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HAROLD L. ICKES, Secretary

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W. E. WRATHER, Director

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SURFACE WATER SUPPLY  
*of the* UNITED STATES  
1943

PART 13  
SNAKE RIVER BASIN

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Prepared under the direction of  
GLENN L. PARKER, Chief Hydraulic Engineer  
AND OF G. H. CANFIELD, LYNN CRANDALL, ROBERT FOLLANSBEE  
T. R. NEWELL, F. M. VEATCH, AND M. T. WILSON  
District Engineers

In cooperation with the States of  
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ILLUSTRATION

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Figure 1. Gaging-station structures: A, Snake River at King Hill, Idaho; B, Snake River near Murphy, Idaho; C, Snake River near Clarkston, Wash.....	3
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## SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1943

### SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1943. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,670 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1943, 5,130 gaging stations, including those in Hawaii, were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made during the water year at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged, under the heading "Cooperation," in the introductory matter that precedes the gaging-station records in each volume. In the present volume, the section on cooperation of the second kind appears on page 12.

### DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot 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.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards 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. It is used for comparing runoff with rainfall, which is usually expressed in inches.

An "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 connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot 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 an abbreviation for the term "relation between gage height and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section, a reach of the channel, or an artificial structure.

"Contents" is a term applied to the volume of water in a reservoir, not including water in bank storage unless so indicated.

#### EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements 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 the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown in figure 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these 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. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of 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, and for them the rate of change of stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it 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 stations in the same or nearby basins. The days included in the periods of ice effect and the days during the winter period on which discharge measurements were made are indicated in the table by symbols referring to footnotes or are given in a general note following the table.

For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of



**A. SNAKE RIVER AT KING HILL, IDAHO.**



**B. SNAKE RIVER NEAR MURPHY, IDAHO.**



**C. SNAKE RIVER NEAR CLARKSTON, WASH.**

**FIGURE 1.—GAGING-STATION STRUCTURES**



the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude as determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given, below the table of monthly discharge, for some stations. This supplementary information is generally omitted for a station at which the drainage area of the stream is less than 10 or more than 10,000 square miles or at which, on most days, the peak discharge exceeds the mean discharge by less than 10 percent.

For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the 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 in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For periods of rapidly changing stage the daily mean discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge, not the momentary discharge when the water surface was at crest stage. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

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 is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

## TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. Records of daily discharge prior to February 9, 1942, were computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. To convert war time to standard time, subtract 1 hour.

## ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency 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 flow, and interpretation of records.

The station description gives a statement in regard to the general 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 accurate than the daily records.

Yield at some stations as indicated by monthly means may vary widely from natural yield, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "runoff in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless its inclusion is indicated. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

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 show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

## PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).

**Part 3. Ohio River Basin.**

4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
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 local offices of the water-resources branch of the Geological Survey as follows:

**East of the Mississippi River:**

Albany, N. Y., 528 Federal Building.  
 Asheville, N. C., 220 Post Office Building.  
 Atlanta, Ga., 3 North Rhodes Center NW.  
 Augusta, Maine, Statehouse.  
 Baton Rouge, La., 124 Geology Building, Louisiana State University.  
 Boston, Mass., 939 Post Office Building.  
 Charleston, W. Va., 408 Union Building.  
 Charlottesville, Va., House G, Dawson Row, University of Virginia.  
 Chattanooga, Tenn., 442 Post Office Building.  
 College Park, Md., Engineering Building, University of Maryland.  
 Columbia, S. C., 207 Creason Building.  
 Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.  
 Harrisburg, Pa., 490 Education Building.  
 Hartford, Conn., 203 Federal Building.  
 Indianapolis, Ind., 205 Underwriters Building.  
 Jackson, Miss., 208 Millsaps Building.  
 Knoxville, Tenn., 337 Post Office Building.  
 Louisville, Ky., 531 Federal Building.  
 Madison, Wis., 666 State Office Building.  
 Montgomery, Ala., 507 Post Office Building.  
 Morgantown, W. Va., 309 Mineral Industries Building.  
 New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.  
 Ocala, Fla., 302 Post Office Building.  
 Pittsburgh, Pa., 515 Plaza Building.  
 Raleigh, N. C., 242 Education Building.  
 St. Paul, Minn., 1427 New Post Office Building.  
 Trenton, N. J., 228 Federal Building.  
 Urbana, Ill., 14 Post Office Annex, Elm Street.  
 Williamsburg, Ky., Kentucky Highway Building.

**West of the Mississippi River:**

Albuquerque, N. Mex., 723 North Second Street.  
 Austin, Tex., 302 West Fifteenth Street.  
 Boise, Idaho, 429 Federal Building.  
 Denver, Colo., 310 Denham Building.  
 Fort Smith, Ark., 6 Post Office Building.  
 Helena, Mont., 408 Federal Building.  
 Honolulu, Hawaii, 225 Federal Building.  
 Idaho Falls, Idaho, 204 Federal Building.  
 Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.  
 Lincoln, Nebr., 1404 Statehouse.  
 Los Angeles, Calif., 429-F United States Post Office and Courthouse.  
 Oklahoma City, Okla., 535 Capitol Building.  
 Portland, Oreg., 606 Post Office Building.  
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.  
 St. Louis, Mo., 1002 New Federal Building.  
 Salt Lake City, Utah, 303 Federal Building.  
 San Francisco, Calif., 625 Market Street Building.  
 Santa Fe, N. Mex., 204 United States Courthouse.  
 Tacoma, Wash., 207 Federal Building.  
 Topeka, Kans., 305 Federal Building.  
 Tucson, Ariz., 210 Post Office Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Early records of the flow of streams in the United States are published in the reports listed below:

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

(A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2	.....do.....	1884 to June 30, 1891.
13th A, pt. 3	.....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-92).....	1888 to Dec. 31, 1893.
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 (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4	Monthly discharge.....	1900.
W 55, 56....	Descriptions, measurements, gage heights, and ratings.....	1901.
W 75.....	Monthly discharge.....	1901.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 8. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 8), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1943

(For basins included see pp. 5-6).

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	37	38	38	39	39	39
1900 a...	47, b48	48, 49	49	49	49	49, 50	50	50	50	50	51	51	51	51
1901.....	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	83	83	83, 84	84	84	84	85	85	85	85	85
1903.....	97	b97, 98	98	97	98	98, 99	99	99	99	100	100	100	100	100
1904.....	0184, p185, q186	q186, 187	188	189	189	189, 190	190	190	190	190	190	190	190	190
1905.....	0185, p186, q187	q187, 188	189	190	190	190, 191	191	191	191	191	191	191	191	191
1906.....	0201, p202, q203	q203, 204	205	206	206	206, 207	207	207	207	207	207	207	207	207
1907-8.....	241	241	241	241	241	241, 242	242	242	242	242	242	242	242	242
1908.....	281	281	281	281	281	281, 282	282	282	282	282	282	282	282	282
1909.....	301	301	301	301	301	301, 302	302	302	302	302	302	302	302	302
1910.....	321	321	321	321	321	321, 322	322	322	322	322	322	322	322	322
1911.....	351	351	351	351	351	351, 352	352	352	352	352	352	352	352	352
1912.....	381	381	381	381	381	381, 382	382	382	382	382	382	382	382	382
1913.....	401	401	401	401	401	401, 402	402	402	402	402	402	402	402	402
1914.....	431	431	431	431	431	431, 432	432	432	432	432	432	432	432	432
1915.....	451	451	451	451	451	451, 452	452	452	452	452	452	452	452	452
1916.....	481	481	481	481	481	481, 482	482	482	482	482	482	482	482	482
1917.....	501	501	501	501	501	501, 502	502	502	502	502	502	502	502	502
1918.....	521	521	521	521	521	521, 522	522	522	522	522	522	522	522	522
1919-20.....	541	541	541	541	541	541, 542	542	542	542	542	542	542	542	542
1921.....	561	561	561	561	561	561, 562	562	562	562	562	562	562	562	562
1922.....	581	581	581	581	581	581, 582	582	582	582	582	582	582	582	582
1923.....	601	601	601	601	601	601, 602	602	602	602	602	602	602	602	602
1924.....	621	621	621	621	621	621, 622	622	622	622	622	622	622	622	622
1925.....	641	641	641	641	641	641, 642	642	642	642	642	642	642	642	642
1926.....	661	661	661	661	661	661, 662	662	662	662	662	662	662	662	662
1927.....	681	681	681	681	681	681, 682	682	682	682	682	682	682	682	682
1928.....	696	696	696	696	696	696, 697	697	697	697	697	697	697	697	697
1929.....	711	711	711	711	711	711, 712	712	712	712	712	712	712	712	712
1930.....	726	726	726	726	726	726, 727	727	727	727	727	727	727	727	727
1931.....	741	741	741	741	741	741, 742	742	742	742	742	742	742	742	742
1932.....	756	756	756	756	756	756, 757	757	757	757	757	757	757	757	757
1933.....	771	771	771	771	771	771, 772	772	772	772	772	772	772	772	772
1934.....	781	781	781	781	781	781, 782	782	782	782	782	782	782	782	782
1935.....	801	801	801	801	801	801, 802	802	802	802	802	802	802	802	802
1936.....	811	811	811	811	811	811, 812	812	812	812	812	812	812	812	812
1937.....	821	821	821	821	821	821, 822	822	822	822	822	822	822	822	822
1938.....	831	831	831	831	831	831, 832	832	832	832	832	832	832	832	832
1939.....	841	841	841	841	841	841, 842	842	842	842	842	842	842	842	842
1940.....	851	851	851	851	851	851, 852	852	852	852	852	852	852	852	852
1941.....	861	861	861	861	861	861, 862	862	862	862	862	862	862	862	862
1942.....	871	871	871	871	871	871, 872	872	872	872	872	872	872	872	872
1943.....	881	881	881	881	881	881, 882	882	882	882	882	882	882	882	882
1944.....	891	891	891	891	891	891, 892	892	892	892	892	892	892	892	892
1945.....	901	901	901	901	901	901, 902	902	902	902	902	902	902	902	902
1946.....	911	911	911	911	911	911, 912	912	912	912	912	912	912	912	912
1947.....	921	921	921	921	921	921, 922	922	922	922	922	922	922	922	922
1948.....	931	931	931	931	931	931, 932	932	932	932	932	932	932	932	932
1949.....	941	941	941	941	941	941, 942	942	942	942	942	942	942	942	942
1950.....	951	951	951	951	951	951, 952	952	952	952	952	952	952	952	952
1951.....	961	961	961	961	961	961, 962	962	962	962	962	962	962	962	962
1952.....	971	971	971	971	971	971, 972	972	972	972	972	972	972	972	972
1953.....	981	981	981	981	981	981, 982	982	982	982	982	982	982	982	982
1954.....	991	991	991	991	991	991, 992	992	992	992	992	992	992	992	992

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 89. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.

b James River only.

c Gallatin River.

d Green and Gunnison Rivers and Colorado River above Gunnison River.

e Mojave River only.

f Kings and Kern Rivers.

g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, water, and irrigation in California and Texas contained in Water-Supply Paper 52.

h Sacramento River only.

i Wisconsin and Schuyllkill Rivers to James River.

j Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 89. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.

k Tributaries of Mississippi River from east.

l Lake Ontario and tributaries to St. Lawrence River proper.

m Hudson Bay only.

n New England Rivers only.

o Potomac River to Delaware River, inclusive.

p Susquehanna River to Indian River, inclusive.

q Sacramento and Kansas Rivers.

r The Great Basin in California, except Truckee and Carson River Basins.

s Below mouth of Gila River.

t Rogue, Umpqua, and Siletz Rivers only.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetic order by States and drainage basins.

Reports containing compilations of records of discharge by States and drainage basins

Water-supply Paper	Period	State or drainage basin and title
STATE		
107	1895-1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1887-1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1876-1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1891-1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.
447	1890-1918	California, southern, Surface water supply of Pacific slope of.
597-E	1895-1927	California, Surface water supply of Sacramento River Basin.
636-D	1895-1927	California, Surface water supply of San Joaquin River Basin.
636-E	1894-1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1895-1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1894-1900	Colorado, Water resources of.
197	1895-1905	Georgia, Water resources of.
415	1845-1915	Massachusetts, Surface waters of.
230	1894-1906	Nebraska, Surface water supply of.
370	1876-1910	Oregon, Surface water supply of.
850	1898-1937	Texas, Summary of records of surface waters of.
424	1875-1916	Vermont, Surface waters of.
492	1878-1919	Washington, Summary of hydrometric data in.
870	1919-35	Washington, Summary of records of surface waters of.
155	1895-1905	Wisconsin, northern, Water powers of.
469	1894-1921	Wyoming, Surface waters of, and their utilization.
DRAINAGE BASIN		
395	1898-1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1897-1927	Colorado River, upper (Colo., Utah), and its utilization.
918	1891-1938	Colorado River Basin (Ariz., Calif., Colo., Utah, Wyo.), Surface waters at base stations in.
916	1898-1936	Columbia River Basin, upper (Mont., Idaho), Surface waters of.
517	1889-1920	Great Salt Lake Basin, Water powers of.
618	1894-1926	Green River (Colo., Utah, Wyo.) and its utilization.
198	1890-1906	Kennebec River Basin (Maine), Water resources of.
917	1881-1938	Milk River. See St. Mary and Milk Rivers.
556	1895-1920	Missouri and St. Mary River Basins (Mont.), Surface waters of.
279	1904-9	New Kanawha River Basin (W. C., Va., W. Va.), Surface water supply of.
192	1895-1906	Penobscot River Basin (Maine), Water resources of.
358	1888-1913	Potomac River Basin (D. C., Md., W. Va.)
491	1898-1917	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of.
		St. Mary and Milk Rivers (Mont., Canada), Water supply of.
		St. Mary River. See St. Mary and Milk Rivers; Missouri and St. Mary River Basin.
109	1890-1904	Susquehanna River Basin (Pa., Md.), Hydrography of.

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama.....	1895-1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas.....	1857-1928	Stream-gaging Rept. 1.....	Arkansas Geological Survey.
Colorado.....	1881-1938	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.1	State Planning Commission, Water Conservation Board, State engineer.
Do.....	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado	Do.
Connecticut.....	1900-1927	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1912-33	5th biennial report 2.....	Connecticut State Water Commission.
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 58, Water powers of Georgia.....	Do.
Illinois.....	1908-11	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1900-1934	Stream-flow data of Illinois.....	Division of Waterways.

1 Contains records of yearly discharge only.

2 Contains records of monthly discharge in second-feet per square mile.

## State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Indiana.....	1925-27	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1875-1932	Stream-flow records of Iowa.....	Iowa State Planning Board;
Do.....	1875-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do.....	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	.....do.....	Do.
Do.....	1924-28	Report of Division of Water Resources...	Kansas State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	.....do.....	Do.
Do.....	1939-41	.....do.....	Do.
Kentucky....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana....	1905-58	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report <sup>2</sup> .....	Maine Water Power Commission.
Maryland....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Bureau of Geology and Mines.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Missouri Geological Survey and Water Resources.
Montana.....	1889-1911	5th biennial report.....	Office of the State Engineer.
Do.....	1881-1935	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Jersey..	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams. <sup>3</sup>	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams. <sup>4</sup>	Do.
North Dakota	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1938	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island	1929-41	7th annual report.....	Department of Public Works.
Tennessee....	1874-1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1889-1905	5th biennial report, State engineer.....	Office of the State Engineer.
Do.....	1905-10	7th biennial report, State engineer.....	Do.
Do.....	1911-16	10th biennial report, State engineer.....	Do.
Virginia....	1895-1927	Bull. 31, Water resources of Virginia...	Conservation Commission.
Washington..	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

2 Contains records of monthly discharge in second-feet per square mile.

3 Contains records of weekly discharge.

4 Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

Note.—In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, Rhode Island, Washington, and Wyoming.

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 noteworthy floods. The following list gives the numbers and titles of these reports:

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, part 1, New England Rivers.
799	The floods of March 1936, part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.
914	Texas floods of 1938 and 1939.

## RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1941 to September 1943 by agencies other than the Geological Survey. The records for these stations are not contained in the publications of the Geological Survey except as noted.

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, 1932-43..	Idaho Water District 36.
Bully Creek.....	SW $\frac{1}{4}$ sec. 33, T. 18 S., R. 44 E., 5 miles southwest of Vale, Oreg. Prior to spring of 1937 in sec. 20, 6 miles west of Vale, Oreg.	1933-43.....	Oregon State engineer.
Indian Creek.....	SE $\frac{1}{4}$ sec. 33, T. 1 S., R. 40 E., above North Indian Creek near Imbler, Oreg.	1938-43.....	Do.
Little Minam River....	SE $\frac{1}{4}$ sec. 27, T. 3 S., R. 41 E., 10 miles east of Cove, Oreg.	1938-43.....	Do.
Malheur River.....	SW $\frac{1}{4}$ sec. 32, T. 20 S., R. 41 E., near Namorf, Oreg.	1931-43+.....	Do.
Silver Lake Canal.....	NW $\frac{1}{4}$ sec. 5, T. 3 S., R. 45 E., near Joseph, Oreg.	1927-43+.....	Do.
Snake River tributaries.	Near Irwin, Idaho.....	1940-43†.....	Idaho Water District 36.
Teton River tributaries and diversions.	Near Driggs, Idaho.....	1934-43†.....	Do.

† Records for some earlier years published in water-supply papers of the Geological Survey.

† Fragmentary.



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

Stream	Location	Period	Collected by
Wallowa Lake Reservoir.	At outlet, near Joseph, Oreg.....	1925-43†.....	Oregon State engineer.
Wallowa River.....	Below Wallowa Lake, Oreg.....	1926-43†.....	Do.

† Records for some earlier years published in water-supply papers of the Geological Survey.

Note.-- Of the records for the stations operated by the Oregon State engineer, those for 1925-30 are published in Bulletin 8 of the State engineer, and those for 1931-36 (including some to December 1936) in Bulletin 9; those for 1937-43 have not been published.

Records for the stations operated by Idaho Water District 36 are published in the annual reports of that organization.  
The Soil Conservation Service of the United States Department of Agriculture began in 1936 to make studies of runoff from two areas of less than 220 acres each in the vicinity of Emmett, Idaho, and from two areas of less than 180 acres each in the vicinity of Moscow, Idaho. These studies were discontinued June 30, 1943. The records are in the files of the Soil Conservation Service.

## COOPERATION

The work in the several States was done under cooperative agreements with the organizations listed below.

Idaho: Idaho Department of Reclamation, E. V. Berg, commissioner until December 31, 1942, James Spofford, State reclamation engineer, thereafter.

Oregon: Office of the State Engineer, C. E. Stricklin.

Washington: State Department of Conservation and Development, Ed Davis, director, and C. J. Bartholet, supervisor of hydraulics.

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

Financial assistance was furnished by the Corps of Engineers, United States Army, in the operation of five gaging stations in Idaho.

Financial assistance was furnished also by the Office of Indian Affairs and the Bureau of Reclamation of the United States Department of the Interior; the Federal Power Commission; and the Weather Bureau of the United States Department of Commerce.

Assistance in collecting records was rendered by the following counties, municipality, corporations and other organizations, and watermasters.

Idaho: City of Pocatello, Idaho Power Co., Board of Control for Boise Project, Bradley Mining Co., Western States Utilities Co., Idaho Water District 36, North Side Canal Co., Twin Falls Canal Co., Utah Power & Light Co., Washington Water Power Co., and watermasters for Big Lost, Little Lost, Big Wood, Little Wood, Boise, and Weiser Rivers, Lake Fork of Payette River, and Mud Lake.

Oregon: Malheur, Baker, Union, and Wallowa Counties, Eastern Oregon Light & Power Co., Pacific Power & Light Co., and Warm Springs Irrigation District.

Washington: Washington Water Power Co.

## DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey, Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The data for the stations in the several States were collected and prepared for publication under supervision of district engineers as follows: For certain stations in Idaho, namely, Snake River at and above Milner and stations on tributaries of Snake River above American Falls Reservoir, Lynn Crandall; for all other stations in Idaho, for Salmon Falls Creek near San Jacinto, Nev., and for Snake River at Oxbow, Oreg., T. R. Newell; in Nevada

(except for Salmon Falls Creek near San Jacinto), M. T. Wilson; in Oregon (except for Snake River at Oxbow), G. R. Canfield, the work being done in collaboration with C. E. Stricklin, State engineer; in Washington, F. M. Veatch; in Wyoming, Robert Follansbee.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, hydraulic engineer in charge, and F. J. Flynn, assistant engineer, section of reports.

## GAGING STATION RECORDS

## SNAKE RIVER MAIN STEM

Jackson Lake at Moran, Wyo.

Location.— Electric tape gage, lat. 43°51', long. 110°35', in sec. 18, T. 45 N., R. 114 W., at dam on Snake River, at Moran. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.— 816 square miles.

Records available.— July 1908 to September 1943 (1908-10, fragmentary).

Extremes.— Maximum contents during year, 854,150 acre-feet July 2, 10, 21-23, 29 (elevation, 6,769.28 feet); minimum, 321,540 acre-feet Oct. 1 (elevation, 6,746.74 feet).  
1908-43: Maximum contents, 857,220 acre-feet June 23, 1937 (elevation, 6,769.40 feet); no usable contents several days in period August to October 1919 (elevation, 6,730.00 feet).

Remarks.— Reservoir was formed by log crib dam in 1906 with a usable capacity of 300,000 acre-feet. The dam washed out in July 1910 and was replaced by an earth dam, forming a reservoir with a usable capacity of 380,000 acre-feet. The earth dam was raised in 1916 increasing the usable capacity to 790,000 acre-feet. In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-feet between elevations 6,730 feet (top of baffles in sluices) and 6,769 feet (top of spillway gates). Water is used for irrigation in Snake River Valley, Idaho. Gage read once daily at 8 a.m. Contents as given herein are computed from elevation at that time; all available for release.

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

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321,540	334,060	366,800	403,180	441,450	457,140	441,230	429,020	678,720	652,610	851,640	733,370
2	321,750	334,710	368,120	405,200	442,350	457,850	439,410	435,350	694,570	654,150	850,050	735,180
3	321,750	335,370	368,780	406,320	443,500	458,510	435,110	443,270	710,020	653,640	849,790	729,970
4	321,750	336,070	369,430	407,210	445,550	459,190	429,240	451,450	720,580	653,640	850,620	725,270
5	321,750	337,100	369,970	408,330	446,910	460,100	424,730	460,330	729,470	653,640	852,350	720,820
6	321,970	337,750	370,530	409,450	447,820	460,550	420,000	463,350	737,140	652,970	851,580	717,380
7	322,610	338,400	372,300	410,120	448,730	461,010	414,140	474,990	745,300	653,120	850,300	714,440
8	322,830	339,270	373,190	411,010	450,090	462,160	409,870	480,030	751,260	653,380	848,280	711,490
9	323,260	339,920	375,180	411,910	450,090	463,760	407,210	484,620	759,480	653,640	846,700	703,080
10	323,690	340,790	376,610	413,020	449,640	464,450	401,540	489,240	769,440	654,150	845,150	704,370
11	324,350	341,660	377,400	413,920	449,640	465,140	397,370	492,930	779,710	653,640	841,120	701,920
12	324,970	342,090	378,280	414,810	449,410	465,600	395,140	496,860	792,750	652,610	837,300	699,430
13	325,620	342,310	378,940	415,710	449,180	466,970	391,790	500,320	808,900	650,820	832,470	694,570
14	326,050	342,740	379,610	416,840	448,500	468,580	389,580	504,010	824,070	652,100	827,380	690,180
15	326,480	343,400	380,720	417,520	448,500	469,490	387,140	507,710	840,350	653,890	822,290	687,250
16	327,340	344,050	381,160	418,420	448,500	470,640	382,490	511,900	849,790	653,640	817,740	683,100
17	327,550	345,350	381,820	419,090	448,500	471,780	380,270	514,920	850,050	653,120	813,190	678,720
18	327,990	347,950	382,490	420,000	448,500	472,700	378,060	518,170	850,820	653,120	808,900	674,080
19	328,640	350,140	383,380	420,670	449,410	473,390	375,180	521,420	852,610	653,120	804,350	668,990
20	329,290	351,450	384,260	421,330	449,640	473,840	378,060	526,300	850,050	653,380	800,310	664,390
21	329,720	352,110	384,700	424,280	450,090	474,300	382,490	530,490	849,530	654,150	796,770	659,300
22	330,160	352,990	385,690	427,650	451,690	474,990	387,580	537,980	850,820	654,150	797,550	655,190
23	330,590	353,860	386,700	428,570	453,500	475,450	391,570	546,870	849,530	654,150	786,480	653,490
24	330,810	355,620	388,030	429,920	454,190	475,910	396,480	554,130	848,000	653,380	780,970	650,100
25	331,030	358,250	390,020	431,050	455,100	476,600	403,180	562,140	848,250	651,840	776,200	649,620
26	331,240	359,910	391,130	432,850	455,550	471,100	407,880	573,920	851,840	652,350	770,940	649,860
27	331,460	361,540	392,010	435,110	456,230	466,510	412,580	586,240	853,890	652,350	765,210	640,100
28	331,890	362,850	393,570	436,910	456,690	461,470	416,160	602,060	853,640	653,640	758,480	650,100
29	332,110	364,170	394,450	438,040	-	456,010	420,870	620,770	851,070	654,150	752,010	650,340
30	332,760	365,920	395,810	439,630	-	450,780	424,280	640,230	851,330	653,640	748,280	650,340
31	333,200	-	399,160	440,540	-	445,320	-	659,540	-	653,380	743,070	-

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	6,746.73	321,330	-
Oct. 31.....	6,747.28	333,200	+11,870
Nov. 30.....	6,748.78	365,920	+32,720
Dec. 31.....	6,750.28	399,160	+33,240
Calendar year 1942.....	-	-	+64,010
Jan. 31.....	6,752.12	440,540	+41,380
Feb. 28.....	6,752.83	456,690	+16,150
Mar. 31.....	6,752.33	445,320	-11,370
Apr. 30.....	6,753.40	424,280	-21,040
May 31.....	6,761.46	659,540	+235,260
June 30.....	6,769.17	851,330	+191,790
July 31.....	6,769.25	853,380	+2,050
Aug. 31.....	6,764.87	743,070	-110,310
Sept. 30.....	6,761.08	650,340	-92,730
Water year 1942-43.....	-	-	+329,010

Time basis: Mountain war time; To convert war time to standard time, subtract 1 hour.

## Snake River at Moran, Wyo.

Location.- Water-stage recorder, lat. 43°51', long. 110°35', in sec. 18, T. 45 N., R. 114 W., at Moran, 1,000 feet downstream from Jackson Lake Dam. Datum of gage is 6,725.61 feet above mean sea level (Bureau of Reclamation bench mark).

Drainage area.- 816 square miles.

Records available.- September 1903 to September 1943.

Average discharge.- 40 years, 1,408 second-feet..

Extremes.- Maximum discharge during year, 13,300 second-feet June 19 (gage height, 11.63 feet); minimum, 42 second-feet Oct. 25 to Feb. 7.

1903-43: Maximum discharge, 15,100 second-feet June 12, 1918 (gage height, 10.41 feet, site and datum then in use); practically no flow for a few days in 1907 and 1909.

Remarks.- Records excellent except those for Oct. 7 to Mar. 24, which are fair. Flow regulated by Jackson Lake (see preceding page).

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

## Discharges, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	212	42	42	42	42	43	3,110	112	72	6,740	3,110	3,290
2	212	42	42	42	42	43	3,100	108	79	7,500	2,900	3,150
3	212	42	42	42	42	43	3,110	115	75	7,750	1,380	3,270
4	212	42	42	42	42	43	3,100	112	75	8,850	757	3,080
5	212	42	42	42	42	43	3,110	112	77	8,850	1,280	2,750
6	212	42	42	42	42	43	3,140	110	79	7,320	2,370	2,380
7	44	42	42	42	42	43	3,130	102	84	6,510	3,290	2,190
8	43	42	42	42	376	43	3,110	93	84	6,120	3,010	2,280
9	43	42	42	42	770	43	3,140	88	72	6,140	2,550	2,400
10	43	42	42	42	770	43	3,130	82	72	6,110	2,510	2,440
11	43	42	42	42	770	43	3,110	73	68	6,090	2,940	2,580
12	43	42	42	42	770	44	3,100	68	68	6,070	3,730	2,630
13	43	42	42	42	770	45	3,110	64	68	3,980	3,760	2,620
14	43	42	42	42	546	45	3,100	63	84	1,760	3,390	2,640
15	43	42	42	42	445	45	2,590	64	1,980	5,520	3,880	2,750
16	43	42	42	42	445	45	1,970	64	6,400	4,130	3,780	2,940
17	43	42	42	42	250	45	3,150	64	7,630	3,470	3,450	3,070
18	43	42	42	42	49	45	3,110	64	8,730	2,880	3,370	3,050
19	43	42	42	42	46	45	3,130	59	11,800	2,700	3,360	3,110
20	43	42	42	42	44	45	1,720	59	12,000	2,720	3,160	3,150
21	43	42	42	42	44	45	61	63	11,200	2,940	2,920	2,890
22	43	42	42	42	44	45	128	64	11,500	3,400	3,640	2,510
23	42	42	42	42	43	45	125	64	11,100	3,380	3,950	1,920
24	42	42	42	42	43	45	122	66	9,820	3,580	3,720	713
25	42	42	42	42	43	2,140	122	68	8,400	2,840	3,690	718
26	42	42	42	42	43	3,190	112	68	8,500	2,340	3,880	718
27	42	42	42	42	43	3,190	108	75	9,500	1,720	3,980	718
28	42	42	42	42	43	3,190	108	95	10,600	1,660	3,910	718
29	42	42	42	42	-	3,190	108	108	9,020	2,270	3,850	718
30	42	42	42	42	-	3,150	112	102	6,740	2,420	3,760	712
31	42	-	42	42	-	3,140	-	95	-	2,510	3,540	-

Month	Second-foot-days	Maxisum	Minimum	Mean	Runoff in acre-feet
October.....	2,339	212	42	75.5	4,640
November.....	1,260	42	42	42.0	2,500
December.....	1,302	42	42	42.0	2,580
Calendar year 1942.....	402,317	6,520	17	1,102	798,000
January.....	1,302	42	42	42.0	2,580
February.....	6,721	770	42	240	13,330
March.....	22,247	3,190	43	718	44,130
April.....	60,356	3,140	61	2,012	119,700
May.....	2,544	115	59	81.7	5,050
June.....	146,027	12,000	68	4,866	289,600
July.....	137,440	8,650	1,660	4,434	272,600
August.....	99,467	3,980	757	3,209	197,500
September.....	67,990	3,290	712	2,266	134,900
Water year 1942-43.....	548,995	12,000	42	1,504	1,089,000

Note.- Stage-discharge relation affected by ice Dec. 12, Jan. 16, Feb. 8-11, Mar. 25, 26. Gates at dam closed Oct. 7 to Feb. 7, Feb. 18 to Mar. 24, Apr. 21 to June 14. Discharge computed from daily staff-gage readings Oct. 1-18, Feb. 8-20, Mar. 25 to June 14 and from weekly staff-gage readings Oct. 19 to Feb. 7, Feb. 21 to Mar. 24.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River near Heise, Idaho

Location.— Water-stage recorder, lat. 43°37', long. 111°40', in sec. 5, T. 3 N., R. 41 E., 3 miles upstream from Heise and 23 miles upstream from Henrys Fork. Altitude of gage, 5,015 feet (from river-profile map).

Drainage area.— 5,740 square miles.

Records available.— September 1910 to September 1943, except winters of 1914-24.

Average discharge.— 33 years, 6,738 second-feet.

Extremes.— Maximum discharge during year, 36,000 second-feet June 23 (gage height, 10.04 feet); minimum, 1,910 second-feet Jan. 19, 20 (gage height, 2.24 feet).  
1910-43: Maximum discharge, about 60,000 second-feet May 19, 1927, result of washing out of landslide on Gros Ventre River (gage height, about 16.0 feet, present datum); minimum, 1,210 second-feet Jan. 22, 1935 (gage height, 1.15 feet).

Remarks.— Records excellent except those for periods of ice effect, which are fair. Station is above all irrigation diversions from main river except Riley ditch (4,940 acre-feet diverted during year), which diverts 1 mile above station. About 105,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station. Some regulation by Jackson Lake (see p. 14).

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,190	2,720	2,670	2,580	b2,180	2,250	6,310	16,700	25,800	28,300	10,600	8,300
2	3,110	2,820	2,610	2,610	b2,170	2,240	6,720	18,500	24,200	27,900	11,100	7,860
3	3,070	2,760	2,610	2,600	b2,170	2,190	7,210	19,000	21,200	27,300	11,300	7,630
4	3,020	2,800	2,580	2,400	b2,170	2,210	7,820	18,900	18,400	26,600	9,960	7,640
5	3,000	2,780	2,400	2,340	b2,170	2,250	8,330	19,300	16,200	27,100	8,640	7,400
6	3,000	2,720	2,340	b2,340	b2,210	2,190	8,400	17,400	14,800	26,600	8,450	7,180
7	3,000	2,630	2,460	b2,340	b2,300	2,250	9,280	15,500	13,800	25,100	9,320	6,720
8	2,900	2,630	2,530	b2,320	2,460	2,240	9,980	13,800	13,200	24,100	10,600	6,400
9	2,840	2,700	2,500	b2,280	2,420	2,260	10,300	12,500	13,500	23,500	10,400	6,340
10	2,840	2,650	2,500	b2,220	2,380	2,220	10,600	12,000	14,600	23,300	9,640	6,430
11	2,840	2,530	2,510	b2,190	*2,720	2,160	11,500	12,100	16,000	22,800	9,150	6,370
12	2,860	2,480	2,510	b2,260	2,800	2,220	11,300	11,900	17,700	21,900	9,110	6,510
13	2,880	2,460	2,430	b2,310	2,860	2,260	12,100	11,300	18,800	21,100	9,780	6,570
14	2,920	2,500	*2,480	b2,380	2,820	2,310	13,400	10,900	19,200	18,100	9,670	6,540
15	2,900	2,580	2,610	b2,380	2,800	2,320	14,500	10,900	17,900	14,800	9,780	6,480
16	2,880	2,650	2,500	b2,170	2,700	2,250	15,800	10,800	17,700	15,800	9,920	6,510
17	2,880	2,650	2,460	b2,070	2,670	2,240	15,800	10,300	21,300	15,900	9,740	6,690
18	2,860	2,780	2,450	b2,010	2,670	2,240	18,400	9,700	23,900	14,900	9,320	6,780
19	2,840	2,940	2,430	b1,910	2,540	2,240	18,900	9,280	27,000	14,200	9,110	6,780
20	2,820	2,880	2,360	b1,910	2,420	2,190	19,100	9,320	31,700	13,800	8,980	6,840
21	2,820	2,700	2,420	b2,000	2,380	2,180	17,600	9,980	34,700	13,500	8,670	6,930
22	2,820	2,580	2,460	b2,700	2,430	2,190	16,600	11,200	34,900	13,800	9,160	6,840
23	2,820	2,600	2,480	b2,380	2,530	2,220	16,700	12,700	35,600	14,600	8,430	6,510
24	2,780	2,700	2,540	b2,370	2,480	2,240	17,800	15,300	34,400	14,300	8,980	6,090
25	2,760	2,880	2,530	*b2,250	2,380	2,320	18,700	16,800	32,900	14,000	8,540	5,030
26	2,740	2,780	2,480	b2,250	2,310	2,400	16,000	17,800	31,900	13,300	8,370	4,650
27	2,740	2,700	2,370	b2,450	2,260	5,130	15,700	19,000	31,700	12,400	8,470	4,620
28	2,740	2,760	2,460	2,400	2,240	6,510	13,800	21,000	31,500	11,600	8,540	4,650
29	2,720	2,720	2,540	2,380	-	6,630	14,700	23,800	31,700	11,100	8,400	4,680
30	2,700	2,740	2,480	2,340	-	6,840	15,000	25,700	30,400	11,200	8,300	4,580
31	2,700	-	2,510	b2,240	-	6,370	-	26,100	-	10,900	8,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88,990	3,190	2,700	2,871	178,500
November	80,920	2,940	2,460	2,694	160,300
December	77,110	2,670	2,340	2,487	152,900
Calendar year 1942	2,111,500	19,100	1,790	5,785	4,188,000
January	71,870	2,880	1,910	2,518	142,600
February	68,640	2,960	2,170	2,451	135,100
March	69,600	6,630	2,160	2,987	177,500
April	400,550	19,100	6,310	13,350	794,600
May	469,480	26,100	9,280	15,140	931,200
June	716,600	35,600	13,200	23,890	1,421,000
July	573,800	28,300	10,900	18,510	1,138,000
August	287,660	11,300	8,160	9,279	570,600
September	192,570	8,300	4,580	6,419	382,000
Water year 1942-43	3,117,590	35,600	1,910	8,541	6,183,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## 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 June 1919 to September 1943, only irrigation season prior to 1943. 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 1 mile above Heise gaging station. Records good except those for Oct. 1 to May 31, which are fair. Records for Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,860	2,310	1,190	778	475	322	753	948	5,760	8,210	8,590	6,680
2	3,740	2,260	1,170	743	552	340	783	993	5,250	8,170	8,650	6,790
3	3,830	2,230	1,170	784	548	356	794	1,250	4,340	8,110	8,740	6,710
4	3,630	2,240	1,160	662	522	359	829	1,600	3,870	7,520	8,600	6,660
5	3,610	2,230	1,050	593	518	364	877	1,730	3,610	7,660	8,160	6,360
6	3,520	2,180	1,050	679	503	366	811	1,780	3,430	7,960	8,050	6,350
7	3,460	2,030	1,060	671	501	366	799	1,930	3,640	8,340	8,080	6,170
8	3,480	1,940	1,030	669	500	364	762	1,970	3,990	9,040	8,160	6,100
9	3,550	1,830	986	666	496	362	753	2,060	4,320	8,160	7,920	6,120
10	3,560	1,990	934	658	494	360	767	2,510	4,900	8,220	7,900	6,130
11	3,580	2,000	891	670	496	359	768	3,400	5,330	8,990	7,960	6,070
12	3,520	1,960	853	672	484	368	780	3,580	5,950	8,910	7,880	6,090
13	3,520	1,910	860	673	469	339	788	3,770	6,000	8,820	7,980	6,140
14	3,240	1,730	854	673	457	339	779	4,350	5,850	8,800	7,810	6,120
15	2,940	1,590	849	674	441	329	782	4,740	5,760	8,750	7,600	6,080
16	2,930	1,500	856	661	439	331	721	4,370	5,640	8,980	7,520	6,110
17	2,970	1,480	864	649	429	335	709	4,360	5,790	9,020	7,350	6,230
18	2,910	1,470	873	558	408	340	753	4,720	6,530	8,850	7,280	6,210
19	2,830	1,460	869	519	401	345	732	5,000	6,990	9,010	7,230	6,040
20	2,780	1,430	865	402	400	344	711	5,150	7,450	8,690	7,020	5,890
21	2,790	1,400	869	403	396	349	708	5,310	7,840	8,760	7,150	5,790
22	2,780	1,340	855	392	350	353	716	5,390	8,520	8,640	7,110	5,700
23	2,740	1,320	835	376	316	363	746	5,430	9,050	8,710	7,110	5,560
24	2,740	1,300	813	392	317	368	850	5,480	8,990	8,450	7,240	5,360
25	2,720	1,260	832	410	317	372	816	5,590	9,040	8,380	7,210	5,080
26	2,630	1,250	853	417	315	396	768	5,640	8,790	8,290	7,240	4,840
27	2,610	1,280	840	417	315	506	543	5,900	8,570	8,370	7,230	4,780
28	2,550	1,270	830	420	315	613	530	6,180	8,530	8,410	7,220	4,680
29	2,520	1,270	826	422	-	645	976	6,220	8,490	8,590	7,040	4,610
30	2,510	1,260	823	420	-	699	1,030	6,270	8,430	8,630	7,090	4,590
31	2,380	-	795	417	-	721	-	6,020	-	8,620	6,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	86,210	3,860	2,380	3,104	190,800
November	80,810	2,310	1,250	1,694	100,800
December	28,595	1,190	795	922	56,720
Calendar year	-	-	-	-	-
January	17,470	778	376	564	34,650
February	12,168	552	315	434	24,130
March	12,368	721	322	399	24,530
April	23,239	1,030	548	775	46,090
May	123,661	6,270	948	3,969	245,300
June	190,750	9,050	3,430	6,358	378,300
July	266,260	9,220	7,520	8,589	528,100
August	237,080	8,740	6,900	7,646	470,200
September	176,220	6,880	4,590	5,874	349,500
Water year 1942-43	1,234,828	9,220	315	3,383	2,449,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River near Shelley, Idaho

Location.- Water-stage recorder, lat. 43°25', long. 112°08', in sec. 17, T. 1 N., R. 87 E., a quarter of a mile east of Woodville and 3 miles north of Shelley. Altitude of gage, 4,596 feet (from river-profile map).

Records available.- March 1915 to September 1943 (summer months only during some years).

Average discharge.- 10 years (1931-35, 1937-43), 4,274 second-feet.

Extremes.- Maximum discharge during year, 30,400 second-feet June 25 (gage height, 12.94 feet); minimum, 1,050 second-feet Oct. 10 (gage height, 4.17 feet).

1915-43: Maximum discharge, 47,200 second-feet June 17, 1918 (gage height, 16.97 feet); minimum, 288 second-feet Nov. 5, 1934 (gage height, 2.22 feet).

Maximum discharge known, 70,000 second-feet (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 fair. Some regulation by Jackson Lake (see p. 14), Henrys Lake (see p. 49), Island Park Reservoir (see p. 41), and Grassy Lake (see p. 49). Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,850	2,580	3,250	3,680	b3,100	b3,600	8,380	17,900	24,800	27,100	4,380	3,780
2	1,850	2,720	3,170	3,620	b2,900	b3,480	7,870	19,400	26,000	25,400	4,300	3,900
3	1,570	2,980	3,030	b3,550	2,540	3,270	8,140	21,000	26,400	24,800	4,840	3,850
4	1,560	2,940	3,050	b3,400	2,770	3,110	8,660	21,600	25,400	25,000	4,550	3,900
5	1,570	3,000	2,470	3,110	2,860	3,090	9,360	22,100	22,800	24,700	3,640	4,220
6	1,560	2,980	b2,490	3,010	2,940	3,590	9,930	22,400	20,500	24,300	2,810	4,120
7	1,470	3,000	b2,470	b3,150	3,030	3,520	9,970	21,000	18,100	23,600	2,860	3,970
8	1,460	a2,980	b2,490	b3,200	2,960	3,070	11,000	19,000	15,400	21,400	3,640	3,570
9	1,450	a3,000	b2,630	b3,150	b3,200	3,270	11,700	17,200	14,000	19,700	4,720	3,440
10	1,320	3,030	3,000	b3,000	b3,300	4,020	12,100	15,400	13,600	18,500	4,520	3,550
11	1,350	2,900	3,130	2,770	*b3,200	3,640	12,600	13,800	13,800	18,000	3,850	3,330
12	1,420	2,830	3,170	b2,600	3,360	3,550	13,200	13,100	14,500	17,800	3,440	3,270
13	1,460	2,860	b3,250	b2,400	3,400	3,270	13,100	12,500	16,200	17,000	3,500	3,400
14	1,590	2,860	3,130	b2,400	b3,600	3,590	14,100	10,900	17,700	15,900	3,870	3,350
15	1,960	2,850	*b3,160	b2,500	b3,500	3,730	15,400	9,930	18,600	12,300	3,850	3,250
16	2,000	3,000	3,110	b2,600	b3,480	3,680	16,600	10,100	18,700	9,720	4,170	3,150
17	2,030	3,070	b3,070	b2,550	b3,450	3,480	17,600	10,200	18,700	10,200	4,250	3,010
18	2,120	3,230	b3,050	b2,350	3,330	*3,310	18,200	9,260	20,800	9,900	4,220	3,150
19	2,310	3,310	b3,000	b2,050	3,250	3,290	20,300	8,380	22,300	8,840	3,970	3,330
20	2,260	*3,460	b2,900	1,640	3,850	3,230	21,000	8,010	24,100	7,700	3,920	3,420
21	2,240	3,420	b2,700	1,310	3,710	3,160	21,500	7,870	26,500	7,360	3,950	3,590
22	2,270	3,210	b2,920	*2,350	3,310	3,070	20,700	8,210	28,600	7,230	3,800	3,730
23	2,310	3,030	5,010	4,020	3,660	3,110	19,900	9,720	29,500	7,770	3,970	3,660
24	2,320	3,110	3,050	4,940	3,970	3,230	19,900	11,400	29,800	8,760	3,640	3,440
25	2,340	3,270	b3,060	5,030	b3,940	3,420	a21,500	13,700	29,800	8,730	3,870	3,190
26	2,370	3,420	b2,850	4,270	b3,880	3,870	a22,200	15,000	29,000	8,520	3,620	2,760
27	2,340	3,370	a2,600	3,350	b3,800	4,330	a21,000	16,000	28,100	7,360	3,500	2,470
28	2,400	3,230	a2,300	3,440	b3,700	6,930	20,000	17,200	27,800	6,470	3,590	2,560
29	2,370	3,250	a2,400	3,780	-	8,280	18,200	19,600	27,800	5,470	3,800	2,700
30	2,420	3,250	3,210	3,250	-	8,700	18,100	21,300	29,000	4,720	3,710	2,550
31	2,510	-	3,230	b3,200	-	8,560	-	21,500	-	4,690	3,550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	59,660	2,510	1,320	1,925	118,500
November.....	92,050	3,460	2,690	3,068	182,600
December.....	90,530	3,250	2,300	2,920	179,600
Calendar year 1942.....	1,556,630	15,600	1,320	4,265	3,008,000
January.....	95,670	5,030	1,310	3,086	169,800
February.....	93,860	3,970	2,540	3,553	166,200
March.....	128,440	8,700	3,070	4,046	248,800
April.....	462,210	22,200	7,870	15,410	916,800
May.....	466,180	23,500	7,870	15,040	924,700
June.....	677,300	29,800	13,600	22,580	1,343,000
July.....	438,940	27,100	4,990	14,160	870,600
August.....	119,700	4,720	2,810	3,861	237,400
September.....	101,590	4,220	2,470	3,586	201,500
Water year 1943.....	2,823,150	29,800	1,310	7,735	5,599,000

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for stations near Heise and at Crough Ranch.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Diversions from Snake River between Shelley and Clough Ranch gaging stations, Idaho

Between Shelley and Clough Ranch gaging stations, 13 canals divert water from Snake River for irrigation. Records available June 1919 to September 1943, only irrigation season prior to 1943. 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 except those for Oct. 1 to May. 31, which are fair. Records for Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,360	455	206	63	29	39	86	1,190	3,560	3,470	3,660	3,240
2	1,530	444	187	63	28	38	82	1,320	2,860	3,180	3,690	3,320
3	1,140	455	172	62	28	42	71	1,660	2,510	3,140	3,640	3,200
4	1,110	447	170	65	31	42	71	1,740	1,900	3,200	3,620	3,140
5	1,120	441	165	65	30	42	72	1,960	1,690	3,060	3,150	3,210
6	1,120	456	161	63	30	42	72	2,220	2,000	3,340	2,080	3,180
7	1,080	445	158	64	30	42	67	2,570	2,000	3,590	1,890	3,140
8	1,170	456	153	64	29	42	40	2,710	2,130	3,630	1,810	3,080
9	1,280	413	148	64	30	43	38	2,820	2,040	3,740	2,220	2,970
10	1,170	283	144	63	29	43	37	2,960	2,070	3,780	3,130	2,970
11	1,120	278	142	62	29	43	34	3,210	2,250	3,830	3,230	2,990
12	1,100	270	140	62	29	42	33	3,340	2,430	3,840	3,210	2,940
13	1,000	263	138	62	30	41	27	3,360	2,430	3,880	3,260	2,960
14	947	248	135	60	30	41	25	3,360	2,400	3,910	3,440	2,950
15	935	243	135	60	29	41	25	3,320	2,480	3,810	3,470	3,020
16	938	238	154	60	32	39	24	2,820	2,340	3,690	3,510	2,960
17	938	232	133	59	32	39	24	2,670	2,310	3,720	3,470	2,860
18	921	230	132	60	32	39	24	2,600	2,410	3,850	3,490	2,900
19	781	226	132	60	32	39	47	2,690	2,660	3,800	3,430	2,870
20	634	225	130	39	34	37	73	2,920	2,980	3,670	3,430	2,930
21	634	222	129	38	35	36	73	2,960	3,300	3,720	3,440	2,850
22	632	230	128	37	36	36	72	2,870	3,640	3,660	3,330	2,690
23	704	229	70	36	37	53	75	2,820	3,900	3,690	3,330	2,620
24	560	226	69	34	36	85	109	2,890	3,900	3,680	3,300	2,630
25	554	223	67	32	39	90	167	3,050	3,500	3,580	3,410	2,580
26	547	220	65	30	39	90	238	3,280	3,740	3,460	3,320	1,860
27	523	215	64	29	39	90	502	3,480	3,720	3,570	3,200	1,350
28	571	213	63	29	39	91	769	3,640	3,690	3,630	3,270	1,300
29	597	212	63	29	-	90	864	3,210	3,650	3,520	3,140	1,220
30	592	210	63	30	-	90	922	3,460	3,510	3,520	3,100	1,200
31	512	-	63	29	-	83	-	3,450	-	3,620	3,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	27,620	1,360	512	891	54,780
November.....	8,927	456	210	298	17,710
December.....	3,659	206	63	124	7,650
Calendar year .....	-	-	-	-	-
January.....	1,659	64	29	50.3	3,090
February.....	905	39	28	32.3	1,800
March.....	1,650	91	36	55.2	3,270
April.....	4,761	222	84	158	9,420
May.....	86,580	3,640	1,190	2,768	171,300
June.....	83,900	3,900	1,890	2,797	166,400
July.....	111,770	3,910	3,060	3,605	221,700
August.....	98,910	3,690	1,810	3,191	196,200
September.....	81,140	3,320	1,200	2,705	160,900
Water year 1942-43 .....	511,371	3,910	24	1,401	1,014,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Snake River at Clough Ranch, near Blackfoot, Idaho

Location.— Water-stage recorder, lat. 43°07', long. 112°31', in SE $\frac{1}{4}$  sec. 30, T. 3 S., R. 34 E., a quarter of a mile downstream from Blackfoot River and 14 miles southwest of Blackfoot. Altitude of gage, 4,401 feet (from river-profile map).

Records available.— June 1910 to September 1943.

Average discharge.— 32 years, 4,808 second-feet.

Extremes.— Maximum discharge during year, 25,600 second-feet June 25 (gage height, 11.17 feet); minimum, 270 second-feet Aug. 14 (gage height, 0.86 foot).  
1910-43: Maximum discharge, 46,200 second-feet June 18, 1918 (gage height, 14.80 feet); minimum, 111 second-feet Nov. 10, 1934 (gage height, 0.80 foot).  
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 second-feet, supplied by ground-water inflow a short distance above station.

Remarks.— Records excellent. Flow partly regulated by Jackson Lake (see p. 14), Henrys Lake (see p. 49), Island Park Reservoir (see p. 41), Grassy Lake (see p. 49), and Blackfoot-Marsh Reservoir, having a combined capacity of 1,483,000 acre-feet. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	589	2,330	3,410	3,670	2,980	3,440	8,010	16,400	20,500	24,100	1,070	584
2	577	2,370	3,410	3,690	2,690	2,930	7,540	17,000	22,400	22,700	886	718
3	472	2,540	3,140	3,290	2,290	2,780	7,540	18,900	24,000	21,600	914	830
4	494	2,660	2,880	3,310	2,080	2,600	8,010	19,800	24,600	21,600	1,120	768
5	522	2,720	2,400	2,780	2,150	2,620	8,600	20,000	22,700	21,600	918	998
6	540	2,780	2,500	2,560	2,430	2,620	9,340	20,300	19,800	21,200	982	1,090
7	552	2,760	2,400	2,660	2,350	2,690	9,680	19,600	17,300	20,300	966	1,060
8	546	2,740	2,400	2,800	2,650	3,030	10,100	17,300	14,500	18,500	1,280	854
9	438	2,740	2,540	2,560	2,880	3,270	11,000	15,100	12,600	16,000	2,190	882
10	395	2,910	2,980	2,780	2,670	3,370	11,500	13,400	11,800	14,500	2,020	640
11	400	2,910	3,070	2,200	2,960	3,390	11,900	11,200	11,500	13,800	1,240	499
12	428	2,850	3,120	1,980	2,840	3,320	12,800	9,930	11,600	13,700	682	455
13	554	2,870	3,170	1,760	3,010	3,390	12,700	9,510	12,900	12,900	390	494
14	925	2,930	3,270	1,750	3,200	3,780	13,100	8,580	14,700	12,100	285	556
15	1,160	2,550	3,220	2,020	3,410	4,050	14,200	7,140	15,500	10,000	444	422
16	1,410	2,990	3,160	2,400	3,420	3,940	15,400	7,240	16,200	6,680	584	365
17	1,590	3,120	3,090	2,150	3,340	3,820	16,400	8,120	15,700	6,140	774	345
18	1,650	3,290	3,060	1,940	3,240	3,410	16,900	7,610	17,100	6,360	870	320
19	1,790	3,270	3,010	1,330	3,270	3,310	18,500	6,750	18,800	5,670	814	444
20	1,860	3,420	2,910	1,320	3,290	3,190	19,900	5,860	19,900	4,620	859	598
21	1,860	3,490	2,700	1,430	3,310	3,090	20,700	5,340	21,600	3,850	726	774
22	1,880	3,410	2,560	2,010	3,510	3,010	20,300	5,420	23,000	3,710	626	1,130
23	1,920	3,220	3,090	4,270	3,710	2,990	19,700	6,400	24,600	3,630	504	1,280
24	1,930	3,190	3,360	4,370	4,030	3,150	19,200	7,840	25,000	4,760	370	1,270
25	2,040	3,310	3,090	4,140	4,050	3,390	19,700	9,480	25,400	5,350	400	1,150
26	2,050	3,370	2,980	4,250	3,670	3,670	20,900	11,100	25,200	5,380	558	1,180
27	2,090	3,540	2,870	4,120	3,710	4,090	21,500	11,800	24,400	4,780	438	1,480
28	2,090	3,480	2,420	3,620	3,620	5,800	20,400	12,600	23,900	3,370	325	1,550
29	2,110	3,460	2,190	3,460	-	7,190	17,900	14,000	23,800	2,490	534	1,730
30	2,130	3,420	2,560	3,550	-	7,960	16,600	16,300	24,300	1,670	790	1,950
31	2,250	-	3,310	3,040	-	8,220	-	18,700	-	1,130	605	-

Month	Second-foot-days	Maximum	Minimum	Mean	Rnnoff in acre-feet
October	39,443	2,250	395	1,272	78,230
November	31,020	3,640	2,330	3,034	180,500
December	90,080	3,410	2,190	2,905	178,600
Calendar year 1942	1,104,378	12,700	288	3,026	2,190,000
January	87,590	4,370	1,320	2,825	173,700
February	86,740	4,050	2,080	3,098	178,000
March	117,350	8,220	2,500	3,785	232,600
April	439,670	21,500	7,540	14,660	872,100
May	378,390	20,300	5,340	12,210	760,800
June	585,400	25,400	11,600	19,510	1,161,000
July	333,800	24,100	1,130	10,770	668,100
August	24,864	2,190	288	802	49,320
September	28,288	1,950	320	876	52,100
Water year 1942-43	2,300,595	25,400	285	6,303	4,563,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## American Falls Reservoir at American Falls, Idaho

Location.- Water-stage recorder, lat. 42°46', long. 112°53', in sec. 30, T. 7 S., R. 31 E., at outlet gates of reservoir on Snake River at American Falls. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Records available.- March 1926 to September 1943.

Extremes.- Maximum contents during year, 1,724,300 acre-feet July 14 (elevation, 4,354.93 feet); minimum, 412,670 acre-feet Oct. 1 (elevation, 4,322.87 feet).  
1926-43: Maximum contents, 1,728,580 acre-feet June 10, 1938 (elevation, 4,354.97 feet); minimum, 3,240 acre-feet Aug. 30, 1926 (elevation, 4,296.82 feet).

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-feet between elevations 4,295.66 feet (bottom of outlet gate) and 4,354.50 feet (top of spillway radial gates). Small amount of dead storage. Water is used for irrigation by canals diverting from Snake River at Minidoka and Milner Dams. Contents given herein are computed from mean daily elevations; all available for release.

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

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	412,670	462,480	727,050	960,580	1,150,140	1,212,110
2	413,950	471,420	734,770	964,750	1,154,280	1,210,190
3	414,970	481,380	746,710	976,880	1,158,890	1,207,340
4	416,280	485,810	758,120	987,590	1,164,010	1,204,040
5	417,840	489,960	764,970	991,260	1,166,370	1,200,270
6	417,840	494,100	771,460	998,120	1,168,720	1,198,390
7	417,310	496,590	780,120	1,004,990	1,173,430	1,195,560
8	418,100	500,860	788,460	1,010,570	1,176,260	1,194,620
9	418,890	512,250	796,860	1,016,580	1,178,610	1,195,090
10	418,890	521,650	804,080	1,022,160	1,182,860	1,195,560
11	418,890	531,220	814,390	1,028,650	1,186,150	1,195,560
12	418,890	540,020	824,030	1,033,490	1,190,380	1,195,560
13	418,890	547,850	832,800	1,037,900	1,194,620	1,196,040
14	420,470	554,100	841,560	1,042,300	1,199,800	1,195,560
15	422,570	558,020	848,420	1,045,380	1,205,450	1,196,510
16	425,990	569,830	856,040	1,051,540	1,210,670	1,197,450
17	431,770	579,820	863,710	1,056,380	1,211,150	1,199,330
18	436,760	591,530	869,690	1,061,670	1,210,650	1,199,800
19	443,900	603,730	876,260	1,066,070	1,208,750	1,200,740
20	445,240	613,100	881,750	1,070,920	1,207,340	1,202,630
21	448,740	624,610	887,240	1,070,470	1,205,400	1,203,570
22	451,970	635,580	893,520	1,077,230	1,207,340	1,203,100
23	455,450	646,520	900,580	1,086,250	1,209,710	1,202,630
24	458,510	652,770	906,400	1,097,070	1,211,630	1,202,630
25	453,590	663,720	914,300	1,106,800	1,212,110	1,202,630
26	457,090	675,010	923,600	1,116,940	1,213,070	1,203,570
27	456,280	683,700	929,670	1,125,240	1,213,070	1,204,510
28	459,780	696,000	934,930	1,131,700	1,212,110	1,206,780
29	459,780	705,590	940,990	1,138,150	-	1,213,070
30	461,400	717,570	945,140	1,142,300	-	1,220,740
31	460,560	-	952,230	1,146,450	-	1,233,690

## SNAKE RIVER MAIN STEM

Contents, in acre-feet, of American Falls Reservoir at American Falls, Idaho,  
water year October 1942 to September 1943--Continued

Day	Apr.	May	June	July	Aug.	Sept.
1	1,245,200	1,503,880	1,675,900	1,707,280	1,563,990	1,093,470
2	1,256,230	1,514,980	1,685,990	1,704,480	1,544,790	1,076,780
3	1,264,500	1,528,820	1,708,400	1,701,680	1,532,010	1,065,190
4	1,275,700	1,538,930	1,710,640	1,704,480	1,517,110	1,050,660
5	1,286,930	1,553,310	1,702,800	1,710,640	1,500,220	1,038,780
6	1,298,590	1,571,660	1,690,470	1,714,610	1,486,080	1,029,090
7	1,311,350	1,591,700	1,677,580	1,712,900	1,470,370	1,019,580
8	1,324,710	1,606,580	1,676,700	1,710,080	1,455,750	1,011,000
9	1,338,080	1,599,310	1,675,900	1,701,120	1,444,420	1,000,700
10	1,354,910	1,593,330	1,676,460	1,701,680	1,432,080	991,680
11	1,375,080	1,594,960	1,677,020	1,703,360	1,415,620	982,280
12	1,392,230	1,599,310	1,680,380	1,708,400	1,400,300	970,590
13	1,406,880	1,603,660	1,682,620	1,720,310	1,386,680	960,160
14	1,422,820	1,601,480	1,683,760	1,724,300	1,370,540	949,730
15	1,438,260	1,606,580	1,689,910	1,719,170	1,356,920	940,990
16	1,455,220	1,604,750	1,691,590	1,719,170	1,339,070	932,900
17	1,470,370	1,610,720	1,690,470	1,714,040	1,323,720	924,820
18	1,489,750	1,612,900	1,688,230	1,708,960	1,307,390	912,680
19	1,507,030	1,612,350	1,688,790	1,704,480	1,292,260	906,450
20	1,521,370	1,610,180	1,691,030	1,696,640	1,276,190	901,760
21	1,525,620	1,603,120	1,696,080	1,687,670	1,259,630	895,480
22	1,528,690	1,599,310	1,700,560	1,677,580	1,240,880	891,560
23	1,522,960	1,597,140	1,706,160	1,668,110	1,226,970	888,420
24	1,516,040	1,597,140	1,703,920	1,658,710	1,210,670	886,060
25	1,511,250	1,596,690	1,704,480	1,650,420	1,191,800	884,890
26						
28	1,503,360	1,602,670	1,707,840	1,643,760	1,179,080	884,890
27	1,509,120	1,609,640	1,707,840	1,637,150	1,164,010	885,850
28	1,505,980	1,615,700	1,712,330	1,626,650	1,150,600	885,810
29	1,505,980	1,627,600	1,716,750	1,609,090	1,135,350	892,340
30	1,508,070	1,637,150	1,710,080	1,593,880	1,121,550	897,050
31	-	1,654,290	-	1,579,210	1,106,090	-

Monthly elevation and contents, water year October 1942 to  
September 1943

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	4,322.78	410,360	-
Oct. 31.....	4,324.69	460,860	+50,500
Nov. 30.....	4,333.05	717,570	+256,710
Dec. 31.....	4,339.25	952,230	+234,660
Calendar year 1942..	-	-	-215,080
Jan. 31.....	4,343.67	1,146,450	+194,200
Feb. 28.....	4,346.07	1,212,110	+65,660
Mar. 31.....	4,346.52	1,233,690	+21,580
Apr. 30.....	4,350.98	1,508,070	+274,380
May 31.....	4,353.68	1,684,290	+176,220
June 30.....	4,354.68	1,710,080	+25,790
July 31.....	4,352.31	1,579,210	-130,870
Aug. 31.....	4,342.79	1,106,090	-473,120
Sept. 30.....	4,337.39	897,050	-209,040
Water year 1942-43..	-	-	+486,690

Time basis: Mountain war time. To convert war time to standard  
time, subtract 1 hour.

## Snake River at Neeley, Idaho

Location.- Water-stage recorder, lat. 42°45', long. 112°54', in sec. 31, T. 7 S., R. 31 E., half a mile downstream from American Falls Dam. Datum of gage is 4,241.8 feet above mean sea level (river-profile survey). Records computed to show flow at former site in sec. 11, T. 8 S., R. 30 E., half a mile north of Neeley and 3 miles downstream from present site, by adding inflow between sites.

Records available.- March 1906 to September 1943.

Average discharge.- 37 years, 7,745 second-feet.

Extremes.- Maximum discharge during year, 30,000 second-feet June 4 (gage height, 10.40 feet); minimum, 52 second-feet Nov. 9 (gage height, 0.87 foot); minimum daily, 101 second-feet Dec. 6.  
1906-43: Maximum daily discharge, 48,400 second-feet June 20, 1918 (gage height, 13.5 feet, site and datum then in use); minimum, 50 second-feet Oct. 22, 23, Nov. 14-16, 1941.

Remarks.- Records excellent. Flow regulated by American Falls Reservoir (see p. 21) and other reservoirs, having a combined usable capacity of 3,200,000 acre-feet. About 700,000 acres of land irrigated by water diverted from river and tributaries above station.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,400	1,920	1,460	2,430	3,080	7,200	6,080	16,900	13,600	27,500	12,000	10,900
2	2,780	4,320	1,440	2,430	3,390	7,180	6,030	14,800	16,100	26,900	12,000	10,800
3	2,720	4,210	1,430	2,430	3,350	7,200	6,060	14,800	21,200	24,200	11,900	10,600
4	2,720	4,230	1,500	2,410	3,390	7,200	6,020	14,500	30,000	21,500	11,800	10,300
5	3,740	4,180	1,530	2,440	3,310	7,200	6,010	14,500	29,900	21,500	11,600	9,820
6	3,690	4,180	101	2,430	3,470	7,200	6,010	14,500	29,600	23,000	11,500	9,480
7	3,440	4,230	1,320	2,430	3,430	7,200	6,030	14,500	22,900	24,100	11,400	9,020
8	3,440	125	1,320	2,430	4,040	7,180	6,050	17,800	18,300	23,200	11,300	8,560
9	3,360	1,200	1,320	2,490	4,200	6,900	6,060	20,500	16,200	20,800	11,200	8,400
10	3,400	1,230	1,320	2,490	4,350	6,800	6,170	17,100	14,600	17,100	11,300	8,520
11	3,400	1,230	1,530	2,400	3,410	6,660	6,080	15,000	14,600	13,200	11,300	8,810
12	3,460	1,260	1,540	2,380	3,410	6,660	6,860	11,800	14,600	12,300	11,300	8,890
13	3,030	2,040	355	2,370	3,430	6,680	6,520	10,900	14,600	12,600	11,300	8,690
14	3,050	2,120	3,070	2,390	3,330	6,700	8,560	10,300	14,600	14,500	11,400	8,400
15	3,050	121	2,610	2,390	3,430	6,670	8,560	9,740	16,900	14,000	11,400	8,120
16	2,410	2,110	2,240	2,390	4,540	6,680	9,610	11,000	20,000	12,200	11,500	7,720
17	2,410	1,350	2,240	2,410	6,720	6,620	10,600	10,700	20,000	11,800	11,400	7,120
18	1,128	1,310	2,260	2,400	7,060	6,540	11,000	10,600	20,000	11,700	11,600	7,000
19	2,410	1,350	2,690	2,420	7,280	6,140	11,800	10,600	20,000	11,700	12,000	6,500
20	1,890	1,350	2,270	3,720	7,280	6,140	17,200	10,500	20,100	11,900	11,900	6,600
21	1,920	1,360	1,130	4,590	6,960	6,100	22,600	10,300	20,100	12,000	11,700	6,560
22	4,160	111	3,130	2,600	6,720	6,100	24,600	10,400	21,900	12,000	11,600	6,320
23	4,090	1,410	2,790	2,680	6,680	6,100	24,600	10,500	25,500	11,900	11,800	5,970
24	4,140	1,430	2,830	2,600	6,840	6,090	24,600	10,500	26,800	11,700	11,400	5,220
25	2,460	1,390	2,660	2,570	7,190	6,070	24,500	10,500	25,800	11,600	11,300	4,060
26	4,160	1,440	2,850	3,360	6,630	6,070	24,400	10,500	25,800	11,500	11,000	3,630
27	4,120	1,430	2,790	3,740	7,060	6,120	24,400	10,500	24,900	11,600	10,800	3,440
28	4,120	1,410	2,840	4,060	7,220	6,150	24,400	10,500	24,600	11,800	10,700	2,710
29	4,160	114	2,700	4,060	-	6,160	21,400	10,700	26,200	12,000	10,700	2,320
30	4,090	1,420	2,750	4,570	-	6,160	19,500	10,900	27,600	12,100	11,000	2,320
31	4,040	-	2,360	4,120	-	6,180	-	10,900	-	12,100	11,200	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		98,388	4,160	128	3,174	195,100
November		55,561	4,320	111	1,856	110,200
December		61,676	3,130	101	1,990	122,300
Calendar year 1942		2,243,070	20,300	101	6,145	4,449,000
January		88,290	4,590	2,360	2,848	175,100
February		141,980	7,280	3,510	5,071	281,600
March		204,050	7,200	6,070	6,582	404,700
April		394,310	24,600	6,010	13,140	732,100
May		384,540	20,500	9,740	12,400	762,700
June		637,000	30,000	13,600	21,230	1,263,000
July		486,000	27,500	11,500	15,680	964,000
August		354,000	12,000	10,700	11,420	702,100
September		217,100	10,900	2,320	7,237	430,600
Water year 1942-43		3,122,895	30,000	101	8,556	6,194,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## SNAKE RIVER MAIN STEM

Lake Walcott near Minidoka, Idaho

Location.- Staff gage, lat. 42°40', long. 113°29', in sec. 1, T. 9 S., R. 25 E., in powerhouse at Minidoka Dam on Snake River, 6 miles southeast of Minidoka. Datum of gage is 4,200.00 feet above datum of Bureau of Reclamation, which is 49.52 feet below mean sea level.

Records available.- April 1909 to September 1917 (gage heights only), October 1917 to September 1943.

Extremes.- Maximum contents during year, 97,350 acre-feet Oct. 17, 18 (gage height, 45.18 feet); minimum, 1,330 acre-feet Dec. 22 (gage height, 36.14 feet).  
1909-43: Maximum contents, 110,740 acre-feet Aug. 8, 1922 (gage height, 46.28 feet); minimum, -101,410 acre-feet Nov. 17, 1941 (gage height, 15.19 feet).

Remarks.- Reservoir is formed by rock-fill dam with concrete core; storage began in 1909. Capacity 107,240 acre-feet between gage height 36.00 feet (sill of powerhouse penstock) and 46.00 feet (top of flashboards). Dead storage, about 115,000 acre-feet. Gage read at 8 a.m. and 4 p.m. Contents as given herein are computed from mean gage heights. Water used for power development and irrigation on Minidoka project of Bureau of Reclamation.

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

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92,390	74,410	62,820	10,350	16,270	12,110	34,570	57,190	75,310	92,660	94,020	85,980
2	91,230	71,170	63,370	8,580	15,480	12,410	33,530	58,910	71,830	93,440	93,560	85,060
3	91,230	69,630	64,690	10,230	14,490	12,900	32,080	58,270	74,070	93,560	94,260	86,100
4	91,230	66,640	65,340	10,720	14,090	13,100	32,290	56,980	73,600	94,490	94,490	85,400
5	90,780	68,630	66,780	9,850	13,700	12,610	31,660	58,060	74,410	94,950	94,260	85,060
6	90,640	67,650	66,560	10,330	13,200	13,700	33,120	60,530	74,620	94,950	94,840	85,290
7	90,760	66,770	63,460	10,350	12,700	13,690	36,250	61,940	74,070	95,070	94,260	84,590
8	91,110	64,800	54,070	10,450	12,610	14,980	39,030	65,010	73,620	94,490	94,140	83,310
9	92,040	56,120	44,080	10,130	13,500	15,080	42,500	69,850	72,940	93,090	94,260	81,620
10	92,740	55,760	33,320	10,330	14,880	17,360	45,140	70,610	72,490	93,790	94,490	80,270
11	93,320	54,180	22,690	10,130	15,280	16,170	48,930	71,390	73,170	93,900	94,140	79,480
12	93,790	54,500	15,100	10,130	14,490	16,680	51,390	72,800	76,320	93,790	93,790	77,680
13	94,490	55,470	4,770	9,930	14,090	15,680	52,350	73,170	80,830	96,150	94,140	76,550
14	95,670	55,470	2,770	9,830	14,190	14,880	52,250	70,730	83,540	95,670	93,900	74,970
15	96,630	55,040	4,000	9,060	14,290	12,700	52,050	70,950	83,540	93,790	94,490	73,840
16	97,110	52,680	4,960	9,150	13,890	12,900	51,620	70,620	84,620	94,260	94,260	72,260
17	97,350	53,640	4,960	8,770	13,300	12,700	51,820	71,610	85,400	93,790	94,140	69,630
18	97,350	53,760	3,240	8,960	12,900	11,520	51,600	71,830	84,470	93,900	93,790	66,000
19	94,140	54,830	3,150	8,960	13,400	11,420	50,740	71,830	84,240	93,560	94,020	64,800
20	93,900	54,830	4,100	8,960	14,090	12,010	50,210	71,720	84,010	93,790	94,490	62,600
21	93,550	55,900	2,380	13,990	14,690	12,210	53,760	70,950	84,010	93,790	94,260	60,310
22	94,140	57,300	1,330	11,810	13,890	12,110	59,340	70,840	85,970	94,260	93,320	59,130
23	94,490	56,530	2,880	12,210	13,700	13,500	59,880	70,610	88,860	94,720	93,900	57,620
24	92,390	56,760	3,430	12,610	13,000	15,180	60,200	72,050	92,610	94,720	93,090	56,900
25	90,530	58,590	4,100	13,100	12,310	16,470	59,670	71,280	92,390	95,180	92,270	55,840
26	87,030	60,420	6,480	13,100	11,020	18,350	59,560	72,050	96,390	94,370	91,810	51,170
27	84,010	61,170	6,580	12,310	10,920	19,850	59,240	72,390	92,620	94,260	90,180	49,260
28	83,430	62,820	7,530	12,310	11,120	23,300	57,730	72,490	90,530	93,790	89,130	46,930
29	81,610	63,260	7,820	13,500	-	31,250	58,810	72,050	90,290	93,900	87,270	44,820
30	78,690	59,990	9,340	14,490	-	33,430	58,480	73,280	92,270	94,140	85,870	42,710
31	77,230	-	9,730	16,590	-	35,320	-	74,290	-	93,790	85,870	-

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	44.86	93,550	-
Oct. 31.....	45.44	77,230	-16,320
Nov. 30.....	41.88	59,990	-17,240
Dec. 31.....	37.02	9,730	-50,260
Calendar year 1942.....	-	-	+99,250
Jan. 31.....	37.61	15,580	+5,850
Feb. 28.....	37.16	11,120	-4,460
Mar. 31.....	39.36	35,320	+22,200
Apr. 30.....	41.74	58,480	+25,160
May 31.....	43.18	74,290	+15,810
June 30.....	44.75	92,270	+17,980
July 31.....	44.88	93,790	+1,520
Aug. 31.....	44.20	85,870	-7,920
Sept. 30.....	40.26	42,710	-43,160
Water year 1942-43.....	-	-	-50,840

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River near Minidoka, Idaho

Location.- Water-stage recorder, lat. 42°40', long. 113°30', in sec. 2, T. 9 S., R. 25 E., 1 mile downstream from Minidoka Dam and 6 miles southeast of Minidoka. Datum of gage is 4,132.2 feet above mean sea level (river-profile survey).

