110	115	549	977	220	32	12
3	10	16	44	30	13	98	105	532	938	216	29	12
4	10	16	44	28	13	86	100	524	*899	186	28	*12
5	10	16	40	30	14	78	138	524	899	189	28	12
6	10	*26	36	28	13	72	174	508	912	180	29	11
7	10	30	32	30	11	80	165	532	674	162	28	11
8	10	28	30	30	12	93	*147	612	*652	144	25	12
9	10	28	40	30	13	115	141	899	516	125	24	12
10	13	29	70	30	12	118	144	729	*439	118	23	12
11	13	30	100	30	13	112	144	707	418	108	23	12
12	16	29	128	30	12	*103	153	912	468	*98	23	12
13	15	35	174	34	11	88	153	912	425	88	22	12
14	14	29	171	32	11	78	165	800	319	76	22	12
15	14	31	*144	a30	11	72	168	718	257	68	17	12
16	14	30	128	a26	11	68	165	685	223	66	18	12
17	14	52	112	a24	11	68	159	621	216	60	17	12
18	17	43	105	a22	10	68	147	812	257	52	17	14
19	16	36	93	a26	10	68	144	685	324	50	17	14
20	15	40	84	28	10	74	138	532	319	46	16	13
21	16	36	78	a28	10	78	141	418	*270	46	16	13
22	15	32	68	a28	11	76	138	342	252	58	15	12
23	*16	*30	63	a24	20	72	138	286	280	46	*14	12
24	15	28	58	a26	64	68	135	292	336	42	14	12
25	16	26	50	a26	122	68	125	324	308	43	14	12
26	17	24	46	a20	180	68	115	390	286	42	14	12
27	18	24	42	a16	186	66	110	460	319	39	13	12
28	16	24	38	a14	153	66	135	516	324	40	14	14
29	15	26	40	a15	-	78	234	558	302	*39	14	14
30	17	26	36	*14	-------	98	*397	603	262	36	14	14
31	17	-------	32	14	-------	115	-------	621	-------	34	16	-------
Total	429	854	2,186	813	986	2,630	4,553	18,103	13,789	2,951	630	372
Mean	13.8	28.5	70.5	26.2	35.2	84.8	152	584	460	95.2	20.3	12.4
Ac-ft	851	1,690	4,340	1,610	1,960	5,220	9,030	35,910	27,350	5,850	1,250	738

Calendar year 1956: Max 1,050 Min 9.6 Mean 147 Ac-ft 106,800
Water year 1956-57: Max 977 Min 10 Mean 132 Ac-ft 95,800

Peak discharge (base, 600 cfs).--May 12 (11 p.m.) 1,220 cfs (3.06 ft); June 2 (5:30 p.m.) 1,240 cfs (3.07 ft).

* 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.
Note.--Stage-discharge relation affected by ice Nov. 19 to Dec. 11, Dec. 25 to Jan. 14, Jan. 20, Jan. 30 to Feb. 23.

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 13 miles northeast of Elgin.

Drainage area.--2,555 sq mi.

Records available.--October 1926 to September 1957.

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.--31 years, 2,084 cfs (1,509,000 acre-ft per year).

Extremes.--Maximum discharge during year, 13,300 cfs May 19 (gage height, 7.70 ft); minimum, 389 cfs Jan. 17.
1926-57: Maximum discharge, 19,900 cfs May 28, 1948 (gage height, 9.76 ft); minimum, 225 cfs Dec. 19, 1935.

Remarks.--Records excellent. Flow slightly regulated by Wallowa Lake (see p. 227) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Sheep Creek in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley.

Revisions (water years).--WSP 1093: 1928-29, 1932-33, 1936, 1938, 1939(M), 1943. WSP 1397: 1927. WSP 1447: 1927.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17, 18, 26-29)

Oct. 1 to May 18				May 19 to Sept. 30			
1.0	460	3.0	2,530	1.0	410	3.0	2,540
1.5	820	4.0	4,300	1.5	750	5.0	6,600
2.0	1,260	8.0	14,200	2.0	1,240	8.0	14,200
2.5	1,800						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	553	665	602	956	740	5,820	5,380	5,950	7,860	2,540	804	600
2	546	651	665	964	665	4,880	5,040	7,200	9,160	2,430	*750	594
3	539	651	672	900	710	4,220	4,760	*7,850	9,760	2,360	686	587
4	532	637	688	748	718	3,830	4,500	7,900	9,160	2,180	670	580
5	525	*644	644	732	702	3,970	6,260	8,000	9,010	2,100	663	561
6	518	710	616	658	680	3,920	7,650	7,920	9,090	2,120	686	535
7	506	725	567	665	*644	5,300	7,580	7,900	7,420	1,970	686	522
8	499	702	492	764	665	5,820	6,780	8,380	7,040	1,840	678	516
9	506	710	609	780	630	6,250	6,000	9,900	6,270	1,750	670	516
10	539	718	772	732	616	5,950	5,600	9,450	5,540	1,670	663	*528
11	630	718	2,020	748	616	5,280	5,380	9,620	5,100	1,610	649	528
12	616	702	3,340	780	609	4,780	5,360	10,600	4,890	1,570	635	528
13	637	732	3,870	796	602	4,160	5,850	10,900	4,600	1,520	621	516
14	616	718	3,330	780	623	3,720	6,220	10,700	*3,980	1,450	628	509
15	588	688	2,740	772	644	3,430	6,220	10,700	3,500	1,370	614	490
16	581	732	2,480	616	672	3,380	5,820	10,800	3,100	1,300	600	470
17	680	860	2,100	500	718	3,450	5,460	10,600	2,850	1,230	580	464
18	718	868	2,030	550	756	*3,430	5,160	11,900	2,760	1,180	574	458
19	756	740	1,800	637	772	3,400	4,880	12,300	2,930	1,110	561	483
20	680	718	*1,620	740	780	3,470	4,680	10,900	2,950	1,070	548	490
21	651	732	1,500	740	756	3,430	4,600	9,570	2,730	1,050	554	496
22	644	695	1,350	740	756	3,240	4,380	8,550	2,590	1,130	528	509
23	623	688	1,260	748	812	3,000	4,200	7,670	2,540	1,060	528	490
24	623	680	1,200	718	2,810	2,940	4,080	7,110	2,810	1,010	528	483
25	644	672	1,110	665	4,980	3,120	3,900	6,800	2,760	990	542	483
26	688	637	964	600	8,540	3,170	3,610	6,710	2,740	950	522	476
27	725	637	884	550	7,780	3,150	3,420	6,860	2,780	900	528	476
28	688	602	876	600	7,250	3,100	3,360	7,080	3,020	890	542	470
29	672	595	860	650	-	3,670	3,940	7,310	2,930	890	580	476
30	695	595	828	702	-------	4,560	4,980	7,240	2,710	870	614	483
31	688	-------	980	748	-------	5,340	-------	7,540	-------	831	621	-------
Total	19,106	20,822	43,469	22,279	47,246	127,180	155,050	271,910	144,580	44,941	19,053	15,317
Mean	616	694	1,402	719	1,687	4,103	5,168	8,771	4,819	1,450	615	511
Ac-ft	37,900	41,300	86,220	44,190	93,710	252,300	307,500	539,300	286,800	89,140	37,790	30,380

Calendar year 1956: Max 12,200 Min 492 Mean 3,026 Ac-ft 2,196,000
Water year 1956-57: Max 12,300 Min 458 Mean 2,551 Ac-ft 1,847,000

Peak discharge (base, 5,000 cfs).--Feb. 26 (8 p.m.) 10,500 cfs (6.61 ft); Mar. 9 (5:30 p.m.) 6,580 cfs (5.03 ft); Apr. 7 (1 a.m.) 7,820 cfs (5.53 ft); May 19 (12:30 a.m.) 13,300 cfs (7.70 ft); June 3 (1:30 a.m.) 10,100 cfs (6.52 ft).

* Discharge measurement made on this day.

Grande Ronde River at Troy, Oreg.

Location.--Lat 45°57', long 117°27', in NW¼ sec. 4, T. 5 N., R. 43 E., on downstream side of left end of bridge at Troy, 100 ft downstream from Wenaha River and at mile 45.4 (river-profile survey).

Drainage area.--3,275 sq mi.

Records available.--August 1944 to September 1957. Monthly discharge only for August 1944, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 1,587.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1949, wire-weight gage at same site at datum 12.00 ft lower.

Average discharge.--13 years, 3,327 cfs (2,409,000 acre-ft per year).

Extremes.--Maximum discharge during year, 17,400 cfs May 19 (gage height, 8.78 ft); minimum, 474 cfs about Jan. 28 (gage height, 1.84 ft).
1944-57: Maximum discharge observed, 30,000 cfs Dec. 15, 1946 (gage height, 11.20 ft, present datum); minimum, 434 cfs Nov. 29, 1952 (gage height, 1.71 ft), result of freezeup.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Flow slightly regulated by Wallowa Lake (see p. 227) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Sheep Creek in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley.

Revisions (water years).--WSP 1397: 1946(M), 1948-50.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17, Feb. 6-9)

Oct. 1 to May 18				May 19 to Sept. 30			
2.1	630	5.0	4,630	2.0	680	5.0	4,460
2.5	960	6.0	7,220	2.5	1,040	6.0	6,720
3.0	1,500	8.0	14,000	3.0	1,520	8.0	13,800
4.0	2,840	9.0	18,700	4.0	2,750	9.0	18,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	708	906	825	1,510	a1,000	8,640	8,490	*8,700	9,740	2,990	1,010	a850
2	700	870	825	1,430	a950	7,220	7,740	9,930	11,000	2,860	976	a850
3	700	861	980	1,400	a1,000	5,940	7,310	10,900	12,200	2,780	952	a850
4	693	852	897	1,250	a1,000	5,250	6,800	10,600	11,500	2,600	944	a850
5	686	843	879	1,090	a950	5,280	8,790	10,800	11,000	2,470	944	a800
6	679	990	852	1,070	900	5,220	11,200	10,600	11,200	2,470	960	a800
7	672	*1,020	756	960	*900	7,310	10,600	10,300	9,140	2,350	968	a760
8	651	980	700	1,100	900	8,760	9,660	10,600	8,300	2,210	960	a760
9	642	960	834	1,140	950	9,090	8,940	14,000	7,570	2,090	952	a760
10	665	960	1,000	1,110	960	8,700	8,610	14,300	6,690	1,970	936	a800
11	756	970	1,960	1,080	951	7,680	8,340	13,600	6,150	1,910	920	*764
12	798	970	5,760	1,090	942	6,910	8,220	14,000	5,790	1,860	904	764
13	807	1,030	6,770	1,150	951	5,910	8,850	14,500	*5,670	1,780	888	752
14	798	1,040	6,150	1,140	1,000	5,100	9,480	14,000	5,100	1,740	880	745
15	780	960	4,630	1,130	1,120	*4,630	9,720	14,300	4,480	1,650	873	738
16	764	980	4,500	951	1,160	4,430	9,000	14,000	3,940	1,550	866	720
17	816	1,240	3,740	700	1,190	4,650	8,400	13,800	3,590	1,460	852	706
18	915	1,310	3,480	724	1,280	4,540	8,040	14,900	3,340	1,380	838	693
19	970	1,130	*3,250	807	1,290	4,610	7,600	16,400	3,470	1,310	824	706
20	906	1,000	2,880	1,010	1,270	4,840	7,220	14,400	3,510	1,250	810	726
21	870	1,030	2,620	1,050	1,170	4,910	7,220	12,500	3,290	1,220	810	726
22	852	990	2,370	1,090	1,170	4,520	6,860	*10,800	3,100	1,270	797	726
23	816	970	2,170	1,090	1,190	4,140	6,550	9,640	3,020	1,240	784	720
24	816	970	2,000	1,040	2,860	3,940	6,260	8,830	3,240	1,180	784	712
25	870	951	1,870	915	7,630	4,260	5,940	8,340	3,240	1,150	771	706
26	906	942	1,670	843	12,200	4,500	5,480	8,140	3,160	1,130	784	706
27	960	915	1,510	a800	12,600	4,450	5,050	8,200	3,180	1,070	784	712
28	942	879	1,350	a850	10,400	4,430	4,960	8,550	3,570	1,050	790	720
29	897	834	1,350	a900	-	5,150	5,680	8,970	3,490	1,040	817	720
30	960	834	1,270	a950	-------	7,160	7,340	9,040	3,210	a1,000	859	712
31	960	-------	1,420	a1,000	-------	8,310	-------	9,250	-------	*1,020	880	-------
Total	24,955	29,187	71,268	32,370	69,884	180,480	234,350	356,890	175,880	53,050	27,117	22,554
Mean	805	973	2,299	1,044	2,496	5,822	7,812	11,510	5,863	1,711	875	752
Ac-ft	49,500	57,890	141,400	64,200	138,600	358,000	464,800	707,900	348,900	105,200	53,790	44,740

Calendar year 1956: Max 15,600 Min 642 Mean 4,156 Ac-ft 3,017,000
Water year 1956-57: Max 16,400 Min 642 Mean 3,501 Ac-ft 2,535,000

Peak discharge (base, 7,000 cfs).--Dec. 13 (5:30 p.m.) 7,510 cfs (6.10 ft); Feb. 26 (11:30 p.m.) 15,100 cfs (8.24 ft); Mar. 9 (8 p.m.) 9,330 cfs (6.71 ft); Apr. 5 (10:30 to 11:30 p.m.) 11,600 cfs (7.40 ft); May 19 (5:30 a.m.) 17,400 cfs (8.78 ft); June 3 (6:30 a.m.) 12,600 cfs (7.70 ft).

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

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Asotin Creek near Asotin, Wash.

Location.--Lat 46°19'40", long 117°12'20", in SE¼ sec. 20, T. 10 N., R. 45 E., on left bank 350 ft upstream from the Washington Water Power Co.'s diversion for water supply and irrigation, 5 miles upstream from George Creek, and 8 miles west of Asotin. Prior to May 17, 1957, at site 0.3 mile upstream.

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 1957. Published as "at Shelman's Ranch, near Asotin" 1904-5.

Gage.--Staff gage and crest-stage indicator; gage read twice daily. Datum of gage is 1,435.78 ft above mean sea level (Washington Water Power Co.'s bench mark). Prior to Jan. 11, 1934, staff gages within 0.3 mile of present site at different datums. Jan. 11, 1934, to May 17, 1957, at site 0.3 mile upstream at same datum.

Average discharge.--29 years (1928-57), 67.8 cfs (49,090 acre-ft per year).