Records available.- April 1910 to September 1943. August 1895 to December 1899, May 1901 to December 1910 at site at Montgomery Ferry, 6 miles downstream.

Average discharge.- 47 years (1895-99, 1900-43), 7,054 second-feet.

Extremes.- Maximum discharge during year, 29,900 second-feet June 5 (gage height, 13.28 feet); minimum daily, 733 second-feet Nov. 23.

1910-43: Maximum discharge, 45,900 second-feet June 21, 1918 (gage height, 16.02 feet); minimum, 59 second-feet Nov. 18, 1936 (gage height, 1.56 feet).

Remarks.- Records good. Flow regulated by American Falls Reservoir (see p. 21), Lake Walcott (see p. 24), and other reservoirs, having a combined usable capacity of about 3,300,000 acre-feet, and greatly reduced by diversions above station for irrigation.

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

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,590	4,780	1,180	2,740	4,100	7,150	6,040	14,600	12,500	24,900	8,810	8,390
2	1,600	4,690	1,150	2,840	4,080	7,150	6,630	12,400	16,400	23,900	8,930	8,350
3	1,480	4,760	1,180	2,790	4,140	7,170	6,810	12,100	20,400	21,500	8,940	8,210
4	1,370	4,850	1,260	2,770	3,990	7,230	6,530	11,800	29,900	18,500	8,730	7,970
5	2,590	4,800	1,200	2,820	3,970	7,280	5,880	17,300	29,600	18,500	8,510	7,790
6	2,440	4,780	1,220	2,680	3,890	7,230	5,150	11,500	29,700	19,500	8,420	7,620
7	2,250	4,850	3,740	2,680	3,890	7,260	4,320	10,900	23,400	21,100	8,480	7,410
8	1,980	4,780	6,610	2,680	3,890	7,340	4,340	11,800	17,900	20,900	8,460	7,040
9	1,800	4,580	6,610	2,700	4,030	7,310	4,430	16,700	15,500	18,500	8,390	7,320
10	1,700	1,310	7,440	2,700	4,030	7,260	4,590	15,500	13,300	14,500	8,560	7,040
11	1,700	1,300	6,650	2,720	4,080	7,310	4,830	10,400	11,800	9,990	8,510	7,210
12	1,730	1,300	6,060	2,720	4,030	7,310	5,900	8,930	10,600	8,720	8,640	7,330
13	1,630	1,600	3,820	2,700	4,050	7,310	8,600	8,960	11,000	8,750	8,510	7,330
14	1,560	2,030	2,490	2,720	4,050	7,360	8,600	8,090	12,100	11,300	8,510	7,180
15	1,620	2,130	2,440	2,810	4,030	7,500	8,600	7,940	18,900	11,400	8,510	6,990
16	1,610	1,780	2,410	2,860	5,280	7,390	9,210	8,180	18,300	8,990	8,480	6,790
17	1,470	1,750	2,700	2,700	7,230	7,440	10,500	8,600	19,100	8,690	8,420	6,570
18	1,460	1,460	3,100	2,800	7,230	6,880	10,400	8,300	19,000	8,600	8,420	6,440
19	1,410	1,320	2,970	2,820	7,260	6,580	11,400	8,330	18,400	8,450	8,660	6,310
20	1,420	1,310	2,740	3,280	7,260	6,530	14,400	8,120	18,300	8,390	8,900	6,280
21	1,410	1,280	2,770	4,530	7,390	6,450	18,600	7,790	17,600	8,540	8,900	6,250
22	3,690	740	2,720	3,910	7,550	6,010	23,200	7,880	17,700	8,570	8,960	5,950
23	4,600	733	2,720	2,790	7,500	5,640	24,400	8,090	20,600	8,570	8,970	5,640
24	4,550	747	2,790	2,790	7,440	5,560	24,500	8,210	24,500	8,630	8,900	5,300
25	4,550	890	2,810	3,180	7,440	5,510	24,500	8,000	22,400	8,540	8,870	4,610
26	4,510	1,040	2,880	3,780	7,340	5,490	24,400	8,000	23,600	8,510	8,810	3,660
27	4,580	1,060	2,790	3,890	7,120	5,460	23,900	8,060	25,000	8,510	8,750	3,530
28	4,780	1,190	2,790	3,930	7,230	5,240	23,100	8,060	23,200	8,510	8,600	3,030
29	5,080	1,260	2,770	3,930	-	2,620	20,600	8,120	22,800	8,750	8,630	2,290
30	5,100	1,160	2,770	3,930	-	6,160	17,500	8,030	24,200	8,960	8,630	-
31	4,990	-	2,770	3,950	-	6,060	-	8,270	-	8,930	8,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	81,650	5,100	1,410	2,634	162,000
November	70,280	4,850	733	2,343	139,400
December	97,560	7,440	1,180	3,147	193,500
Calendar year 1942	1,797,448	19,000	500	4,925	3,565,000
January	96,520	4,530	2,680	3,134	191,400
February	153,520	7,550	3,680	5,433	304,000
March	203,190	7,500	2,820	6,522	401,000
April	371,560	24,500	4,320	12,390	737,000
May	302,960	16,700	7,790	9,773	600,900
June	582,500	29,700	10,800	19,420	1,155,000
July	390,000	24,900	8,390	12,580	773,600
August	267,860	8,960	8,360	8,641	531,300
September	187,800	8,390	2,290	6,260	372,500
Water year 1942-43	2,804,400	29,700	733	7,683	5,562,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## SNAKE RIVER MAIN STEM

Snake River at Milner, Idaho

Location.- Water-stage recorder, lat. 42°32', long. 114°01', in sec. 29, T. 10 S., R. 21 E., at Milner, a quarter of a mile downstream from Milner Dam. Altitude of gage, 4,062 feet (from river-profile map).

Records available.- May 1909 to September 1943.

Extremes.- Maximum discharge during year, 23,100 second-feet June 6 (gage height, 20.10 feet); minimum, 12 second-feet July 27-30; minimum gage height, 1.56 feet July 28-30. 1909-43: Maximum discharge, 44,400 second-feet June 12, 1909 (gage height, 20.10 feet, site and datum then in use); minimum, 2 second-feet Mar. 17-28, 1936 (gage height, 1.18 feet).

Remarks.- Records excellent except those for period July 19 to Aug. 19, which are fair. Flow regulated by American Falls Reservoir (see p. 21), Lake Walcott (see p. 24) and other reservoirs having a combined usable capacity of about 3,300,000 acre-feet, and greatly reduced by diversions above Milner Dam for irrigation. About 1,300,000 acres of land irrigated by diversion from river and tributaries above station. 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.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 11)

1.5	10	2.9	135	5.5	1,060	13.0	9,290
1.7	17	3.3	207	6.0	1,500	15.6	13,200
2.0	32	3.8	336	7.0	2,540	17.0	15,600
2.3	58	4.4	531	9.0	4,620	20.0	22,800
2.6	94	5.0	775	11.0	6,760		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	368	3,330	368	2,190	3,150	6,320	5,420	8,730	2,370	17,400	16	316
2	362	3,920	368	1,710	3,150	6,310	5,580	5,490	7,060	17,400	17	319
3	371	3,800	371	1,710	3,060	6,300	5,980	5,100	11,000	15,400	153	319
4	374	3,840	395	2,130	3,100	6,290	5,760	4,070	21,000	11,200	185	319
5	371	3,830	398	1,600	3,110	6,040	5,420	3,520	22,500	10,800	94	316
6	368	3,920	398	1,970	3,220	6,400	4,130	3,220	23,000	11,100	31	319
7	371	3,930	600	2,180	3,220	6,310	3,290	4,120	21,700	13,000	22	319
8	410	3,750	4,860	2,180	3,200	6,380	2,550	3,110	11,800	13,500	19	319
9	420	3,580	6,600	2,170	3,060	6,330	2,540	7,360	9,930	10,600	15	426
10	420	1,950	6,140	2,140	2,680	6,480	3,220	9,500	6,580	7,320	16	459
11	423	744	6,380	1,990	3,080	6,280	3,880	3,670	5,980	1,890	16	459
12	429	420	5,510	1,850	3,330	6,350	3,690	773	5,070	353	16	459
13	426	480	4,580	1,910	3,360	6,380	6,140	1,330	4,770	292	16	459
14	420	579	1,820	2,060	3,340	6,240	6,880	482	5,920	1,370	15	459
15	420	576	1,440	1,810	3,300	6,200	6,340	209	5,030	3,420	15	462
16	426	363	1,790	1,630	3,360	6,510	6,260	322	12,300	858	17	470
17	426	240	1,930	1,600	5,820	6,510	7,720	840	13,700	242	18	476
18	420	242	2,380	1,580	6,410	6,520	7,780	740	14,000	255	14	480
19	417	263	2,260	1,870	6,430	5,850	7,720	650	12,900	187	68	480
20	417	294	2,060	2,180	6,450	5,740	10,200	654	12,800	18	336	480
21	414	311	1,270	2,450	6,410	5,730	12,800	359	12,200	15	336	480
22	642	294	1,930	4,300	6,460	5,610	18,600	359	10,700	13	328	484
23	2,600	281	2,230	2,290	6,620	4,570	19,800	359	13,900	15	356	497
24	3,580	276	2,090	2,180	6,810	4,330	19,600	464	17,200	13	365	497
25	4,380	271	2,140	2,150	6,820	4,430	19,600	356	16,600	14	345	487
26	4,430	273	1,910	2,610	6,740	4,500	19,200	353	15,700	13	345	487
27	3,940	273	1,420	2,800	6,540	4,500	18,900	356	18,600	12	342	487
28	4,010	273	1,690	2,910	6,270	4,270	17,600	353	16,900	12	342	487
29	4,500	273	2,420	3,200	-	1,970	16,000	401	15,900	12	314	480
30	5,010	314	2,320	3,270	-	3,230	11,000	638	16,700	12	314	476
31	3,930	-	2,190	3,200	-	6,340	-	550	-	13	316	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	45,495	5,010	362	1,468	90,240
November	43,390	3,930	240	1,446	86,060
December	72,208	6,600	368	2,329	142,200
Calendar year 1942	439,939	13,300	8	1,205	872,600
January	69,920	4,300	1,580	2,252	138,500
February	128,480	6,820	2,680	4,589	254,800
March	175,220	6,820	1,970	5,652	347,500
April	283,600	19,800	2,540	9,453	562,500
May	68,638	9,500	209	2,214	136,100
June	386,810	23,000	2,370	12,890	767,200
July	136,749	17,400	12	4,411	271,200
August	4,810	355	14	155	9,540
September	12,957	487	316	432	25,700
Water year 1942-43	1,428,177	23,000	12	3,913	2,833,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River near Kimberly, Idaho

Location.- Water-stage recorder, lat. 42°36', long. 114°22', in NW¼ sec. 4, T. 10 S., R. 18 E., 1,200 feet downstream from Twin Falls power plant, 2½ miles upstream from Shoshone Falls, and 4 miles north of Kimberly.

Records available.- July 1923 to September 1943.

Extremes.- Maximum discharge during year, 21,800 second-feet June 6 (gage height, 20.00 feet); minimum, 18 second-feet (regulated) July 24 (gage height, 1.34 feet).

1923-43: Maximum discharge, 27,200 second-feet July 4, 1927 (gage height, 14.76 feet, site and datum then in use), from rating curve extended above 20,000 second-feet; minimum, undetermined leakage through Twin Falls power plant at times since Nov. 23, 1935.

Remarks.- Records excellent except those above 18,000 second-feet and those for periods of no gage-height record, which are fair. Flow regulated by Twin Falls power plant and many reservoirs above station. Practically entire flow is diverted at Milner during irrigation season; no diversions between Milner and Kimberly.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

4.0	332	8.0	1,860	13.0	7,000
4.5	445	9.0	2,480	14.0	8,710
5.0	550	10.0	3,250	15.0	12,600
5.5	610	11.0	4,280	16.0	16,900
6.0	910	12.0	5,510		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	840	3,890	671	2,440	3,290	6,400	5,760	9,430	1,170	16,400	420	759
2	819	4,100	694	2,380	3,320	6,500	5,570	6,000	6,590	18,700	410	a700
3	774	3,970	714	1,910	3,210	6,410	6,180	5,200	9,890	14,800	552	
4	794	3,970	776	2,370	3,250	6,410	5,890	4,350	18,700	11,600	459	
5	816	3,980	765	2,110	3,210	6,140	5,760	3,630	21,100	10,800	571	a750
6	808	4,050	782	2,090	3,340	6,590	4,410	2,930	21,600	10,900	625	
7	794	4,070	940	2,380	3,380	6,580	4,230	21,200	12,600	428		
8	794	4,000	3,500	2,440	3,350	6,580	2,950	3,160	12,700	13,100	435	822
9	872	3,710	6,890	2,410	3,220	6,580	2,310	6,260	10,800	11,100	456	798
10	854	3,060	6,360	2,380	2,990	6,700	3,100	10,100	6,500	8,420	432	855
11	850	1,500	6,490	2,340	3,120	6,490	3,850	4,690	6,360	3,200	460	830
12	882	1,020	5,890	2,100	3,480	6,480	3,850	2,000	5,020	1,560	437	a860
13	900	910	5,020	2,110	3,480	6,560	5,520	1,690	4,930	781	420	a900
14	850	954	2,740	2,260	3,460	6,480	7,140	1,300	5,860	789	430	938
15	900	966	1,760	2,190	3,450	6,340	6,560	930	7,610	3,580	447	918
16	868	1,020	1,970	1,920	3,420	6,660	6,350	510	12,000	2,010	410	942
17	903	868	2,170	1,920	5,220	6,700	7,640	714	13,000	978	418	958
18	853	680	2,490	1,970	6,470	6,680	8,140	1,330	13,500	659	442	958
19	868	688	2,580	2,000	6,620	6,240	7,950	1,100	12,800	684	430	950
20	882	655	2,490	2,370	6,620	5,850	10,100	1,080	12,400	544	467	950
21	889	669	1,770	2,520	6,620	5,830	12,100	1,010	12,300	446	595	966
22	950	718	2,030	3,990	6,620	10,760	17,200	740	10,700	376	722	954
23	1,810	719	2,440	3,140	6,780	4,920	18,600	652	13,000	342	810	962
24	3,530	700	2,470	2,340	6,940	4,430	18,300	709	15,900	361	778	974
25	4,490	710	2,390	2,550	7,050	4,530	18,400	832	16,600	458	780	982
26	4,690	666	2,270	2,610	6,950	4,650	18,100	682	14,600	344	720	978
27	4,240	698	2,020	2,900	6,780	4,650	17,900	687	17,500	414	780	974
28	4,130	704	1,750	2,970	6,480	4,620	16,900	741	16,300	392	728	970
29	4,540	698	2,520	3,260	-	2,640	16,800	707	15,100	404	740	918
30	5,180	678	2,720	3,410	-	2,580	11,500	776	15,600	408	769	990
31	4,420	-	2,450	3,310	-	6,320	-	1,050	-	394	700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	55,790	5,180	774	1,800	110,700
November.....	55,008	4,100	653	1,834	109,100
December.....	80,302	6,680	671	2,590	159,300
Calendar year 1942.....	570,220	13,000	174	1,562	1,131,000
January.....	76,680	3,990	1,870	2,474	152,100
February.....	132,110	7,050	2,990	4,718	262,000
March.....	180,150	6,700	2,580	5,811	357,300
April.....	277,800	18,600	2,610	9,260	551,000
May.....	79,420	10,100	510	2,562	157,500
June.....	371,330	21,600	1,170	12,380	736,500
July.....	145,524	16,700	342	4,694	288,600
August.....	17,272	810	410	557	54,260
September.....	26,559	990	-	895	52,690
Water year 1942-43.....	1,497,956	21,600	342	4,104	2,971,000

a No gage-height record; discharge interpolated or computed on basis of records for station near Twin Falls.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.



## Snake River near Twin Falls, Idaho

Location.— Water-stage recorder, lat. 42°36', long. 114°29', in SW¼ sec. 33, T. 9 S., R. 17 E., at Perrine Bridge, 200 feet upstream from outlet of Blue Lakes, 4 miles north of city of Twin Falls, and 4 miles downstream from Shoshone Falls.

Records available.— September 1911 to June 1917, May 1919 to September 1943.

Extremes.— Maximum discharge during year, 26,100 second-feet June 6 (gage height, 12.68 feet); minimum, 391 second-feet (regulated) July 25 (gage height, 2.08 feet).  
1911-17, 1919-43: Maximum discharge observed, 32,200 second-feet June 10, 1914 (gage height, 13.3 feet); minimum, 250 second-feet (estimated) Apr. 16, 1936.

Remarks.— Records good except those above 16,000 second-feet, which are fair. Flow regulated by Twin Falls and Shoshone Falls power plants and many reservoirs above station. No diversion except by small ranch ditches between this station and station at Milner, where practically entire flow is diverted during irrigation season.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.3	500	5.0	5,500
2.6	680	6.0	5,180
3.0	1,010	7.0	7,230
3.5	1,510	8.0	9,740
4.0	2,100	10.0	16,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	983	4,240	894	2,690	3,600	6,640	5,950	10,400	1,240	18,700	622	947
2	1,000	4,580	903	2,560	3,530	6,700	5,620	6,610	6,090	19,200	597	920
3	974	4,530	974	2,100	3,530	6,660	6,300	5,430	10,000	16,800	622	894
4	956	4,510	956	2,460	3,550	6,660	5,990	4,950	21,000	13,000	695	956
5	983	4,460	956	2,360	3,500	6,380	5,930	4,290	25,100	11,500	667	947
6	1,010	4,530	956	2,230	3,600	6,810	4,740	3,100	25,900	11,400	819	920
7	992	4,560	1,000	2,580	3,680	6,770	3,980	4,360	25,700	13,200	695	974
8	983	4,560	3,130	2,640	3,690	6,830	3,230	3,660	14,300	14,200	573	965
9	1,010	4,210	6,970	2,630	3,560	6,770	2,770	5,820	11,600	12,300	615	974
10	1,030	3,710	6,810	2,590	3,300	6,880	3,300	10,600	7,550	9,380	634	974
11	1,060	1,850	6,940	2,550	3,240	6,770	4,080	5,660	6,460	4,150	597	1,060
12	1,060	1,370	6,460	2,300	3,770	6,750	4,120	2,810	5,350	1,900	615	1,060
13	1,080	1,090	5,480	2,300	3,770	6,810	5,640	1,520	6,290	1,080	573	1,090
14	1,060	1,140	3,340	2,440	3,760	6,750	7,210	1,710	5,930	938	567	1,110
15	1,060	1,170	2,000	2,440	3,720	6,610	6,720	1,190	7,460	3,090	597	1,110
16	1,060	1,180	2,100	2,110	3,720	6,860	6,460	974	12,500	2,600	585	1,130
17	1,060	1,140	2,370	2,070	5,040	6,940	7,670	740	14,200	1,270	585	1,140
18	1,040	1,050	2,660	1,980	6,640	6,880	8,220	1,180	15,000	974	561	1,160
19	1,060	869	2,840	1,980	6,980	6,550	8,070	1,330	14,200	355	585	1,160
20	1,060	886	2,740	2,520	6,610	6,030	10,200	1,230	15,500	680	609	1,180
21	1,060	875	2,100	2,770	6,860	6,050	12,500	1,230	13,600	695	740	1,180
22	1,110	852	2,130	4,030	6,880	5,970	19,200	1,040	11,300	585	811	1,180
23	1,440	947	2,640	3,740	7,010	5,220	21,900	903	13,700	550	903	1,160
24	3,820	974	2,740	2,480	7,100	4,650	21,500	827	17,700	555	956	1,170
25	4,870	920	2,590	2,520	7,340	4,750	21,600	929	19,000	485	947	1,180
26	5,130	886	2,490	2,770	7,190	4,890	21,100	947	16,100	579	929	1,180
27	4,770	912	2,230	3,140	7,030	4,840	20,700	886	19,800	544	938	1,170
28	4,550	894	1,910	3,280	6,790	4,840	19,500	886	18,900	609	938	1,170
29	4,910	886	2,660	3,500	-	3,030	18,100	894	17,100	579	903	1,120
30	5,620	894	2,990	3,740	-	2,530	12,800	920	17,400	573	903	1,120
31	5,050	-	2,690	3,660	-	6,210	-	1,120	-	585	938	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	62,851	5,620	956	2,027	124,700
November	64,658	4,580	852	2,155	128,800
December	87,649	6,970	894	2,827	173,600
Calendar year 1942	637,960	14,300	440	1,748	1,265,000
January	83,140	4,030	1,980	2,682	164,900
February	138,990	7,340	3,240	4,964	275,700
March	187,000	6,940	2,530	6,032	370,900
April	305,000	21,800	2,770	10,170	605,000
May	88,128	16,600	740	2,843	174,800
June	412,970	25,900	1,240	13,770	819,100
July	158,536	19,800	485	5,275	324,400
August	22,319	956	561	720	44,270
September	32,301	1,180	894	1,077	64,070
Water year 1942-43	1,648,540	25,900	485	4,517	3,270,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Snake River below Lower Salmon Falls, near Hagerman, Idaho

Location.- Water-stage recorder, lat. 42°51'36", long. 114°54'42", in lot 3, sec. 2, T. 7 S., R. 13 E., half a mile downstream from Lower Salmon Falls power plant, 1 mile upstream from Big Wood (Malad) River, and  $\frac{3}{4}$  miles north of Hagerman.

Records available.- November 1937 to September 1943.

Extremes.- Maximum discharge during year, 28,800 second-feet June 7 (gage height, 15.66 feet), from rating curve extended above 22,000 second-feet; minimum, 6,090 second-feet (regulated) Aug. 1 (gage height, 6.67 feet).  
1937-43: Maximum discharge, that of June 7, 1943; minimum, 3,800 second-feet (regulated) Mar. 28, 29, 1938 (gage height, 5.40 feet), from rating curve extended below 5,000 second-feet.

Remarks.- Records excellent. Flow regulated by lower Salmon Falls power plant and many reservoirs above station. Practically entire flow at Milner diverted during irrigation season; only minor diversions below Milner.

Rating table, water year 1942-43 (gage height, in feet,  
and discharge, in second-feet)

7.0	6,720
8.0	8,760
10.0	13,400
12.0	18,500
14.0	24,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,270	10,100	7,130	8,970	9,280	12,300	12,300	16,200	7,130	22,400	6,610	7,250
2	7,310	10,300	7,150	8,700	9,340	12,300	10,900	13,600	9,390	22,900	6,570	7,250
3	7,290	10,600	7,070	8,280	9,370	12,200	11,600	11,000	14,800	21,900	6,640	7,230
4	7,270	10,800	7,050	8,000	9,230	12,300	11,500	10,800	21,300	19,300	6,740	7,270
5	7,290	10,800	7,050	8,360	9,260	12,300	11,500	9,740	27,600	17,200	6,760	7,330
6	7,310	10,500	6,990	8,090	9,380	12,100	11,000	8,970	28,200	17,000	6,760	7,350
7	7,290	10,500	6,930	8,280	9,670	12,400	9,920	9,370	28,500	18,000	6,820	7,390
8	7,230	10,800	7,110	8,490	9,850	12,700	8,890	9,560	23,100	19,100	6,700	7,410
9	7,190	10,600	11,800	8,400	9,410	12,700	8,420	9,540	17,800	18,300	6,680	7,390
10	7,270	10,400	13,100	8,380	9,060	12,600	8,590	14,800	15,700	15,800	6,720	7,390
11	7,290	8,930	12,900	8,280	8,900	12,600	9,390	13,500	13,000	12,200	6,720	7,410
12	7,370	7,920	12,900	8,150	9,590	12,400	10,000	9,190	12,600	9,020	6,690	7,510
13	7,510	7,510	11,900	7,940	9,650	12,500	10,100	7,130	12,300	7,390	6,660	7,550
14	7,530	7,350	10,600	8,090	9,560	12,500	12,800	7,150	12,500	6,910	6,590	7,570
15	7,550	7,390	8,420	8,340	9,610	12,200	12,700	6,970	13,700	7,390	6,610	7,610
16	7,570	7,430	8,020	8,210	9,560	12,300	12,100	6,610	17,100	9,320	6,610	7,630
17	7,490	7,550	8,210	7,670	9,990	12,600	12,600	6,590	19,800	7,510	6,590	7,710
18	7,410	7,530	8,400	7,350	12,200	12,500	14,000	6,420	20,300	6,910	6,550	7,730
19	7,410	7,310	8,900	7,450	12,600	12,600	13,800	6,530	19,900	6,660	6,570	7,820
20	7,410	7,090	8,700	7,890	12,700	11,800	14,700	6,720	19,100	6,550	6,590	7,880
21	7,370	7,070	8,470	8,780	12,700	11,800	16,600	6,700	19,200	6,450	6,680	7,920
22	7,350	7,090	8,000	9,540	12,700	11,700	20,900	6,590	17,700	6,440	6,760	7,920
23	7,470	7,070	8,440	10,800	12,800	11,400	24,200	6,400	18,200	6,380	6,850	7,920
24	8,910	7,150	8,840	8,530	12,800	10,300	24,100	6,400	21,000	6,340	6,950	7,900
25	10,900	7,130	8,550	8,400	13,000	10,300	24,100	6,300	23,300	6,340	6,970	7,880
26	11,300	7,090	8,400	8,300	12,900	10,500	24,000	6,420	21,200	6,340	6,990	7,860
27	11,200	7,270	8,000	8,970	12,800	10,500	23,600	6,400	22,500	6,440	7,030	7,730
28	10,800	7,310	7,770	9,150	12,600	10,500	23,500	6,340	23,400	6,400	7,050	7,690
29	10,900	7,190	9,170	-	-	9,700	21,900	6,340	21,800	6,450	7,030	7,650
30	11,200	7,110	9,010	9,480	-	7,880	19,200	6,420	21,500	6,490	7,090	7,610
31	11,500	-	9,060	9,480	-	10,100	-	6,720	-	6,510	7,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	256,060	11,500	7,190	8,280	507,900
November.....	252,890	10,900	7,070	8,430	501,600
December.....	272,820	13,100	6,970	8,801	541,100
Calendar year 1942.....	2,771,010	19,200	5,900	7,592	5,496,000
January.....	263,890	10,800	7,350	8,513	523,400
February.....	300,340	13,000	8,800	10,730	595,700
March.....	362,580	12,700	7,880	11,700	719,200
April.....	448,610	24,200	8,420	14,950	989,800
May.....	261,620	16,200	6,300	8,439	519,900
June.....	583,620	28,500	7,130	18,790	1,118,000
July.....	341,340	22,900	6,340	11,010	677,000
August.....	209,740	7,170	6,550	6,766	416,000
September.....	227,760	7,920	7,230	7,592	451,800
Water year 1942-43.....	3,761,270	28,500	6,300	10,300	7,460,000

Time basis: Mountain war time. To convert war time to standard time subtract 1 hour.

## Snake River at King Hill, Idaho

Location.- Water-stage recorder, lat. 43°00', long. 115°11', in SW¼ sec. 7, T. 5 S., R. 11 E., 300 feet east of railroad station at King Hill and 20 miles downstream from Big Wood River.

Records available.- May 1909 to September 1943.

Extremes.- Maximum discharge during year, 31,000 second-feet June 7 (gage height, 13.06 feet); minimum, 7,370 second-feet May 25 (gage height, 5.95 feet).  
1909-43: Maximum discharge observed, 47,200 second-feet June 22, 1918 (gage height, 16.3 feet), from rating curve extended above 30,000 second-feet; minimum observed, 4,760 second-feet July 7-9, Aug. 15, 16, 1910 (gage height, 4.5 feet).

Remarks.- Records good. Flow regulated by many reservoirs above station. Practically entire flow at Milner diverted during irrigation season so that flow at King Hill is derived largely from springs and seepage entering below Milner.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,510	11,700	h9,260	14,000	11,200	15,400	16,300	19,300	9,800	23,700	7,760	8,640
2	8,510	11,500	h9,100	13,000	11,200	15,000	15,400	17,100	11,000	24,200	7,860	8,710
3	8,480	11,900	h8,790	11,100	11,200	14,900	16,000	14,200	16,300	23,500	7,830	8,690
4	8,460	12,100	h8,790	10,100	11,100	15,200	16,200	13,900	21,200	21,400	7,930	8,660
5	8,450	12,200	h8,580	10,300	11,100	15,300	15,800	12,700	30,000	18,600	8,000	8,770
6	8,460	12,100	h8,480	10,000	11,100	14,900	15,500	12,200	30,500	18,400	8,000	8,820
7	8,460	12,100	h8,530	9,990	11,400	15,300	14,300	11,000	30,800	18,900	8,130	8,820
8	8,380	12,300	h8,690	10,200	11,700	15,900	13,400	12,800	28,900	20,000	8,000	8,820
9	8,610	12,200	h13,900	10,100	11,400	17,900	12,800	11,700	19,500	19,800	7,960	8,820
10	8,640	12,000	h15,100	10,100	10,900	16,500	12,800	16,200	17,600	17,300	8,000	8,790
11	8,560	10,800	h14,600	9,960	10,600	15,900	15,000	17,000	14,500	14,200	8,000	8,820
12	8,740	9,500	h14,600	9,880	11,200	15,600	16,500	11,700	14,200	9,960	7,980	8,870
13	8,900	9,100	h15,900	9,610	11,500	15,900	16,700	9,560	13,700	9,310	7,950	9,030
14	8,000	9,000	h12,500	9,890	11,500	17,000	19,200	9,050	14,200	8,580	7,900	9,160
15	8,900	9,080	10,300	10,100	11,600	16,100	19,500	8,920	15,500	8,280	7,900	9,030
16	8,900	9,030	9,830	10,000	11,600	15,500	18,400	8,480	18,000	10,800	7,880	9,050
17	8,900	9,130	9,910	9,500	11,700	15,600	18,000	8,400	21,500	9,230	7,860	9,080
18	8,790	9,310	10,200	9,080	14,100	15,500	19,400	8,080	22,000	8,380	7,880	9,160
19	8,770	9,180	10,500	8,270	14,900	15,500	19,200	8,250	21,800	8,080	7,880	9,180
20	8,770	8,950	10,500	8,400	15,200	14,700	19,400	8,180	20,900	7,900	7,880	9,250
21	8,770	8,800	10,400	10,700	15,700	14,500	21,200	7,880	21,200	7,710	7,930	9,310
22	8,740	h8,660	9,850	13,000	16,600	14,500	24,800	7,780	19,900	7,680	8,060	9,340
23	8,820	8,800	10,200	15,800	17,300	14,500	29,000	7,560	19,300	7,610	8,160	9,340
24	9,830	8,800	10,900	12,900	16,200	13,800	29,000	7,440	22,000	7,560	8,260	9,340
25	11,800	8,900	11,100	11,200	16,000	14,200	28,500	7,390	25,000	7,590	8,330	9,290
26	12,600	8,800	10,500	10,500	15,700	14,700	28,400	7,490	23,200	7,540	8,430	9,230
27	12,700	8,000	9,830	10,900	15,800	14,800	27,500	7,540	23,400	7,830	8,360	9,190
28	12,300	8,900	9,610	11,200	15,700	14,700	27,000	7,440	25,100	7,610	8,360	9,050
29	12,200	h9,000	9,850	11,100	-	14,800	25,500	7,440	23,400	7,660	8,430	9,080
30	12,500	h9,160	10,900	11,300	-	12,600	23,100	7,730	22,700	7,660	8,480	9,050
31	12,900	-	12,500	11,400	-	13,100	-	9,230	-	7,680	8,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	296,630	12,900	8,380	9,599	588,400
November.....	302,080	12,300	8,660	10,070	599,200
December.....	351,600	15,100	8,480	10,700	657,700
Calendar year 1942.....	3,344,210	21,000	7,060	9,162	6,633,000
January.....	335,080	15,800	8,970	10,810	664,600
February.....	365,200	17,300	10,600	13,040	724,400
March.....	469,800	17,900	12,600	15,150	931,800
April.....	593,800	29,000	12,800	19,760	1,178,000
May.....	324,500	19,300	7,390	10,470	643,600
June.....	615,100	30,800	9,800	20,500	1,220,000
July.....	364,150	24,200	7,540	12,990	762,000
August.....	249,970	8,560	7,780	8,064	495,800
September.....	270,360	9,340	8,640	9,012	536,300
Water year 1942-43.....	4,538,270	30,800	7,390	12,430	9,002,000

a No gage-height record; discharge computed on basis of records for station below Lower Salmon Falls near Hagerman.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River near Murphy, Idaho

Location.- Water-stage recorder, lat. 43°18', long. 116°26', in NE¼ sec. 35, T. 1 S., R. 1 W., 4½ miles downstream from Swan Falls power plant and 7½ miles northeast of Murphy.

Drainage area.- 41,900 square miles.

Records available.- August to October 1912, August 1913 to September 1943.

Extremes.- Maximum discharge during year, 33,400 second-feet June 6 (gage height, 11.37 feet); minimum, 6,930 second-feet (regulated) Aug. 22 (gage height, 3.75 feet).  
1912-43: Maximum discharge, 47,300 second-feet June 22, 1918 (gage height, 13.95 feet, site and datum then in use); minimum observed, 3,950 second-feet (discharge measurement) July 20, 1934, when stage was below intake pipe..

Remarks.- Records excellent except those for period of no gage-height record, which are good. Flow regulated by many reservoirs above station. Diurnal fluctuations caused by Swan Falls power plant. Several diversions by pumping between this station and station at King Hill.

Rating table, water year 1942-43 (gage height, in feet,  
and discharge, in second-feet)  
(Shifting-control method used July 1 to Sept. 30)

4.0	7,450	9.0	24,200
5.0	10,400	11.0	31,900
7.0	16,800		

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,830	13,500	10,100	14,500	12,100	17,000	16,700	25,200	10,900	24,800	7,930	8,620
2	8,800	12,500	10,000	15,700	11,600	16,600	19,000	21,500	12,000	25,600	5,040	8,620
3	8,800	12,200	9,970	14,000	11,800	16,100	15,100	19,300	13,800	26,200	8,070	8,660
4	8,800	12,500	9,750	12,100	11,800	16,000	19,200	16,600	19,500	25,200	8,100	8,740
5	8,770	12,900	9,700	10,800	11,600	16,300	19,200	16,200	26,000	22,600	8,300	8,620
6	8,740	12,800	9,490	10,900	11,700	16,500	19,000	15,000	32,400	20,600	8,160	8,800
7	8,830	12,700	9,370	10,800	11,600	16,000	16,600	14,300	32,900	19,100	8,240	8,500
8	8,800	12,700	9,280	10,800	12,100	16,700	17,400	14,000	33,100	20,300	8,360	8,830
9	8,740	12,900	9,310	10,900	12,400	16,100	16,600	14,400	27,500	21,400	8,130	8,500
10	5,710	12,900	12,900	10,800	12,000	20,200	16,200	13,500	21,500	20,600	8,240	8,740
11	8,680	12,500	15,300	10,700	11,400	18,600	16,200	18,200	19,300	18,600	8,210	8,830
12	8,950	11,800	15,000	10,500	11,300	17,400	18,000	17,600	16,600	15,000	8,270	8,770
13	9,040	10,300	15,200	10,500	12,000	17,200	19,200	12,900	16,600	10,800	8,240	8,920
14	9,220	10,000	14,400	10,200	12,400	17,700	19,500	10,500	16,400	10,300	8,160	9,100
15	9,220	9,670	13,400	10,100	12,400	18,700	22,300	10,300	16,900	8,920	8,160	9,130
16	9,400	9,760	11,200	10,700	12,600	17,500	22,200	10,100	18,200	8,830	8,160	8,950
17	9,400	9,790	10,300	10,600	12,600	16,900	21,300	9,760	21,400	11,000	8,070	9,010
18	9,160	9,550	10,500	10,000	12,900	17,000	21,300	9,560	24,000	9,560	7,950	9,040
19	9,250	10,100	10,700	9,550	15,300	16,700	22,500	9,310	24,600	8,690	8,010	9,220
20	9,190	9,730	11,000	9,490	16,200	16,600	22,100	9,250	25,900	8,420	7,960	9,190
21	8,9150	9,700	10,900	9,970	16,700	15,600	22,600	9,130	23,200	8,330	8,010	9,310
22	8,9150	9,580	10,800	12,000	17,400	15,400	24,400	8,950	22,800	8,180	7,960	9,370
23	8,9100	9,400	10,400	15,700	16,800	15,400	29,100	8,740	22,100	8,100	8,040	9,400
24	8,9200	9,540	10,800	17,700	19,500	15,500	31,500	8,500	21,600	7,950	8,240	9,370
25	11,200	9,550	11,700	14,300	18,000	14,900	31,300	8,650	24,700	7,980	8,240	9,540
26	12,500	9,610	11,900	12,200	17,600	15,600	31,000	8,530	27,200	7,980	8,360	9,310
27	13,100	9,610	11,100	11,400	17,100	16,200	30,700	9,010	25,100	8,010	8,420	9,310
28	13,200	9,730	10,300	11,800	17,200	16,600	29,900	9,100	25,900	7,810	8,420	9,280
29	12,700	9,910	10,200	12,000	-	17,200	29,400	9,040	27,100	8,010	8,240	9,190
30	12,600	9,760	10,600	11,800	-	17,400	27,800	9,100	25,600	7,930	8,440	9,220
31	13,100	-	11,800	12,000	-	15,500	-	9,430	-	8,100	8,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	304,330	13,200	8,680	9,817	603,600
November.....	327,290	13,500	9,340	10,810	649,200
December.....	347,350	15,300	9,260	11,200	659,000
Calendar year 1942.....	3,584,370	23,200	7,260	9,820	7,110,000
January.....	364,510	17,700	9,490	11,760	723,000
February.....	390,200	19,500	11,300	13,940	774,000
March.....	519,100	20,200	14,900	16,750	1,030,000
April.....	671,300	31,500	16,200	22,380	1,532,000
May.....	586,250	25,200	8,500	12,460	766,100
June.....	674,600	33,100	10,900	22,490	1,338,000
July.....	425,120	26,200	7,810	13,710	843,200
August.....	253,640	8,530	7,930	8,182	503,100
September.....	270,510	9,400	8,620	9,017	536,500
Water year 1942-43.....	4,954,200	33,100	7,810	13,520	9,788,000

a No gage-height record; discharge computed on basis of records for station at King Hill.  
Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River at Weiser, Idaho

Location.— Water-stage recorder, lat. 44°15', long. 116°59', in sec. 31, T. 11 N., R. 5 W., a third of a mile upstream from highway bridge at Weiser. Datum of gage is 2,087.09 feet above mean sea level, datum of 1929.

Records available.— October 1910 to September 1943. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895.

Extremes.— Maximum discharge during year, 69,300 second-feet Apr. 21 (gage height, 12.76 feet); minimum, 10,100 second-feet Aug. 22 (gage height, 3.11 feet).  
1910-43: Maximum discharge observed, 83,100 second-feet May 23, 1921 (gage height, 13.60 feet); minimum observed, 5,100 second-feet Aug. 5, 1924 (gage height, 1.35 feet).  
Flood of Mar. 3, 1910, reached a stage of 15.7 feet on old U. S. Weather Bureau gage (discharge, about 100,000 second-feet). Flood of June 1894 was considerably higher.

Remarks.— Records excellent. Flow regulated by mean reservoirs above station. Diurnal fluctuations caused by Swan Falls power plant. Some diversions below Murphy for irrigation.

Cooperation.— Water-stage recorder inspected by employee of U. S. Weather Bureau.

Rating table, water year 1942-43 (gage height, in feet,  
and discharge, in second-feet)  
(Shifting-control method Oct. 1 to Nov. 29,  
July 20 to Sept. 30)

3.1	10,300	5.2	19,300	8.0	34,600
3.7	12,600	6.0	23,200	10.0	48,300
4.4	16,700	7.0	28,800	12.0	63,300

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,900	16,900	16,200	30,600	24,300	30,400	47,800	55,900	49,100	45,000	11,300	11,100
2	12,000	17,700	16,800	35,700	24,400	29,000	49,400	52,800	52,100	44,300	11,200	11,200
3	11,800	16,900	16,400	32,500	24,100	28,400	54,300	49,700	50,400	44,200	11,200	11,000
4	12,000	16,100	15,200	27,500	23,800	26,700	55,800	48,500	47,300	44,700	11,400	11,200
5	11,800	16,600	14,400	23,800	23,800	27,200	57,700	47,700	48,400	44,100	11,300	11,200
6	11,700	16,800	13,900	20,900	23,300	25,300	57,300	48,700	51,900	40,800	11,100	11,000
7	11,700	16,800	13,700	19,800	23,000	24,600	56,800	46,300	56,400	37,400	10,900	11,300
8	11,700	16,800	13,400	19,800	23,000	24,400	58,900	42,600	55,200	37,000	10,800	11,200
9	11,600	16,800	13,500	18,000	24,700	29,100	62,900	39,200	54,000	36,900	11,000	11,400
10	11,600	17,000	13,800	17,800	22,200	31,200	61,600	37,400	48,500	36,800	10,900	11,400
11	11,800	17,000	16,900	17,500	21,600	32,000	57,000	35,200	42,000	35,600	10,900	11,400
12	12,000	16,800	20,100	16,800	20,900	31,600	55,200	37,700	40,200	31,600	12,200	11,600
13	12,400	16,700	20,000	16,000	21,100	33,300	60,000	36,000	39,000	27,600	12,600	11,800
14	12,700	14,000	20,200	16,700	21,600	39,300	61,200	30,900	40,600	22,000	12,000	11,800
15	13,100	13,800	19,500	16,800	21,400	39,600	61,300	28,200	40,600	19,700	11,400	11,800
16	13,300	13,700	18,600	16,600	21,000	40,300	64,800	26,500	40,100	17,800	11,200	12,000
17	13,900	14,600	16,400	15,700	21,000	39,700	65,000	25,400	40,000	16,600	10,800	11,900
18	14,100	14,400	15,200	15,300	21,600	37,900	63,600	24,200	42,300	17,800	10,600	12,000
19	13,700	14,600	16,100	14,600	22,400	36,300	63,000	22,800	46,100	16,400	10,400	12,000
20	13,200	14,400	16,100	15,000	25,600	36,400	67,000	21,900	49,200	14,700	10,400	12,300
21	12,900	13,800	15,400	18,500	27,800	34,100	68,900	22,400	51,400	13,700	10,300	12,400
22	12,600	13,400	15,700	36,400	30,400	32,400	67,700	23,900	48,200	13,300	10,300	12,400
23	12,400	13,200	16,800	34,900	34,600	31,800	66,300	24,600	47,200	13,100	10,300	12,600
24	12,200	13,000	19,400	32,100	34,800	31,700	66,200	26,200	45,600	13,000	10,300	12,700
25	12,200	14,000	22,600	32,700	35,000	31,600	66,800	26,000	43,800	12,800	10,600	12,700
26	12,600	14,800	21,800	30,000	33,200	32,600	64,600	30,000	44,400	12,800	10,600	12,900
27	15,000	14,300	19,800	26,900	32,100	35,900	61,100	32,100	46,100	12,200	10,700	12,900
28	16,100	14,600	17,700	25,600	31,100	39,500	58,900	35,100	44,600	12,000	10,800	12,700
29	16,700	14,400	17,900	26,600	-	43,700	57,600	36,700	45,300	11,900	10,800	13,100
30	16,400	16,200	17,700	25,900	-	47,600	57,500	40,700	46,900	11,600	10,800	13,000
31	16,200	-	22,600	24,900	-	48,800	-	43,400	-	11,400	10,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	403,300	16,700	11,600	13,010	799,800
November.....	468,400	17,700	13,000	15,280	909,200
December.....	531,800	22,600	13,400	17,150	1,055,000
Calendar year 1942.....	6,212,190	42,700	8,730	17,020	12,320,000
January.....	719,900	35,700	14,600	23,190	1,426,000
February.....	714,100	36,000	20,900	25,600	1,416,000
March.....	1,061,100	46,800	24,400	33,910	2,085,000
April.....	1,613,000	68,900	47,600	60,430	3,696,000
May.....	1,102,700	55,900	21,900	35,870	2,187,000
June.....	1,395,700	56,400	39,000	46,620	2,768,000
July.....	766,300	45,000	11,400	24,780	1,524,000
August.....	359,700	12,600	10,300	10,960	673,600
September.....	357,300	13,100	11,000	11,910	706,700
Water year 1942-43.....	9,654,300	68,900	10,300	26,450	19,150,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Snake River at Oxbow, Oregon

Location.- Water-stage recorder, lat. 44°57', long. 116°51', in NW¼ sec. 16, T. 7 S., R. 48 E., at Oxbow, five-eighths of a mile upstream from intake of diversion tunnel for Oxbow power plant.

Records available.- May 1923 to September 1943.

Extremes.- Maximum discharge during year, 74,600 second-feet Apr. 21 (gauge height, 20.71 feet); minimum, 10,300 second-feet Aug. 24 (gauge height, 8.23 feet).

1923-43: Maximum discharge, that of Apr. 21, 1943; minimum, 4,890 second-feet Aug. 6, 1924 (gauge height, 6.30 feet).

Remarks.- Records excellent except those for periods of no gauge-height record, which are fair. Flow regulated by many reservoirs above station.

Rating table, water year 1942-43 (gauge height, in feet,  
and discharge, in second-feet)

8.5	11,100	12.0	25,100
9.0	12,800	16.0	46,800
10.0	16,500	20.0	70,400

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,100	16,500	16,500	26,800	26,400	a31,000	a50,000	59,000	47,300	46,300	11,900	11,300
2	12,100	17,300	16,400	34,000	26,400	a30,500	a49,500	56,900	58,600	45,200	11,800	11,700
3	12,200	17,800	16,800	35,000	26,500	a29,500	a55,000	53,000	52,900	44,700	11,700	11,600
4	12,200	16,300	15,900	30,500	24,900	a29,000	58,700	51,500	49,900	45,000	11,800	11,600
5	12,100	16,300	15,000	26,200	24,800	a27,000	60,000	50,100	48,700	45,300	11,800	11,600
6	19,100	16,700	14,400	23,000	24,400	a27,500	61,100	50,400	50,300	43,500	11,800	11,500
7	11,900	16,900	14,100	20,500	24,200	a26,000	60,500	49,700	55,900	39,600	11,500	11,500
8	11,900	17,100	13,900	20,000	23,900	a25,000	a60,000	46,400	56,400	37,900	11,300	11,600
9	11,900	16,900	13,600	19,100	24,500	a25,000	a63,000	42,000	55,300	37,800	11,200	11,600
10	11,800	17,000	13,800	18,700	24,600	a30,000	a65,000	40,000	58,600	37,400	11,400	11,600
11	11,900	17,100	14,400	18,500	22,800	a32,000	a63,000	37,600	45,100	37,200	11,000	11,700
12	12,200	16,900	13,700	18,100	22,200	a32,500	58,900	37,200	42,300	33,600	11,800	11,700
13	12,400	16,400	20,000	17,400	21,600	a32,000	60,500	39,000	40,400	30,200	12,800	11,800
14	12,800	15,200	20,000	16,900	22,100	a35,000	64,700	34,600	41,000	25,300	12,400	11,700
15	13,000	14,300	20,000	17,800	22,600	a40,000	65,400	31,000	41,600	21,200	11,800	11,900
16	13,300	13,900	19,200	17,500	22,300	a41,000	68,000	28,300	41,300	19,200	11,600	12,200
17	13,700	14,300	18,000	a17,000	22,100	41,500	70,500	27,200	40,900	17,700	11,100	12,200
18	14,300	14,700	16,100	a16,000	22,600	40,000	69,600	26,000	41,800	17,200	10,800	12,200
19	14,300	14,700	16,300	a15,500	23,500	39,800	68,200	24,600	45,600	18,000	10,800	12,200
20	13,600	14,700	15,400	a15,000	23,800	37,100	70,600	23,500	45,600	16,100	10,500	12,400
21	13,400	14,300	15,500	a16,000	27,600	36,000	73,600	23,000	51,800	15,300	10,500	12,700
22	13,000	13,900	15,800	a20,000	a29,000	34,800	73,000	24,200	50,600	14,600	10,400	12,600
23	12,800	13,500	16,200	a26,000	a33,000	33,600	71,700	25,600	48,200	14,200	10,400	12,800
24	12,600	13,400	15,100	a35,000	a36,000	33,500	68,700	26,800	47,500	13,600	10,400	12,900
25	12,400	13,300	20,900	a33,000	a36,000	33,600	69,000	28,800	46,000	13,800	10,500	13,000
26	12,600	14,600	23,100	a33,500	a38,000	34,600	69,100	30,800	44,800	13,500	10,700	13,100
27	13,700	14,900	21,400	a29,200	a33,000	37,200	65,600	33,000	48,000	13,200	10,700	13,100
28	15,800	14,700	19,100	27,600	a32,000	41,300	61,800	35,000	46,200	12,700	10,800	13,000
29	16,500	14,900	17,900	26,600	-	43,700	59,900	38,700	44,800	12,600	10,900	13,000
30	16,500	15,200	18,100	27,200	-	a46,000	60,300	41,300	47,100	12,800	10,900	13,200
31	16,100	-	19,400	26,600	-	a48,000	-	43,600	-	12,100	11,100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	406,500	16,500	11,800	13,110	806,300
November	463,700	17,800	13,300	15,460	919,700
December	533,000	23,100	13,600	17,190	1,057,000
Calendar year 1942	6,668,280	46,000	9,050	18,270	13,230,000
January	734,500	36,000	15,000	23,690	1,457,000
February	736,700	36,000	21,600	26,310	1,461,000
March	1,072,100	48,000	25,000	34,580	2,126,000
April	1,911,900	73,600	49,500	63,730	3,792,000
May	1,159,000	59,000	23,000	37,390	2,299,000
June	1,421,700	66,400	40,400	47,390	2,820,000
July	806,300	46,300	12,100	26,010	1,599,000
August	347,500	12,600	10,400	11,200	688,900
September	365,200	13,200	11,300	12,170	724,400
Water year 1942-43	9,957,900	73,600	10,400	27,280	19,750,000

a No gauge-height record; discharge computed on basis of records for station at Weiser.

b Computed from staff-gage reading.

c Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Snake River near Clarkston, Wash.

**Location.**— Water-stage recorder, lat. 46°25'30", long. 117°10'30", in lot 1, sec. 16, T. 11 N., R. 45 E., 2 miles upstream from Alpowa Creek, 7 miles downstream from Clarkston, and 134 miles upstream from mouth. Datum of gage is 670 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

**Drainage area.**— 103,200 square miles.

**Records available.**— October 1935 to September 1943 in reports of Geological Survey.

October 1915 to September 1922 and August 1923 to September 1935 at site 66 miles downstream, published as Snake River at Riparia in reports of Geological Survey. October 1909 to September 1933 (at site at Riparia) in State Water-Supply Bulletin 5.

**Average discharge.**— 34 years (1909-43), 47,970 second-feet.

**Extremes.**— Maximum discharge during year, 209,000 second-feet Apr. 20 (gage height, 31.69 feet); minimum, 16,500 second-feet (regulated) Oct. 11 (gage height, 10.07 feet); minimum daily, 17,900 second-feet (regulated) Oct. 11.

1909-43: Maximum discharge observed, 270,000 second-feet May 20, 1921 (gage height, 19.0 feet, site and datum then in use); minimum observed, 10,600 second-feet Aug. 14, 1920, 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 feet, Riparia site and datum, June 5, 1894, determined from floodmarks by U. S. Weather Bureau (discharge, 409,000 second-feet).

**Remarks.**— Records excellent. Small diversions by pumping between this station and station at Oxbow. Large diurnal fluctuation caused by power plant on Clearwater River above Lewiston, Idaho.

Rating table, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

11.0	19,800	22.0	95,600
13.0	28,600	28.0	162,000
15.0	39,600	32.0	215,000
18.0	60,400		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18,700	26,600	31,700	42,700	37,200	52,800	149,000	150,000	204,000	187,000	34,400	23,100
2	18,700	32,700	32,700	55,600	36,000	52,800	145,000	160,000	197,000	151,000	32,700	23,100
3	19,000	29,100	32,200	58,800	36,600	50,700	140,000	158,000	186,000	144,000	32,200	23,100
4	19,400	30,100	31,100	54,900	36,600	48,600	146,000	152,000	186,000	145,000	33,300	22,700
5	19,000	27,600	28,600	47,900	36,000	46,600	138,000	156,000	182,000	143,000	32,700	23,100
6	18,700	26,700	27,600	42,000	36,600	45,300	134,000	159,000	143,000	135,000	31,700	21,800
7	18,700	26,200	26,200	37,800	36,000	43,300	137,000	148,000	140,000	129,000	30,100	21,800
8	18,700	25,800	25,800	34,900	36,600	42,000	143,000	138,000	145,000	125,000	29,100	21,400
9	18,300	26,700	25,800	32,700	36,600	41,400	150,000	127,000	148,000	122,000	26,100	21,400
10	19,000	27,200	25,800	30,600	37,200	42,700	149,000	120,000	155,000	116,000	27,600	21,000
11	17,900	26,700	27,200	29,600	36,600	46,600	140,000	115,000	158,000	108,000	27,200	21,000
12	18,700	25,800	28,600	25,800	36,000	47,900	136,000	108,000	154,000	102,000	26,200	21,000
13	20,200	25,300	32,700	27,600	36,400	47,900	142,000	104,000	155,000	93,600	26,200	20,600
14	20,600	24,400	36,000	28,600	40,800	52,100	161,000	102,000	156,000	84,200	26,700	20,600
15	20,600	24,400	37,800	34,900	42,000	58,000	182,000	93,600	157,000	74,300	26,200	20,200
16	20,200	31,100	38,400	b34,000	42,700	58,000	195,000	86,900	150,000	68,400	24,800	20,200
17	21,400	29,100	37,800	b33,000	42,000	58,000	201,000	82,400	146,000	63,600	24,800	20,600
18	21,000	27,200	35,500	29,600	42,000	57,200	199,000	80,600	158,000	59,600	24,000	20,600
19	21,400	26,700	32,700	28,600	42,700	54,800	201,000	80,600	178,000	57,200	23,500	19,800
20	21,400	25,800	30,600	25,800	45,300	52,100	205,000	84,200	188,000	56,400	22,700	20,600
21	20,600	24,800	30,100	b26,600	50,000	50,700	204,000	89,600	192,000	53,500	22,200	20,600
22	20,200	24,000	30,100	30,100	55,600	50,000	197,000	95,800	192,000	52,100	22,200	20,600
23	20,200	22,700	32,200	47,300	58,000	50,000	178,000	122,000	179,000	46,600	22,200	20,600
24	19,800	30,800	32,700	54,900	61,200	52,100	168,000	149,000	167,000	51,400	22,200	20,600
25	19,800	44,000	34,900	49,500	59,600	57,200	161,000	156,000	158,000	47,900	21,400	20,600
26	19,800	36,000	37,200	47,900	58,000	70,800	157,000	167,000	150,000	45,900	21,400	20,600
27	19,000	33,300	*36,600	46,600	55,600	93,600	150,000	176,000	148,000	44,000	21,400	20,600
28	20,600	31,700	33,800	42,700	55,500	112,000	139,000	184,000	150,000	41,400	21,000	20,600
29	23,100	30,100	33,800	40,200	-	117,000	142,000	193,000	151,000	39,600	21,000	21,000
30	24,000	30,600	33,800	39,000	-	135,000	143,000	196,000	152,000	37,200	21,400	20,600
31	24,000	-	34,400	39,600	-	138,000	-	195,000	-	36,600	21,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	622,700	24,000	17,900	20,090	1,235,000
November	853,200	44,000	22,700	28,440	1,692,000
December	994,400	58,400	26,800	32,080	1,972,000
Calendar year 1942	16,683,600	158,000	16,800	45,430	32,890,000
January	1,200,400	58,800	25,800	39,720	2,381,000
February	1,226,400	61,200	36,000	43,760	2,431,000
March	1,924,600	138,000	41,400	62,080	3,817,000
April	4,835,000	208,000	134,000	161,200	9,590,000
May	4,121,500	196,000	90,600	133,000	8,175,000
June	4,877,000	204,000	140,000	162,600	9,673,000
July	2,629,400	157,000	35,500	84,820	5,215,000
August	802,400	34,400	21,000	25,880	1,592,000
September	634,100	23,100	19,800	21,140	1,258,000
Water year 1942-43	24,720,100	208,000	17,900	67,730	49,030,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Salt River near Smoot, Wyo.

Location.— Water-stage recorder, lat. 42°36', long. 110°55', in sec. 7, T. 30 N., R. 118 W.,  $1\frac{1}{4}$  miles south of Smoot and  $1\frac{1}{2}$  miles upstream from Willow Creek.

Drainage area.— 59.4 square miles.

Records available.— June 1932 to September 1943 (no winter records 1933-35, 1936-37).

Extremes.— Maximum discharge during year, 204 second-feet Apr. 20 (gage height, 2.79 feet); minimum daily, 6.8 second-feet Oct. 1, 2, 20-22, 25-27, 30.

1932-43: Maximum discharge, 430 second-feet May 15, 1936 (gage height, 3.15 feet), from rating curve extended above 200 second-feet; minimum daily recorded, 1.8 second-feet Sept. 1, 1937, but may have been less during period of ice effect.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	b8.6	8.0	5.2	7.8	8.6	18	148	178	135	33	15
2	6.8	9.2	7.8	7.8	7.8	8.2	19	153	171	128	32	15
3	7.4	8.6	7.6	7.8	7.8	8.4	20	159	168	123	28	14
4	8.0	8.6	7.4	7.6	7.6	8.8	22	178	142	117	28	14
5	8.6	*9.2	7.4	7.6	7.8	*8.8	24	177	136	112	26	14
6	8.6	b9.0	7.6	7.8	7.8	8.6	26	164	128	106	27	14
7	8.6	b9.5	7.9	*7.8	7.8	8.8	30	148	122	107	31	14
8	8.0	8.0	8.2	7.6	7.8	8.8	35	138	116	102	29	14
9	*8.0	b8.0	8.4	7.6	7.8	8.6	44	129	114	96	26	14
10	7.4	b8.0	8.4	7.4	8.0	8.4	44	123	120	91	24	13
11	8.6	b8.0	8.2	7.6	8.0	8.6	58	117	128	88	24	12
12	9.2	b8.0	7.8	7.8	8.2	8.8	70	114	129	81	23	12
13	9.8	b8.0	7.8	8.0	8.4	9.0	66	110	136	72	21	12
14	9.8	b7.8	7.8	8.2	8.4	9.0	100	110	138	68	20	12
15	8.6	b7.8	7.6	7.8	8.6	9.2	129	109	134	65	19	12
16	8.0	b7.8	7.6	7.6	8.6	9.2	124	107	123	59	18	12
17	8.6	b7.6	7.4	7.4	8.6	9.0	*136	105	119	55	21	12
18	8.0	b8.0	7.4	7.6	8.4	9.0	156	100	124	52	21	11
19	7.4	b8.2	7.4	8.0	8.4	8.8	164	98	147	49	21	12
20	6.8	b8.4	7.6	7.8	8.4	8.6	188	96	165	48	20	12
21	6.8	8.4	8.0	7.8	8.6	8.6	166	100	171	49	19	12
22	6.8	8.2	8.4	7.6	8.8	8.8	153	105	174	49	18	12
23	7.4	8.2	8.0	7.4	8.6	9.0	160	116	164	46	18	11
24	7.4	7.8	7.6	7.4	8.4	9.2	172	135	164	43	17	11
25	6.8	7.8	7.6	7.6	8.2	9.4	164	144	166	42	17	10
26	6.8	8.0	7.4	7.8	8.2	10	152	154	170	41	17	10
27	6.8	7.8	7.4	8.0	8.4	11	129	165	164	40	17	11
28	7.4	7.6	8.0	7.8	8.6	*12	123	180	154	38	16	12
29	b7.2	7.8	7.8	7.8	-	13	126	163	152	37	16	11
30	6.8	7.8	7.8	7.8	-	15	130	180	147	36	16	10
31	b7.6	-	8.2	7.8	-	16	-	176	-	35	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	240.8	9.8	6.8	7.77	478
November.....	244.3	9.2	7.6	8.14	485
December.....	241.5	8.4	7.4	7.79	479
Calendar year 1942.....	9,707.7	162	3.6	26.6	19,250
January.....	239.6	8.2	7.4	7.73	475
February.....	230.0	8.8	7.8	8.21	456
March.....	297.2	16	8.2	9.59	529
April.....	2,968	188	18	98.9	5,890
May.....	4,222	183	96	136	8,370
June.....	4,354	178	114	145	8,640
July.....	2,208	135	35	71.2	4,380
August.....	677	33	15	21.8	1,340
September.....	370	15	10	12.5	734
Water year 1942-43.....	16,292.4	188	6.8	44.6	32,320

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Notes.— No gage-height record Nov. 21 to Apr. 8 (stage-discharge relation affected by ice during most of period), Apr. 11-14, Aug. 29 to Sept. 6.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## SALT RIVER BASIN

## Salt River at Wyoming-Idaho State line

Location.— Water-stage recorder, lat. 43°10', long. 111°04', in sec. 16, T. 3 S., R. 46 E., just downstream from Trout Creek, half a mile upstream from mouth, and three-quarters of a mile west of Wyoming-Idaho State line.

Drainage area.— 890 square miles.

Records available.— April 1934 to September 1943. July 1917 to September 1918 at site 4 miles upstream; records not equivalent.

Extremes.— Maximum discharge during year, 2,680 second-feet Apr. 17 (gage height, 4.30 feet); minimum daily, 362 second-feet Mar. 6.

1934-43: Maximum discharge, 3,520 second-feet May 6, 1936 (gage height, 4.64 feet), from rating curve extended above 2,600 second-feet; minimum, 216 second-feet May 17, 1934 (gage height, 1.30 feet).

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

Diversions above station for irrigation.

Rating table, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1-6)

1.6	350	2.4	520	3.6	1,550
1.8	430	2.9	1,220	4.0	2,320
2.1	610	3.3	1,580	4.4	2,600

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	526	574	574	502	b410	406	532	2,160	1,570	1,040	868	701
2	520	580	556	502	b440	390	652	2,290	1,670	1,050	988	694
3	520	586	538	484	484	378	750	2,300	1,670	1,030	852	701
4	520	586	508	454	442	*386	900	2,320	1,550	1,040	828	708
5	508	562	496	454	418	394	1,030	2,360	1,540	1,020	828	701
6	508	*550	478	*490	422	362	1,080	2,310	1,530	1,030	828	708
7	514	544	520	460	410	378	1,280	2,170	1,490	988	856	722
8	514	544	508	448	426	378	1,440	2,010	1,440	958	852	722
9	514	568	526	436	418	362	1,570	1,890	1,410	960	844	722
10	514	562	526	418	410	374	1,800	1,520	1,360	972	820	715
11	520	544	508	b400	418	374	2,000	1,780	1,340	964	799	706
12	526	532	508	b390	410	374	1,940	1,730	1,340	946	785	701
13	526	526	496	b440	414	390	2,080	1,680	1,330	932	785	701
14	526	532	502	496	406	394	2,220	1,630	1,360	916	775	701
15	526	544	496	466	398	398	2,310	1,610	1,410	906	764	697
16	520	538	496	430	394	394	2,440	1,580	1,460	908	771	680
17	514	544	478	422	402	402	2,570	1,550	1,380	892	757	673
18	514	592	466	422	406	394	2,600	1,500	1,360	876	750	666
19	514	624	484	b420	414	394	2,560	1,450	1,330	876	764	673
20	514	592	448	b440	406	390	2,600	1,430	1,360	852	757	666
21	508	560	464	b470	394	382	2,570	1,390	1,400	860	743	666
22	508	562	490	520	410	366	2,460	1,390	1,380	876	736	666
23	514	562	496	508	418	382	2,390	1,420	1,320	916	722	666
24	520	568	496	478	406	382	2,430	1,500	1,210	908	736	666
25	532	580	490	448	406	386	2,480	1,480	1,190	884	701	666
26	532	562	472	442	402	390	2,450	1,460	1,160	892	659	673
27	556	574	b440	454	406	390	2,280	1,440	1,180	876	673	673
28	556	568	b490	442	406	414	2,110	1,440	1,170	908	687	687
29	544	574	484	436	-	448	2,110	1,440	1,140	884	694	687
30	538	592	466	436	-	454	2,190	1,440	1,090	866	694	680
31	550	-	490	436	-	490	-	1,500	-	852	701	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	16,216	556	508	523	32,160
November.....	16,946	624	526	565	33,610
December.....	15,410	574	440	497	30,570
Calendar year 1942.....	236,916	1,640	330	649	469,900
January.....	14,044	520	390	453	27,860
February.....	11,666	454	394	413	22,940
March.....	12,266	490	362	396	24,330
April.....	57,794	2,600	532	1,926	114,600
May.....	53,470	2,360	1,390	1,725	106,100
June.....	41,140	1,670	1,090	1,371	81,600
July.....	28,934	1,050	652	933	57,390
August.....	23,680	868	659	770	47,370
September.....	20,680	722	666	669	41,020
Water year 1942-43.....	312,346	2,600	362	556	619,600

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Cottonwood Creek near Smoot, Wyo.

Location.- Water-stage recorder, lat. 42°37', long. 110°53', in sec. 4, T. 30 N., R. 118 W.,  $\frac{1}{2}$  miles downstream from Porcupine Creek and  $\frac{1}{2}$  miles southeast of Smoot.

Drainage area.- 26.3 square miles.

Records available.- May 1933 to September 1943.

Average discharge.- 10 years, 38.7 second-feet.

Extremes.- Maximum discharge during year, 320 second-feet June 24 (gage height, 2.67 feet); minimum daily, 12 second-feet Mar. 20-22.

1933-43: Maximum discharge observed, 424 second-feet June 17, 18, 1933 (gage height, 2.76 feet, datum then in use), from rating curve extended above 200 second-feet; minimum daily, 8.5 second-feet Feb. 28 to Mar. 2, 1935.

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

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	18	15	16	14	14	14	66	200	266	76	45
2	22	18	15	15	15	15	14	76	187	261	74	45
3	21	18	16	14	15	13	15	81	169	241	75	45
4	20	18	14	14	15	14	15	90	160	222	73	43
5	19	*18	14	14	14	*14	16	103	138	211	70	42
6	20	18	14	14	15	14	17	96	126	200	70	41
7	21	18	15	*15	15	14	18	87	118	193	70	41
8	21	18	15	15	14	14	20	78	114	187	67	41
9	22	18	15	15	15	14	22	72	116	182	66	40
10	22	17	16	15	15	13	23	67	128	177	64	39
11	22	17	16	14	15	14	26	62	142	172	62	39
12	22	17	15	14	15	15	28	61	154	164	62	38
13	22	17	15	15	15	14	31	59	164	157	61	37
14	22	17	14	15	14	15	34	57	164	150	60	37
15	21	17	14	16	14	15	43	57	169	142	60	36
16	20	16	14	15	14	14	47	56	162	135	60	36
17	20	16	14	14	14	13	*47	55	152	126	57	36
18	20	16	14	13	14	13	51	54	174	121	57	36
19	20	16	14	13	14	13	56	53	222	116	57	36
20	20	15	14	15	14	12	61	51	247	114	56	36
21	20	15	15	15	14	12	60	53	266	109	55	35
22	20	16	15	15	12	59	56	56	292	107	55	35
23	20	16	15	15	15	13	59	64	306	103	51	35
24	20	15	15	14	14	13	64	81	303	98	50	34
25	19	15	14	14	14	13	66	96	294	94	50	34
26	18	16	14	15	14	13	66	116	294	90	49	34
27	18	16	14	15	14	13	61	140	292	90	48	34
28	18	16	15	15	14	*13	59	172	247	87	47	34
29	17	16	14	14	-	13	56	195	283	83	46	34
30	17	15	15	14	-	13	57	195	280	80	46	34
31	17	-	16	14	-	13	-	193	-	78	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	623	22	17	20.1	1,240
November.....	499	18	15	16.6	990
December.....	458	16	14	14.8	908
Calendar year 1942 .....	12,516	188	11	34.3	24,830
January.....	461	16	13	14.5	885
February.....	404	15	14	14.4	801
March.....	416	15	12	13.4	825
April.....	1,205	66	14	40.2	2,390
May.....	2,742	195	51	88.5	5,440
June.....	6,031	306	114	201	11,960
July.....	4,556	266	78	147	9,040
August.....	1,836	76	46	59.2	3,640
September.....	1,182	45	34	37.7	2,250
Water year 1942-43 .....	20,353	306	12	55.8	40,380

\* Winter discharge measurement made on this day.

Note.- No gage-height record Nov. 20 to Apr. 15 (stage-discharge relation affected by ice most of period); discharge computed on basis of 3 discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## SALT RIVER BASIN

Swift Creek near Afton, Wyo.

Location.- Water-stage recorder, lat.  $42^{\circ}43'30''$ , long.  $110^{\circ}54'00''$ , in SE $\frac{1}{4}$  sec. 29, T. 32 N., R. 118 W., 1 mile upstream from mouth of canyon and  $1\frac{1}{2}$  miles east of Afton.

Drainage area.- 27.4 square miles.

Records available.- May to September 1943.

Extremes.- Maximum discharge during period, 491 second-feet June 21 (gage height, 3.36 feet); minimum daily, 67 second-feet Sept. 30.

Remarks.- Records good.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	338	410	162	80
2								-	312	374	162	80
3								-	266	360	158	80
4								-	226	356	150	80
5								-	198	352	146	80
6								-	178	347	146	80
7								-	154	352	154	80
8								-	150	347	158	80
9								-	178	347	142	78
10								-	230	352	134	78
11								-	293	338	130	78
12								-	311	324	122	76
13								-	320	293	114	76
14								-	293	275	110	76
15								76	262	266	107	75
16								75	239	262	104	75
17								73	266	267	104	76
18								73	347	252	104	76
19								71	406	257	104	75
20								71	446	248	101	75
21								78	455	248	98	75
22								89	442	239	95	75
23								122	414	234	95	71
24								186	428	222	92	71
25								222	437	214	89	71
26								262	446	206	86	71
27								306	442	202	86	71
28								370	432	198	83	71
29								374	428	182	83	69
30								374	414	170	83	67
31								356	-	170	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....					
November.....					
December.....					
Calendar year .....					
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May 15-31.....	3,178	374	71	187	6,300
June.....	9,751	455	150	325	19,340
July.....	8,654	410	170	279	17,160
August.....	3,582	162	80	116	7,100
September.....	2,264	80	67	75.5	4,490
The period.....	-	-	-	-	54,390

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Strawberry Creek near Bedford, Wyo.

Location.- Water-stage recorder, lat. 42°57', long. 110°54', in sec. 27, T. 34 N., R. 118 W., at mouth of canyon, 1½ miles east of Bedford.