Extremes.--Maximum discharge during year, 1,000 cfs May 8 (gage height, 10.03 ft, present site, 5.11 ft, old site), from rating curve extended above 357 cfs on basis of a previous slope-area determination of peak flow; minimum daily, 25 cfs Jan. 17; minimum gage height, 6.99 ft Aug. 25, Sept. 4, 7, 14, present site, 2.21 ft Oct. 1-3, 5-8, old site.

1904-6, 1910-11, 1928-57: 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 or indefinite stage-discharge relation, which are poor. 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 tables, water year 1956-57, except periods of ice effect or indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 8				May 9 to Sept. 30			
2.1	30	3.0	210	7.0	33	8.0	200
2.4	58	3.3	390	7.2	55	8.5	340
2.7	112	3.6	640	7.5	98	9.0	520

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	43	42	46	40	144	90	138	157	63	48	37
2	39	43	43	45	41	120	85	194	132	63	47	36
3	39	42	45	45	42	105	83	235	128	63	45	36
4	40	42	*45	45	43	97	83	206	117	63	45	35
5	40	42	44	45	43	90	86	220	112	59	45	35
6	40	45	43	45	44	81	103	255	123	58	51	36
7	40	47	43	44	43	90	99	255	108	58	48	35
8	40	45	43	44	43	103	94	314	108	56	48	35
9	40	43	43	43	42	117	88	e600	103	55	45	35
10	42	45	51	45	42	122	86	e500	96	55	44	34
11	43	45	72	44	43	112	86	e440	92	55	44	35
12	41	45	61	43	43	103	90	e400	88	55	43	35
13	40	45	66	43	43	94	92	e450	87	53	43	35
14	40	43	61	43	45	86	99	e380	85	55	42	34
15	40	43	58	40	43	81	141	e320	88	55	40	34
16	40	43	57	*27	43	79	128	e300	84	54	40	34
17	41	50	54	25	45	77	120	310	82	53	40	34
18	43	47	57	26	45	76	112	328	79	51	40	35
19	42	42	56	27	45	76	103	358	78	50	39	35
20	42	44	55	30	46	76	103	313	75	50	39	35
21	42	44	54	34	46	76	99	262	76	50	39	35
22	41	44	51	36	45	74	97	*230	74	50	37	35
23	*41	43	51	37	54	72	94	208	71	53	39	34
24	42	43	47	38	404	68	92	193	71	*50	38	34
25	42	43	47	39	418	68	*86	175	68	50	37	*35
26	43	42	47	40	*383	66	83	166	*68	50	38	35
27	45	42	46	40	302	65	79	157	68	49	38	35
28	43	41	46	40	178	64	76	153	65	49	*38	37
29	43	41	45	40	-	69	86	147	63	49	38	37
30	44	41	45	40	-------	76	117	142	63	49	38	37
31	43	-------	47	40	-------	85	-------	134	-------	49	38	-------
Total	1,280	1,308	1,565	1,219	2,694	2,712	2,880	8,483	2,709	1,672	1,294	1,054
Mean	41.3	43.6	50.5	39.3	96.2	87.5	96.0	274	90.3	53.9	41.7	35.1
Ac-ft	2,540	2,590	3,100	2,420	5,340	5,380	5,710	16,830	5,370	3,320	2,570	2,090

Calendar year 1956: Max 470 Min 35 Mean 103 Ac-ft 75,060
Water year 1956-57: Max 600 Min 25 Mean 79.1 Ac-ft 57,260

* Discharge measurement made on this day.
e Stage-discharge relation indefinite; discharge estimated on basis of weather records, observed gage height, and records for nearby stations.
Note.--Stage-discharge relation affected by ice Nov. 27-30, Jan. 15 to Feb. 4.

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 1957. Monthly discharge for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 1,540 ft (from river-profile map). Apr. 11 to Sept. 2, 1911, staff gage at site 2 miles downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, staff or chain gages at nearby sites at different datum.

Average discharge.--28 years (1929-57), 3,642 cfs (2,637,000 acre-ft per year).

Extremes.--Maximum discharge during year, 26,500 cfs June 3 (gage height, 11.30 ft); minimum daily, 350 cfs Jan. 18.
1929-57: 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 fair. Small diversions from headwaters.

Revisions.--WSP 1043: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	430	4.5	2,580	9.0	16,100
3.0	730	5.0	3,510	11.0	25,000
3.5	1,210	6.0	5,870	13.0	34,700
4.0	1,810	7.0	8,770		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	766	847	760	1,100	820	3,060	3,200	12,600	22,900	5,050	1,080	714
2	698	766	950	1,000	850	2,770	3,040	14,700	23,600	4,680	1,050	666
3	*650	766	1,200	950	800	2,600	3,020	16,700	24,600	4,800	1,020	620
4	628	757	1,100	940	780	2,580	2,930	16,700	23,600	4,220	990	590
5	612	757	1,000	820	800	2,240	3,550	18,600	22,800	3,820	960	560
6	598	1,160	910	800	800	2,080	4,500	*20,300	22,500	3,660	1,040	538
7	590	1,340	829	850	750	*2,310	4,310	20,200	17,900	3,430	1,180	522
8	582	1,100	748	880	750	2,800	*3,950	21,400	17,400	3,220	1,040	508
9	575	990	865	850	740	2,910	3,820	23,800	17,600	3,010	950	493
10	612	980	1,160	840	760	2,970	3,970	21,200	14,100	2,840	901	500
11	690	1,020	1,620	850	720	2,750	4,170	21,100	12,500	2,720	865	500
12	847	1,080	1,560	950	750	2,510	4,380	21,100	13,300	2,580	838	493
13	1,050	1,440	2,300	*900	750	2,300	4,680	21,300	12,300	*2,480	820	486
14	910	1,360	2,650	870	800	2,070	4,900	20,500	10,600	2,380	784	479
15	802	1,100	2,070	840	850	1,960	5,200	19,500	9,410	2,180	766	465
16	739	*1,060	*1,980	550	850	1,920	4,900	19,200	8,650	2,060	739	458
17	722	1,330	1,890	400	850	1,960	4,780	18,800	8,000	1,940	714	451
18	730	1,300	1,760	350	850	1,950	4,590	19,100	7,970	1,840	698	*522
19	847	950	1,650	450	850	2,020	4,850	21,800	8,060	1,760	682	714
20	856	766	1,500	700	850	2,190	5,180	23,900	8,180	1,720	658	635
21	811	1,020	1,410	850	820	2,410	5,710	19,400	7,910	1,640	*642	568
22	829	1,130	1,340	850	800	2,410	5,770	17,000	*7,090	1,640	635	545
23	802	1,000	1,260	850	800	2,280	6,060	*15,200	6,470	1,620	642	522
24	820	900	1,230	850	1,400	2,180	5,820	14,300	6,630	1,490	628	500
25	802	850	1,160	760	2,300	2,130	5,280	13,600	6,630	1,410	598	486
26	892	800	970	660	3,300	2,080	4,750	14,400	6,060	1,390	590	472
27	1,000	750	865	550	4,470	2,010	4,430	16,000	6,690	1,320	575	458
28	930	700	840	600	3,680	2,020	4,610	17,900	6,550	1,260	582	444
29	829	700	830	650	-	2,310	6,300	19,900	5,950	1,220	628	437
30	820	750	900	740	------	2,750	9,770	20,900	5,510	1,180	698	437
31	910	------	1,130	780	------	3,100	------	22,200	------	1,120	714	------
Total	23,949	29,469	40,437	24,030	33,540	73,430	142,420	583,300	371,460	75,680	24,707	15,783
Mean	773	982	1,304	775	1,198	2,369	4,747	18,820	12,380	2,441	797	526
Cfsm	0.405	0.514	0.683	0.406	0.627	1.24	2.49	9.85	6.48	1.28	0.417	0.275
In.	0.47	0.57	0.79	0.47	0.65	1.43	2.77	11.36	7.23	1.47	0.48	0.31
Ac-ft	47,500	58,450	80,210	47,660	66,530	145,600	282,500	‡1,157	736,800	150,100	49,010	31,310

Calendar year 1956: Max 37,800 Min 552 Mean 4,547 Cfsm 2.38 In. 32.40 Ac-ft 3,300,000
Water year 1956-57: Max 24,600 Min 350 Mean 3,940 Cfsm 2.06 In. 28.00 Ac-ft 2,853,000

Peak discharge (base, 18,000 cfs).--May 9 (3:30 a.m.) 25,300 cfs (11.01 ft); May 20 (4 a.m.) 26,200 cfs (11.20 ft); June 3 (2 a.m.) 26,500 cfs (11.30 ft).

* Discharge measurement made on this day.
‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Nov. 24 to Dec. 5, Dec. 28 to Feb. 26.

Warm Springs Creek near Powell ranger station, Idaho

Location.--Lat 46°29', long 114°53', in sec. 7, T. 36 N., R. 13 E. (unsurveyed), on right bank an eighth of a mile upstream from mouth and pack bridge across Lochsa River and 8½ miles southwest of Powell ranger station.

Drainage area.--74.7 sq mi.

Records available.--October 1956 to September 1957.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 1,460 cfs June 2 (gage height, 4.26 ft); minimum, 8.2 cfs Nov. 19 (gage height, 0.74 ft).

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	9.0	1.9	134	3.0	520
1.0	21	2.2	203	3.5	840
1.3	46	2.6	337	4.3	1,500
1.6	85				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	28	22	30	20	50	52	400	1,250	248	46	25
2	21	26	23	29	20	50	52	494	1,320	229	45	22
3	18	25	28	29	20	48	53	542	1,330	264	44	20
4	16	25	*30	28	20	46	52	617	1,290	220	42	19
5	15	*25	26	26	20	44	61	694	1,240	200	40	18
6	15	40	24	28	20	43	66	777	1,220	185	56	18
7	14	39	26	28	20	46	63	805	*1,030	172	49	16
8	14	32	24	26	20	49	61	892	1,060	161	42	16
9	14	29	26	27	20	50	61	938	1,020	150	39	16
10	15	30	38	25	20	51	66	*892	826	140	37	16
11	16	33	41	26	20	50	70	938	742	130	36	15
12	20	34	36	26	20	49	72	952	763	123	35	14
13	26	51	56	25	20	46	*75	982	654	121	34	14
14	23	37	50	25	20	45	90	1,010	605	114	33	14
15	20	28	46	22	20	45	105	990	553	*108	31	13
16	18	37	51	19	20	44	98	982	500	100	30	12
17	17	39	45	23	20	43	98	998	474	94	*29	12
18	18	32	44	23	20	41	96	1,050	469	88	28	14
19	25	14	42	23	20	41	106	1,210	455	84	28	16
20	23	30	39	23	20	44	114	1,150	450	79	27	15
21	22	35	39	22	20	46	129	960	431	75	26	14
22	23	29	36	22	20	45	134	870	404	74	26	*13
23	21	27	35	*22	22	44	148	812	362	70	26	12
24	23	26	35	22	36	43	140	756	362	64	23	12
25	23	25	31	20	45	43	130	742	337	63	22	12
26	23	24	31	20	49	41	120	798	326	61	22	11
27	25	23	32	20	56	40	116	885	353	57	22	11
28	30	22	30	20	53	41	132	1,020	310	55	22	11
29	27	22	31	20	-	45	195	1,090	288	56	22	11
30	27	22	32	20	------	50	299	1,170	268	52	24	11
31	28	------	32	20	------	52	------	1,240	------	50	29	------
Total	643	889	1,081	739	701	1,415	3,054	27,656	20,692	3,687	1,015	443
Mean	20.7	29.6	34.9	23.8	25.0	45.6	102	892	690	119	32.7	14.8
Cfsm	0.277	0.396	0.467	0.319	0.335	0.610	1.37	11.9	9.24	1.59	0.438	0.198
In.	0.32	0.44	0.54	0.37	0.35	0.70	1.52	13.77	10.30	1.84	0.51	0.22
Ac-ft	1,280	1,760	2,140	1,470	1,390	2,810	6,060	54,850	41,040	7,310	2,010	879

Calendar year 1956: Max - Min - Mean - Cfsm - In. - Ac-ft -
Water year 1956-57: Max 1,330 Min 11 Mean 170 Cfsm 2.28 In. 30.88 Ac-ft 123,000

Peak discharge (base, 800 cfs).--May 19 (9:30 p.m.) 1,330 cfs (4.10 ft); June 2 (7 to 8 p.m.) 1,460 cfs (4.26 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 1 to Nov. 3; discharge estimated on basis of records for Lochsa River near Lowell and other nearby streams.

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 1957. 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.--30 years (1910-12, 1929-57), 2,764 cfs (2,001,000 acre-ft per year).

Extremes.--Maximum discharge during year, 21,100 cfs May 20 (gage height, 10.29 ft); minimum, 320 cfs Sept. 28, 29, 30 (gage height, 1.67 ft), but may have been less during period of ice effect.
1929-57: 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	320	3.5	2,170	6.0	7,170
2.0	515	4.0	2,960	8.0	12,900
2.5	940	5.0	4,890	10.0	20,000
3.0	1,500				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	687	700	660	1,000	720	2,340	2,790	10,700	16,800	3,360	791	508
2	575	650	870	900	720	2,160	2,680	12,400	17,300	3,130	764	494
3	*494	650	1,050	860	700	2,070	2,710	13,300	17,600	3,290	738	459
4	459	650	950	820	680	1,930	2,660	13,100	16,600	3,170	712	432
5	438	650	870	720	690	1,760	3,780	14,900	15,400	2,740	696	412
6	426	850	800	700	700	*1,600	4,720	*16,200	16,300	2,580	809	400
7	412	1,200	700	740	680	1,890	4,210	16,200	12,800	2,440	902	386
8	406	1,000	650	760	680	2,200	*3,700	16,800	12,300	2,290	791	380
9	400	950	740	730	680	2,300	3,530	18,100	13,000	2,130	721	374
10	419	950	1,000	700	700	2,360	3,660	16,000	10,200	2,020	678	374
11	466	960	1,400	720	680	2,170	3,830	16,200	8,750	1,930	646	374
12	638	1,000	1,350	780	700	2,000	3,890	16,400	8,970	1,840	622	368
13	773	1,500	2,100	*746	700	1,850	3,930	16,900	8,410	*1,770	598	362
14	670	1,400	2,400	730	720	1,700	4,230	16,100	7,640	1,730	582	356
15	575	1,000	2,100	687	740	1,620	4,550	15,300	6,880	1,630	560	350
16	530	*940	*2,070	487	740	1,620	4,250	15,100	6,500	1,530	552	344
17	501	1,280	2,030	400	740	1,710	4,150	14,700	6,040	1,430	530	338
18	538	1,190	1,800	350	740	1,700	3,990	15,100	5,740	1,360	515	*419
19	738	818	1,700	450	740	1,760	4,190	17,100	5,630	1,300	501	480
20	670	755	1,500	600	730	1,890	4,450	19,600	5,450	1,250	487	438
21	638	854	1,400	750	710	2,090	4,930	15,800	5,210	1,180	*473	412
22	670	940	1,350	750	704	2,020	5,020	13,900	*4,810	1,160	459	400
23	614	827	1,250	750	721	1,880	5,230	*12,500	4,430	1,140	452	386
24	654	764	1,200	750	1,000	1,800	5,140	11,700	4,450	1,070	445	374
25	654	712	1,100	600	1,600	1,790	4,680	11,000	4,430	1,020	438	362
26	670	696	900	550	2,500	1,760	4,210	11,600	4,090	990	432	350
27	800	660	830	470	3,080	1,700	3,970	12,400	4,530	940	426	338
28	750	610	810	500	2,650	1,750	4,210	13,500	4,450	902	445	326
29	660	610	800	550	-	2,100	5,630	14,700	3,930	874	452	320
30	650	650	860	640	------	2,550	8,260	15,300	3,620	854	459	320
31	730	------	1,100	700	------	2,790	------	16,200	------	827	508	------
Total	18,305	26,416	38,340	20,890	27,125	60,860	127,180	458,800	262,260	53,877	18,184	11,636
Mean	590	881	1,237	674	969	1,963	4,239	14,800	8,742	1,738	587	388
Cfsm	0.500	0.747	1.05	0.571	0.821	1.66	3.59	12.5	7.41	1.47	0.497	0.329
In.	0.58	0.83	1.21	0.66	0.85	1.92	4.01	14.46	8.27	1.70	0.57	0.37
Ac-ft	36,310	52,400	76,050	41,430	53,800	120,700	252,300	910,000	520,200	106,900	36,070	23,080

Calendar year 1956: Max 26,400 Min 374 Mean 3,466 Cfsm 2.94 In. 40.00 Ac-ft 2,516,000
Water year 1956-57: Max 19,600 Min 320 Mean 3,079 Cfsm 2.61 In. 35.43 Ac-ft 2,229,000

Peak discharge (base, 12,000 cfs).--May 9 (3 to 4 a.m.) 19,200 cfs (9.79 ft); May 20 (7 a.m.) 21,100 cfs (10.29 ft); June 3 (3 a.m.) 18,900 cfs (9.73 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 27 to Nov. 15, Nov. 27 to Dec. 15, Dec. 18 to Jan. 12. Discharge estimated on basis of recorded range in stage, weather records, records for Selway River, and other nearby streams. Stage-discharge relation affected by ice Jan. 17 to Feb. 21, Feb. 24-26.

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 1957.

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 and at datum 6.14 ft lower.

Average discharge.--13 years, 260 cfs (188,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,120 cfs May 21 (gage height, 5.85 ft); minimum, 26 cfs Sept. 17, 18 (gage height, 1.41 ft).
1944-57: 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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 25 to Apr. 18, May 29 to June 27)

1.4	22	2.4	190	4.0	870
1.6	38	2.8	304	4.5	1,190
1.8	62	3.2	444	5.0	1,540
2.0	96	3.6	640	5.8	2,140

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	47	50	74	58	180	338	1,270	846	182	59	50
2	39	57	65	72	60	180	323	1,420	768	174	58	44
3	36	53	78	70	60	170	345	1,580	695	225	56	39
4	*34	59	82	60	60	*160	332	1,500	624	190	52	37
5	34	54	64	56	60	150	545	1,510	550	172	52	35
6	34	144	68	58	58	150	678	1,550	612	162	59	33
7	33	185	60	58	58	170	502	*1,520	521	152	85	32
8	33	114	62	58	58	210	484	1,490	555	146	67	31
9	32	91	66	60	58	220	*540	1,680	629	142	59	30
10	49	*89	70	58	58	220	618	1,600	457	132	56	31
11	58	92	90	*62	56	200	624	1,520	397	128	52	32
12	85	91	120	66	56	190	678	1,500	416	*123	49	31
13	142	134	140	64	58	170	822	1,710	404	123	48	30
14	85	106	150	63	63	160	852	1,640	416	137	46	29
15	59	82	130	62	70	160	864	1,580	412	116	45	28
16	53	96	120	47	70	160	774	1,550	375	108	44	28
17	50	100	110	38	70	170	768	1,480	338	100	41	*27
18	48	85	103	30	80	190	762	1,390	304	100	39	33
19	62	72	96	35	75	200	786	1,800	289	96	39	65
20	59	60	90	43	70	210	786	1,960	348	94	38	48
21	54	70	87	50	65	250	792	2,030	338	89	37	41
22	52	76	84	64	65	230	780	*1,930	292	91	36	36
23	50	72	82	66	65	220	780	1,780	*262	91	*37	34
24	57	64	80	66	85	210	750	1,590	245	82	34	32
25	56	56	75	56	115	225	668	1,410	231	76	34	31
26	61	51	67	49	150	217	602	1,280	223	80	34	30
27	89	48	62	42	185	214	565	1,180	239	73	34	31
28	75	46	62	42	185	225	618	1,140	217	70	34	31
29	64	47	62	48	-	260	834	1,070	201	67	42	29
30	62	51	62	53	------	332	1,120	976	190	64	57	29
31	68	------	75	56	------	348	------	912	------	61	48	------
Total	1,759	2,392	2,612	1,726	2,171	6,351	19,930	46,348	12,394	3,646	1,471	1,037
Mean	56.7	79.7	84.3	55.7	77.5	205	664	1,495	413	118	47.5	34.6
Cfsm	0.217	0.305	0.323	0.213	0.297	0.785	2.54	5.73	1.58	0.452	0.182	0.133
In.	0.25	0.34	0.37	0.25	0.31	0.90	2.84	6.60	1.77	0.52	0.21	0.15
Ac-ft	3,490	4,740	5,180	3,420	4,310	12,600	39,530	91,930	24,580	7,230	2,920	2,060

Calendar year 1956: Max 2,100 Min 31 Mean 293 Cfsm 1.12 In. 15.27 Ac-ft 212,700
Water year 1956-57: Max 2,030 Min 27 Mean 279 Cfsm 1.07 In. 14.51 Ac-ft 202,000

Peak discharge (base, 1,300 cfs).--May 21 (3 to 4 a.m.) 2,120 cfs (5.85 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 19 to Mar. 24.

South Fork Clearwater River near Grangeville, Idaho

Location.--Lat 45°55', long 116°01', in SE¼NW¼ sec. 30, T. 30 N., R. 4 E., on right bank just downstream from powerhouse of Washington Water Power Co., 6 miles east of Grangeville.

Drainage area.--865 sq mi.

Records available.--November 1910 to January 1911, March 1911 to July 1911, October 1911 to September 1916, April 1923 to September 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 1,830 ft (from river-profile map). Nov. 14, 1910, to July 31, 1911, staff gage at datum 2.2 ft higher than present datum. Nov. 2, 1911, to Sept. 30, 1916, staff gage at datum 1.0 ft higher than present datum. Apr. 1, 1923, to Oct. 15, 1944, chain or staff gages at present datum.

Average discharge.--39 years (1911-16, 1923-57), 867 cfs (627,700 acre-ft per year).

Extremes.--Maximum discharge during year, 8,910 cfs May 20 (gage height, 10.09 ft); minimum, 41 cfs Sept. 6 (gage height, 2.20 ft); minimum daily, 110 cfs Jan. 18.
1910-16, 1923-57: Maximum discharge observed, 12,600 cfs May 29, 1948 (gage height, 12.50 ft); no flow part of day Aug. 27, 1947, Aug. 15, 1956; minimum daily, 29 cfs Nov. 23, 27, 29, 1952.

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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	108	4.5	990	8.0	5,140
3.0	219	5.0	1,370	9.0	6,880
3.5	430	6.0	2,350	10.0	8,740
4.0	685	7.0	3,600		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	193	226	189	279	220	641	1,190	3,490	4,100	955	275	216
2	174	230	241	275	230	630	1,090	3,900	4,060	908	267	199
3	160	230	300	267	230	*595	1,150	5,260	3,940	1,050	263	172
4	154	230	313	220	230	555	1,090	4,840	3,680	927	251	163
5	149	226	248	210	230	510	1,480	4,850	3,530	824	248	152
6	147	555	263	210	220	505	2,100	4,930	3,950	764	291	141
7	147	680	230	220	220	550	1,710	*4,900	3,310	724	367	141
8	144	450	240	220	220	702	1,550	5,010	3,320	674	304	139
9	147	367	250	230	220	782	*1,520	5,970	3,660	646	267	136
10	166	*354	263	220	220	782	1,660	5,650	2,870	625	251	136
11	212	367	349	248	210	718	1,700	5,290	2,560	595	237	136
12	300	354	500	*255	212	690	1,810	5,380	2,670	570	230	134
13	455	485	535	244	220	620	2,050	6,570	2,460	*550	226	131
14	331	460	555	237	230	545	2,180	6,480	2,430	560	216	126
15	248	313	490	237	267	560	2,330	6,160	2,390	520	209	124
16	226	340	445	200	267	570	2,070	6,160	2,240	495	202	122
17	199	367	*408	140	259	620	2,030	5,920	2,030	480	196	*120
18	216	349	390	110	300	668	1,980	5,580	1,860	455	193	157
19	318	287	372	130	271	696	2,050	6,340	1,780	440	186	223
20	267	230	336	160	251	746	2,010	8,630	1,870	426	183	206
21	244	291	326	230	240	848	2,070	8,470	1,820	394	177	177
22	241	313	308	250	241	770	2,100	*7,470	1,670	408	*169	160
23	223	287	308	250	241	712	2,100	6,660	*1,500	403	169	149
24	230	271	304	250	287	696	2,050	5,920	1,390	380	169	141
25	223	240	283	220	450	729	1,850	5,290	1,300	354	163	134
26	241	209	250	190	595	724	1,680	4,930	1,240	344	157	131
27	318	186	230	160	680	680	1,600	4,630	1,320	340	154	126
28	304	174	225	160	674	685	1,700	4,580	1,190	322	163	124
29	251	174	240	180	-	752	2,230	4,470	1,100	313	180	129
30	255	196	240	200	------	1,040	3,030	4,320	1,020	300	226	124
31	279	------	283	210	------	1,160	------	4,200	------	283	251	------
Total	7,162	9,441	9,914	6,612	8,135	21,481	55,160	172,250	72,260	17,029	6,840	4,469
Mean	231	315	320	213	291	693	1,839	5,556	2,409	549	221	149
Cfsm	0.267	0.364	0.370	0.246	0.336	0.801	2.13	6.42	2.78	0.635	0.255	0.172
In.	0.31	0.41	0.43	0.28	0.35	0.92	2.37	7.41	3.11	0.73	0.29	0.19
Ac-ft	14,210	18,730	19,660	13,110	16,140	42,610	109,400	341,700	143,300	33,780	13,570	8,860

Calendar year 1956: Max 6,520 Min 141 Mean 1,099 Cfsm 1.27 In. 17.30 Ac-ft 797,500
Water year 1956-57: Max 8,630 Min 110 Mean 1,071 Cfsm 1.24 In. 16.80 Ac-ft 775,100

Peak discharge (base, 3,200 cfs).--May 20 (2 p.m.) 8,910 cfs (10.09 ft); June 8 (10 p.m.) 4,640 cfs (7.69 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 25, Dec. 8, 9, 26-30, Jan. 4-10, Jan. 16 to Feb. 11, Feb. 13, 21.

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 1957.

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.--47 years, 8,139 cfs (5,892,000 acre-ft per year).

Extremes.--Maximum discharge during year, 71,200 cfs May 20 (gage height, 15.85 ft); minimum, 619 cfs Jan. 17 (gage height, 2.77 ft).
1910-57: 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, which are good, and those for periods of doubtful or no gage-height record, which are fair. Some diurnal regulation at low stages caused by powerplant on South Fork.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 11 to July 23)