Drainage area.- 21.3 square miles.

Records available.- June 1932 to September 1943 (discontinued).

Average discharge.- 11 years, 62.4 second-feet.

Extremes.- Maximum discharge recorded during year, 396 second-feet June 27 (gage height, 4.51 feet), from rating curve extended above 250 second-feet, but was higher during period of no gage-height record June 19-26; minimum daily, 30 second-feet Mar. 20, 21, 1932-43. Maximum discharge observed, 875 second-feet June 25, 1932 (gage height, 3.00 feet, site and datum then in use), from rating curve extended above 300 second-feet; minimum not determined.

Remarks.- Records excellent except those for Oct. 1 to June 30, which are fair. One small diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	46	41	37	33	32	33	82	202	242	128	90
2	52	44	41	36	33	31	34	92	190	236	128	90
3	52	44	41	34	33	32	34	104	181	229	126	88
4	52	46	41	34	33	*33	36	118	182	222	125	85
5	52	44	41	35	33	31	38	123	155	238	125	87
6	52	*44	41	*35	33	32	38	115	131	231	123	87
7	50	43	41	35	33	33	40	104	118	220	123	87
8	49	43	41	34	33	33	45	97	118	218	125	86
9	49	43	42	33	33	32	46	97	123	216	121	84
10	48	43	42	33	33	33	47	96	169	229	120	84
11	48	43	41	33	34	34	49	96	196	238	116	83
12	48	43	41	33	34	34	50	96	196	220	115	83
13	49	43	40	35	35	33	52	94	207	220	112	82
14	49	43	40	35	35	34	59	94	226	220	112	80
15	49	42	40	35	35	34	63	92	222	216	110	80
16	48	42	40	34	34	34	67	92	207	190	108	80
17	48	43	40	32	34	33	76	90	196	171	107	79
18	48	44	40	32	33	32	85	88	196	165	107	79
19	48	47	40	32	33	32	90	86	270	161	108	79
20	45	49	40	33	34	50	91	88	310	157	105	78
21	47	49	40	34	34	30	84	86	370	155	102	78
22	47	49	40	35	34	32	80	90	360	153	100	77
23	47	44	40	34	34	32	82	112	350	149	99	77
24	47	41	40	33	32	32	85	142	340	145	99	75
25	47	41	40	33	32	32	85	163	340	145	98	75
26	47	41	39	34	33	32	84	181	350	141	96	74
27	47	41	39	35	33	*32	76	210	352	139	94	74
28	46	41	38	34	33	32	70	246	308	130	93	74
29	46	41	37	34	-	32	70	273	262	128	93	74
30	46	41	36	34	-	33	76	256	253	130	92	73
31	44	-	36	33	-	33	-	256	-	130	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,502	52	44	48.5	2,980
November.....	1,308	49	41	43.6	2,590
December.....	1,239	42	36	40.0	2,460
Calendar year 1942.....	22,219	234	29	60.9	44,070
January.....	1,053	37	32	34.0	2,090
February.....	936	35	32	33.4	1,860
March.....	1,004	34	30	32.4	1,990
April.....	1,865	91	33	62.2	3,700
May.....	3,939	273	82	127	7,810
June.....	7,079	370	118	236	14,040
July.....	5,784	242	128	187	11,470
August.....	3,402	128	92	110	6,750
September.....	2,425	90	73	80.8	4,810
Water year 1942-43.....	31,536	370	30	86.4	62,550

\* Winter discharge measurement made on this day.

Note.- No gage-height record Dec. 28 to Apr. 2, Apr. 21-23, 25-30, June 19-26; discharge computed on basis of 5 discharge measurements, weather records, and records for Swift Creek near Afton.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## HENRYS FORK BASIN

Henrys Fork near Lake, Idaho

Location.- Water-stage recorder, lat. 44°36', long. 111°21', in SW $\frac{1}{4}$  sec. 26, T. 15 N., R. 43 E., a quarter of a mile downstream from Henrys Lake Dam and 4 miles south of Lake post office.

Drainage area.- 104 square miles, including that of Dry Creek Basin.

Records available.- September 1922 to September 1943. May 1920 to September 1922 at site 3 miles downstream and below mouth of Dry Creek, floodwaters of which have been diverted into Henrys Lake since 1923.

Average discharge.- 23 years, 44.9 second-feet.

Extremes.- Maximum discharge during year, 315 second-feet Aug. 1 (gage height, 3.18 feet); minimum, 4 second-feet several days during October (leakage through reservoir gates).  
1920-43: Maximum discharge, 907 second-feet June 13, 1926 (gage height, 5.40 feet); minimum 0.1 second-foot Oct. 3-31, 1937.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by Henrys Lake (see p. 49), gates of which remained closed Oct. 1 to July 29 and Sept. 19-30. Water flowed over spillway at dam June 29 to Aug. 7.

Cooperation.- Gage-height record furnished by North Fork Reservoir Co.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4								10	19	270	35
2	4								10	22	294	35
3	4								10	22	272	35
4	4								10	25	202	35
5	4								10	28	198	35
6	5								10	32	194	35
7	5								10	37	196	35
8	5								10	40	197	35
9	5								10	41	205	35
10	6								10	46	208	35
11	6								10	50	32	35
12	6								10	50	40	36
13	6								10	46	45	35
14	6								10	47	45	35
15	5								10	47	44	34
16	4	6	6	7	7	8	11	10	10	48	43	33
17									10	48	45	33
18									10	50	44	29
19									10	54	44	26
20									10	57	42	26
21									10	56	41	26
22									10	58	40	26
23									10	60	41	26
24	5								10	66	42	26
25									10	74	41	26
26									10	73	39	26
27									10	68	39	26
28									10	68	39	26
29									13	93	39	26
30									16	159	38	26
31									-	179	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	155	6	4	5	307
November.....	180	-	-	6	357
December.....	186	-	-	6	369
Calendar year 1942 .....	15,216	294	3	41.7	30,170
January.....	217	-	-	7	430
February.....	196	-	-	7	389
March.....	248	-	-	8	492
April.....	330	-	-	11	655
May.....	310	-	-	10	615
June.....	309	-	-	10.3	613
July.....	1,765	179	19	56.9	3,500
August.....	3,093	294	32	99.8	6,130
September.....	932	36	26	31.1	1,850
Water year 1942-43 .....	7,921	294	4	21.7	15,710

Note.- No gage-height record Oct. 1 to July 1, Sept. 19-30; discharge interpolated or computed on basis of discharge measurements and field estimates of flow made on Oct. 16, Mar. 24, Apr. 21, May 21, June 14, Sept. 27.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Island Park Reservoir near Island Park, Idaho

Location.- Electric tape gage, lat. 44°25', long. 111°24', in gate house shaft at dam on Henrys Fork, a quarter of a mile south of quarter corner between secs. 28 and 29, T. 13 N., R. 43 E., a quarter of a mile upstream from Buffalo River, and 2 miles west of Island Park. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.- 478 square miles.

Records available.- November 1938 to September 1943.

Extremes.- Maximum contents observed during year, 136,340 acre-feet May 30 (elevation, 6,303.14 feet); minimum observed, 60,535 acre-feet on several days in October and November (elevation, 6,291.32 feet).  
1938-43: Maximum contents observed, 137,230 acre-feet May 29, 1942 (elevation, 6,303.25 feet); minimum observed after first filling of reservoir, 16,855 acre-feet Sept. 27, 1940 (elevation, 6,274.22 feet).

Remarks.- Reservoir is formed by earth-fill, rock-faced dam. Storage began Nov. 15, 1938. Capacity, 127,265 acre-feet between elevations 6,239 feet (normal low-water level with outlet gates open) and 6,302 feet (crest of spillway). Natural flow passing through reservoir when outlet gates are open prevents withdrawal of storage to elevation 6,230 feet (sill of lower outlet). Dead storage negligible. Water is used for irrigation in Fremont-Madison irrigation district between Ashton and Rexburg. Gage read at 8 a.m. Contents given herein are computed from elevations at that time; all available for release.

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

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60,535	60,580	74,685	98,675	121,730	123,660	124,010	131,515	136,095	134,640	133,350	109,515
2	60,580	60,625	75,520	99,480	122,260	123,630	124,010	132,790	135,610	134,555	133,190	107,950
3	60,580	60,535	76,360	100,285	122,870	123,630	124,010	135,670	135,955	134,555	133,270	106,755
4	60,535	61,040	77,030	101,825	123,780	123,475	124,165	134,235	134,075	134,500	133,350	105,360
5	60,580	60,990	77,770	101,505	123,555	123,475	124,010	135,205	135,030	134,395	133,350	104,040
6	60,580	60,855	78,575	102,255	123,325	123,475	124,090	135,610	135,910	134,395	133,350	102,730
7	60,580	60,855	79,440	102,940	123,250	123,475	124,240	135,855	134,720	134,235	133,590	101,640
8	60,580	60,900	80,430	103,625	123,325	123,400	124,320	134,395	134,880	134,155	133,430	100,285
9	60,580	60,990	81,310	104,180	123,400	123,400	124,860	134,075	134,720	134,155	133,350	98,675
10	60,580	60,855	82,080	104,940	123,400	123,325	125,165	133,910	134,720	133,910	133,190	95,475
11	60,680	60,625	82,795	105,565	123,400	123,325	125,630	134,155	134,880	133,990	133,190	97,610
12	60,625	60,535	83,510	106,125	123,400	123,250	126,785	134,515	134,880	133,590	133,030	96,750
13	60,765	60,535	84,235	106,825	123,400	123,400	126,330	134,800	135,205	133,590	132,710	95,825
14	60,680	60,535	85,080	107,455	123,250	123,475	126,875	134,960	135,365	133,590	132,310	94,975
15	60,625	60,535	85,685	108,165	123,325	123,730	127,265	135,450	135,285	133,510	131,830	94,065
16	60,535	61,780	86,480	108,945	123,325	123,630	127,965	135,610	135,285	133,430	131,590	92,965
17	60,580	62,715	87,160	109,655	123,325	123,630	128,595	135,770	135,045	133,430	131,115	92,320
18	60,625	63,710	87,945	110,300	123,400	123,565	129,300	135,935	134,860	133,350	130,565	91,620
19	60,870	64,915	88,580	110,870	123,400	123,565	130,090	135,565	134,640	133,350	129,695	90,985
20	60,625	65,750	89,215	111,520	123,475	123,565	130,960	135,045	135,125	133,430	128,595	90,225
21	60,535	66,440	89,845	112,890	123,400	123,565	131,750	135,205	135,285	133,350	127,110	89,595
22	60,580	67,240	90,605	114,570	123,630	123,400	131,910	135,285	135,365	133,350	126,475	88,780
23	60,535	68,055	91,555	115,745	124,165	123,400	131,435	135,855	135,610	133,350	125,860	88,155
24	60,580	68,770	92,515	116,410	124,010	123,250	131,670	135,855	135,365	133,430	125,335	87,535
25	60,580	69,700	93,480	117,000	124,010	123,325	132,470	135,260	135,285	133,350	120,820	86,975
26	60,580	70,430	94,250	117,595	123,935	123,325	132,390	136,095	135,450	133,430	119,085	86,115
27	60,535	71,485	94,845	118,340	123,780	123,400	130,880	136,015	135,125	133,430	117,370	85,685
28	60,580	72,235	95,500	119,160	123,780	123,475	129,930	135,770	134,880	133,590	115,670	85,200
29	60,535	73,150	96,355	119,910	-	123,555	130,325	136,015	134,640	133,510	114,005	84,595
30	60,535	73,970	97,015	120,440	-	123,780	130,485	136,340	134,800	133,430	112,530	84,050
31	60,535	-	97,875	121,045	-	123,560	-	136,175	-	135,510	110,870	-

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	6,291.34	60,625	-
Oct. 31.....	6,291.32	60,535	-90
Nov. 30.....	6,294.00	73,970	+13,435
Dec. 31.....	6,297.93	97,875	+23,905
Calendar year 1942.....	-	-	+24,775
Jan. 31.....	6,301.19	121,045	+23,170
Feb. 28.....	6,301.55	123,790	+2,735
Mar. 31.....	6,301.56	123,660	+80
Apr. 30.....	6,302.41	130,485	+6,625
May 31.....	6,303.12	136,175	+5,690
June 30.....	6,302.95	134,800	-1,375
July 31.....	6,302.79	143,510	-1,290
Aug. 31.....	6,299.81	110,870	-22,640
Sept. 30.....	6,295.75	84,050	-26,820
Water year 1942-43.....	-	-	+23,425

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## HENRYS FORK BASIN

Henrys Fork near Island Park, Idaho

Location.- Water-stage recorder, lat. 44°25', long. 111°24', in SW¼ sec. 28, T. 13 N., R. 45 E., an eighth of a mile upstream from Buffalo River, an eighth of a mile downstream from Island Park Dam, and 2 miles west of Island Park. Altitude of gage, 6,225 feet (from river-profile map).

Drainage area.- 478 square miles.

Records available.- January 1933 to September 1943.

Average discharge.- 10 years, 467 second-feet.

Extremes.- Maximum discharge during year, 2,580 second-feet June 1 (gage height, 5.96 feet); minimum daily, 6 second-feet Nov. 15 to Dec. 12.

1933-43: Maximum discharge, that of June 1, 1943; minimum daily, 1 second-foot Nov. 16 to Dec. 7, 1938.

Remarks.- Records good. Flow regulated by Henrys Lake (see p. 49) and Island Park Reservoir (see p. 41).

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	421	395	6	7	8	349	367	775	2,180	725	607	1,250
2	421	395	6	7	9	358	355	813	2,280	705	627	1,250
3	421	395	6	7	10	358	385	1,040	2,200	690	632	1,250
4	421	430	6	8	279	353	408	1,140	2,180	681	642	1,220
5	421	439	6	8	416	353	421	1,290	1,190	681	632	1,130
6	421	439	6	8	367	358	421	1,320	612	642	622	1,130
7	421	444	6	8	349	358	421	1,590	582	622	632	1,130
8	421	444	6	8	340	358	421	1,350	1,030	607	637	1,080
9	421	476	6	8	340	358	421	1,120	1,030	595	627	960
10	421	499	6	8	340	358	421	939	1,030	579	607	960
11	421	467	6	8	344	358	421	851	1,040	574	603	960
12	448	394	6	8	344	358	421	661	1,060	555	569	960
13	435	394	7	8	344	358	421	661	1,090	513	574	960
14	467	394	7	8	336	358	421	715	1,130	522	603	960
15	453	135	7	8	331	358	426	740	1,120	517	603	960
16	426	6	7	8	331	358	439	790	1,120	504	661	939
17	403	6	7	8	331	358	467	810	1,090	499	780	840
18	403	6	7	8	331	358	508	970	1,070	494	697	840
19	416	6	7	8	331	358	564	970	861	504	1,030	840
20	426	6	7	8	331	358	715	833	820	499	1,110	840
21	416	6	7	8	331	358	1,020	800	861	508	1,260	840
22	412	6	7	8	331	358	1,220	835	866	504	1,280	840
23	403	6	7	8	362	358	1,270	857	856	504	1,260	840
24	403	6	7	8	376	349	1,390	923	835	504	1,260	840
25	403	6	7	8	376	340	1,730	1,060	810	504	1,260	840
26	403	6	7	8	376	340	1,670	1,260	800	508	1,350	840
27	398	6	7	8	376	340	1,610	1,240	770	527	1,350	840
28	398	6	7	8	354	340	1,210	1,220	759	531	1,300	840
29	398	6	7	8	-	344	1,120	1,280	725	513	1,260	840
30	398	6	7	8	-	344	855	1,500	740	504	1,260	846
31	398	-	7	8	-	344	-	1,630	-	579	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,985	495	398	419	25,760
November.....	6,239	499	6	208	12,370
December.....	205	7	6	6.6	407
Calendar year 1942.....	177,796	1,690	6	487	352,600
January.....	245	8	7	7.9	486
February.....	8,694	416	7	316	17,240
March.....	10,966	358	340	354	21,750
April.....	22,229	1,570	367	741	44,090
May.....	32,113	1,630	661	1,036	63,700
June.....	32,968	2,220	612	1,099	65,390
July.....	17,372	725	494	560	34,460
August.....	27,775	1,350	569	896	55,090
September.....	28,865	1,250	840	962	57,250
Water year 1942-43.....	200,659	2,220	6	550	398,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Henrys Fork at Warm River, Idaho

Location.- Water-stage recorder, lat. 44°07', long. 111°20', in sec. 12, T. 9 N., R. 43 E., 1,000 feet upstream from Warm River and half a mile northwest of Warm River railroad station. Altitude of gage, 5,255 feet (from river-profile map).

Drainage area.- 660 square miles.

Records available.- September 1910 to March 1915, April 1918 to September 1943.

Average discharge.- 29 years (1910-14, 1918-43), 978 second-feet.

Extremes.- Maximum discharge during year, 2,830 second-feet June 2 (gage height, 6.85 feet); minimum, 226 second-feet Nov. 25 (gage height, 3.14 feet).  
1910-15, 1918-43: Maximum discharge, 3,540 second-feet May 18, 1927 (gage height, 7.55 feet); minimum, 218 second-feet Jan. 19, 1940 (gage height, 3.17 feet).

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by Henrys Lake (see p. 49) and Island Park Reservoir (see p. 41). Some water diverted above station for irrigation of meadows on headwaters.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	791	804	a361	a410	a370	710	747	1,780	2,310	1,190	1,030	1,640
2	791	798	a361	a410	a360	710	791	1,890	2,770	1,160	1,030	1,650
3	785	804	a361	a370	a370	741	810	1,950	2,460	1,150	1,040	1,650
4	785	830	a361	a330	374	766	830	2,020	2,580	1,160	1,040	1,640
5	785	862	a361	a330	a500	735	856	2,180	2,260	1,140	1,040	1,540
6	785	849	361	a350	a800	735	876	2,180	1,280	1,110	1,030	1,500
7	785	856	a361	a370	a770	785	895	2,230	1,270	1,100	1,040	1,500
8	a770	856	a361	a380	a740	776	936	2,360	1,570	1,080	1,050	1,500
9	a760	882	a361	a380	a730	766	970	1,890	1,550	1,080	1,020	1,420
10	a770	902	a361	a370	a720	741	977	1,810	1,550	1,060	1,010	1,350
11	a800	909	424	357	a730	741	984	1,680	1,550	1,060	1,000	1,350
12	a820	845	420	357	a740	741	a1,000	1,800	1,560	1,050	977	a1,350
13	a831	810	406	345	a740	772	a1,040	1,400	1,580	1,020	943	a1,350
14	a831	804	397	374	a740	772	a1,080	1,440	1,630	984	977	a1,350
15	831	836	a350	397	a730	766	a1,130	1,470	1,610	977	977	a1,350
16	a780	a470	a380	392	a730	753	a1,200	1,530	1,590	970	977	a1,350
17	a740	a450	a380	361	a725	753	1,290	a1,800	1,540	850	1,120	a1,280
18	a778	a440	a380	319	722	741	1,390	a1,700	1,530	929	1,180	a1,240
19	a778	a400	374	352	722	735	1,500	a1,700	1,460	922	1,380	a1,240
20	798	336	379	a400	722	741	1,670	1,600	1,260	916	1,420	a1,240
21	798	a340	392	a420	747	747	1,840	1,480	1,290	916	1,620	a1,240
22	798	a400	383	a420	766	741	2,110	1,520	1,300	936	1,640	a1,240
23	791	a410	397	a410	741	741	2,180	1,570	1,300	936	1,630	a1,240
24	791	410	406	a360	766	741	2,320	1,580	1,270	929	1,640	a1,240
25	791	311	388	a360	766	729	2,440	1,620	1,250	929	1,630	1,240
26	785	366	366	374	760	729	2,620	1,840	1,230	929	1,700	1,240
27	778	379	296	392	760	729	2,340	1,840	1,200	936	1,730	1,260
28	791	379	a350	a410	753	735	2,160	1,820	1,160	943	1,720	1,260
29	791	379	a350	a420	-	747	2,030	1,820	1,140	943	1,640	1,260
30	791	365	a390	a420	-	772	1,910	1,880	1,170	929	1,650	1,250
31	791	-	a400	a380	-	753	-	2,050	-	922	1,640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	24,490	831	740	790	46,580
November.....	18,480	909	311	616	36,850
December.....	11,678	424	296	377	23,160
Calendar year 1942.....	324,010	2,030	270	888	642,700
January.....	11,723	420	319	378	23,250
February.....	19,094	800	360	682	37,870
March.....	23,146	785	710	747	46,910
April.....	42,922	2,620	747	1,431	85,130
May.....	55,030	2,360	1,400	1,775	109,200
June.....	47,220	2,770	1,140	1,674	93,680
July.....	31,256	1,190	816	1,008	62,000
August.....	39,621	1,730	943	1,275	78,390
September.....	40,960	1,650	1,240	1,365	81,240
Water year 1942-43.....	365,520	2,770	296	1,001	725,000

a No gage-height record; discharge computed on basis of records for stations near Island Park and near Ashton.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Henrys Fork near Ashton, Idaho

Location.- Water-stage recorder, lat. 44°05', long. 111°30', in sec. 28, T. 9 N., R. 42 E., a quarter of a mile downstream from power plant and 3 miles west of Ashton. Altitude of gage, 5,095 feet (from river-profile map).

Drainage area.- 1,030 square miles.

Records available.- August 1902 to June 1909, April 1920 to September 1943.

Average discharge.- 24 years (1903-8, 1924-43), 1,254 second-feet.

Extremes.- Maximum discharge during year, 4,290 second-feet June 2 (gage height, 7.70 feet); minimum, 256 second-feet Jan. 31 (gage height, 5.23 feet); minimum daily, 477 second-feet Jan. 18.

1902-9, 1920-43: Maximum discharge, 6,220 second-feet May 7, 1925; minimum, 65 second-feet (regulated) Oct. 16, 1935 (gage height, 4.59 feet); minimum daily, 440 second-feet Dec. 5, 1931.

Remarks.- Records excellent. Flow regulated by power plant above station and by Henrys Lake (see p. 49) and Island Park Reservoir (see p. 41). Some water diverted above station for irrigation of meadows on headwaters.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	1,080	646	676	608	1,000	1,160	2,930	3,540	1,730	1,440	2,080
2	1,060	1,090	686	686	676	847	1,200	3,170	4,120	1,730	1,480	2,100
3	1,060	1,100	656	627	656	916	1,360	3,190	3,530	1,700	1,480	2,120
4	1,090	1,170	608	580	646	1,040	1,400	3,210	3,760	1,700	1,480	2,080
5	1,090	1,130	665	598	667	1,050	1,420	3,420	3,260	1,630	1,470	1,960
6	1,080	1,160	686	636	1,130	880	1,440	3,350	2,080	1,630	1,470	1,920
7	1,080	1,160	686	646	1,000	1,040	1,530	3,350	2,020	1,600	1,470	1,900
8	1,060	1,160	686	646	1,060	1,080	1,610	3,470	2,340	1,550	1,600	1,860
9	1,060	1,200	646	627	976	1,000	1,560	2,760	2,280	1,550	1,470	1,810
10	1,060	1,170	646	553	904	988	1,590	2,740	2,340	1,530	1,440	1,700
11	1,080	1,190	707	598	1,000	1,000	1,600	2,590	2,320	1,520	1,390	1,730
12	1,130	1,120	696	580	964	1,010	1,700	2,530	2,580	1,550	1,460	1,730
13	1,130	1,050	686	618	988	1,040	1,810	2,220	2,420	1,500	1,330	1,730
14	1,140	1,090	686	665	988	1,090	1,860	2,240	2,530	1,450	1,390	1,720
15	1,140	1,130	686	656	952	1,010	2,060	2,340	2,380	1,500	1,380	1,720
16	1,120	814	665	598	952	1,010	2,180	2,380	2,380	1,400	1,460	1,720
17	1,060	686	665	562	976	1,050	2,260	2,400	2,320	1,420	1,440	1,630
18	1,030	803	646	477	940	1,030	2,400	2,340	2,280	1,400	1,580	1,560
19	1,060	738	723	535	988	1,010	2,570	2,510	2,260	1,380	1,830	1,600
20	1,090	728	561	556	976	1,010	2,820	2,510	1,980	1,390	1,810	1,600
21	1,080	665	627	760	964	1,030	2,970	2,380	2,020	1,400	2,000	1,600
22	1,090	656	646	718	1,060	1,030	3,090	2,480	2,020	1,380	2,080	1,610
23	1,090	718	686	598	940	1,060	3,370	2,570	2,020	1,470	2,060	1,610
24	1,060	718	665	656	1,040	1,060	3,650	2,590	1,940	1,390	2,060	1,580
25	1,060	676	656	608	952	1,060	3,720	2,610	1,920	1,360	2,060	1,620
26	1,060	608	608	646	1,030	1,060	3,930	2,820	1,860	1,390	2,120	1,610
27	1,090	738	510	656	1,010	1,080	3,490	2,860	1,790	1,380	2,160	1,660
28	1,060	656	646	665	1,000	1,120	3,150	2,890	1,790	1,380	2,160	1,660
29	1,060	728	665	619	-	1,170	3,120	2,860	1,720	1,380	2,080	1,630
30	1,060	707	665	696	-	1,260	3,080	2,990	1,750	1,380	2,080	1,610
31	1,060	-	676	536	-	1,210	-	3,190	-	1,360	2,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,480	1,140	1,030	1,080	66,410
November	27,639	1,200	608	921	54,820
December	20,382	723	510	657	40,430
Calendar year 1942	460,844	2,570	494	1,263	914,100
January	19,378	760	477	625	38,440
February	26,243	1,130	608	937	52,050
March	32,241	1,260	847	1,040	63,950
April	69,280	3,930	1,160	2,309	137,400
May	85,930	6,470	2,220	2,772	170,400
June	71,450	4,120	1,720	2,382	141,700
July	46,130	1,730	1,560	1,488	91,600
August	52,690	2,160	1,530	1,700	104,500
September	52,450	2,120	1,660	1,748	104,000
Water year 1942-43	537,293	4,120	477	1,472	1,066,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## 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 June 1919 to September 1943, only irrigation season prior to 1943. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good except those prior to July 1, which are fair. Records for Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	465	286	64	140	94	105	109	725	1,180	916	870	742
2	412	286	64	137	98	105	135	732	1,000	932	872	723
3	412	276	63	134	102	105	175	740	836	932	871	680
4	410	274	63	131	106	105	221	840	675	912	864	635
5	407	269	63	129	109	106	268	873	767	888	947	626
6	408	259	63	126	113	106	315	873	752	881	947	627
7	407	259	53	124	117	106	364	879	806	897	919	627
8	407	259	54	123	128	106	387	889	882	949	859	628
9	407	223	54	121	138	106	412	891	929	899	845	626
10	420	223	54	121	143	106	444	903	1,030	912	829	623
11	392	223	52	121	143	106	473	893	1,040	933	811	606
12	392	223	52	119	143	106	472	741	990	967	820	570
13	397	224	52	119	144	107	471	940	901	858	831	571
14	396	223	123	117	144	107	471	964	851	977	830	572
15	397	223	123	117	144	107	470	970	879	993	828	576
16	397	219	123	115	104	107	500	963	904	1,000	823	579
17	398	218	123	114	104	107	506	969	980	1,010	818	576
18	399	217	123	107	104	107	576	958	1,020	1,000	798	571
19	399	217	123	102	104	106	657	971	1,020	895	777	577
20	357	256	123	101	104	106	667	1,000	1,020	1,010	786	586
21	358	151	145	100	104	106	712	1,020	1,090	1,020	791	534
22	357	150	145	99	104	105	764	1,050	1,170	1,020	759	483
23	358	131	145	97	104	105	810	1,110	1,100	990	734	464
24	358	130	144	97	104	107	862	1,150	955	954	719	448
25	359	130	144	95	104	106	859	1,210	1,020	927	696	446
26	361	124	144	95	104	107	866	1,210	991	897	691	424
27	358	124	138	94	104	107	860	1,210	1,060	909	687	403
28	359	157	138	94	104	108	855	1,220	1,060	955	712	381
29	359	157	138	94	-	108	850	1,230	1,060	962	740	376
30	359	156	138	94	-	109	850	1,240	1,040	994	746	371
31	360	-	138	94	-	110	-	1,250	-	836	754	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,025	465	357	388	23,650
November.....	6,257	286	124	209	12,410
December.....	3,169	145	52	102	6,290
Calendar year.....	-	-	-	-	-
January.....	3,471	140	94	112	6,880
February.....	3,218	144	94	115	6,360
March.....	3,300	110	105	106	6,550
April.....	16,374	866	109	546	32,480
May.....	30,591	1,240	725	987	60,680
June.....	29,038	1,180	675	968	57,600
July.....	29,225	1,020	836	943	57,970
August.....	24,974	947	687	806	49,540
September.....	16,650	742	371	555	33,020
Water year 1942-43.....	178,292	1,240	52	488	353,600

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Henrys Fork at St. Anthony, Idaho

Location.— Water-stage recorder, lat. 43°58', long. 111°41', in sec. 1, T. 7 N., R. 40 E., half a mile upstream from bridge on main street of St. Anthony. Altitude of gage, 4,950 feet (from river-profile map).

Drainage area.— 1,730 square miles.

Records available.— March 1919 to September 1943 (irrigation seasons only).

Extremes.— Maximum discharge recorded during year, 6,220 second-feet June 2 (gage height, 5.80 feet); minimum recorded, 767 second-feet Aug. 14 (gage height, 3.21 feet).  
1919-43: Maximum discharge recorded, 9,030 second-feet May 8, 1925 (gage height, 6.70 feet); minimum daily recorded, 413 second-feet July 22, 1931.

Remarks.— Records excellent except those for periods of no gage-height record, which are good. Diversions above station for irrigation. Flow regulated by power plant 17 miles above station and by Henrys Lake (see p. 49), Island Park Reservoir (see p. 41), and Grassy Lake (see p. 49).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	1,050						4,610	5,270	2,960	972	1,660
2	-	1,130						5,100	6,070	3,040	940	1,660
3	-	1,130						5,270	5,240	2,820	962	1,860
4	-	1,260						5,160	5,100	2,870	951	1,820
5	-	1,180						5,330	4,270	2,820	897	1,730
6	-	1,200						4,960	2,890	2,580	876	1,660
7	-	-						4,770	2,580	2,470	908	1,660
8	-	-						4,750	2,700	2,290	962	1,630
9	-	-						4,000	2,700	2,100	962	1,640
10	-	-						3,800	2,750	2,120	930	1,520
11	-	-						3,600	2,870	2,020	930	1,640
12	-	-						3,400	3,060	1,840	962	1,630
13	-	-						3,100	3,330	1,690	856	1,630
14	-	-						2,900	3,880	1,440	816	1,590
15	-	-						2,940	3,800	1,380	856	1,610
16	-	-						2,840	3,600	1,310	897	1,810
17	-	-						2,680	3,360	1,190	930	1,560
18	-	-						2,560	3,280	1,130	1,080	1,440
19	-	-						2,920	3,500	1,150	1,260	1,540
20	-	-						2,920	3,600	1,050	1,310	1,560
21	-	-						2,940	3,500	1,050	1,420	1,540
22	-	-						3,300	3,560	1,130	1,540	1,560
23	-	-						3,330	3,480	1,360	1,540	1,560
24	-	-						3,530	3,360	1,200	1,580	1,560
25	-	-						3,580	3,300	1,100	1,610	1,580
26	-	-						3,860	3,260	1,110	1,630	1,610
27	-	-						4,060	3,180	1,080	1,700	1,680
28	-	-						4,400	3,010	1,010	1,660	1,680
29	-	-						4,690	2,770	897	1,590	1,630
30	1,030	-						4,750	2,820	796	1,560	1,610
31	1,030	-						4,830	-	846	1,590	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	120,880	5,330	2,560	3,899	240,200
June	106,090	6,070	2,580	3,536	210,400
July	51,839	3,040	796	1,672	102,800
August	36,677	1,700	815	1,185	72,750
September	49,680	1,880	1,440	1,523	96,560
The period	-	-	-	-	722,700

a No gage-height record; discharge computed on basis of records for Henrys Fork near Ashton and Fall River near Chester.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 June 1919 to September 1943, only irrigation season prior to 1943. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good except those prior to July 1, which are fair. Records for Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	363	173	74	124	94	93	88	634	1,090	745	818	688
2	363	174	98	121	91	93	124	643	1,030	682	810	680
3	362	173	104	118	88	93	161	641	835	731	768	620
4	352	193	104	115	85	93	198	677	804	728	763	550
5	349	194	104	96	82	93	235	716	785	726	771	526
6	350	195	103	93	78	94	270	804	757	732	746	508
7	352	197	103	90	75	94	311	815	817	766	758	504
8	347	197	103	90	70	94	351	799	835	772	770	500
9	349	263	103	80	66	95	343	796	843	794	737	501
10	351	263	103	60	64	96	355	792	909	766	735	452
11	313	264	105	57	63	97	367	501	885	789	722	456
12	304	202	103	49	63	97	382	647	856	780	710	458
13	308	95	103	49	63	97	382	746	797	728	699	460
14	309	95	103	83	63	97	382	798	674	705	703	466
15	314	95	103	83	63	97	382	839	663	684	707	471
16	317	96	106	85	94	97	539	856	673	659	723	472
17	318	93	108	87	94	97	536	881	726	716	718	458
18	319	92	109	89	94	96	559	897	830	748	703	442
19	321	93	109	90	94	96	582	949	886	784	689	429
20	215	93	108	90	93	96	605	933	932	717	686	431
21	216	94	108	94	93	96	638	948	956	738	685	413
22	217	94	109	96	93	95	672	993	942	818	694	395
23	156	94	109	96	93	93	667	989	902	649	702	400
24	157	94	107	95	93	91	674	1,010	813	621	683	404
25	158	95	107	95	93	90	694	1,020	824	628	665	419
26	159	98	108	94	93	89	709	1,050	865	726	685	431
27	159	96	108	95	93	88	692	1,050	864	775	694	432
28	160	74	108	96	93	88	674	1,080	864	773	684	434
29	160	75	118	95	-	88	656	631	796	729	675	414
30	162	76	124	94	-	88	656	1,090	762	698	686	408
31	162	-	124	95	-	88	-	1,090	-	748	696	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,432	363	156	272	16,720
November	4,130	264	74	139	8,190
December	3,288	124	74	106	6,520
Calendar year	-	-	-	-	-
January	2,804	124	49	90.5	5,560
February	2,321	94	63	82.9	4,600
March	2,898	97	88	95.5	5,760
April	13,864	709	88	462	27,500
May	26,315	1,090	501	849	52,800
June	25,214	1,090	663	840	50,010
July	22,655	818	621	731	44,940
August	22,285	818	665	719	44,200
September	14,222	688	395	474	28,210
Water year 1942-43	148,426	1,090	49	407	294,400

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Henrys Fork near Rexburg, Idaho

Location.- Water-stage recorder, lat. 43°50', long. 111°54', in sec. 30, T. 6 N., R. 39 E., just downstream from highway bridge, downstream from all tributaries, and 7 miles west of Rexburg. Altitude of gage, 4,807 feet (from river-profile map).

Drainage area.- 3,010 square miles.

Records available.- April 1909 to September 1943.

Average discharge.- 35 years, 1,905 second-feet.

Extremes.- Maximum discharge during year, 7,040 second-feet June 3 (gage height, 9.29 feet); minimum, 720 second-feet Jan. 20 (gage height, 3.88 feet).

1909-43: Maximum discharge, 9,490 second-feet June 29, 1927 (gage height, 9.90 feet); minimum, 183 second-feet Mar. 24-28, 1934 (gage height, 1.45 feet).

Remarks.- Records good except those for periods of ice effect and those for periods of no gage-height record, which are fair. Flow regulated by operation of power plant at Ashton and by Henrys Lake (see p. 49), Island Park Reservoir (see p. 41), and Grassy Lake (see p. 49). Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,050	1,470	1,450	1,520	1,080	1,550	2,500	5,240	5,820	3,900	930	1,660
2	1,100	1,540	1,400	1,540	1,110	1,280	2,370	5,340	6,350	4,010	976	1,710
3	1,080	1,580	1,350	1,470	1,220	1,240	2,470	a6,000	6,930	4,160	976	1,830
4	1,080	1,650	1,290	1,380	*1,200	1,400	2,640	a6,100	6,790	4,030	1,040	1,950
5	1,080	1,670	1,290	1,360	1,110	1,670	2,810	6,180	6,520	4,020	989	1,940
6	1,080	1,670	1,320	1,370	1,260	1,670	2,850	6,320	5,740	3,920	950	1,880
7	1,080	1,660	1,360	1,360	1,610	1,560	2,790	6,130	4,230	3,670	982	1,880
8	1,070	1,630	1,370	1,300	1,660	1,730	2,930	5,800	3,480	3,490	1,040	1,920
9	1,060	1,610	1,320	1,230	1,570	1,820	3,180	5,550	3,310	3,200	1,160	1,930
10	1,060	1,650	1,360	1,140	1,480	1,750	3,060	4,690	3,190	2,860	1,170	1,920
11	1,080	1,610	1,430	1,080	1,540	1,770	3,140	4,410	3,300	2,750	1,140	1,920
12	1,130	1,660	1,490	1,130	1,600	1,730	a3,250	4,290	3,550	2,620	1,080	1,950
13	1,220	1,670	1,480	1,160	1,610	1,670	a3,350	3,940	3,900	2,470	1,060	1,910
14	1,280	1,700	*1,480	1,190	1,610	1,870	a3,480	3,430	4,390	2,290	930	1,860
15	1,530	1,730	1,420	1,230	1,540	1,900	3,000	3,240	5,060	2,060	892	1,830
16	1,350	1,770	1,430	*1,200	1,530	1,770	a3,750	3,210	5,210	1,880	898	1,820
17	1,370	1,490	1,430	1,080	1,520	1,650	3,900	3,160	4,960	1,770	924	1,800
18	1,380	1,490	1,400	945	1,520	1,650	4,260	2,990	4,570	1,570	1,000	1,700
19	1,370	1,520	1,390	780	1,520	1,580	4,620	2,800	4,230	1,390	1,130	1,730
20	1,410	1,610	1,340	786	1,550	*1,550	4,700	2,950	4,220	1,320	1,340	1,780
21	1,440	*1,520	1,300	1,060	1,550	1,520	5,110	2,910	4,320	1,200	1,320	1,830
22	1,430	1,430	1,340	1,680	1,570	1,510	5,320	2,970	4,410	1,160	a1,480	1,830
23	1,430	1,490	1,370	2,130	1,720	1,560	5,500	3,250	4,410	1,520	a1,530	1,830
24	1,410	1,580	1,480	1,940	1,660	1,660	5,640	3,360	4,390	1,740	a1,560	1,830
25	1,410	1,660	1,460	1,530	1,590	1,900	6,100	3,600	4,350	1,620	a1,590	1,810
26	1,440	1,520	1,250	1,330	1,560	2,190	6,520	3,780	4,220	1,530	a1,610	1,810
27	1,440	1,520	1,050	1,360	1,580	2,150	6,380	4,050	4,110	1,500	a1,670	1,880
28	1,430	1,530	1,180	1,350	1,560	2,550	5,780	4,320	4,090	1,410	1,610	1,970
29	1,430	1,520	1,300	1,320	-	2,830	5,320	4,820	3,910	1,250	1,600	2,000
30	1,430	1,560	1,400	1,280	-	2,980	5,240	5,460	3,840	1,130	1,560	1,980
31	1,460	-	1,480	1,190	-	2,930	-	5,660	-	1,010	1,570	-
Month	Second-foot-days					Maximum	Minimum	Mean	Runoff in acre-feet			
October.....	39,410					1,460	1,060	1,271	78,170			
November.....	47,810					1,770	1,430	1,594	94,830			
December.....	42,400					1,490	1,050	1,368	84,100			
Calendar year 1942.....	559,475					4,520	640	1,533	1,110,000			
January.....	40,421					2,130	780	1,304	80,170			
February.....	41,630					1,720	1,080	1,487	82,570			
March.....	56,620					2,980	1,240	1,826	112,300			
April.....	122,560					6,520	2,370	4,065	243,100			
May.....	136,040					6,320	2,890	4,388	269,800			
June.....	137,800					6,930	3,190	4,593	275,300			
July.....	72,450					4,160	1,010	2,337	143,700			
August.....	37,707					1,670	892	1,216	74,780			
September.....	55,690					2,000	1,560	1,856	110,500			
Water year 1942-43.....	830,538					6,930	780	2,275	1,647,000			

\* Winter discharge measurement made on this day.

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

Note.- Stage-discharge relation affected by ice Dec. 1-11, Dec. 26 to Jan. 3, Jan. 7 to Mar. 1.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Smaller Reservoirs in Henrys Fork Basin

**Henrys Lake.**— Staff gage, lat.  $44^{\circ}36'$ , long.  $111^{\circ}21'$ , at dam on Henrys Fork in SW $\frac{1}{4}$  sec. 26, T. 15 N., R. 43 E., 4 miles south of former Lake, Idaho, post office. Datum of gage is 6,457.16 feet above mean sea level (levels by Bureau of Reclamation). Drainage area, 104 square miles, including that of Dry Creek. Records available, June 1923 to September 1943 (fragmentary). Maximum contents observed during year, 82,863 acre-feet July 23 (gage height, 15.55 feet); minimum, 43,870 acre-feet Oct. 1 (interpolated). Maximum contents observed during period 1923-43, that of July 23, 1943; minimum observed, 140 acre-feet Nov. 8, 1934 (gage height, 0.03 foot).

Reservoir is formed on natural lake by concrete dam; storage began Sept. 21, 1922; dam completed July 1923. Capacity, 79,351 acre-feet between gage heights 0.0 foot (normal low-water level of Henrys Lake prior to construction of dam) and 15.0 feet (top of 5-foot flashboards on spillway). Flood waters of Dry Creek are diverted into Henrys Lake. Water used for irrigation near St. Anthony. Gage read once daily about 9 a.m. during period of storage withdrawal and only occasionally during remainder of year. Records given herein represent usable contents. Gage-height record and capacity table furnished by North Fork Reservoir Co.

**Grassy Lake.**— Mercury pressure gage, lat.  $44^{\circ}08'$ , long.  $110^{\circ}49'$ , in gatehouse at dam on Grassy Creek approximately in sec. 7, T. 48 N., R. 116 W. (unsurveyed), half a mile upstream from mouth and 24 miles northwest of Moran, Wyo. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Drainage area, 12 square miles, including basin of Cascade Creek, from which water is diverted into Grassy Lake. Records available, October 1939 to September 1943 (fragmentary). Maximum contents observed during year, 15,446 acre-feet July 2 (elevation, 7,210.85 feet); minimum observed, 10,899 acre-feet Oct. 4-7 (elevation, 7,195.40 feet). Maximum contents observed during period 1939-43, that of July 2, 1943; no contents Oct. 2-5, 1940.

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

Monthly elevations or gage heights and contents, water year October 1942 to September 1943

Date	Henrys Lake			Grassy Lake		
	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	9.10	43,811	-	7,195.45	10,913	-
Oct. 31.....	-	a46,200	+1,389	7,196.40	11,174	+261
Nov. 30.....	-	a47,000	+1,800	7,198.95	11,888	+714
Dec. 31.....	-	a49,500	+2,500	7,201.75	12,694	+806
Calendar year 1942	-	-	+4,880	-	-	+2,011
Jan. 31.....	-	a52,000	+2,500	7,203.90	13,326	+631
Feb. 25.....	-	a54,400	+2,400	7,206.30	13,745	+420
Mar. 31.....	-	a57,300	+2,900	7,208.55	14,120	+375
Apr. 30.....	-	a62,000	+4,700	7,208.80	14,934	+814
May 31.....	-	a69,320	+7,320	7,209.15	15,056	+124
June 30.....	-	a79,200	+9,880	7,210.55	15,353	+295
July 31.....	15.42	82,029	+2,829	7,210.10	15,213	-140
Aug. 31.....	14.64	77,082	-4,947	7,210.25	15,260	+47
Sept. 30.....	-	a75,740	-1,342	7,208.60	14,748	-512
Water year 1942-43	-	-	+31,929	-	-	+3,835

a No gage-height record, contents interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Diversions from Fall River above gaging station near Squirrel, Idaho

Above Squirrel gaging station three canals divert water from Fall River for irrigation. Records available, June 1919 to September 1943, only irrigation season prior to 1943. Discharge of canals computed from daily staff-gage readings and combined to show total diverted flow. Records good except those prior to July 1, which are fair. Records for Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	29						0	34	196	184	111
2	30	28						0	38	195	186	110
3	31	28						0	38	194	182	96
4	31	28						0	38	197	177	92
5	31	23						0	40	199	175	90
6	32	23						0	44	193	176	82
7	42	23						0	45	192	195	82
8	42	23						0	54	255	176	80
9	46	23						0	71	192	165	80
10	46	15						0	76	192	167	69
11	46	15						0	88	191	165	66
12	46	15						0	94	176	159	66
13	46	0						0	108	175	164	66
14	46	0						0	104	176	157	51
15	46	0						0	104	176	159	46
16	46	0						0	128	175	158	45
17	46	0						0	136	176	158	45
18	46	0						0	144	178	152	47
19	40	0						0	144	177	152	46
20	35	0						0	144	177	152	46
21	35	0						0	149	178	154	45
22	35	0						0	158	183	152	44
23	35	0						0	158	179	152	44
24	35	0						19	168	176	152	42
25	35	0						19	168	178	151	38
26	35	0						19	185	181	132	38
27	33	0						29	183	179	132	38
28	33	0						29	190	179	128	38
29	32	0						29	194	181	127	38
30	32	0						35	196	172	126	34
31	32	-						35	-	163	130	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October.....						1,176	46	30	37.9	2,332		
November.....						273	29	0	9.1	541		
December.....						0	0	0	0	0		
Calendar year						-	-	-	-	-		
January.....						0	0	0	0	0		
February.....						0	0	0	0	0		
March.....						0	0	0	0	0		
April.....						0	0	0	0	0		
May.....						214	35	0	6.0	424		
June.....						3,421	196	34	114	6,790		
July.....						5,751	255	172	196	11,410		
August.....						4,698	195	126	158	9,720		
September.....						1,615	111	34	60.5	3,600		
Water year 1942-43						17,548	255	0	48.1	34,820		

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Fall River near Squirrel, Idaho

Location.- Staff gage, lat. 44°04', long. 111°15', in sec. 34, T. 9 N., R. 44 E., 4 miles northeast of Squirrel and 10 miles upstream from Conant Creek.

Drainage area.- 380 square miles.

Records available.- January 1904 to June 1909, May 1918 to September 1943. August 1902 to December 1903 at Wilson's sawmill, 3 miles upstream.

Average discharge.- 30 years (1904-8, 1917-43), 741 second-feet.

Extremes.- Maximum discharge observed during year, 3,320 second-feet May 29 (gage height, 3.46 feet); minimum observed, 237 second-feet Mar. 3 (gage height, 0.96 foot).

1904-9, 1918-43: Maximum discharge observed, 6,440 second-feet June 27, 1927; minimum observed, 72 second-feet Feb. 9, 1930.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Gage read once daily. Flow since October 1939 regulated by Grassy Lake (see p. 49).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	425	411	454	454	332	345	384	1,920	3,060	2,680	870	720
2	425	425	440	440	345	298	384	2,130	2,990	2,650	890	720
3	425	425	425	397	352	237	411	2,390	2,480	2,450	890	760
4	425	440	425	397	352	292	454	2,320	2,130	2,630	830	720
5	425	447	425	397	352	315	499	2,290	1,780	2,440	840	702
6	432	447	425	390	352	345	562	1,690	1,670	2,310	820	693
7	425	447	425	390	364	345	579	1,730	1,480	2,240	800	693
8	425	447	425	384	364	397	596	1,560	1,560	1,940	830	684
9	425	454	432	378	358	371	702	1,530	1,700	2,020	830	684
10	425	454	432	352	358	345	654	1,500	1,540	1,960	610	666
11	425	454	454	345	352	371	720	1,450	2,080	1,940	770	666
12	447	468	*454	358	364	345	820	1,370	2,230	1,740	770	666
13	418	440	440	364	364	371	900	1,250	2,470	1,660	760	666
14	432	411	425	371	352	371	986	1,370	2,610	1,410	760	666
15	425	491	425	390	378	358	1,130	1,450	2,550	1,390	740	666
16	440	454	425	390	364	345	1,250	1,370	2,230	1,360	740	666
17	425	468	425	352	364	345	1,320	1,320	2,290	1,280	730	657
18	411	514	425	*256	364	332	1,370	1,320	2,560	1,230	720	770
19	411	499	425	*265	*364	332	1,530	1,450	2,900	1,160	730	666
20	397	454	425	*292	364	321	1,730	1,570	3,140	1,230	730	720
21	384	514	425	*371	364	265	1,670	1,790	3,080	1,170	711	666
22	397	506	440	*397	397	332	1,730	1,890	3,280	1,340	711	648
23	397	440	440	*397	397	332	1,890	2,070	2,890	1,320	702	648
24	397	*454	425	*397	358	345	2,130	2,230	3,010	1,260	693	648
25	397	468	411	*364	345	*358	1,890	2,230	3,030	1,020	693	648
26	397	468	345	*358	345	358	1,730	2,290	3,100	1,080	693	648
27	397	483	332	*378	345	358	1,640	2,450	3,030	1,070	693	648
28	397	454	345	378	345	371	1,560	2,920	2,730	1,040	693	648
29	371	454	378	364	-	371	1,670	3,320	2,730	951	693	648
30	384	454	411	315	-	358	1,750	2,920	2,580	870	693	648
31	397	-	454	275	-	384	-	2,920	-	870	720	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,803	447	371	413	25,390
November.....	13,745	514	411	458	27,260
December.....	13,037	454	332	421	25,860
Calendar year 1942 .....	242,587	2,950	200	665	481,100
January.....	11,336	454	256	366	22,480
February.....	10,035	397	332	358	19,900
March.....	10,613	397	237	342	21,060
April.....	34,851	2,130	364	1,155	69,750
May.....	60,200	3,320	1,250	1,942	119,400
June.....	75,210	3,280	1,480	2,507	149,200
July.....	49,691	2,680	870	1,603	98,560
August.....	23,555	890	693	760	46,720
September.....	20,349	770	648	678	40,360
Water year 1942-43 .....	335,225	3,320	237	918	664,900

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 1 discharge measurement and weather records.

Note.- Stage-discharge relation affected by ice Dec. 3-10, 27-30; Jan. 2-17, Jan. 27 to Feb. 21, Mar. 4, 5.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## 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 June 1919 to September 1943, only irrigation season prior to 1943. Discharge of canals computed from staff-gage readings made on alternate days, or interpolated, and combined to show total diverted flow. Records good except those prior to July 1, which are fair. Records for Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	334	162	15	11	2	0	5	174	594	752	640	567
2	333	162	15	11	2	0	8	109	574	744	655	563
3	333	162	15	11	2	0	12	59	539	755	664	518
4	313	162	15	11	2	0	13	62	488	764	662	477
5	310	162	15	11	2	0	24	55	520	751	659	459
6	308	162	15	11	2	0	31	84	523	745	644	455
7	302	146	15	11	2	0	39	106	527	740	645	453
8	302	146	15	11	2	0	46	121	538	736	646	461
9	302	79	15	12	1	0	53	121	573	736	638	411
10	302	73	15	12	1	0	60	91	598	727	634	350
11	306	73	15	12	1	0	66	80	614	718	615	349
12	306	73	15	11	1	0	72	166	633	714	632	348
13	306	73	15	11	1	0	78	145	637	696	624	344
14	306	73	15	11	1	0	83	201	584	710	613	347
15	307	73	15	11	1	0	88	275	577	712	603	345
16	280	73	15	11	1	0	92	231	575	432	615	345
17	280	74	15	10	1	0	92	255	607	706	597	355
18	278	54	15	5	1	0	93	258	617	701	590	358
19	278	54	15	2	1	0	94	204	633	708	587	352
20	170	31	15	2	1	0	94	327	680	741	582	346
21	170	31	15	2	1	0	95	364	690	746	576	341
22	170	30	11	2	1	0	97	404	751	713	592	339
23	170	30	11	2	1	0	99	436	734	732	617	341
24	170	30	11	2	1	0	106	453	739	707	595	342
25	170	30	11	2	1	1	101	459	735	685	586	343
26	170	30	11	2	1	1	100	470	743	661	568	342
27	164	30	11	2	1	2	97	483	748	651	566	341
28	165	30	11	2	1	2	95	587	737	638	564	339
29	165	30	11	2	1	3	95	562	754	637	561	351
30	166	30	11	2	1	4	95	608	743	630	577	351
31	166	-	11	2	1	5	-	622	-	495	577	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,801	334	164	252	15,470
November	2,366	162	30	78.9	4,690
December	425	15	11	13.7	843
Calendar year	-	-	-	-	-
January	220	12	2	7.1	456
February	36	2	1	1.3	71
March	13	5	0	0.6	36
April	2,129	106	5	71.0	4,220
May	8,610	622	59	278	17,060
June	19,005	754	488	634	37,700
July	21,583	764	432	696	42,810
August	18,924	664	561	610	37,540
September	11,661	567	339	399	23,130
Water year 1942-43	92,778	764	0	254	184,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Fall River near Chester, Idaho

Location.- Water-stage recorder, lat. 44°01', long. 111°34', in sec. 13, T. 8 N., R. 41 E., half a mile upstream from mouth and 2 miles north of Chester. Altitude of gage, 5,060 feet (from river-profile map).

Drainage area.- 560 square miles.

Records available.- April 1920 to September 1943 (irrigation seasons only).

Extremes.- Maximum discharge during period May to September, 3,080 second-feet May 29 (gage height, 4.70 feet); minimum, 162 second-feet Aug. 24 (gage height, 1.75 feet). 1920-43: Maximum discharge, 6,380 second-feet June 27, 1927 (gage height, 6.60 feet); minimum, 9 second-feet Aug. 7, 1923; minimum gage height, 0.99 foot July 12, 1941.

Remarks.- Records excellent. Flow since October 1939 regulated by Grassy Lake (see p. 49). Station is below all diversions for irrigation from Fall River.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	2,310	2,930	1,980	307	239
2							-	2,710	2,880	1,990	290	284
3							-	2,810	2,480	1,840	290	318
4							-	2,690	2,050	1,910	257	311
5							-	2,630	1,640	1,920	253	298
6							-	2,280	1,420	1,670	238	294
7							-	2,040	1,280	1,590	249	294
8							-	1,740	1,220	1,440	269	294
9							-	1,640	1,500	1,420	249	337
10							-	1,590	1,420	1,450	258	346
11							-	1,700	1,660	1,350	230	356
12							-	1,560	1,530	1,240	223	351
13							-	1,500	2,050	1,040	201	351
14							-	1,440	2,400	864	208	365
15							-	1,470	2,260	828	201	366
16							-	1,440	2,090	828	204	360
17							-	1,430	1,940	882	223	351
18							-	1,400	2,090	621	219	406
19							-	1,420	2,540	592	219	401
20							-	1,500	2,550	550	215	401
21							-	1,610	2,600	543	208	360
22							-	1,910	2,630	652	197	351
23							-	1,870	2,400	746	172	356
24							-	2,090	2,280	621	166	356
25							-	2,150	2,520	536	176	356
26							-	2,200	2,320	509	183	356
27							-	2,360	2,300	494	190	356
28							-	2,690	2,150	440	190	351
29							-	3,000	2,020	360	190	356
30							-	2,950	1,920	311	197	351
31							-	2,790	-	342	215	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....					
November.....					
December.....					
Calendar year .....					
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	62,910	3,000	1,400	2,029	124,600
May.....	62,700	2,930	1,220	2,090	124,400
June.....	31,288	1,990	311	1,009	62,060
July.....	6,867	307	166	222	13,620
August.....	10,218	406	234	341	20,270
September.....					
The period.....	-	-	-	-	345,200

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Teton River near Tetonla, Idaho

Location.- Water-stage recorder, lat. 43°51', long. 111°15', in sec. 15, T. 6 N., R. 44 E.,  $\frac{1}{2}$  miles downstream from highway bridge and 6 miles northwest of Tetonla.

Drainage area.- 460 square miles.

Records available.- October 1929, March 1930 to September 1932, May to September 1934, July to September 1935, May to September 1940, July 1941 to September 1943. Additional records collected by Water District 36, State of Idaho, October and November 1932, July to September 1936, July to September 1937.

Extremes.- Maximum discharge during year, 1,590 second-feet June 23 (gage height, 2.58 feet); minimum observed, 62 second-feet Jan. 16.  
1929-43: Maximum discharge observed, 1,680 second-feet June 9, 1942 (gage height, 2.90 feet); minimum observed, that of Jan. 16, 1943.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	266	270	240	188	150	680	650	1,430	1,390	664	464
2	266	274	250	230	195	150	800	693	1,240	1,410	716	472
3	270	279	210	225	205	150	930	716	1,060	1,300	708	484
4	266	310	190	225	210	150	1,150	769	980	1,250	671	476
5	262	296	190	220	225	155	1,050	866	890	1,230	664	472
6	262	279	150	220	230	158	950	872	784	1,190	643	466
7	258	274	185	190	230	160	1,100	839	746	1,180	678	466
8	258	283	190	150	225	160	*1,090	730	693	1,180	730	460
9	258	310	195	113	225	160	938	664	629	1,170	686	454
10	254	288	200	100	225	160	738	629	622	1,160	636	448
11	262	279	208	100	225	160	746	615	622	1,070	601	443
12	266	283	217	120	*222	165	671	608	716	1,010	595	443
13	274	270	*210	125	217	174	622	595	823	963	574	431
14	268	262	215	130	217	180	595	588	921	905	561	431
15	292	349	220	110	217	175	581	574	930	872	554	425
16	287	283	215	*62	216	165	601	588	980	839	581	425
17	282	305	210	62	216	160	608	595	872	831	581	419
18	278	310	210	85	215	155	608	554	856	769	574	414
19	274	328	210	110	215	160	622	528	1,070	746	574	414
20	266	370	210	145	214	*144	643	522	1,290	738	554	408
21	262	334	225	200	215	150	650	516	1,410	746	541	408
22	262	296	225	295	225	160	700	516	1,490	808	528	408
23	262	*287	225	296	240	165	643	535	1,560	864	516	402
24	262	370	225	180	220	170	643	568	1,480	847	516	408
25	262	440	225	165	200	170	657	615	1,410	839	510	402
26	262	380	140	175	200	185	686	708	1,430	816	484	408
27	262	325	135	*190	200	246	650	784	1,510	792	478	448
28	254	324	140	190	200	800	636	905	1,500	768	478	466
29	254	320	170	190	-	800	730	1,160	1,410	746	478	443
30	254	320	200	188	-	500	650	1,340	1,380	723	478	419
31	254	-	225	188	-	600	-	1,430	-	693	484	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,239	292	254	266	16,340
November	9,494	528	262	316	18,630
December	6,280	270	135	203	12,460
Calendar year 1942	137,536	1,820	135	377	272,800
January	5,219	240	62	168	10,350
February	6,032	240	188	215	11,960
March	7,127	800	144	230	14,140
April	22,568	1,150	581	746	44,370
May	22,262	1,430	516	718	44,150
June	32,724	1,560	622	1,091	64,910
July	29,645	1,410	693	963	59,200
August	18,036	730	478	582	35,770
September	13,149	484	402	438	26,080
Water year 1942-43	180,775	1,560	62	495	358,600

\* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 16-18, Nov. 22 to Apr. 7 (stage-discharge relation affected by ice Dec. 1 to Mar. 26); discharge based on 7 discharge measurements, weekly readings of staff gage  $\frac{1}{2}$  mile upstream, weather records, and records for station near St. Anthony.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Teton River near St. Anthony, Idaho

Location.— Water-stage recorder, lat. 43°56', long. 111°37', in sec. 15, T. 7 N., R. 41 E., half a mile upstream from railroad bridge and 4 miles southeast of St. Anthony.

Drainage area.— 920 square miles.

Records available.— April 1903 to June 1909, April 1920 to September 1943.

Average discharge.— 16 years (1903-8, 1921-22, 1933-43), 738 second-feet.

Extremes.— Maximum discharge during year, 3,280 second-feet May 30 (gage height, 5.89 feet); minimum daily, 248 second-feet Jan. 18; minimum gage height, 1.85 feet Mar. 21. 1903-9, 1920-43: Maximum discharge, 7,820 second-feet June 5, 1909 (gage height, 6.90 feet, site and datum then in use); minimum, 88 second-feet Mar. 12, 1906 (gage height, 1.00 foot, site and datum then in use).

Remarks.— Records excellent except those for periods of ice effect, which are fair. Flow affected by diversions from streams in Teton River Basin 20 miles above station. No diversion from Henrys Fork through Cross Cut Canal into Teton River during 1943.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	484	476	462	b462	b400	391	1,060	1,570	3,160	2,680	1,110	766
2	484	464	507	b471	b400	344	1,330	2,000	2,910	2,530	1,150	780
3	484	498	444	b453	*b417	b349	1,600	2,100	2,440	2,320	1,180	756
4	489	526	b408	b453	b412	*b353	1,800	2,110	2,060	2,330	1,100	750
5	489	526	b386	b453	b408	b357	1,560	2,190	1,790	2,220	1,060	731
6	489	503	b386	b453	b408	b357	1,430	2,080	1,600	2,110	1,050	725
7	484	494	b399	b417	b408	b365	1,640	1,830	1,470	2,130	1,060	719
8	480	489	b408	b382	b408	365	1,600	1,560	1,440	2,130	1,110	719
9	476	507	b408	b340	b404	367	1,360	1,380	1,460	2,070	1,090	719
10	476	503	b417	b304	b399	332	1,220	1,290	1,610	2,040	1,020	700
11	480	462	b435	b304	b391	344	1,150	1,270	1,760	1,900	976	694
12	489	430	444	b304	*b404	353	1,140	1,280	1,900	1,760	939	689
13	498	435	*430	b316	374	357	1,100	1,280	2,110	1,650	917	683
14	494	462	430	b324	365	391	1,130	1,250	2,210	1,540	902	683
15	526	503	444	b324	361	404	1,200	1,260	2,080	1,500	895	678
16	512	539	426	*b289	357	369	1,290	1,260	2,020	1,480	902	672
17	498	498	426	b255	365	376	1,310	1,240	1,950	1,380	902	666
18	489	526	412	b248	357	374	1,350	1,150	2,080	1,350	895	650
19	480	719	404	b276	369	369	1,430	1,060	2,440	1,320	895	639
20	476	644	422	b304	361	*349	1,500	1,060	2,810	1,300	880	639
21	471	535	444	b544	357	356	1,520	1,220	2,930	1,290	844	634
22	466	484	426	b666	378	367	1,500	1,410	3,050	1,370	816	626
23	466	*521	426	b700	422	365	1,440	1,580	3,040	1,450	803	634
24	462	535	435	b544	435	357	1,580	1,890	2,890	1,400	803	634
25	468	672	426	b430	408	382	1,740	2,020	2,740	1,360	803	634
26	463	563	399	b430	386	430	1,670	2,120	2,800	1,360	776	634
27	463	568	b344	b453	386	751	1,470	2,320	2,810	1,330	762	666
28	468	521	b344	b453	386	1,020	1,340	2,640	2,720	1,280	750	700
29	468	516	b565	b440	-	1,410	1,440	3,090	2,580	1,230	737	694
30	468	516	b408	b426	-	1,410	1,440	3,220	2,520	1,170	737	661
31	466	-	b453	b408	-	991	-	3,220	-	1,130	743	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,846	526	453	479	29,450
November.....	15,655	719	430	522	31,060
December.....	12,968	507	344	418	25,720
Calendar year 1942.....	282,869	3,540	341	775	561,000
January.....	12,626	700	248	407	25,040
February.....	10,926	435	357	360	21,670
March.....	15,067	1,410	332	466	29,360
April.....	42,330	1,600	1,060	1,411	85,960
May.....	54,970	3,220	1,060	1,773	109,000
June.....	69,420	3,160	1,440	2,314	137,700
July.....	52,010	2,680	1,130	1,678	103,200
August.....	28,607	1,180	737	923	56,740
September.....	20,537	756	628	685	40,730
Water year 1942-43.....	349,962	3,220	248	959	694,100

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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

Between St. Anthony gaging station and mouth 17 canals divert water from Teton River for irrigation. Records available, June 1919 to September 1943, only irrigation season prior to 1943. Discharge of canals computed from staff-gage readings and combined to show total diverted flow. Records good for July to September and fair for remainder of year. Gages read daily for most of July and August and two or three times a week during May, June, and September. Records for period Oct. 1 to Apr. 30 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	336	170	74	31	18	5	11	447	930	1,060	852	550
2	348	170	74	31	17	5	22	459	862	861	872	611
3	348	170	73	31	15	5	33	376	858	871	1,010	621
4	335	169	76	31	14	5	44	354	819	1,050	942	601
5	330	171	52	30	12	5	58	321	735	1,040	931	568
6	321	172	46	30	10	5	70	434	635	1,040	884	560
7	321	159	46	30	9	5	71	395	632	999	868	550
8	320	159	47	30	9	5	71	350	782	1,040	871	536
9	329	158	47	28	7	5	73	327	756	1,080	794	538
10	319	155	47	25	6	5	78	297	812	1,120	757	532
11	315	155	47	23	5	5	83	299	830	1,100	754	522
12	313	155	46	19	5	5	85	321	834	1,080	736	518
13	269	150	46	17	5	5	93	446	872	1,120	761	520
14	269	150	46	15	5	5	98	472	880	1,020	757	517
15	271	150	46	13	5	5	103	479	694	965	761	496
16	267	153	45	13	4	5	107	474	904	1,070	770	531
17	267	131	45	13	4	5	108	459	928	1,040	744	523
18	266	131	45	5	4	5	110	449	940	1,080	775	503
19	257	131	45	4	4	5	112	502	850	986	768	509
20	226	124	44	5	4	5	162	538	1,020	999	746	499
21	225	109	42	13	4	5	197	627	1,130	1,020	734	484
22	222	101	42	18	4	5	236	705	1,160	960	724	467
23	222	101	42	19	4	5	262	751	1,210	1,050	718	472
24	223	105	40	19	4	4	261	775	1,220	989	749	475
25	223	98	33	19	4	4	260	818	1,200	966	710	476
26	222	98	32	18	4	4	261	897	1,210	901	673	451
27	212	92	32	18	4	4	263	917	1,190	942	660	506
28	212	93	32	18	4	5	268	993	1,180	907	654	496
29	212	93	32	18	-	5	268	1,050	1,170	962	665	489
30	210	93	32	18	-	6	268	971	1,140	758	684	489
31	209	-	32	18	-	6	-	928	-	865	613	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October.....						8,419	348	209	272	16,700		
November.....						4,065	172	92	136	8,060		
December.....						1,428	76	32	46.1	2,630		
Calendar year.....						-	-	-	-	-		
January.....						620	31	4	20.0	1,230		
February.....						193	18	4	6.9	353		
March.....						153	6	4	4.9	303		
April.....						4,139	268	11	138	8,210		
May.....						17,656	1,050	297	569	34,980		
June.....						28,581	1,220	632	953	56,690		
July.....						30,891	1,120	755	996	61,270		
August.....						23,917	1,010	613	772	47,440		
September.....						15,640	621	467	521	31,020		
Water year 1942-43.....						135,682	1,220	4	372	269,100		

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Blackfoot River near Blackfoot, Idaho

**Location.**- Water-stage recorder, lat. 43°08', long. 112°28', at east quarter corner of sec. 28, T. 3 S., R. 34 E., 2 miles upstream from mouth and 9 miles southwest of Blackfoot. Altitude of gage, 4,420 feet (river-profile survey).

**Drainage area.**- 1,100 square miles.

**Records available.**- July 1913 to September 1943.

**Extremes.**- Maximum discharge during year, 574 second-feet Apr. 20 (gage height, 5.72 feet); minimum, 1.1 second-feet June 26 (gage height, 1.07 feet); minimum daily, 3 second-feet June 26.

1913-43: Maximum discharge, 868 second-feet May 21, 1921; no flow on many days.

**Remarks.**- Records good except those for Dec. 1 to Mar. 26, which are poor. Flow regulated by Blackfoot Marsh Reservoir (capacity, 413,000 acre-feet). 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.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	270	300	260	*165	130	388	371	72	35	11	22
2	11	275	300	250	160	120	306	366	104	75	25	29
3	12	261	280	240	150	120	332	206	300	38	14	24
4	14	269	250	230	150	130	370	323	500	34	18	28
5	12	281	226	220	130	130	397	170	468	40	18	27
6	13	277	220	220	120	140	442	92	448	40	11	27
7	12	276	220	220	110	140	469	47	428	28	9	28
8	11	270	270	220	110	150	481	47	442	17	14	17
9	14	266	300	210	110	150	515	61	449	7	59	18
10	9	262	340	200	110	160	543	75	398	13	34	72
11	11	261	340	190	110	*172	556	50	286	17	17	17
12	20	265	300	190	110	174	558	57	218	14	13	14
13	31	262	264	190	110	175	560	70	216	28	21	17
14	69	265	264	190	110	260	561	72	277	22	18	54
15	167	261	264	190	120	300	563	74	300	21	23	15
16	227	260	*264	180	130	220	565	84	288	20	23	12
17	236	265	260	170	130	170	567	164	309	10	20	12
18	250	294	260	160	140	150	570	123	315	16	26	10
19	244	324	250	150	150	140	571	72	262	17	26	12
20	244	328	250	190	150	130	572	55	161	7	23	15
21	239	324	240	270	150	130	570	32	95	11	20	18
22	221	328	200	*318	160	130	563	30	21	16	12	26
23	209	302	280	400	350	130	553	94	11	20	17	43
24	213	301	280	400	*430	160	528	101	18	14	17	122
25	218	293	275	380	380	210	484	64	10	12	13	150
26	218	294	260	370	250	280	494	35	3	12	17	180
27	226	291	240	340	200	523	484	24	3	43	18	193
28	230	299	200	300	150	518	480	7	8	9	15	229
29	236	293	200	250	-	532	473	9	16	6	16	274
30	247	310	250	220	-	*626	422	12	41	6	15	200
31	266	-	280	180	-	522	-	27	-	6	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,142	266	9	134	8,220
November.....	8,524	328	260	284	16,910
December.....	9,127	340	200	262	16,120
Calendar year 1942.....	50,114	461	1	137	99,410
January.....	7,498	400	150	242	14,870
February.....	4,645	430	110	156	9,210
March.....	6,912	532	120	223	13,710
April.....	14,937	572	306	498	29,630
May.....	3,014	371	7	97.2	5,980
June.....	6,476	500	3	215	12,840
July.....	554	75	6	21.1	1,300
August.....	601	59	9	19.4	1,190
September.....	1,907	274	10	63.6	3,780
Water year 1942-43.....	67,437	572	3	185	133,800

\* Winter discharge measurement made on this day.

**Note.**- No gage-height record Dec. 1 to Mar. 26; discharge based on 5 discharge measurements, occasional gage readings at site at Blackfoot, weather records, and records for Snake River at Clough Ranch.

**Time basis.** Mountain war time. To convert war time to standard time, subtract 1 hour.

## MUD LAKE BASIN

Camas Creek at Eighteenmile shearing corral near Kilgore, Idaho

Location.- Water-stage recorder, lat. 44°18', long. 111°52', in sec. 7, T. 11 N., R. 39 E., at bridge on county road at Eighteenmile shearing corral, just downstream from West Camas Creek, 7 miles north of Kilgore, and 18½ miles northeast of Dubois.

Drainage area.- 210 square miles.

Records available.- May 1937 to September 1943 (no winter records).

Extremes.- Maximum discharge during year, 817 second-feet June 3 (gage height, 4.61 feet), from rating curve extended above 400 second-feet; minimum recorded, 11 second-feet Oct. 1.

1937-43: Maximum discharge, about 1,200 second-feet probably on May 2, 1938 (gage height, 4.70 feet, datum then in use, from floodmark), from rating curve extended above 600 second-feet; minimum recorded, 0.7 second-foot Aug. 19, 1940.

Remarks.- Records fair. Diversions above and below station for irrigation and stock water.