2.9	720	5.0	3,820	9.0	18,100
3.2	1,000	6.0	6,390	11.0	30,400
3.6	1,460	7.0	9,760	13.0	45,900
4.0	2,000	8.0	13,600	16.0	72,500
4.5	2,820				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,760	2,060	1,640	2,640	2,000	a9,000	10,300	27,900	46,100	10,300	2,290	1,580
2	*1,630	1,820	1,710	2,450	2,020	a7,500	9,470	32,800	46,300	9,650	2,170	1,520
3	1,460	1,710	2,230	2,340	1,920	a6,500	9,110	38,300	48,400	9,720	2,120	1,410
4	1,350	1,710	2,560	2,260	1,890	a6,000	8,760	36,900	46,500	9,510	2,060	1,330
5	1,300	1,680	2,280	2,020	1,920	a5,500	10,200	40,200	44,600	8,240	1,970	1,270
6	1,270	2,380	1,930	1,920	1,920	a5,200	14,200	*44,100	45,500	7,700	2,080	1,220
7	1,240	3,650	1,720	1,970	1,870	*6,540	13,200	43,800	37,800	7,240	2,560	1,190
8	1,230	2,950	1,540	1,990	1,850	7,930	*11,700	45,200	34,500	6,800	2,390	1,160
9	1,210	2,440	1,680	2,020	1,870	8,480	11,000	53,400	38,300	6,330	2,090	1,120
10	1,230	2,290	2,310	1,860	1,920	8,940	11,100	46,400	30,200	5,970	1,960	1,120
11	1,400	2,330	3,630	1,940	1,890	7,840	11,400	45,300	25,900	5,690	1,870	1,120
12	1,640	2,490	4,430	*2,040	1,930	7,370	11,800	45,700	26,000	5,410	1,790	1,120
13	2,370	3,200	5,060	2,120	1,930	6,700	12,500	50,400	25,300	5,170	1,750	1,110
14	2,210	3,740	6,700	2,040	2,020	5,830	12,900	47,800	22,600	*5,070	1,690	1,090
15	1,830	*2,820	5,360	1,970	2,150	5,410	13,900	44,800	20,000	4,760	1,640	1,070
16	1,630	2,520	*5,150	1,470	2,170	5,250	13,000	43,400	18,600	4,410	1,620	1,060
17	1,550	2,840	4,920	828	2,150	6,640	12,600	42,500	17,200	4,200	1,560	1,030
18	1,540	3,260	4,450	783	2,180	6,330	12,100	42,300	16,400	3,950	1,510	*1,090
19	1,940	2,560	4,250	1,030	2,200	6,060	12,400	48,300	*16,200	3,780	1,490	1,460
20	1,960	1,920	3,840	1,640	2,170	6,300	12,800	66,900	16,200	3,670	*1,440	1,500
21	1,800	2,080	3,550	1,930	2,090	7,280	13,800	53,400	*15,900	3,500	1,410	1,340
22	1,850	2,490	3,260	2,000	2,030	7,080	14,100	44,600	14,700	3,400	1,390	1,260
23	1,790	2,390	3,070	1,990	2,030	6,510	14,600	*39,300	13,400	3,380	1,360	1,210
24	1,800	2,150	2,970	1,970	a3,160	6,090	14,500	35,600	13,200	3,240	1,360	1,160
25	1,820	1,960	2,820	a1,730	a5,000	6,030	13,500	32,400	13,400	3,010	1,330	1,120
26	1,900	1,800	2,520	1,460	a9,000	5,970	12,300	32,800	12,400	2,900	1,300	1,090
27	2,390	1,710	2,200	a1,270	a12,000	5,580	11,400	34,500	12,900	2,800	1,290	1,070
28	2,370	1,640	2,140	a1,350	a10,000	5,490	11,500	37,600	13,500	2,660	1,290	1,040
29	2,030	1,520	2,100	a1,450	-	6,180	14,200	40,900	12,000	2,560	1,330	1,020
30	1,900	1,520	2,090	a1,600	------	8,580	21,100	42,600	11,100	2,490	1,460	1,020
31	2,150	------	2,450	a1,970	------	9,650	------	44,400	------	2,390	1,560	------
Total	53,550	69,630	96,560	56,051	85,280	209,760	375,440	1,324,500	755,100	159,900	53,130	35,900
Mean	1,727	2,321	3,115	1,808	3,046	6,766	12,510	42,730	25,170	5,158	1,714	1,197
Cfsm	0.356	0.479	0.642	0.373	0.628	1.40	2.58	8.81	5.19	1.06	0.353	0.247
In.	0.41	0.53	0.74	0.43	0.65	1.61	2.88	10.16	5.79	1.23	0.41	0.28
Ac-ft	106,200	138,100	191,500	111,200	169,200	416,100	744,700	‡2,627	‡1,498	317,200	105,400	71,210

Calendar year 1956: Max 71,600 Min 1,180 Mean 9,815 Cfsm 2.02 In. 27.53 Ac-ft 7,125,000
Water year 1956-57: Max 66,900 Min 783 Mean 8,972 Cfsm 1.85 In. 25.12 Ac-ft 6,496,000

Peak discharge (base, 18,000 cfs).--May 9 (2 p.m.) 55,800 cfs (14.14 ft); May 20 (9 a.m.) 71,200 cfs (15.85 ft); June 3 (5 a.m.) 51,700 cfs (13.64 ft).

* Discharge measurement made on this day.
‡ Expressed in thousands.
a Doubtful or no gage-height record; discharge estimated on basis of partly estimated gage-height record, weather records, and records for station at Spalding and for Lochsa and Selway Rivers near Lowell.

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,240 ft (from river-profile map).

Average discharge.--13 years, 2,918 cfs (2,113,000 acre-ft per year).

Extremes.--Maximum discharge during year, 16,300 cfs May 20 (gage height, 8.18 ft); minimum daily, 375 cfs Jan. 18; minimum gage height, 2.57 ft Sept. 27, 28-30.
1944-57: Maximum discharge, 27,400 cfs May 29, 1948 (gage height, 11.13 ft); minimum daily, 180 cfs Nov. 29, 1952.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are 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 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	355	3.5	1,680	5.0	5,070
2.6	570	4.0	2,610	6.0	8,220
3.0	980	4.5	3,720	8.0	15,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	903	804	720	1,050	850	2,650	2,820	10,200	11,700	2,510	969	740
2	750	793	750	1,000	880	2,280	2,690	11,300	12,100	2,410	936	690
3	*700	771	900	950	830	2,090	2,860	11,200	11,700	2,630	925	670
4	680	760	1,100	900	860	1,890	2,820	11,700	10,900	2,350	903	651
5	670	760	1,000	860	860	1,710	3,620	*13,100	10,100	2,180	892	642
6	651	1,130	750	840	830	1,580	4,420	13,400	12,000	2,090	1,080	624
7	651	1,130	650	820	830	1,700	3,940	13,300	9,760	1,990	1,050	615
8	642	958	700	800	840	2,300	3,530	13,900	8,830	1,900	936	624
9	642	914	750	800	870	2,110	3,410	14,800	8,830	1,820	881	615
10	670	914	850	800	870	2,120	3,670	13,900	7,480	1,760	870	615
11	740	1,110	1,300	820	840	1,960	3,870	13,400	6,770	1,700	848	606
12	848	1,200	*1,320	850	870	1,820	3,920	13,300	6,580	1,630	837	606
13	1,020	*1,980	1,700	800	900	1,710	3,800	13,300	6,050	1,600	815	597
14	826	1,400	2,300	770	900	1,540	4,200	12,800	5,930	1,580	793	588
15	750	1,090	1,800	750	950	1,500	4,560	12,500	5,360	*1,570	782	579
16	730	1,160	2,390	600	980	1,460	*4,230	12,300	4,980	1,490	760	579
17	710	1,490	1,960	450	960	1,480	4,230	12,000	4,670	1,430	750	570
18	750	1,220	2,010	375	950	1,440	4,150	11,900	4,420	1,380	740	700
19	1,000	800	1,940	475	950	1,540	4,450	13,200	4,260	1,340	*730	*700
20	815	950	1,630	800	900	1,730	4,670	15,300	*4,070	1,300	710	615
21	826	1,100	1,520	850	880	2,030	5,070	13,000	3,870	1,260	700	606
22	881	1,050	1,360	850	880	1,920	5,220	11,900	3,620	1,240	690	588
23	793	914	1,260	850	950	1,780	5,450	11,000	3,430	1,240	680	579
24	815	820	1,230	850	1,100	1,700	5,220	*10,400	3,390	1,190	670	570
25	826	800	1,100	800	1,700	1,700	4,640	10,000	3,160	1,150	660	562
26	881	750	892	700	2,500	1,680	4,200	10,200	3,070	1,130	651	554
27	1,000	720	969	580	3,500	1,650	4,070	10,500	3,340	1,100	680	546
28	914	700	940	620	3,180	1,750	4,500	10,700	2,970	1,060	750	538
29	826	680	900	650	-	2,090	5,990	11,000	2,780	1,080	740	538
30	870	680	950	700	------	2,610	8,390	11,300	2,610	1,040	710	538
31	881	------	1,050	800	------	2,860	------	11,700	------	1,000	804	------
Total	24,661	29,548	38,691	23,760	32,410	58,380	128,610	378,500	188,730	49,150	24,942	18,245
Mean	796	985	1,248	766	1,158	1,883	4,287	12,210	6,291	1,585	805	608
Cfsm	0.799	0.989	1.25	0.769	1.16	1.89	4.30	12.3	6.32	1.59	0.808	0.610
In.	0.92	1.10	1.44	0.89	1.21	2.18	4.80	14.13	7.05	1.84	0.93	0.68
Ac-ft	48,910	58,610	76,740	47,130	64,280	115,800	255,100	750,700	374,300	97,490	49,470	36,190

Calendar year 1956: Max 21,200 Min 642 Mean 3,359 Cfsm 3.37 In. 45.91 Ac-ft 2,439,000
Water year 1956-57: Max 15,300 Min 375 Mean 2,728 Cfsm 2.74 In. 37.17 Ac-ft 1,975,000

Peak discharge (base, 9,000 cfs).--May 8 (11 p.m.) 15,900 cfs (8.08 ft); May 20 (6:30 a.m.) 16,300 cfs (8.18 ft); June 6 (3 p.m.) 14,300 cfs (7.64 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 19-21, Nov. 24 to Dec. 15, Dec. 28 to Feb. 27 (no gage-height record Jan. 17 to Feb. 15; discharge estimated on basis of weather records, records for station at Ahsahka, and other Clearwater River tributaries).

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 1957.

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.--31 years, 5,646 cfs (4,088,000 acre-ft per year).

Extremes.--Maximum discharge during year, 40,600 cfs May 20 (gage height, 21.47 ft); minimum daily, 750 cfs Jan. 18.
1926-57: Maximum discharge, 100,000 cfs Dec. 23, 1933 (gage height, 35.5 ft, from floodmarks), from rating curve extended above 24,000 cfs by logarithmic plotting; minimum, probably less than 250 cfs Jan. 8, 1937, during period of ice effect.

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

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 17-30)

2.3	910	7.0	5,730	16.0	24,000
3.0	1,320	9.0	8,820	19.0	32,800
4.0	2,120	11.0	12,400	22.0	42,500
5.0	3,150	13.0	16,600		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*2,100	1,940	1,450	2,460	2,100	7,790	10,400	22,000	21,000	4,930	2,020	1,420
2	1,710	1,730	1,500	2,400	2,100	6,960	9,400	24,600	21,300	4,750	1,960	1,350
3	1,490	1,660	1,830	2,230	2,000	6,180	9,430	24,000	21,400	4,760	1,940	1,280
4	1,420	1,620	2,140	2,180	2,000	5,650	9,310	*23,500	19,900	4,790	1,920	1,250
5	1,380	1,570	1,980	2,040	2,100	5,230	12,600	26,300	18,400	4,340	1,850	1,220
6	1,350	a1,700	1,510	1,920	2,100	4,770	18,500	28,200	20,000	4,120	1,820	1,210
7	1,320	a2,400	1,330	1,890	2,000	6,370	*15,600	27,400	19,900	3,920	2,210	1,180
8	1,310	a2,500	1,350	1,880	2,000	*8,740	12,900	27,500	16,100	3,750	2,120	1,160
9	1,300	a2,200	1,500	1,800	2,000	7,880	11,600	20,000	16,800	3,600	1,910	1,160
10	1,300	a2,000	1,690	1,830	2,100	7,820	11,600	27,900	14,300	3,480	1,800	1,160
11	1,390	a2,100	3,300	1,790	2,100	6,940	11,900	26,700	12,700	3,380	1,760	1,150
12	1,520	a2,300	3,380	1,900	2,000	6,240	11,900	26,300	12,100	3,240	1,730	1,150
13	1,790	a2,500	*4,140	1,950	2,100	5,790	11,800	26,800	11,300	3,150	1,710	1,140
14	1,890	*3,790	6,720	1,860	2,200	5,140	13,000	26,000	11,100	3,200	1,650	1,110
15	1,590	2,700	5,170	1,790	2,200	4,770	15,700	24,600	10,300	*3,120	1,610	1,090
16	1,500	2,350	5,800	*1,200	2,300	4,680	13,400	23,800	9,420	3,040	1,570	1,090
17	1,490	2,690	5,910	900	2,400	4,920	12,500	23,200	8,970	2,940	1,540	1,080
18	1,500	3,120	5,270	750	2,300	5,040	11,800	22,800	8,460	2,860	*1,480	1,080
19	1,880	2,240	5,760	*950	2,300	5,210	12,100	24,800	8,070	2,780	1,450	*1,270
20	1,910	1,760	4,880	1,600	2,300	5,720	12,000	36,000	7,850	2,680	1,420	1,280
21	1,640	2,060	4,230	2,100	2,200	6,660	12,800	31,800	*7,450	2,610	1,380	1,170
22	1,780	2,150	3,690	2,100	2,100	6,440	13,100	26,500	7,030	2,530	1,370	1,130
23	1,740	1,980	3,280	2,100	2,100	5,740	13,700	24,400	6,550	2,490	1,350	1,110
24	1,690	1,830	3,080	2,100	2,500	5,340	13,200	22,100	6,520	2,470	1,320	1,100
25	1,730	1,690	2,880	1,900	4,000	5,280	12,100	*20,400	6,280	2,370	1,310	1,080
26	1,850	1,550	2,600	1,700	6,500	5,510	10,900	19,900	5,940	2,300	1,310	1,060
27	2,070	1,520	2,240	1,400	10,500	5,230	10,100	20,200	6,250	2,240	1,280	1,050
28	2,260	1,470	2,180	1,500	9,240	5,390	10,400	20,400	6,020	2,180	1,300	1,050
29	1,940	1,400	2,120	1,600	-	6,430	12,900	20,700	5,510	2,150	1,370	1,050
30	1,830	1,380	2,060	1,700	------	8,650	18,200	20,900	5,170	2,130	1,370	1,040
31	2,150	------	2,220	1,900	------	9,620	------	21,100	------	2,110	1,330	------
Total	51,820	61,900	97,190	55,420	81,840	192,130	374,840	770,800	352,090	98,410	50,160	34,670
Mean	1,672	2,063	3,135	1,788	2,923	6,198	12,490	24,860	11,740	3,175	1,618	1,156
Cfsm	0.685	0.845	1.28	0.733	1.20	2.54	5.12	10.2	4.81	1.30	0.663	0.474
In.	0.79	0.94	1.48	0.84	1.25	2.93	5.71	11.75	5.37	1.50	0.76	0.53
Ac-ft	102,800	122,800	192,800	109,900	162,300	381,100	743,500	1,529,000	698,400	195,200	99,490	68,770

Calendar year 1956: Max 40,600 Min 1,300 Mean 7,339 Cfsm 3.01 In. 40.94 Ac-ft 5,328,000
Water year 1956-57: Max 36,000 Min 750 Mean 6,086 Cfsm 2.49 In. 33.85 Ac-ft 4,406,000

Peak discharge (base, 18,000 cfs).--Apr. 6 (6:30 a.m.) 19,300 cfs (14.18 ft); May 9 (9 a.m.) 31,600 cfs (18.61 ft); May 20 (3 p.m.) 40,600 cfs (21.47 ft); June 6 (11:30 p.m.) 25,200 cfs (16.47 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, records for station at Bungalow, and other stations in Clearwater River basin.
Note.--Stage-discharge relation affected by ice Jan. 16 to Feb. 27 (no gage-height record Jan. 26-31).

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 1957.

Gage.--Wire-weight gage and crest-stage indicator; gage read once daily. Prior to Aug. 17, 1957, wire-weight gage only. Datum of gage is 1,198.2 ft above mean sea level, unadjusted.

Average discharge.--12 years, 428 cfs (309,900 acre-ft per year).

Extremes.--Maximum discharge during year, 8,500 cfs May 20 (gage height, 10.8 ft, from graph based on gage readings); minimum observed, 9.0 cfs Sept. 11, 12; minimum gage height observed, 4.84 ft Oct. 9.

1945-57: Maximum discharge, 13,000 cfs Feb. 26, 1948 (gage height, 12.6 ft, from floodmarks), result of slope-area determination; minimum observed, 4.3 cfs Aug. 25, 1946; minimum gage height observed, 3.28 ft Oct. 12-16, 1945.

Remarks.--Records good above 1,000 cfs and fair below. No regulation or diversion.

Revisions(water years).--WSP 1093: 1946(M).

Discharge; in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*20	69	22	135	65	1,560	2,400	725	258	51	12	12
2	22	52	30	125	60	1,410	1,760	739	254	47	12	12
3	21	47	36	115	65	1,270	1,560	*669	236	45	14	12
4	19	42	40	105	70	1,120	1,580	614	202	42	16	12
5	16	39	27	95	90	942	3,060	536	163	41	17	12
6	14	39	19	85	100	999	3,600	488	278	41	22	10
7	16	56	12	90	110	4,490	*2,820	500	286	37	22	9.6
8	16	51	14	85	115	*3,580	1,990	429	215	34	34	9.6
9	14	48	18	80	120	2,800	1,630	385	182	34	22	9.6
10	15	45	45	75	125	2,260	1,580	322	163	33	20	9.6
11	19	50	198	70	131	1,540	1,530	294	134	33	16	9.0
12	31	51	278	60	128	1,330	1,380	294	125	31	14	9.0
13	25	60	572	50	128	1,110	1,530	530	119	29	12	9.3
14	24	74	*440	45	128	926	1,560	596	112	29	12	9.3
15	23	*58	350	40	145	795	2,470	536	119	32	12	9.3
16	22	52	590	35	125	999	1,730	614	114	*29	*12	9.6
17	23	70	407	30	110	1,540	1,370	554	104	29	12	9.6
18	32	69	982	*35	100	1,590	1,300	440	89	26	13	9.6
19	39	65	620	40	90	1,490	1,230	1,390	*86	24	11	*9.9
20	51	65	360	50	90	1,760	1,060	7,250	87	22	10	13
21	42	56	355	49	85	2,060	910	4,450	81	19	10	11
22	67	45	243	48	85	1,370	823	2,550	78	19	11	11
23	38	50	215	46	160	1,010	823	1,850	74	25	10	10
24	45	27	202	45	312	1,040	830	1,310	70	20	9.9	10
25	52	26	202	43	1,280	1,300	950	974	65	18	12	10
26	64	25	182	43	2,700	1,300	795	*732	62	18	10	10
27	69	24	160	45	2,850	1,080	746	590	62	17	9.9	10
28	65	23	150	50	2,140	1,180	641	494	65	14	9.6	10
29	64	21	130	55	-	1,650	641	412	56	12	12	12
30	56	19	135	60	------	1,950	711	350	52	12	12	12
31	65	------	140	70	------	2,120	------	299	------	13	12	------
Total	1,089	1,418	7,174	1,999	11,707	49,571	45,010	31,916	3,991	876	433.4	312.0
Mean	35.1	47.3	231	64.5	418	1,599	1,500	1,030	133	28.3	14.0	10.4
Cfsm	0.076	0.103	0.502	0.140	0.909	3.48	3.26	2.24	0.289	0.062	0.030	0.023
In.	0.09	0.11	0.58	0.16	0.95	4.01	3.64	2.58	0.32	0.07	0.04	0.03
Ac-ft	2,160	2,810	14,230	3,960	23,220	98,320	89,280	63,300	7,920	1,740	860	619

Calendar year 1956: Max 5,500 Min 7.1 Mean 475 Cfsm 1.03 In. 14.04 Ac-ft 344,800
Water year 1956-57: Max 7,250 Min 9.0 Mean 426 Cfsm 0.926 In. 12.58 Ac-ft 308,400

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25-30, Dec. 7-10, Dec. 27 to Feb. 10, Feb. 16.-22.

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 770.5 ft (estimated from datum of former gage). Prior to Sept. 21, 1928, staff gage at site 2,300 ft upstream at datum 772.49 ft above mean sea level (datum of 1929, supplementary adjustment of 1947). Wire-weight gage on hgihway bridge 2,300 ft upstream, at same datum as former staff gage, used as supplementary gage.

Average discharge.--31 years, 15,072 cfs (10,910,000 acre-ft per year).

Extremes.--Maximum discharge during year, 143,000 cfs May 20 (gage height, 21.42 ft); minimum, 1,400 cfs Jan. 18 (gage height, 2.10 ft, backwater from ice).
1926-57: 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 period 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 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	1,590	6.0	11,400	13.0	54,500
2.5	1,990	7.0	15,700	15.0	72,000
3.0	2,760	9.0	26,100	18.0	102,000
4.0	4,940	11.0	39,000	21.0	136,000
5.0	7,820				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*3,960	4,720	3,290	5,700	4,500	22,300	28,000	50,700	68,400	15,400	4,430	3,040
2	3,830	4,160	3,390	5,680	4,600	19,200	24,700	59,300	67,900	14,600	4,230	2,940
3	3,290	3,830	3,910	5,330	4,400	17,600	23,200	64,300	70,900	14,200	4,140	2,800
4	3,000	3,650	4,890	5,150	4,200	16,100	22,500	*64,100	68,100	14,700	4,070	2,640
5	2,830	3,580	5,040	4,820	4,300	15,000	27,000	68,800	64,300	13,100	3,980	2,540
6	2,760	3,720	4,120	4,350	4,300	14,200	*41,200	75,100	64,900	12,100	3,980	2,530
7	2,690	6,260	3,500	4,330	4,100	19,800	37,000	75,000	62,800	11,500	4,620	2,430
8	2,640	6,380	3,070	4,280	4,100	24,900	31,000	74,900	50,900	10,800	4,940	2,380
9	2,620	5,170	3,440	4,310	4,200	23,900	27,700	85,200	55,600	10,300	4,280	2,380
10	2,620	4,740	4,050	4,260	4,300	23,800	27,100	80,600	46,300	9,790	3,980	2,360
11	2,690	4,720	6,320	4,140	4,400	20,300	27,500	75,300	39,300	9,310	3,760	2,380
12	3,090	5,280	9,390	4,350	4,300	18,300	27,700	74,900	37,200	8,920	3,610	2,360
13	3,830	5,980	9,490	4,570	4,400	16,600	28,700	79,800	36,900	8,620	3,520	2,340
14	4,670	8,750	*15,000	4,450	4,500	14,800	29,700	80,100	34,400	8,510	3,390	2,280
15	3,980	*6,850	12,800	4,260	4,800	13,500	35,000	74,700	31,100	8,250	3,330	2,310
16	3,440	5,570	13,000	3,300	4,900	13,500	31,300	71,200	28,900	*7,790	3,230	2,300
17	3,270	5,760	13,100	*2,000	4,900	15,300	29,000	69,700	27,100	7,320	*3,150	2,250
18	3,250	7,160	12,100	1,600	4,900	16,400	27,900	68,000	25,400	7,000	3,110	2,200
19	3,610	6,180	12,400	2,000	4,900	15,700	27,500	74,300	*24,700	6,700	3,050	2,420
20	4,350	4,570	10,800	3,200	4,800	16,500	27,500	123,000	24,200	6,460	2,940	*2,960
21	3,910	4,400	9,600	4,500	4,600	18,800	28,700	110,000	23,600	6,260	2,850	2,730
22	3,740	4,990	8,550	4,500	4,400	17,700	29,800	*83,900	22,100	6,010	2,760	2,510
23	3,940	5,040	7,660	4,500	4,450	16,000	30,600	73,600	20,300	5,950	2,730	2,420
24	3,760	4,620	7,190	4,500	5,150	14,800	30,500	65,300	19,000	5,840	2,690	2,360
25	3,850	4,260	6,820	4,000	13,300	14,800	29,300	*58,800	19,500	5,570	2,680	2,310
26	4,070	3,870	6,180	3,300	23,700	15,300	26,300	56,400	18,500	5,300	2,610	2,260
27	4,620	3,650	5,380	2,800	31,500	14,400	24,000	57,300	18,300	5,170	2,590	2,240
28	5,460	3,500	4,990	3,000	27,400	14,000	23,400	59,500	19,600	4,970	2,590	2,240
29	4,820	3,350	4,820	3,200	-	15,700	27,400	62,600	17,700	4,840	2,710	2,190
30	4,230	3,170	4,720	3,700	------	21,800	38,200	64,800	16,500	4,860	2,760	2,180
31	4,570	-----	5,070	4,200	-----	24,800	-----	66,200	------	4,670	2,900	------
Total	113,390	147,880	224,080	124,280	204,300	545,800	869,400	‡2,247.4	‡1,124.4	264,810	105,610	73,280
Mean	3,658	4,929	7,228	4,009	7,296	17,610	28,980	72,500	37,480	8,542	3,407	2,443
Cfsm	0.382	0.515	0.755	0.419	0.762	1.84	3.03	7.58	3.92	0.893	0.356	0.255
In.	0.44	0.57	0.87	0.48	0.79	2.12	3.38	8.73	4.37	1.03	0.41	0.28
Ac-ft	224,900	293,300	444,500	246,500	405,200	‡1,083	‡1,724	‡4,458	‡2,230	525,200	209,500	145,300

Calendar year 1956: Max 112,000 Min 2,620 Mean 19,150 Cfsm 2.00 In. 27.22 Ac-ft 13,900,000
Water year 1956-57: Max 123,000 Min 1,600 Mean 16,560 Cfsm 1.73 In. 23.47 Ac-ft 11,990,000

Peak discharge (base, 50,000 cfs).--May 20 (6 p.m.) 143,000 cfs (21.42 ft).

‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Jan. 16 to Feb. 22 (no gage-height record Jan. 26-30).

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 1957 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 bench mark). Prior to Sept. 12, 1917, staff gage, and Sept. 12, 1917, to Sept. 30, 1922, Aug. 6, 1928, to Sept. 30, 1935, chain gage, at Riparia 66 miles downstream at different datum.

Extremes.--Maximum discharge during year, 322,900 cfs May 20 (gage height, 38.05 ft); minimum, 15,300 cfs Jan. 31 (gage height, 9.62 ft); minimum daily, 18,300 cfs Jan. 31.
1909-57: 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 June 5, 1894, Riparia site and datum, determined from floodmarks by U. S. Weather Bureau (discharge, 409,000 cfs).

Remarks.--Records excellent. Over 2,840,000 acres are irrigated above station for numerous large irrigation projects. Regulation from many storage reservoirs upstream and fluctuations during low-water periods from powerplant on Clearwater River at Lewiston, Idaho.

Revisions (water years).--WSP 463: 1916. WSP 933: 1937.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

10.4	18,100	24.0	116,700
14.0	34,400	30.0	194,000
19.0	67,500	37.0	304,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,800	31,300	24,400	29,000	25,700	100,800	81,400	114,700	209,400	56,700	24,600	22,400
2	25,600	30,800	25,100	27,100	25,300	80,900	78,800	130,400	211,200	54,300	24,200	22,500
3	24,800	28,800	25,300	27,300	23,500	71,500	73,400	142,200	222,100	53,100	23,700	22,500
4	24,600	27,300	*26,600	26,700	23,600	65,000	75,400	145,500	221,800	52,300	23,300	22,300
5	24,100	26,700	27,000	25,400	27,700	61,500	78,300	153,000	216,000	49,000	23,300	22,100
6	24,100	27,900	25,800	25,600	24,600	60,700	101,000	163,500	214,400	46,500	23,800	21,800
7	24,200	29,600	24,300	25,200	24,200	66,900	98,800	166,400	213,800	44,400	23,900	21,400
8	24,800	31,400	24,500	24,500	25,200	77,400	93,000	168,000	186,200	42,000	24,100	21,600
9	25,400	30,200	24,000	24,000	26,000	83,500	83,100	194,100	185,900	40,700	23,300	21,500
10	25,900	30,400	25,600	24,700	25,000	86,900	79,800	208,600	168,100	39,300	22,700	21,100
11	26,200	29,600	27,800	25,300	25,100	82,600	78,900	202,000	148,100	37,600	22,800	21,000
12	26,500	30,100	34,200	26,300	25,100	78,000	79,400	200,000	135,100	36,400	22,600	21,600
13	27,300	30,000	38,000	26,600	23,100	74,200	83,800	214,900	130,300	35,700	22,200	21,700
14	29,200	31,200	46,000	26,400	22,500	73,200	91,900	226,300	121,200	35,200	21,900	21,500
15	29,200	31,200	41,900	25,900	24,700	66,100	102,400	226,200	112,600	34,300	21,500	21,500
16	29,800	29,800	41,100	*23,300	27,200	61,300	100,000	226,200	103,400	32,900	21,900	21,700
17	29,600	29,400	40,500	20,200	25,800	61,300	92,900	225,000	95,600	31,600	20,800	21,500
18	29,200	30,800	38,700	21,000	25,400	63,300	89,800	221,600	88,600	31,200	20,500	21,500
19	29,000	29,400	38,800	20,700	26,200	61,300	87,700	236,500	83,800	30,400	20,900	21,700
20	29,600	25,800	36,800	21,300	27,300	55,400	86,100	293,800	81,500	29,200	21,100	22,200
21	27,800	23,400	34,500	24,800	26,500	58,900	85,800	*287,200	79,800	29,400	21,400	22,500
22	27,200	25,200	33,200	26,400	27,200	60,200	88,400	*242,600	78,300	29,300	20,600	23,400
23	*27,900	26,500	31,600	25,000	26,500	57,100	89,200	223,000	72,600	*28,800	20,700	23,400
24	26,800	27,000	31,600	24,700	29,100	52,900	87,000	206,200	68,400	28,600	20,800	23,600
25	25,800	25,400	31,900	25,100	50,000	50,800	*88,200	194,700	66,500	28,100	19,900	*23,000
26	27,000	24,900	29,000	22,200	*104,000	52,400	83,900	186,900	*63,600	27,300	19,700	22,600
27	29,100	25,000	25,500	20,500	131,700	51,200	79,300	185,000	61,900	26,800	*20,100	22,600
28	32,200	24,800	24,700	19,500	123,800	54,300	76,000	188,300	64,500	25,900	19,300	22,600
29	32,800	24,100	24,200	19,500	-	56,000	78,500	195,000	62,600	26,100	20,200	22,700
30	30,000	24,900	26,100	20,400	-------	66,900	93,100	203,500	59,600	25,600	20,900	22,200
31	29,000	-------	27,800	18,300	-------	73,600	-------	208,400	-------	25,200	21,000	-------
Total	849,500	842,900	956,500	742,900	‡1,022	‡2,066.1	‡2,585.3	‡6,179.7	‡3,826.9	‡1,113.9	677,700	663,700
Mean	27,400	28,100	30,850	23,960	36,500	66,650	86,180	199,300	127,600	35,930	21,860	22,120
Ac-ft	‡1,685	‡1,672	‡1,897	‡1,474	‡2,027	‡4,098	‡5,128	‡12,260	‡7,591	‡2,209	‡1,344	‡1,316

Calendar year 1956: Max 277,100 Min 21,300 Mean 65,140 Ac-ft 47,290,000
Water year 1956-57: Max 293,800 Min 18,300 Mean 58,980 Ac-ft 42,700,000

* Discharge measurement made on this day.
‡ Expressed in thousands.