Cooperation.- One discharge measurement furnished and water-stage recorder inspected by employees of Water District No. 66.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12							233	388	83	a27	19
2	16							281	600	81	a27	20
3	14	a30						284	782	64	a26	22
4	14							306	632	68	a26	22
5	14							432	507	75	a26	22
6	15	36						339	418	68	24	22
7	17	a40						317	361	61	24	24
8	20	28						292	309	56	24	24
9	16	48						231	276	48	26	22
10	15	40						198	262	46	24	22
11	16	40						178	278	48	24	22
12	18	40						175	286	46	22	22
13	20	36						171	337	44	22	22
14	20	32						166	403	41	22	20
15	20	50						147	418	41	22	20
16	22	-						166	337	41	24	22
17	22	-						198	278	41	22	20
18	22	-						188	241	a40	22	20
19	22	-						178	218	a38	22	20
20	22	-						143	206	a36	20	22
21	22	-						129	185	34	20	22
22		-						129	166	34	20	20
23		-						138	147	37	18	30
24		-						150	129	44	17	28
25		-						161	112	37	17	24
26		a25	-					185	103	31	17	22
27		-	-					189	99	31	18	24
28		-	-					195	91	31	16	26
29		-	-					236	85	a30	16	26
30		-	-				265	289	81	a29	16	26
31		-	-				-	320	-	a28	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	629	-	12	20.3	1,250
November 1-15.....	540	50	-	36.0	1,070
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	6,721	432	129	217	13,330
June.....	8,720	782	81	291	17,300
July.....	1,432	93	29	46.2	2,840
August.....	666	27	16	21.5	1,320
September.....	677	30	19	22.6	1,340
Water year.....	-	-	-	-	-

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of recorded range in stage and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Camas Creek at Camas, Idaho

Location.- Water-stage recorder, lat. 44°00', long. 112°13', in E½SE¼ sec. 21, T. 8 N., R. 36 E., 350 feet upstream from Oregon Short Line Railroad bridge at Camas and half a mile upstream from Beaver Creek.

Records available.- April 1925 to September 1943.

Average discharge.- 17 years (1926-43), 18.7 second-feet.

Extremes.- Maximum discharge during year, 459 second-feet Apr. 20 (gage height, 4.50 feet), from rating curve extended above 300 second-feet; no flow at times.  
1925-43: Maximum discharge, 900 second-feet probably May 3, 1938 (gage height, 3.98 feet, datum then in use, from floodmark), from rating curve extended above 400 second-feet; no flow June 1-7, 1926, and many periods during 1930-43.

Remarks.- Records good except those for Nov. 8, Nov. 23 to Apr. 12, which are poor. Diversions above station for irrigation and stock water.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0			1			188	153	23		
2		0			1			164	193	25		
3		0			1		20	190	330	24		
4		0			*0	2		175	393	23		
5		0			0			208	319	21		
6		0						250	259	26		
7		0						213	219	21		
8		*5.2	1	3				204	191	18		
9		9.6					150	184	170	13		
10		2.6			1			155	150	6.3		
11		.2				5		133	145	4.8		
12		.6					236	117	148	5.2		
13		1.4					269	115	152	4.0		
14		4.0					309	109	177	.2		
15		5.6	*.5	*4		*12	319	99	204	0		
16		5.2					393	97	204	0		
17		7.1					361	97	173	0		
18		12					340	115	145	0		
19		9.6					340	108	133	0		
20		3.7				4	372	94	121	0		
21		.1					361	73	103	0		
22		3.1					309	60	99	0		
23			3	2	2	*1	250	55	79	0		
24							213	58	64	0		
25							223	62	56	0		
26		3				2	240	67	46	0		
27							289	80	38	0		
28							260	83	32	0		
29							215	87	27	0		
30							236	106	24	0		
31		-	*8			*3	-	128	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	94.0	12	0	3.13	166
December.....	67.5	-	-	2.18	134
Calendar year 1942 .....	11,528.5	459	0	31.6	22,870
January.....	78	-	-	2.5	185
February.....	38	-	-	1.4	75
March.....	107	-	-	5.5	212
April.....	6,525	393	-	218	12,940
May.....	3,962	250	55	123	7,660
June.....	4,537	393	24	151	9,000
July.....	214.5	26	0	6.92	425
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43 .....	18,523.0	393	0	42.5	30,790

\* Winter discharge measurement or field estimate made on this day.

Note.- Stage-discharge relation affected by ice Nov. 23 to about Apr. 11 (no gage-height record Nov. 24 to Mar. 22, Apr. 1-11; discharge computed on basis of field estimates, weather records, and records for other stations).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Beaver Creek at Spencer, Idaho

Location.- Staff gage, lat. 44°21', long. 112°11', in NE $\frac{1}{4}$  sec. 23, T. 12 N., R. 36 E., at highway bridge, 0.4 mile southeast of Spencer post office and 2 $\frac{1}{2}$  miles upstream from Rattlesnake Creek.

Drainage area.- 120 square miles.

Records available.- October 1940 to September 1943.

Extremes.- Maximum discharge observed during year, 210 second-feet Apr. 8, from rating curve extended above 140 second-feet; maximum gage height observed, 5.95 feet (ice jam) Mar. 30; minimum discharge observed, 1.5 second-feet (field estimate) Feb. 11. 1940-43: Maximum discharge observed, 408 second-feet Apr. 13, 1942, from rating curve extended above 140 second-feet; maximum gage height observed, that of Mar. 30, 1943; minimum discharge observed, 0.5 second-foot Jan. 26, 1942.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Gage read twice daily Oct. 1 to Nov. 8, July 8; otherwise once daily except as noted. Several ranch diversions above station.

Cooperation.- One discharge measurement furnished by watermaster for Water District No. 66.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	9.3					b100	67	62	28	4.2	a2.2
2	3.8	12					b140	67	77	24	4.0	a2.4
3	4.0	26					b160	58	77	21	4.2	a2.6
4	4.4	26					b200	59	62	33	4.6	a2.6
5	4.6	28					196	67	58	26	3.6	a2.6
6	4.6	22					158	58	54	22	4.0	2.7
7	4.6	12					153	61	47	19	5.2	a2.7
8	4.6	*12					210	56	45	16	4.8	a2.7
9	5.0	-					170	61	40	12	3.8	a2.7
10	5.5	-					128	49	43	10	3.0	2.7
11	7.0	-			+1.5		97	49	40	9.3	2.9	a2.7
12	9.9	-					140	45	51	8.4	2.8	a2.6
13	9.3	-					184	46	67	8.1	2.6	a2.5
14	12	-	+11				158	47	123	8.1	2.7	2.4
15	29	-					140	49	52	6.0	2.4	2.8
16	9.9	-					118	56	62	5.5	2.5	2.8
17	7.5	-					97	67	49	5.5	2.3	2.9
18	7.0	-					87	92	40	5.5	2.4	2.7
19	7.0	-					92	59	35	5.2	a2.4	2.7
20	7.0	-					97	56	35	5.2	a2.4	2.9
21	7.0	-					77	47	30	5.8	2.4	3.8
22	7.2	-					72	45	28	8.1	a2.4	4.0
23	7.2	-					67	45	25	9.6	a2.4	4.0
24	7.5	-				+11	67	41	24	11	2.4	3.8
25	7.0	-					77	41	24	9.0	a2.3	4.0
26	7.5	-					87	41	22	8.4	a2.2	4.2
27	8.1	-					82	40	20	8.1	a2.2	4.2
28	8.7	-					87	41	22	7.2	2.1	4.4
29	9.9	-			-		87	45	23	6.5	a2.0	5.0
30	14	-			-		67	47	26	6.0	2.0	4.6
31	9.3	-			-		-	58	-	5.5	a2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	243.9	29	3.8	7.87	484
November 1-8.....	149.3	28	9.3	18.7	296
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	3,605	210	67	120	7,150
May.....	1,649	92	40	53.2	3,270
June.....	1,389	123	20	46.3	2,760
July.....	363.0	33	5.2	11.7	720
August.....	91.2	5.2	2.0	2.94	151
September.....	94.9	5.0	2.2	3.16	188
Water year.....	-	-	-	-	-

\* Winter discharge measurement made on this day.

+ Result of discharge measurement or field estimate.

a No gage-height record; discharge interpolated or computed on basis of records for Camas Creek

at Eighteenmile shearing corral near Kilgore.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

MUD LAKE BASIN  
Beaver Creek at Dubois, Idaho

61

Location.- Water-stage recorder, lat. 44°11', long. 112°14', in NW¼ sec. 21, T. 10 N., R. 36 E., half a mile north of Dubois.

Drainage area.- 220 square miles.

Records available.- April 1921 to September 1943.

Average discharge.- 16 years (1921-24, 1928-29, 1931-43), 13.4 second-feet.

Extremes.- Maximum discharge during year, 179 second-feet Apr. 8 (gage height, 2.14 feet); no flow during long periods.

1921-43: Maximum discharge, 858 second-feet Apr. 7, 1930; maximum gage height, about 6.5 feet Mar. 16, 1928; no flow during long periods.

Remarks.- Records good.

Cooperation.- Water-stage recorder inspected by watermaster for Water District No. 66.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Mar.	Apr.	May	June	July	Day	Mar.	Apr.	May	June	July
1	0	74	38	52	4.9	16	0	84	30	63	0
2	0	103	46	68	4.9	17	0	71	46	49	0
3	0	120	46	77	1.8	18	0	60	59	37	0
4	0	150	46	71	5.0	19	0	59	49	29	0
5	0	148	53	63	7.3	20	0	65	35	24	0
6	0	136	49	55	3.3	21	0	65	25	20	0
7	0	144	50	48	.6	22	0	57	20	16	0
8	0	164	48	48	0	23	0	47	22	14	0
9	0	130	39	42	0	24	0	44	22	12	0
10	0	105	34	42	0	25	0	52	22	8.8	0
11	0	73	30	42	0	26	0	71	25	6.6	0
12	0	103	35	47	0	27	0	66	26	4.0	0
13	0	114	34	56	0	28	0	52	24	1.4	0
14	0	114	28	53	0	29	.1	59	34	.7	0
15	0	97	24	84	0	30	18	43	38	3.5	0
						31	43	-	44	-	0

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year.....	6,337.6	269	0	17.4	12,570
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	61.1	43	0	1.97	121
April.....	2,670	164	43	89.0	5,300
May.....	1,121	59	20	36.2	2,220
June.....	1,167.0	84	.7	38.9	2,310
July.....	25.8	7.3	0	.83	51
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year.....	5,044.9	164	0	13.8	10,000

Beaver Creek at Camas, Idaho

Location.- Staff gage, lat. 44°01', long. 112°14', in NE¼ sec. 21, T. 8 N., R. 36 E., a quarter of a mile northwest of Oregon Short Line Railroad station at Camas and three-eighths of a mile upstream from mouth.

Records available.- April 1921 to September 1943.

Extremes.- Maximum discharge observed during year, 60 second-feet Apr. 9 (gage height, 2.10 feet); no flow on most days.

1921-43: Maximum discharge observed, 163 second-feet Apr. 7, 1930; usually no flow past station except for short period in spring of each year; none passed station during years 1931-36 and 1940.

Remarks.- Records good. Gage read twice daily. Flow affected by irrigation diversions above Dubois, about 14 miles above station, and by heavy channel losses below Dubois.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Discharge	Day	Discharge	Day	Discharge
Apr. 1	0	Apr. 11	27	Apr. 21	8
2	0	12	27	22	5
3	0	13	35	23	3
4	0	14	37	24	0
5	33	15	32	25	0
6	46	16	23	26	7
7	51	17	15	27	14
8	54	18	8	28	8
9	54	19	4	29	3
10	41	20	5	30	2
				31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942	1,021	147	0	2.80	2,020
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	542	54	0	15.1	1,075
May.....	0	0	0	0	0
June.....	0	0	0	0	0
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43	542	54	0	1.48	1,080

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## MUD LAKE BASIN

Medicine Lodge Creek near Argora, Idaho

Location.— Water-stage recorder, lat. 44°19', long. 112°34', in sec. 34, T. 12 N., R. 33 E., at Albano Ranch, 2½ miles southeast of Argora.

Drainage area.— About 160 square miles.

Records available.— November 1938 to October 1943 (discontinued).

Extremes.— Maximum discharge during period October 1942 to October 1943, 82 second-feet July 22, from rating curve extended above 80 second-feet; maximum gage height recorded, 1.96 feet Mar. 3, ice jam; minimum discharge not determined (occurred during period of ice effect).

1938-43: Maximum discharge observed, 166 second-feet Mar. 22, 1939 (gage height, 1.80 feet), from rating curve extended above 50 second-feet; minimum not determined, but probably occurred Jan. 3, 1942, during period of ice effect.

Remarks.— Records fair except those for periods of no gage-height record in January and March and periods of ice effect, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, 1942-43

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a36	a32	b39	36	a32	a37	43	21	48	57	41	36
2	a36	a32	b39	36	b35	b22	49	21	52	56	42	36
3	a36	31	b30	b35	b40	b22	54	21	50	55	41	36
4	a36	29	b22	b20	b42	a23	52	22	50	57	40	36
5	36	28	b16	18	b42	a24	49	21	49	54	38	36
6	37	27	17	23	b43	a21	a49	23	a46	54	38	36
7	37	29	b20	28	45	a22	a49	28	44	54	37	a35
8	36	*32	b21	34	44	b22	a49	32	43	55	36	a34
9	36	31	b25	34	42	b27	a47	43	43	52	37	a34
10	36	29	b35	34	33	32	a44	41	47	50	38	33
11	36	a29	41	a30	b35	30	a44	40	48	49	37	33
12	36	a29	41	a25	41	30	44	40	50	48	37	33
13	41	a30	40	a26	41	29	44	40	53	48	36	32
14	38	a30	*36	a32	40	28	36	41	56	47	36	35
15	38	a32	38	a45	39	29	35	44	55	44	36	35
16	36	a33	39	a35	39	b30	35	49	55	44	36	33
17	35	a34	39	a23	39	b31	35	45	54	44	35	32
18	34	a34	39	a16	38	b31	35	43	56	43	36	a32
19	30	a34	a38	a15	37	b32	33	42	54	44	36	a31
20	30	a32	36	a16	37	b32	32	42	53	43	36	31
21	30	a30	36	a17	36	32	30	41	53	41	36	31
22	29	a32	36	a18	36	32	26	41	52	49	36	31
23	31	a34	36	a20	b36	a33	24	a41	57	47	36	32
24	31	a35	37	a20	b35	a34	23	40	58	44	36	32
25	29	a34	36	a22	b35	a35	24	41	57	41	36	32
26	30	a31	b19	a23	34	a36	25	41	56	41	36	33
27	31	a36	b16	a25	a37	a37	22	40	55	42	35	34
28	a32	a38	19	a33	a37	a38	23	41	56	41	34	34
29	a30	a39	b25	a38	a48	a48	23	44	56	39	35	33
30	a30	a39	b26	a42	-	*50	22	47	57	38	35	33
31	a30	-	37	a35	-	41	-	47	-	41	36	-

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations near Small and at Ellis Ranch.

b Stage-discharge relation affected by ice.

1943

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 1	34	Oct. 6	30	Oct. 11	33
2	34	7	30	12	33
3	33	8	31	13	33
4	33	9	31		
5	a32	10	32		

a No gage-height record; discharge interpolated.

Monthly discharge, in second-feet, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1942	1,049	41	29	33.8	2,080
November	965	39	27	32.2	1,910
December	976	41	13	31.5	2,940
Calendar year 1942	16,079	104	-	44.1	31,900
January 1943	854	45	15	27.5	1,690
February	1,087	45	30	38.1	2,120
March	970	50	21	31.3	1,920
April	1,102	54	22	36.7	2,940
May	1,163	49	21	37.5	3,100
June	1,565	58	43	52.2	2,900
July	1,462	57	38	47.2	2,280
August	1,140	42	34	36.8	2,280
September	1,000	36	31	33.3	1,980
Water year 1942-43	13,313	58	15	36.5	26,400
October 1-13, 1943	419	34	30	32.2	631

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Medicine Lodge Creek at Ellis Ranch, near Argora, Idaho

Location.— Water-stage recorder, lat. 44°17', long. 112°30', in sec. 7, T. 11 N., R. 34 E., 4 miles upstream from Middle Creek, 6½ miles southeast (revised) of Argora, and 17 miles northwest of Dubois.

Records available.— October 1940 to September 1943.

Extremes.— Maximum discharge during year, 68 second-feet July 22 (gage height, 2.37 feet); minimum, 15 second-feet Dec. 5, 26, Jan. 18, 19.  
1940-43: Maximum discharge, 129 second-feet July 14, 1941 (gage height, 3.23 feet); minimum, 9 second-feet Dec. 12, 1940 (gage height, 1.17 feet).

Remarks.— Records good except those for periods of no gage-height record, which are fair. Several diversions above and below station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	36	43	45	33	39	50	27	51	58	50	a41
2	40	36	44	44	37	22	56	26	53	57	51	a41
3	40	37	30	30	44	23	56	27	52	57	50	a41
4	40	36	23	20	45	24	56	25	52	60	50	a41
5	40	36	17	22	46	25	54	20	52	56	48	a41
6	40	36	18	26	48	21	54	21	49	55	49	a41
7	39	36	20	27	50	22	54	27	44	56	47	a40
8	36	39	22	30	48	23	54	29	44	56	46	a39
9	36	39	27	35	43	29	52	45	44	55	46	a39
10	36	37	40	33	27	41	50	45	46	54	45	b38
11	37	36	45	30	39	48	50	44	46	54	45	a38
12	36	36	44	26	42	45	50	45	50	53	45	a38
13	40	37	45	28	46	45	50	45	50	52	44	a38
14	38	37	44	34	44	44	46	45	54	52	44	a38
15	37	40	44	46	43	42	43	48	52	50	a44	a38
18	36	39	44	34	41	41	43	52	51	50	44	a38
17	36	41	44	23	41	41	42	50	a51	52	42	a38
18	36	41	43	17	42	40	41	49	a52	52	43	a38
19	32	41	42	16	42	41	40	47	a53	50	43	a38
20	33	39	42	17	42	40	38	46	a54	50	a43	b38
21	32	36	42	18	42	41	37	45	54	49	a43	a38
22	31	40	42	19	42	42	33	46	55	52	a43	a38
23	32	41	46	22	40	42	31	46	59	54	b43	a37
24	32	45	43	22	41	42	30	45	59	52	a43	a37
25	31	41	42	24	31	43	30	a45	58	50	a43	a36
28	31	37	19	25	41	43	31	a45	58	50	a42	a36
27	32	44	17	28	41	44	30	a45	57	50	a42	b36
28	34	44	21	36	42	45	30	a45	56	48	a41	36
29	33	44	26	41	-	51	29	a47	56	48	a41	36
30	34	44	28	44	-	58	28	a49	57	48	b41	36
31	34	-	41	35	-	50	-	51	-	50	a41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,105	40	31	35.6	2,190
November.....	1,169	45	35	39.0	2,320
December.....	1,085	45	17	35.0	2,160
Calendar year 1942.....	16,771	89	11	45.9	33,260
January.....	899	48	16	29.0	1,780
February.....	1,163	50	27	41.5	2,310
March.....	1,197	56	21	38.6	2,370
April.....	1,289	58	28	43.0	2,560
May.....	1,271	52	20	41.0	2,520
June.....	1,568	59	44	52.3	3,110
July.....	1,630	60	48	52.6	3,230
August.....	1,381	51	41	44.5	2,740
September.....	1,148	41	36	38.3	2,280
Water year 1942-43.....	14,905	60	16	40.8	29,560

a No gage-height record; discharge computed on basis of records for stations near Argora and near Small.

b Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## MUD LAKE BASIN

## Medicine Lodge Creek near Small, Idaho

Location.- Water-stage recorder, lat. 44°16', long. 112°25', in NW¼ sec. 25, T. 11 N., R. 34 E., 400 feet west of H. W. Small's ranch house, 1 mile downstream from Indian Creek, 4 miles northwest of Small, and 11 miles northwest of Dubois.

Drainage area.- 270 square miles.

Records available.- April 1921 to December 1923, October 1940 to September 1943.

Extremes.- Maximum discharge during year, 89 second-feet June 14; maximum gage height recorded, 4.68 feet Feb. 1, ice jam; minimum discharge not determined (occurred during period of ice effect).

1921-23, 1940-43: Maximum discharge recorded, 196 second-feet June 1, 1921 (gage height, 2.8 feet, site and datum then in use); minimum observed, 8 second-feet Dec. 14, 1940 (discharge measurement).

Remarks.- Records good except those for periods of no gage-height record during winter period and periods of ice effect, which are poor. Many small diversions above and below station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	47	b51		b50		68	42	64	72	55	45
2	47	47	53				71	43	67	67	55	44
3	47	44					77	44	69	71	57	46
4	47	44					78	45	66	75	57	44
5	47	43				b35	72	37	65	71	55	44
6	46	41	b30	b40			71	36	63	67	54	44
7	46	42			a50		73	41	57	67	54	43
8	46	*44					72	44	55	67	53	43
9	43	45					71	50	55	66	52	43
10	41	43					65	60	56	64	50	42
11	43	43	b55				a57	59	61	64	50	41
12	43	b43					66	64	71	64	50	41
13	46	43		a40	52		65	64	71	64	50	41
14	47	44	*b53		50		63	63	85	63	48	41
15	45	47	53		50		59	64	75	61	48	40
16	44	46	52				58	71	74	59	48	41
17	43	48	52		b50		57	80	71	62	47	41
18	43	50	53				54	75	70	61	47	41
19	40	50	b53		52	a55	52	72	67	59	45	42
20	41	48	b53		51		50	69	71	58	47	43
21	41	b46	b53		50		49	67	71	56	47	42
22	40	b48	53	a30	50		45	65	71	57	46	a42
23	41	b49	53		46		43	64	77	65	46	a42
24	41	55	53				43	62	78	62	46	a42
25	40	49	53				44	61	77	59	45	a43
26	39	b45			b50		47	60	75	58	46	a43
27	42	b53			52		44	59	74	58	45	43
28	46	52		a50		62	44	59	71	56	44	42
29	43	52	b40			*71	42	62	70	55	44	42
30	43	51		b50			42	62	71	53	44	41
31	44	-				69	-	61	-	55	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,352	47	39	43.6	2,680
November	1,401	55	41	46.7	2,780
December	1,403	-	-	45.4	2,790
Calendar year 1942	22,482	111	-	61.6	44,580
January	1,170	-	-	37.7	2,320
February	1,403	-	-	50.1	2,780
March	1,562	71	-	50.4	3,100
April	1,755	77	42	59.5	3,480
May	1,605	80	36	58.2	3,560
June	2,068	85	55	68.9	4,100
July	1,939	78	53	62.5	3,850
August	1,526	58	44	49.2	3,050
September	1,272	46	40	42.4	2,520
Water year 1942-43	18,661	85	-	51.1	37,010

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Ellis Ranch near Argora and station near Argora.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Little Lost River near Howe, Idaho

Location.— Water-stage recorder, lat. 43°53', long. 113°06', in sec. 3, T. 6 N., R. 28 E., 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.

Records available.— April 1921 to September 1943, except during winters.

Extremes.— Maximum discharge during year, 157 second-feet June 21, 24, 25; maximum gage height recorded, 4.48 feet Dec. 27 (affected by ice); minimum discharge recorded, 18 second-feet Dec. 28.

1921-43: Maximum discharge, about 450 second-feet Aug. 11, 1936, during cloudburst (gage height, 3.1 feet, datum then in use, from floodmark), from rating curve extended above 100 second-feet; minimum observed, 4.1 second-feet Dec. 12, 1940.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above and below station for irrigation. Prior to 1937 water was stored in small reservoir of Blaine County Investment Co. on Dry Creek, about 40 miles above station, and during irrigation seasons was released and carried through Corral and Wet Creeks to Little Lost River, from which it was diverted into the company's main canal a quarter of a mile below station.

Cooperation.— Water-stage recorder inspected by watermaster for Water District No. 9.

Rating table, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 2, Dec. 12-25)

2.1	15	2.8	73
2.2	20	3.0	96
2.4	34	3.2	120
2.6	52	3.5	185

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	48	38				a40	98	148	142	74	60
2	50	50	51		†18		a50	106	145	142	78	59
3	51	57					a60	113	148	141	81	63
4	50	49					69	119	148	137	80	60
5	50	44					69	120	144	128	74	59
6	49	42					70	121	138	116	89	59
7	48	46					69	115	133	110	65	59
8	49	56	b25				74	116	132	116	63	58
9	49	†52					81	110	130	110	63	58
10	45	46					76	106	139	118	61	57
11	48	44					71	104	142	125	58	54
12	49	44	22				74	106	149	108	58	53
13	48	46	22				76	106	150	108	58	†53
14	48	48	25				81	101	160	110	59	†50
15	45	66	*26				85	97	148	104	60	51
16	49	58	26				92	104	149	101	63	52
17	49	51	26				98	101	149	103	62	55
18	48	64	28				103	94	150	101	61	56
19	48	64	33				109	†90	152	101	62	57
20	49	53	30				115	†82	154	103	63	59
21	48	46	30				112	81	155	104	61	59
22	49	36	24				109	94	156	111	60	57
23	50	30	27				103	92	155	118	59	56
24	48	37	27				103	104	155	112	56	55
25	44	45	26				112	116	154	107	56	56
26	44	42					109	126	153	104	56	57
27	44	31					102	131	153	103	54	57
28	42	33					101	136	153	†99	54	57
29	36	38	b23				106	140	150	95	55	56
30	39	30					101	142	148	91	55	56
31	45	-					-	146	-	83	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,468	51	36	47.4	2,910
November.....	1,396	66	50	48.5	2,770
December.....	804	38	-	26.9	1,580
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	2,620	115	40	87.3	5,200
May.....	3,406	146	81	110	6,750
June.....	4,424	155	130	147	8,770
July.....	3,450	142	83	111	6,840
August.....	1,938	81	54	62.5	3,840
September.....	1,697	60	50	56.6	3,370
Water year.....	-	-	-	-	-

\* Winter discharge measurement made on this day.

† Result of discharge measurement.

a No gage-height record; discharge computed on basis of records for Warm Springs Creek at Guyer Hot Springs near Ketchum and weather records.

b Stage-discharge relation affected by ice.

c Computed on basis of partly estimated gage-height record.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## LITTLE LOST RIVER BASIN

Blaine County Investment Co.'s canal near Howe, Idaho

Location.- Staff gage and Cippoletti weir, lat. 43°53', long. 113°05', in NW 1/4 sec. 24, T. 6 N., R. 28 E., 665 feet downstream from head gates and 7 miles northwest of Howe.

Records available.- April 1924 to September 1943 (prior to 1939, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 62 second-feet Apr. 23, 25, 26, June 24-27; maximum gage height observed, 2.82 feet Apr. 23, 25, 26; no flow during long periods.

1924-43: Maximum discharge observed, 87 second-feet May 24, 25, 1928; no flow during long periods each year.

Remarks.- Records good except those below 5 second-feet, which are poor. Gage read once daily. Canal diverts water from Little Lost River in sec. 2, T. 6 N., R. 28 E., for irrigation of lands in project of the Blaine County Investment Co.

Cooperation.- Gage-height record furnished by Water District No. 9.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		4.9						46	51	59	14	0
2		4.9						38	52	55	14	0
3		4.9						34	56	53	15	0
4		4.9						23	56	44	14	0
5		4.9						23	51	37	14	0
6		4.9					0.5	26	47	30	9.9	0
7		4.9						23	40	21	3.3	0
8		7.0						23	38	27	3.3	0
9		4.1						21	28	21	1.6	0
10		4.9						18	42	30	0	0
11	0.2	4.9						16	17	45	33	0
12		.2						39	17	45	34	0
13		0						47	17	45	17	0
14		0						53	17	53	26	0
15		0						55	15	53	20	0
16		0						57	15	54	16	1.8
17		0						57	15	54	16	6.3
18		0						56	15	57	16	6.3
19		0						57	13	57	15	2.4
20	1.8	0						60	4.3	58	15	0
21	4.9	0						60	.6	61	15	0
22	4.9	0						60	.6	61	19	0
23	4.9	0						62	.6	61	29	0
24	4.9	0						60	2.0	62	24	0
25	4.9	0						62	25	62	23	0
26	4.9	0						62	28	62	23	0
27	4.9	0						59	28	62	19	0
28	4.9	0						60	31	60	14	0
29	4.9	0						59	38	58	15	0
30	4.9	0						60	40	58	15	0
31	4.9	-						-	45	-	15	0

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	59.5	4.9	-	1.92	118
November.....	55.4	7.0	0	1.85	110
December.....	0	0	0	0	0
Calendar year 1942 .....	2,655.2	54	0	7.82	5,660
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	1,106.0	62	-	36.9	2,190
May.....	659.1	46	.6	21.3	1,310
June.....	1,588	62	28	52.9	3,160
July.....	796	59	14	25.7	1,580
August.....	105.9	15	0	3.42	210
September.....	75.0	7.3	0	2.50	149
Water year 1942-43 .....	4,444.9	62	0	12.2	8,820

Note.- No gage-height record Oct. 1-19, 23, Apr. 1-10, 30, May 16, 17, Sept. 22; discharge Oct. 23, Apr. 30, May 16, 17, Sept. 22 interpolated; leakage Oct. 1-19, Apr. 1-10, computed on basis of discharge measurement Sept. 29, 1942, field estimate of Apr. 7, and information furnished by water-master.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Lost River at Howell Ranch, near Chilly, Idaho

Location.- Water-stage recorder, lat. 44°01', long. 114°00', in sec. 30, T. 8 N., R. 21 E., at Howell Ranch, 9 miles southwest of Chilly and 21 miles northwest of Mackay.

Records available.- April 1904 to August 1906, July 1907 to November 1914, May 1920 to September 1943, except during winters.

Extremes.- Maximum discharge during year, 2,370 second-feet June 19 (gage height, 4.28 feet); minimum recorded, 64 second-feet Nov. 10 (gage height, 0.75 foot). 1904-14, 1920-43: Maximum discharge, 3,500 second-feet June 12, 1921 (gage height, 5.94 feet), from rating curve extended above 3,000 second-feet; minimum observed, 19 second-feet (discharge measurement) Dec. 12, 1939.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair. No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 second-feet) diverts a quarter of a mile below station.

Cooperation.- Water-stage recorder inspected and one discharge measurement furnished by Water District No. 27.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 30			Apr. 1 to Sept. 30		
0.9	90		1.0	116	2.5
1.0	110		1.3	193	3.0
1.1	132		1.6	289	3.5
			2.0	454	4.0
					2,070

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	102						752	1,670	1,870	578	193
2	94	102						892	1,490	1,770	595	190
3	94	108						1,020	1,260	1,620	538	196
4	94	98						1,120	1,110	1,720	480	185
5	98	100						1,220	988	1,540	454	182
6	98	100										
7	94	d100					a230	1,120	885	1,580	440	176
8	94	108						1,050	840	1,780	450	173
9	92	100						916	825	1,670	416	171
10	94	f96						840	924	1,720	381	171
								840	1,220	1,540	360	165
11	117							796	1,490	1,400	341	162
12	130							745	1,540	1,260	333	160
13	128						341	704	1,490	1,080	321	160
14	119						407	657	1,400	1,040	318	157
15	114						522	638	1,220	1,040	321	156
16	117	d100						590	613	1,180	329	152
17	112							651	594	1,310	314	149
18	110							724	554	1,770	908	147
19	110							862	527	2,270	932	147
20	108							878	554	2,020	932	147
21	108							781	619	a1,800	940	144
22	108							690	788	2,020	1,040	142
23	110							677	1,030	1,820	1,000	139
24	108							731	1,400	1,620	892	137
25	104							724	1,540	1,670	862	137
26	104	a110						664	1,620	1,670	848	137
27	108							613	1,770	1,720	825	147
28	96							664	2,070	1,770	759	147
29	92							651	2,270	1,770	870	147
30	96							613	2,320	1,620	595	139
31	98	-						-	2,020	-	566	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,239	130	92	104	6,420
November.....	3,104	-	-	103	6,160
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	14,543	878	-	-	28,850
May.....	33,589	2,320	527	-	66,820
June.....	44,582	2,270	825	-	88,430
July.....	36,243	1,870	566	-	71,890
August.....	10,308	595	199	-	20,450
September.....	4,754	196	137	-	9,430
Water year.....	-	-	-	-	-

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Warm Springs Creek near Ketchum.

d Doubtful gage-height record; discharge computed on basis of records for Warm Springs Creek near Ketchum.

f Computed on basis of partly estimated gage-height record.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## BIG LOST RIVER BASIN

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

Location.— Water-stage recorder and concrete control, lat. 43°59', long. 113°45', in sec. 32, T. 8 N., R. 23 E., above flow line of reservoir, 3 miles upstream from Mackay Dam, and 7½ miles northwest of Mackay.

Records available.— May 1919 to September 1943.

Average discharge.— 24 years, 57.8 second-feet.

Extremes.— Maximum discharge during year, 1,150 second-feet June 20 (gage height, 4.92 feet); minimum daily, 1 second-foot Mar. 4 to Apr. 16; minimum gage height, 0.34 foot Oct. 4.

1919-43: Maximum discharge, 1,320 second-feet June 7, 1938 (gage height, 5.02 feet); no flow during long periods in 1920, 1923-38, 1940.

Remarks.— Records good except those for periods of doubtful gage-height record or indefinite stage-discharge relation and those below 10 second-feet, which are fair. Diversions above station for irrigation. The sum of the combined discharge of east and west channels of Big Lost River and of the combined discharge of east and west channels of Warm Spring Creek, near Mackay, represents practically entire surface flow of Big Lost River which enters Mackay Reservoir.

Cooperation.— Water-stage recorder graph furnished by watermaster for Big Lost River.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	8	6		2	2	1	255	992	994	342	55
2	8	8	6			2	1	298	850	994	342	56
3	8	8	6		3	2	1	335	782	954	333	56
4	8	8	6		3	1	1	384	710	978	306	55
5	8	8	6		3	1	1	441	650	930	285	49
6	8	8	a6		3	1	1	462	588	902	285	47
7	8	8	a6		3	1	1	450	538	930	281	45
8	8	7	a5		3	1	1	426	500	923	238	44
9	8	7	a5		3	1	1	393	507	916	220	43
10	e8	7	5		3	1	1	369	598	881	200	41
11	e9	7	5		3	1	1	352	730	812	188	41
12	a9	7	5		3	1	1	340	798	765	168	41
13	a9	7	a5		2	1	1	324	798	678	144	
14	e9	7	a5		2	1	1	298	806	616	103	
15	e9	8	a5		2	1	1	282	742	592	98	
16	e9	7	5	e3	2	1	e1	276	700	568	98	a35
17	9	7	5		2	1	37	260	710	528	94	
18	9	7	5		2	1	99	242	806	508	93	
19	10	7	5		2	1	163	224	989	500	88	32
20	10	7	5		2	1	220	217	1,120	504	82	31
21	10	7			2	1	234	220	1,020	524	77	29
22	10	7			2	1	224	240	1,010	560	75	28
23	9	6			2	1	217	304	1,080	560	74	25
24	9	6			2	1	227	a400	954	528	71	25
25	9	6			2	1	240	a500	909	516	67	24
26	9		e4		2	1		237	636	916	493	66
27	9	a6			2	a1		222	658	938	482	63
28	9	6			2	1		222	754	970	458	59
29	8	6			-	1		255	904	978	434	57
30	8	6			-	1		242	982	970	402	57
31	8	-		2	-	1	-	1,000	-	364	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	270	10	8	8.7	536
November.....	210	8	6	7.0	417
December.....	151	6	-	4.9	300
Calendar year 1942.....	38,997	952	-	107	77,350
January.....	92	-	-	3.0	182
February.....	66	3	2	2.4	131
March.....	34	2	1	1.1	67
April.....	2,855	255	1	95.2	5,660
May.....	13,228	1,000	217	427	28,230
June.....	24,659	1,120	500	322	48,910
July.....	20,794	994	364	671	41,240
August.....	4,660	342	56	150	9,240
September.....	1,101	56	24	36.7	2,180
Water year 1942-43.....	68,118	1,120	1	187	135,100

a No gage-height record; discharge computed on basis of records for west channel of Big Lost River and Warm Spring Creek above Mackay Reservoir.

e Doubtful gage-height record or stage-discharge relation indefinite; discharge computed on basis of discharge measurement of Oct. 16 and records for nearby stations or interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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

Location.— Water-stage recorder, lat. 43°58', long. 113°45', in sec. 5, T. 7 N., R. 23 E., above flow line of reservoir, 3 miles upstream from Mackay Dam, and 7½ miles north-west of Mackay.

Records available.— May 1919 to September 1943.

Average discharge.— 24 years, 57.6 second-feet.

Extremes.— Maximum discharge during year, 376 second-feet June 20; maximum-gage height, 3.71 feet May 31; minimum discharge, 34 second-feet Apr. 9-13, 15, 16 (gage height, 1.96 feet).

1919-43: Maximum discharge, 1,200 second-feet (estimated) sometime during period June 5-16, 1921 (gage height, 4.45 feet, site and datum then in use); minimum, 9 second-feet May 22, 26, 1935.

Remarks.— Records good except those for June to August, which are fair. Diversions above station for irrigation. The sum of the combined discharge of east and west channels of Big Lost River and the combined discharge of east and west channels of Warm Spring Creek, near Mackay, represents practically the entire surface flow of Big Lost River which enters Mackay Reservoir (see following page).

Cooperation.— Water-stage recorder graph furnished by Water District No. 27.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	61	51	48	42	40	41	92	306	317	100	63
2	56	61	51	48	42	40	42	100	289	321	97	63
3	56	59	51	48	42	38	40	114	241	312	95	63
4	56	58	51	47	42	36	39	131	204	319	90	63
5	58	56	51	46	42	36	38	150	178	295	87	62
6	59	56	51	45	42	36	38	162	154	273	81	61
7	58	56	51	45	42	36	36	156	139	251	78	61
8	58	56	50	45	42	35	36	148	128	290	75	61
9	59	56	50	45	41	36	34	137	126	288	74	61
10	59	55	48	45	41	36	34	131	130	279	69	58
11	61	55	48	43	40	36	34	126	174	252	66	56
12	61	54	48	45	40	36	34	124	214	231	65	56
13	59	54	48	45	40	36	34	122	227	198	65	55
14	59	54	48	43	40	36	35	115	227	176	65	56
15	59	56	47	45	40	36	34	108	206	166	65	56
16	59	56	47	45	40	36	34	107	188	156	65	56
17	59	55	47	45	40	36	36	102	190	144	69	56
18	59	55	46	40	40	36	40	90	220	139	68	55
19	59	54	48	40	40	36	42	82	301	135	66	55
20	59	54	47	41	40	36	62	61	374	135	69	54
21	58	54	47	43	40	35	78	80	323	143	69	54
22	58	54	48	45	39	35	86	84	319	160	68	54
23	59	54	48	45	40	35	89	95	345	158	68	55
24	59	55	48	45	40	36	86	124	310	148	68	55
25	59	54	48	45	40	36	90	168	286	141	68	55
26	59	54	48	45	40	36	90	202	284	137	66	55
27	61	54	47	45	40	36	92	231	285	135	65	54
28	61	52	47	45	40	36	92	264	301	130	62	54
29	61	52	48	45	-	42	95	312	306	119	61	54
30	61	52	48	43	-	43	94	343	306	110	61	54
31	61	-	48	42	-	42	-	358	-	103	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,824	61	56	58.6	3,620
November	1,656	61	52	55.2	3,280
December	1,506	51	47	48.6	2,990
Calendar year 1942	28,535	332	39	78.2	56,610
January	1,382	48	40	44.6	2,740
February	1,137	42	39	40.6	2,260
March	1,145	43	35	36.9	2,270
April	1,655	95	34	58.2	3,280
May	4,639	358	80	150	9,200
June	7,275	374	126	242	14,430
July	6,191	321	103	200	12,280
August	2,234	100	61	72.1	4,450
September	1,716	63	54	57.2	3,400
Water year 1942-43	32,359	374	34	88.7	64,180

a No gage-height record; discharge interpolated.

## BIG LOST RIVER BASIN

Combined discharge, in second-feet, of Big Lost River (east and west channels) and Warm Spring Creek (east and west channels) above Mackay Reservoir, near Mackay, Idaho, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	179	168	161	151	147	168	475	1,600	1,620	582	224
2	168	183	170	162	152	147	166	530	1,390	1,620	579	226
3	167	184	168	161	153	144	157	590	1,270	1,570	564	226
4	164	180	170	160	154	142	152	666	1,140	1,600	528	224
5	168	178	170	159	154	142	149	750	1,020	1,520	500	217
6	168	175	170	158	155	141	149	788	915	1,450	471	213
7	168	174	168	157	154	142	145	768	835	1,490	453	212
8	168	173	166	157	155	141	142	730	776	1,510	432	211
9	172	172	165	157	154	141	139	680	778	1,500	412	210
10	174	171	163	157	154	141	138	644	902	1,450	381	206
11	179	169	162	155	153	142	135	618	1,110	1,330	364	202
12	179	169	163	157	152	141	137	604	1,260	1,250	342	203
13	172	171	163	156	151	142	137	580	1,280	1,100	318	199
14	171	172	164	154	151	142	138	539	1,290	1,000	280	201
15	170	179	163	156	151	142	138	509	1,180	963	278	202
16	171	175	163	156	151	141	136	501	1,100	921	279	201
17	171	177	162	156	151	141	176	474	1,110	859	276	203
18	171	178	162	151	150	141	243	437	1,270	827	274	200
19	172	176	162	151	150	141	310	406	1,590	812	264	197
20	170	174	161	152	150	141	396	397	1,840	816	265	195
21	169	174	158	155	150	141	436	399	1,660	865	260	192
22	168	174	160	156	149	141	437	425	1,640	941	254	190
23	170	174	160	157	149	141	434	507	1,750	932	255	188
24	172	175	160	157	149	141	440	662	1,570	874	250	189
25	174	174	160	157	149	143	459	847	1,480	848	244	189
26	174	172	160	158	149	144	457	1,050	1,480	814	241	193
27	177	171	159	158	150	151	444	1,130	1,520	799	234	193
28	176	169	160	157	150	162	450	1,300	1,570	781	225	188
29	172	169	161	157	-	171	484	1,530	1,580	713	221	187
30	172	169	161	155	-	174	468	1,660	1,580	666	222	190
31	172	-	161	150	-	162	-	1,700	-	609	226	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,306	179	164	171	10,520
November.....	5,230	184	169	174	10,370
December.....	5,063	170	158	163	10,040
Calendar year 1942.....	115,717	1,610	153	512	225,600
January.....	4,850	162	150	156	9,620
February.....	4,241	155	149	151	8,410
March.....	4,513	174	141	146	8,950
April.....	7,959	484	135	265	15,790
May.....	22,896	1,700	397	739	45,410
June.....	39,486	1,840	776	1,320	78,320
July.....	34,030	1,620	609	1,100	67,500
August.....	10,474	582	221	358	20,770
September.....	6,068	226	187	202	12,040
Water year 1942-43.....	150,116	1,840	135	411	297,700

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Mackay Reservoir near Mackay, Idaho

Location.- Staff gage on head-gate tower of dam on Big Lost River, lat. 43°57', long. 113°40', in sec. 12, T. 7 N., R. 23 E., 4 miles northwest of Mackay. Datum of gage is 6,000 feet above mean sea level.

Records available.- January 1919 to September 1943.

Extremes.- Maximum contents observed during year, 39,180 acre-feet May 31, July 24 (gage height, 62.60 feet); minimum observed, 16,570 acre-feet Oct. 1, 2 (gage height, 41.02 feet).

1919-43: Maximum contents observed, 41,270 acre-feet May 30, 1938 (gage height, 64.20 feet); no available storage during periods in 1919, 1920, 1924, 1928, 1929, 1931-35; minimum gage height observed, 6.3 feet Aug. 5, 1934.

Remarks.- Reservoir is formed by earth- and rock-fill dam, which was reconstructed 1917-18; storage impounded by original dam not recorded. Capacity, 38,400 acre-feet between gage heights 7.0 feet (bottom of outlet tunnel) and 62.0 feet (crest of spillway). Dead storage reported to be about 125 acre-feet. Water is used for irrigation of lands in Big Lost River Irrigation district. Considerable seepage around dam because of its porous foundation, but the greater part of this water returns to Big Lost River between the reservoir and station below reservoir, near Mackay. Figures given herein represent usable contents. Gage read once daily.

Cooperation.- Gage-height record and capacity table furnished by watermaster for Big Lost River.

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,570	21,600	27,680	31,010	32,380	32,780	32,770	36,280	38,740	38,280	38,390	26,670
2	16,600	21,810	27,820	31,050	32,410	32,780	32,730	36,370	38,230	38,350	38,400	26,400
3	16,686	22,020	27,900	31,130	32,440	32,780	32,600	36,580	37,860	38,370	38,400	26,300
4	16,780	22,250	28,120	31,200	32,470	32,780	32,460	36,790	37,540	38,460	38,400	26,190
5	16,910	22,460	28,350	31,290	32,510	32,780	32,360	36,870	36,730	38,290	38,390	26,060
6	17,070	22,720	28,510	31,360	32,530	32,780	32,300	36,720	36,100	38,140	38,230	25,940
7	17,180	22,980	28,750	31,400	32,540	32,780	32,040	36,510	35,560	38,150	37,950	25,850
8	17,260	23,130	28,960	31,430	32,550	32,780	31,870	36,350	35,250	38,300	37,610	25,800
9	17,340	23,250	29,120	31,460	32,570	32,780	31,800	36,210	34,830	38,400	37,050	25,800
10	17,520	23,490	29,270	31,520	32,580	32,780	31,790	36,990	34,670	38,400	36,630	25,610
11	17,710	23,720	29,450	31,580	32,590	32,780	31,780	37,720	35,010	38,240	36,460	25,780
12	17,860	23,900	29,560	31,600	32,600	32,780	31,650	37,490	35,660	37,970	35,800	25,730
13	17,970	24,160	29,710	31,630	32,620	32,780	31,580	37,230	36,410	37,970	35,130	25,740
14	18,010	24,440	29,850	31,640	32,650	32,780	31,420	36,970	36,980	38,270	34,490	25,760
15	18,040	24,690	29,940	31,650	32,660	32,780	31,210	36,580	37,470	38,560	33,980	25,760
16	18,130	24,850	30,060	31,680	32,680	32,780	30,970	36,150	37,710	38,830	33,460	25,760
17	18,240	25,050	30,160	31,740	32,710	32,780	30,910	35,850	38,010	39,920	32,860	25,730
18	18,460	25,250	30,210	31,800	32,730	32,780	31,170	35,670	38,510	38,880	32,180	25,640
19	18,770	25,420	30,260	31,840	32,740	32,780	31,590	35,290	38,660	38,870	31,590	25,570
20	18,970	25,660	30,320	31,900	32,740	32,770	32,140	34,920	38,670	38,890	31,100	25,520
21	19,080	25,850	30,410	31,960	32,750	32,760	32,800	34,650	38,290	38,930	30,780	25,500
22	19,400	26,080	30,470	32,050	32,750	32,750	33,520	34,400	38,140	38,970	30,420	25,490
23	19,670	26,260	30,500	32,120	32,770	32,750	34,080	34,280	38,060	39,110	29,920	25,500
24	19,720	26,390	30,620	32,160	32,770	32,750	34,700	34,130	37,590	39,160	29,460	25,500
25	19,950	26,530	30,700	32,220	32,780	32,750	35,350	34,220	37,040	39,140	29,120	25,560
26	20,050	26,690	30,740	32,250	32,780	32,750	35,930	35,710	37,360	39,100	28,680	25,630
27	20,190	26,810	30,820	32,290	32,780	32,770	36,610	36,930	37,990	38,980	28,330	25,690
28	20,310	27,030	30,890	32,310	32,780	32,800	37,300	37,710	38,150	38,890	27,840	25,740
29	20,950	27,290	30,930	32,320	-	32,860	37,860	38,620	38,200	38,670	27,470	25,790
30	21,280	27,530	30,960	32,330	-	32,880	38,240	39,070	38,250	38,520	27,330	25,840
31	21,350	-	30,980	32,360	-	32,810	-	39,160	-	38,430	27,040	-

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	41.09	16,620	-
Oct. 31.....	46.56	21,350	+4,730
Nov. 30.....	52.73	27,530	+6,180
Dec. 31.....	55.85	30,980	+3,450
Calendar year 1942..	-	-	-5,030
Jan. 31.....	57.04	32,360	+1,380
Feb. 28.....	57.40	32,780	+420
Mar. 31.....	57.43	32,810	+30
Apr. 30.....	61.87	38,240	+5,430
May 31.....	62.59	39,160	+920
June 30.....	61.88	38,260	-910
July 31.....	62.02	38,430	+180
Aug. 31.....	52.27	27,040	-11,390
Sept. 30.....	51.13	25,840	-1,200
Water year 1942-43..	-	-	+9,220

† Gage height at midnight.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Lost River below Mackay Reservoir, near Mackay, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 113°38', in sec. 18, T. 7 N., R. 24 E., 450 feet downstream from Olason Suspension Bridge, 1 mile downstream from head of Sharp ditch, 1½ miles downstream from Mackay Reservoir, and 2½ miles northwest of Mackay.

Records available.- December 1903 to August 1906, May 1912 to March 1915 (April 1913 to March 1915 at site 1 mile downstream), January 1919 to September 1943.

Average discharge.- 27 years (1904-5, 1912-14, 1919-43), 263 second-feet.

Extremes.- Maximum discharge during year, 1,960 second-feet June 20 (gage height, 4.84 feet); minimum recorded, 80 second-feet Nov. 14 (gage height, 1.61 feet).  
1903-6, 1912-15, 1919-43: Maximum discharge, 2,990 second-feet June 10, 1921 (gage height, 5.79 feet); minimum, 18 second-feet Nov. 1, 1934; minimum gage height, 1.23 feet Nov. 5-8, 1926.

Remarks.- Records good. Sharp ditch is only diversion between station and reservoir; many above reservoir. Flow regulated by Mackay Reservoir (see p. 71).

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	190	82	101	152	165	172	231	456	1,860	1,590	565	394
2	190	82	101	152	169	172	231	481	1,770	1,590	530	347
3	183	85	101	152	169	172	231	520	1,560	1,590	515	347
4	169	85	101	156	172	172	231	550	1,420	1,590	525	338
5	159	85	104	156	172	172	231	652	1,250	1,590	520	302
6	146	85	104	159	172	172	231	865	1,250	1,520	560	289
7	136	87	106	159	172	172	231	835	1,180	1,450	614	276
8	136	85	104	159	172	172	231	805	925	1,420	608	276
9	133	85	106	159	172	172	231	805	925	1,450	608	272
10	136	85	106	159	172	172	231	775	925	1,450	602	260
11	136	85	109	159	172	172	231	745	925	1,450	602	247
12	149	82	109	159	172	172	231	745	925	1,380	602	247
13	165	82	109	159	172	172	231	745	925	1,150	597	247
14	149	82	112	159	176	172	238	715	925	745	592	247
15	149	85	124	159	176	172	247	685	925	715	592	247
16	149	85	149	162	176	172	302	865	925	745	586	247
17	133	87	146	162	176	172	272	868	925	775	586	243
18	109	87	146	162	172	172	127	592	1,020	775	580	243
19	85	90	a147	165	172	172	124	592	1,560	775	555	243
20	82	87	a148	165	172	172	121	592	1,920	775	530	243
21	82	87	a149	162	172	172	121	586	1,850	775	515	243
22	85	90	a149	165	172	176	121	580	1,770	805	515	243
23	82	93	a150	165	172	176	124	580	1,770	835	496	231
24		93	a151	165	172	176	124	586	1,770	835	466	197
25		96	152	165	172	176	124	592	1,770	835	456	194
26	a82	96	152	162	172	176	127	652	1,480	835	447	194
27		96	152	162	172	a178	130	835	858	805	442	194
28		98	152	162	172	179	133	990	1,590	805	442	194
29		98	152	165	-	179	159	1,250	1,590	775	437	194
30	82	98	152	165	-	194	324	1,520	1,590	715	432	194
31	82	-	152	165	-	231	-	1,770	-	646	398	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,769	190	82	122	7,520
November.....	2,643	98	82	88.1	5,240
December.....	3,996	152	101	129	7,930
Calendar year 1942.....	119,348	1,560	82	327	236,700
January.....	4,977	152	152	161	9,870
February.....	4,819	176	165	172	9,560
March.....	5,453	231	172	176	10,820
April.....	5,911	384	121	197	11,720
May.....	23,449	1,770	456	756	46,510
June.....	40,098	1,920	858	1,337	79,530
July.....	33,191	1,590	646	1,071	65,830
August.....	16,515	614	398	533	32,760
September.....	7,623	384	194	254	15,120
Water year 1942-43.....	152,464	1,920	82	418	302,400

a No gage-height record; discharge interpolated on basis of recorded range in stage and information furnished by watermaster.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Warm Spring Creek (east channel) near Mackay, Idaho

Location.-- Water-stage recorder, lat. 43°58', long. 113°45', in NE¼ sec. 5, T. 7 N., R. 23 E., 700 feet upstream from confluence with west channel and 7½ miles northwest of Mackay.

Records available.-- May 1919 to September 1943.

Average discharge.-- 24 years, 28.1 second-feet.

Extremes.-- Maximum discharge during year, 131 second-feet June 20 (gage height, 2.94 feet); minimum daily, 16 second-feet Mar. 24-26, Apr. 11-14.

1919-43: Maximum discharge, 225 second-feet June 15, 1922; minimum, 9 second-feet May 8, 9, 13, 14, 1919, May 18-21, 1920.

Remarks.-- Records good. Practically all natural flow above station diverted during irrigation season. Discharge during summer represents return water from irrigation. The sum of the combined discharge of east and west channels of Warm Spring Creek and the combined discharge of east and west channels of Big Lost River, near Mackay, represents practically the entire surface flow of Big Lost River which enters Mackay Reservoir.

Cooperation.-- Water-stage recorder graph furnished by watermaster for Big Lost River.

Rating table, water year 1942-43 (gage height, in feet,  
and discharge, in second-feet)  
(Shifting-control method used June 21 to Sept. 30)

1.5	13.0	2.3	70
1.7	22	2.6	98
2.0	45	2.9	127

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	20	a19	19	19	17	21	28	105	109	39	24
2	21	20	a19	20	18	17	20	31	94	109	39	24
3	20	21	a19	19	18	17	19	36	84	107	37	24
4	20	20	19	19	18	17	18	41	71	110	35	24
5	20	20	19	19	18	17	18	45	60	103	33	24
6	20	20	19	19	18	17	18	48	50	97	31	23
7	20	19	19	18	18	17	18	46	45	98	30	23
8	20	19	19	18	19	17	17	44	40	102	28	23
9	20	19	19	18	19	17	17	41	37	103	28	23
10	20	19	19	18	19	17	17	39	46	101	26	22
11	21	19	19	18	19	17	16	36	62	93	26	22
12	21	19	19	18	19	17	16	36	80	86	26	22
13	20	19	19	18	19	17	16	34	84	77	25	22
14	20	19	19	18	19	17	16	30	84	68	26	22
15	19	20	19	18	19	17	17	28	74	65	26	23
16	19	20	19	18	19	17	17	28	65	62	27	22
17	19	20	19	18	19	17	17	26	65	57	27	22
18	19	21	19	18	19	17	17	23	79	54	27	22
19	19	21	19	18	18	17	17	21	107	53	27	22
20	18	21	19	18	a18	17	20	21	127	53	28	22
21	18	21	19	18	a18	17	24	21	109	60	28	22
22	18	21	18	18	a18	17	26	22	106	68	27	21
23	18	20	18	18	a17	17	27	24	117	66	27	21
24	18	20	18	18	a17	16	28	35	107	61	27	22
25	19	20	18	18	a17	16	26	56	98	58	26	22
26	19	19	18	19	17	16	27	71	98	56	26	22
27	19	19	18	19	17	a18	26	86	99	56	26	23
28	19	a19	19	19	17	20	30	98	103	53	25	22
29	19	a19	19	19	-	22	30	115	105	48	24	22
30	19	a19	19	19	-	22	29	123	105	46	24	22
31	19	-	19	18	-	20	-	124	-	41	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	601	21	18	19.4	1,190
November	593	21	19	19.8	1,180
December	583	19	18	18.8	1,160
Calendar year 1942	10,103	121	16	27.7	20,050
January	570	20	18	18.4	1,130
February	509	19	17	18.2	1,010
March	641	22	16	17.5	1,070
April	623	30	16	20.8	1,240
May	1,457	124	21	47.0	2,890
June	2,506	127	37	83.5	4,970
July	2,320	110	41	74.8	4,600
August	874	39	24	28.2	1,730
September	674	24	21	22.5	1,340
Water year 1942-43	11,851	127	16	32.5	23,510

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Warm Spring Creek (west channel) near Mackay, Idaho

Location.- Water-stage recorder, lat. 43°58', long. 113°45', in NE¼ sec. 5, T. 7 N., R. 23 E., 500 feet upstream from confluence with east channel and 7½ miles northwest of Mackay.

Records available.- May 1919 to September 1943.

Average discharge.- 24 years, 91.4 second-feet.

Extremes.- Maximum discharge during year, 228 second-feet June 20 (gage height, 2.54 feet); minimum, 77 second-feet May 18 (gage height, 1.32 feet).  
1919-43: Maximum discharge, 600 second-feet (estimated) Aug. 11, 1936 (gage height, 4.42 feet, datum then in use, from high-water mark); minimum, 49 second-feet Apr. 27, 1935 (gage height, 0.62 foot, datum then in use).

Remarks.- Records good. Flow during summer represents return flow from irrigation. The sum of the combined discharge of east and west channels of Warm Spring Creek and the combined discharge of east and west channels of Big Lost River, near Mackay, represents practically the entire surface flow of Big Lost River which enters Mackay Reservoir.

Cooperation.- Water-stage recorder graph furnished by watermaster for Big Lost River.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	90	92	91	88	88	103	100	196	196	101	82
2	53	94	94	91	90	88	103	101	179	196	101	83
3	85	96	92	91	90	87	97	106	187	196	99	83
4	90	94	94	91	91	88	94	110	151	196	97	a82
5	82	94	94	91	91	88	92	114	135	191	95	82
6	a82	91	94	91	92	87	92	116	123	179	94	82
7	a82	91	92	91	91	88	91	116	113	185	94	83
8	a82	91	92	91	91	88	88	112	108	191	91	83
9	86	90	91	91	91	87	87	109	108	191	90	85
10	87	90	91	91	91	87	86	105	119	185	86	82
11	88	88	90	91	91	88	84	104	142	173	84	83
12	88	a89	91	91	90	87	86	104	164	164	84	84
13	84	91	91	90	90	88	86	100	173	151	84	87
14	83	92	92	90	90	88	86	96	173	142	86	88
15	83	95	92	90	90	88	86	91	159	140	86	88
16	84	92	92	90	90	87	84	90	148	135	86	88
17	84	95	91	90	90	87	86	86	144	130	86	90
18	84	95	90	90	90	87	87	82	163	126	86	88
19	84	94	90	90	90	87	88	79	196	124	83	88
20	83	92	90	90	90	87	94	78	222	124	86	88
21	83	92	88	91	90	88	100	78	207	138	86	87
22	82	92	90	90	90	88	101	79	202	153	84	87
23	84	94	90	91	90	88	101	84	212	148	86	87
24	86	94	90	91	90	88	101	103	195	137	84	87
25	87	94	90	91	90	90	103	123	185	133	83	88
26	87	a93	90	91	90	91	103	142	185	128	83	90
27	88	92	90	91	91	a96	104	158	191	126	80	90
28	87	92	90	90	91	101	106	179	196	120	79	88
29	a84	92	90	90	-	106	104	202	196	112	79	87
30	84	92	90	90	-	108	103	212	196	108	80	90
31	84	-	90	88	-	99	-	217	-	101	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,611	88	80	84.2	5,180
November.....	2,771	96	88	92.4	5,600
December.....	2,823	94	88	91.1	5,600
Calendar year 1942 .....	36,084	202	67	98.9	71,590
January.....	2,806	91	88	90.5	5,570
February.....	2,529	92	88	90.3	5,020
March.....	2,793	108	87	90.1	5,540
April.....	2,826	106	84	94.2	5,610
May.....	5,575	217	78	115	7,090
June.....	5,049	222	108	168	10,010
July.....	4,719	198	101	152	9,360
August.....	2,706	101	79	87.3	5,370
September.....	2,578	90	82	85.9	5,110
Water year 1942-43 .....	37,786	222	78	104	74,960

a No gage-height record; discharge interpolated or computed on basis of records for nearby stations.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Sharp ditch near Mackay, Idaho

**Location.**- Water-stage recorder and sharp-crested weir, lat. 43°57', long. 113°39', in Sec. 7, T. 7 N., R. 24 E., 1,600 feet downstream from head of ditch, three-quarters of a mile downstream from Mackay Reservoir, and  $3\frac{1}{2}$  miles northwest of Mackay.

**Records available.**- June 1912 to October 1914, March 1919 to September 1943.

**Extremes.**- Maximum discharge during year, 34 second-feet May 30, 31, June 28 to July 3; maximum gage height, 1.26 feet May 30, 31, June 28-30; minimum discharge observed, 0.2 second-foot Feb. 1 and Apr. 7 (field estimates).

1912-14, 1919-43: Maximum discharge observed, 42 second-feet June 23, 1921; no flow at times.

**Remarks.**- Records good except those for periods of no gage-height record, those for Sept. 5-19, which are fair, and those below 1.0 second-foot, which are poor. Sharp ditch diverts from east side of Big Lost River in SE $\frac{1}{4}$  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 diverts from Sharp ditch above station and, according to watermaster, carried 721 acre-feet during year (87 in October, 89 in November, 44 in December, 35 in April, 9 in May, 105 in June, 161 in July, 141 in August, and 50 in September).

**Cooperation.**- Water-stage recorder graph furnished by Water District No. 27.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
Shifting-control method used Dec. 11-18)

0.0	0.0	0.5	8.2	1.0	24
.1	.8	.6	11	1.1	27
.2	2.0	.7	14	1.2	31
.3	3.7	.8	17		
.4	5.8	.9	20		

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	a3.5	2.0		†0.2			8.5	31	34	25	h18
2	4.3	a3.5	2.0					8.5	31	34	25	a18
3	4.3	a3.6	1.9					9.2	28	34	25	h17
4	4.3	a3.6	2.0				a0.2	9.8	27	33	24	a16
5	4.1	a3.7	2.0					14	26	33	24	15
6	4.3	3.7	1.9					15	26	32	24	15
7	4.1	3.5	1.8				.6	4.4	25	32	24	14
8	4.1	3.5	1.9				.8	8.7	23	32	24	13
9	4.1	3.5	1.9				.7	6.2	24	32	25	13
10	4.1	3.5	1.5				.7	10	26	31	25	13
11	4.1	3.5	.5				.6	13	26	31	25	13
12	4.1	2.7	.5				.6	13	26	31	24	12
13	3.9	2.0	.5				.6	14	26	29	24	11
14	3.9	2.0	.4				.6	17	26	24	24	11
15	3.9	2.0	.4				.6	19	26	23	24	11
16	3.9	2.0	.4	a0.2		a.2	a0.2	.5	19	26	24	11
17	1.9	2.0	.3					.5	18	26	24	11
18	.8	2.0	.2					.5	18	26	25	11
19	.9	2.0						2.6	18	26	24	11
20	1.4	2.0						4.8	16	27	26	11
21	2.3	2.0						4.8	20	27	26	23
22	2.2	2.0						5.2	23	27	26	22
23	a2.4	2.0						5.4	23	27	26	22
24	a2.5	2.0						5.4	23	27	26	22
25	a2.6	2.0	a.2					5.4	24	26	26	22
26	a2.8	2.0						5.4	26	25	26	22
27	a3.0	2.0						5.4	28	23	26	21
28	a3.1	2.0						5.6	31	31	26	21
29	a3.2	2.0						5.6	33	34	26	21
30	h3.4	2.0						7.2	34	34	26	20
31	a3.4	-						-	33	-	26	a19

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	101.9	4.5	0.8	3.29	202
November.....	77.8	3.7	2.0	2.59	154
December.....	24.7	2.0	-	0.80	49
Calendar year 1942 .....	2,984.3	35	-	8.18	5,910
January.....	6.2	-	-	.2	12
February.....	6.6	-	-	.2	11
March.....	6.2	-	-	.2	12
April.....	71.5	7.2	-	2.58	142
May.....	561.3	34	4.4	18.1	1,110
June.....	810	34	23	27.0	1,610
July.....	881	34	23	28.4	1,750
August.....	719	25	19	23.2	1,430
September.....	398	18	11	13.3	789
Water year 1942-43 .....	3,663.2	34	-	10.0	7,270

† Field estimate.

a No gage-height record; discharge interpolated or computed on basis of field estimates of Feb. 1 and Apr. 7 and data furnished by watermaster.

h Computed from staff-gage readings.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Portneuf River at Topaz, Idaho

Location.- Staff gage, lat. 42°38', long. 112°06', in sec. 23, T. 9 S., R. 37 E., at Oregon Short Line Railroad bridge, a quarter of a mile west of Topaz, 1½ miles upstream from diversion dam in Portneuf-Marsh Valley Canal Co., and 6 miles southeast of McCammon.

Records available.- January 1913 to September 1915, July 1919 to September 1943.

Average discharge.- 24 years (1913-14, 1919-22, 1923-43), 190 second-feet.

Extremes.- Maximum discharge observed during year, 489 second-feet Mar. 30 (gage height, 3.24 feet); minimum observed, 97 second-feet Oct. 3-6, 8-11 (gage height, 0.97 foot). 1913-15, 1919-43: Maximum discharge observed, 902 second-feet Apr. 3, 1913 (gage height, 6.1 feet, site and datum then in use); minimum observed, 65 second-feet Oct. 9, 1934 (gage height, 0.81 foot).

Remarks.- Records good except those for periods of no gage height, which are poor. Gage read once daily. Flow regulated by Portneuf-Marsh Valley Canal Co.'s reservoir near Chesterfield. Many ranch diversions above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 4, Jan. 24-31, Aug. 16 to Sept. 30)

0.8	95	2.1	319
1.0	120	2.5	350
1.5	218	3.0	454
1.8	272		

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	116	163	167	151	159	439	377	307	233	216	208
2	99	116	163	169	147	153	448	380	354	244	208	208
3	97	116	153	171	151	163	430	392	374	233	203	205
4	97	120	155	159	151	155	396	392	365		233	205
5	97	120	143	155	149	147	374	389	380		226	205
6	97	120	143	151	147	145	365	386	334	a230	218	205
7	99	120	143	147	147	147	347	377	319		218	208
8	97	120	145	147	145	179	353	368	304		222	208
9	97	120	149	145	147	179	340	362	301		228	205
10	97	122	153	147	147	171	374	344	298		229	205
11	97	124	149	143	147	167	334	334	304	233	233	205
12	99	126	143	141	145	171	319	334	319	229	237	201
13	106	126	143	143	147	171	339	319	334	229	233	199
14	107	128	143	143	147	248	362	304	337	222	233	201
15	106	124	143	143	143	237	380	301	319	233	233	201
16	a06	124	147	139	143	214	392	294	316	229	231	199
17	a106	126	143	135	145	179	395	294	319	222	226	177
18	107	124	139	133	147	175	421	288	307	222	220	155
19	107	163	137	135	147	167	445	288	301	222	214	143
20	111	145	143	135	155	159	457	285	278	229	214	139
21	109	137	143	147	183	159	451	272	269	233	208	137
22	113	133	143	203	191	167	416	269	255	248	214	135
23	116	133	143	222	179	169	410	275	226	255	214	135
24	113	137	143	175	171	189	413	291	226	233	214	131
25	109	137	151	159	167	288	407	285	214	237	216	130
26	109	145	149	155	159	233	401	278	203	237	210	131
27	109	157	147	155	155	404	398	270	203	229	214	135
28	106	149	143	155	155	404	383	272	203	214	210	139
29	106	149	143	155	-	445	374	272	203	216	210	137
30	111	153	147	153	-	489	374	278	199	214	210	135
31	109	-	167	147	-	445	-	294	-	210	207	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,238	116	97	104	6,420
November.....	3,930	163	116	131	7,800
December.....	4,569	167	137	147	9,060
Calendar year 1942.....	58,219	444	89	160	115,500
January.....	4,774	222	133	154	9,470
February.....	4,308	191	143	154	8,540
March.....	6,888	489	145	222	13,660
April.....	11,737	457	319	391	23,280
May.....	9,864	392	269	318	19,560
June.....	8,671	380	199	289	17,200
July.....	7,116	255	210	230	14,110
August.....	6,800	237	203	219	13,490
September.....	5,227	208	130	174	10,370
Water year 1942-43.....	77,122	489	97	211	153,000

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Portneuf River at Pocatello, Idaho.

Location.— Water-stage recorder, lat. 42°52', long. 112°28', in sec. 27, T. 6 S., R. 34 E., at highway bridge at foot of Carson Street, in west end of Pocatello.

Records available.— August 1911 to September 1943. May 1897 to October 1899 at site 1 mile upstream.

Average discharge.— 30 years (1912-16, 1917-43), 248 second-feet.

Extremes.— Maximum discharge during year, 895 second-feet Apr. 22 (gauge height, 6.74 feet); minimum, 60 second-feet July 14 (gauge height, 2.44 feet).

1897-99, 1911-43: Maximum discharge, more than 2,000 second-feet sometime during period May 13 to June 14, 1917; minimum, 5 second-feet July 31, 1942, from rating curve extended below 40 second-feet.

Remarks.— Records good except those during August, which are fair, and those during period of ice effect, which are poor. Many diversions above station for irrigation. Flow regulated by storage reservoir near Chesterfield.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	172	344	300	b250	406	689	713	337	96	106	112
2	104	184	344	339	b240	382	708	713	392	97	106	112
3	104	183	331	339	b240	354	717	713	434	100	108	111
4	101	192	297	315	b240	350	733	711	458	105	112	119
5	100	192	277	284	b240	352	741	704	470	102	111	126
6	97	199	253	274	b240	339	760	682	472	100	106	126
7	96	196	262	270	b260	339	771	651	452	95	111	130
8	95	194	267	265	b270	402	782	623	434	80	109	130
9	95	199	258	260	b270	456	755	586	416	88	111	129
10	98	200	263	257	b260	432	782	548	394	100	112	129
11	100	194	263	257	265	440	773	502	377	87	104	123
12	108	197	260	248	270	438	762	472	367	90	89	123
13	119	199	255	267	274	428	764	446	361	89	105	123
14	125	207	253	248	*281	430	773	420	377	67	112	125
15	129	212	252	252	291	450	755	394	396	71	109	125
16	132	226	*252	252	286	436	799	378	414	71	105	125
17	127	233	252	229	286	398	817	356	395	69	109	125
18	133	272	245	186	295	382	828	375	354	71	109	123
19	145	311	245	181	311	373	833	354	363	73	116	123
20	151	322	240	b250	326	361	838	329	337	92	125	116
21	145	305	235	b280	339	356	845	318	317	89	122	119
22	144	272	241	b350	386	358	874	420	284	135	120	118
23	146	252	246	b380	416	361	856	426	246	150	122	115
24	168	255	277	b400	404	363	835	440	213	144	120	133
25	166	262	306	b390	406	380	831	392	159	146	119	127
26	166	270	311	b350	422	414	815	337	160	142	112	133
27	163	277	257	b340	412	462	789	313	142	164	108	144
28	160	293	262	b340	410	489	764	297	122	148	106	144
29	163	313	258	b320	-	550	739	284	104	138	111	142
30	163	337	255	b300	-	629	722	279	97	132	106	148
31	170	-	265	b270	-	675	-	299	-	129	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,003	170	95	129	7,940
November.....	7,123	337	172	237	14,130
December.....	9,329	344	238	269	14,520
Calendar year 1942.....	87,481	704	30	240	173,500
January.....	8,983	400	181	290	17,820
February.....	8,593	422	240	307	17,040
March.....	12,985	675	339	419	25,760
April.....	23,510	874	689	784	46,530
May.....	14,508	713	279	468	28,780
June.....	9,907	472	97	330	19,650
July.....	3,233	164	67	104	6,410
August.....	3,429	125	69	111	6,800
September.....	3,778	148	111	126	7,490
Water year 1942-43.....	108,381	874	67	297	215,000

\* Winter-discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Birch Creek near Downey, Idaho

Location.— Staff gage and wooden control, lat. 42°21', long. 112°15', in SE¼ sec. 28, T. 12 S., R. 36 E., just downstream from point where flow that is diverted through Malad power plant re-enters stream, 8.6 miles southwest of Downey, and 10 miles upstream from confluence with Marsh Creek.

Records available.— September 1937 to September 1943. October 1911 to August 1914 at site 1½ miles upstream.

Extremes.— Maximum discharge observed during year, 34 second-feet Apr. 24, from rating curve extended above 20 second-feet; maximum gage height observed, 1.32 feet May 3, 4.; minimum discharge observed, 5.4 second-feet Jan. 19.

1911-14, 1937-43: Maximum discharge observed, 95 second-feet July 15, 1938, by velocity-area method on basis of floodmark at measuring section; minimum observed, 3.4 second-feet Dec. 24-27, 1913.

Remarks.— Records good except those above 25 second-feet, which are fair. Gage read twice daily. Malad power plant, which has a small reservoir above station, may cause slight diurnal fluctuations. Water is diverted from Birch Creek half a mile below station and carried by transmountain canal to Devil Creek in Bear River Basin.

Cooperation.— Gage readings furnished by Western States Utility Co. in connection with a Federal Power Commission project.

Rating tables, water year 1942-43 (gage height, in feet,  
and discharge, in second-feet)  
(Shifting-control method used Apr. 14 to May 11)

Oct. 1 to May 11      May 12 to Sept. 30

0.7	6.6	0.8	7.5
.8	8.9	.9	9.7
.9	12.4	1.0	12
1.0	17	1.1	16
1.1	22	1.2	22
1.2	29		

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	7.8	7.8	7.8	7.4	6.4	14	27	17	11	9.3	8.4
2	7.8	7.8	7.8	7.8	7.4	7.6	15	29	17	11	9.3	8.4
3	7.8	7.8	7.8	7.8	7.4	7.8	17	31	16	11	9.3	8.4
4	7.8	7.8	7.8	7.8	7.6	8.6	17	31	16	11	9.0	8.4
5	7.8	7.8	8.7.8	7.8	8.4	7.8	17	30	16	10	8.8	8.4
6	7.8	7.8	8.7.8	7.8	7.4	7.2	18	26	15	10	8.8	8.4
7	7.8	7.8	8.7.8	7.8	9.5	7.6	19	24	15	10	9.3	8.4
8	7.8	7.8	8.7.8	7.8	7.6	8.4	19	22	14	10	9.3	8.4
9	7.8	7.8	8.7.8	7.6	7.4	8.1	19	20	14	9.7	8.8	8.4
10	7.8	7.8	8.7.8	7.8	7.0	7.6	18	19	14	9.7	8.8	8.4
11	8.4	7.8	8.7.8	7.0	7.4	7.6	18	18	14	11	8.8	8.4
12	8.4	7.8	8.7.8	7.6	7.0	7.4	20	18	14	10	8.8	8.2
13	8.1	7.8	7.8	7.0	7.2	7.4	21	18	14	9.7	8.6	8.2
14	7.8	7.8	7.8	8.4	7.0	7.8	23	18	14	9.7	8.8	8.2
15	7.8	7.8	7.8	8.4	7.4	7.4	24	18	14	9.7	8.8	8.2
16	7.8	7.8	7.8	7.8	8.9	7.4	24	18	13	9.5	8.8	8.2
17	7.8	8.1	7.8	7.8	7.8	7.4	26	17	12	9.3	8.8	8.2
18	8.7.8	8.1	7.8	8.1	8.6	7.4	27	16	12	9.3	8.8	8.2
19	8.7.8	7.8	7.8	8.6	8.1	7.2	28	16	12	9.3	8.8	7.9
20	8.7.8	7.8	7.8	8.9	8.1	7.4	30	16	12	9.3	8.4	7.9
21	8.7.8	7.8	7.8	7.8	7.8	7.4	31	16	12	11	8.4	7.9
22	8.7.8	7.8	7.8	7.8	8.4	7.4	31	16	12	9.7	8.4	7.9
23	8.7.8	7.8	7.8	7.8	8.1	7.4	31	13	12	9.3	8.6	7.9
24	8.7.8	7.8	7.8	7.8	7.4	7.8	34	17	11	9.3	8.4	7.9
25	7.8	7.8	7.6	7.4	7.4	8.4	33	17	11	9.3	8.4	7.9
26	7.8	7.8	7.8	7.8	7.4	9.5	30	16	11	9.3	8.6	7.9
27	7.8	7.8	7.8	7.8	7.8	10	26	16	11	9.3	8.4	8.4
28	7.8	7.8	7.8	8.1	7.8	12	26	16	11	9.0	8.4	8.2
29	7.8	7.8	7.8	7.4	-	15	25	16	11	9.0	8.4	7.9
30	7.8	7.8	7.6	7.4	-	15	26	16	11	9.3	8.6	7.9
31	7.6	-	7.8	7.4	-	13	-	17	-	9.3	8.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	243.1	8.4	7.6	7.84	482
November.....	234.6	8.1	7.8	7.82	465
December.....	241.4	7.8	7.6	7.79	479
Calendar year 1942 .....	3,439.1	24	6.7	9.42	6,820
January.....	239.7	8.9	6.6	7.73	475
February.....	215.7	9.5	6.6	7.70	428
March.....	265.6	15	7.2	8.57	527
April.....	707	34	14	25.6	1,400
May.....	608	31	13	19.6	1,210
June.....	598	17	11	13.3	789
July.....	304.0	11	9.0	9.81	603
August.....	271.1	9.3	8.4	8.75	538
September.....	245.4	8.4	7.9	8.18	487
Water year 1942-43 .....	3,973.6	34	6.6	10.9	7,880

a No gage-height record; discharge interpolated.

e Gage reading not representative of average for day; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## North Side Minidoka Canal near Minidoka, Idaho

Location.— Water-stage recorder, lat. 42°40', long. 113°29', in sec. 1, T. 9 S., R. 25 E., 600 feet downstream from head gates at Minidoka Dam and 6 miles south of Minidoka.

Records available.— May 1909 to September 1943.

Extremes.— Maximum discharge during year, 1,780 second-feet July 11; maximum gage height, 10.00 feet May 7; no flow during winter.

1909-43: Maximum discharge, that of July 11, 1943; maximum gage height, that of May 7, 1943; no flow during winters.

Remarks.— Records excellent except those for period Dec. 8-17, which are fair. Flow controlled by head gates. Water used for irrigation of 64,000 acres of land under North Side Minidoka project.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	818		0				0	1,630	1,180	1,480	1,540	1,300
2	813		0				0	1,630	953	1,600	1,650	1,220
3	816		0				0	1,620	837	1,650	1,610	1,180
4	816		0				0	1,610	750	1,650	1,520	1,160
5	816		0				0	1,650	750	1,590	1,500	1,040
6	768		0				0	1,710	750	1,680	1,500	1,000
7	529		0				0	1,740	750	1,650	1,500	997
8	624		75				0	1,730	799	1,650	1,500	990
9	656		1,000				0	1,730	840	1,690	1,500	981
10	684		500				0	1,720	912	1,730	1,460	1,010
11	684		500				0	1,730	997	1,740	1,430	1,020
12	686		500				0	1,690	1,010	1,750	1,430	1,030
13	600		225				0	1,660	960	1,780	1,450	1,030
14	540		200				0	1,610	930	1,750	1,480	1,010
15	498		200				0	1,560	826	1,740	1,480	967
16	435		200				0	1,520	788	1,740	1,530	967
17	435		180				0	1,550	788	1,750	1,560	933
18	435		0				0	1,580	859	1,750	1,590	884
19	430		0				0	1,580	960	1,760	1,610	855
20	351		0				0	1,580	997	1,760	1,560	820
21	0		0				0	1,570	1,110	1,760	1,510	766
22	0		0				0	1,570	1,250	1,760	1,480	766
23	0		0				0	1,530	1,330	1,720	1,450	766
24	0		0				0	1,540	1,330	1,670	1,470	758
25	0		0				0	1,530	1,330	1,650	1,490	748
26	0		0				265	1,540	1,350	1,640	1,440	744
27	0		0				842	1,540	1,330	1,640	1,380	738
28	0		0				1,080	1,540	1,320	1,640	1,380	734
29	0		0				1,300	1,510	1,350	1,650	1,370	742
30	0		0				1,540	1,470	1,430	1,650	1,340	740
31	0		0				-	1,350	-	1,650	1,310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,437	818	0	401	24,670
November.....	0	0	0	0	0
December.....	3,680	1,000	0	115	7,100
Calendar year 1942.....	225,666	1,720	0	618	447,600
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	5,027	1,540	0	168	9,970
May.....	49,520	1,740	1,350	1,597	98,220
June.....	30,746	1,430	750	1,025	60,980
July.....	52,270	1,760	1,450	1,686	103,700
August.....	45,110	1,650	1,310	1,487	91,450
September.....	27,896	1,300	734	930	55,330
Water year 1942-43.....	227,586	1,760	0	624	451,400

Note.— Discharges Dec. 8-17 are estimated by Bureau of Reclamation. Water diverted during this period was wasted, less canal losses, back to river.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## South Side Minidoka Canal near Minidoka, Idaho

Location.- Water-stage recorder, lat. 42°40', long. 113°29', in sec. 12, T. 9 S., R. 25 E., 300 yards downstream from head gates at Minidoka Dam and 6 miles south of Minidoka.

Records available.- April 1909 to September 1943.

- \* Extremes.- Maximum discharge during year, 1,330 second-feet July 8 (gage height, 5.90 feet); no flow during winter.  
1909-43: Maximum discharge, 1,350 second-feet July 19, 20, 23-25, 1938, July 9-11, 1940; no flow during winters.

Remarks.- Records excellent. Flow controlled by head gates. Water diverted from Snake River at Minidoka Dam for irrigation of 54,000 acres of land under South Side Minidoka project.

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

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	540						0	1,070	937	1,170	1,270	1,210
2	559						0	1,120	776	1,230	1,270	1,180
3	545						0	1,180	588	1,240	1,280	1,190
4	526						0	1,170	567	1,240	1,250	1,120
5	517						0	1,120	524	1,250	1,230	1,020
6	465						0	1,110	476	1,240	1,220	1,020
7	399						0	1,080	474	1,290	1,210	1,030
8	381						0	1,010	512	1,320	1,170	1,010
9	405						0	1,010	550	1,320	1,160	952
10	424						0	973	704	1,310	1,160	901
11	428						0	999	543	1,310	1,160	881
12	393						0	1,030	892	1,300	1,160	881
13	342						0	1,040	640	1,290	1,210	869
14	288						0	1,060	524	1,270	1,260	875
15	271						0	1,100	505	1,260	1,260	886
16	250						0	961	505	1,280	1,260	881
17	217						349	815	505	1,280	1,270	793
18	200						660	845	657	1,270	1,250	741
19	210						809	1,000	736	1,270	1,250	671
20	218						952	1,040	733	1,270	1,220	567
21	222						793	1,060	812	1,270	1,220	560
22	225						574	1,090	907	1,270	1,220	638
23	222						678	1,090	955	1,260	1,220	648
24	222						795	1,090	980	1,240	1,240	618
25	222						843	1,080	983	1,250	1,250	567
26	229						940	1,090	992	1,260	1,270	493
27	288						998	1,090	976	1,280	1,270	450
28	317						992	1,060	961	1,290	1,270	441
29	317						1,040	1,000	1,020	1,290	1,240	447
30	315						1,080	1,010	1,080	1,290	1,260	458
31	104						-	1,020	-	1,290	1,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,261	559	104	331	20,350
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942 .....	158,219	1,340	0	433	313,800
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	11,503	1,080	0	363	22,820
May.....	32,401	1,180	815	1,045	64,270
June.....	22,514	1,090	474	744	44,260
July.....	39,400	1,320	1,170	1,271	78,150
August.....	38,260	1,280	1,160	1,234	75,890
September.....	25,978	1,210	441	799	47,560
Water year 1942-43 .....	178,117	1,320	0	488	353,300

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Goose Creek above Trapper Creek, near Oakley, Idaho

Location.- Water-stage recorder, lat. 42°07', long. 113°56', in sec. 13, T. 15 S., R. 21 E., 5 miles upstream from Trapper Creek and 10 miles south of Oakley.

Records available.- April 1911 to September 1916; March 1919 to September 1943.

Average discharge.- 20 years (1911-14, 1926-43), 40.3 second-feet.

Extremes.- Maximum discharge during year, 1,670 second-feet about Jan. 23 or Feb. 24 (gage height, 7.6 feet, from high-water mark), from rating curve extended above 600 second-feet by logarithmic plotting; minimum recorded, 3.5 second-feet Sept. 18-20 (gage height, 1.39 feet).

1911-16, 1919-43: Maximum discharge, that of Jan. 23 or Feb. 24, 1943; no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940.

Remarks.- Records good except those for Nov. 17 to Jan. 20, Mar. 1-9, which are fair, and those for Jan. 21 to Feb. 28, which are poor. Diversions above station for irrigation. Flow of artesian well, completed in 1935, enters below. Practically entire flow passing station is stored in Oakley Reservoir.

Cooperation.- Gage-height record furnished by Oakley Canal Co.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	16					111	164	106	28	14	4.9
2	7.7	16					112	169	130	26	14	5.1
3	7.7	17				a55	118	177	136	24	13	5.6
4	8.2	19	a35	a45			128	189	140	25	12	5.6
5	8.2	18					138	194	136	27	12	5.3
6	8.5	18					147	186	130	24	11	4.9
7	8.5	18	(*)				154	172	130	16	11	4.9
8	8.8	17				a75	161	161	122	21	11	4.9
9	8.8	18			a40		182	148	109	19	11	4.9
10	8.8	18				*104	194	138	103	17	9.9	4.9
11	9.2	b18				79	182	129	98	16	9.2	4.9
12	9.5	b18				70	161	115	109	16	5.5	4.7
13	12	17				73	182	104	123	14	7.4	4.5
14	12	21		a30		80	153	100	132	16	7.1	4.5
15	13	20	a30			67	164	99	129	14	6.0	4.7
16	16	21				58	180	107	119	15	6.3	4.7
17	14					60	194	109	104	16	6.0	3.8
18	14					58	203	103	92	15	6.0	3.8
19	14					55	212	95	86	14	6.6	3.6
20	14					55	218	86	82	13	6.3	3.6
21	14				a250	51	227	79	75	23	5.8	4.5
22	14					53	233	88	60	28	6.0	4.9
23	13			a300		54	221	84	60	29	5.8	5.1
24	13	a30				58	207	73	62	30	5.6	5.3
25	13					68	202	68	55	26	5.3	5.3
26	13					72	216	65	49	23	5.1	5.8
27	13		a35		a75	74	216	65	49	20	4.9	6.3
28	13					79	198	65	46	17	4.7	6.6
29	14			a45		89	180	66	42	16	4.5	7.1
30	15					102	169	69	35	14	4.0	7.7
31	15	-				106	-	77	-	14	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	360.3	16	7.4	11.6	715
November.....	710	-	16	23.7	1,410
December.....	1,005	-	-	32.4	1,990
Calendar year 1942 .....	24,106.9	368	4.0	66.0	47,810
January.....	2,460	-	-	79.4	4,880
February.....	3,115	-	-	111	6,180
March.....	2,140	106	-	69.0	4,240
April.....	5,333	233	111	178	10,580
May.....	3,544	194	65	114	7,030
June.....	2,848	140	35	94.9	5,650
July.....	615	30	13	19.3	1,220
August.....	244.2	14	4.0	7.88	484
September.....	162.4	7.7	3.6	5.08	302
Water year 1942-43 .....	22,526.9	-	3.6	61.7	44,680

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, 1 discharge measurement, record for Oakley Reservoir, and records for nearby stations.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Oakley Reservoir near Oakley, Idaho

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

Records available.- October 1912 to September 1943.

Extremes.- Maximum contents observed during year, 44,700 acre-feet June 21 (gage height, 105.9 feet); minimum observed, 8,340 acre-feet Oct. 1 (gage height, 45.85 feet).  
1912-43: Maximum contents observed, 74,600 acre-feet June 15, 1921 (gage height, 136.2 feet); reservoir drained at close of season in 1915, 1919, 1920, 1926, 1933.

Remarks.- Reservoir is formed by earth dam constructed in 1911-13; storage began in 1911. Capacity, 74,350 acre-feet between gage heights 0.0 foot (bottom of diversion tunnel) and 136.0 feet (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. Gage read occasionally and contents shown on days observations were made.

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

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,340	-	-	14,100	20,100	-	-	-	-	43,100	-	-
2	-	-	-	-	20,100	-	33,300	-	-	-	32,600	-
3	-	-	-	-	14,600	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	14,800	-	-	34,100	-	-	43,400	-	-
6	8,510	-	-	-	-	-	-	-	-	-	-	22,800
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	12,200	-	-	29,000	-	-	43,200	-	-	-
9	-	9,980	-	-	20,600	-	-	-	-	-	30,400	-
10	-	-	-	-	-	30,000	-	41,700	-	-	-	-
11	-	-	-	15,100	-	-	-	-	-	-	-	-
12	8,700	-	-	-	-	-	36,500	-	-	41,100	-	-
13	-	-	-	-	-	-	-	41,700	-	-	-	21,100
14	-	-	-	-	21,100	-	-	41,700	-	-	-	20,900
15	-	10,300	12,700	15,400	-	-	37,300	-	43,900	-	-	-
16	-	-	-	-	-	30,600	-	-	-	-	28,800	-
17	-	-	-	-	-	-	-	42,100	-	-	-	-
18	-	-	-	15,600	-	-	-	-	-	37,900	-	-
19	9,060	-	-	-	-	-	38,600	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	19,700
21	-	-	13,000	-	-	-	-	-	44,700	-	-	-
22	-	-	-	-	25,400	-	-	-	-	-	-	-
23	-	10,800	-	-	-	31,400	-	-	-	-	27,200	-
24	-	-	-	19,100	-	-	-	42,200	44,500	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	9,330	-	13,600	-	-	-	40,700	-	44,200	35,100	-	-
27	-	-	-	-	28,100	-	-	-	-	-	-	18,400
28	-	-	13,700	-	-	-	-	-	-	-	-	-
29	9,490	-	-	-	-	32,200	-	-	-	-	-	-
30	-	11,500	-	-	-	-	41,100	-	43,300	33,400	24,900	17,500
31	9,570	-	14,000	20,000	-	32,800	-	42,100	-	33,000	24,600	-

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Trapper Creek near Oakley, Idaho

Location.— Water-stage recorder, lat. 42°10', long. 113°59', in sec. 34, T. 14 S., R. 21 E., 4 miles upstream from Oakley Dam and 7 miles southwest of Oakley.

Records available.— May 1911 to September 1916, March 1919 to September 1943.

Average discharge.— 19 years (1911-12, 1913-14, 1926-43), 13.6 second-feet.

Extremes.— Maximum discharge during year, 225 second-feet about Jan. 23 or Feb. 24 (gauge height, 6.06 feet, from high-water mark), from rating curve extended above 50 second-feet; minimum recorded, 6.0 second-feet Nov. 11 (gauge height, 4.73 feet). 1911-16, 1919-43: Maximum discharge recorded, about 700 second-feet Aug. 17, 1941 (gauge height, 6.89 feet, from rating curve extended above 50 second-feet (a higher flow may have occurred during cloudburst about midnight Aug. 15, 1931); minimum not determined, probably occurred during winter.

Remarks.— Records good except those for Nov. 17 to Jan. 20, which are fair, and those for Jan. 21 to Mar. 9, which are poor. 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.— Gage-height record furnished by Oakley Canal Co.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	S.9	9.3			all		25	43	48	20	12	
2	S.9	S.9			h11		27	43	45	21	11	
3	9.3	S.9		a14			31	44	40	21	11	a9.0
4	9.3	9.3					31	46	39	20	11	
5	S.9	9.3	a13			a16	33	48	39	19	11	
6	S.9	9.3					32	46	40	18	11	6.9
7	S.9	a9.3					35	45	37	17	11	9.3
8	S.9	a9.3	12				37	44	34	16	11	9.3
9	S.9	9.3	12	all			37	42	39	16	9.8	8.9
10	S.9	9.3	11			19	37	39	36	16	9.8	8.9
11	9.3	9.3	11				17	34	37	16	9.8	8.5
12	10	9.3	11				17	31	36	16	9.3	8.5
13	11	9.3	11	all			19	34	34	a16	9.3	8.9
14	10	9.3	11				19	38	33	34	9.3	9.3
15	10	9.8	11				17	42	53	34	9.3	9.3
16												
17	9.3	10				16	45	33	31	a15	9.8	9.3
18	9.3					17	48	31	30	a14	9.3	9.3
19	8.9		all			16	49	30	29	a14	10	9.3
20	S.9					16	51	27	28	14	10	9.8
21					a100	16	54	26	27	14	9.8	9.8
22	S.9					14	51	27	26	15	9.8	9.8
23	S.5	a12		a100		14	50	28	26	16	9.8	9.8
24	S.9					14	49	27	26	16	10	9.8
25	S.9					16	50	30	26	14	9.8	9.8
26			a12			16	50	32	25	13	9.8	9.8
27	S.5					16	49	34	24	12	9.8	10
28	S.9				a30	20	46	35	22	12	8.9	10
29	9.3			a17		21	45	36	22	11	8.9	10
30	9.3					24	45	37	21	12	8.5	10
31	9.3					29	44	35	21	12	8.9	9.8
						26		40		12	a9.0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	285.0	11	8.5	9.19	565
November.....	317.2	-	8.9	10.6	629
December.....	368	-	-	11.9	730
Calendar year 1942 .....	5,052.4	40	7.8	13.8	10,020
January.....	837	-	-	27.0	1,660
February.....	1,255	-	-	44.8	2,490
March.....	543	29	-	17.5	1,080
April.....	1,230	54	25	41.0	2,440
May.....	1,121	48	26	36.2	2,220
June.....	954	48	21	31.5	1,890
July.....	479	21	11	15.5	950
August.....	307.7	12	8.5	9.93	610
September.....	261.1	10	8.5	9.37	558
Water year 1942-43 .....	7,978.0	-	8.5	21.9	15,820

a No gage-height record; discharge computed on basis of weather records, record for Oakley Reservoir, and records for nearby stations.

b Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## P. A. lateral near Milner, Idaho

Location.- Staff gage, lat. 42°32', long. 114°01', in sec. 22, T. 10 S., R. 21 E., 600 feet downstream from pumping station and 2½ miles northeast of Milner.

Records available.- April 1919 to September 1943; 1916 to 1918 by North Side Canal Co.

Extremes.- Maximum discharge during year, 62 second-feet on many days; no flow at times.  
1919-43: Maximum discharge, 64 second-feet May 11-13, 1920, July 11, 12, 19-29, 1932; no flow at times.

Remarks.- Records excellent. Gage read twice daily. Flow regulated by pumping plant, WHICH lifts water from Snake River for irrigation on North Side Twin Falls tract.

Cooperation.- Gage-height record and one discharge measurement furnished by North Side Canal Co.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0				0	0	56	61	62	62	61
2		0				0	0	58	62	62	62	61
3		0				0	0	62	62	62	62	61
4		0				0	0	61	62	62	62	61
5		0				0	0	61	62	62	62	61
6		0				0	0	61	60	62	62	61
7		0				0	0	61	57	62	62	61
8		0				0	0	61	57	62	62	61
9		0				0	0	61	57	62	62	60
10		0				0	0	61	57	62	62	60
11		0				0	0	61	57	62	62	60
12		0				0	0	61	57	62	62	60
13		0				0	0	61	57	62	62	60
14		0				0	0	61	53	62	61	60
15		18				0	0	61	47	62	61	60
16		19				0	0	61	47	62	61	60
17		10				0	0	61	47	62	61	60
18		0				0	0	61	47	62	61	60
19		0				0	0	61	47	62	61	60
20		0				0	0	62	47	61	61	58
21		0				0	0	62	56	61	61	62
22		0				0	0	62	56	62	61	62
23		0				0	0	62	55	62	61	52
24		0				17	0	62	56	62	61	52
25		0				17	0	62	61	62	61	26
26		0				0	12	62	61	62	61	0
27		0				0	18	62	61	62	61	0
28		0				0	32	62	61	62	61	0
29		0				0	48	61	62	62	61	0
30		0				0	48	61	62	62	61	0
31		0				0	-	61	-	62	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	47	19	0	1.6	93
December	0	0	0	0	0
Calendar year 1942	9,238	63	0	26.3	18,310
January	0	0	0	0	0
February	0	0	0	0	0
March	34	17	0	1.1	67
April	158	48	0	5.3	313
May	1,896	62	59	61.1	3,780
June	1,691	62	47	56.4	3,350
July	1,920	62	61	61.9	3,610
August	1,904	62	61	61.4	3,780
September	1,440	61	0	48.0	2,860
Water year 1942-43	9,089	62	0	24.9	16,030

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Milner low-lift canal near Milner, Idaho

Location.— Water-stage recorder, lat. 42°31', long. 114°01', in sec. 32, T. 10 S., R. 21 E., 800 feet downstream from head of canal and 1½ miles south of Milner.

Records available.— June 1921 to September 1943.

Extremes.— Maximum discharge during year, 171 second-feet July 9, 15-17, maximum gage height, 3.55 feet Sept. 7; no flow on many days.  
1921-43: Maximum discharge, 174 second-feet July 7, 1936 (gage height, 3.67 feet); no flow on many days.

Remarks.— Records good. Flow controlled by pumping plant which lifts water from Snake River above Milner Dam for irrigation of 9,000 acres of land in Milner low-lift irrigation district.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	143	141	168	170	168
2							0	142	124	168	166	168
3							0	141	122	168	170	168
4							0	142	124	170	168	168
5							0	141	124	170	167	168
6							0	164	124	170	167	168
7							0	166	133	170	169	168
8							0	166	134	170	169	168
9							0	167	140	171	169	168
10							0	168	140	170	169	168
11							0	167	141	170	169	168
12							0	166	127	170	168	168
13							0	163	44	170	167	166
14							0	166	0	170	167	147
15							0	166	0	171	167	147
16							0	164	0	171	167	147
17							0	162	0	171	167	147
18							0	162	8	170	167	147
19							0	163	90	170	167	147
20							0	166	91	170	169	131
21							18	166	101	170	168	119
22							34	165	115	170	166	119
23							48	166	121	170	166	107
24							58	164	136	170	169	102
25							69	164	137	170	170	102
26							109	164	143	170	167	102
27							129	164	145	169	167	102
28							148	164	143	169	168	88
29							143	166	160	169	169	81
30							143	166	166	169	169	81
31							-	161	-	166	168	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942 .....	22,701	170	0	62.2	45,010
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	919	148	0	30.6	1,820
May.....	4,973	168	141	160	9,860
June.....	3,174	166	0	106	6,300
July.....	5,249	171	156	169	10,410
August.....	5,206	170	166	168	10,330
September.....	4,188	168	81	140	8,310
Water year 1942-43 .....	23,709	171	0	65.0	47,030

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Gooding Canal at Milner, Idaho

Location.- Water-stage recorder on Milner-Gooding canal in SW $\frac{1}{4}$  sec. 7 and differential recorder on control gates of North Side Canal Co. diversions in sec. 18 and 19, T. 10 S., R. 21 E., about 3 miles downstream from head gates that are in sec. 28, T. 10 S., R. 21 E., lat. 42°31', long. 114°01'.

Records available.- May 1930 to September 1943.

Extremes.- Maximum daily discharge during year, 2,580 second-feet July 31, Aug. 1, 3, and 4; no flow on many days.

1939-43: Maximum daily discharge, 2,580 second-feet July 31, Aug. 1, 2, 1942, July 31, Aug. 1, 3, 4, 1943; no flow on many days.

Remarks.- Records good. Gooding Canal diverts water from Snake River for Milner-Gooding project of Bureau of Reclamation and in part for project of North Side Canal Co. The latter project also receives water through the North Side Twin Falls Canal and P. A. lateral. Discharge of canal is computed by combining the discharge of Milner-Gooding diversion and that of North Side Canal Co. diversions below their division point and adding from 20 to 50 second-feet to that sum for loss between head gates and division point.

Cooperation.- Gage-height record and some discharge measurements furnished by North Side Canal Co., American Falls Reservoir District No. 2, and Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	520					350	1,590	1,870	2,000	2,580	2,190
2	60	700					510	1,600	1,660	2,040	2,540	2,120
3	60	680					500	1,610	1,860	2,060	2,580	2,120
4	60	690					410	1,620	1,840	2,090	2,560	2,120
5	640	340					180	1,590	1,840	2,100	2,540	2,080
6	830	0					220	1,730	1,840	2,180	2,540	2,040
7	840	0					450	1,720	1,830	2,250	2,530	2,040
8	900	0					500	1,730	1,820	2,250	2,520	2,040
9	920	0					540	1,750	1,820	2,290	2,500	2,000
10	910	0					540	1,790	1,820	2,360	2,470	1,970
11	890	0					540	1,840	1,840	2,370	2,450	1,960
12	880	0					610	1,850	1,850	2,350	2,450	1,940
13	890	0					700	1,910	1,830	2,370	2,440	1,870
14	880	410					690	1,930	1,770	2,410	2,400	1,800
15	820	670					540	1,940	1,760	2,490	2,410	1,810
16	800	670					0	1,940	1,730	2,500	2,410	1,810
17	800	630					0	1,960	1,740	2,510	2,390	1,770
18	780	410					0	1,960	1,730	2,510	2,360	1,730
19	820	0					0	1,960	1,730	2,510	2,360	1,740
20	840	0					0	1,970	1,740	2,510	2,350	1,740
21	850	0					420	1,940	1,720	2,550	2,330	1,740
22	790	0					780	1,940	1,720	2,570	2,330	1,730
23	850	0					770	1,970	1,770	2,550	2,340	1,710
24	830	0					770	2,040	1,850	2,570	2,330	1,710
25	790	0					770	2,030	1,910	2,570	2,330	1,710
26	770	0					770	1,960	1,980	2,550	2,340	1,700
27	780	0					770	1,930	2,000	2,540	2,330	1,690
28	810	0					760	1,940	2,000	2,530	2,330	1,680
29	610	0					1,180	1,950	2,000	2,530	2,300	660
30	190	0					1,510	1,580	2,000	2,560	2,230	0
31	140	-					-	1,850	-	2,580	2,210	-

Month	Second-foot-days	Discharge in second-feet			Total runoff in acre-feet	Distribution (acre-feet)	
		Maximum	Minimum	Mean		To Milner-Gooding project	To North Side Canal Co. project
October.....	21,080	920	50	680	41,810	1,470	40,340
November.....	5,720	700	0	191	11,340	5,530	5,810
December.....	0	0	0	0	0	0	0
Calendar year 1942	394,317	2,580	0	1,080	782,100	433,130	348,990
January.....	0	0	0	0	0	0	0
February.....	0	0	0	0	0	0	0
March.....	0	0	0	0	0	0	0
April.....	15,780	1,510	0	526	31,300	2,280	29,020
May.....	57,530	2,040	1,590	1,856	114,100	64,480	49,620
June.....	55,030	2,000	1,720	1,834	106,200	61,690	47,460
July.....	74,270	2,580	2,000	2,396	147,300	90,760	56,550
August.....	74,800	2,580	2,210	2,413	148,400	91,500	56,970
September.....	53,100	2,190	0	1,770	106,800	57,120	48,200
Water year 1942-43	357,310	2,580	0	979	708,700	374,530	333,880

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## North Side Twin Falls Canal at Milner, Idaho

Location.— Water-stage recorder, lat. 42°32', long. 114°01', in sec. 20, T. 10 S., R. 21 E., half a mile north of Milner and three-quarters of a mile downstream from head gates at Milner Dam.

Records available.— May 1909 to September 1943.

Extremes.— Maximum discharge during year, 2,750 second-feet Aug. 22 (gauge height, 8.18 feet); no flow on several days.

1909-43: Maximum daily discharge, 3,200 second-feet July 5-7, 29-31, 1921; May 15, 1928, June 2, July 23, 1929; no flow at times when head gates were closed.

Remarks.— Records excellent except those prior to Apr. 1, which are good. Flow controlled by head gates. Water diverted by this canal and by P. A. lateral and part of that diverting by Gooding Canal, all at Milner, is used for irrigation of 163,000 acres of land under North Side Canal Co. system.

Cooperation.— Gauge-height record and 4 discharge measurements furnished by North Side Canal Co.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	566	500	437	490	288	1,960	2,390	2,470	2,710	2,640
2	0	0	553	490	b437	490	0	1,990	2,380	2,520	2,710	2,620
3	0	0	559	506	b437	503	0	2,030	2,370	2,560	2,710	2,620
4	0	0	559	497	b437	525	0	2,130	2,330	2,520	2,710	2,560
5	232	449	556	494	b437	528	0	2,190	2,360	2,550	2,710	2,530
6	254	654	547	509	b480	547	0	2,220	2,330	2,570	2,700	2,540
7	200	627	534	497	478	547	0	2,130	2,310	2,550	2,700	2,510
8	63	624	531	500	478	540	0	2,200	2,310	2,610	2,690	2,470
9	0	627	515	506	466	553	0	2,230	2,290	2,610	2,680	2,420
10	0	631	*503	503	454	559	0	2,250	2,270	2,610	2,660	2,390
11	0	614	515	503	b460	556	0	2,310	2,220	2,610	2,640	2,370
12	0	611	515	503	b469	572	0	2,350	2,140	2,610	2,650	2,390
13	0	611	525	509	b469	595	0	2,370	2,050	2,620	2,640	2,360
14	0	611	531	509	469	553	108	2,360	1,910	2,620	2,630	2,280
15	0	604	543	497	469	528	417	2,380	1,900	2,630	2,640	2,280
16	0	608	531	509	451	547	938	2,370	1,890	2,630	2,640	2,230
17	0	601	531	497	460	543	998	2,370	1,870	2,630	2,650	2,140
18	0	579	531	b497	480	534	1,030	2,350	1,850	2,630	2,640	2,120
19	0	572	531	b497	454	537	1,180	2,360	1,870	2,630	2,640	2,110
20	0	566	531	b498	451	566	1,390	2,370	1,900	2,620	2,700	2,030
21	0	566	540	b478	445	563	1,160	2,370	1,930	2,610	2,720	1,970
22	0	563	543	b478	463	572	900	2,360	2,060	2,630	2,710	1,910
23	0	559	540	478	460	601	1,000	2,390	2,100	2,690	2,710	1,850
24	0	566	531	490	451	651	1,100	2,420	2,140	2,710	2,690	1,840
25	0	552	518	478	451	658	1,290	2,420	2,220	2,700	2,690	1,760
26	0	579	522	490	*451	658	1,470	2,420	2,270	2,680	2,690	559
27	0	575	528	500	460	658	1,700	2,430	2,270	2,690	2,680	433
28	0	579	550	494	472	559	1,780	2,420	2,270	2,700	2,660	325
29	0	579	522	*494	-	604	1,900	2,460	2,310	2,690	2,610	820
30	0	559	506	494	-	540	1,940	2,480	2,390	2,700	2,660	1,120
31	0	-	506	481	-	528	-	2,430	-	2,700	2,670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	769	254	0	24.8	1,530
November.....	15,296	654	0	510	30,340
December.....	16,513	566	503	533	32,750
Calendar year 1942.....	436,156	2,690	0	1,195	865,100
January.....	15,366	508	478	496	30,480
February.....	13,056	497	445	466	25,900
March.....	17,405	656	490	561	34,520
April.....	20,589	1,940	0	686	40,840
May.....	71,550	2,460	1,960	2,308	141,900
June.....	64,900	2,390	1,850	2,163	128,700
July.....	31,290	2,710	2,470	2,622	161,200
August.....	32,940	2,720	2,610	2,675	164,800
September.....	60,217	2,640	325	2,007	119,400
Water year 1942-43.....	459,891	2,720	0	1,260	912,100

a Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## South Side Twin Falls Canal at Milner, Idaho

Location.-- Water-stage recorder, lat. 42°31', long. 114°01', in sec. 29, T. 10 S., R. 21 E., 700 feet downstream from head gates at Milner Dam.

Records available.-- May 1909 to September 1943.

Extremes.-- Maximum discharge during year, 3,670 second-feet July 31 (gage height, 10.33 feet); minimum daily, 35 second-feet (estimated by observer) Oct. 26-29, 1909-43; Maximum daily discharge, 4,600 second-feet Aug. 12, 1918, computed on basis of stage-discharge relation for canal plus estimates by hydrographer of water wasted through spillway below station and returned to river; no flow Sept. 20, 1920.

Remarks.-- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow controlled by head gates. Canal diverts water from Snake River at Milner Dam for irrigation of 202,000 acres of land in Twin Falls County.

Cooperation.-- Gage-height record and one discharge measurement furnished by Twin Falls Canal Co.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,610	1,120	589	595	b553	508	58	3,030	3,210	3,290	3,660	3,510
2	1,570	842	613	598	b558	505	61	3,010	3,000	3,280	3,600	3,520
3	1,610	748	607	604	b560	505	414	3,060	2,870	3,310	3,560	3,470
4	1,480	560	610	592	b567	505	698	3,120	2,840	2,330	3,560	3,370
5	1,480	541	604	589	b562	511	832	3,220	2,780	3,330	3,560	3,230
6	1,420	547	589	604	577	505	992	3,380	2,770	3,380	3,560	3,260
7	1,400	547	583	598	b592	502	1,140	3,260	2,710	3,440	3,570	3,260
8	1,380	704	589	595	b588	505	1,230	3,270	2,720	3,460	3,590	3,120
9	1,380	781	586	592	b558	511	1,210	3,290	2,720	3,500	3,580	3,000
10	1,380	742	580	595	b557	505	1,060	3,240	2,730	3,510	3,570	2,970
11	1,380	717	580	595	b594	505	988	3,280	2,710	3,490	3,570	2,970
12	1,380	704	580	601	b603	497	988	3,270	2,710	3,460	3,550	2,970
13	1,330	655	589	601	b604	497	999	3,310	2,660	3,490	3,600	2,980
14	1,240	667	583	598	b602	502	1,040	3,320	2,690	3,480	3,600	2,920
15	1,140	673	589	598	601	508	1,210	3,340	2,420	3,460	3,590	2,860
16	1,060	619	586	604	577	502	1,320	3,340	2,280	3,450	3,610	2,740
17	985	613	583	b565	577	502	1,630	3,320	2,300	3,450	3,610	2,690
18	982	580	*580	b504	574	502	1,580	3,260	2,340	3,450	3,610	2,580
19	935	559	577	b571	568	494	1,730	3,260	2,450	3,480	3,610	2,520
20	913	556	577	b595	565	500	1,980	3,270	2,610	3,480	3,610	2,470
21	913	568	598	b613	562	497	2,310	3,260	2,640	3,480	3,610	2,420
22	882	592	595	598	574	494	2,300	3,240	2,830	3,500	3,610	2,300
23	872	586	595	610	568	497	2,620	3,220	2,890	3,580	3,620	2,010
24	855	586	598	613	517	497	2,810	3,330	2,940	3,580	3,610	1,830
25	633	589	598	607	508	511	2,840	3,330	3,900	3,570	3,630	1,700
26	a35	595	589	610	*508	511	2,760	3,330	3,030	3,560	3,630	1,680
27	a35	601	607	619	502	520	3,030	3,340	3,050	3,550	3,630	1,620
28	a35	592	610	619	505	447	3,060	3,320	3,200	3,550	3,630	1,530
29	a35	598	595	*613	-	86	3,110	3,320	3,300	3,560	3,580	1,490
30	50	592	592	601	-	63	3,030	3,290	3,330	3,600	3,590	1,490
31	956	-	598	592	-	63	-	3,290	-	3,660	3,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	31,247	1,610	35	1,008	61,980
November	19,364	1,120	541	645	38,410
December	18,349	613	577	592	36,390
Calendar year 1942	627,344	3,590	25	1,719	1,244,000
January	18,495	619	504	597	36,680
February	15,841	604	502	566	31,420
March	14,266	520	63	460	28,280
April	49,000	3,110	/ 58	1,633	97,190
May	101,100	3,380	3,010	3,261	200,500
June	83,520	3,330	2,220	2,784	155,700
July	107,690	3,660	3,220	3,474	213,600
August	111,600	3,650	3,560	3,597	221,200
September	78,480	3,520	1,490	2,616	155,700
Water year 1942-43	648,842	3,660	35	1,778	1,287,000

\* Winter discharge measurement made on this day.

a No gage-height record; gates closed, leakage estimated by observer.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Rock Creek near Twin Falls, Idaho

Location.— Water-stage recorder, lat.  $42^{\circ}36'$ , long.  $114^{\circ}32'$ , in SW $\frac{1}{4}$  sec. 36, T. 9 S., R. 16 E., at highway bridge, 3 miles upstream from mouth and 4 miles northwest of town of Twin Falls.

Records available.— March 1922 to September 1943.

Average discharge.— 21 years, 211 second-feet.

Extremes.— Maximum discharge during year, 410 second-feet June 13 (gage height, 3.02 feet); minimum, 130 second-feet Feb. 10, 11 (gage height, 1.94 feet).  
1922-43: Maximum discharge, 984 second-feet Sept. 21, 1927 (gage height, 4.5 feet, datum then in use, from floodmarks); minimum, 90 second-feet Mar. 28, 1941 (gage height, 1.66 feet).

Remarks.— Records good except those for periods of no gage-height record, which are poor. Practically all normal summer flow diverted several miles above station for irrigation. Waste water from South Side Twin Falls low-line canal, which crosses Rock Creek 12 miles above station, causes abrupt fluctuations in stage at times. Irrigation waste water and return flow from project lands enter above gage.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.9	124	2.5	242
2.0	139	2.8	332
2.3	193	3.0	402

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	a206	221	202	136	157	204		282	226	264	294
2	267	221	226	200	152	147	198		276	226	262	313
3	264	239	207	191	142	150	193	a240	273	234	267	285
4	264	232	204	187	147	185	221		276	245	253	264
5	267	209	200	187	144	189	226	229	279	245	248	288
6	270	202	207	1e1	142	181	234	250	288	242	256	287
7	267	209	204		156	151	229	250	339	234	245	291
8	273	224	a202		168	200	234	239	346	232	239	279
9	273	221	a200	a175	155	234	242	232	352	224	250	276
10	276	214	198		136	245	250	224	313	234	280	276
11	279	211	195		160	242	239	214	286	239	242	279
12	294	209	195	h169	149	239	226	204	310	237	239	276
13	297	207	195		142	221	214	204	359	232	239	279
14	294	207	195		144	214	214	200	350	250	237	279
15	291	214	195		142	207	221	216	370	273	237	279
16	276	209	193	a230	144	200	224	224	356	232	234	276
17	267	224	195		142	200	239	221	342	232	234	282
18	262	232	a192		139	191	250	209	326	232	239	285
19	259	221	189		139	189	262	204	319	232	245	291
20	253	204	189	294	139	179	279	204	319	232	245	291
21	250	195	191	232	144	175	291	198	316	237	253	297
22	250	195	195	187	157	175	291	195	270	237	245	285
23	248	198	204	171	162	164	270	198	313	237	250	282
24	248	209	216	155	164	159	253	200	262	250	248	279
25	248	200	204	147	159	160	248	202	253	242	248	276
26	248	202	173	149	155	166	245	207	250	245	253	273
27	248	250	173	150	159	169	246	211	242	239	253	273
28	245	226	202	150	155	177		209	237	248	248	270
29	211	224	216	144	-	159	a240	219	237	248	270	273
30	200	219	204	149	-	198		232	226	256	239	267
31	191	-	207	136	-	211	-	256	-	264	250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,050	297	191	260	15,970
November	6,433	250	195	214	12,760
December	6,187	226	173	200	12,270
Calendar year 1942	83,078	393	113	228	164,800
January	5,866	294	136	199	11,640
February	4,170	166	136	149	8,270
March	5,894	245	147	190	11,690
April	7,165	291	193	239	14,210
May	6,811	256	195	220	13,510
June	8,999	380	226	300	17,650
July	7,436	273	224	240	14,750
August	7,685	270	234	245	15,240
September	8,455	313	264	282	16,770
Water year 1942-43	83,151	380	136	228	164,900

a No gage-height record; discharge interpolated.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## SALMON FALLS CREEK BASIN

Salmon Falls Creek near San Jacinto, Nev.

Location.- Water-stage recorder, lat.  $41^{\circ}57'$ , long.  $114^{\circ}42'$ , in sec. 23, T. 47 N., R. 64 E., in canyon 200 yards downstream from highway bridge, 250 yards downstream from Shoshone Creek, and 5 miles north of San Jacinto.

Records available.- September 1909 to September 1916; October 1918 to September 1943.

Average discharge.- 29 years (1910-16, 1919-20, 1921-43), 125 second-feet.

Extremes.- Maximum discharge during year, between 2,060 and 2,420 second-feet Feb. 24 (gage height exceeded range of recorder, 10.20 foot, but was not more than 1.2 feet higher), from rating curve extended above 1,400 second-foot; minimum, 16 second-foot Oct. 1 (gage height, 2.39 feet).  
1909-16, 1918-43: Maximum discharge, that of Feb. 24, 1943; minimum, 5.3 second-foot Aug. 17, 1940 (gage height, 2.16 feet).

Remarks.- Records good except those for periods of no gage-height record, which are poor. Many diversions above station for irrigation. Salmon Dam of Salmon River Canal Co., Ltd., 15 miles below station, forms a reservoir having a capacity of about 180,000 acre-feet.

## Discharge, in second-foot, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	44	82	116	106	a200	674	702	522	184	38	21
2	18	44	84	121	104	a190	646	674	536	178	36	21
3	20	46	84	114	101	a180	632	688	536	166	35	20
4	22	46	84	88	88	a160	730	745	536	170	35	19
5	24	48	61	98	96	a150	803	788	506	166	34	19
6	24	50	72	93	93	a170	832	788	468	152	33	19
7	26	53	65	74	94	a200	832	774	403	135	33	19
8	26	61	70	70	96	a300	832	716	368	125	32	19
9	26	50	69	80	88	468	950	646	335	111	31	20
10	27	48	70	69	69	716	1,100	590	298	102	29	23
11	27	48	70	69	88	590	1,010	522	303	94	28	24
12	29	48	70	68	93	368	803	468	350	88	26	23
13	33	50	69	66	93	338	702	442	429	85	25	25
14	29	50	66	74	102	378	660	415	522	82	25	25
15	33	50	66	78	119	390	688	403	576	76	25	25
16	35	50	66	74	143	335	788	403	576	74	25	25
17	35	52	66	63	170	272	890	403	482	70	25	26
18	36	61	64	61	223	232	920	390	429	69	25	25
19	37	69	61	59	403	217	950	368	375	69	24	24
20	37	69	60	66	774	193	980	335	355	69	23	25
21	36	60	65	80	950	184	1,010	308	348	69	22	25
22	36	60	64	a500	1,070	176	1,010	284	332	70	21	26
23	36	58	66	365	1,280	176	920	272	318	66	21	25
24	35	59	80	a700	a2,000	188	832	260	298	66	21	24
25	35	63	85	416	a1,000	242	788	265	279	63	22	24
26	36	63	80	a300	a500	308	861	298	262	58	21	22
27	40	65	86	a200	a350	350	861	348	242	53	21	21
28	40	73	85	a150	a250	403	803	368	281	51	21	22
29	40	72	82	a140	-	442	716	403	203	46	19	23
30	42	79	80	a130	-	522	688	429	193	40	18	24
31	42	-	91	a120	-	618	-	468	-	40	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	979	42	17	31.6	1,940
November.....	1,681	79	44	56.0	3,350
December.....	2,223	91	60	71.7	4,410
Calendar year 1942.....	77,629	1,340	16	213	154,000
January.....	4,702	700	59	152	9,350
February.....	10,545	2,000	69	377	20,920
March.....	9,656	716	150	311	19,150
April.....	24,911	1,100	632	830	49,410
May.....	14,964	788	260	483	29,680
June.....	11,603	576	193	387	23,010
July.....	2,887	184	40	93.1	5,730
August.....	813	38	18	26.2	1,610
September.....	683	26	19	22.8	1,360
Water year 1942-43.....	85,647	2,000	17	235	169,900

a No gage-height record; discharge computed on basis of weather records, records for nearby stations, and study of storage changes in Salmon River Canal Co. Reservoir.

Time basis.- Mountain war time. To convert war time to standard time, subtract 1 hour.

## Salmon River Canal Co. Reservoir near Rogerson, Idaho

Location.— Staff gage at dam on Salmon Falls Creek, lat. 42°13', long. 114°44', in sec. 17, T. 14 S., R. 15 E., 10 miles west of Rogerson. Datum of gage is 4,990.0 feet above mean sea level (surveys of Salmon River Canal Co.).

Records available.— January 1922 to September 1943.

Extremes.— Maximum contents observed during year, 123,200 acre-feet June 21 (gage height, 80.90 feet); minimum observed, 24,900 acre-feet Oct. 8–22, Nov. 10–13 (gage height, 17.00 feet).  
1922–43: Maximum contents observed, 123,700 acre-feet May 30, 31, 1922 (gage height, 61.1 feet); minimum observed, 125 acre-feet Sept. 21 to Oct. 5, 1934 (gage height, 0.1 foot).

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

Cooperation.— Gage-height record and capacity table furnished by Salmon River Canal Co., Ltd.

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25,580	25,240	26,090	29,320	37,620	56,000	73,070	116,400	113,900	118,400	85,530	54,800
2	25,410	25,240	26,260	29,490	37,800	56,400	74,450	117,300	113,600	117,800	84,530	54,800
3	25,240	25,240	26,430	29,660	37,990	56,800	75,370	118,100	113,900	117,300	85,130	53,800
4	25,070	25,240	26,600	29,830	38,180	57,660	76,520	118,400	114,500	116,400	81,930	52,800
5	24,900	25,240	26,800	30,000	38,360	57,980	77,670	119,000	115,000	115,300	80,970	52,000
6	24,980	25,240	26,770	30,170	38,540	58,300	79,050	119,800	115,600	114,600	79,530	51,200
7	24,950	25,240	26,770	30,340	38,730	58,520	80,730	120,600	116,200	113,600	78,590	50,400
8	24,900	25,240	26,940	30,540	38,920	58,950	82,170	120,900	116,400	112,800	77,670	49,600
9	24,900	25,240	26,940	30,510	38,920	59,810	83,610	121,500	116,700	112,000	76,520	48,800
10	24,900	24,900	27,110	30,510	39,100	60,240	85,050	122,000	116,700	111,400	75,600	48,200
11	24,900	24,900	27,110	30,680	39,100	61,100	87,000	122,300	117,000	110,600	74,450	47,800
12	24,900	24,900	27,250	30,850	39,280	62,520	89,000	122,300	117,000	109,800	73,300	47,800
13	24,900	24,900	27,280	30,850	39,280	62,820	90,750	122,300	117,600	108,500	72,150	47,800
14	24,900	25,070	27,450	31,020	39,470	63,670	92,020	122,300	118,100	107,400	71,000	48,000
15	24,900	25,070	27,620	31,020	39,660	64,960	93,040	122,300	119,200	106,300	69,680	48,000
16	24,900	25,240	27,960	31,020	40,020	65,180	94,310	122,000	120,100	105,500	68,920	48,000
17	24,900	25,240	27,960	31,020	40,210	65,390	95,580	121,800	120,900	104,200	67,770	48,200
18	24,900	25,240	28,130	31,020	40,680	65,920	96,870	121,200	121,600	102,800	66,580	48,200
19	24,900	25,240	28,130	31,190	41,140	66,460	98,430	120,900	122,300	101,600	65,600	48,200
20	24,900	25,410	28,300	31,360	41,880	66,680	99,990	120,600	122,900	100,200	64,530	48,400
21	24,900	25,410	28,300	31,530	42,800	67,110	101,600	120,100	123,200	98,950	62,460	48,400
22	24,900	25,410	28,470	31,700	44,800	67,320	103,400	119,500	122,900	97,650	62,390	48,400
23	25,240	25,410	28,470	31,880	46,800	67,540	105,000	119,200	122,600	96,610	61,320	48,400
24	25,240	25,410	28,640	32,280	49,000	67,770	106,800	118,700	122,300	95,530	60,240	48,400
25	25,240	25,580	28,640	32,550	52,600	68,000	108,700	117,800	122,000	94,510	59,160	48,400
26	25,240	25,580	28,810	32,580	54,400	68,230	109,600	117,300	121,800	93,040	58,300	48,400
27	25,240	25,750	28,990	32,820	54,800	68,920	110,900	116,400	121,200	91,760	57,230	48,400
28	25,240	25,750	28,980	32,880	55,800	69,860	112,200	115,900	120,600	90,750	56,200	48,200
29	25,240	25,750	29,150	37,250	-	70,540	113,900	115,000	119,800	89,500	55,200	48,200
30	25,240	25,750	29,150	37,440	-	71,000	115,000	114,500	119,200	88,250	54,800	48,200
31	25,240	-	29,150	37,620	-	71,920	-	114,200	-	86,750	54,800	-

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	17.40	25,580	-
Oct. 31.....	17.20	25,240	-340
Nov. 30.....	17.50	25,750	+510
Dec. 31.....	19.50	29,150	+3,400
Calendar year 1942...	-	-	+19,545
Jan. 31.....	24.20	37,620	+8,470
Feb. 29.....	33.50	56,800	+19,180
Mar. 31.....	40.30	71,920	+15,120
Apr. 30.....	50.00	115,000	+43,080
May 31.....	57.70	114,200	-800
June 30.....	59.50	119,200	+5,000
July 31.....	47.20	86,750	-32,450
Aug. 31.....	33.00	54,800	-31,950
Sept. 30.....	29.70	48,200	-6,600
Water year 1942-43...	-	-	+22,620

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## SALMON FALLS CREEK BASIN

Salmon River Canal Co. Canal near Rogerson, Idaho

Location.- Water-stage recorder, lat. 42°15', long. 114°45', in sec. 7, T. 14 S., R. 15 E., half a mile downstream from Salmon River Canal Co. Reservoir and 7 miles west of Rogerson.

Records available.- April 1937 to September 1943.

Extremes.- Maximum discharge during year, 638 second-feet July 28 (gage height, 7.90 feet); no flow during long periods.

1937-43: Maximum discharge, that of July 28, 1943; no flow during long periods in each year.

Remarks.- Records good except those for Nov. 8, 9, May 2, Sept. 30, which are poor. Canal diverts from Salmon River Canal Co. Reservoir for irrigation of lands in Salmon River Canal Co. project.

Cooperation.- Gage-height record furnished by Salmon River Canal Co., Ltd.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0						0	h420	400	605	0
2		0						e160	h380	400	593	222
3		0						h276	h330	410	572	321
4		0						h235	h276	400	539	330
5		0						h294	h248	400	539	340
6		0						h303	h196	410	528	340
7		0						h312	h208	410	528	350
8		h182						h321	180	430	517	340
9		h226						h360	184	462	528	330
10		0						h370	180	465	528	218
11		0						h390	174	506	528	0
12		0						h400	148	528	539	0
13		0						h430	0	561	539	0
14		0						h430	0	572	539	0
15		0						h461	0	572	539	0
16		0						h461	0	593	539	0
17		0						h440	0	583	539	0
18		0						h440	0	583	528	0
19		0						h430	0	583	528	0
20		0						h430	203	594	517	0
21		0						h430	294	594	517	0
22		0						h430	312	593	496	0
23		0						h430	350	583	484	0
24		0						h440	370	583	473	0
25		0						h461	380	572	473	0
26		0						h462	380	583	451	0
27		0						h473	370	594	451	0
28		0						h473	390	616	451	0
29		0						h506	390	627	392	0
30		0						h461	400	627	0	a6
31		-						h462	-	618	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	389	226	0	12.9	770
December.....	0	0	0	0	0
Calendar year 1942.....	48,976	583	0	134	97,160
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	11,961	506	0	386	23,720
June.....	6,764	420	0	225	13,420
July.....	16,460	627	400	531	32,650
August.....	14,989	605	0	484	29,730
September.....	2,797	350	0	93.2	6,550
Water year 1942-43.....	53,359	627	0	146	105,800

a No gage-height record; discharge computed on basis of discharge measurement of Oct. 22, 1943, and information furnished by Salmon River Canal Co., Ltd.

c Gage height not representative of average for day; discharge based on assumed time of gate opening.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Wood River at Hailey, Idaho

Location.- Water-stage recorder, lat. 43°31', long. 114°20', in SW $\frac{1}{4}$  sec. 9, T. 2 N., R. 18 E., at steel highway bridge a quarter of a mile southwest of Hailey.

Drainage area.- 640 square miles.

Records available.- June 1915 to September 1943.

Average discharge.- 28 years, 290 second-feet. Average combined discharge of Big Wood River and Big Wood Slough, 28 years, 409 second-feet.

Extremes.- Maximum discharge during year, 3,550 second-feet May 30 (gage height, 6.59 feet); minimum, 0.9 second-foot Jan. 18 (gage height, 0.64 foot).

1915-43 (river only): Maximum discharge, 4,480 second-feet June 7, 1938; maximum gage height, 8.66 feet June 12, 1921; practically no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.

1915-43 (combined): Maximum daily discharge, 4,500 second-feet June 6, 7, 1938; minimum daily, 15 second-feet Dec. 27, 1921.

Remarks.- Records good except those below 10 second-feet, which are fair. Water diverted around station by Hailey power plant and returned to river through Big Wood Slough. Total flow of river at Hailey (combined flow of Big Wood River and Big Wood Slough) is given on following page. Diversions above station for irrigation.

Cooperation.- Water-stage recorder inspected by employee of Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	4	3	2	b2	3	157	1,430	h2,750	2,320	607	115
2	5	6	3	2	b2	2	248	1,680	h2,350	2,210	580	102
3	4	6	2	2	b1	2	341	1,860	h2,040	2,060	558	119
4	4	18	2	1	*b1	2	357	1,960	h1,800	2,080	525	117
5	4	16	2	2	b1	4	377	2,170	h1,570	1,960	475	117
6	4	11	3	2	b1	4	398	2,060	h1,400	1,980	460	115
7	4	4	3	1	2	6	552	1,930	1,370	2,020	430	115
8	4	5	3	1	2	6	760	1,740	1,330	2,040	408	82
9	4	5	3	2	1	5	724	1,600	1,420	2,080	357	63
10	4	4	3	2	1	4	700	1,590	1,650	1,950	291	60
11	6	4	3	2	2	5	748	1,540	h1,960	1,810	284	60
12	7	3	3	1	1	6	978	1,460	h2,130	1,630	288	57
13	4	3	3	1	1	12	1,200	1,580	2,290	1,470	270	53
14	4	4	4	1	1	16	1,440	1,320	2,140	1,390	251	53
15	4	22	4	1	1	7	1,650	1,280	1,960	1,370	241	56
16	4	15	4	1	1	7	1,900	1,200	1,840	1,260	245	56
17	4	5	*3	1	2	14	2,000	1,090	1,900	1,180	215	66
18	4	5	3	b1	2	11	2,020	1,010	2,230	1,150	212	56
19	4	4	2	1	2	12	2,180	989	2,870	1,120	204	55
20	6	3	2	1	2	8	2,090	1,010	2,650	1,070	199	59
21	6	3	2	2	2	6	1,860	1,070	2,410	1,030	176	63
22	6	3	2	5	15	10	1,660	1,390	2,640	1,100	166	61
23	5	3	2	6	3	9	1,570	1,710	2,430	1,020	150	61
24	5	4	2	4	3	12	1,690	2,160	2,190	937	131	60
25	5	4	2	3	2	19	1,630	2,510	2,150	904	129	59
26	5	3	1	3	2	30	1,530	2,460	2,130	852	125	64
27	5	3	1	3	2	44	1,440	2,750	2,150	814	121	80
28	5	3	1	3	3	64	1,560	3,110	2,180	772	115	82
29	5	3	1	3	-	100	1,510	3,290	2,250	700	117	70
30	5	3	1	b2	-	135	1,410	3,440	2,270	658	117	50
31	5	-	2	b2	-	137	-	3,240	-	618	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	146	7	4	4.7	290
November.....	181	22	5	6.0	359
December.....	75	4	1	2.4	149
Calendar year 1942.....	112,328	2,410	1	308	222,800
January.....	64	6	1	2.1	127
February.....	61	15	1	2.2	121
March.....	702	137	2	22.6	1,390
April.....	36,668	2,160	157	1,222	72,730
May.....	87,229	3,440	989	1,846	113,500
June.....	62,480	2,870	1,330	2,083	123,900
July.....	43,595	2,320	618	1,406	86,470
August.....	8,567	607	115	276	16,990
September.....	2,214	119	50	73.8	4,390
Water year 1942-43.....	211,982	3,440	1	581	420,400

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

## BIG WOOD RIVER BASIN

Combined discharge, in second-feet, of Big Wood River and Big Wood Slough at Hailey, Idaho,  
water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	189	185	178	182	199	355	1,620	2,930	2,580	794	310
2	185	191	186	183	182	192	428	1,870	2,530	2,410	774	317
3	184	193	188	165	181	178	522	2,080	2,210	2,280	757	306
4	182	198	189	137	187	190	555	2,160	1,960	2,270	715	303
5	178	196	182	165	181	214	587	2,370	1,720	2,170	649	295
6	170	199	183	165	179	192	610	2,260	1,570	2,170	626	287
7	164	194	183	155	180	215	757	2,140	1,640	2,210	593	283
8	162	201	183	161	178	206	954	1,940	1,610	2,230	566	284
9	162	195	183	153	171	205	934	1,800	1,620	2,270	537	278
10	164	184	168	152	148	194	905	1,780	1,960	2,140	487	275
11	187	176	153	147	168	205	955	1,730	2,140	1,990	470	275
12	197	177	157	141	170	206	1,180	1,650	2,300	1,800	468	272
13	198	187	163	141	167	212	1,390	1,540	2,470	1,640	434	268
14	192	202	164	151	164	220	1,630	1,460	2,340	1,590	415	266
15	182	237	164	151	163	200	1,840	1,410	2,170	1,570	407	265
16	184	209	164	141	167	188	2,090	1,350	2,030	1,440	405	267
17	182	206	163	121	174	192	2,180	1,280	2,090	1,350	395	263
18	180	215	171	111	180	186	2,230	1,180	2,430	1,320	390	263
19	178	206	165	111	183	192	2,400	1,150	3,080	1,310	379	262
20	192	172	165	131	183	168	2,310	1,190	2,860	1,270	368	268
21	193	156	168	162	190	176	2,050	1,250	2,610	1,220	346	265
22	193	181	174	195	195	190	1,330	1,600	2,850	1,500	344	263
23	193	196	178	196	197	189	1,750	1,920	2,630	1,220	334	262
24	193	224	184	189	199	194	1,910	2,350	2,380	1,120	340	259
25	186	204	184	183	184	201	1,810	2,490	2,350	1,090	338	253
26	187	183	140	172	188	218	1,700	2,660	2,320	1,040	332	252
27	195	172	147	173	190	234	1,610	2,940	2,360	1,010	328	261
28	191	181	163	177	201	258	1,750	3,300	2,380	968	316	260
29	183	191	165	177	-	299	1,700	3,460	2,450	868	316	257
30	185	183	167	182	-	336	1,600	3,610	2,470	832	318	249
31	190	-	171	182	-	341	-	3,410	-	794	321	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,697	198	162	184	11,300
November.....	5,798	237	156	193	11,500
December.....	5,060	185	138	163	10,040
Calendar year 1942.....	177,604	2,620	138	487	352,300
January.....	4,949	198	111	160	9,610
February.....	5,032	201	148	180	9,980
March.....	6,589	341	168	213	13,070
April.....	42,529	2,400	355	1,418	84,360
May.....	62,940	3,610	1,150	2,030	124,800
June.....	68,160	3,080	1,510	2,272	135,200
July.....	49,432	2,520	794	1,595	98,050
August.....	14,262	794	316	460	28,290
September.....	8,188	317	249	273	16,240
Water year 1942-43.....	278,635	3,610	111	763	552,600

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Wood River near Bellevue, Idaho

Location.- Water-stage recorder, lat. 43°19', long. 114°21', in sec. 20, T. 1 S., R. 18 E., 1½ miles upstream from flow line of Magic Reservoir, 3 miles upstream from Camas Creek, and 10 miles southwest of Bellevue.

Drainage area.- 823 square miles.

Records available.- July 1911 to September 1943 (except winters 1942 and prior to 1940).

Extremes.- Maximum discharge during year, 2,520 second-feet May 30 (gage height, 4.37 feet); minimum, 51 second-feet Feb. 9 (gage height, 1.36 feet).  
1911-43: Maximum discharge recorded, 3,680 second-feet June 16, 1921 (gage height, 6.07 feet), from rating curve extended above 2,800 second-feet; minimum recorded, 7 second-feet Apr. 14, 1932 (gage height, 1.10 feet).

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

Cooperation.- Water-stage recorder inspected and seven discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a62	101	115	154	a55	134	359	1,480	2,150	1,970	342	114
2	62	96	115	154	a55	138	471	1,580	1,990	1,960	355	117
3	67	81	104	158	a50	141	645	1,750	1,590	2,110	336	117
4	67	81	96	118	a50	144	741	1,830	1,590	2,150	328	114
5	67	74	88	121	a50	134	741	2,010	1,220	2,050	287	108
6	65	69	99	121	a60	141	732	2,010	1,060	1,690	211	108
7	62	67	99	118	60	134	822	1,940	980	1,730	202	105
8	62	69	99	110	60	134	966	1,800	914	1,730	193	102
9	62	69	101	b106	58	134	1,010	1,640	942	1,720	188	102
10	62	65	96	b105	b55	134	975	1,580	1,070	1,530	188	100
11	67	62	93	b95	b58	131	975	1,510	1,310	1,500	159	100
12	71	62	96	b90	b50	138	1,140	1,420	1,540	1,370	158	100
13	83	60	104	b85	b50	147	1,310	1,280	1,840	1,210	129	100
14	66	65	113	b90	b58	154	1,490	1,150	1,070	1,130	123	97
15	66	74	113	b90	b50	151	1,660	1,070	1,580	1,090	123	94
16	66	71	113	b80	b70	147	1,870	1,050	1,470	1,010	126	77
17	66	67	107	b70	b50	147	1,940	975	1,470	914	123	80
18	63	74	a110	a50	b90	147	2,000	894	1,590	823	123	84
19	83	83	110	a50	b100	144	2,110	813	2,140	823	129	90
20	86	71	104	a50	b110	147	2,170	777	2,220	752	123	94
21	91	62	113	a80	118	a140	2,040	831	2,010	884	108	97
22	93	60	118	a110	124	a140	1,910	957	2,030	735	106	108
23	93	62	116	a120	131	a140	1,800	1,200	2,010	728	120	117
24	96	85	124	a120	134	a140	1,620	1,600	1,810	692	136	117
25	96	101	124	a120	134	a150	1,760	1,760	1,660	642	126	114
26	96	91	113	a100	131	a170	1,650	1,880	1,650	609	114	111
27	99	88	101	a90	134	a180	1,540	2,020	1,720	529	111	108
28	99	96	110	a90	131	a220	1,570	2,140	1,780	467	111	108
29	101	107	118	a80	-	a300	1,660	2,340	1,960	445	108	102
30	104	113	118	a70	-	316	1,500	2,380	1,890	409	114	102
31	107	-	134	a55	-	310	-	2,350	-	349	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,530	107	62	81.6	5,020
November.....	2,324	113	60	77.5	4,610
December.....	3,368	134	88	109	6,680
Calendar year 1942.....	-	-	-	-	-
January.....	3,072	154	60	99.1	6,090
February.....	2,386	134	55	85.2	4,730
March.....	5,027	316	131	162	9,970
April.....	41,375	2,170	359	1,379	82,070
May.....	49,217	2,360	777	1,555	95,640
June.....	48,776	2,220	914	1,628	96,750
July.....	35,649	2,150	349	1,150	70,710
August.....	5,189	355	108	167	10,290
September.....	3,084	117	77	103	6,120
Water year 1942-43.....	200,995	2,380	55	551	398,700

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Warm Spring Creek near Ketchum and combined discharge of Big Wood River and Big Wood Slough at Hailey.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Magic Reservoir near Richfield, Idaho

Location.- Staff gage at dam on Big Wood River, lat. 43°15', long. 114°22', in NE¼ sec. 18, T. 2 S., R. 18 E., 18 miles northwest of Richfield. Datum of gage is 4,800 feet above datum of Idaho Irrigation Co., which is reported to be about 137 feet below mean sea level.

Drainage area.- 1,500 square miles.

Records available.- February to April 1909 (gage heights only), April 1909 to September 1943.

Extremes.- Maximum contents during year, 192,300 acre-feet May 31, July 4-6 (gage height, 135.2 feet); minimum, 77,150 acre-feet Mar. 27 (gage height, 95.1 feet).  
1909-43: Maximum contents, 193,100 acre-feet May 24, June 8-10, 1943 (gage height, 135.4 feet); no storage for several days in 1909, 1919, 1920, 1924, 1928, 1935.

Remarks.- Reservoir is formed by earth- and rock-fill dam, completed in 1909, and raised 5 feet in 1917. Capacity, 191,500 acre-feet between gage heights 21.4 feet (2.9 feet above bottom of outlet pipe) and 135.0 feet (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. Contents computed from morning reading.

Cooperation.- Gage-height record and yield table furnished by Water District No. 7 AB.

Contents in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115,800	120,300	123,800	132,800	143,100	137,400	82,450	177,400	191,900	191,900	188,000	158,600
2	115,800	120,600	124,100	133,300	143,100	135,400	85,290	177,000	191,100	191,900	187,200	157,800
3	115,800	120,900	124,400	133,600	143,800	133,100	90,910	177,000	190,700	191,900	186,400	156,900
4	115,800	120,900	124,700	133,600	143,800	133,400	101,100	177,000	189,900	192,300	185,700	156,900
5	116,000	121,100	124,900	134,200	143,800	128,300	113,400	177,000	186,500	192,300	184,900	154,900
6	116,000	121,100	125,200	134,500	144,100	125,500	125,800	177,000	189,900	192,300	184,100	154,300
7	116,300	121,400	125,200	134,500	144,400	123,000	139,500	176,800	189,900	191,900	183,400	153,600
8	116,300	121,400	125,500	134,800	144,700	120,300	155,900	176,500	189,500	191,900	182,200	152,300
9	116,300	121,700	125,800	135,100	144,700	117,900	173,000	175,900	189,500	191,900	181,100	151,700
10	116,600	121,700	126,000	135,100	145,300	115,300	183,000	175,200	189,500	191,900	180,000	151,000
11	116,600	121,900	126,300	135,400	145,900	112,600	184,500	174,800	189,500	191,900	179,200	150,400
12	116,800	121,900	126,600	135,400	146,200	110,100	185,300	174,400	190,300	191,500	178,100	149,700
13	116,800	122,200	126,600	136,000	146,600	107,500	184,900	173,700	190,700	191,100	177,000	149,100
14	117,100	122,200	126,900	136,000	146,900	105,300	183,800	173,000	191,500	191,500	175,900	148,600
15	117,400	122,500	127,200	136,200	146,900	103,000	182,600	172,600	191,500	191,900	174,800	147,600
16	117,600	122,700	127,400	136,500	147,200	100,100	181,500	172,600	191,100	191,900	173,700	146,600
17	117,900	123,000	127,700	136,800	147,200	97,460	181,100	172,600	190,700	191,900	172,600	145,600
18	117,900	123,300	127,700	136,800	147,500	95,090	180,700	173,300	190,700	191,900	171,500	144,700
19	117,900	123,600	128,300	137,100	147,600	92,750	180,400	173,700	191,100	191,900	170,400	143,800
20	118,200	123,300	128,500	137,100	148,100	90,460	180,000	174,100	191,500	191,500	169,700	143,100
21	118,200	123,000	128,800	137,400	148,100	88,180	180,000	174,400	191,900	191,100	168,700	142,500
22	118,400	122,700	129,100	138,000	147,800	86,170	179,600	175,800	191,500	191,100	167,600	141,600
23	118,700	121,700	129,400	138,800	147,200	83,750	178,900	175,900	191,900	191,100	166,500	141,000
24	118,700	121,700	129,600	140,100	145,600	81,370	178,100	177,400	191,900	191,100	165,500	140,400
25	119,000	122,200	130,500	140,400	144,100	79,460	177,700	179,600	191,900	191,100	164,400	139,800
26	119,200	122,200	130,800	140,700	142,500	77,570	177,400	181,900	191,500	191,100	163,700	139,200
27	119,500	122,700	130,800	141,000	140,700	77,150	177,000	184,600	191,500	190,700	163,000	138,300
28	119,500	123,000	131,100	141,300	139,200	77,570	176,300	187,600	191,900	191,100	162,000	137,400
29	119,800	123,300	131,600	141,600	-	77,980	177,000	190,300	191,900	190,300	161,300	136,800
30	119,800	123,600	131,600	141,900	-	79,460	177,400	191,900	191,900	189,500	160,600	136,800
31	120,000	-	132,200	142,800	-	80,520	-	192,300	-	188,600	159,300	-

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	111.5	115,800	-
Oct. 31.....	113.1	120,000	+4,200
Nov. 30.....	114.4	123,600	+3,600
Dec. 31.....	117.5	132,200	+8,600
Calendar year 1942....	-	-	-2,000
Jan. 31.....	121.1	142,800	+10,600
Feb. 28.....	119.9	139,200	-3,600
Mar. 31.....	96.7	80,520	-58,680
Apr. 30.....	131.3	177,400	+96,880
May 31.....	135.2	192,300	+14,900
June 30.....	135.1	191,900	-400
July 31.....	134.3	188,800	-3,100
Aug. 31.....	128.2	159,300	-29,500
Sept. 30.....	118.9	136,200	-23,100
Water year 1942-43....	-	-	+20,400

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Wood River below Magic Dam, near Richfield, Idaho

Location.— Water-stage recorder, lat. 43°14', long. 114°22', in sec. 18, T. 2 S., R. 18 E., half a mile downstream from Magic Dam and 18 miles northwest of Richfield.