Palouse River near Colfax, Wash.

Location.--Lat 46°55'30", long 117°19'10", in NW¼SW¼ sec. 31, T. 17 N., R. 44 E., on right bank 3½ miles northeast of Colfax and 4 miles upstream from mouth of South Fork.

Drainage area.--491 sq mi.

Records available.--September 1955 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 2,010 ft (from topographic map).

Extremes.--Maximum discharge during year, 4,280 cfs May 21 (gage height, 7.26 ft); minimum, 3.0 cfs Sept. 13 (gage height, 1.31 ft).
1955-57: Maximum discharge, 4,790 cfs Dec. 22, 1955 (gage height, 7.60 ft), from slope-area determination of peak flow; minimum, 3.0 cfs Sept. 13, 1955, Sept. 13, 1957; minimum gage height, 1.30 ft Sept. 13, 1955.

Remarks.--Records good except those for periods of ice effect or doubtful gage-height record, which are poor. Small diversions for irrigation and domestic use above station. Slight regulation by millponds above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	3.0	1.9	49	4.0	865
1.4	5.8	2.2	108	5.0	1,640
1.5	10.5	2.7	235	6.0	2,660
1.7	25	3.3	470	7.5	4,640

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.5	54	61	117	40	1,370	1,930	704	279	42	11.5	5.4
2	11.5	61	54	90	40	1,090	1,800	734	262	24	11.5	5.4
3	12.5	74	*37	97	40	937	1,330	674	241	24	11	5.8
4	13	66	38	106	40	788	1,110	576	213	28	11.5	4.8
5	13	33	30	101	44	722	1,250	510	189	28	11.5	4.2
6	16.5	35	27	95	50	782	1,680	530	244	30	13.5	5.8
7	13	32	26	88	55	d1,290	1,810	576	344	26	15.5	7.0
8	13	34	49	82	60	d2,720	1,610	510	272	29	14	4.8
9	13	54	70	76	70	d2,600	1,280	443	210	28	11	4.2
10	13.5	46	110	70	80	d2,250	1,070	407	186	26	10.5	4.2
11	14	37	129	59	86	d1,600	1,010	364	160	25	11	3.6
12	15	38	272	54	92	d1,210	986	328	158	27	11.5	3.4
13	15.5	43	241	50	96	d1,090	993	368	148	20	11.5	3.2
14	13	46	308	46	100	d852	1,050	500	141	25	11	3.6
15	15	49	265	*42	103	d764	1,290	500	131	25	11	4.2
16	18.5	47	276	35	104	d710	1,260	535	133	22	10.5	4.2
17	20	54	312	30	100	d951	1,040	485	126	24	10.5	3.6
18	22	68	376	28	90	*d1,190	917	495	113	20	8.9	3.6
19	20	153	535	27	*73	986	782	608	97	21	8.4	3.6
20	23	76	324	30	60	972	710	2,180	86	17	7.9	3.4
21	39	84	268	31	50	1,170	669	3,950	80	20	7.4	4.2
22	*43	70	238	32	60	1,020	642	3,410	86	*16.5	7.4	4.2
23	30	54	181	32	250	813	636	*2,040	72	17.5	7.0	3.9
24	52	46	191	33	955	692	*636	1,350	*49	17.5	6.6	*4.2
25	51	46	178	33	*1,810	686	647	979	63	14	6.2	4.2
26	66	44	138	33	d2,400	692	560	758	54	13.5	*6.2	4.2
27	86	42	106	33	*d2,590	642	490	608	54	15.5	6.2	4.8
28	80	34	110	*33	1,850	603	443	510	52	14	6.2	5.8
29	82	38	93	33	-	692	443	425	51	14	5.4	4.8
30	78	56	99	35	-------	1,140	550	368	47	13.5	5.8	5.4
31	59	-------	106	38	-------	1,560	-------	308	-------	12.5	6.2	-------
Total	973.5	1,614	5,248	1,689	11,388	34,584	30,624	26,733	4,341	679.5	294.3	133.7
Mean	31.4	53.8	169	54.5	407	1,116	1,021	862	145	21.9	9.49	4.46
Ac-ft	1,930	3,200	10,410	3,350	22,590	68,600	60,740	53,020	8,610	1,350	584	265

Calendar year 1956: Max 3,490 Min 7.4 Mean 398 Ac-ft 289,100
Water year 1956-57: Max 3,950 Min 3.2 Mean 324 Ac-ft 234,600

Peak discharge (base, 2,000 cfs).--Feb. 25 (1 a.m.) 3,340 cfs (6.58 ft); Feb. 27 (time unknown) 3,640 cfs (6.81 ft); Mar. 8 (time unknown) about 2,800 cfs; Apr. 1 (10 p.m.) 2,090 cfs (5.47 ft); May 21 (6:30 p.m.) 4,280 cfs (7.26 ft).

* Discharge measurement made on this day.
d Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorder record, weather records, and records for nearby stations.
Note.--Stage-discharge relation affected by ice Dec. 5-7, Jan. 6-9, Jan. 12 to Feb. 22 (no gage-height record Jan. 25 to Feb. 11; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby stations).

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 1957.

Gage.--Water-stage recorder. Altitude of gage is 1,865 ft (from topographic map).

Extremes.--Maximum discharge during year, 826 cfs Feb. 27 (gage height, 5.15 ft); minimum, 0.4 cfs cfs Aug. 20-22 (gage height, 0.51 ft).
1953-57: Maximum discharge, 1,790 cfs Dec. 21, 1955 (gage height, 7.10 ft); no flow Aug. 15 to Sept. 13, 1955.

Remarks.--Records fair except those for periods of ice effect, which are poor. Small diversions above station for irrigation. No known regulation.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	4.0	5.0	17	8.2	314	133	23	12.5	4.2	0.8	1.3
2	2.6	4.0	5.5	20	8.3	232	68	24	12.5	3.9	.6	1.6
3	2.6	4.0	*6.0	19	8.4	177	58	26	11	3.6	.6	2.0
4	2.7	4.0	5.5	20	8.6	145	52	29	11	3.3	.8	1.4
5	2.7	4.4	5.0	17	9.8	158	119	29	10.5	3.1	.9	1.3
6	2.8	4.8	4.7	12	15	161	96	33	18.5	2.8	1.3	1.3
7	3.0	4.6	4.5	14	18.5	390	62	28	18	2.6	1.8	1.1
8	3.0	4.4	4.5	16	18	310	53	27	15	2.4	1.4	1.1
9	3.0	4.2	5.0	14	20	289	46	28	16	2.6	1.4	1.0
10	3.1	4.0	7.0	13	18.5	261	40	27	15	2.4	1.1	*1.0
11	3.2	4.2	62	14.5	17.5	168	36	26	12	2.2	.9	1.1
12	3.2	3.8	92	14	18	184	35	25	11	2.0	.6	1.0
13	3.2	3.7	43	11	18	160	48	27	10.5	1.8	.6	1.1
14	3.1	3.7	33	10	19.5	120	62	53	10.5	2.2	.8	1.3
15	3.4	3.7	27	*9.3	22	112	79	41	9.9	2.6	.9	1.0
16	3.6	4.6	32	8.7	22	109	45	38	10.5	2.2	.8	1.0
17	3.6	7.7	34	7.6	21	193	45	28	10.5	2.4	.8	.8
18	3.8	9.4	38	6.8	20	*128	50	53	8.6	2.2	.6	.6
19	4.2	7.5	48	6.4	*20	105	43	72	7.8	2.0	.6	.8
20	4.0	10.5	29	6.5	21	103	35	84	7.8	2.0	.5	1.0
21	5.4	8.5	28	6.7	21	105	32	82	8.2	2.0	.4	.9
22	*4.0	7.2	27	6.8	21	80	30	53	7.8	*1.4	.4	1.0
23	4.0	7.5	24	7.0	25	72	*27	*45	7.0	1.4	.5	.8
24	4.6	7.7	24	7.0	79	67	57	42	*5.9	1.3	.5	*.9
25	4.6	8.2	21	7.0	*236	63	85	32	6.6	1.1	.5	.9
26	4.8	8.0	22	7.0	658	56	48	29	6.2	1.1	*.5	.8
27	4.6	7.0	21	7.2	591	49	40	24	6.6	1.1	.5	.6
28	4.4	6.0	20	*7.2	428	48	32	22	6.2	1.0	.6	.8
29	4.0	5.5	16	7.5	-	55	28	18.5	6.6	1.0	.6	1.0
30	4.6	5.0	16.5	8.0	-------	78	26	17.5	4.8	.9	.6	1.4
31	4.0	-------	18	8.0	-------	102	-------	14	-------	.8	.8	-------
Total	112.2	171.8	728.2	336.2	2,391.3	4,594	1,610	1,100.0	305.0	65.6	23.7	32.0
Mean	3.62	5.73	23.5	10.8	85.4	148	53.7	35.5	10.2	2.12	0.76	1.07
Cfsm	0.019	0.030	0.124	0.057	0.452	0.783	0.284	0.188	0.054	0.011	0.0040	0.0057
In.	0.02	0.03	0.14	0.07	0.47	0.90	0.32	0.22	0.06	0.01	0.005	0.006
Ac-ft	223	341	1,440	667	4,740	9,110	3,190	2,180	605	130	47	63

Calendar year 1956: Max 1,330 Min 1.1 Mean 71.4 Cfsm 0.378 In. 5.13 Ac-ft 51,800
Water year 1956-57: Max 658 Min 0.4 Mean 31.4 Cfsm 0.166 In. 2.25 Ac-ft 22,740

Peak discharge (base, 400 cfs).--Feb. 27 (1 a.m.) 826 cfs (5.15 ft); Mar. 7 (3 p.m.) 552 cfs (4.41 ft); Mar. 10 (1 a.m.) 449 cfs (4.09 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 27 to Dec. 10, Jan. 14 to Feb. 6.

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 1957. Prior to 1904, sometimes published as "near Hooper."

Gage.--Water-stage recorder. Altitude of gage is 1,040 ft (from topographic map). Apr. 1 to Aug. 31, 1897, staff gage at site 2½ miles upstream at different datum. Sept. 9, 1897, to March 1916, various staff gages at site 1½ miles upstream from present site at different datums. Feb. 8 to Mar. 28, 1951, staff gage at present site and datum.

Average discharge.--19 years (1897-99, 1900-1906, 1908-11, 1913-15, 1951-57), 622 cfs (450,300 acre-ft per year).

Extremes.--Maximum discharge during year, 11,100 cfs Feb. 27 (gage height, 12.76 ft); minimum, 14.5 cfs Sept. 8 (gage height, 3.33 ft).
1897-1916, 1951-57: 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 25 cfs or those for periods 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). WSP 1447: 1906(M), 1910.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.3	13	5.0	260	8.0	2,030
3.5	25	5.5	415	9.0	3,180
3.7	42	6.0	630	11.0	6,500
4.0	75	7.0	1,220	13.0	11,800
4.5	151				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	135	95	214	150	4,080	2,550	774	605	130	39	16.5
2	46	119	96	219	150	3,020	2,650	928	544	127	39	18
3	49	116	96	233	150	2,340	2,130	928	499	119	40	17
4	49	116	104	221	150	2,030	1,770	856	470	108	39	17
5	49	128	106	205	150	1,890	1,690	779	418	98	40	16.5
6	50	128	92	184	190	1,810	2,140	1,140	436	94	40	17
7	49	106	76	170	200	2,200	2,310	994	466	91	42	15.5
8	51	101	68	176	245	4,320	2,220	856	615	85	45	15
9	52	101	92	192	398	4,250	1,870	757	504	85	43	15.5
10	55	99	117	182	544	4,020	1,570	680	418	79	41	*16.5
11	56	112	142	205	448	3,360	1,420	620	373	80	43	16.5
12	60	112	354	174	670	2,670	1,360	576	344	79	44	17.5
13	60	104	494	162	776	2,430	1,350	553	319	73	38	18.5
14	60	102	390	149	478	2,180	1,370	576	304	70	31	17.5
15	60	104	422	140	900	1,770	1,720	768	293	69	30	17.5
16	63	110	380	100	615	1,620	1,720	790	290	67	31	18
17	62	123	*404	80	401	1,740	1,480	856	276	64	31	20
18	62	127	474	75	325	2,200	1,340	904	260	62	30	21
19	65	131	562	75	293	1,990	1,190	1,050	248	60	30	21
20	68	149	718	80	130	1,780	1,070	1,670	224	58	27	19.5
21	84	168	490	100	150	1,870	994	4,320	205	55	26	18
22	85	133	422	110	200	1,950	934	5,410	190	*56	24	19.5
23	101	130	384	110	271	1,650	892	3,820	188	55	22	22
24	110	127	338	110	3,210	1,440	898	2,610	186	54	18.5	*22
25	102	120	328	110	*5,940	1,310	988	1,960	*170	52	18	24
26	105	108	335	110	8,610	1,280	988	*1,520	151	43	19.5	25
27	114	112	282	115	9,320	1,220	820	1,240	157	42	18.5	28
28	*128	112	252	115	6,080	1,150	746	1,060	147	41	20	32
29	137	112	226	*120	-	1,110	*680	910	135	41	18.5	35
30	137	112	228	150	-------	1,330	660	784	131	41	17	34
31	140	-------	203	150	-------	1,890	-------	696	-------	40	*16	-------
Total	2,353	3,557	8,770	4,536	41,144	67,920	43,520	41,385	9,566	2,218	961.0	611.0
Mean	75.9	119	283	146	1,469	2,191	1,451	1,335	319	71.5	31.0	20.4
Ac-ft	4,670	7,060	17,400	9,000	81,610	134,700	86,320	82,090	18,970	4,400	1,910	1,210

Calendar year 1956: Max 6,830 Min 23 Mean 898 Ac-ft 651,700
Water year 1956-57: Max 9,320 Min 15 Mean 621 Ac-ft 449,300

Peak discharge (base, 3,700 cfs).--Feb. 25 (1:30 a.m.) 8,540 cfs (11.86 ft); Feb. 27 (5:30 a.m.) 11,100 cfs (12.76 ft); Mar. 9 (9 a.m.) 4,490 cfs (9.89 ft); May 22 (7 to 9 a.m.) 5,630 cfs (10.55 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 15 to Feb. 7, Feb. 20-22.