Records available.— April 1911 to September 1943.

Average discharge.— 31 years (1912-43), 405 second-feet.

Extremes.— Maximum discharge during year, 7,160 second-feet Apr. 13 (gage height, 13.31 feet); minimum, 12 second-feet Jan. 15 (gage height, 1.47 feet).  
1911-43: Maximum discharge, that of Apr. 13, 1943; no flow Feb. 3, 1915.

Remarks.— Records good except those below 400 second-feet, which are fair. Many ranch diversions in upper drainage area. Flow regulated by Magic Reservoir (see p. 96).

Cooperation.— Water-stage recorder inspected and six discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	14	15	14	14	1,120	1,530	3,210	3,210	2,020	692	524
2	15	15	14	14	14	1,350	1,860	3,140	3,010	2,020	692	514
3	15	15	15	14	14	1,510	1,870	3,130	2,870	2,090	692	514
4	15	15	15	14	14	1,500	1,920	3,180	2,420	2,160	692	514
5	15	15	16	14	14	1,510	1,950	3,180	1,890	2,170	698	514
6	15	15	15	14	15	1,530	2,030	3,160	1,870	2,040	698	514
7	15	15	14	14	16	1,560	2,080	3,080	1,650	1,790	698	500
8	16	15	14	14	16	1,580	2,130	2,960	1,590	1,720	692	490
9	16	15	14	14	15	1,550	2,030	2,790	1,550	1,770	671	490
10	16	16	13	14	15	1,570	2,230	2,610	1,660	1,740	660	495
11	16	16	13	14	15	1,570	2,950	2,480	1,640	1,700	655	495
12	16	16	13	14	16	1,570	7,060	2,370	1,830	1,440	655	490
13	16	16	13	14	15	1,550	6,940	2,280	2,060	1,060	655	490
14	16	16	14	14	15	1,550	6,360	2,040	2,310	1,000	655	495
15	16	16	14	13	15	1,550	5,710	1,710	2,230	1,060	655	500
16	15	16	13	15	15	1,540	5,360	1,670	2,100	1,050	650	500
17	15	17	13	15	15	1,540	5,080	1,480	1,960	1,050	634	500
18	15	17	13	15	15	1,540	4,870	1,360	1,940	985	624	500
19	15	159	14	15	16	1,540	4,730	1,180	2,120	930	609	500
20	14	377	13	14	307	1,540	4,600	1,030	2,420	924	598	486
21	15	377	14	14	475	1,510	4,430	1,040	2,450	846	598	476
22	15	377	14	14	470	1,450	4,210	1,040	2,280	752	598	476
23	15	174	14	14	863	1,470	3,920	1,050	2,590	708	598	476
24	14	14	14	14	1,100	1,490	3,460	1,050	2,260	698	598	481
25	15	14	14	14	1,100	1,480	3,490	1,060	2,110	708	583	486
26	14	14	14	14	1,100	1,040	3,320	1,060	1,940	714	573	495
27	14	15	14	14	1,080	574	3,110	1,070	1,920	714	568	495
28	14	14	14	14	1,110	706	3,060	1,270	1,960	698	568	495
29	14	15	14	14	-	909	3,160	1,670	2,000	692	568	490
30	14	14	14	14	-	1,180	3,250	2,680	2,020	687	548	194
31	15	-	14	14	-	1,310	-	3,330	-	687	539	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	468	16	14	15.0	924
November.....	1,844	377	14	61.5	3,660
December.....	432	16	13	13.9	857
Calendar year 1942.....	179,035	2,620	12	491	355,100
January.....	429	14	13	13.8	851
February.....	7,899	1,110	14	282	15,550
March.....	43,449	1,580	574	1,402	86,130
April.....	117,540	7,050	1,630	3,918	233,100
May.....	64,560	3,330	1,030	2,083	128,100
June.....	63,060	3,210	1,550	2,102	125,100
July.....	38,623	2,170	687	1,246	76,610
August.....	19,614	698	539	633	38,900
September.....	14,589	524	194	486	28,940
Water year 1942-43.....	372,495	7,050	13	1,021	738,900

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Wood River at Gooding, Idaho

Location.— Water-stage recorder, lat. 42°57', long. 114°43', in NE¼NE¼ sec. 31, T. 5 S., R. 15 E., 30 feet downstream from highway bridge and half a mile north of Gooding.

Records available.— June 1896 to October 1899 (published as Malade River at Toponis)

April 1921 to September 1943, except for winters.

Extremes.— Maximum discharge during year, 5,120 second-feet Apr. 13 (gage height, 10.21 feet); no flow for long periods.

1921-43: Maximum discharge recorded, that of Apr. 13, 1943; no flow for long periods in each year.

Remarks.— Records good except those for period Mar. 3-10, which are fair. Many diversions above and below station for irrigation. Flow regulated by Magic Reservoir (see p. 96) and affected by deliveries from Milner-Gooding canal which diverts from Snake River.

Cooperation.— Water-stage recorder graph and five discharge measurements furnished by Water District No. 7 AB.

Rating tables, water year 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1-3

Feb. 27 to Sept. 30

1.2	12	1.4	29	2.5	227	6.0	1,930
1.3	17	1.5	38	3.0	370	6.0	3,120
1.4	23	1.6	49	3.5	560	10.2	5,120
1.6	38	1.8	78	4.0	770		
1.7	48	2.0	114	5.0	1,300		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43				-	795	1,240	2,140	2,000	995	72	95
2	14				-	702	1,570	2,210	1,930	995	70	101
3	10				†	b750	1,720	2,140	1,660	995	75	95
4	-				-	a1,030	1,720	2,070	2,450	1,070	92	95
5	-				-	a1,010	1,790	2,140	2,360	1,100	92	97
6	†				-	h995	1,790	2,070	895	1,070	88	92
7	-				-	a1,050	1,560	2,070	795	945	86	65
8	-				-	e1,200	1,560	1,930	745	745	90	58
9	-				-	1,570	2,130	2,120	702	745	93	55
10	-				-	e1,200	2,120	2,140	660	770	97	50
11	-				-	1,100	2,320	2,140	680	745	93	42
12	-		†		-	1,070	2,140	2,140	795	725	90	46
13	-				-	1,240	2,120	2,120	995	512	95	48
14	-				-	h1,560	2,140	1,210	1,240	245	97	42
15	-				-	h1,070	2,120	2,140	1,360	176	85	41
16	-				-	1,040	2,240	2,140	1,330	240	80	54
17	-				-	1,040	2,120	2,140	1,180	232	76	61
18	-				-	995	2,140	2,140	1,100	232	78	62
19	-				-	995	2,140	2,140	1,120	197	75	54
20	-				-	970	2,140	2,140	1,330	138	78	57
21	-				-	970	2,140	2,140	1,450	120	75	61
22	-				-	970	2,140	2,140	1,420	97	62	62
23	-				-	995	2,140	2,140	1,270	90	61	59
24	-				-	1,040	2,140	2,140	1,300	85	68	50
25	-			†160	-	1,210	2,140	2,140	1,240	81	76	47
26	-				-	1,360	2,140	2,140	1,070	76	68	42
27	-				745	1,100	2,140	2,140	970	76	67	45
28	†				820	845	2,140	2,140	970	68	68	46
29	-				-	1,180	2,070	2,070	995	64	78	40
30	-				-	1,270	2,070	2,070	942	995	61	83
31	-				-	1,300	-	1,790	-	68	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....					
November.....					
December.....					
Calendar year.....					
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	33,422	1,570	702	1,078	66,290
April.....	87,650	5,120	1,240	2,922	173,900
May.....	34,884	2,210	192	1,125	69,190
June.....	35,010	2,000	660	1,167	69,440
July.....	13,770	1,100	61	444	27,510
August.....	2,494	97	61	80.5	4,950
September.....	1,799	101	34	60.0	3,570
Water year.....	-	-	-	-	-

† Result of field estimate.

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

b Stage-discharge relation affected by ice.

c Gage height not representative of average for day; discharge computed on basis of records for station near Gooding.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

g Computed from graph based on gage readings.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Wood River near Gooding, Idaho

**Location.**— Water-stage recorder, lat. 42°54', long. 114°48', in sec. 21, T. 6 S., R. 14 E., at Hudson Ranch, 2 miles downstream from bridge on Bliss-Gooding highway, 3½ miles downstream from Little Wood River, 5 miles upstream from diversion dam for King Hill project, and 6 miles southwest of Gooding.

**Records available.**— March 1916 to September, 1943 (fragmentary 1922-37, 1941, 1942).

**Extremes.**— Maximum discharge during year, 5,220 second-feet Apr. 14 (gage height, 9.80 feet); minimum, 6 second-feet Oct. 10, 11; minimum gage height, 0.71 foot Oct. 11. 1916-43: Maximum discharge, that of Apr. 14, 1943; no flow at times 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. Flow regulated by Magic Reservoir (see p. 96) and affected by deliveries from canals diverting from Snake River at Milner.

**Cooperation.**— Water-stage recorder inspected by employee of water district No. 7 AB April to September and employee of North Side Canal Co., October to March. Two discharge measurements furnished by Water District No. 7 AB.

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 4)

Oct. 1 to Apr. 9

Apr. 10 to Sept. 30

0.9	12	2.2	141	4.0	508	1.3	29	2.5	192	5.0	791
1.1	21.0	2.6	209	5.0	814	1.5	44	3.0	269	6.0	1,260
1.4	41	3.0	283	6.0	1,280	1.8	77	3.5	365	7.0	1,970
1.8	83	3.5	387	7.0	1,970	2.1	119	4.0	480	8.0	2,970

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	17	214	1,480	200	1,100	1,680	1,970	1,960	911	56	112
2	44	9	159	936	189	844	1,870	2,060	1,900	894	65	125
3	29	7	120	354	160	878	2,070	2,030	1,750	903	65	126
4	17	49	99	214	144	1,190	2,050	1,970	1,530	982	72	104
5	15	58	90	*160	166	1,170	2,020	2,000	1,420	1,070	87	104
6	12	58	70	140	147	1,160	1,930	1,980	996	1,040	87	112
7	12	60	75	130	154	1,190	1,940	1,950	890	933	90	90
8	9	61	70	130	154	1,320	1,920	1,880	853	741	103	75
9	7	61	75	135	182	2,350	1,940	1,740	773	706	110	75
10	6	56	80	130	166	1,650	2,750	1,540	710	720	114	65
11	6	58	90	110	157	1,350	4,220	1,390	683	706	116	60
12	7	80	*100	90	157	1,320	4,700	1,320	799	693	110	58
13	14	61	95	80	172	1,460	5,160	1,210	991	501	103	66
14	15	63	105	85	202	2,000	5,090	1,160	1,280	295	103	58
15	58	64	100	110	223	1,480	4,760	1,000	1,470	182	98	46
16	69	68	98	118	254	1,320	4,270	865	1,450	219	94	60
17	61	110	90	100	291	1,280	3,980	865	1,350	230	90	75
18	29	280	90	90	325	1,220	3,800	710	1,200	284	86	61
19	29	256	85	100	417	1,210	3,660	611	1,180	201	70	71
20	34	207	75	200	649	1,190	3,550	432	1,310	140	67	70
21	37	133	90	500	954	1,180	3,470	282	1,470	101	64	87
22	33	106	100	1,200	1,560	1,170	3,300	218	1,420	72	44	89
23	33	135	110	1,300	1,630	1,190	3,000	176	1,260	69	43	80
24	36	143	130	1,900	1,100	1,300	2,710	172	1,240	70	48	84
25	40	162	230	1,535	1,060	1,550	2,550	202	1,180	72	58	80
26	44	125	110	1,450	1,020	1,730	2,280	247	1,040	61	53	55
27	43	122	120	1,350	1,100	1,330	2,060	230	907	67	55	29
28	44	119	130	1,245	1,190	1,390	1,970	211	903	58	54	75
29	44	143	130	151	-	1,690	1,930	289	924	47	66	75
30	44	207	140	*171	-	1,740	1,910	745	937	38	59	60
31	40	-	350	195	-	1,620	-	1,670	-	46	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	969	69	6	31.3	1,920
November	3,038	260	7	101	6,030
December	3,617	350	70	117	7,170
Calendar year	-	-	-	-	-
January	10,889	1,480	80	351	21,600
February	14,121	1,630	144	504	28,010
March	42,602	2,350	844	1,374	84,500
April	88,440	5,160	1,580	2,948	175,400
May	35,129	2,060	172	1,069	65,710
June	35,786	1,960	693	1,193	70,980
July	12,992	1,070	38	419	25,770
August	2,453	116	43	79.1	4,870
September	2,307	126	29	76.9	4,580
Water year 1942-43	250,343	5,160	6	686	496,500

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Computed from staff-gage readings.

**Note.**— Stage-discharge relation affected by ice Dec. 5-31, Jan. 5-23 (no gage-height record Jan. 7-10, 12, 13, 18-23; discharge computed on basis of weather records and records for Silver Creek near Picabo and Snake River at King Hill).

**Time basis:** Mountain war time. To convert war time to standard time, subtract 1 hour.



## Warm Springs Creek at Guyer Hot Springs, near Ketchum, Idaho

Location.— Water-stage recorder, lat. 43°41', long. 114°25', in NE¼ sec. 15, T. 4 N., R. 17 E., at Guyer Hot Springs, 2 1/8 miles upstream from mouth and 2.2 miles west of Ketchum.

Drainage area.— 96 square miles.

Records available.— November 1940 to September 1943. May 1920 to September 1921 at site a quarter of a mile downstream, published as Warm Springs Creek near Ketchum; records not equivalent.

Extremes.— Maximum discharge during year, 696 second-feet May 30 (gage height, 3.36 feet); minimum, 17 second-feet Mar. 20 (gage height, 0.92 foot).  
1940-43: Maximum discharge, that of May 30, 1943; minimum recorded, 17 second-feet Mar. 20, 1942, Mar. 20, 1943; minimum gage height recorded, 0.88 foot Mar. 20, 1942.

Remarks.— Records good except those for periods of doubtful or no gage-height record, which are fair. Diversions above and below station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	35	36	35	38	36	91	291	566	366	97	57
2	33	35	36	36	36	33	126	370	504	352	97	56
3	33	36	31	29	35	34	153	410	437	331	95	56
4	33	34	32	33	333	37	147	444	392	328	90	56
5	33	34	34	36	334	42	151	488	348	300	89	55
6	33	34	35	34	35	35	147	460	324	267	85	53
7	33	35	35	34	35	41	a180	421	300	297	82	55
8	33	36	36	334	36	40	213	370	297	284	81	53
9	33	31	35	334	32	36	190	362	324	281	79	52
10	34	31	35	34	31	35	171	366	381	272	76	52
11	41	30	34	33	35	35	173	352	433	a260	75	51
12	38	32	34	332	33	38	224	328	472	a240	73	51
13	40	33	34	332	30	40	287	307	496	a210	72	50
14	37	37	34	334	30	40	345	291	472	a200	69	48
15	35	42	35	335	30	38	395	281	429	a190	71	48
16	35	37	33	27	30	36	437	262	410	a180	71	48
17	35	37	34	26	31	38	441	244	437	a160	68	48
18	34	37	34	26	33	36	452	230	492	147	66	48
19	34	35	33	27	33	38	484	230	557	151	65	50
20	34	29	33	330	34	33	444	250	520	149	64	50
21	34	32	35	335	35	34	394	261	496	145	64	48
22	33	34	35	42	36	36	356	356	504	143	62	48
23	33	37	35	40	35	37	356	441	472	139	62	48
24	33	42	36	339	35	37	377	557	433	131	62	47
25	33	37	35	338	32	40	352	590	414	125	61	47
26	33	35	24	40	34	44	314	603	403	122	60	48
27	35	37	34	41	34	48	294	616	392	116	58	50
28	32	35	35	38	35	57	294	657	388	110	57	48
29	33	37	34	36	-	77	276	666	374	107	56	48
30	33	37	35	37	-	84	265	674	370	104	57	47
31	35	-	34	37	-	82	-	615	-	100	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,061	41	32	34.2	2,100
November.....	1,053	42	29	35.1	2,090
December.....	1,053	36	24	34.0	2,090
Calendar year 1942.....	30,013	472	-	82.2	59,530
January.....	1,054	42	26	34.3	2,110
February.....	959	38	30	33.5	1,860
March.....	1,324	94	33	42.7	2,630
April.....	8,621	484	91	284	16,900
May.....	12,802	674	230	413	25,390
June.....	12,637	566	297	428	25,460
July.....	6,317	366	100	204	12,530
August.....	2,222	97	56	71.7	4,410
September.....	1,516	57	47	50.5	3,010
Water year 1942-43.....	50,709	674	24	139	100,600

a No gage-height record; discharge interpolated or computed on basis of records for Big Wood River near Bellevue.

d Doubtful gage-height record; discharge computed on basis of partial gage-height record and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Big Wood Slough at Hailey, Idaho

Location.- Water-stage recorder, lat. 43°31'00", long. 114°19'30", in sec. 9, T. 2 N., R. 15 E., at highway bridge, an eighth of a mile northeast of steel highway bridge over Big Wood River and an eighth of a mile southwest of Hailey.

Records available.- June 1915 to September 1943.

Average discharge.- 28 years, 118 second-feet.

Extremes (regulated).- Maximum discharge during year, 288 second-feet Apr. 14 (gage height, 3.50 feet); minimum, 18 second-feet Feb. 22; minimum gage height, 1.46 feet Sept. 1.

1915-43: Maximum discharge observed, 419 second-feet June 6, 1921, from rating curve extended above 280 second-feet; maximum gage height, 5.55 feet (top of ice in well) Jan. 20-23, 1937; no flow May 8, 1931, Oct. 20 to Nov. 3, 1938.

Remarks.- Records fair. Flow affected by Hailey power plant half a mile upstream. Big Wood Slough, a natural channel of Big Wood River, is utilized as a tailrace for power plant, and its discharge plus discharge of Big Wood River at Hailey (see p. 94) is total discharge of river at this point.

Cooperation.- Water-stage recorder inspected by employee of Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	a185	182	176	a180	196	198	h188	176	204	187	195
2	180	a185	163	181	a180	190	180	209	178	202	194	215
3	180	a185	136	163	a180	176	188	215	168	198	199	187
4	178	a180	137	136	186	188	198	205	156	h193	190	186
5	174	a180	a150	163	180	210	210	198	153	186	174	178
6	166	188	a160	163	178	188	212	201	174	186	166	172
7	160	190	a160	154	178	209	205	210	168	187	163	168
8	188	196	a160	a160	176	a200	194	201	h176	187	158	202
9	188	190	a160	h151	170	a200	210	196	h204	188	180	215
10	160	180	a155	a150	147	a190	205	193	h207	190	196	215
11	181	172	a150	a145	166	a200	207	188	182	181	186	215
12	190	174	h154	a140	169	a200	205	188	174	176	180	215
13	194	184	a160	a140	166	a200	193	164	184	176	164	215
14	188	198	a150	a150	163	204	186	144	204	201	164	213
15	178	215	a160	a150	162	193	193	189	209	198	166	210
16	180	194	a160	a140	166	181	187	147	194	178	187	212
17	178	201	160	a120	172	178	184	175	192	168	180	207
18	176	210	168	a110	178	174	212	166	204	172	178	207
19	174	202	163	a110	181	180	h223	160	215	187	175	207
20	186	169	163	a130	181	a160	h223	168	209	201	169	209
21	a187	153	166	a160	188	a170	h204	180	204	194	170	202
22	a187	178	172	a190	180	a180	h174	215	209	199	178	202
23	168	193	176	a190	194	a180	h150	212	201	196	184	201
24	188	a220	182	a185	196	182	h223	170	192	188	209	199
25	181	a200	182	180	182	182	180	182	196	184	209	194
26	182	a180	139	169	186	188	168	196	194	192	207	188
27	190	169	146	170	188	190	169	188	182	193	207	181
28	186	178	162	174	198	194	186	186	196	196	201	178
29	178	188	164	174	-	199	187	190	198	188	199	187
30	180	180	166	a180	-	201	h194	170	201	174	201	199
31	a185	-	169	a180	-	204	-	172	-	176	204	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,551	194	158	179	11,010
November.....	5,617	220	153	187	11,140
December.....	4,985	182	136	161	9,890
Calendar year 1942 .....	65,282	247	66	179	129,500
January.....	4,884	190	110	158	9,690
February.....	4,971	198	147	178	9,860
March.....	5,887	210	160	190	11,680
April.....	5,878	223	168	196	11,560
May.....	5,706	215	129	184	11,520
June.....	5,700	215	153	193	11,510
July.....	5,837	204	168	188	11,580
August.....	5,695	209	157	184	11,500
September.....	5,974	215	168	199	11,850
Water year 1942-43 .....	66,685	223	110	183	132,500

a No gage-height record; discharge computed on basis of weather records and records for Big Wood River at Hailey, Warm Springs Creek near Ketchum, and Big Wood River near Bellevue.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Camas Creek near Blaine, Idaho

Location.- Water-stage recorder, lat. 43°20', long. 114°33', in sec. 15, T. 1 S., R. 16 E., 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, 2½ miles upstream from backwater of Magic Reservoir, and 4 miles southeast of Blaine.

Drainage area.- 618 square miles.

Records available.- May 1912 to September 1943, except for winters. Discharge measurements only for 1922.

Extremes.- Maximum discharge during year, 9,780 second-feet Apr. 8 (gage height, 15.45 feet); minimum recorded, 2.7 second-feet Oct. 1 (gage height, 1.02 feet).  
1912-43: Maximum discharge recorded, that of Apr. 8, 1943; maximum gage height 15.48 feet Apr. 18, 1938, from floodmark; minimum discharge recorded, 1.5 second-feet Aug. 29, 1940.

Remarks.- Records good except those for Mar. 24 to Apr. 7, which are fair. Many small diversions above station; no appreciable regulation.

Cooperation.- Gage-height record collected in cooperation with and four discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7					-	1,720	1,400	514	152	13	7.5
2	3.0					-	2,520	1,250	514	161	13	7.8
3	3.0					-	4,090	1,180	455	159	14	9.2
4	3.1					-	5,500	1,070	456	146	14	9.2
5	3.1					-	6,390	970	414	141	12	9.0
6	3.3					-	6,550	915	400	131	12	9.0
7	3.3					-	7,760	890	373	125	11	8.2
8	3.3					-	9,080	929	351	113	9.8	7.8
9	3.3					-	7,870	758	323	112	8.8	8.0
10	3.3					-	6,550	705	295	99	8.0	8.0
11	3.4		†18			-	6,000	654	285	90	8.0	6.8
12	3.4					-	5,700	822	290	80	8.0	7.0
13	3.9					-	4,800	590	320	73	7.2	6.7
14	3.6					-	3,780	544	351	73	7.0	6.8
15	3.4					-	3,120	529	351	66	6.7	6.1
16	3.9					-	2,730	529	325	61	6.7	5.8
17	3.4					-	2,450	544	290	56	7.5	5.6
18	4.2					-	2,240	514	271	51	7.2	5.6
19	5.5					-	2,100	485	266	49	7.0	5.6
20	5.3					-	1,860	456	269	46	6.7	5.8
21	5.3					-	1,800	428	276	43	7.5	5.8
22	5.3					-	1,620	414	262	40	7.2	6.8
23	-					-	1,500	428	250	37	7.0	7.8
24	-					157	1,350	428	241	35	7.2	7.8
25	-					173	1,300	456	226	31	7.0	7.8
26	-				109	210	1,130	470	211	28	7.2	8.5
27	-					304	1,090	470	195	24	7.0	9.2
28	-					460	990	470	176	20	6.7	9.5
29	-					725	1,400	470	170	18	6.8	9.0
30	-					948	1,560	485	162	16	7.0	8.8
31	-					1,240	-	500	-	14	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-22.....	82.0	5.5	2.7	3.73	163
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 24-31.....	4,217	1,240	157	527	8,360
April.....	105,560	9,080	990	3,552	211,400
May.....	20,442	1,400	414	659	40,550
June.....	9,315	514	162	310	18,480
July.....	2,295	161	14	74.0	4,550
August.....	265.4	14	6.7	8.56	526
September.....	226.5	9.5	5.6	7.55	449
Water year.....	-	-	-	-	-

† Result of discharge measurement.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Lincoln Canal near Richfield, Idaho

Location.- Water-stage recorder, lat. 43°10', long. 114°19', in sec. 9, T. 3 S., R. 18 E., at head of canal, 100 yards east of Shoshone-Halley highway, 5½ miles downstream from Magic Dam, and 12 miles northwest of Richfield.

Records available.- April 1925 to September 1943 (irrigation seasons only, except 1936-42).

Extremes.- Maximum discharge during year, 192 second-feet Aug. 18; maximum gage height, 2.47 feet Sept. 20; no flow for long periods.  
1925-43: Maximum discharge, 706 second-feet May 28, 1927 (gage height, 4.00 feet), from rating curve extended above 600 second-feet; no flow during long periods in each year.

Remarks.- Records good except those for fragmentary or no gage-height record, which are fair. Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., from which point it approximately parallels river for 10 miles to head of North Gooding canal in sec. 15, T. 4 S., R. 18 E., where water is either diverted into North Gooding canal or returned to Big Wood River. Canal is used to avoid large channel losses in natural bed of river. No diversions above station.

Cooperation.- Water-stage recorder graph and 10 discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0			0			-	154	145	186	151
2		0			0			-	154	145	187	153
3		0			0			-	150	145	181	154
4		0			0			-	146	145	177	154
5		0			0			-	142	146	172	156
6		0			0			-	138	145	161	156
7		0			0			-	138	142	f162	153
8		0			0		h10	-	136	140	a162	148
9		0			0			-	136	144	f154	148
10		0			0			-	136	144	157	146
11		0			0			-	138	144	162	148
12		0			0			-	140	150	165	148
13		0			0			-	145	146	167	150
14		0			0			-	150	159	169	156
15		0			0			-	150	174	170	162
16		0			0			-	148	172	172	161
17		0			0			-	148	170	167	161
18		0			0			-	148	170	176	161
19		0			0			-	150	172	169	161
20		91			-			-	151	172	164	164
21					-			-	151	181	162	167
22		142			-			-	151	177	161	167
23		146			-			-	148	159	159	167
24		99			-			-	146	164	161	159
25		0			-			-	148	177	157	150
26		0			-			h10	146	179	150	151
27		0			-			a10	146	164	151	150
28		0			-			f82	146	179	151	150
29		0			-			136	146	177	151	148
30		0			-			151	146	181	150	83
31		-			-			156	-	182	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	478	146	0	15.9	948
December.....	0	0	0	0	0
Calendar year 1942 .....	28,114	223	0	77.0	55,770
January.....	0	0	0	0	0
February 1-19....	0	0	0	0	0
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May 26-31.....	545	156	10	90.8	1,080
June.....	4,370	154	136	146	8,670
July.....	5,010	164	140	162	9,940
August.....	5,083	187	150	164	10,080
September.....	4,563	167	83	153	9,090
Water year .....	-	-	-	-	-

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

f Fragmentary gage-height record; discharge computed from partly estimated gage-height record.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## BIG WOOD RIVER BASIN

Lincoln Canal near Shoshone, Idaho

Location.- Water-stage recorder, lat. 43°05', long. 114°19', in sec. 15, T. 4 S., R. 18 E., a quarter of a mile upstream from outlet of canal, 7 miles west of Richfield, 11 miles northeast of Shoshone, and 12½ miles downstream from Magic Dam.

Records available.- May 1925 to September 1943 (1929-36, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 263 second-feet Apr. 29 (gage height, 1.52 feet); no flow for long periods.  
1925-43: Maximum discharge, 667 second-feet May 29, 1927 (gage height, 2.48 feet), from rating curve extended above 550 second-feet; no flow for long periods each year.

Remarks.- Records good. Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., from which point it approximately parallels river for 10 miles to head of North Gooding Canal in sec. 15, T. 4 S., R. 18 E., where water is either diverted into North Gooding Canal or returned to Big Wood River. Canal is used to avoid large channel losses in natural bed of river. Five ditches have rights to divert 12.5 second-feet above this station for irrigation.

Cooperation.- Water-stage recorder graph and three discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	0					0	170	131	127	167	134
2	0	0					0	160	131	127	172	134
3	0	0					0	147	129	127	164	134
4	0	0					0	129	127	127	160	129
5	0	0					0	102	125	129	157	131
6	0	0					0	77	118	129	143	134
7	0	0					0	77	118	127	147	134
8	0	0					0	93	118	125	147	131
9	0	0					0	86	116	125	147	131
10	0	0					0	95	118	125	150	131
11	0	0					0	127	121	125	162	134
12	0	0					0	125	121	131	162	136
13	0	0					-	118	125	138	162	136
14	0	0					-	118	129	140	162	138
15	0	0					-	98	129	160	164	145
16	0	0					-	97	129	162	154	145
17	0	0					-	98	127	162	162	145
18	0	0					-	136	127	162	162	145
19	0	0					-	154	129	160	162	145
20	0	40					-	110	131	167	147	145
21	0	95					-	100	134	162	147	147
22	0	102					-	44	134	162	147	147
23	0	94					h157	14	131	162	147	147
24	0	4					h170	10	130	160	147	143
25	0	0					h145	9	129	167	147	134
26	0	0					h123	9	127	170	138	134
27	0	0					h170	9	125	174	138	134
28	0	0					h164	9	125	170	138	131
29	0	0					h207	97	125	162	138	131
30	0	0					h174	123	125	164	138	123
31	0	-					-	127	-	164	136	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	29	29	0	0.9	58
November.....	335	102	0	11.2	664
December.....	0	0	0	0	0
Calendar year 1942.....	24,502	201	0	67.1	48,600
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April 23-30.....	1,310	207	123	164	2,600
May.....	2,866	170	9	92.6	5,680
June.....	3,786	134	118	126	7,510
July.....	4,562	174	125	147	9,050
August.....	4,634	172	135	149	9,190
September.....	4,108	147	123	137	8,150
Water year.....	-	-	-	-	-

a No gage-height record; discharge interpolated.

b Computed from staff-gage readings.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Thorn Creek spillway near Gooding, Idaho

Location.- Water-stage recorder, lat. 43°01', long. 114°37', in sec. 6, T. 5 S., R. 16 E., 600 feet downstream from point of diversion from North Gooding Canal, 900 feet upstream from Thorn Creek, and 7½ miles northeast of Gooding.

Records available.- April 1928 to September 1943 (prior to 1937, irrigation seasons only).

Extremes.- Maximum discharge during year, 193 second-feet May 2 (gage height, 1.90 feet); no flow for long periods.

1928-43: Maximum discharge, 447 second-feet Apr. 24, 1938 (gage height, 2.90 feet), from rating curve extended above 400 second-feet; usually no flow during nonirrigation seasons.

Remarks.- Records good. Spillway diverts from North Gooding Canal and discharges into Thorn Creek in sec. 6, T. 5 S., R. 16 E. It is used as part of plan to minimize losses from natural channel of Big Wood River.

Cooperation.- Water-stage recorder graph and eight discharge measurements furnished by Water District No. 7 AB.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	0					0	59	122	131	150	160
2	0	0					0	160	137	135	150	162
3	0	0					0	146	135	140	f154	158
4	0	0					0	135	135	f137	166	158
5	0	0					0	116	135	124	166	158
6	0	0					0	116	127	f118	162	f140
7	0	0					0	124	129	116	160	f120
8	0	0					0	101	f127	115	162	116
9	0	0					0	88	129	109	164	109
10	0	0					0	82	116	109	164	f108
11	0	0					0	f90	127	124	158	f101
12	0	0					0	82	142	127	155	106
13	0	0					0	82	150	f129	162	106
14	0	0					0	90	146	138	160	h90
15	0	0					0	127	152	f140	148	h101
16	0	28					34	f146	164	156	144	h116
17	0	148					103	152	156	156	142	h116
18	0	178					76	f150	146	f156	140	h109
19	0	146					59	148	144	f154	f140	h103
20	0	24					68	146	150	150	f144	h109
21	0	0					70	135	152	146	138	h113
22	0	0					68	116	f142	152	127	h109
23	0	0					65	133	f138	160	129	h108
24	0	0					52	f146	f144	162	140	h100
25	0	0					47	160	f138	156	142	h97
26	0	0					84	160	135	156	140	h94
27	0	0					65	142	137	156	138	h97
28	0	0					51	137	138	148	142	h92
29	0	0					26	127	137	142	148	h83
30	0	0					34	125	f129	142	152	h59
31	0						-	120	-	146	156	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12	12	0	0.4	24
November.....	524	178	0	17.5	1,040
December.....	0	0	0	0	0
Calendar year 1942 .....	23,844	254	0	65.3	47,300
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	902	103	0	30.1	1,790
May.....	3,851	160	59	124	7,640
June.....	4,159	164	116	139	8,250
July.....	4,350	162	109	140	8,590
August.....	4,646	166	127	150	9,220
September.....	3,397	162	59	113	6,740
Water year 1942-43 .....	21,821	178	0	59.8	43,290

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## BIG WOOD RIVER BASIN

Little Wood River at Campbell Ranch, near Carey, Idaho

Location.- Water-stage recorder, lat. 43°23', long. 114°03', in SW¼ sec. 35, T. 2 N., R. 20 E., at Campbell Ranch, above flow line of Little Wood Reservoir, 1½ miles downstream from High Fire Creek, 2½ miles downstream from Muldoon Creek, 11 miles east of Bellevue, and 12 miles northwest of Carey.

Drainage area.- 267 square miles.

Records available.- February 1920 to September 1926 (published as Little Wood River near Carey), March 1941 to December 1942 (irrigation seasons only except 1921-24, 1926). Station destroyed by flood during April; only miscellaneous discharge measurements available during remainder of year.

Extremes.- Maximum discharge observed during period, 1,260 second-feet Apr. 13 (gage height, 4.00 feet), result of discharge measurement; minimum recorded, 35 second-feet Oct. 1 (gage height, 0.79 foot).  
1920-26, 1941-42: Maximum discharge recorded, 1,420 second-feet Apr. 10, 1942 (gage height, 4.31 feet); minimum, 14 second-feet Aug. 29, 30, 1926.

Remarks.- Records good. Flow regulated by Campbell Reservoir (capacity, 2,700 acre-feet) on unnamed tributary. Diversions for irrigation from Muldoon Creek, a tributary above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	52	66					†771				
2	35	54	66					-				
3	42	73	52					-				
4	41	72	57					-				
5	42	63	-					-		†441		
6		61	-					-				
7	42	63	-					-				
8	40	68	-					-				
9	41	64	-					-				
10	45	58	-					-	†451			
11	62	54	-					-				
12	61	56	-					-				
13	61	59	-				†1,260	-				
14	58	66	-					-				
15	57	106	-					-			†97	
16	56	74	†74					-				
17	57	74	-					-				
18	56	78	-					-				
19	56	72	-					-				
20	54	61	-					-				
21	56	52	-					-				
22	56	45	-					-				
23	56	56	-					-				
24	56	99	-					†630				
25	53	79	-					-				†56
26	53	66	-					-				
27	53	68	-					-				
28	52	75	-					-				
29	52	75	-					-				
30	52	72	-					-				
31	52	-	-					-				

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,579	62	35	50.9	3.130
November.....	2,020	106	45	67.3	4.010
December.....	-	-	-	-	-
Calendar year .....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June.....	-	-	-	-	-
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
Water year .....	-	-	-	-	-

† Result of discharge measurement.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Little Wood River near Carey, Idaho

Location.- Water-stage recorder, lat. 43°23', long. 114°00', in E½ sec. 30, T. 1 N., R. 21 E., 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 square miles.

Records available.- April 1904 to May 1905, September 1926 to September 1943.

Average discharge.- 14 years (1926-27, 1929-42), 122 second-feet.

Extremes.- Maximum discharge recorded during year, 1,720 second-feet Apr. 15 (gage height, 7.12 feet); minimum recorded, 10 second-feet Oct. 16, 26 (gage height, 1.93 feet).

1904-5, 1926-43: Maximum discharge, 6,000 second-feet (due to failure of reservoirs on Little Fish Creek) Apr. 20, 1938 (gage height, 12.07 feet, datum then in use, from floodmark), from rating curve extended above 1,800 second-feet; minimum, 4 second-feet Feb. 17, 1941 (gage height, 1.63 feet).

Remarks.- Records good. Regulation and diversions above station for irrigation. Storage in Little Wood Reservoir 3 miles above station began Feb. 12, 1941.

Cooperation.- Water-stage recorder inspected during irrigation season by employee of Water District No. 11C.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	12					-	799	738	464	240	96
2	41	12					-	837	860	457	255	96
3	44	14			†91		-	883	696	436	235	94
4	58	13					-	887	546	429	220	94
5	51	96					-	887	504	422	210	94
6	47	188					-	866	464	402	205	94
7	43	172					-	807	436	369	196	92
8	43	148					h535	750	398	322	186	91
9	43	138					h565	688	350	392	179	91
10	46	-					-	632	379	352	172	89
11	52	-					-	612	443	360	156	87
12	55	-					-	584	504	332	181	87
13	54	-					1,450	553	546	311	181	87
14	77	-					1,580	523	550	283	172	87
15	76	-					1,630	493	538	274	172	87
16	36	82	†50				1,580	443	500	269	170	89
17	24	78					1,530	439	478	261	164	101
18	62	79					1,420	419	493	251	133	103
19	80	79					1,380	350	573	245	114	103
20	79	75					1,340	366	604	243	114	101
21	64	-					1,200	382	573	248	116	99
22	53	-					1,090	419	557	280	114	98
23	75	-					994	468	549	266	116	94
24	66	-					981	565	508	269	116	105
25	62	-					977	640	482	264	118	109
26	34	-					909	654	439	261	110	110
27	27	-					812	725	439	261	91	126
28	11	-					807	754	450	291	80	122
29	12	-					892	812	457	288	98	122
30	12	-					820	841	460	266	98	120
31	12	-					-	824	-	248	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,483	80	11	47.8	2,940
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	19,912	887	350	642	39,490
June.....	15,232	738	350	508	30,210
July.....	9,916	464	243	320	19,670
August.....	4,781	240	80	154	9,460
September.....	2,968	126	87	98.9	5,890
Water year	-	-	-	-	-

† Result of discharge measurement.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Little Wood River near Richfield, Idaho

Location.— Water-stage recorder, lat. 43°03', long. 114°08', in sec. 30, T. 4 S., R. 20 E., half a mile upstream from Jim Burn's Slough and heading of Dietrich Canal and 1 mile east of railroad station at Richfield.

Records available.— January 1911 to September 1943 (irrigation seasons only).

Extremes.— Maximum discharge recorded during year, 578 second-feet Apr. 16 (gage height, 3.12 feet); minimum recorded, 122 second-feet Oct. 1, 2; minimum gage height recorded, 1.66 feet July 29.

1911-43: Maximum discharge recorded, 868 second-feet May 3, 1938 (gage height, 3.97 feet); minimum recorded, 7.6 second-feet June 24, 25, 1920 (gage height, 0.52 foot).

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

Cooperation.— Water-stage recorder graph and seven discharge measurements furnished by Water District No. 11 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122	150	162				392	511	395	f235	152	162
2	122	f150					395	504	385	255	152	167
3	124	150					417	511	379	270	152	173
4	124	150					427	522	359	273	150	173
5	127	154					430	515	344	279	150	173
6	129	154					430	515	338	279	152	176
7	129	154					407	491	344	f279	152	178
8	129	156					407	470	319	f261	150	176
9	127	158					407	443	300	f258	148	178
10	131	162					424	414	a260	256	150	f178
11	133	160					450	385	h229	249	150	175
12	134	158					491	365	279	244	154	176
13	133	156					525	350	341	235	154	173
14	140	154					556	331	407	205	152	173
15	142	156					560	319	440	f182	154	171
16	144	156					564	316	437	173	154	173
17	144	162					515	303	420	171	152	173
18	144	165					515	294	398	169	154	169
19	144	165					567	291	398	162	h152	173
20	144	169					560	a260	398	160	152	173
21		176					560	a220	414	158	152	173
22		171					553	192	388	166	152	173
23		165					539	208	334	166	156	171
24	a144	a165					528	244	310	166	162	169
25		165					525	252	f267	160	154	169
26		169					528	273	f238	158	156	169
27	144	173					487	285	f229	158	156	171
28	144	171					470	297	f221	168	158	169
29	144	165					470	297	f221	156	158	169
30	144	162					508	319	f229	164	156	169
31	146	-				h300	-	356	-	162	166	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,257	146	122	137	8,440
November.....	4,821	176	150	161	9,560
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	14,597	567	382	487	28,950
May.....	11,051	522	192	356	21,920
June.....	10,001	440	221	333	19,840
July.....	6,319	279	152	204	12,530
August.....	4,746	158	148	153	9,410
September.....	5,168	178	162	172	10,250
Water year.....	-	-	-	-	-

a No gage-height record; discharge interpolated.

f Computed on basis of partly estimated gage-height record.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Little Wood River at Shoshone, Idaho

Location.- Water-stage recorder, lat. 42°56', long. 114°24', in sec. 2, T. 6 S., R. 17 E., just upstream from diversion dam for town water supply and 400 feet upstream from highway bridge in Shoshone.

Records available.- April 1922 to September 1943 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 517 second-feet June 15 (gage height, 3.07 feet); minimum recorded, 13 second-feet (regulated) Oct. 1.

1922-43: Maximum discharge recorded, 664 second-feet June 18, 1922; maximum gage height recorded, 3.85 feet July 4, 1938; practically no flow July 29, 1931, Oct. 3, 1938.

Remarks.- Records good except those for periods of fragmentary gage-height record or those computed from staff-gage readings, which are fair, and those for Oct. 1, which are poor. Many diversions above and below station for irrigation. Flow affected by operation of Milner-Gooding canal, which diverts from Snake River and crosses Little Wood River above station.

Cooperation.- Gage-height record collected in cooperation with and seven discharge measurements furnished by Water District No. 11 AB.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Nov. 16)

0.6	19	1.0	100	1.8	362
0.7	35	1.2	159	2.0	398
0.8	54	1.4	231	2.5	461
0.9	75	1.6	311	3.0	511

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	92	-	-	-	122	r247	381	469	386	445	391
2	43	92	h122	-	-	111	r280	418	457	402	438	398
3	32	92	-	-	-	-	292	427	501	440	438	366
4	32	92	-	-	-	h140	h239	423	500	r492	451	373
5	46	92	-	-	-	h128	h231	431	497	r502	446	373
6	39	95	-	-	-	h111	231	446	487	503	446	368
7	37	100	-	-	-	h108	227	473	496	484	450	362
8	39	100	-	-	-	h117	212	470	492	488	451	358
9	37	100	r119	-	-	h208	208	462	476	442	456	351
10	33	100	-	-	-	-	212	421	418	453	453	347
11	39	103	-	-	-	h208	296	423	373	460	444	344
12	39	103	-	-	-	-	386	439	416	454	442	344
13	41	100	-	-	-	h208	406	437	470	453	444	344
14	50	100	-	-	-	-	406	439	509	475	436	323
15	58	105	-	-	-	h144	381	433	506	479	422	303
16	60	103	-	-	-	h150	340	440	487	477	425	311
17	64	-	-	-	-	-	323	446	479	469	423	314
18	64	-	-	-	-	-	280	430	443	464	416	299
19	67	-	-	-	-	-	272	428	402	459	413	295
20	71	-	-	-	-	r128	288	436	391	446	412	307
21	73	-	-	-	-	r131	288	414	402	458	395	303
22	73	-	-	-	-	r131	292	396	406	453	390	295
23	78	-	-	-	-	r140	401	373	464	393	298	288
24	a78	-	-	-	-	r162	272	434	349	464	400	284
25	a79	h122	-	-	-	r201	268	497	347	459	398	280
26	a80	-	-	-	h147	-	268	496	342	457	400	288
27	80	-	-	-	r125	-	288	476	362	449	398	288
28	80	-	-	-	125	r256	280	460	381	437	398	288
29	82	-	-	-	-	r303	268	456	388	431	402	280
30	90	-	-	-	-	r375	252	461	364	456	404	184
31	92	-	-	-	-	r323	-	456	-	458	393	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,828	92	32	59.0	3,630
November 1-16.....	1,567	103	92	97.9	3,110
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	8,523	406	208	284	16,910
May.....	13,650	497	381	440	27,070
June.....	13,038	509	342	435	25,880
July.....	14,134	503	386	456	28,030
August.....	13,122	456	390	423	26,030
September.....	9,649	398	184	322	19,140
Water year.....	-	-	-	-	-

† Result of discharge measurement.

a No gage-height record; discharge interpolated.

f Fragmentary gage-height record; discharge computed from partly estimated gage height

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Silver Creek near Picabo, Idaho

Location.— Water-stage recorder, lat. 43°17', long. 114°01', in sec. 1, T. 2 S., R. 20 E., 1½ miles downstream from drain ditch of Blaine County Drainage District No. 1 and 3 miles southeast of Picabo.

Records available.— May 1920 to September 1943 (1922-35, irrigation seasons only).

Average discharge.— 10 years (1920-22, 1935-43), 141 second-feet.

Extremes.— Maximum discharge during year, 273 second-feet Apr. 5; maximum gage height, 3.93 feet Jan. 23, ice jam; minimum discharge, 96 second-feet Jan. 17 (gage height, 1.39 feet).

1920-43: Maximum discharge, 312 second-feet Apr. 3, 1923; maximum gage height, 3.97 feet Jan. 8, 1942, ice jam; minimum discharge, 26 second-feet June 2, 1920 (gage height, 0.48 foot).

Remarks.— Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Records of discharge do not include water bypassed around station at times by slough on right bank from which there is some diversion for irrigation.

Cooperation.— Water-stage recorder inspected during irrigation season and two discharge measurements furnished by Water District No. 11 AB.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	175	188	188	b175	163	245	190	145	175	191	217
2	168	175	188	192	b175	160	252	186	150	172	193	219
3	167	178	b186	b185	*b170	159	262	183	153	173	193	220
4	172	183	b185	b185	b165	158	262	182	163	179	195	220
5	174	184	183	b180	b170	156	270	175	170	f189	198	221
6	173	182	182	b180	b165	154	259	174	180	191	198	220
7	173	182	182	b178	b165	156	244	177	185	188	199	220
8	167	183	180	b176	b166	156	235	166	184	187	198	219
9	169	185	182	b174	b165	154	219	182	173	187	197	218
10	171	184	180	b172	b160	153	212	177	169	186	199	217
11	174	181	179	b170	b165	153	202	172	165	187	200	214
12	179	181	178	b160	167	152	198	175	180	187	200	213
13	179	180	177	b165	169	159	194	174	201	188	202	210
14	181	180	176	b160	171	169	195	168	207	189	201	211
15	180	189	176	b166	169	157	193	162	214	169	202	213
16	179	197	177	b160	167	164	192	164	204	190	203	214
17	179	*196	176	b140	165	165	188	168	195	187	206	214
18	180	197	*176	b120	164	163	183	164	192	190	204	214
19	180	202	176	b170	163	163	183	168	186	192	202	214
20	180	205	175	b190	162	162	181	182	190	193	202	214
21	177	198	175	b200	163	161	183	166	195	193	203	208
22	176	190	174	b220	166	161	184	160	182	191	204	208
23	174	187	176	b230	171	162	182	153	169	193	204	207
24	174	189	177	b210	171	166	179	147	162	198	207	208
25	172	200	175	b190	169	177	179	141	162	197	207	209
26	172	201	173	b185	167	193	179	130	163	197	208	210
27	172	198	b173	b180	167	198	178	129	167	197	210	210
28	173	191	b173	b175	165	229	184	123	168	197	214	211
29	173	186	173	b170	-	246	193	123	169	196	216	209
30	175	188	174	b170	-	252	190	124	173	195	216	207
31	175	-	183	b170	-	250	-	136	-	193	217	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,406	181	167	174	10,720
November.....	5,647	205	175	188	11,200
December.....	5,528	188	178	178	10,960
Calendar year 1942.....	56,900	249	82	156	112,800
January.....	5,495	230	120	177	10,900
February.....	4,676	175	160	167	9,270
March.....	5,379	252	152	174	10,670
April.....	6,200	270	178	207	12,300
May.....	4,981	190	123	161	9,880
June.....	5,315	214	145	177	10,540
July.....	5,866	198	172	189	11,640
August.....	6,288	217	191	203	12,470
September.....	6,409	221	207	214	12,710
Water year 1942-43.....	67,190	270	120	184	133,300

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Computed from partly estimated gage-height record.

Note.— Flow in bypass channel, which carries water around gage, measured as 4.99 second-feet Nov. 17; 40.8 second-feet Apr. 7; 0.05 second-foot (estimated) May 25; 7.09 second-feet June 17; 6.24 second-feet July 5; no flow was reported Oct. 7, Dec. 18, Feb. 3, Apr. 29.

Time Basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## King Hill Canal near Hagerman, Idaho

Location.— Staff gage, lat. 42°52', long. 114°55', in SW $\frac{1}{4}$  sec. 27, T. 6 S., R. 13 E., 430 feet upstream from mouth of inverted syphon crossing Snake River, 1,000 feet downstream from heading at Idaho Power Co.'s canal, half a mile west of highway bridge over Big Wood River, and  $\frac{3}{4}$  miles north of Hagerman.

Records available.— March 1930 to September 1943 (irrigation seasons only except 1939).

Extremes.— Maximum discharge observed during year, 324 second-feet May 10, 23; maximum gage height observed, 3.67 feet Aug. 23; minimum discharge observed, 1.1 second-feet Nov. 2 (discharge measurement).

1930-43: Maximum discharge observed, 334 second-feet July 7, 8, 1942 (gage height, 3.76 feet); practically no flow for long periods during most years.

Remarks.— Records good except those for July 12, 13, which are poor. Gage read twice daily. This canal, which is operated by King Hill Irrigation District to provide water for irrigation of its project, diverts from Idaho Power Co.'s canal, which in turn diverts from Big Wood River (Malad Springs water).

Cooperation.— Gage readings furnished by King Hill Irrigation District.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	233						-	307	315	288	302	305
2	233	†1.1					-	319	315	288	302	305
3	233						-	320	314	290	304	305
4	233						-	315	302	289	304	307
5	235						e30	315	293	285	302	307
6	233						41	319	295	290	302	307
7	233						97	319	292	292	302	302
8	233						129	315	292	292	304	298
9	233						129	312	290	292	302	297
10	e185						126	317	290	292	304	297
11	-						124	320	290	292	305	298
12	-						124	319	290	e85	305	298
13	-						167	317	290	e84	305	298
14	-		†5.9				167	319	288	292	307	298
15	-						168	319	288	290	307	297
16	-					†6.5	167	317	290	288	305	297
17	-						230	322	292	295	305	297
18	-						227	319	288	302	307	295
19	-						222	320	288	300	309	297
20	-						226	319	285	309	310	298
21	-						224	319	285	309	312	298
22	-						228	320	288	309	312	298
23	-						227	319	285	307	312	298
24	-						226	320	285	305	312	298
25	-						265	320	285	302	309	298
26	-						262	320	286	302	309	278
27	-						268	320	292	302	304	276
28	-			†7.1			272	319	288	302	302	280
29	-						286	317	290	302	305	262
30	-						305	315	292	302	305	245
31	-						-	312	-	302	305	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-10	2,284	235	185	228	4,530
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 5-30	4,937	305	30	190	9,790
May	9,850	322	307	318	19,540
June	8,769	315	285	292	17,390
July	8,782	309	84	283	17,420
August	9,480	312	302	306	18,800
September	8,834	307	243	294	17,520
Water year	-	-	-	-	-

† Result of discharge measurement or field estimate.

a No gage-height record; discharge interpolated.

e Computed on basis of reported or estimated gate changes.

Time basis: Mountain war time; To convert war time to standard time, subtract 1 hour.

## Clover Creek near Bliss, Idaho

Location.— Staff gage, lat. 42°59', long. 115°01', in SW $\frac{1}{4}$  sec. 15, T. 5 S., R. 12 E., just upstream from flow line of Saunders Reservoir,  $3\frac{1}{2}$  miles upstream from Hog Creek, and 5 miles northwest of Bliss.

Records available.— April 1938 to October 1943 (discontinued).

Extremes.— Maximum discharge observed during period October 1942 to October 1943, 1,560 second-feet Dec. 31 (gage height, 6.68 feet); minimum observed, 0.1 second-foot July 27, Sept. 12, 13.

1938-43: Maximum discharge observed, that of Dec. 31, 1942; no flow for many days during summers of 1938-40, 1942.

Remarks.— Records fair except those for Dec. 31 to Mar. 16, which are poor. Gage read twice daily. Many diversions above and below station for irrigation.

## Discharge, in second-feet, 1942-43

1942-43												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	4.0	21	1,320	53	160	285	50	12	2.4	1.2	0.9
2	3.1	*4.5	19	750	54	153	490	41	12	5.1	.7	.8
3	3.4	4.2	18	255	47	133	460	40	13	5.9	.8	.5
4	3.2	4.2	18	*126	45	133	400	37	16	5.1	.7	.3
5	3.2	4.5	18	78	52	146	351	34	21	4.8	.8	.2
6	3.2	4.5	14	52	55	108	285	34	21	3.2	.8	.3
7	2.9	5.1	*14	38	43	102	285	32	20	3.2	.6	.4
8	3.7	4.8	14	28	b40	375	255	33	18	3.2	.7	.4
9	3.4	4.2	14	26	b40	1,020	285	27	18	2.8	.3	.7
10	3.4	4.0	14	21	b40	265	208	25	20	2.8	.2	2.0
11	3.4	4.5	14	b19	44	200	183	26	20	1.8	.3	.5
12	3.4	4.8	18	b16	49	265	175	25	23	.7	.3	.2
13	3.4	4.0	23	13	62	460	168	21	28	.7	.5	.1
14	3.7	4.5	26	13	85	430	160	21	75	.7	1.1	.3
15	3.7	5.1	31	14	102	265	160	23	33	.5	2.0	.3
16	4.2	5.6	33	12	114	146	146	23	26	.3	2.4	.2
17	4.5	6.6	b32	b9	146	114	140	20	19	.2	2.3	.2
18	3.7	6.2	26	b10	160	95	126	19	16	.5	2.3	.3
19	3.4	5.6	21	b12	200	85	133	18	16	.3	2.6	.2
20	3.2	6.2	b19	13	351	73	108	18	14	.3	2.4	.5
21	3.7	5.4	19	96	490	82	108	18	13	.3	1.7	1.7
22	4.8	5.6	21	1,320	855	85	90	19	11	.4	1.7	1.7
23	4.5	5.1	46	910	750	308	78	16	11	.5	1.7	2.3
24	4.5	5.4	183	870	317	191	71	14	10	1.0	1.6	2.3
25	5.1	6.6	285	208	191	570	65	13	9.4	1.4	.7	2.1
26	4.5	9.7	b110	133	183	530	58	12	9.4	.6	.7	2.3
27	5.1	16	b102	108	*245	570	52	10	9.0	.2	.7	2.3
28	4.0	20	114	*85	255	700	57	7.2	9.0	1.1	.8	2.3
29	4.8	23	160	69	-	700	83	6.9	8.3	.8	.8	2.3
30	5.1	23	114	70	-	750	56	7.2	6.6	.9	.8	2.3
31	4.8	-	1,380	59	-	351	-	10	-	1.2	1.0	-

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

## 1943

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 1	2.3	Oct. 4	2.9	Oct. 7	3.4
2	2.6	5	2.9	8	3.2
3	2.9	6	4.0	9	3.2

## Monthly discharge, in second-feet, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Rnoff in acre-feet
October 1942	119.9	5.1	2.9	3.87	238
November	216.9	25	4.0	7.23	450
December	2,941	1,380	14	94.9	5,830
Calendar year 1942	13,890.5	1,380	0	38.1	27,540
January 1943	6,452	1,320	8	208	12,800
February	5,068	855	40	161	10,050
March	9,553	1,020	73	308	18,950
April	5,521	490	52	184	10,950
May	700.3	50	6.9	22.6	1,390
June	537.7	75	6.6	17.9	1,070
July	53.0	5.9	.2	1.71	105
Aug.	35.2	2.6	.2	1.14	70
September	30.9	2.3	.1	1.03	61
Water year 1942-43	31,228.9	1,380	.1	85.6	61,940
October 1-9, 1943	27.4	4.0	2.3	3.0	54

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Little Canyon Creek near Glenns Ferry, Idaho

Location.- Staff gage, lat. 42°59', long. 115°19', sec. 18, T. 5 S., R. 10 E., at bridge on county road, 2 miles north of Glenns Ferry.

Records available.- December 1938 to September 1943 (October 1940 to September 1941, fragmentary; discontinued). November 1909 to June 1913 (fragmentary) at site downstream in sec. 30, at Glenns Ferry.

Extremes.- Maximum discharge observed during year, 520 second-feet Mar. 8 or 9 (gage height, 5.5 feet, from floodmark), from rating curve extended above 200 second-feet; no flow at times.

1938-43: Maximum discharge observed, that of Mar. 8 or 9, 1943; no flow at times.

Remarks.- Records fair except those for May and those below 5 second-feet and above 200 second-feet, which are poor. Gage read once daily. Diversions above station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	49	153	11	26	153	40	15	6	0	1
2		0	22	116	10	22	208		14	5	0	1
3		0	4	56	8	17	146		13	5	1	1
4		0	4	39	8	16	123		13	5	1	1
5		0	3	28	10	14	130	30	13	5	1	1
6		0	a4	26	11	13	123		13	5	1	a1
7		0	4	26	15	36	116		13	4	1	0
8		0	4	25	14	230	137		13	4	1	1
9		0	5	23	13	186	137	21	12	4	0	0
10		0	5	21	13	255	137		11	3	0	0
11		0	6	18	13	219	137		11	3	0	0
12		0	7	17	18	104	123		12	3	0	0
13		0	9	15	20	104	116	20	11	3	a0	0
14		0	9	14	26	77	123		11	3	a0	0
15		0	8	12	28	60	116		10	3	a0	0
16		0	7	10	30	56	116		8	3	0	0
17		0	7	9	35	50	116	15	8	2	0	0
18		0	6	8	47	42	110		7	2	0	0
19		0	6	6	35	33	116		6	2	0	0
20		0	6	6	77	32	116		6	1	0	a0
21		0	5	12	110	30	116	15	6	1	a0	a0
22		0	4	68	179	31	116		6	1	a0	0
23		1	6	116	130	30	123		7	1	a0	0
24		1	14	82	72	123	116		7	1	0	0
25		1	50	56	50	82	87	15	6	1	0	0
26		1	24	a36	45	130	82		6	0	0	0
27		1	14	18	43	123	77		5	0	0	0
28		2	15	18	26	130	77		5	0	0	0
29		3	17	17	-	145	72	15	5	0	0	0
30		87	87	15	-	162	77		5	0	0	0
31		-	370	14	-	123	-		-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	97	87	0	3.2	192
December.....	782	370	3	26.2	1,550
Calendar year 1942.....	4,012	370	0	11.0	7,960
January.....	1,080	153	6	34.8	2,140
February.....	1,093	179	8	39.2	2,180
March.....	2,703	255	13	87.2	5,360
April.....	3,541	208	72	118	7,020
May.....	756	-	-	24.4	1,500
June.....	279	15	5	9.3	553
July.....	76	6	0	2.5	151
August.....	6	1	0	.2	12
September.....	7	1	0	.2	14
Water year 1942-43.....	10,426	370	0	28.6	20,670

a No gage-height record; discharge interpolated.

Note.- No gage-height record May 18-24 and doubtful gage-height record during remainder of month; discharge for entire month computed on basis of 1 discharge measurement and records for Clover Creek near Bliss and Bennett Creek near Bennett.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Bennett Creek near Bennett, Idaho

Location.- Water-stage recorder, lat. 43°13'30", long. 115°31'30", in sec. 28, T. 2 S., R. 8 E., 100 yards downstream from East Fork and 7½ miles southwest of Bennett.

Drainage area.- 21.3 square miles.

Records available.- May 1938 to September 1943.

Extremes.- Maximum discharge during year, 204 second-feet Apr. 2 (gage height, 6.05 feet); minimum, 0.1 second-foot Oct. 1-10, 19, 21.

1938-43: Maximum discharge, that of Apr. 2, 1943; practically no flow Sept. 16-25, Oct. 14-18, 1939, July 22-27, 1941, Sept. 25-30, 1942.

Remarks.- Records fair except those for periods of doubtful or no gage-height record, which are poor. No regulation or diversion above station; many diversions below station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a0.1	0.3	a10		18		f140	40	17	4.0	1.3	0.5
2	a.1	.3	a10		18		f164	39	15	4.4	1.1	.5
3	.1	.3	h2.9		16	a20	158	37	15	5.1	1.1	.5
4	.1	.3			15		146	37	14	6.3	1.1	.5
5	.1	.3			13		138	35	13	4.4	1.1	.5
6	.1	.3			13		131	34	13	4.0	1.1	.5
7	.1	.3		a20	14		124	33	12	4.0	1.1	.5
8	.1	.3			14		137	32	12	3.7	1.1	.5
9	.1	.4	a4		14		120	30	11	3.1	1.1	.5
10	.1				13	a70	f110	29	11	3.0	1.1	.5
11	.2						f94	28	11	3.0	1.1	.5
12	.2	a.5					89	27	11	3.0	1.1	.5
13	.2						84	27	9.6	3.0	1.1	.4
14	.2		h2.9	h9.e			81	26	8.9	2.8	1.1	.4
15	.2		h2.9		a20	45	80	a25	8.1	2.6	1.0	.5
16	.2		a2.7			42	a23	7.7	2.5	1.0	.5	.5
17	.2	a.6	h2.5			35	f20	6.7	2.5	.9	.4	.5
18	.2			a8		34	19	6.0	2.3	.8	.5	.5
19	.1					32	18	6.7	2.5	.8	.4	.5
20	.2					28	17	6.5	2.3	.8	.5	.5
21	.1	h.6	a2		h24	25	a70	17	5.3	2.5	.7	.5
22	.2	a.6		a30		27		17	5.6	2.5	.7	.5
23	.2			a40		27		17	5.6	2.5	.6	.6
24	.2			a50		28		17	5.6	2.2	.5	.6
25	.2			h28	a30	38	47	17	5.3	2.2	.5	.6
26	.2	a1.5		24		d43	44	16	5.1	2.1	.5	.6
27	.2		a10	23		d64	42	16	4.9	2.1	.5	.7
28	.2			22		a100	47	16	4.6	2.0	.5	.7
29	.2			20	-	a130	41	f15	4.4	1.8	a.6	.7
30	.3	a10		15	-	a160	40	16	4.2	2.0	a.5	.7
31	.3	-		20	-	126	-	17	-	1.8	a.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	5.2	0.3	0.1	0.17	0.0080	0.009	10
November	39.0	10	.3	1.30	.061	.07	77
December	187.0	-	-	5.39	.253	.29	331
Calendar year 1942	1,761.3	-	0	4.83	.227	3.082	3,494.9
January	577.8	40	-	18.6	.873	1.01	1,150
February	582	-	13	20.8	.977	1.02	1,150
March	1,728	160	-	55.7	2.62	3.02	3,430
April	2,687	164	40	89.6	4.21	4.69	5,330
May	756	40	15	24.4	1.15	1.32	1,500
June	266.3	17	4.2	8.88	.417	.46	528
July	91.2	5.3	1.8	2.94	.138	.16	181
August	26.9	1.3	.5	.87	.041	.05	53
September	15.8	.7	.4	.53	.025	.03	31
Water year 1942-43	6,942.2	164	.1	19.0	.892	12.129	13,770

a No gage-height record; discharge interpolated or computed on basis of weather records and records for Little Canyon Creek near Glens Ferry.

d Doubtful gage-height record; discharge computed on basis of records for stations on nearby streams.

f Computed on basis of partly estimated gage-height record.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Mountain Home feeder canal near Mountain Home, Idaho

Location.— Water-stage recorder and concrete control, lat. 43°13', long. 115°42', in sec. 36, T. 2 S., R. 6 E., 40 feet 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 1943.

Extremes.— Maximum discharge during year, 210 second-feet Dec. 31 (gauge height, 2.35 feet); no flow Nov. 3-7, Mar. 18-25.

1924-29, 1931-43: Maximum discharge, 226 second-feet Feb. 21, 1927 (gauge height, 2.18 feet, datum then in use), from rating curve extended above 120 second-feet; no flow at times during most years.

Remarks.— Records good except those for period of ice effect, which are fair. 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. At times when there is a surplus of water for irrigation, canal feeds directly into Mountain Home Reservoir. No diversion from canal above station; three small diversions between station and head gates of Mountain Home cooperative canal. Flow regulated by head gates in Canyon Creek and by Long Tom and Little Camas Reservoirs.

Cooperation.— Gauge-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	a14	182	37	8	38	98	83	62	49	55
2	-	-	15	155	36	7	31	99	79	67	45	53
3	1	0	14	121	34	6	15	98	77	70	39	54
4	1	0	14	102	34	6	7	97	39	70	37	55
5	-	0	14	*99	32	28	6	96	23	59	37	55
6	1	0	13	75	31	8	5	91	19	55	39	46
7	1	0	13	60	31	9	6	84	18	54	49	40
8	1	1	13	47	33	43	24	79	17	60	52	56
9	-	2	13	43	31	28	29	79	16	68	48	57
10	-	2	a14	38	32	1	27	84	16	73	54	57
11	-	-	13	36	17	1	29	76	26	72	60	55
12	-	-	13	34	16	1	31	73	35	70	62	56
13	-	-	14	31	20	1	30	70	33	66	70	58
14	-	-	14	29	19	8	34	80	33	63	70	55
15	-	-	14	29	18	5	37	96	32	59	67	54
16	-	-	14	26	17	4	37	94	29	56	63	55
17	-	-	14	17	17	1	37	93	28	55	62	54
18	-	-	13	14	14	0	38	90	47	53	72	54
19	-	-	13	12	12	0	34	89	57	50	70	54
20	-	-	12	b35	13	0	42	84	64	50	66	54
21	-	-	12	14	14	0	55	83	64	49	58	54
22	-	-	13	54	23	0	54	82	64	48	56	54
23	-	-	28	67	25	0	62	80	66	46	57	54
24	-	-	76	59	20	0	80	79	65	48	56	53
25	-	-	52	56	15	5	81	76	67	50	56	53
26	-	-	43	52	10	20	h86	74	64	51	56	53
27	-	-	37	*49	9	34	h90	73	62	50	56	43
28	-	-	36	48	8	30	100	83	62	53	54	43
29	-	-	35	45	-	48	106	83	59	52	54	25
30	-	-	69	42	-	63	100	95	59	57	57	23
31	-	-	139	39	-	77	-	101	-	58	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	-	-	-	-	-
November.....	-	-	-	-	-
December.....	816	139	-	26.3	1,620
Calendar year.....	-	-	-	-	-
January.....	1,783	182	-	57.5	3,540
February.....	618	37	8	22.1	1,230
March.....	442	77	0	14.3	877
April.....	1,351	106	5	45.0	2,680
May.....	2,659	101	70	85.8	5,270
June.....	1,401	83	16	46.7	2,780
July.....	1,794	73	46	57.9	3,560
August.....	1,732	72	37	55.9	3,440
September.....	1,532	58	23	51.1	3,040
Water year.....	-	-	-	-	-

\* Winter discharge measurement made on this day.

a No gauge-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Mountain Home cooperative canal near Mountain Home, Idaho

Location.— Water-stage recorder and concrete control, lat. 43°12', long. 115°42', in sec. 36, T. 2 S., R. 6 E., at Lambertson weir, 300 feet downstream from point of diversion from Mountain Home feeder canal and 4½ miles north of Mountain Home.

Records available.— April 1924 to September 1929, April 1931 to September 1943.

Extremes.— Maximum discharge during year, 92 second-feet Apr. 28 (gage height, 1.53 feet); no flow at times.

1924-29, 1931-43: Maximum discharge, 109 second-feet July 16, 1925 (gage height, 1.69 feet, datum then in use); no flow during nonirrigation seasons except occasional stock water runs.

Remarks.— Records good. No diversions between station and head of canal. Flow regulated by gates at head of canal and by Long Tom and Little Camas Reservoirs. Canal diverts from Mountain Home feeder canal. Water is used for irrigation of about 5,000 acres in Mountain Home Irrigation District.

Cooperation.— Gage-height record furnished by Mountain Home Irrigation District.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	80	60	58	47	52
2							0	69	31	62	47	50
3							0	66	19	65	39	50
4							0	66	7	62	36	51
5							0	60	4	66	36	52
6							0	57	6	53	39	47
7							0	53	7	52	48	41
8							0	51	8	57	50	51
9							0	51	12	62	47	47
10							0	54	15	65	51	45
11							0	52	16	65	57	47
12							0	50	21	65	57	50
13							0	47	18	62	64	52
14							0	55	13	59	65	52
15							0	65	11	55	62	51
16							0	62	18	53	58	52
17							0	53	22	51	57	50
18							0	47	39	49	65	47
19							3	58	49	47	64	43
20							11	62	55	47	61	444
21							19	61	52	47	55	44
22							25	55	47	52	52	45
23							45	59	58	48	51	45
24							56	57	58	45	52	45
25							63	56	61	49	52	45
26							72	57	60	49	52	45
27							76	57	59	48	52	42
28							86	64	59	50	51	39
29							88	65	58	50	52	26
30							84	77	57	52	53	24
31							-	76	-	52	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942 .....	6,735	92	0	18.5	13,350
January..... 1943 .....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	629	98	0	21.0	1,250
May.....	1,347	80	47	59.6	3,660
June.....	1,006	61	4	33.5	2,000
July.....	1,680	65	45	54.2	3,330
August.....	1,626	65	36	52.5	3,230
September.....	1,374	52	24	45.9	2,730
Water year 1942-43 .....	8,162	88	0	22.4	16,200

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Wickahoney Creek near Bruneau, Idaho

Location.- Water-stage recorder, lat. 42°47', long. 115°59', in sec. 27, T. 7 S., R. 4 E., 0.3 mile upstream from mouth and 11 miles southwest of Bruneau.

Records available.- December 1938 to September 1943.

Extremes.- Maximum discharge during year, 2,100 second-feet Jan. 22 (gage height, 12.4 feet, from high-water mark), by slope-area method; no flow during most of year.  
1938-43: Maximum discharge, that of Jan. 22, 1943; no flow during long periods of each year.

Remarks.- Records poor. No regulation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0		h19	13	4.1	0.5			
2				3.0		h18	11	3.2	1.7			
3				4.8		h19	9.3	2.3	.5			
4				4.0		h13	8.2	1.9	.1			
5				3.2	a1.0	h12	7.9	1.7	0			
6				2.4		14	7.3	1.9	0			
7				1.7		12	7.0	1.7	0			
8				1.7		16	8.2	1.6	0			
9				1.7	e.8	108	10	1.0	0			
10				1.6		a90	10	.5	0			
11				1.3	a1.0	a50	8.5	.6	0			
12				1.2		29	7.0	.6	0			
13				1.0		a30	5.8	.4	1.9			
14				.3	a25	d93	4.9	.3	10			
15				2.8	a30	36	4.3	.2	8.5			
16				1.2	a50	27	4.1	.2	5.5			
17				.2	a90	18	3.9	0	3.0			
18				0	a125	18	3.4	0	1.0			
19				0	a200	12	3.0	0	0			
20				0	a250	12	3.2	0	0			
21				6.2	a170	9.7	3.5	0	0			
22				e500	a170	9.3	4.3	0	0			
23				a200	h171	12	3.5	0	0			
24				a150	h101	23	2.8	0	0			
25				a25	h52	40	2.0	0	0			
26				a20	h32	80	1.9	0	0			
27				a16	h22	99	1.3	0	0			
28				a10	h20	a90	2.9	0	0			
29				a5.0	-	a40	5.8	0	0			
30				a1.0	-	a25	5.1	0	0			
31				a1.0	-	16	-	0	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942 .....	1,672.7	199	0	4.31	3,120
January.....	966.3	500	0	31.1	1,910
February.....	1,520.8	260	-	54.3	3,020
March.....	1,088.0	108	9.3	35.1	2,160
April.....	173.4	13	1.6	5.78	344
May.....	22.2	4.1	0	.72	44
June.....	32.7	10	0	1.09	65
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43 .....	3,802.4	500	0	10.4	7,540

a No gage-height record; discharge computed on basis of weather records, engineers' and observer's estimates, 2 discharge measurements, and records for Jacks Creek near Bruneau.

d Doubtful staff-gage reading; discharge computed on basis of weather records and records for Jacks Creek near Bruneau and other nearby streams.

e Staff gage reading not representative of average for day; discharge computed on basis of field estimates, weather records, and records for Jacks Creek near Bruneau.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Jacks Creek near Bruneau, Idaho

Location.— Water-stage recorder, lat. 42°47', long. 115°59', in sec. 27, T. 7 S., R. 4 E., 850 feet upstream from confluence with Wickahoney Creek and 11 miles southwest of Bruneau.

Records available.— November 1938 to September 1943.

Extremes.— Maximum discharge during year, about 908 second-feet Jan. 21 (gage height, 7.2 feet, from high-water mark), from rating curve extended above 50 second-feet on basis of slope-area determination; no flow for long periods.  
1938-43: Maximum discharge, that of Jan. 21, 1943; no flow during most of period.

Remarks.— Records good except those below 2 second-feet and above 50 second-feet, which are fair. No regulation; ranch diversions above station.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0.2	0	3.6	3.4	0.2	2.0			
2				.4	0	3.2	3.0	.2	1.7			
3				0	0	.5	2.7	.1	1.4			
4				0	0	.7	2.0	.1	.6			
5				0	0	2.3	2.0	.2	.2			
6				0	0	.4	2.0	.1	0			
7				0	0	2.0	2.0	.1	0			
8				0	0	7.2	3.6	.2	0			
9				0	0	35	4.0	.1	0			
10				0	0	24	3.6	.1	0			
11				0	0	14	3.0	.4	.6			
12				0	0	9.9	2.3	.3	2.1			
13				0	.3	9.9	2.1	.1	1.8			
14				0	7.2	25	2.0	.2	1.1			
15				0	9.9	14	2.0	.2	.3			
16				0	12	8.7	1.9	.2	0			
17				0	25	5.8	1.4	.1	0			
18				0	29	2.9	.7	0	0			
19				0	51	3.0	.7	0	0			
20				.1	67	1.4	1.4	0	0			
21				104	45	1.3	1.3	0	0			
22				235	47	1.3	.9	0	0			
23				35	45	.4	.6	0	0			
24				18	23	.7	.6	0	0			
25				9.1	10	1.8	.6	0	0			
26				5.4	6.1	9.1	.7	0	0			
27				3.2	4.0	14	.4	0	0			
28				2.5	3.6	13	.7	0	0			
29				11.0	-	9.3	.5	0	0			
30				0	-	6.4	.1	0	0			
31				0	-	4.0	-	0	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942.....	604.2	63	0	1.66	1,200
January.....	413.9	235	0	13.4	821
February.....	385.1	67	0	13.8	764
March.....	250.0	33	.4	7.42	456
April.....	52.4	4.0	.1	1.75	104
May.....	2.9	.4	0	.09	5.8
June.....	11.8	2.1	0	.39	23
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43.....	1,096.1	235	0	3.00	2,170

a No gage-height record; discharge estimated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Owyhee River near Gold Creek, Nev.

Location.- Water-stage recorder, lat. 41°41'10", long. 115°51'30", in NW¼NW¼ sec. 25, T. 44 N., R. 54 E., 500 feet downstream from Wild Horse Dam and 8 miles west of Gold Creek. Altitude, 8,130 feet (from topographic map).

Drainage area.- 209 square miles.

Records available.- March 1916 to September 1925, October 1936 to September 1943.

Average discharge.- 14 years (1917-21, 1922-25, 1936-43), 41.7 second-feet.

Extremes.- Maximum discharge during year, 980 second-feet (regulated) Apr. 5 (gage height, 6.62 feet); minimum daily, 1 second-foot (regulated) Dec. 6-22, reservoir gates closed.

1916-25, 1936-43: Maximum discharge, 1,810 second-feet May 5, 1922 (gage height, 10.11 feet, site and datum then in use), from rating curve extended above 400 second-feet; practically no flow at times when reservoir gates were closed.

Remarks.- Records excellent except those below 10 second-feet, which are good. Small diversions above station for irrigation. Flow regulated by Wild Horse Reservoir (see p. 123).

Cooperation.- One discharge measurement furnished by Office of Indian Affairs.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	2	8				359	228	98	92	80	92
2	65	2	8				746	220	130	92	80	92
3	58	2	8				875	211	144	92	80	91
4	40	2	8				937	205	138	91	88	91
5	40	2	6				954	198	132	85	94	91
6	40	2	1				870	190	125	76	94	91
7	40	2	1				880	177	120	76	93	91
8	40	2	1				905	167	109	76	93	90
9	40	2	1				916	156	101	76	80	90
10	40	2	1				762	144	97	77	93	90
11	40	2	1				624	132	106	82	93	90
12	40	2	1				554	119	119	82	93	90
13	40	2	1			2	546	113	129	82	93	89
14	40	2	1				546	105	128	82	93	89
15	40	2	1				533	107	118	82	93	89
16	40	2	1	2	2		528	112	108	77	93	89
17	40	2	1				523	109	96	66	93	89
18	40	2	1				483	105	84	66	93	89
19	40	2	1				458	99	73	66	93	89
20	40	2	1				428	91	62	66	93	89
21	40	4	1				391	84	53	66	93	88
22	40	8	1				376	79	45	66	93	88
23	40	8	2				348	76	39	66	93	88
24	40	8	2				319	73	35	66	93	88
25	21	8	2				296	70	31	66	93	88
26	2	8	2			2	276	68	26	66	93	88
27	2	8	2			2	254	66	21	71	93	74
28	2	8	2			2	265	63	31	80	93	50*
29	2	8	2		-	2	271	63	58	80	93	50
30	2	8	2		-	2	250	61	96	80	92	50
31	2	-	2			60	-	71	-	80	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,059	66	2	34.2	2,100
November.....	116	8	2	5.9	230
December.....	73	6	1	2.4	145
Calendar year 1942.....	18,006	323	0	49.3	35,700
January.....	62	-	-	2	123
February.....	56	-	-	2	111
March.....	120	60	-	3.9	238
April.....	16,483	954	250	54.9	32,690
May.....	3,762	228	61	121	7,480
June.....	2,652	144	21	89.4	5,260
July.....	2,371	92	66	76.5	4,700
August.....	2,826	94	80	91.2	5,610
September.....	2,553	92	50	85.1	5,060
Water year 1942-43.....	32,133	954	-	88.0	63,730

Note.- No gage-height record Dec. 27 to Mar. 25; discharge computed on basis of field estimate Feb. 16, recorder record at beginning and end of period, and record of gate operation.

Time basis: Pacific war time. To convert war time to standard time; subtract 1 hour.

## OWYHEE RIVER BASIN

Owyhee River at Mountain City, Nev.

Location.- Water-stage recorder, lat. 41°50', long. 115°59', in SE $\frac{1}{4}$  sec. 36, T. 46 N., R. 53 E., at Mountain City, 1 mile downstream from California Creek.

Drainage area.- 350 square miles.

Records available.- May to December 1913, November 1926 to September 1943.

Average discharge.- 17 years (1926-43), 95.2 second-feet.

Extremes.- Maximum discharge during year, 1,560 second-feet Apr. 8 (gage height, 7.2 feet); minimum daily, 13 second-feet (regulated) Oct. 27-29.  
1913, 1927-43: Maximum discharge, 1,830 second-feet Apr. 20, 1936 (gage height, 7.6 feet), from rating curve extended above 600 second-feet; no flow July 29 to Sept. 15, 1931, July 21 to Sept. 18, 1934.

Remarks.- Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 123).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	15	70	123	b76	130	642	635	408	163	92	98
2	75	15	215	102	b75	121	1,040	637	473	178	92	98
3	76	15	125	b80	b74	112	1,310	693	487	203	92	100
4	55	17	90	b95	b74	117	1,420	618	464	163	93	102
5	51	15	*73	104	b74	121	1,480	584	425	150	105	100
6	51	15	70	70	b72	102	1,400	556	413	130	107	102
7	51	14	b80	b68	b65	112	1,400	512	388	123	107	100
8	49	15	52	b65	b65	308	1,480	464	348	117	104	100
9	49	15	43	b62	b60	402	1,500	411	354	114	102	100
10	49	15	39	b62	b60	217	1,320	374	321	110	90	100
11	51	d15	35	b62	b55	196	1,110	341	321	110	104	102
12	55	d15	34	b64	b65	186	*958	310	392	112	102	100
13	56	d16	b32	b66	b60	227	958	a290	370	112	102	102
14	56	16	31	b68	b60	247	1,020	a275	361	114	102	102
15	54	17	28	b62	b65	180	1,080	a270	337	110	98	102
16	55	19	26	b55	*b70	158	1,120	a270	304	109	100	102
17	55	20	b25	b45	b80	148	1,130	a260	270	97	100	100
18	54	39	b25	b40	b90	130	1,090	241	243	92	98	98
19	52	42	b25	b45	98	130	1,060	227	225	90	100	98
20	52	28	b25	b70	125	116	978	211	205	92	100	100
21	52	a24	b26	b200	134	114	898	197	196	92	97	100
22	52	a26	27	b500	243	114	868	196	176	93	93	100
23	51	a28	31	b350	359	119	832	197	159	95	95	100
24	51	31	67	b250	225	143	810	201	146	86	97	100
25	51	a35	61	b150	163	205	770	209	139	83	98	100
26	20	a40	b55	109	150	268	707	209	128	83	93	102
27	13	55	b85	b90	144	395	640	207	112	83	93	100
28	13	68	128	b85	134	505	678	207	102	95	95	65
29	13	87	112	b82	-	577	695	209	109	97	97	61
30	14	90	83	b80	-	553	656	203	144	95	97	59
31	14	-	117	b78	-	489	-	264	-	95	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,464	76	13	47.2	2,900
November.....	842	90	14	28.1	1,670
December.....	1,915	215	25	61.8	3,800
Calendar year 1942 .....	47,253	879	-	129	95,710
January.....	3,332	500	40	109	6,710
February.....	2,995	359	50	107	5,940
March.....	6,942	577	102	224	13,770
April.....	31,050	1,500	640	1,035	61,690
May.....	10,408	637	196	336	20,640
June.....	8,478	487	102	283	16,620
July.....	3,494	203	83	112	6,910
August.....	3,043	107	90	98.2	6,040
September.....	2,993	102	59	96.4	5,740
Water year 1942-43 .....	76,896	1,500	13	211	152,500

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of record for station near Owyhee and weather records.

b Stage-discharge relation affected by ice.

c Doubtful gage-height record; discharge computed on basis of record for station near Owyhee and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Owyhee River above China diversion dam, near Owyhee, Nev.

Location.- Water-stage recorder, lat. 41°55', long. 116°05', in NW¼ sec. 6, T. 46 N., R. 53 E., 1,000 feet downstream from Skull Creek, one mile upstream from the China diversion dam, and 2½ miles southeast of Owyhee.

Drainage area.- 458 square miles.

Records available.- March 1939 to September 1943.

Extremes (regulated).- Maximum discharge during year, 1,800 second-feet Apr. 9 (gage height, 9.12 feet) by slope-area method; minimum, 27 second-feet Nov. 11.  
1939-43: Maximum discharge, that of Apr. 9, 1943; minimum daily, 2 second-feet Sept. 15-18, 1940.

Remarks.- Records good except those for November to February, which are fair. Diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 123).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	36	91	148	a106	195	766	811	523	175	95	102
2	82	36	227	125	a104	178	1,070	790	624	196	94	101
3	82	38	178	90	a102	164	1,420	771	640	230	94	101
4	73	38	113	108	a100	178	1,560	771	614	187	94	104
5	64	36	*63	124	a98	182	1,670	736	572	172	105	101
6	64	36	81	97	96	182	1,630	706	554	154	107	104
7	83	36	69	85	90	169	1,550	654	515	143	106	103
8	62	36	64	b80	88	420	1,670	594	462	138	105	102
9	62	36	58	b78	b80	587	1,740	536	437	132	104	101
10	62	35	50	b76	b70	346	1,520	491	422	130	94	101
11	a63	34	48	b76	b75	306	1,260	445	405	130	103	102
12	a67	34	45	b78	b75	278	1,120	413	475	131	104	102
13	a66	36	45	b80	78	326	1,090	384	489	130	103	103
14	a66	37	40	83	80	366	1,120	356	470	129	102	102
15	a66	37	38	78	86	281	1,180	346	434	126	102	102
16	a66	37	b38	b65	*96	247	1,240	352	382	124	103	103
17	b66	41	b37	b60	103	232	1,270	356	337	117	103	100
18	a65	55	b36	b55	113	198	1,230	311	500	105	102	100
19	a64	67	b36	b50	125	202	1,200	287	275	101	103	100
20	64	49	b37	80	152	171	1,150	266	261	101	103	102
21	64	46	b38	210	174	171	1,100	246	234	101	102	103
22	64	49	40	700	310	176	1,060	238	215	104	98	102
23	64	51	42	434	510	178	1,030	236	197	105	99	101
24	64	54	76	320	327	202	1,000	238	186	96	100	102
25	64	57	76	231	250	275	967	244	174	91	102	104
26	53	65	67	186	227	364	906	245	165	87	97	106
27	38	73	112	140	217	510	841	244	151	85	96	107
28	36	93	181	120	198	650	868	236	138	92	95	83
29	35	86	173	115	-	746	902	245	136	96	96	66
30	36	113	116	111	-	738	832	239	154	95	99	65
31	36	-	128	108	-	649	-	334	-	96	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,902	82	35	61.4	3,770
November.....	1,477	113	34	49.2	2,930
December.....	2,461	227	36	79.4	4,880
Calendar year 1942.....	64,204	906	-	176	127,300
January.....	4,391	700	50	142	8,710
February.....	4,130	510	70	148	8,190
March.....	9,836	746	152	317	19,510
April.....	35,952	1,740	766	1,198	71,310
May.....	13,101	811	235	423	25,990
June.....	10,931	640	136	364	21,680
July.....	3,999	230	85	126	7,730
August.....	3,113	107	94	100	6,170
September.....	2,975	107	65	99.2	5,900
Water year 1942-43.....	94,168	1,740	34	258	186,800

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for station at Mountain City and weather records.

b Stage-discharge relation affected by ice.

c Discharge computed from staff-gage reading.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Owyhee River above Owyhee Reservoir, Oreg.

**Location.**- Water-stage recorder, lat. 43°13', long. 117°30', in SE¼ sec. 18, T. 27 S., R. 43 E., 3 miles upstream from flow line of Owyhee Reservoir and 8 miles southwest of Watson. Altitude of gage, about 2,690 feet above mean sea level (levels by Bureau of Reclamation).

**Drainage area.**- 10,400 square miles.

**Records available.**- October 1930 to September 1943 in reports of Geological Survey.

April 1929 to September 1936 in reports of Oregon State engineer.

**Average discharge.**- 14 years, 835 second-feet.

**Extremes.**- Maximum discharge during year, 13,200 second-feet Jan. 23 (gage height, 11.88 feet); minimum, 190 second-feet Aug. 30 (gage height, 3.88 feet).

1929-43: Maximum discharge, 16,000 second-feet Mar. 20, 1932, Apr. 19, 1936; maximum gage height, 12.95 feet Mar. 20, 1932; minimum discharge, 103 second-feet Aug. 19, 1932 (gage height, 3.57 feet).

**Remarks.**- Records good except those for periods Nov. 1-9, Feb. 12 to May 8, which are poor. Diversions above station for irrigation. Flow slightly regulated by 11 small reservoirs which have a total capacity of 52,000 acre-feet.

**Cooperation.**- Water-stage recorder inspected by Bureau of Reclamation.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

3.9	195	5.5	930	8.0	3,490
4.1	251	6.0	1,300	8.5	4,270
4.3	315	6.5	1,730	9.0	5,200
4.6	427	7.0	2,230	9.5	6,230
5.0	620	7.5	2,810	10.5	8,730

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	211	254	1,060	2,110	1,130	2,900	7,400	3,030	665	503	260	203
2	208	253	1,910	3,970	993	2,850	6,700	2,950	1,130	479	251	206
3	211	253	1,160	3,680	972	2,800	6,400	2,840	1,900	478	245	208
4	211	253	882	2,520	1,030	2,750	6,200	2,680	2,310	457	242	211
5	214	252	804	1,700	889	2,700	6,000	2,530	2,320	431	228	208
6	217	252	648	1,450	830	2,540	5,900	2,450	2,500	440	228	206
7	217	252	572	1,360	797	2,630	5,830	2,380	2,690	431	225	203
8	225	251	527	1,200	760	3,000	5,870	2,320	2,320	440	225	203
9	228	251	498	972	723	3,500	5,920	2,210	2,140	440	225	203
10	231	251	470	760	676	4,300	6,040	2,070	1,870	431	219	203
11	234	257	461	688	654	6,400	5,980	1,930	1,650	407	219	203
12	239	257	453	578	766	5,800	5,730	1,750	1,600	383	219	200
13	231	254	448	532	903	5,400	5,360	1,590	1,860	376	217	200
14	236	254	415	479	979	5,200	5,140	1,460	2,130	357	222	200
15	239	257	391	470	1,120	5,000	4,940	1,360	2,040	346	217	203
16	236	257	380	512	1,400	4,700	4,850	1,260	1,950	332	217	206
17	234	254	376	552	1,640	4,200	4,770	1,200	1,720	312	217	200
18	234	260	395	466	2,330	3,700	4,750	1,140	1,500	312	217	200
19	239	266	391	537	2,990	3,400	4,750	1,140	1,320	305	217	198
20	239	273	366	411	3,620	3,100	4,660	1,120	1,140	306	219	200
21	242	279	332	532	4,510	2,900	4,550	1,020	1,010	305	219	203
22	239	282	308	3,130	5,580	2,850	4,420	915	910	306	217	203
23	239	289	357	9,470	5,980	2,700	4,250	842	842	336	214	200
24	239	305	444	4,790	8,820	2,520	4,080	785	830	329	217	200
25	239	407	718	4,250	7,060	2,580	3,840	741	816	318	211	198
26	245	365	810	2,820	5,400	3,100	3,570	717	747	312	206	200
27	248	326	889	2,160	4,000	3,500	3,370	717	688	312	203	203
28	248	315	765	1,930	3,100	5,000	3,210	670	631	305	198	206
29	251	376	995	1,660	-	7,000	3,080	637	578	292	195	203
30	254	419	1,350	1,470	-	8,400	3,040	604	572	279	192	208
31	254	-	2,080	1,280	-	8,200	-	594	-	270	196	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,235	254	208	233	14,350
November	5,474	419	251	282	16,810
December	21,657	2,080	308	699	42,980
Calendar year 1942	450,937	13,600	192	1,235	894,400
January	58,439	9,470	411	1,885	115,900
February	69,652	8,820	654	2,488	138,200
March	125,620	8,400	2,520	4,052	249,200
April	150,620	7,400	3,040	5,021	286,800
May	47,653	3,080	594	1,537	94,520
June	44,359	2,690	572	1,480	88,040
July	11,331	503	270	366	22,470
August	6,799	260	192	219	13,490
September	6,068	211	198	203	12,080
Water year 1942-43	557,957	9,470	192	1,529	1,107,000

**Note.**- No gage-height record Nov. 1-9, Feb. 26 to Apr. 6; discharge computed on basis of records for Owyhee Reservoir at Owyhee Dam, near Nyssa, Owyhee River below Owyhee Dam, and unpublished records for diversions from Owyhee Reservoir.

**Time basis:** Pacific war time. To convert war time to standard time, subtract 1 hour.

## Wild Horse Reservoir near Gold Creek, Nev.

Location.- Reference point on Wild Horse Dam on Owyhee River, lat. 41°41'10", long. 115°51'20", in NE¼NW¼ sec. 25, T. 44 N., R. 54 E., 8 miles west of Gold Creek. Datum of gage is 6,109.18 feet above mean sea level (levels by office of Indian Affairs).

Drainage area.- 209 square miles.

Records available.- March 1938 to September 1943.

Extremes.- Maximum contents observed during year, 53,990 acre-feet Apr. 27 (gage height, 80.70 feet); minimum observed, 13,840 acre-feet Oct. 31.  
1938-43: Maximum contents observed, 54,480 acre-feet Apr. 18, 1942 (gage height, 80.95 feet); no contents at times during each year 1938-41.

Remarks.- Reservoir is formed by concrete-arch dam; storage began Mar. 18, 1938. Capacity, 32,890 acre-feet between gage height 20.0 feet (sill of outlet gate) and 80.0 feet (spillway crest). No dead storage. Water is used for irrigation on the Duck Valley project.

Cooperation.- Gage-height record and base data for capacity table furnished by Office of Indian Affairs.

Contents, in acre-feet, of Wild Horse Reservoir near Gold Creek, Nev.  
water year October 1942 to September 1943

Date	Contents	Date	Contents	Date	Contents
Oct. 3	15,540	Nov. 21	14,240	Apr. 27	33,990
10	14,960	28	14,380	May 25	33,020
17	14,480	Dec. 5	14,760	June 27	32,970
24	13,960	26	15,440	July 27	28,280
31	13,840	Jan. 26	18,000	Aug. 13	25,070
Nov. 7	13,900	Feb. 26	20,310	28	22,070
14	13,920	Mar. 26	25,070	Sept. 27	15,760

Note.- Reservoir gates were closed Oct. 26 to Nov. 14, Dec. 5 to June 28. Reservoir full and flow over spillway Mar. 31 to June 28.

Owyhee Reservoir at Owyhee Dam, near Nyssa, Oreg.

Location.- Staff gage, lat. 43°38', long. 117°15', in sec. 20, T. 22 S., R. 45 E., 21 miles southwest of Nyssa. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.- 11,160 square miles.

Records available.- October 1932 to September 1943.

Extremes.- Maximum contents observed during year, 1,121,800 acre-feet Apr. 28 to May 13 (elevation, 2,670.00 feet); minimum observed, 843,500 acre-feet Oct. 15 (elevation, 2,645.68 feet).

1932-43: Maximum contents observed, 1,125,000 acre-feet June 11, 1936 (elevation, 2,670.27 feet); minimum observed since full capacity was attained on May 7, 1936, 754,100 acre-feet Oct. 22, 1939 (elevation, 2,636.48 feet).

Remarks.- Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,121,800 acre-feet between elevations 2,367.5 feet (bottom of sluice gates) and 2,670 feet (top of spillway gate), and 715,000 acre-feet between elevations 2,590.2 feet (diversion tunnel) and 2,670 feet. Dead storage below elevation 2,367.5 feet negligible. Figures given herein are of contents above elevation 2,367.5 feet. The reservoir will generally not be drawn below elevation 2,590.2 feet. Water is released through diversion tunnel to South canal for irrigation of lands west of Snake River in the vicinity of Homedale, Idaho, and to North canal for irrigation of lands north and west of Owyhee River, and through sluice gates to Owyhee River for Owyhee Canal, which diverts about 18 miles downstream. Gage read once daily.

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

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	2,647.07	857,700	-
Oct. 31.....	2,646.40	850,800	-6,900
Nov. 30.....	2,647.64	863,600	+12,800
Dec. 31.....	2,651.65	906,000	+42,400
Calendar year 1942.....	-	-	+5,000
Jan. 31.....	2,662.60	1,030,500	+124,500
Feb. 28.....	2,661.64	1,017,900	-12,600
Mar. 31.....	2,661.90	1,022,100	+4,200
Apr. 30.....	2,670.00	1,121,800	+99,700
May 31.....	2,668.15	1,098,400	-23,400
June 30.....	2,668.38	1,101,300	+2,900
July 31.....	2,661.48	1,017,200	-84,100
Aug. 31.....	2,653.76	928,900	-88,300
Sept. 30.....	2,647.06	857,500	-71,400
Water year 1942-43.....	-	-	-200

† Hour of reading gage not known.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.



## Owyhee River below Owyhee Dam, Oreg.

Location.- Water-stage recorder, lat. 43°39', long. 117°15', in sec. 17, T. 22 S., R. 45 E., three-quarters of a mile downstream from Owyhee Dam. Datum of gage is 2,343.67 feet above mean sea level (levels by Bureau of Reclamation).

Drainage area.- 11,160 square miles.

Records available.- February 1929 to September 1943.

Average discharge.- 14 years, 464 second-feet.

Extremes.- Maximum discharge during year, 6,990 second-feet Feb. 25 (gage height, 8.94 feet); minimum recorded, 6.9 second-feet Oct. 17-19, Jan. 28 (gage height, -0.17 foot, gates closed at Owyhee Dam). During period of no gage-height record, Nov. 1 to Jan. 27, discharge may have been less than 6.9 second-feet.

1929-43: Maximum discharge, 14,800 second-feet Mar. 21, 1932 (gage height, 12.79 feet); no flow for a few hours Aug. 8, 9, 1932, when temporary diversion tunnel at Owyhee Dam was closed.

Revisions.- Maximum discharge for water year 1941 has been revised to 4,160 second-feet Apr. 1, 1941 (gage height, 7.02 feet), superseding figure published in Water-Supply Paper 933.

Remarks.- Records good except those below 20 second-feet, which are poor. Diversions above station for irrigation. Flow regulated by Wild Horse Reservoir and Owyhee Reservoir (see p. 123).

Cooperation.- Water-stage recorder inspected by Bureau of Reclamation.

Revisions.- Revised figures of discharge for the water years 1941 and 1942 are given herein. They supersede those published in Water-Supply Papers 933 and 963.

Rating tables, Oct. 1, 1940, to Sept. 30, 1943 (gage height, in feet, and discharge, in second-feet)

Oct. 1, 1940, to Apr. 1, 1941

Apr. 1, 1941, to Sept. 30, 1943

-0.2	6	0.8	78	2.5	458	-0.1	9	0.8	81	2.5	488	6.0	3,010
0.0	12	1.0	103	3.0	670	0.0	12	1.0	108	3.0	710	7.0	4,140
.2	21	1.3	150	3.5	940	.2	22	1.3	155	3.5	990	8.0	5,470
.4	35	1.6	207	4.0	1,240	.4	35	1.6	221	4.0	1,290	9.0	7,100
.6	55	2.0	304			.6	57	2.0	323	5.0	2,060	10.0	8,950

Discharge, in second-feet, 1940-43

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	6.9	6.9	6.9	6.9	7.5	2,560	207	164	164	159	151
2	9.0	6.9	6.9	6.9	6.9	7.5	1,420	207	144	164	168	151
3	9.0	6.9	6.9	6.9	6.9	7.5	912	207	132	164	168	153
4	9.0	6.9	6.9	6.9	6.9	7.5	906	210	132	185	171	153
5	9.0	6.9	6.9	6.9	6.9	7.5	2,160	216	127	200	196	153
6	9.0	6.9	6.9	6.9	6.9	1,030	1,900	212	124	200	192	153
7	9.0	6.9	6.9	6.9	6.9	839	1,640	183	102	200	192	153
8	9.0	6.9	6.9	6.9	6.9	469	2,540	177	12	200	192	153
9	9.0	6.9	6.9	6.9	6.9	524	1,370	177	12	200	192	154
10	9.0	6.9	6.9	6.9	6.9	642	1,180	177	12	200	192	154
11	9.0	6.9	6.9	6.9	6.9	618	1,720	179	12	200	194	153
12	9.0	6.9	6.9	6.9	6.9	555	1,050	183	40	200	194	151
13	9.0	6.9	6.9	6.9	6.9	406	1,870	183	129	200	200	151
14	9.0	6.9	6.9	6.9	6.9	258	2,290	183	134	200	205	151
15	9.0	6.9	6.9	6.9	6.9	209	548	183	137	200	205	151
16	9.0	6.9	6.9	6.9	6.9	172	810	185	151	200	192	151
17	9.0	6.9	6.9	6.9	6.9	51	826	183	196	200	164	151
18	9.0	6.9	6.9	6.9	6.9	44	720	183	196	200	151	151
19	66	6.9	6.9	6.9	6.9	76	508	183	192	200	149	151
20	116	6.9	6.9	6.9	6.9	193	398	183	171	200	153	151
21	116	6.9	6.9	6.9	6.9	152	404	183	173	200	153	151
22	116	6.9	6.9	6.9	6.9	115	398	183	173	200	154	151
23	116	6.9	6.9	6.9	6.9	86	291	183	173	200	158	151
24	116	6.9	6.9	6.9	6.9	55	226	183	179	200	158	151
25	62	6.9	6.9	6.9	6.9	43	226	183	183	200	158	151
26	7.8	6.9	6.9	6.9	7.2	43	231	183	173	200	154	153
27	7.8	6.9	6.9	6.9	7.5	42	250	183	164	200	151	153
28	7.2	6.9	6.9	6.9	7.5	43	243	183	164	200	151	153
29	6.9	6.9	6.9	6.9	-	44	238	173	164	200	151	153
30	6.9	6.9	6.9	6.9	-	252	235	154	164	200	151	153
31	5.9	-	6.9	6.9	-	582	-	154	-	181	151	-

Note.- Discharge Oct. 1-18, Oct. 26 to Mar. 5 based on staff-gage readings.

Discharge, in second-feet, of Owyhee River below Owyhee Dam, Oreg., 1940-43--Continued

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	7.5					528	1,370	4,180	216	200	166
2	153	7.5					528	1,080	3,800	216	200	166
3	153	7.5					528	948	3,130	216	200	166
4	154						3,600	1,000	2,350	219	198	166
5	137						7,770	1,140	2,220	219	198	166
6	134						8,420	1,850	2,620	219	198	166
7	135						8,610	1,950	2,500	219	198	166
8	140						9,420	1,640	1,630	219	198	166
9	140						9,840	1,570	1,270	219	198	166
10	140					7.5	9,580	1,280	1,220	219	198	166
11	140						8,740	429	1,180	219	198	166
12	140						7,640	258	892	221	196	147
13	140						5,840	226	665	221	196	134
14	65						5,180	413	660	221	196	134
15	9						4,770	881	511	221	196	134
16	9	7.5	7.5	7.5	7.5		3,660	1,320	275	221	196	134
17	9						4,030	1,400	214	221	196	134
18	9						4,800	1,330	214	221	196	134
19	9					470	3,900	1,350	214	221	196	134
20	9					646	3,540	1,340	214	221	196	134
21	46					528	3,800	1,120	214	205	194	134
22	129					528	2,130	1,090	214	198	203	134
23	129					528	1,960	1,250	214	198	207	134
24	83					528	2,610	917	214	198	207	134
25	9.0					528	2,590	912	214	200	207	134
26	7.8					528	1,870	1,010	214	200	207	134
27	7.8					528	1,070	1,090	214	200	207	134
28	7.5					528	1,540	1,430	214	200	205	134
29	7.5					528	1,560	2,190	216	200	198	134
30	7.5					528	1,270	3,510	216	200	166	134
31	7.5					528	-	4,270	-	200	166	-

Note.- No gage-height record Nov. 4 to Mar. 18; discharge assumed constant (gates closed at Owyhee Dam).

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134				1,260	4,800	6,700	592	240	166	210	168
2	134				1,120	4,320	6,630	740	240	169	210	142
3	134				1,090	3,980	6,580	859	204	185	198	144
4	134				1,120	3,880	6,600	1,370	153	194	192	144
5	134				1,100	3,410	6,350	3,130	163	196	203	144
6	134				1,060	3,150	5,770	3,110	154	196	190	144
7	134				1,180	3,010	5,280	2,520	154	196	169	144
8	134				3,190	2,930	5,220	1,590	154	196	171	144
9	134				3,830	3,020	5,050	1,210	154	194	171	144
10	134				3,010	3,590	4,800	1,150	158	194	171	144
11	134				2,460	4,380	4,930	864	162	194	171	144
12	134				2,510	4,730	4,200	427	162	194	171	144
13	134				2,490	4,860	3,750	214	162	194	171	144
14	134				2,260	4,890	1,280	216	162	194	171	144
15	63				2,140	4,910	1,350	240	162	190	171	144
16	7.5	7.5	7.5		2,080	4,930	725	245	162	190	171	144
17	6.9				2,710	4,760	245	250	162	190	171	144
18	6.9				3,010	4,550	250	243	162	190	171	144
19	16				3,130	4,270	250	238	162	190	173	144
20	18				3,500	3,960	250	240	162	190	171	144
21	14				4,060	3,640	250	126	162	190	171	144
22	11				4,770	3,380	250	15	162	190	171	144
23	8.5				5,480	3,150	238	15	162	190	171	144
24	8.5				6,610	2,920	231	51	162	190	171	144
25	8.0				6,920	2,810	231	238	162	190	171	144
26	8.0				6,610	2,840	231	238	164	190	173	144
27	7.6				6,040	3,040	231	238	166	194	173	144
28	7.4				6,380	3,660	240	240	166	210	173	144
29	7.6				1,160	-	4,700	299	240	166	210	173
30	7.6				1,310	-	5,710	414	240	166	210	173
31	7.6				1,340	-	6,440	-	240	-	210	173

Note.- No gage-height record Nov. 1 to Jan. 27; flow represents leakage, record of which was furnished by Bureau of Reclamation (gates in Owyhee Dam closed).

Monthly discharge, in second-feet, of Owyhee River below Owyhee Dam, Oreg., 1940-43

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1940	213.5	116	6.9	29.5	1,810
November	207.0	6.9	6.9	6.90	411
December	213.9	6.9	6.9	6.90	424
Calendar year 1940	33,015.0	1,160	-	90.2	65,480
January 1941	213.9	6.9	6.9	6.90	424
February	194.7	7.5	6.9	6.95	386
March	7,591.6	1,080	7.5	245	15,080
April	30,370	2,560	226	1,012	60,240
May	5,744	216	154	186	11,350
June	4,019	196	12	134	7,970
July	6,058	200	164	195	12,020
August	5,296	205	149	171	10,500
September	4,560	154	151	152	9,040
Water year 1940-41	65,381.5	2,560	6.9	179	129,700
October 1941	2,421.6	154	7.5	78.1	4,800
November	225.0	-	-	7.50	446
December	232.5	-	-	7.5	461
Calendar year 1941	66,926.2	2,560	-	183	132,700
January 1942	232.5	-	-	7.5	461
February	210.0	-	-	7.5	417
March	7,059.0	646	-	228	14,000
April	131,324	9,840	528	4,377	260,500
May	41,564	4,270	226	1,341	82,440
June	32,103	4,180	214	1,070	63,680
July	6,588	221	198	213	13,070
August	6,115	207	166	197	12,130
September	4,385	166	134	146	8,700
Water year 1941-42	232,459.6	9,840	-	637	461,100
October 1942	2,090.1	134	6.9	67.4	4,150
November	225.0	-	-	7.5	446
December	232.5	-	-	7.5	461
Calendar year 1942	232,128.1	9,840	-	636	460,500
January 1943	4,646.5	1,340	-	150	9,220
February	90,120	6,920	1,080	3,219	178,800
March	124,420	6,440	2,810	4,014	246,800
April	78,825	6,700	231	2,628	156,300
May	21,329	3,130	15	688	42,510
June	5,022	240	153	167	9,960
July	5,976	210	166	193	11,850
August	5,490	210	169	177	10,890
September	4,332	168	142	144	8,590
Water year 1942-43	342,708.1	6,920	-	939	679,800

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

## Boise River near Twin Springs, Idaho

**Location.**— Water-stage recorder, lat. 43°40', long. 115°44', in sec. 27, T. 4 N., R. 6 E., a quarter of a mile upstream from Birch Creek, 1½ miles upstream from flow line of Arrowrock Reservoir, 4 miles downstream from Twin Springs. and 13 miles upstream from Arrowrock.

**Drainage area.**— 830 square miles.

**Records available.**— March 1911 to September 1943.

**Average discharge.**— 32 years, 1,120 second-feet.

**Extremes.**— Maximum discharge during year, 8,920 second-feet Apr. 17 (gauge height, 7.82 feet); minimum, 248 second-feet Nov. 12 (gauge height, 2.07 feet).

1911-43: Maximum discharge, 10,300 second-feet May 17, 1927 (gauge height, 8.30 feet), from rating curve extended above 8,000 second-feet; minimum, 133 second-feet Dec. 15, 1935 (gauge height, 1.56 feet).

**Remarks.**— Records good except those for periods of ice effect, which are fair. No diversions or regulation.

Rating tables, water year 1942-43, except period of ice effect  
(gauge height, in feet, and discharge, in second-feet)  
(Shifting-control method used Apr. 13-15)

Oct. 1 to Apr. 12

Apr. 15 to Sept. 30

2.1	260	3.5	1,490	2.5	355	4.5	2,610
2.3	360	4.0	2,120	2.6	470	5.0	3,370
2.5	490	4.5	2,540	2.7	620	6.0	5,140
2.7	640	5.0	3,710	3.0	870	7.0	7,160
3.0	910	6.0	5,780	3.5	1,360	7.6	8,480
				4.0	1,940		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	355	688	1,320	576	998	2,410	5,140	6,740	5,140	1,280	556
2	295	402	616	1,380	672	998	3,390	5,720	6,120	4,760	1,290	548
3	295	384	504	1,030	*616	954	4,360	6,920	6,140	4,760	1,280	556
4	295	390	441	785	592	976	3,940	6,120	4,480	4,760	1,180	540
5	290	345	455	765	532	976	3,840	6,320	5,960	4,510	1,090	526
6	285	335	518	680	576	860	3,960	5,520	3,530	4,220	1,040	512
7	280	340	490	569	568	870	5,080	4,760	3,290	4,490	1,000	498
8	275	448	504	532	560	860	6,040	4,040	3,290	4,490	978	491
9	275	427	490	539	539	810	5,910	3,780	3,530	4,490	942	477
10	275	360	476	518	483	729	5,510	3,780	4,040	3,960	906	470
11	290	300	469	455	504	747	4,720	3,530	4,490	3,620	870	464
12	340	305	434	427	525	735	5,670	3,290	4,950	3,210	843	452
13	366	340	448	b400	539	890	6,630	3,060	4,950	2,750	816	446
14	345	402	462	b450	539	1,130	7,160	2,820	4,490	2,610	789	440
15	320	729	441	b500	576	1,010	7,600	2,750	4,040	2,690	772	440
16	312	600	*408	b450	616	921	5,040	2,610	3,970	2,540	780	434
17	306	490	427	b550	492	890	5,260	2,470	4,130	2,330	748	428
18	300	497	414	b300	759	774	7,820	2,470	5,140	2,260	732	428
19	295	497	390	b270	774	774	6,480	2,750	6,320	2,260	708	428
20	290	390	441	b500	680	688	7,920	3,130	5,520	2,260	692	428
21	285	310	546	1,390	910	680	6,950	3,530	4,950	2,260	676	428
22	290	384	576	2,080	1,060	704	6,320	4,220	5,520	2,260	660	422
23	290	476	504	1,690	1,120	758	5,780	4,950	5,140	2,200	644	416
24	296	720	532	1,390	1,060	a1,000	5,720	6,120	4,580	2,000	628	410
25	285	510	516	1,110	964	a1,500	5,330	6,320	4,400	1,940	620	404
26	295	576	427	1,020	880	a1,500	4,760	6,530	4,490	1,880	612	404
27	300	608	420	921	921	1,760	4,220	6,740	4,760	1,820	588	446
28	300	608	600	840	987	2,260	4,490	7,160	4,950	1,700	572	434
29	290	600	664	747	-	2,970	5,140	7,600	5,140	1,620	548	416
30	306	501	640	696	-	3,060	4,760	7,600	5,140	1,400	556	410
31	320	-	560	608	-	2,620	-	7,160	-	1,330	572	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	9,216	366	275	297	0.358	0.41	18,280
November	14,219	810	300	474	.571	.64	25,200
December	15,803	860	390	510	.614	.71	31,340
Calendar year 1942	366,728	15,800	275	1,005	1.21	16.43	727,400
January	24,709	2,080	270	797	.960	1.11	49,010
February	19,900	1,120	483	711	.857	.89	39,470
March	36,125	3,050	680	1,165	1.40	1.62	71,680
April	169,750	8,450	2,410	5,559	6.82	7.61	336,700
May	147,900	7,600	2,470	4,771	5.75	6.53	235,400
June	141,100	6,740	3,290	4,703	5.67	6.32	279,900
July	92,210	5,140	1,330	2,975	3.58	4.13	182,900
August	25,372	1,290	548	818	.986	1.14	50,320
September	13,752	556	404	458	.552	.62	27,280
Water year 1942-43	710,056	6,480	270	1,945	2.34	31.83	1,408,000

\* Winter discharge measurement made on this day.

a No gauge-height record; discharge computed on basis of record for Arrowrock Reservoir.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Arrowrock Reservoir at Arrowrock, Idaho

Location.- Graduations on upstream face of dam on Boise River, lat. 43°36', long. 115°55', in E. sec. 13, T. 3 N., R. 4 E., at Arrowrock, 22 miles by road east of Boise. Datum of gate is at mean sea level (surveys of Bureau of Reclamation).

Drainage area.- 2,210 square miles.

Records available.- October 1917 to September 1943.

Extremes.- Maximum contents observed during year, 300,300 acre-feet July 8, 9 (elevation, 3,218.8 feet); minimum contents not determined; no usable contents Oct. 18, 19, when sluice gates were open.

1917-43: Maximum contents observed, 300,900 acre-feet May 4, 5, 1939 (elevation, 3,219.0 feet); no usable contents during period in each of several years when sluice gates were open.

Remarks.- Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 feet in 1937; storage began in 1915. Capacity, 291,600 acre-feet between elevations 2,956 feet (11 feet below center line of sluice gates, 8.5 feet below sill) and 3,216 feet (crest of movable spillway at highest position). Dead storage negligible. Figures given herein represent total contents (including bank storage), which, project officials state, may have been reduced as much as 5,000 to 6,000 acre-feet by the deposition of silt. Water is used for irrigation of lands in Boise Valley. Gage read once daily about 8 a.m.

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

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,050	22,430	56,880	95,180	100,400	116,800	100,600	277,400	284,900	298,700	283,100	161,500
2	17,770	24,060	56,280	102,500	95,180	121,500	103,300	278,300	284,900	299,000	280,400	157,300
3	18,790	25,690	55,320	109,100	89,900	125,700	112,700	279,500	286,400	298,400	277,700	153,100
4	19,770	27,360	54,660	112,300	84,800	130,200	122,000	279,800	289,100	299,400	275,000	149,000
5	20,830	28,980	54,110	116,100	79,580	135,000	129,100	280,400	289,700	299,000	272,300	144,800
6	21,730	30,390	53,780	119,500	75,520	139,200	135,000	280,100	293,800	299,400	269,400	140,800
7	22,000	31,840	53,450	122,600	72,090	143,000	141,800	278,600	297,900	300,000	266,200	136,600
8	22,160	33,410	53,340	125,100	69,580	147,000	152,000	276,500	296,400	300,300	262,300	132,600
9	20,630	35,210	53,120	127,600	72,350	151,400	166,500	274,400	285,500	300,300	259,300	128,500
10	18,790	36,970	52,900	130,000	71,960	155,200	177,500	272,600	286,700	300,000	256,200	124,200
11	16,840	38,190	53,340	132,400	71,310	157,900	185,300	270,300	290,300	299,400	252,300	119,900
12	15,140	39,540	53,670	134,400	70,400	157,100	192,200	267,100	294,700	299,000	245,100	116,100
13	13,100	40,800	54,000	134,200	70,270	154,900	202,400	265,600	297,800	298,500	244,200	112,200
14	10,620	42,330	54,110	133,800	71,060	151,000	215,800	257,600	297,200	299,000	240,300	108,400
15	8,460	43,860	54,220	133,600	72,090	145,400	231,000	252,000	296,200	298,700	236,200	104,500
16	5,735	46,700	55,200	136,200	73,390	136,400	247,300	247,500	295,300	298,700	231,700	100,900
17	2,820	49,700	57,000	138,400	74,820	127,600	265,400	242,900	294,700	298,400	227,600	97,370
18	a2,000	50,810	58,800	140,000	76,640	119,200	280,400	239,800	296,600	298,100	223,200	94,050
19	a1,900	52,650	60,240	140,600	78,320	111,100	284,600	238,200	297,800	298,100	219,000	90,700
20	3,108	53,780	61,950	140,600	80,280	104,500	285,500	239,300	298,700	298,100	214,200	87,800
21	5,290	54,550	63,640	137,800	82,700	96,880	283,700	239,800	297,800	297,800	209,800	84,800
22	7,210	54,660	65,850	137,400	85,550	91,020	282,800	241,600	297,800	297,800	205,300	82,700
23	9,050	54,660	67,800	138,200	90,220	86,000	280,700	246,000	298,700	297,800	201,000	80,140
24	11,040	54,660	70,140	136,000	95,020	81,650	280,100	254,900	298,100	297,800	196,400	77,780
25	12,840	55,680	72,740	132,100	99,680	78,740	279,500	265,100	297,800	296,900	192,000	75,380
26	14,060	56,160	75,800	127,800	103,800	77,200	278,600	273,500	297,500	295,600	187,400	72,870
27	15,420	56,160	77,780	123,400	108,100	77,900	277,100	279,500	297,500	294,400	183,000	70,660
28	16,880	56,400	79,580	118,800	112,200	80,560	275,200	281,300	297,800	292,800	178,600	68,580
29	18,230	56,400	82,550	114,300	-	85,850	277,700	283,100	298,100	291,000	174,200	66,630
30	19,770	56,880	85,250	109,600	-	92,480	277,700	283,700	298,400	288,500	169,900	64,680
31	21,040	-	88,800	105,000	-	95,540	-	285,600	-	285,800	165,700	-

a No gage-height record; contents computed on basis of records of inflow and outflow.

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	3,053.5	18,460	-
Oct. 31.....	3,088.7	21,040	+2,580
Nov. 30.....	3,102.4	56,880	+35,840
Dec. 31.....	3,125.8	89,800	+31,920
Calendar year 1942..	-	-	-57,200
Jan. 31.....	3,135.6	105,000	+16,200
Feb. 28.....	3,139.8	112,200	+7,200
Mar. 31.....	3,131.2	95,540	-16,660
Apr. 30.....	3,211.4	277,700	+182,160
May 31.....	3,210.0	285,500	+7,800
June 30.....	3,218.2	298,400	+12,900
July 31.....	3,214.1	285,800	-12,600
Aug. 31.....	3,167.0	165,700	-120,100
Sept. 30.....	3,108.6	64,680	-101,020
Water year 1942-43..	-	-	+46,220

† Elevation at about 8 a.m.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Boise River at Dowling Ranch, near Arrowrock, Idaho

Location.— Water-stage recorder, lat. 43°35', long. 115°58', in sec. 15, T. 3 N., R. 4 E., at Dowling Ranch, three-quarters of a mile upstream from Moore Creek and 4 miles downstream from Arrowrock.

Drainage area.— 2,220 square miles.

Records available.— March 1911 to September 1943.

Average discharge.— 32 years, 2,249 second-feet.

Extremes.— Maximum discharge during year, 18,800 second-feet Apr. 20 (gage height, 9.93 feet); minimum, 2 second-feet Oct. 24, 26 (gage height, 0.83 feet).  
1911-43: Maximum discharge, that of Apr. 20, 1943; minimum, 2 second-feet several days in 1935, 1936, 1939, 1941, 1942; minimum gage height, 0.62 foot Nov. 21, 22, 1935.

Remarks.— Records good except those below 20 second-feet, which are fair. Flow regulated by Arrowrock Reservoir (see p. 128). No diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	729	4	1,720	53	3,830	36	4,130	11,800	13,900	9,580	3,730	3,170
2	132	3	1,650	49	4,130	36	5,450	12,400	12,100	9,550	3,730	3,170
3	119	4	1,360	39	4,030	34	5,080	13,100	9,560	8,870	3,540	3,080
4	117	4	1,160	38	3,930	34	6,450	13,400	8,670	8,960	3,540	3,080
5	94	4	1,100	28	3,640	34	6,710	13,800	8,670	8,090	3,440	2,990
6	380	4	1,100	23	3,170	32	6,840	13,400	8,090	7,810	3,440	2,990
7	478	4	1,100	26	2,740	32	7,250	12,100	7,610	7,810	3,540	2,900
8	968	6	1,100	32	1,090	39	7,530	11,100	7,530	8,090	3,440	2,900
9	1,300	5	1,100	19	771	39	7,810	10,200	6,980	8,090	3,440	2,900
10	1,410	4	955	17	1,590	206	8,090	10,200	6,840	7,810	3,440	2,900
11	1,410	4	820	16	1,530	1,700	8,380	10,200	6,980	8,940	3,440	2,820
12	1,530	4	820	542	1,470	2,740	8,670	10,200	8,960	5,940	3,540	2,820
13	1,650	5	820	1,360	1,090	3,440	8,670	9,860	10,200	5,570	3,540	2,740
14	1,590	5	820	1,360	780	5,100	8,960	9,860	10,200	5,100	3,540	2,740
15	1,530	6	562	659	764	6,450	9,260	9,260	9,560	4,880	3,540	2,650
16	1,590	5	238	17	758	6,710	9,560	8,960	8,670	4,770	3,540	2,570
17	1,410	5	87	20	716	6,450	10,200	8,090	8,670	4,440	3,540	2,420
18	700	35	11	191	692	6,060	14,100	7,250	9,560	4,240	3,540	2,340
19	358	230	16	1,410	740	5,690	17,900	6,320	11,100	4,130	3,540	2,260
20	82	342	22	1,840	780	5,340	18,800	6,450	11,800	4,030	3,440	2,190
21	4	488	21	2,420	756	4,880	17,000	6,840	10,500	3,930	3,440	2,050
22	3	892	32	2,990	522	4,550	15,800	6,980	10,500	4,050	3,440	1,980
23	3	874	34	4,030	584	5,220	13,800	6,980	10,900	3,930	3,440	1,900
24	2	1,010	17	4,770	297	4,880	13,400	7,810	9,860	3,930	3,350	1,980
25	3	1,070	17	4,660	242	3,540	13,100	8,960	9,260	3,930	3,440	1,980
26	2	1,070	15	4,550	36	3,440	12,100	9,860	9,260	3,930	3,350	1,980
27	3	1,090	15	4,340	34	3,540	11,100	12,400	9,260	3,930	3,350	1,910
28	3	1,130	16	4,240	34	3,830	10,800	13,400	9,560	3,830	3,260	1,840
29	3	1,820	14	4,130	-	4,240	11,800	14,600	9,560	3,930	3,260	1,780
30	3	1,410	25	3,930	-	4,770	11,800	14,600	9,560	3,830	3,170	1,720
31	4	-	40	3,830	-	4,990	-	15,000	-	3,830	3,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,611	1,650	2	568	34,930
November.....	10,727	1,410	5	358	21,280
December.....	16,807	1,720	11	542	33,340
Calendar year 1942 .....	758,628	8,660	2	2,078	1,505,000
January.....	51,629	4,770	16	1,665	102,400
February.....	40,444	4,130	34	1,444	80,220
March.....	98,082	6,710	32	3,164	194,500
April.....	311,520	18,800	4,130	10,380	617,900
May.....	325,380	15,000	6,320	10,500	645,400
June.....	283,870	13,800	6,840	9,462	563,000
July.....	177,420	9,560	3,830	5,723	351,900
August.....	107,150	3,730	3,170	3,456	212,500
September.....	74,830	3,170	1,720	2,494	148,400
Water year 1942-43 .....	1,515,470	18,800	2	4,152	3,006,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Boise River at Boise, Idaho

Location.— Water-stage recorder, lat. 43°37', long. 116°13', in SW<sup>1</sup>/<sub>4</sub> sec. 10, T. 3 N., R. 2 E., at Capitol Boulevard Bridge at Boise. Datum of gage is 2,675.37 feet above mean sea level (datum of Corps of Engineers, U. S. Army - Boise River Surveys). Apr. 30 to July 10, 1943, water-stage recorder at site 400 feet downstream. Datum of gage was 2,675.47 feet above mean sea level (datum of Corps of Engineers, U. S. Army - Boise River Surveys). Prior to Apr. 30, 1943 water-stage recorder 1 mile upstream. Datum of gage was 2,685.15 feet above mean sea level (datum of Corps of Engineers, U. S. Army - Boise River Surveys).

Records available.— March 1938 to September 1939 (gage heights only), February 1940 to September 1943.

Extremes.— Maximum discharge during year, 21,000 second-feet Apr. 20 (gage height, 10.00 feet); minimum, 7 second-feet Dec. 16 (gage height, 1.79 feet).  
1940-43: Maximum discharge, that of Apr. 20, 1943; minimum, that of Dec. 16, 1942.

Remarks.— Records good except those for periods of no gage-height record and those for month of April, which are fair. Flow regulated by Arrowrock Reservoir (see p. 128). New York, Ridenbaugh, and several smaller canals divert between Moore Creek and this station. Small amount of water from Cottonwood Gulch enters between original and present site but records are considered to be comparable.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		68	770	1,370	4,230	27	7,880	9,930	11,700	7,230	1,140	880
2		79	996	1,370	4,580	26	8,810	10,400	10,400	6,990	1,180	870
3		79	440	996	4,460	26	9,830	11,000	8,160	6,510	1,160	860
4		79	154	713	4,230	26	10,900	11,200	6,750	6,510	1,110	840
5	a150	79	32	629	4,010	25	11,300	11,500	6,990	6,020	1,050	796
6		73	20	530	3,500	22	10,600	11,200	6,510	6,390	1,050	788
7		111	76	19	440	23	10,900	10,400	6,270	5,390	1,040	796
8		132	102	15	383	22	11,700	9,060	6,270	5,770	1,040	788
9		108	147	13	388	22	11,500	8,160	5,640	5,640	1,020	788
10		87	128	14	372	42	10,600	7,700	5,260	5,260	1,020	804
11		90	105	12	335	918	8,810	7,700	5,130	h4,160	1,030	796
12		132	90	11	339	1,310	10,600	7,470	6,510	h3,390	1,000	764
13		132	87	10	1,660	3,320	10,900	7,230	8,160	h2,600	986	748
14		276	90	9	1,670	4,940	11,300	7,230	8,390	2,030	997	740
15		513	120	9	1,410	6,090	11,900	6,750	7,700	1,890	1,020	719
16	1,520	172	9	335	56	6,490	11,700	6,270	7,230	1,770	1,020	705
17	1,450	138	125	244	48	6,090	12,700	5,640	6,750	1,590	986	691
18	930	144	40	108	44	5,700	15,200	h4,330	7,230	1,360	975	677
19	599	191	164	a1,000	68	5,320	20,500	h3,390	8,610	1,230	964	656
20	244	183	126	a2,500	56	4,940	19,000	h3,390	9,710	1,160	920	628
21	117	65	197	a3,500	34	4,340	16,700	h3,900	8,610	1,030	890	607
22	76	44	213	4,010	42	4,010	15,300	h3,900	8,160	1,310	840	582
23	62	33	234	4,700	39	3,700	13,700	h4,160	8,390	1,340	890	548
24	58	16	270	5,700	36	3,500	12,500	5,000	7,700	1,310	890	528
25	54	14	383	5,440	34	3,320	h11,000	6,020	6,990	1,290	890	534
26	54	13	276	5,320	32	3,410	h9,970	6,990	6,750	1,310	900	540
27	52	15	244	5,190	30	3,900	h8,330	9,490	6,750	1,250	890	534
28	52	38	305	5,060	28	4,940	h7,990	10,800	6,990	1,200	890	510
29	52	150	383	4,890	-	6,750	h9,630	11,700	7,230	1,190	890	510
30	54	522	372	4,580	-	7,310	9,930	11,700	7,230	1,220	870	498
31	60	-	713	4,230	-	7,880	-	11,900	-	1,220	890	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,210	1,520	52	265	16,280
November.....	3,138	522	13	105	6,220
December.....	6,257	770	9	202	12,410
Calendar year 1942.....	356,973	6,900	9	978	708,100
January.....	69,342	5,700	108	2,237	137,500
February.....	37,316	4,580	28	1,333	74,080
March.....	99,451	7,880	22	3,208	197,300
April.....	352,680	20,500	7,890	11,760	699,500
May.....	245,600	11,900	3,390	7,923	487,100
June.....	224,170	11,700	5,130	7,472	444,600
July.....	95,550	7,230	1,030	3,093	189,500
August.....	30,418	1,190	981	60	30,330
September.....	20,723	880	498	691	41,100
Water year 1942-43.....	1,192,855	20,500	9	3,268	2,565,000

a No gage-height record; discharge computed on basis of records for other Boise River stations.  
b Computed from readings of supplemental gage at Broadway Avenue Bridge, 7.8 mile above station.  
Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Boise River at Notus, Idaho

**Location.**— Water-stage recorder, lat. 43°43', long. 116°48', in SE¼ sec. 34, T. 5 N., R. 4 W., 360 yards upstream from steel highway bridge, a quarter of a mile southeast of Notus, and 7 miles northwest of Caldwell. Datum of gage is 2,288.55 feet above mean sea level (Corps of Engineers, U. S. Army datum - Boise River Surveys).

**Records available.**— April 1920 to September 1943.

**Average discharge.**— 21 years (1920-22, 1924-43), 1,117 second-feet.

**Extremes.**— Maximum discharge during year, 20,500 second-feet Apr. 20 (gage height, 10.43 feet); minimum, 84 second-feet Aug. 29 (gage height, 0.70 foot).

1920-43: Maximum discharge, that of Apr. 20, 1943; minimum, 10 second-feet Aug. 18, 1920.

**Remarks.**— Records good except those for periods of no gage-height record which are poor. Station is below all large diversions for irrigation in Boise Valley; many diversions above. Flow regulated by Arrowrock Reservoir (see p.128).

## Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 19

Apr. 20 to Sept. 30

1.0	107	2.8	775	0.7	84	2.7	710	6.0	5,010
1.3	160	3.2	1,060	1.0	122	3.2	1,060	7.0	7,110
1.6	227	3.6	1,420	1.4	183	3.8	1,620	8.0	9,710
2.0	350	4.0	1,830	1.8	282	4.4	2,290	9.0	13,600
2.4	534			2.2	434	5.0	3,160		

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	668	1,240	2,480	a5,000		8,000	9,090	12,700	5,010	280	118
2	237	656	1,420	2,620	a5,000		9,230	8,810	11,500	5,010	222	113
3	262	658	1,240	2,170	a5,000		9,210	9,710	9,090	4,810	248	105
4	232	626	917	1,530	a4,500		10,300	10,000	6,670	4,520	256	110
5	150	658	650	1,620	a4,500		10,600	10,000	6,450	4,710	210	121
6	120	620	562	1,470	a4,000	a600	10,300	10,400	6,030	3,860	178	119
7	132	620	524	1,280	a3,500		10,300	9,710	5,610	3,690	171	110
8	113	668	508	1,130	a3,000		10,600	8,500	5,410	3,770	168	102
9	118	656	518	1,070	a2,000		12,300	7,110	4,910	3,860	168	97
10	123	680	540	1,040	a1,500		12,300	6,480	4,320	3,680	174	95
11	141	656	524	988	a2,000	a800	10,900	6,240	4,040	3,240	182	113
12	268	626	508	903	2,110	2,760	10,900	6,030	4,320	2,550	149	121
13	328	602	518	1,610	1,940	3,490	11,200	6,030	6,030	1,880	143	129
14	421	590	513	2,290	1,330	5,110	11,900	5,820	6,890	1,620	123	133
15	614	608	503	2,360	896	6,280	12,300	5,610	6,670	1,200	121	149
16	1,500	614	492	1,280	775	7,330	12,300	5,010	6,030	1,000	135	174
17	2,000	674	487	a500	710	7,330	12,700	4,910	5,610	976	136	187
18	1,830	662	608	a500	692	6,690	12,300	4,040	5,210	730	136	205
19	1,280	686	638	a1,000		6,480	17,400	3,080	6,030	620	142	248
20	1,090	686	602	2,290		5,880	20,500	2,290	7,570	416	140	298
21	945	656	602	3,400		5,300	18,900	2,760	7,340	259	119	282
22	794	581	674	4,270		4,920	16,900	3,000	6,240	154	97	262
23	736	529	762	4,920		4,640	15,000	3,080	6,240	137	92	250
24	650	508	966	5,880	a600	4,360	13,200	3,240	6,240	189	105	243
25	668	472	1,240	6,080		4,090	12,300	4,140	5,210	183	114	256
26	656	472	1,110	a5,000		4,000	11,500	5,210	4,910	189	105	270
27	656	540	917	a5,500		4,180	9,390	6,240	4,810	213	108	279
28	644	529	1,020	a5,500		4,730	8,550	8,300	4,810	195	89	298
29	650	573	1,150	a5,500		6,480	8,550	9,390	4,910	171	88	279
30	662	782	1,140	a5,000		7,330	9,390	10,800	4,910	181	101	273
31	656	-	1,620	a5,000		7,770	-	11,500	-	248	121	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	18,898	2,000	113	610	37,480
November.....	18,486	732	472	616	36,670
December.....	24,743	1,620	487	798	49,080
Calendar year 1942.....	330,785	5,440	20	906	656,100
January.....	87,581	6,080	500	2,825	173,700
February.....	54,453	5,000	-	1,945	108,000
March.....	115,950	7,770	-	3,740	230,000
April.....	358,220	20,500	8,000	11,940	710,500
May.....	206,300	11,500	2,290	6,855	409,800
June.....	186,710	12,700	4,040	6,224	370,300
July.....	58,970	5,010	137	1,902	117,000
August.....	4,564	256	88	147	9,050
September.....	5,639	298	95	185	10,990
Water year 1942-43.....	1,140,414	20,500	88	3,124	2,262,000

a No gage-height record; discharge computed on basis of records for station at Boise  
**Time basis:** Mountain war time. To convert war time to standard time, subtract 1 hour.



## Crest stages along Boise River during flood in April 1943

Crest stages along Boise River from head of Ridenbaugh Canal to Parma, Idaho, during the flood of Apr. 20, 1943, are given in the following table. The elevations are heights above mean sea level, datum of Corps of Engineers, U. S. Army - Boise River Surveys. Column 2 gives reference to the water-supply papers which contain description of the gages from which the crest stages were determined. Elevations of the flood of May 1938 are contained in Water-Supply Paper 863.

Location	Water-Supply Paper reference	Elevation (feet)
At head Ridenbaugh Canal.....	-	2,757.64
Below Ridenbaugh Canal at Barber.....	883, p. 148	2,756.39
Boise, 700 feet above Broadway Bridge.....	953, p. 128	2,699.15
Boise, at Eighth Street Bridge.....	883, p. 148	2,686.07
At Strawberry Glenn Bridge near Boise.....	883, p. 149	2,606.11
At Linder Bridge, north channel, near Eagle (above bridge).....	883, p. 151	2,517.47
At Linder Bridge, north channel, near Eagle (below bridge).....	-	2,516.60
At Star.....	883, p. 151	2,488.19
At Middleton.....	883, p. 152	2,358.95
Near Caldwell.....	883, p. 152	2,356.91
At Notus.....	883, p. 153	2,298.93
Near Parma.....	883, p. 155	2,223.43

## Diversions from Boise River, Idaho

Twenty-seven principal canals and several small farm laterals divert water from Boise River for irrigation below mouth of Moore Creek and between gaging stations at Dowling Ranch and Notus. Records for years 1919-43 are available; record of daily diversions after 1915 on file in office of Idaho State Reclamation Engineer.

Daily gage-height records obtained, frequent discharge measurements made, and records summarized under direction of W. E. Welsh, watermaster for Boise River.

Diversions, in acre-feet, from Boise River below Moore Creek and between Dowling Ranch and Notus gaging stations during irrigation season of 1943

Canal	Diversion
Main canal of Bureau of Reclamation.....	761,190
Penitentiary.....	2,040
Ridenbaugh.....	106,100
Bubb.....	4,830
Consumers (Cruzen).....	6,830
Boise City No. 1.....	9,880
Settlers.....	49,670
Thurman Mill.....	9,920
Parma Union (includes Boise Valley diversion).....	58,500
New Union (Little Union).....	3,360
New Dry Creek (Dry Creek).....	17,930
Ballantine.....	3,950
Eagle Island canals (?).....	11,500
Middleton Irrigation Association (Middleton Water Co.).....	58,280
Middleton Hill ditch.....	16,620
Phyllis.....	116,090
Eureka No. 1.....	8,280
Pioneer (Little Pioneer).....	7,930
Canyon County.....	19,800
Caldwell High Line.....	17,470
Riverside No. 2.....	53,670
Farmers Cooperative.....	97,230
Canyon (Campbell).....	5,460
Seibenberg.....	2,280
Pioneer Dixie.....	12,600
Eureka No. 2.....	16,160
Upper Center Point.....	3,750
Lower Center Point.....	3,320
Miscellaneous.....	7,740
Total.....	1,525,760

Combined monthly discharge of canals diverting from Boise River, Idaho, during irrigation season of 1943

Month	Discharge in second-feet			Runoff in acre-feet
	Maximum	Minimum	Mean	
April.....	4,886	0	2,365	140,700
May.....	5,601	4,963	5,368	330,100
June.....	5,366	3,921	4,801	285,700
July.....	5,280	4,512	4,988	306,600
August.....	4,690	4,068	4,301	264,200
September.....	4,047	2,516	3,530	198,200
The period.....	-	-	-	1,525,800

## South Fork Boise River at Anderson Ranch Dam, Idaho

Location.- Water-stage recorder, lat. 43°20', long. 115°29', in SW $\frac{1}{4}$  sec. 11, T. 1 S., R. 8 E., 600 feet upstream from Dixie Creek,  $\frac{1}{4}$  miles downstream from Anderson Ranch Reservoir, and  $2\frac{1}{4}$  miles northwest of Bennett.

Drainage area.- 992 square miles, including that of Dixie Creek.

Records available.- April to September 1943 (include flow of Dixie Creek).

Extremes.- Maximum discharge during period, 9,100 second-feet Apr. 17 (gage height, 10.06 feet); minimum, 264 second-feet Sept. 21, 22 (gage height, 2.65 feet).

Remarks.- Records good. Some water stored in Little Camas Reservoir and diverted for irrigation of about 5,000 acres of land in vicinity of Mountain Home. Flow will be regulated by Anderson Ranch Reservoir, now under construction.

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	5,550	6,030	3,770	877	a361
2							-	6,190	5,250	3,650	963	361
3							-	6,360	4,840	3,530	942	365
4							-	6,360	4,020	3,410	796	356
5							-	6,700	3,650	3,160	757	342
6							-	6,190	3,180	3,070	724	342
7							-	6,190	2,960	3,070	697	338
8							h5,550	4,680	2,850	3,070	675	333
9							a5,500	4,280	3,070	2,960	651	324
10							h4,680	4,150	3,530	2,740	616	307
11							h4,410	3,890	4,020	2,540	597	290
12							h5,400	3,500	4,280	2,540	574	282
13							h6,360	3,300	4,540	2,150	552	282
14							h7,050	3,180	4,280	1,970	530	275
15							7,770	3,180	3,770	1,920	514	275
16							8,340	3,070	3,650	1,790	524	275
17							8,720	2,850	3,770	1,700	480	275
18							8,340	2,740	4,280	1,610	458	271
19							8,720	2,740	5,100	1,560	442	275
20							8,340	2,960	4,820	1,520	431	278
21							7,410	3,180	4,410	1,520	415	271
22							6,530	3,650	4,540	1,520	410	271
23							6,030	4,410	4,410	1,480	405	275
24							6,190	5,550	4,020	1,360	395	278
25							5,710	5,870	3,770	1,280	385	282
26							5,100	6,030	3,770	1,200	380	282
27							4,650	6,030	3,770	1,200	370	295
28							5,250	6,360	3,770	h1,090	361	295
29							5,870	6,700	3,890	h1,010	356	286
30							5,400	6,870	3,770	940	352	282
31							-	6,700	-	905	361	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-foot
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April 8-30	147,350	8,720	4,410	6,406	6.46	5.52	292,300
May	149,410	6,870	2,740	4,820	4.86	5.60	296,400
June	121,710	6,030	2,850	4,057	4.09	4.56	241,400
July	65,055	3,770	905	2,099	2.12	2.44	129,000
August	16,789	677	352	542	.546	.63	33,300
September	9,024	365	271	301	.303	.34	17,900
The period		-	-	-	-	-	1,010,000

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

d Doubtful gage-height record; discharge computed on basis of records for station near Lenox.

h Computed from staff-gage reading.

Time Basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## South Fork Boise River near Lenox, Idaho

Location.— Water-stage recorder, lat. 43°30', long. 115°41', in sec. 24, T. 2 N., R. 6 E., 1½ miles upstream from Smith Creek, 4 miles upstream from flow line of Arrowrock Reservoir, 4 miles west of discontinued Lenox post office, 13 miles upstream from mouth, and 17 miles upstream from Arrowrock Dam.

Drainage area.— 1,090 square miles.

Records available.— March 1911 to September 1943.

Average discharge.— 32 years, 973 second-feet.

Extremes.— Maximum discharge during year, 9,550 second-feet Apr. 17 (gage height, 10.05 feet); minimum, 231 second-feet Oct. 10, 11 (gage height, 2.11 feet).

1911-43: Maximum discharge, that of Apr. 17, 1943; minimum, 111 second-feet Aug. 10, 1934; minimum gage height, 1.68 feet Sept. 5-7, 1931.

Remarks.— Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Some water stored in Little Camas Reservoir and diverted for irrigation of about 5,000 acres of land in vicinity of Mountain Home.

Rating table, water year 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.1	228	3.2	685	5.0	1,980
2.3	298	3.6	900	6.0	3,060
2.5	375	4.0	1,140	7.0	4,430
2.8	498	4.5	1,520	9.0	7,730

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	242	513	507	705		705	2,480	6,000	6,340	3,990	d960	400
2	245	356	473	768		725	3,310	6,510	5,680	3,850	d950	400
3	245	332	423	680		685	3,990	6,680	4,880	3,640	d920	400
4	245	332	348	558		695	3,850	6,850	4,280	3,570	d870	390
5	245	325	348	529		735	3,850	7,020	3,850	3,590	d820	380
6	248	313	383	502		710	3,850	6,680	3,440	3,310	d790	380
7	259	317	452	473		700	4,880	6,000	3,180	3,310	d760	380
8	255	352	460	436	400	746	6,340	5,200	3,120	3,310	d730	370
9	252	379	452	415		735	6,340	4,730	3,240	d3,100	d710	360
10	238	332	448	b400		675	5,840	4,730	3,710	d2,900	d685	350
11	235	287	427			641	5,680	4,430	4,290	d2,700	650	330
12	255	280	371	b370		651	6,340	4,130	4,730	d2,500	620	320
13	287	287	371			720	7,370	3,640	4,880	d2,300	600	320
14	321	321	387			845	8,090	3,640	4,580	d2,150	580	320
15	313	498	379			806	8,630	3,440	4,130	2,120	560	320
16	313	*516	348	400		752	8,990	3,310	3,850	2,020	570	310
17	308	427	325			746	9,170	3,080	3,990	1,930	530	310
18	302	415	356			708	8,610	2,940	4,580	1,830	510	310
19	302	423	356			690	9,170	2,940	5,360	1,740	490	320
20	298	375	359		600	670	8,810	3,180	5,040	1,700	480	320
21	294	276	448			641	7,910	3,440	4,730	1,650	460	310
22	291	276	469			665	7,190	3,990	4,730	1,650	460	310
23	287	375	456			695	6,880	4,730	4,730	1,600	460	320
24	284	464	473		*730	752	6,850	6,000	4,280	1,560	450	320
25	284	579	460		695	900	6,510	6,340	3,990	d1,400	440	330
26	284	436	403	850	651	1,140	6,000	6,340	3,990	d1,550	430	330
27	284	403	387		660	1,400	5,520	6,340	3,990	d1,500	420	360
28	284	427	352		680	1,880	5,840	6,680	3,990	d1,200	410	360
29	284	452	403		-	2,320	6,510	7,020	4,130	d1,150	410	350
30	287	520	444		-	2,430	6,000	7,190	3,990	d1,100	400	350
31	298	-	516		-	2,430	-	7,020	-	d980	410	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	8,567	321	235	276	0.253	0.29	16,990
November	11,368	579	276	379	.348	.39	22,550
December	12,764	516	325	412	.378	.44	25,320
Calendar year 1942	315,949	4,350	225	865	.794	10.78	628,500
January	18,784	-	-	608	.556	.64	37,260
February	14,218	-	-	508	.468	.49	28,200
March	20,690	2,430	641	955	.976	1.01	58,680
April	190,800	9,170	2,480	6,360	5.83	6.51	378,400
May	160,200	7,190	2,940	5,168	4.74	5.47	317,800
June	129,690	6,340	3,120	4,323	3.97	4.43	257,200
July	70,290	3,990	980	2,267	2.08	2.40	139,400
August	18,515	960	400	597	.548	.63	36,720
September	10,310	400	310	344	.316	.35	20,450
Water year 1942-43	675,094	9,170	-	1,850	1.70	23.05	1,359,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of records for station at Anderson Ranch Dam.