Williams Lake near Amber, Wash.

Location.--Lat 47°19'25", long 117°41'55", in NE¼SE¼ sec. 12, T. 21 N., R. 40 E., on the west shore at Bunker's Resort, 2 miles southeast of Amber.

Drainage area.--200 sq mi.

Records available.--September 1955 to September 1957.

Gage.--Staff gage read once daily at various times. Altitude of gage is 2,050 ft (from topographic map).

Extremes.--Maximum gage height observed during water year, 3.58 ft June 15-25; minimum observed, 1.80 ft Oct. 17, 19.
1955-57: Maximum gage height observed, 4.89 ft Apr. 5-7, 1956; minimum observed, 0.81 ft Oct. 4, 7, 1955.

Remarks.--Small diversions for irrigation. Minor regulation by fish screens at outlet.

Gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.91	1.90	1.86	1.94	-	-	2.73	2.79	3.33	-	2.94	2.41
2	1.89	-	-	-	-	-	2.73	2.79	3.33	3.50	-	2.40
3	-	1.90	1.86	1.94	-	-	-	-	-	-	2.90	-
4	-	1.90	1.86	1.94	-	-	2.73	2.81	-	3.48	-	2.38
5	-	-	-	-	-	-	2.75	2.81	3.35	-	2.88	2.36
6	-	1.90	1.86	-	-	2.45	2.75	-	3.43	3.46	-	-
7	1.85	1.90	-	1.96	-	-	2.75	2.83	-	3.43	-	2.32
8	-	-	1.85	-	-	2.46	-	2.83	3.47	-	2.84	-
9	1.84	1.88	1.84	1.98	-	2.47	2.75	-	3.47	-	-	2.30
10	1.84	-	1.84	2.00	-	2.51	2.76	-	-	3.40	2.81	-
11	1.85	-	-	-	-	-	-	2.83	3.51	-	2.79	-
12	-	-	1.86	2.00	-	-	2.76	-	-	3.36	-	2.26
13	1.84	-	-	2.00	-	2.55	2.76	2.87	3.53	3.32	2.76	-
14	1.84	-	1.86	-	-	2.55	2.76	2.88	3.56	3.32	-	2.22
15	-	-	1.86	2.00	-	-	2.77	2.97	3.58	-	-	2.22
16	1.82	-	1.86	-	-	2.57	2.77	2.99	3.58	3.28	2.70	-
17	1.80	-	-	-	-	2.65	2.77	-	-	-	2.68	2.20
18	-	-	-	-	-	2.65	-	3.03	3.58	-	2.66	-
19	1.80	-	1.90	-	-	2.65	2.77	3.09	3.58	3.22	-	2.16
20	-	1.88	1.90	-	-	-	2.77	-	-	3.20	-	2.15
21	-	-	-	-	-	2.67	2.77	-	3.58	3.20	2.60	2.14
22	1.82	1.88	1.91	-	-	-	-	3.17	3.58	-	2.58	2.12
23	1.84	1.88	1.91	-	2.14	2.67	2.77	-	3.58	-	-	-
24	-	1.87	-	2.04	2.20	2.67	-	3.21	-	3.12	2.54	-
25	1.86	1.86	1.92	-	2.27	2.67	2.77	3.23	3.58	-	2.52	-
26	-	-	-	-	2.35	2.67	-	3.26	-	3.10	-	-
27	1.88	1.86	1.92	-	-	-	2.77	-	-	3.04	-	-
28	-	1.86	-	-	2.39	2.67	2.77	3.27	3.56	-	2.46	2.12
29	1.90	-	1.92	-	-	2.67	-	-	3.56	3.02	-	2.12
30	1.90	1.86	1.92	-	-------	-	2.79	3.32	3.54	3.00	2.44	-
31	-	-------	1.92	-	-------	-	-------	-	-------	-	2.42	-------

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Measurements of streamflow made at points other than regular gaging stations in the area covered by this report 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 255.

Discharge measurements made at points other than gaging stations during water year 1957

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Pacific Creek basin, Wyo.				
Pacific Creek	Snake River..	Sec. 30, T. 46 N., R. 113 W., 8 miles above mouth and 7½ miles northeast of Moran.	-		July 16 Aug. 10 Sept.22	289 *70.3 63.7
		Buffalo Fork basin, Wyo.				
Buffalo Fork.	Snake River..	Sec. 25, T. 45 N., R. 113 W., ½ mile downstream from Blackrock ranger station, ¼ mile upstream from Blackrock Creek, and 11½ miles east of Moran.	-		Apr. 25 June 8 July 15 Aug. 11 Sept.22	128 2,990 1,520 *424 *238
		Hoback River basin, Wyo.				
Hoback River.	Snake River..	NW¼ sec. 24, T. 38 N., R. 114 W., 1 mile above Cliff Creek and 4 miles northwest of Bondurant.	-		Apr. 25 June 9 July 12 Aug. 12 Sept.26	183 1,310 646 *149 *79.1
Do.....	....do.....	SW¼ sec. 4, T. 38 N., R. 114 W., below Granite Creek, 8 miles northwest of Bondurant.	-		June 9 July 12 Aug. 12 Sept.26	2,770 1,430 *374 *214
Do.....	....do.....	SW¼ sec. 2, T. 38 N., R. 115 W., at U. S. Forest Service camp ground, 4 miles above Willow Creek and 11 miles northwest of Bondurant.	-		Apr. 25 June 9 July 12 Aug. 12 Sept.26	334 2,910 1,430 *375 *212
		Greys River basin, Wyo.				
Blind Bull Creek.	Greys River..	Sec. 8, T. 34 N., R. 116 W., at mouth, 11 miles northeast of Bedford.	-		June 10 July 13	153 a15
Deadman Creek	....do.....	Sec. 5, T. 34 N., R. 116 W., at mouth, 11 miles northeast of Bedford.	-		June 10 July 13	84.5 a12
Greys River..	Snake River..	Sec. 6, T. 34 N., R. 116 W., below Deadman Creek, 11 miles northeast of Bedford.	-		June 10 July 13 Aug. 13 Sept.27	2,100 896 *362 *266
		Henrys Fork basin				
North Fork Boone Creek	Boone Creek..	Sec. 19, T. 48 N., R. 117 W., above Loon Lake, at road bridge 2 miles south of Yellowstone National Park boundary, about 5 miles northeast of Squirrel ranger station, Wyo., and 6 miles east of Idaho-Wyoming State line.	-		June 11 July 10 Aug. 8 Sept.17	168 29.0 *7.27 *4.19
Middle Fork Boone Creek	....do.....	Sec. 36, T. 48 N., R. 118 W., at road bridge 3½ miles south of Yellowstone National Park boundary and 5 miles east of Idaho-Wyoming State line.	-		June 11 July 10 Aug. 8 Sept.17	24.8 3.63 *.73 *.30
South Fork Middle Fork Boone Creek	Middle Fork Boone Creek	Sec. 36, T. 48 N., R. 118 W., at road bridge ½ mile north of the South Fork Boone Creek measuring point.	-		June 11 July 10 Aug. 8 Sept.17	38.4 2.43 *.30 0
South Fork Boone Creek	Boone Creek..	Sec. 35, T. 48 N., R. 118 W., at road bridge 2 miles east of Idaho-Wyoming State line and 4 miles south of Yellowstone National Park boundary.	-		June 11 July 10 Aug. 8 Sept.17	186 50.6 *2.62 *2.07
Squirrel Meadow Creek.	Conant Creek.	Sec. 4, T. 47 N., R. 118 W., on bridge 500 ft downstream from Squirrel Meadow guard station, Wyo.	-		June 11 July 10 Aug. 8 Sept.17	35.3 13.2 *10.3 *7.65

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Henrys Fork basin--Continued				
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, Idaho.	47.6	1946-56b/	June 17 July 26 Aug. 15	251 137 98
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, Idaho.	33.8	1946-56b/	Aug. 6	141
Horseshoe Creek.	....do.....	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, Idaho.	11.7	1946-52b/, 1954-56	June 13 June 26	40 22
		Bannock Creek basin, Idaho				
Rattlesnake Creek.	Bannock Creek	NE¼ sec. 26, T. 8 S., R. 33 E., 2 miles above mouth and 12 miles southwest of Pocatello.	c77	1955-56	Oct. 7 Nov. 13 Dec. 9 Jan. 21 Mar. 31 Apr. 2 May 7 May 24 June 17 July 28 Aug. 29	2.63 *3.86 *4.46 *5.89 18.3 11.6 *16.9 29.9 *9.42 *3.04 *2.27
		Rock Creek basin, Idaho				
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	1955-56	Oct. 8 Nov. 14 Dec. 9 Jan. 22 Feb. 26 Mar. 31 Apr. 2 May 7 May 24 June 17 July 28 Aug. 29	6.66 *8.10 *13.7 *14.2 15.4 7.72 7.03 *3.92 8.83 6.89 8.90 10.9
		Raft River basin, Idaho				
Raft River...	Snake River..	NW¼ sec. 2, T. 14 N., R. 16 W., Salt Lake meridian, 5½ miles southeast of Moulton.	-		Apr. 23	12.3
Do.....	....do.....	NE¼ sec. 10, T. 16 S., R. 25 E., Boise meridian, 100 ft downstream from road bridge and 7 miles southeast of Almo.	-		Apr. 1	12.3
Do.....	....do.....	NW¼ sec. 12, T. 16 S., R. 25 E., Boise meridian, 8½ miles southeast of Almo.	-		Apr. 1	15.5
Do.....	....do.....	NW¼ sec. 6, T. 16 S., R. 26 E., Boise meridian, 9½ miles southeast of Almo.	-		Apr. 1	14.5
Do.....	....do.....	NE¼ sec. 6, T. 16 S., R. 26 E., Boise meridian, 10¼ miles southeast of Almo.	414		Apr. 2	20.4
		Tributaries between Snake River at Milner and Salmon Falls Creek, Idaho				
Devils Washbowl Spring	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, 1950-56	Apr. 2	*23.2
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, 1950-56	Apr. 2	*40.6
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, 1950-56	Apr. 2	*7.57
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.	-	1950-56	Apr. 2	*1.80
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's property.	-	1950-56	May 16	*5.66
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.	-	1950-56	Apr. 2	*.87

* Base flow.
b Gaging station operated 1946-52.
c Approximately.

Discharge measurements made at points other than gaging stations during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Tributaries between Snake River at Milner and Salmon Falls Creek, Idaho--Continued						
Blue Lakes Outlet.	Snake River..	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, 1950-56	Apr. 3	*272
Sunnybrook Spring.	....do.....	SE¼SE¼ sec. 19, T. 9 S., R. 17 E., 3/8 mile above point of entry to river.	-	1950-56	Apr. 3	*14.3
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, 1950-56	Apr. 9	*2.70
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, 1950-56	Apr. 4	*488
Niagara Springs.	....do.....	E½NE¼ sec. 10 T. 9 S., R. 15 E., 4½ miles above Devils Washboard Falls in Snake River and 6 miles northeast of Buhl.	-	1902, 1917-20, 1924,1931, 1950-56	Apr. 3	*d304
Clear Lakes Outlet.	....do.....	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, 1950-56	Apr. 4	*d513
Briggs Creek.	....do.....	SW¼SE¼ sec. 4, T. 9 S., R. 14 E., 2 miles downstream from Clear Lakes outlet and 5½ miles northwest of Buhl.	-	1902,1913, 1917-20, 1924-25, 1931, 1950-56	Apr. 5	*d113
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, 1950-56	Apr. 5	*d97.6
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.	-	1950-56	Apr. 5	*4.75
Blind Canyon Spring.	....do.....	NE¼SW¼ sec. 28, T. 8 S., R. 14 E., just upstream from Box Canyon, 7½ miles northwest of Buhl.	-	1902,1917, 1919, 1950-56	Apr. 5	*d11.5
Salmon Falls Creek basin, Idaho						
Salmon Falls Creek.	Snake River..	NW¼ sec. 6, T. 14 S., R. 15 E., 2 miles downstream from dam of Salmon River Canal Co. and 8 miles northwest of Rogerson.	-	1912,1946, 1953-56	Dec. 4 Mar. 28 June 21 Aug. 23 Sept.12	5.35 7.42 16.7 14.0 11.0
Do.....	....do.....	SW¼ sec. 19, T. 11 S., R. 14 E., at Roseworth crossing 5 miles south of Castleford.	-	1953-55	Sept.11	11.5
Mud Lake-Lost River basins, Idaho						
West Camas Creek.	Camas Creek..	Sec. 1, T. 13 N., R. 37 E., 1.5 miles downstream from Pete Creek and 9 miles northwest of Kilgore.	-	1939	June 7 July 9 Aug. 7 Sept.13	57.7 *13.4 *6.64 *6.31
Camas Creek..	Mud Lake.....	Sec. 7, T. 11 N., R. 39 E., at 18-mile Shearing Corral, 7 miles south of Kilgore.	210	1937-53	June 7 July 9 Aug. 7 Sept.13	302 29.3 13.8 21.3
Do.....	....do.....	SE¼ sec. 25, T. 11 N., R. 38 E., just upstream from road crossing, 11 miles south of Kilgore.	-	1921-27, 1930	June 7 Sept.13	289 23.1
Beaver Creek.	Camas Creek..	Near south edge sec. 4, T. 13 N., R. 36 E., 400 ft downstream from Union Pacific RR. bridge and 0.3 mile downstream from Humphrey.	-		Apr. 27 June 7 July 9 Aug. 6 Sept.13	23.9 21.2 *1.97 2.89 *1.32
Valley Creek.	Beaver Creek.	Sec. 16, T. 13 N., R. 36 E., 400 ft upstream from highway bridge and 2 miles south of Humphrey.	-		Apr. 27 June 7 July 9 Aug. 6 Sept.13	9.69 18.6 4.64 *1.68 *1.96
Beaver Creek.	Camas Creek..	NE¼ sec. 23, T. 12 N., R. 36 E., 0.4 mile southeast of Spencer Post Office and 2½ miles upstream from Rattlesnake Creek.	120	1922-24, 1939, 1941-52	Apr. 27 June 6 July 9 Aug. 6 Sept.13	35.6 87.1 23.1 *9.48 *8.82

* Base flow.
d Discharge represents actual net spring flow adjusted for diversions and surface flow.

Discharge measurements made at points other than gaging stations during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Mud Lake-Lost River basins, Idaho--Continued				
East Fork Big Lost River.	Big Lost River.	Sec. 36, T. 7 N., R. 20 E., 3 miles upstream from Wild Horse Creek.	-		Apr. 28	60.6
Do.....	....do.....	Sec. 28, T. 7 N., R. 21 E., at Rosenkance Ranch 5.8 miles upstream from Wild Horse Creek.	-		June 13 July 17 Aug. 19 Sept.24	732 213 *62.9 *55.2
North Fork Big Lost River.	....do.....	Sec. 23, T. 7 N., R. 19 E., 0.8 mile upstream from Bartlett Creek, 0.5 mile downstream from Burnt Creek, and 6.1 miles upstream from Big Lost River near Wild Horse.	-		Apr. 28 June 6 July 17 Aug. 19 Sept.24	14.0 443 82.7 *18.7 *11.9
		Tributaries to Snake River from 1000 Springs to 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, 1954-56	Apr. 8	*d97.8
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, 1950-56	Apr. 18	*e1,270
Riley Creek..	....do.....	SW¼NE¼ sec. 6, T. 8 S., R. 14 E., at Hagerman Hatchery of U. S. Fish and Wildlife Service, 100 yards below mouth of Lewis Creek, 100 ft below small unnamed spring entering from right, and 5 miles southeast of Hagerman.	-	1950-56	Apr. 9	*69.2
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.	-	1950-56	Apr. 5	*d46.9
Do.....	....do.....	SW¼ sec. 11, T. 7 S., R. 13 E., at mouth 1½ miles north of Hagerman.	-	1956	Apr. 9	172
Birch Creek..	....do.....	SE¼SE¼ sec. 34, T. 6 S., R. 13 E., on Bud Smith's property, ¾ mile south of Malad River and 2½ miles north of Hagerman.	-	1950-56	Apr. 9	*d9.82
		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, 1950-56	Apr. 2	*d1,350
		Bruneau River basin, Idaho				
Big Flat Creek.	East Fork Bruneau River.	Sec. 24, T. 15 S., R. 10 E., 5.5 miles northwest of Three Creek.	62	1912-14, 1916	May 15 May 19	125 189
Three Creek..	....do.....	SW¼ sec. 34, T. 15 S., R. 11 E., at Three Creek.	-		May 15 May 19	50.0 41.5
Deer Creek...	Three Creek..	SE¼ sec. 35, T. 15 S., R. 11 E., 1½ miles east of Three Creek.	-		May 15 May 19	66.4 99.6
Cherry Creek.	....do.....	SE¼ sec. 32, T. 15 S., R. 11 E., 2 miles west of Three Creek.	22	1912-14, 1916	May 15 May 19	36.4 65.1
Deadwood Creek.	....do.....	SE¼ sec. 20, T. 15 S., R. 12 E., 5½ miles northeast of Three Creek.	-		May 15 May 17 May 19	a45.0 23.4 30.3
		Owyhee River basin				
Crooked Creek	Owyhee River.	At former gaging station 6 miles southwest of Rome, Oreg.	c1,700	1946, 1949-56	Nov. 16 Dec. 12 Jan. 23 Apr. 18 Aug. 22	*26.9 *24.8 *25.6 *27.5 *24.0

* Base flow.
a Estimated.
c Approximately.
d Discharge represents actual net spring flow adjusted for diversions and surface flow.
e 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 during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Boise River basin, Idaho				
South Fork Boise River	Boise River..	NW¼ sec. 16, T. 3 N., R. 13 E., 100 ft upstream from Big Smoky Creek and 21 miles east of Featherville.	-	1927	May 23 June 20	525 573
Big Smoky Creek.	South Fork Boise River	SE¼ sec. 9, T. 3 N., R. 13 E., 1 mile upstream from South Fork Boise River and 22 miles east of Featherville.	-	1927	May 23 June 20	957 525
South Fork Boise River	Boise River..	NE¼ sec. 17, T. 3 N., R. 13 E., 1 mile upstream from Boardman Creek and 20½ miles east of Featherville.	-		July 9 Aug. 21 Sept.30	550 *138 *112
		Malheur River basin, Oreg.				
Warm Springs Creek.	North Fork Malheur River.	Near line between secs. 1 and 2, T. 19 S., R. 37 E., 2.5 miles northeast of Beulah.	c90	1936,1938, 1941,1944, 1946-56	Mar. 5	87.0
		Burnt River basin, Oreg.				
North Fork Burnt River	Burnt River..	Sec. 3, T. 11 S., R. 36 E., 1/8 mile below Trout Creek and 1 mile southeast of Whitney.	102	1952-55	Oct. 4	*1.36
		Powder River basin, Oreg.				
Powder River.	Snake River..	At former gaging station near Haines.	572	1947-56	Aug. 15	*4.24
Wolf Creek...	Powder River.	At former gaging station near North Powder.	32.9	1946-56	Aug. 15	*1.78
		Salmon River basin, Idaho				
Salmon River.	Snake River..	Sec. 7, T. 9 N., R. 14 E., 3.7 miles upstream from Redfish Creek and 8 miles southeast of Stanley.	-	1927	Apr. 29 July 10 Aug. 13 Sept.17	329 622 *222 *205
Do.....	....do.....	NE¼ sec. 25, T. 10 N., R. 13 E., at bridge crossing U. S. Highway 93, 4 miles southeast of Stanley.	-		June 5	2,800
Redfish Creek	Salmon River.	Sec. 35, T. 10 N., R. 13 E., at bridge crossing creek 1.1 miles downstream from store at Redfish Lake.	-		Apr. 29 June 5 July 10 Aug. 13 Sept.17	45.7 607 297 *86.8 *47.5
Valley Creek.	....do.....	Sec. 25, T. 11 N., R. 12 E., just below bridge on Stanley-Bear Valley road, 5.2 miles northwest of Upper Stanley.	-		Apr. 29 June 5 July 19 Aug. 14 Sept.18	188 1,050 241 *67.2 *65.7
Salmon River.	....do.....	Sec. 8, T. 24 N., R. 4 E., 100 ft downstream from Fall Creek, 2½ miles northeast of French Creek Post Office, and 16 miles east of Riggins.	12,270	1944-56f/	Oct. 5 Nov. 17 Jan. 10 Mar. 2 Apr. 5 May 8 June 2 June 25 July 11 Aug. 27 Sept.16	*4,220 *4,940 *3,670 5,350 5,000 37,000 69,100 23,900 12,600 *3,860 *3,750
		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	1952-55	Oct. 1	*18.0
Do.....	....do.....	NW¼ sec. 7, T. 3 S., R. 40 E., ¾ mile below Catherine Creek and 3 miles northwest of Cove.	1,080	1955	Aug. 30	*25.7
Do.....	....do.....	At former gaging station near Hilgard.	489	1937-56	Aug. 30	*35.1
Indian Creek.	Grande Ronde River.	At former gaging station near Imbler.	22	1946-50, 1956	Oct. 7	*3.82
Lookingglass Creek.	....do.....	At mouth at Palmer Junction.	c95	1953-56	Aug. 2	*59.0
Prairie Creek	Wallowa River	Sec. 8, T. 2 S., R. 45 E., 2 miles southeast of Enterprise.	-		July 31	136
Minam River..	....do.....	At former gaging station at Minam, ¼ mile above mouth.	c240	1912-13, 1953-54	July 29	*237

* Base flow.
c Approximately.
f Gaging station operated 1944-56.

Discharge measurements made at points other than gaging stations during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Tucannon River basin, Wash.				
Tucannon River.	Snake River..	NE¼SW¼ sec. 21, T. 12 N., R. 38, 2½ miles below former gaging station site at road crossing and 3 miles east of Starbuck.	430		Feb. 27 Mar. 17 Apr. 26 May 23 June 27 July 24 Aug. 28 Sept.26 Sept.27	639 257 217 343 92.8 *63.8 *60.4 *57.8 60.6

* 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.

Determinations of peak discharge at points other than gaging stations during water year 1957†

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Cottonwood Creek.	Malheur River	Sec. 3, T. 20 S., R. 42 E., at bridge on U. S. Highway 20, 2 miles east of Harper and 19 miles southeast of Vale, Oreg.	198		1957 Feb. 24	5,140
Bully Creek..	....do.....	Sec. 2, T. 18 S., R. 43 E., 1.1 miles above Bureau of Reclamation damsite and 10 miles northwest of Vale, Oreg.	‡540		Feb. 24	5,600
Malheur River	Snake River..	Sec. 20, T. 18 S., R. 45 E., at sewerage plant above inflow from Willow Creek, 0.25 mile east of Vale, Oreg.	‡3,880		Feb. 24	20,800
Do.....	....do.....	Sec. 28, T. 17 S., R. 47 E., at bridge on U. S. Highway 30, 2 miles north of Ontario, Oreg.	‡4,680		Feb. 25	24,000
Sutton Creek.	Powder River.	Sec. 28, T. 9 S., R. 40 E., at U. S. Highway 30, 0.25 mile south of city limits of Baker, Oreg.	57.2		Feb. 24	1,630
Powder River.	Snake River..	Sec. 16, T. 9 S., R. 40 E., at bridge on Myrtle Street, 0.4 mile upstream from U. S. Highway 30 in Baker, Oreg.	351		Feb. 24	2,460
Prairie Creek	....do.....	Sec. 1, T. 2 S., R. 44 E., 0.55 mile above Wallowa River bridge on State Highway 82 and 0.35 mile south of city limits of Enterprise, Oreg.	80.1		Feb. 24	1,460
Dry Creek....	....do.....	SW¼ sec. 35, T. 11 N., R. 45 E., at county road, 4½ miles southwest of Clarkston, Wash.	2.29		1955 - Dec. 22 1956 Feb. 21 1957 Feb. 24	(a) 61.1 123 104
Unnamed tributary.	Smith Gulch Creek.	SE¼ sec. 29, T. 12 N., R. 43 E., at Eureka Road, 4½ miles northeast of Pataha and 7 miles northeast of Pomeroy, Wash.	1.85		1955 Feb. 8 Dec. 22 1957 May 6	85.3 92.8 112
Do.....	Missouri Flat Creek.	NE¼ sec. 29, T. 15 N., R. 45 E., at county road to Palouse, 2 miles north of Pullman, Wash.	1.14		1955 Feb. 8 1956 May 8 1957 Feb. 25	23.1 b140 33.4
Rose Creek...	Fourmile Creek.	SE¼ sec. 9, T. 15 N., R. 45 E., at State Highway 3, 5 miles northeast of Pullman, Wash.	1.52		1956 May 8	1,130
Unnamed tributary.	Palouse River	SE¼SW¼ sec. 10, T. 16 N., R. 43 E., at U. S. Highway 295, 1 mile west of Colfax, Wash.	2.10		1955 Feb. 9 Dec. 22 1957 Feb. 24 May 20	17.9 70.5 12.8 60.5
Do.....	West Branch North Pine Creek.	SW¼ sec. 16, T. 21 N., R. 43 E., at U. S. Highway 195, 0.7 mile south of Plaza, Wash.	1.64		1955 Feb. 9 Dec. 22	67.0 80.9

† Includes some measurements made prior to water year but not previously published.
‡ Approximately.
a No evidence of any flow during the 1955 water year.
b Road overflow computed from estimated road profile and local residents' estimate of depth over road.

Determinations of peak discharge at points other than gaging stations during water year 1957--Continued†

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Unnamed tributary.	West Branch North Pine Creek.	¼ mile upstream from above site (see preceding page).	1.24		1957 May 14	1,560
Squaw Creek..	Pine Creek...	NE¼ sec. 24, T. 21 N., R. 42 E., 5 miles above mouth, 3 miles southwest of Plaza, Wash.	3.84		May 14	5,310
Negro Creek..	Sprague Lake.	NE¼NE¼ sec. 30, T. 21 N., R. 39 E., at county road crossing, 2 miles east of Sprague, Wash.	-		1956 Mar. 9	c239
Unnamed tributary.	Negro Creek..	NE¼NE¼ sec. 23, T. 21 N., R. 38 E., at railroad crossing, 100 ft upstream from U. S. Highway 10 at east edge of Sprague, Wash.	-		Mar. 9	23.1
Negro Creek..	Sprague Lake.	NE¼ sec. 23, T. 21 N., R. 38 E., 200 ft downstream from railroad bridge at north edge of Sprague, Wash.	-		Mar. 9	c175
Unnamed tributary.	Cow Creek....	SE¼ sec. 32, T. 20 N., R. 31 E., at county road crossing, 9½ miles northeast of Ritzville, Wash.	1.51		1951 Mar. 18 1955 Feb. 8 1956 Feb. 21 1957 Feb. 25	d200 82.5 105 43.3
Do.....	....do.....	South half of line between secs. 5 and 6, T. 15 N., R. 38 E., at county road crossing, 2.5 miles north of State Highway 11B and 4.8 miles northeast of Hooper.	.75		1955 Feb. 8	6.4
Do.....	Smith Canyon.	SE¼NW¼ sec. 9, T. 12 N., R. 32 E., at county road, 6½ miles south of Connell, Wash.	1.71		- 1956 Feb. 21 1957 Feb. 24	(a) 45.8 10.5
Smith Canyon.	Snake River..	NE¼ sec. 1, T. 11 N., R. 30 E., 1¼ miles northeast of Eltopia, Wash.	46.2		1956 Feb. 21	462
Rye Grass Coulee.	Smith Canyon.	NW¼ sec. 12 T. 11 N., R. 31 E., just upstream from unnamed tributary, 6½ miles east of Eltopia and 14½ miles south of Connell, Wash.	17.6		Feb. 21	126

† Includes some messurements made prior to water year but not previously published.
a No evidence of any flow during the 1955 water year.
c Simultaneous current meter measurements at peak at upstream site.
d Computation of discharge based on local residents' estimate of depth of water over culvert.

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