Note.— No gage-height record, Jan. 12 to Feb. 23, Aug. 11 to Sept. 30; discharge computed on basis of records for South Fork Boise River at Anderson Ranch Dam, Boise River near Twin Springs, and Arrowrock Reservoir.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Little Camas Canal at heading, near Bennett, Idaho

Location.— Staff gage, lat. 43°21'30", long. 115°23', in sec. 9, T. 1 S., R. 9 E., 400 feet downstream from Little Camas Reservoir, 4 miles northeast of Bennett, and 22 miles northeast of Mountain Home.

Records available.— June to November 1917, April 1924 to September 1943.

Extremes.— Maximum discharge during year, 56 second-feet July 28, 29 (gage height, 2.26 feet); no flow prior to June 28.

1917, 1924-43: Maximum discharge observed, 77 second-feet Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.— Records good. Gage read once daily. Canal diverts from Little Camas Reservoir (South Fork of 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 diversions above station. Flow regulated by head gates at Little Camas Reservoir.

Cooperation.— Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0	12	53	54
2									0	12	52	54
3									0	16	52	53
4									0	16	53	54
5									0	16	53	53
6									0	20	53	53
7									0	23	52	54
8									0	26	52	54
9									0	26	53	54
10									0	30	52	54
11									0	32	52	53
12									0	32	51	54
13									0	36	52	53
14									0	35	52	54
15									0	40	54	54
16									0	38	53	54
17									0	42	54	54
18									0	42	53	54
19									0	47	54	54
20									0	47	53	54
21									0	50	53	54
22									0	50	53	54
23									0	54	53	54
24									0	53	53	54
25									0	53	53	54
26									0	53	52	54
27									0	52	52	54
28									47	56	51	54
29									10	56	54	54
30									10	54	54	54
31									-	53	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942 .....	5,190	50	0	14.2	10,260
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	0	0	0	0	0
June.....	27	10	0	0.9	54
July.....	1,172	56	12	37.8	2,320
August.....	1,635	54	51	52.7	3,240
September.....	1,616	54	53	53.8	3,200
Water year 1942-43 .....	4,449	56	0	12.2	8,810

a No gage-height record; discharge computed on basis of reported change in gate opening, or interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Moore Creek near Arrowrock, Idaho

Location.- Staff gage, lat. 43°35', long. 115°59', in sec. 21, T. 3 N., R. 4 E., at bridge on Boise-Arrowrock highway, a quarter of a mile upstream from mouth and 3 miles southwest of Arrowrock.

Drainage area.- 426 square miles.

Records available.- October 1914 to November 1915 (discharge measurements only), December 1915 to September 1943.

Average discharge.- 27 years (1916-43), 295 second-feet.

Extremes.- Maximum discharge during year, 6,610 second-feet Apr. 8 (gage height, 7.1 feet, from high-water mark); minimum, 31 second-feet Oct. 1, 2 (gage height, 0.20 foot). 1915-43: Maximum discharge, that of Apr. 8, 1943; minimum observed, 7.9 second-feet Aug. 13-15, 17, 18, 1924.

Remarks.- Records fair. Gage read once daily except Apr. 3 to May 7, when it was read twice daily. No large diversions above station.

Cooperation.- Gage readings and one discharge measurement furnished by Water District No. 12A.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	75	296	1,090	448	779	2,150	1,620	1,340	470	104	63
2	31	80	237	1,090	470	748	3,270	1,720	1,430	448	97	61
3	33	75	188	779	365	748	3,700	1,620	1,170	425	97	59
4	34	75	146	*547	346	779	3,700	1,620	1,090	495	97	60
5	36	81	146	602	365	718	3,410	1,620	1,090	404	97	58
6	35	76	176	495	346	630	3,410	1,340	940	365	90	58
7	37	77	166	404	329	659	4,010	1,250	940	365	90	57
8	38	119	166	404	346	688	5,030	1,170	875	346	84	54
9	44	146	146	448	329	718	5,210	1,090	875	329	85	53
10	43	104	166	404	250	602	4,170	1,090	875	312	84	50
11	44	119	166	346	312	659	3,550	1,010	875	280	81	50
12	51	81	146	312	312	630	3,850	940	840	265	78	50
13	56	81	155	296	265	718	4,170	940	1,010	250	78	49
14	56	82	155	312	296	1,250	4,170	875	940	237	75	47
15	56	146	146	280	312	1,010	4,170	875	875	224	73	47
16	55	155	146	237	346	940	4,010	842	842	212	75	47
17	53	128	128	199	384	875	3,700	875	810	199	71	45
18	56	136	146	b180	425	748	3,410	842	842	188	69	46
19	55	128	128	b180	448	748	3,410	875	940	176	66	48
20	57	119	97	b350	470	659	3,000	940	842	176	66	49
21	54	82	136	b500	547	659	2,740	940	748	166	66	49
22	54	97	155	b1,000	718	630	2,380	1,090	748	155	66	49
23	54	104	155	*940	842	659	2,150	1,090	718	146	64	50
24	53	128	212	875	610	718	2,150	1,090	688	136	62	49
25	53	166	296	748	779	810	1,930	1,170	630	136	62	48
26	58	128	176	779	748	1,090	1,620	1,090	574	128	61	47
27	56	104	188	688	779	1,520	1,520	1,170	547	128	61	47
28	60	166	212	659	748	2,260	1,820	1,170	520	119	59	49
29	60	166	329	547	-	2,740	1,820	1,170	520	112	57	49
30	63	495	296	547	-	2,740	1,620	1,090	495	112	57	47
31	61	-	842	425	-	2,380	-	1,250	-	104	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,526	63	31	49.2	0.115	0.13	3,030
November	3,719	499	75	124	.291	.32	7,580
December	6,243	842	97	201	.476	.55	12,580
Calendar year 1942	91,267	1,340	25	250	.587	7.96	181,000
January	16,663	1,090	180	538	1.26	1.45	33,050
February	13,135	842	250	469	1.10	1.15	26,050
March	31,512	2,740	602	1,017	2.39	2.75	62,500
April	95,250	5,210	1,520	3,175	7.45	8.32	198,900
May	35,474	1,720	842	1,144	2.59	3.10	70,560
June	25,728	1,430	495	868	2.01	2.25	51,030
July	7,608	495	104	245	.575	.66	15,090
August	2,334	104	57	75.3	1.77	.20	4,630
September	1,535	63	45	51.2	1.20	.13	3,040
Water year 1942-43	240,728	5,210	31	660	1.55	21.01	477,400

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## New York Canal near Barber, Idaho

Location.- Water-stage recorder in trapezoidal concrete-lined canal section, lat. 43°33', long. 116°07', in SE¼ sec. 32, T. 3 N., R. 3 E., 1 mile south of Barber and 1½ miles downstream from head gates at Boise River diversion dam and power plant.

Records available.- February 1939 to September 1943.

Extremes.- Maximum discharge during year, 2,840 second-feet May 6; maximum gage height, 9.17 feet May 27; no flow for long periods during year.

1939-43: Maximum discharge, 2,890 second-feet May 5, 1939; maximum gage height, 9.18 feet May 29, 1941; no flow for long periods each year.

Remarks.- Records good. Canal diverts from Boise River in sec. 3, T. 2 N., R. 3 E., 8 miles below Moore Creek, for irrigation of 166,396 acres included in Boise project of Bureau of Reclamation and as a feeder canal for Deer Flat Reservoir near Caldwell (see p.138). Flow regulated by head gates.

Cooperation.- Water-stage recorder graph and 12 discharge measurements furnished by Board of Control for Boise project and one discharge measurement furnished by watermaster for Boise River.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	692	0	1,220	0	735	0	2,670	2,710	2,610	2,080	1,930	
2	0	0	1,240	0	732	0	2,680	2,600	2,600	2,000	1,900	
3	0	0	1,250	0	720	0	2,640	2,530	2,620	1,930	1,860	
4	0	0	1,260	0	723	0	2,700	2,320	2,610	1,910	1,840	
5	0	0	1,260	0	714	0	2,730	2,120	2,580	1,900	1,810	
6	0	0	1,280	0	643	175	2,740	1,920	2,580	1,910	1,780	
7	0	0	1,260	0	643	732	2,680	1,750	2,600	1,930	1,780	
8	342	0	1,260	0	732	1,240	2,680	1,630	2,620	1,930	1,770	
9	795	0	1,270	0	747	1,440	2,680	1,670	2,600	1,910	1,760	
10	928	0	1,200	0	657	1,480	2,740	1,790	2,580	1,900	1,730	
11	928	0	1,030	258	705	1,510	2,740	2,040	2,500	1,910	1,700	
12	984	0	1,010	554	702	1,490	2,740	2,160	2,570	1,950	1,670	
13	1,130	0	1,010	735	777	1,530	2,740	2,240	2,590	2,000	1,650	
14	1,120	0	1,010	978	855	1,560	2,730	2,220	2,600	2,030	1,640	
15	520	0	874	1,090	890	1,560	2,740	2,080	2,600	2,030	1,630	
16	0	0	422	1,070	984	1,620	2,740	1,960	2,600	2,040	1,510	
17	0	0	1,125	1,050	1,040	1,810	2,710	2,100	2,580	2,040	1,420	
18	0	0	0	1,020	1,050	1,960	2,720	2,280	2,600	2,040	1,360	
19	0	0	0	1,090	1,060	1,970	2,720	2,380	2,560	2,060	1,320	
20	0	274	0	1,180	1,050	2,170	2,710	2,420	2,570	2,070	1,260	
21	0	526	0	1,250	1,060	2,380	2,690	2,480	2,440	2,080	1,190	
22	0	756	0	1,270	1,060	2,440	2,700	2,520	2,240	2,040	1,150	
23	0	978	0	1,080	1,050	2,490	2,700	2,560	2,160	2,040	1,120	
24	0	1,130	0	1,060	1,050	2,540	2,690	2,580	2,140	2,030	1,120	
25	0	1,230	0	1,010	1,050	2,620	2,690	2,580	2,160	2,040	1,120	
26	0	h1,210	0	711	1,050	2,700	2,730	2,600	2,180	2,040	1,100	
27	0	h1,210	0	711	1,060	2,650	2,680	2,600	2,150	2,040	1,070	
28	0	h1,260	0	h717	711	2,720	2,660	2,600	2,120	2,000	995	
29	0	h1,250	0	-	0	2,680	2,740	2,620	2,150	1,980	956	
30	0	h1,160	0	-	0	2,660	2,730	2,620	2,120	1,960	942	
31	0	-	0	-	0	-	2,740	-	2,100	1,940	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,439	1,130	0	240	14,780
November.....	10,984	1,260	0	366	21,790
December.....	17,981	1,280	0	580	35,660
Calendar year 1942.....	404,065	2,790	0	1,107	801,400
January.....	0	0	0	0	0
February.....	16,934	1,270	0	601	33,390
March.....	24,250	1,060	0	782	48,100
April.....	48,097	2,720	0	1,603	95,400
May.....	83,980	2,740	2,640	2,709	166,600
June.....	68,680	2,710	1,630	2,289	136,200
July.....	75,830	2,620	2,100	2,446	150,400
August.....	61,740	2,080	1,900	1,992	122,600
September.....	43,973	1,930	942	1,466	87,820
Water year 1942-43.....	459,788	2,740	0	1,260	912,000

a No gage-height record; discharge computed on basis of information furnished by Board of Control for Boise project.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## BOISE RIVER BASIN

## Deer Flat Reservoir near Caldwell, Idaho

Location.- Staff gages attached to outlet structures at each end of reservoir. One gage is at lower embankment, lat. 43°35', long. 116°45', in SE $\frac{1}{4}$  sec. 19, T. 3 N., R. 3 W., 5 miles south and 2 miles west of Caldwell; the other is at upper embankment, lat. 43°34', long. 116°39', in NW $\frac{1}{4}$  sec. 36, T. 3 N., R. 3 W., 1 mile south and 4 miles west of Nampa. Datum of gage is 2,500.5 feet above mean sea level (surveys of Bureau of Reclamation).

Records available.- October 1917 to September 1943.

Extremes.- Maximum contents observed during year, 176,700 acre-feet May 7 (gage height, 29.95 feet); minimum observed, 26,780 acre-feet Oct. 11.

1917-43: Maximum contents observed, 178,900 acre-feet Apr. 27, 28, 1922, Apr. 24, 1932 (gage height, 30.18 feet); minimum observed, 5,390 acre-feet Oct. 22, 1924.

Remarks.- Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-feet, between gage heights 0.0 foot (sill of outlet gates) and 30.0 feet (maximum operating level). Dead storage about 13,000 acre-feet. Below gage height 12.0 feet reservoir divides into two pools. In addition to water received from local drainages, 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. Gage read once daily.

Cooperation.- Gage-height record and capacity table furnished by Board of Control for Boise project.

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29,310	32,170	57,330	91,740	91,960	121,500	162,700	173,200	186,000	164,600	122,100	89,980
2	29,110	32,300	59,960	91,740	91,960	122,900	162,300	174,200	167,000	162,600	120,700	69,640
3	28,690	32,690	62,330	91,740	92,030	123,900	162,000	175,400	166,500	161,100	119,200	67,620
4	28,670	32,800	64,800	91,740	92,100	124,900	161,700	175,800	170,400	159,900	117,400	66,610
5	28,430	33,010	67,490	91,820	92,100	125,700	161,400	176,000	172,000	158,200	115,800	65,230
6	28,190	33,240	69,910	91,890	92,170	126,700	161,200	176,600	173,800	157,700	114,000	64,420
7	27,940	33,430	72,100	91,890	92,170	128,100	161,100	176,700	175,900	156,200	112,100	63,810
8	27,700	33,790	74,520	91,890	92,390	130,100	161,400	176,400	175,900	155,200	110,100	63,000
9	27,320	34,000	77,570	91,890	92,460	131,200	162,600	176,200	176,200	153,800	108,500	61,900
10	27,030	34,220	79,850	91,740	92,460	132,700	164,600	176,300	176,200	152,400	106,600	60,930
11	26,780	34,430	82,160	91,740	92,460	133,800	166,600	176,000	176,000	151,000	104,700	60,080
12	26,930	34,620	83,810	91,670	92,460	134,900	168,900	175,700	175,900	149,700	102,600	59,240
13	27,320	34,810	85,330	91,630	93,470	136,400	170,700	176,400	175,600	148,300	100,900	58,290
14	27,600	35,040	86,930	91,460	94,620	137,900	172,700	176,000	176,200	147,200	99,180	57,510
15	28,520	35,230	88,760	91,460	96,080	139,200	174,400	174,600	176,600	145,900	97,320	56,510
16	29,220	35,380	89,960	91,460	97,690	140,700	175,200	174,000	176,600	144,300	95,570	55,630
17	29,420	35,570	91,310	91,390	99,610	142,300	175,600	173,600	176,200	143,300	93,830	54,870
18	29,570	35,810	91,740	91,390	101,300	144,000	175,800	173,300	175,900	142,100	91,890	53,990
19	29,720	36,010	91,740	91,390	103,700	145,900	176,000	172,800	175,400	141,300	90,100	53,140
20	29,770	36,200	91,600	91,390	105,600	147,300	175,600	172,600	175,000	140,100	88,340	52,460
21	29,560	36,390	91,600	91,390	107,800	149,400	174,600	172,000	174,400	139,100	86,580	51,780
22	30,130	37,270	91,460	91,800	110,800	151,100	174,100	171,300	173,900	137,800	84,640	51,220
23	30,460	38,530	91,740	91,820	112,300	153,000	173,300	170,600	173,000	136,200	83,260	50,650
24	30,720	40,120	91,820	91,890	114,300	154,700	172,700	170,300	172,100	134,400	81,680	49,980
25	30,660	42,070	92,030	91,890	116,200	156,900	172,000	170,000	171,200	132,700	79,920	49,430
26	31,030	44,440	92,100	91,890	118,100	158,400	171,700	169,400	170,400	131,200	78,440	49,100
27	31,210	47,230	91,960	91,890	119,300	160,000	171,700	169,700	169,400	129,700	76,770	48,220
28	31,310	49,760	91,890	91,890	120,400	161,700	171,800	167,700	168,400	128,100	75,440	47,790
29	31,580	52,230	91,820	91,890	-	163,500	171,900	166,500	167,100	126,400	74,060	47,120
30	31,860	54,820	91,740	91,960	-	163,500	172,400	165,600	165,800	124,900	72,620	46,370
31	32,040	-	91,740	91,960	-	163,100	-	165,200	-	123,600	71,130	-

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	(Upper) 9.40 (Lower) 9.20	30,000	-
Oct. 31.....	(Upper) 9.90 (Lower) 9.70	32,040	+2,040
Nov. 30.....	14.13	54,820	+22,780
Dec. 31.....	19.62	91,740	+36,920
Calendar year 1942	-	-	+710
Jan. 31.....	19.65	91,960	+220
Feb. 29.....	23.59	120,400	+28,440
Mar. 31.....	28.53	163,100	+42,700
Apr. 30.....	29.51	172,400	+9,300
May 31.....	28.75	165,200	-7,200
June 30.....	28.82	165,800	+600
July 31.....	23.96	123,600	-42,200
Aug. 31.....	16.79	71,130	-52,470
Sept. 30.....	12.62	46,370	-24,760
Water year 1942-43	-	-	+16,370

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Malheur River near Drewsey, Oreg.

**Location.**— Water-stage recorder, lat. 43°47', long. 118°20', in SE¼ sec. 31, T. 20 S., R. 35 E., 300 feet downstream from crossing of Burns-Ontario highway, half a mile downstream from Cottonwood Creek, and 3 miles southeast of Drewsey. Datum of gage is 3,479.29 feet above mean sea level, datum of 1929.

**Drainage area.**— 982 square miles.

**Records available.**— June to December 1920, April to September 1921, June 1939 to September 1943. April to September 1923, June 1926 to June 1939, at site 7 miles downstream. Records practically equivalent.

**Average discharge.**— 17 years (1926-43), 157 second-feet.

**Extremes.**— Maximum discharge during year, 2,480 second-feet Apr. 16 (gage height, 9.19 feet); minimum, 12 second-feet Aug. 20, 26, 27 (gage height, 2.69 feet).

1920-21, 1923, 1926-43: Maximum discharge, 4,290 second-feet Feb. 27, 1940 (gage height, 11.35 feet), from rating curve extended above 2,500 second-feet; no flow at times.

**Remarks.**— Records good except those for periods Dec. 26 to Jan. 26, Feb. 2-10, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Several small diversions above station for irrigation.

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 21					Jan. 22 to Sept. 30				
2.8	17	3.4	93	4.5	322	3.2	64	5.5	610
3.0	36	3.7	145	5.0	452	3.5	114	6.0	790
3.2	62	4.0	207	5.5	610	4.0	214	6.5	1,005
						4.5	332	7.5	1,470
						5.0	464	8.5	2,020

Note.— Same as following table above 5.5 feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	27	190	1,880	b140	535	1,230	960	469	132	24	17
2	13	32	248	1,170	163	565	1,330	951	472	123	25	17
3	14	41	137	474	173	384	1,560	879	397	121	25	17
4	15	42	107	341	159	335	1,600	870	345	132	26	18
5	17	38	98	298	167	330	1,640	866	330	134	26	19
6	16	36	b95	269	184	290	1,710	862	293	116	24	23
7	16	42	93	218	210	278	1,820	906	261	104	23	18
8	18	62	96	190	234	787	1,950	715	245	99	22	19
9	20	59	103	173	205	1,360	1,590	645	232	90	19	18
10	19	52	119	151	194	848	1,600	583	241	87	18	15
11	16	47	123	141	a210	754	1,460	556	235	83	18	15
12	20	43	114	134	a220	758	1,520	538	248	75	18	17
13	28	47	108	136	a230	1,210	1,780	506	238	72	18	18
14	28	66	119	130	a235	1,290	2,000	467	227	56	19	19
15	26	70	*128	151	a235	756	2,160	429	225	56	17	20
16	26	77	126	149	a245	550	2,230	394	205	48	14	20
17	24	65	118	149	a255	475	2,140	374	188	38	15	18
18	16	74	103	114	a270	407	1,900	332	177	36	16	17
19	17	74	88	126	a350	371	1,740	307	210	35	15	18
20	16	52	93	104	a500	314	1,640	295	234	32	14	19
21	15	43	82	812	a800	320	1,560	297	223	31	14	20
22	17	54	104	1,600	a1,400	358	1,460	290	203	31	14	18
23	21	76	155	500	a800	480	1,230	290	154	29	14	19
24	19	82	273	302	a500	687	1,130	332	167	27	14	16
25	20	93	374	243	*358	704	1,050	353	151	29	13	21
26	21	71	154	232	379	1,070	1,100	376	153	27	12	21
27	23	77	114	b210	415	1,820	946	394	140	25	14	20
28	23	190	155	b190	511	2,180	924	392	134	24	13	23
29	24	338	236	*b155	-	2,050	1,060	354	127	23	14	23
30	22	418	221	b155	-	1,900	978	381	127	24	13	20
31	24	-	1,240	b150	-	1,490	-	410	-	26	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	604	28	13	19.5	1,200
November.....	2,488	418	87	82.9	4,930
December.....	5,515	1,240	22	178	10,940
Calendar year 1942.....	77,777.2	1,740	5.7	213	154,300
January.....	11,057	1,850	104	357	21,930
February.....	9,742	1,400	140	348	19,320
March.....	25,656	2,180	278	828	50,890
April.....	46,338	2,230	924	1,545	91,910
May.....	16,234	960	290	524	32,200
June.....	7,090	472	127	236	14,060
July.....	1,965	134	23	63.4	3,900
August.....	545	26	12	17.6	1,080
September.....	565	23	15	18.8	1,120
Water year 1942-43.....	127,799	2,230	12	350	253,500

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Warm Springs Reservoir and North Fork Malheur River above Agency Valley Reservoir, near Beulah.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.



Malheur River below Warm Springs Reservoir, near Riverside, Oreg.

**Location.**- Hook gage, lat. 43°34', long. 118°12', in SW¼ sec. 17, T. 23 S., R. 37 E., 1 mile downstream from Warm Springs Dam, 3 miles upstream from South Fork, and 4 miles northwest of Riverside.

**Drainage area.**- 1,100 square miles.

**Records available.**- December 1914 to July 1917, March 1919 to September 1943. January 1906 to March 1907 and December 1908 to September 1910 at site at Riverside, 4 miles downstream, in reports of Geological Survey. October 1910 to November 1914 at site at Riverside, in reports of State engineer.

**Average discharge.**- 31 years (1909-16, 1919-43), 172 second-feet.

**Extremes.**- Maximum discharge observed during year, 1,860 second-feet (regulated) Apr. 7-10 (gage height, 7.44 feet), from rating curve extended above 1,200 second-feet; minimum daily, 2.0 second-feet Oct. 26 to Feb. 10.  
1906-7, 1908-17, 1919-43: Maximum discharge observed, 5,490 second-feet Mar. 2, 1910; no flow at times.

**Remarks.**- Records good. Gage read once daily. Flow completely regulated since November 1919 by Warm Springs Reservoir (see p.142). Several small diversions above station for irrigation.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Discharge, in second-feet, water year October 1942 to September 1943											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug. Sept.
1	254	2.0	2.0	2.0	2.0	102	1,550	270	415	420	455 505
2	254	2.0	2.0	2.0	2.0	102	1,550	270	415	420	455 470
3	254	2.0	2.0	2.0	2.0	102	1,550	270	415	420	455 460
4	258	2.0	2.0	2.0	2.0	102	1,550	270	415	420	455 460
5	219	2.0	2.0	2.0	2.0	102	1,550	551	377	420	455 460
6	203	2.0	2.0	2.0	2.0	102	1,550	855	246	420	455 460
7	203	2.0	2.0	2.0	2.0	102	1,860	935	230	420	455 460
8	203	2.0	2.0	2.0	2.0	102	1,860	935	230	430	455 460
9	203	2.0	2.0	2.0	2.0	102	1,860	880	230	455	455 400
10	203	2.0	2.0	2.0	2.0	102	1,860	800	230	455	455 372
11	151	2.0	2.0	2.0	60	168	1,850	565	230	455	455 372
12	48	2.0	2.0	2.0	102	158	1,850	386	258	455	455 372
13	48	2.0	2.0	2.0	102	158	1,850	386	246	455	455 372
14	48	2.0	2.0	2.0	102	486	1,850	415	246	455	455 372
15	48	2.0	2.0	2.0	102	785	1,850	415	230	455	500 372
16	48	2.0	2.0	2.0	102	845	1,850	420	230	455	500 372
17	48	2.0	2.0	2.0	102	845	1,850	420	230	455	505 372
18	48	2.0	2.0	2.0	102	640	1,850	450	230	455	525 372
19	48	2.0	2.0	2.0	102	650	1,850	415	230	455	525 364
20	32	2.0	2.0	2.0	102	650	1,850	364	230	455	525 364
21	5.3	2.0	2.0	2.0	102	386	1,850	326	230	455	525 354
22	5.3	2.0	2.0	2.0	102	386	1,850	346	230	455	525 364
23	5.3	2.0	2.0	2.0	102	386	1,850	415	262	455	525 342
24	5.3	2.0	2.0	2.0	102	386	1,850	415	338	455	525 330
25	4.1	2.0	2.0	2.0	102	580	1,540	415	338	455	525 330
26	2.0	2.0	2.0	2.0	102	720	799	415	326	455	525 314
27	2.0	2.0	2.0	2.0	102	880	322	415	310	455	525 294
28	2.0	2.0	2.0	2.0	102	1,370	270	415	310	455	525 294
29	2.0	2.0	2.0	2.0	-	1,650	270	415	310	455	525 266
30	2.0	2.0	2.0	2.0	-	1,650	270	415	330	455	495 254
31	2.0	-	2.0	2.0	-	1,650	-	415	-	455	520 -

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,538.3	254	2.0	91.6	5,630
November	60.0	2.0	2.0	2.00	119
December	62.0	2.0	2.0	2.00	123
Calendar year 1942	88,157.8	1,630	0	242	172,900
January	52.0	2.0	2.0	2.00	123
February	1,814.0	102	2.0	64.8	3,600
March	15,939	1,550	102	514	31,610
April	46,111	1,860	270	1,537	81,460
May	14,649	935	270	473	29,060
June	9,527	415	230	284	16,910
July	13,835	455	420	446	27,440
August	16,800	525	455	460	30,150
September	11,323	505	254	377	22,460
Water year 1942-43	130,420.3	1,860	2.0	357	259,700

**Time basis:** Pacific war time. To convert war time to standard time, subtract 1 hour.

## Malheur River near Hope, Oreg.

Location.— Water-stage recorder, lat. 43°57', long. 117°29', in SW $\frac{1}{4}$  sec. 5, T. 19 S., R. 43 E., half a mile upstream from intake of Vines Canal and  $\frac{5}{8}$  miles west of Hope.

Drainage area.— 3,030 square miles.

Records available.— May 1919 to September 1943 (incomplete prior to October 1922).

Average discharge.— 20 years (1922-25, 1926-43), 230 second-feet.

Extremes.— Maximum discharge during year, 3,850 second-feet Jan. 22; maximum gage height, 8.50 feet; minimum discharge, Jan. 21, affected by ice; 35 second-feet Oct. 26, 1919-43; Maximum discharge, 3,100 second-feet Feb. 5, 1925 (gage height, 8.1 feet); minimum, 3.5 second-feet Sept. 2, 1919 (gage height, 0.02 foot).

The two greatest floods known occurred in March 1894 and March 1910.

Remarks.— Records good except those for period Mar. 10 to Apr. 13, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Vale Oregon Canal diverts at Namorf; no other large diversions above station but many small ones. Flow regulated by Warm Springs Reservoir and Agency Valley Reservoir (see following page).

Rating tables, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 18					Apr. 19 to Sept. 30				
0.8	37	1.9	310	4.0	1,960	1.4	123	2.7	700
1.0	57	2.2	450	4.5	2,530	1.6	174	3.0	930
1.2	89	2.5	620	5.0	5,060	1.8	240	3.5	1,350
1.4	134	3.0	980			2.1	365	4.5	2,440
1.6	193	3.5	1,440			2.4	520		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	53	218	3,000	a225	771	1,860	354	272	177	196	190
2	132	53	190	2,340	a270	771	1,840	276	334	272	190	183
3	127	53	156	1,470	a300	722	1,820	269	334	230	174	142
4	145	53	b105	1,040	a275	674	1,770	272	356	226	180	142
5	160	52	b105	799	a275	656	1,620	300	430	212	152	160
6	127	52	b120	608	a300	626	2,030	622	405	205	147	158
7	108	53	b140	483	a350	620	2,190	954	272	208	140	145
8	93	67	b130	405	a400	1,140	2,370	1,030	205	190	147	152
9	93	68	127	364	a325	2,190	2,490	970	199	190	160	166
10	91	70	127	324	a325	2,060	2,510	914	230	226	169	140
11	102	65	161	328	400	1,220	2,480	796	219	222	147	128
12	106	64	190	314	590	998	2,470	500	199	222	140	110
13	95	60	204	297	836	980	2,470	292	196	222	142	123
14	64	57	241	302	813	1,320	2,460	308	186	222	166	147
15	57	57	248	368	813	1,560	2,460	347	196	199	140	183
16	52	56	285	494	706	1,520	2,360	329	186	205	183	193
17	52	56	293	b400	668	1,470	2,410	276	190	205	196	186
18	47	57	268	a250	729	1,200	2,580	230	174	193	190	166
19	46	58	245	a265	884	998	2,640	196	174	186	190	183
20	44	58	229	a300	1,270	900	2,610	199	169	177	193	190
21	43	56	215	a1,500	1,600	722	2,560	212	166	174	190	163
22	44	56	207	2,940	1,980	638	2,480	196	171	186	186	162
23	41	55	225	1,320	2,460	638	2,340	190	155	193	196	150
24	38	57	360	a500	1,440	656	2,170	260	152	196	190	150
25	37	53	977	a350	1,010	674	2,060	272	256	186	186	140
26	41	55	736	a325	820	764	1,640	304	219	163	193	158
27	49	60	505	a300	773	1,120	950	352	205	193	190	142
28	50	70	355	a275	771	1,500	550	352	180	186	180	117
29	54	82	520	a250	-	1,890	445	300	174	196	193	119
30	53	177	638	a240	-	1,880	360	240	180	199	208	117
31	52	-	1,670	a225	-	1,890	-	233	-	190	219	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,371	150	37	76.5	4,700
November.....	1,893	177	52	62.8	3,730
December.....	10,190	1,670	105	329	20,210
Calendar year 1942.....	131,852	3,190	37	361	261,500
January.....	22,376	3,000	225	722	44,380
February.....	21,515	2,460	225	768	42,670
March.....	34,868	2,190	620	1,125	69,160
April.....	61,185	2,640	360	2,040	121,400
May.....	12,314	1,030	190	397	24,420
June.....	6,764	430	152	225	13,420
July.....	6,271	272	174	202	12,440
August.....	6,463	219	140	176	10,840
September.....	4,595	193	110	153	8,110
Water year 1942-43.....	189,795	3,000	37	520	376,500

a No gage-height record; discharge computed on basis of weather records and records for Malheur River near Drewsey and Silvies River near Burns.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Reservoirs in Malheur River Basin, Oreg.

Warmsprings Reservoir.- Tape gage, lat. 43°35', long. 118°12', in SE¼ sec. 8, T. 23 S., R. 37 E., at dam on Malheur River, 4 miles upstream from South Fork and 4 miles northwest of Riverside. Datum of gage is 3,327 feet above mean sea level (surveys of Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level. Drainage area, 1,100 square miles. Records available, January 1920 to September 1943. Maximum contents observed during year, 191,600 acre-feet May 5 (elevation, 3,406.14 feet); minimum observed, 97,260 acre-feet Oct. 19-21 (elevation, 3,382.08 feet). Maximum contents observed during period 1920-43, 196,000 acre-feet Apr. 7, 1942 (elevation, 3,407.08 feet); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935.

Reservoir is formed by concrete-arch dam; capacity, 191,000 acre-feet between elevations 3,327 feet (bottom of outlet tunnel) and 3,406 feet (top of 5-foot flashboards). Dead storage, 1,400 acre-feet below elevation 3,327 feet. Records given herein represent contents above elevation 3,327 feet. Storage began in 1919. In 1926 a half interest in reservoir was purchased by the Federal Government for Vale project of Bureau of Reclamation. Water used to irrigate lands on both sides of river between Namorf and Ontario. Once-daily gage readings and data for computing capacity table furnished by Bureau of Reclamation.

Agency Valley Reservoir.- Pressure gage with mercury column, lat. 43°55', long. 118°09', in SW¼ sec. 15, T. 19 S., R. 37 E., at dam on North Fork Malheur River, a quarter of a mile northwest of Beulah. Gage readings are elevations above mean sea level by original surveys of Bureau of Reclamation, or 7.72 feet less than elevations above mean sea level, datum of 1929. Drainage area, 420 square miles. Records available, December 1935 to September 1943. Maximum contents observed during year, 60,110 acre-feet May 25-27, 31, June 1 (elevation, 3,340.10 feet); minimum observed, 18,060 acre-feet Feb. 19, 20 (elevation, 3,311.11 feet). Maximum contents during period 1935-43, 62,770 acre-feet May 3, 1941 (elevation, 3,341.50 feet); minimum observed since full capacity was attained on Apr. 9, 1938, that of Feb. 19, 20, 1943.

Reservoir is formed by earth-fill rock-faced dam; storage began in December 1935. Capacity, 59,920 acre-feet between elevations 3,263.21 feet (bottom of outlet tunnel) and 3,340 feet (top of 17-foot spillway gates); with gates lowered, the capacity is 32,220 acre-feet. No dead storage. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation. Capacity table and daily gage readings furnished by Bureau of Reclamation.

Other reservoirs.- There are several other reservoirs in the Malheur River Basin, all with less than 3,500 acre-feet capacity except Willow Creek No. 3 Reservoir near Malheur, which has a capacity of 49,000 acre-feet.

Monthly elevation and contents, water year October 1942 to September 1943

Date	Warmsprings Reservoir			Agency Valley Reservoir		
	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	3,383.60	102,300	-	3,315.63	22,950	-
Oct. 31.....	3,382.14	97,460	-4,840	3,316.50	24,000	+1,050
Nov. 30.....	3,383.32	101,400	+3,940	3,319.70	27,950	+3,950
Dec. 31.....	3,387.40	115,200	+13,800	3,321.27	30,030	+2,080
Calendar year 1942.....	-	-	-24,300	-	-	-11,650
Jan. 31.....	3,394.65	142,100	+26,900	3,314.47	21,790	-8,240
Feb. 28.....	3,399.09	160,400	+18,300	3,312.13	19,280	-2,510
Mar. 31.....	3,404.65	184,900	+24,500	3,325.43	35,940	+16,660
Apr. 30.....	3,404.54	184,400	-500	3,338.97	58,440	+22,500
May 31.....	3,406.35	190,300	+5,900	3,340.10	60,110	+1,670
June 30.....	3,406.44	188,500	-1,800	3,335.85	52,320	-7,790
July 31.....	3,399.52	162,300	-26,200	3,327.66	39,960	-13,370
Aug. 31.....	3,390.98	128,000	-34,300	3,323.75	33,260	-6,690
Sept. 30.....	3,384.35	104,800	-23,200	3,320.73	29,190	-4,070
Water year 1942-43.....	-	-	+2,500	-	-	+6,240

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

North Fork Malheur River above Agency Valley Reservoir, near Beulah, Oreg.

Location.— Water-stage recorder, lat. 43°58', long. 118°11', in eec. 33, T. 18 S., R. 37 E., at M. W. Scott's ranch, 3 miles upstream from Warm Spring Creek and 4 miles northwest of Agency Valley Dam and Beulah.

Records available.— January to September 1914, June 1936 to September 1943.

Extremes.— Maximum discharge during year, 933 second-feet Mar. 28 (gage height, 4.38 feet); minimum, 23 second-feet Dec. 3 (gage height, 0.47 foot), but may have been less during period of ice effect, Dec. 4-8.

1914, 1936-43: Maximum discharge recorded, 975 second-feet Mar. 26, 1940 (gage height, 4.60 feet); minimum, 19 second-feet Aug. 5, 1939.

Remarks.— Records good except those for periods of ice effect, which are poor. A few diversions above station for irrigation; no regulation.

Rating tables, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 21				Jan. 22 to Sept. 30			
0.7	42	1.7	187	0.7	47'	1.5	224
.9	65	1.9	228	.9	71	2.1	284
1.1	91	2.2	298	1.1	101	2.5	378
1.3	120	2.5	374	1.3	134	3.0	512
1.5	151			1.5	169	4.0	810

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	55	73	341	96	213	624	570	350	139	64	55
2	46	61	65	166	109	200	777	544	344	134	67	52
3	46	61	40	97	109	162	765	550	311	136	68	51
4	46	59	b40	91	96	171	777	564	286	142	67	52
5	45	55	b35	102	96	180	786	561	274	127	67	51
6	45	57	b35	88	91	148	837	544	249	120	66	50
7	44	59	b45	69	95	167	861	495	234	114	66	50
8	44	69	b50	65	91	267	867	447	226	111	64	49
9	44	57	78	70	74	235	793	413	237	106	63	48
10	45	48	56	69	90	201	720	403	235	103	62	48
11	48	46	79	64	95	228	699	396	237	99	59	48
12	50	52	69	64	101	249	759	378	235	96	58	48
13	49	60	72	b60	104	323	810	364	230	95	57	48
14	50	70	75	b80	107	284	849	340	220	91	56	48
15	50	73	*78	117	106	205	864	316	220	88	55	48
16	50	63	72	116	111	200	867	291	200	85	55	48
17	49	64	54	88	114	192	834	276	189	82	56	47
18	50	66	53	79	120	166	807	259	191	81	56	47
19	49	46	48	74	139	180	789	253	218	78	55	48
20	49	42	64	134	167	142	765	255	211	78	55	48
21	50	48	55	226	207	160	744	265	196	77	56	47
22	49	78	75	271	266	171	687	269	189	78	56	47
23	49	75	102	176	234	209	646	302	173	72	57	47
24	50	83	109	151	200	241	618	356	165	75	54	47
25	49	52	112	134	167	311	621	390	165	71	52	47
26	49	46	57	131	*176	548	576	406	156	68	52	47
27	50	49	66	115	194	744	526	400	146	66	50	46
28	50	68	87	106	200	831	532	369	142	64	49	47
29	52	75	96	-	-	822	556	376	139	64	49	47
30	52	92	123	99	-	735	553	371	139	64	57	47
31	53	-	350	85	-	600	-	390	-	64	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,498	53	44	48.3	2,970
November	1,831	92	42	61.0	3,630
December	2,431	350	35	78.4	4,820
Calendar year 1942	51,968	774	35	142	103,100
January	3,624	341	60	117	7,190
February	3,775	286	74	135	7,490
March	9,477	331	142	306	13,800
April	21,951	867	526	732	43,540
May	12,132	570	253	391	24,060
June	6,539	380	139	218	12,970
July	2,868	139	64	92.5	5,690
August	1,806	68	49	58.3	3,580
September	1,453	55	46	48.4	2,880
Water year 1942-43	69,385	867	35	190	137,600

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## North Fork Malheur River at Beulah, Oreg.

Location.- Staff gage, lat. 43°54', long. 118°09', in NE¼ sec. 22, T. 19 S., R. 37 E., at Beulah, a quarter of a mile downstream from Agency Valley Dam and 12 miles northwest of Juntura.

Drainage area.- 420 square miles.

Records available.- January 1936 to September 1943. March 1909 to June 1912, November 1913 to July 1914, at site 6 miles downstream. June 1926 to December 1935 at site three-quarters of a mile downstream, below intakes of two canals with combined capacity of about 10 second-feet.

Extremes.- Maximum discharge observed during year, 1,060 second-feet Apr. 18 (gage height, 5.05 feet); minimum observed, 0.2 second-foot Oct. 15-31, possibly extending into November.

1909-12, 1913-14, 1926-43: Maximum discharge, 7,000 second-feet (regulated by sudden storage release) May 7, 1942 (gage height, 8.4 feet, from floodmark); maximum unregulated, 5,910 second-feet Mar. 20, 1910; no flow at times; minimum discharge prior to construction of dam, 5 second-feet Dec. 28, 1910, Jan. 25, 27, 1911.

Remarks.- Records good except those for periods July 14 to Sept. 30, which are fair, and those for periods Oct. 16 to Dec. 10, Jan. 3 to Apr. 17, which are poor. Gage read once daily. Flow regulated by Agency Valley Reservoir (see p. 142). Small diversions above station for irrigation; practically entire summer flow is diverted below station and above Juntura.

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

Discharge, in second-feet, water year October 1942 to September 1943.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56			331	257	289	69	455	418	355	214	120
2	56			434	216	289	70	455	392	355	201	120
3	56			438	232	289	72	455	405	355	201	120
4	56			354	232	277	165	555	405	355	149	120
5	56			170	232	277	328	505	405	355	149	120
6	56		1.5	170	232	277	422	505	355	355	149	120
7	56			170	232	277	462	505	355	355	149	120
8	56			160	232	277	525	505	355	355	149	120
9	56			139	232	277	542	490	355	355	149	120
10	56			172	232	277	542	430	355	355	118	97
11	56		44	172	232	277	542	355	355	355	120	97
12	56		54	172	232	277	542	355	355	355	120	116
13	56		54	188	232	277	542	405	355	355	120	121
14	56		54	199	232	199	542	392	355	308	120	133
15	19		54	368	232	221	542	335	355	308	120	133
16	.2	0.5	54	450	232	221	725	318	355	308	120	112
17	.2		54	313	232	102	965	270	358	308	120	96
18	.2		54	313	232	43	1,060	270	355	284	120	96
19	.2		54	177	232	43	1,010	299	355	284	120	96
20	.2		54	210	232	43	950	259	355	284	120	96
21	.2		54	313	232	43	950	316	355	284	120	96
22	.2		54	338	232	43	860	315	355	284	120	96
23	.2		54	362	232	43	695	330	355	284	120	96
24	.2		101	362	238	43	555	342	355	238	120	96
25	.2		138	362	266	43	480	390	355	248	120	96
26	.2		112	362	266	43	480	418	355	254	120	96
27	.2		54	362	266	54	480	442	355	254	120	96
28	.2		54	362	266	57	505	405	355	234	120	96
29	.2		54	362	-	61	505	355	355	234	120	96
30	.2		54	362	-	68	455	392	355	234	120	96
31	.2		189	362	-	69	-	405	-	234	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	806.2	56	0.2	26.0	1,600
November	15.0	-	-	.5	30
December	1,943.0	189	-	62.7	3,850
Calendar year 1942	59,218.7	3,700	.2	162	117,500
January	8,909	450	139	287	17,670
February	6,647	266	216	237	13,180
March	5,075	259	43	164	10,070
April	18,585	1,080	69	553	32,900
May	12,209	555	259	394	24,220
June	10,903	418	355	363	21,630
July	9,461	355	234	305	18,770
August	4,148	214	118	134	8,230
September	3,233	133	96	108	6,410
Water year 1942-43	79,935.2	1,060	.2	219	158,600

Note.- No gage-height record Oct. 16-25, Oct. 25 to Dec. 10; discharge (leakage from reservoir) computed on basis of measurement of Oct. 24 and stage of water in Agency Valley Reservoir.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## South Fork Payette River at Lowman, Idaho

Location.- Water-stage recorder, lat. 44°05', long. 115°37'30", in SW¼ sec. 27, T. 9 N., R. 7 E., four-fifths of a mile upstream from Rock Creek, 1 mile downstream from Clear Creek, and half a mile west of Lowman post office.

Drainage area.- 456 square miles.

Records available.- May 1941 to September 1943.

Extremes.- Maximum discharge during year, 4,860 second-feet May 29 (gage height, 6.53 feet); minimum, 157 second-feet Jan. 18 (gage height, 2.39 feet).  
1941-43: Maximum discharge, that of May 29, 1943; minimum, that of Jan. 18, 1943.

Remarks.- Records good. No regulation. Several small diversions for irrigation and placer mining, the return flow from which enters river above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.5	184	3.6	795	5.2	2,510
2.7	250	4.0	1,165	5.6	3,210
3.0	361	4.4	1,595	6.0	3,880
3.3	572	4.8	2,075	6.5	4,800

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	365	397	572	386	471	598	2,300	4,420	4,170	1,290	a583
2	316	359	381	540	370	469	1,140	2,500	3,990	3,550	1,320	a575
3	316	355	330	455	355	453	1,410	2,600	3,540	3,690	1,280	a567
4	311	334	330	397	355	465	1,330	2,870	2,900	3,890	1,180	a558
5	311	316	344	436	349	465	1,320	2,920	2,620	3,560	1,100	a550
6	311	311	365	391	344	430	1,450	2,640	2,430	3,520	1,060	a542
7	311	311	360	344	344	447	1,770	2,380	2,340	3,640	1,030	533
8	306	370	360	360	339	441	1,930	2,150	2,360	3,760	998	514
9	301	354	344	365	330	419	1,880	2,060	2,610	3,730	970	507
10	297	311	370	344	306	402	1,690	2,080	2,930	3,390	925	501
11	316	297	349	320	349	408	1,690	1,940	3,230	3,150	899	495
12	334	311	334	311	330	408	2,110	1,830	3,390	2,860	863	489
13	325	320	344	344	325	477	2,390	1,730	3,370	2,540	846	483
14	316	355	339	402	334	477	2,580	1,660	3,160	2,360	820	477
15	316	546	334	376	339	447	2,780	1,620	2,900	2,340	812	471
16	311	413	325	334	355	430	2,980	1,550	2,840	2,240	804	471
17	306	361	349	297	365	425	3,110	1,530	3,100	2,130	779	465
18	306	397	334	199	381	402	3,070	1,560	3,800	2,060	763	459
19	301	370	339	221	391	413	3,340	1,690	4,650	2,050	739	459
20	297	316	355	320	397	361	3,230	1,890	4,260	2,010	723	453
21	297	301	370	436	419	386	3,060	2,100	3,980	2,040	700	453
22	297	355	355	648	471	397	2,780	2,470	4,190	2,200	678	447
23	297	365	349	540	471	402	2,580	2,860	4,010	2,090	663	441
24	292	641	355	520	465	425	2,560	3,420	3,660	1,930	648	436
25	297	514	355	459	441	459	2,420	3,570	3,640	1,840	641	430
26	297	419	271	441	436	546	2,230	3,800	3,620	1,770	a632	430
27	301	447	325	425	447	613	2,040	4,010	3,760	1,750	a624	459
28	292	413	425	419	471	739	2,150	4,440	3,920	1,640	a616	441
29	297	413	402	402	-	961	2,240	4,740	4,110	1,510	a607	430
30	297	419	386	391	-	998	2,130	4,760	4,130	1,390	a599	425
31	306	-	430	339	-	880	-	4,630	-	1,310	a591	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	9,498	334	292	306	0.671	0.77	18,840
November	11,339	641	297	378	.829	.92	22,490
December	11,006	430	271	355	.779	.90	21,830
Calendar year 1942	265,329	3,200	259	721	1.58	21.47	522,300
January	12,357	648	199	399	.875	1.01	24,510
February	10,665	471	306	351	.836	.87	21,150
March	15,526	998	361	501	1.10	1.27	30,800
April	66,278	3,340	898	2,209	4.84	5.41	131,500
May	82,290	4,760	1,530	2,655	5.82	6.71	163,200
June	103,400	4,550	2,340	3,447	7.56	8.43	205,100
July	80,620	4,170	1,310	2,601	5.70	6.58	159,900
August	26,190	1,320	591	845	1.85	2.14	51,950
September	14,544	582	425	485	1.06	1.19	28,650
Water year 1942-43	443,713	4,760	199	1,216	2.67	36.20	880,100

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## PAYETTE RIVER BASIN

South Fork Payette River near Gárdén Valley, Idaho

Location.- Water-stage recorder, lat. 44°04', long. 115°56', in sec. 1, T. 8 N., R. 4 E., at Gárdén Valley ranger station, 300 feet upstream from Station Creek, 2.7 miles south-east of Gárdén Valley, and 5.9 miles upstream from Middle Fork Payette River.

Drainage area.- 779 square miles.

Records available.- May 1921 to September 1943.

Average discharge.- 19 years (1924-43), 1,201 second-feet.

Extremes.- Maximum discharge during year, 8,670 second-feet June 1 (gage height, 6.83 feet); minimum daily, 270 second-feet Jan. 19; minimum gage height, 1.34 feet Nov. 21. 1921-43: Maximum discharge observed, 10,600 second-feet May 26, 1928 (gage height, 8.0 feet); minimum, 75 second-feet Dec. 15, 1935, Jan. 26, 1936 (gage height, 0.70 foot), from rating curve extended below 280 second-feet; minimum daily, 217 second-feet Jan. 26, 1936.

Remarks.- Records excellent except those for April, July, August, and September, which are good, and those for periods of ice effect, which are fair. Practically no diversions above station. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 152). Slight regulation by Grimes Pass power plant prior to July 7, when diversion dam failed.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	419	773	581	1,050	562	728	1,570	3,790	8,460	6,390	1,800	1,150
2	419	758	555	1,030	594	705	1,960	4,160	7,780	6,050	1,800	1,140
3	419	750	472	797	555	676	2,550	4,320	6,670	6,010	1,750	1,150
4	516	742	430	648	542	705	3,010	4,720	5,810	6,090	1,620	1,120
5	663	712	442	648	536	712	3,060	4,680	5,320	5,660	1,530	1,100
6	663	466	496	627	529	648	3,170	4,360	4,830	5,490	1,500	1,110
7	705	414	472	556	516	662	3,740	3,890	4,580	5,660	1,590	1,150
8	690	490	464	548	516	669	4,150	3,460	4,590	5,390	1,530	1,160
9	712	484	472	529	503	634	4,060	3,290	4,850	5,260	1,260	1,210
10	750	419	516	496	460	594	3,810	3,340	5,220	4,880	1,230	1,200
11	950	396	496	460	503	607	3,650	3,110	5,620	4,560	1,210	1,200
12	976	392	472	442	510	600	4,340	2,950	5,890	4,110	1,200	1,200
13	968	414	466	b500	490	698	4,540	2,800	5,930	3,690	1,170	1,210
14	576	448	*472	555	496	813	4,380	2,690	5,740	3,410	1,130	1,260
15	419	773	472	542	510	728	4,790	2,620	5,470	3,290	1,120	1,260
16	408	614	442	510	522	690	5,240	2,520	5,340	3,080	1,130	1,260
17	408	529	466	b400	548	662	5,200	2,460	5,530	2,900	1,130	1,250
18	402	548	460	b500	568	614	5,090	2,520	6,290	2,810	1,200	1,250
19	402	516	442	b270	568	634	5,700	2,710	7,320	2,800	1,190	1,250
20	392	424	460	b400	594	588	5,450	3,020	7,130	2,780	1,180	1,250
21	392	353	503	b600	627	581	5,220	3,300	6,690	2,700	1,220	1,250
22	392	448	496	b1,100	720	614	4,810	3,890	6,900	2,840	1,220	1,250
23	402	510	490	993	750	614	4,430	4,400	6,650	2,690	1,210	1,260
24	386	828	522	877	735	634	4,380	5,300	6,190	2,650	1,200	1,320
25	396	758	522	*758	698	698	4,100	5,620	5,910	2,460	1,200	1,310
26	386	574	430	750	676	837	3,770	6,270	5,890	2,370	1,190	1,310
27	402	607	408	720	690	993	3,410	6,880	5,970	2,320	1,170	1,380
28	402	594	568	669	720	1,200	3,530	7,800	6,150	2,230	1,160	1,530
29	386	581	627	627	-	1,570	3,970	6,390	6,330	2,090	1,150	1,520
30	392	648	574	620	-	1,730	3,650	8,510	6,360	1,970	1,160	1,650
31	662	-	676	529	-	1,690	-	8,530	-	1,860	1,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	16,485	976	396	532	32,700
November.....	16,953	828	353	565	33,630
December.....	15,384	676	408	496	30,510
Calendar year 1942.....	447,345	5,660	353	1,226	887,300
January.....	19,531	1,100	270	630	38,740
February.....	16,258	750	460	581	32,250
March.....	24,428	1,730	581	788	48,450
April.....	120,650	5,700	1,570	4,021	239,300
May.....	136,490	8,530	2,460	4,403	270,700
June.....	151,400	8,460	4,580	6,047	359,800
July.....	116,390	6,390	1,860	3,755	230,800
August.....	40,340	1,800	1,120	1,301	80,010
September.....	37,640	1,630	1,100	1,255	74,660
Water year 1942-43.....	741,929	8,530	270	2,033	1,472,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## South Fork Payette River near Banks, Idaho

Location.- Water-stage recorder, lat. 44°05'30", long. 116°06', in sec. 28, T. 9 N., R. 3 E., 1 mile upstream from North Fork Payette River and 1½ miles northeast of Banks.

Drainage area.- 1,200 square miles.

Records available.- August 1921 to September 1943.

Average discharge.- 22 years, 1,605 second-feet.

Extremes.- Maximum discharge during year, 11,800 second-feet June 1 (gage height, 10.28 feet); minimum, 381 second-feet Jan. 18, 19 (gage height, 0.28 foot).  
1921-43: Maximum discharge, 13,800 second-feet May 17, 1927 (gage height, 10.6 feet, from floodmarks); minimum, about 225 second-feet Dec. 15, 1935, Jan. 28, 1936, Dec. 26, 1939.

Remarks.- Records excellent except those for July 10 to Aug. 12, which are good. Small diversions above station for irrigation. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 152). Slight regulation by Grimes Pass power plant prior to July 7, when diversion dam failed.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Dec. 31, July 14-31,  
Aug. 9 to Sept. 27)

0.3	390	1.5	1,050	5.0	4,150
.5	485	2.0	1,380	6.0	5,390
.7	588	3.0	2,180	8.0	8,210
1.0	750	4.0	3,100	10.2	11,500

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	918	878	1,950	858	1,220	3,440	6,240	11,500	7,480	2,060	1,230
2	500	948	904	1,920	930	1,200	4,290	6,850	10,900	7,090	1,970	1,200
3	500	934	868	1,420	864	1,150	5,270	6,840	9,440	6,820	1,940	1,220
4	560	900	580	1,110	846	1,190	5,660	7,350	8,200	7,040	1,820	1,200
5	756	840	618	1,060	822	1,180	5,490	7,570	7,550	6,480	1,750	1,180
6	762	634	684	990	822	1,050	5,660	6,690	6,620	6,180	al,700	1,180
7	792	555	662	834	810	1,110	5,860	5,940	6,280	6,400	al,750	1,210
8	774	690	668	774	810	1,080	5,000	5,230	6,070	6,370	al,700	1,210
9	804	875	846	804	768	1,040	7,920	4,970	6,400	6,230	hl,560	1,280
10	816	565	712	774	708	966	6,940	4,990	6,630	5,760	hl,480	1,280
11	1,030	510	712	673	756	978	6,480	4,570	7,340	5,230	al,400	1,260
12	1,120	520	556	646	774	984	7,640	4,260	7,630	4,850	1,380	1,250
13	1,080	545	656	684	762	1,210	8,450	4,020	7,630	4,370	1,320	1,250
14	764	607	662	810	762	1,580	8,540	3,840	7,400	4,000	1,290	1,330
15	540	1,090	646	804	762	1,380	9,140	3,720	6,870	3,810	1,270	1,320
16	520	906	624	750	780	1,270	9,660	3,560	6,480	3,610	1,280	1,310
17	515	739	618	646	828	1,210	9,630	3,460	6,690	3,390	1,250	1,310
18	510	786	629	460	858	1,110	9,260	3,500	7,640	3,240	1,340	1,300
19	510	744	585	417	894	1,120	10,000	3,740	8,780	3,150	1,310	1,310
20	510	612	575	612	918	1,020	9,660	4,150	8,620	3,120	1,270	1,310
21	505	485	668	972	984	1,010	9,170	4,560	7,650	3,070	1,330	1,310
22	505	596	864	1,940	1,130	1,050	8,500	5,380	5,090	3,140	1,330	1,300
23	510	700	675	1,860	1,280	1,080	7,750	5,970	7,380	3,120	1,310	1,300
24	500	1,060	744	1,590	1,230	1,170	7,520	7,220	7,400	2,950	1,290	1,370
25	500	1,110	774	1,330	1,160	1,290	6,960	7,760	7,040	2,800	1,280	1,360
26	500	792	618	1,250	1,120	1,610	6,470	8,450	6,980	2,660	1,260	1,350
27	515	610	530	1,200	1,150	2,050	5,700	8,990	7,050	2,580	1,240	1,420
28	530	840	762	1,100	1,200	2,680	5,860	9,930	7,840	2,470	1,230	1,610
29	505	804	912	1,020	-	3,450	6,660	10,700	7,420	2,560	1,210	1,600
30	515	984	816	972	-	3,570	6,150	10,900	7,470	2,230	1,250	1,750
31	744	-	1,110	846	-	3,320	-	11,200	-	2,130	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	19,707	1,120	500	636	39,090
November.....	22,862	1,110	485	762	45,350
December.....	21,577	1,110	575	696	48,600
Calendar year 1942.....	610,499	7,500	485	1,673	1,211,000
January.....	32,278	1,980	417	1,041	64,020
February.....	25,594	1,260	708	914	50,780
March.....	45,508	3,570	966	1,462	98,870
April.....	218,710	10,000	3,440	7,290	433,200
May.....	192,330	11,200	3,460	6,204	381,500
June.....	229,280	11,600	6,070	7,643	454,800
July.....	134,230	7,480	2,130	4,330	265,200
August.....	44,820	2,050	1,210	1,446	88,900
September.....	39,520	1,780	1,160	1,317	76,390
Water year 1942-43.....	1,026,216	11,600	417	2,612	2,035,000

a No gage-height record; discharge computed on basis of records for station near Garden Valley.  
h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## PAYETTE RIVER BASIN

Payette River near Horseshoe Bend, Idaho

Location.— Water-stage recorder, lat. 43°56', long. 116°11'30", in SW¼ sec. 14, T. 7 N., R. 2 E., 100 feet east of tracks of Idaho Northern branch of Oregon Short Line Railroad and 1½ miles north of Horseshoe Bend. Datum of gage is 2,623.5 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.— 2,230 square miles.

Records available.— November 1912 to September 1916, July 1919 to September 1943. February 1908 to November 1912 at site 2 miles upstream.

Average discharge.— 32 years (1907-15, 1919-43), 3,017 second-feet.

Extremes.— Maximum discharge during year, 20,000 second-feet June 2 (gage height, 9.14 feet); minimum, 698 second-feet Oct. 3 (gage height, 0.91 foot).

1906-16, 1919-43: Maximum discharge, 22,100 second-feet June 9, 1921 (gage height, 9.57 feet); minimum, 350 second-feet Dec. 17, 1935 (gage height, 0.26 foot), from rating curve extended below 600 second-feet.

Remarks.— Records excellent except those for periods of ice effect and those for Apr. 20 to June 1, which are good. Flow regulated by Deadwood Reservoir (see p. 152), Payette Lake (see p. 155), and Lake Fork Reservoir (see p. 161). Several diversions from tributaries above station for irrigation.

Rating tables, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31

Apr. 1 to Sept. 30

0.9	690	3.0	3,230	1.7	1,460	3.5	4,110	7.0	13,000
1.2	940	3.6	4,120	2.0	1,610	4.0	5,080	8.0	16,200
1.6	1,350	4.0	5,090	2.5	2,490	5.0	7,330	9.1	19,900
2.0	1,790	4.6	6,560	3.0	3,250	6.0	10,000		
2.6	2,450								

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	746	1,240	1,690	3,120	1,830	2,040	6,360	11,600	19,700	12,000	2,640	1,620
2	746	1,360	1,680	3,460	1,810	2,000	8,020	11,600	19,500	11,600	2,610	1,590
3	714	1,300	1,290	2,780	1,800	1,950	9,960	11,800	18,400	11,200	2,620	1,610
4	730	1,320	1,090	2,370	1,760	1,950	10,900	12,300	17,000	11,500	2,460	1,560
5	994	1,230	1,090	2,240	1,660	1,960	11,000	12,600	15,200	10,900	2,310	1,630
6	994	1,030	1,140	2,100	1,650	1,800	10,500	11,800	13,400	10,500	2,240	1,500
7	1,000	886	1,010	1,900	1,620	1,850	12,100	10,900	12,100	10,600	2,340	1,550
8	1,000	1,060	1,070	1,730	1,630	1,810	14,300	9,940	11,200	10,400	2,270	1,550
9	1,000	1,160	1,080	1,690	1,570	1,790	14,900	9,400	11,000	10,000	2,000	1,610
10	1,040	1,040	1,160	1,650	1,470	1,690	13,100	9,180	11,400	9,420	2,360	1,590
11	1,240	931	1,200	1,500	1,620	1,710	12,200	8,590	11,900	8,720	3,630	1,570
12	1,370	869	1,160	1,440	1,510	1,690	13,600	7,940	12,800	8,020	3,770	1,660
13	1,410	868	bl,130	1,420	1,500	2,070	15,100	7,460	12,600	7,180	3,280	1,560
14	1,210	922	bl,150	1,560	1,610	2,560	15,800	7,080	12,400	6,530	2,900	1,610
15	868	1,590	bl,130	1,670	1,540	2,310	16,700	6,790	12,100	6,100	2,600	1,610
16	818	1,860	bl,100	1,500	1,660	2,200	17,500	6,460	11,700	5,600	2,410	1,590
17	802	1,530	bl,100	bl,100	1,600	2,120	17,600	6,260	11,700	5,000	2,200	1,580
18	786	1,470	bl,100	1,900	1,620	1,960	17,100	6,160	12,600	4,620	2,170	1,670
19	778	1,560	1,070	1,950	1,660	1,960	17,700	6,440	13,900	4,430	2,060	1,580
20	762	1,170	1,040	bl,100	1,690	1,840	17,400	6,960	14,200	4,300	1,970	1,580
21	786	895	1,140	1,910	1,770	1,810	16,900	7,660	13,600	4,170	1,960	1,580
22	770	949	1,230	*2,690	2,080	1,850	16,400	8,630	15,000	4,800	1,900	1,690
23	738	1,170	1,220	2,860	2,130	1,890	15,100	9,750	13,600	4,220	1,850	1,670
24	722	1,620	1,460	2,600	2,100	1,940	14,400	11,200	12,900	4,000	1,800	1,640
25	738	2,180	1,430	2,410	2,010	2,140	13,300	12,100	12,800	4,000	1,750	1,630
26	746	1,610	1,140	2,370	1,960	2,570	12,700	13,100	11,900	3,750	1,710	1,610
27	770	1,510	986	2,340	1,980	3,230	11,600	14,200	11,500	3,700	1,680	1,620
28	794	1,360	1,270	2,230	2,010	4,160	11,400	15,600	11,600	3,480	1,570	1,580
29	770	1,530	1,500	2,120	-	5,500	12,600	16,600	11,800	3,230	1,680	1,560
30	786	1,540	1,690	2,010	-	6,160	12,000	17,400	12,000	2,770	1,620	2,000
31	976	-	2,200	1,860	-	6,070	-	18,400	-	2,760	1,630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	27,604	1,410	714	890	54,750
November.....	38,820	2,180	859	1,294	77,000
December.....	38,835	2,200	985	1,253	77,030
Calendar year 1942.....	1,082,789	14,100	714	2,967	2,148,000
January.....	61,650	3,450	900	1,989	122,300
February.....	48,640	2,130	1,470	1,737	96,480
March.....	76,870	6,160	1,690	2,473	156,100
April.....	408,230	17,700	6,350	13,610	809,700
May.....	326,500	18,400	6,160	10,530	647,600
June.....	399,100	19,700	11,000	13,300	791,600
July.....	209,200	12,000	2,760	6,748	414,900
August.....	69,880	3,770	1,570	2,254	138,600
September.....	48,460	2,000	1,500	1,615	96,120
Water year 1942-43.....	1,753,589	19,700	714	4,804	3,478,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Payette River near Emmett, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 116°27', in sec. 22, T. 7 N., R. 1 W., three-eighths of a mile downstream from Black Canyon Dam and 5 miles north-east of Emmett.

Records available.- June 1925 to September 1943.

Average discharge.- 18 years, 2,868 second-feet.

Extremes.- Maximum discharge during year, 21,800 second-feet June 1 (gage height, 12.35 feet); minimum, 348 second-feet (regulated) Aug. 30 (gage height, 2.03 feet); minimum daily, 489 second-feet Oct. 22.  
1925-43: Maximum discharge, 22,800 second-feet May 1, 1938 (gage height, 12.90 feet); minimum daily, 3 second-feet Jan. 10-14, Feb. 2, 22-25, 1938, when gates in dam were closed.

Remarks.- Records good. Diversions above station for irrigation. Flow regulated by diversion at and operation of gates in Black Canyon Dam and by Deadwood Reservoir (see p. 152), Payette Lake (see p. 155), and Lake Fork Reservoir (see p. 161).

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	641	1,190	2,460	5,340	e2,220	2,020	7,380	e12,000	21,300	11,200	1,770	981
2	641	1,220	2,170	5,700	e2,420	2,120	9,000	e12,200	21,000	10,800	1,730	992
3	641	1,220	1,790	4,490	2,220	1,670	11,200	12,000	19,500	10,300	1,940	992
4	632	1,240	1,380	3,850	2,220	2,700	12,200	12,800	17,700	10,500	1,580	991
5	632	1,240	1,360	3,830	2,100	2,100	12,200	13,600	15,600	10,100	1,490	948
6	632	1,100	1,380	2,740	2,030	835	11,700	12,200	13,600	9,980	1,370	893
7	632	915	1,320	2,480	2,030	770	14,200	11,200	12,000	9,880	1,380	915
8	632	988	1,340	2,240	2,100	1,190	15,900	10,300	11,000	9,640	1,440	937
9	641	1,300	1,400	2,160	1,960	2,540	17,700	9,640	10,500	9,420	1,310	937
10	650	1,230	1,470	2,030	1,780	2,220	15,000	9,210	11,000	8,790	1,370	959
11	650	1,220	1,500	1,900	1,900	2,220	13,600	8,790	11,500	7,980	2,630	926
12	650	1,070	1,480	1,710	1,900	2,220	15,000	7,980	11,700	7,380	3,020	926
13	652	1,100	1,470	1,700	1,960	4,580	17,100	7,560	12,200	6,620	2,460	948
14	670	1,280	1,440	1,710	1,960	3,120	18,000	7,190	12,200	5,880	2,070	948
15	660	1,260	1,420	1,840	1,960	3,320	19,200	6,810	11,700	5,520	1,740	948
16	641	1,990	1,350	1,780	2,030	3,110	19,800	6,620	11,500	5,000	1,590	1,000
17	632	1,970	1,310	1,460	2,030	2,900	19,800	6,240	11,200	4,330	1,320	991
18	594	1,920	1,320	e959	2,100	2,690	19,200	6,240	12,000	3,930	1,350	991
19	574	1,710	1,270	e1,080	2,160	2,620	19,200	6,430	13,900	3,850	1,300	1,000
20	566	1,610	1,120	e1,480	2,290	2,420	19,800	7,000	14,400	3,560	1,170	1,020
21	527	1,360	1,210	3,180	2,360	2,360	16,600	7,960	13,900	3,480	1,170	1,040
22	489	1,090	1,440	5,820	3,360	2,420	18,300	9,000	13,900	3,560	1,140	1,060
23	556	1,330	1,910	5,000	3,150	2,360	16,200	10,100	13,900	3,480	1,140	1,010
24	584	1,420	2,500	4,090	3,010	2,420	15,300	11,700	12,800	3,400	1,060	1,060
25	584	2,740	3,180	3,780	2,770	2,690	13,900	12,800	11,700	3,250	1,060	1,160
26	574	1,970	2,620	3,480	2,750	3,250	13,300	13,900	11,200	3,110	1,060	1,110
27	590	1,990	1,420	e3,400	2,640	4,330	12,000	15,000	10,800	2,970	992	1,060
28	770	1,850	1,910	e3,180	2,720	5,340	11,200	16,800	11,000	2,900	937	1,340
29	770	2,090	2,140	e2,630	-	7,000	13,300	17,700	11,200	2,480	871	1,300
30	740	2,580	2,700	e2,690	-	7,580	e12,500	18,600	11,200	2,160	840	1,430
31	893	-	4,330	e2,220	-	7,380	-	19,500	-	1,960	1,000	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	19,800	693	489	639	39,270
November.....	45,021	2,740	915	1,501	69,300
December.....	55,120	4,330	1,120	1,776	109,300
Calendar year 1942 .....	1,066,299	15,000	489	2,927	2,119,000
January.....	89,349	5,700	959	2,882	177,200
February.....	64,130	3,360	1,760	2,290	127,200
March.....	94,695	7,580	770	3,055	187,800
April.....	451,780	19,800	7,360	15,060	896,100
May.....	339,110	19,500	6,240	10,940	672,600
June.....	397,100	21,300	10,500	13,240	787,600
July.....	187,250	11,200	1,960	6,040	371,400
August.....	45,200	3,020	840	1,468	89,650
September.....	50,785	1,430	893	1,026	61,060
Water year 1942-43 .....	1,619,338	21,300	489	4,964	3,508,000

e Discharge computed from average of hourly readings of long-distance indicator at Black Canyon Dam furnished by Bureau of Reclamation.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## PAYETTE RIVER BASIN

Payette River near Payette, Idaho

Location.-- Water-stage recorder, lat. 44°02'30", long. 116°55'30", in SW¼ sec. 10, T. 8 N., R. 5 W., at highway bridge, 1½ miles south of Payette.

Records available.-- August 1935 to September 1943. January 1895 to July 1897 (incomplete) at site 2 miles downstream.

Extremes.-- Maximum discharge during year, 21,000 second-feet June 2 (gage height, 11.37 feet); minimum, 538 second-feet Oct. 10 (gage height, 3.48 feet); minimum daily, 555 second-feet Oct. 6-10.

1935-43: Maximum discharge observed, 23,400 second-feet May 2, 1938 (gage height, 11.90 feet); minimum, 180 second-feet Oct. 13, 20, 1935 (gage height, 2.04 feet); minimum daily, 220 second-feet Oct. 5, 1935.

Remarks.-- Records good. Many diversions above station for irrigation. Flow regulated by Black Canyon Dam and reservoirs on tributary streams.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 1				June 2 to Sept. 30			
3.5	555	6.5	4,840	3.6	555	6.5	3,015
3.7	740	7.1	6,130	4.0	990	6.0	3,830
4.0	1,040	7.7	7,660	4.6	1,690	6.6	4,780
4.3	1,400	8.3	9,390	5.0	2,270	7.1	6,130
4.6	1,770	9.0	11,650	Note.-- Same as preceding table above 7.1 feet.			
5.0	2,310	9.7	14,150				
5.5	3,060	10.5	17,260				
6.0	3,900	11.3	20,580				

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	645	1,300	2,820	5,900	2,600	3,060	7,930	12,000	19,300	10,600	1,590	695
2	591	1,570	2,760	6,960	2,750	1,880	8,790	11,600	20,600	11,000	1,540	695
3	573	1,620	2,380	6,460	2,680	2,680	10,600	11,800	19,700	10,800	1,500	705
4	573	1,620	1,840	4,360	2,650	2,170	12,000	12,000	15,100	10,800	1,500	705
5	564	1,640	1,840	4,720	2,600	3,300	12,300	12,700	16,600	10,800	1,350	695
6	555	1,460	1,630	3,300	2,520	1,320	12,300	12,000	14,200	9,700	1,200	675
7	555	1,290	1,700	2,900	2,680	1,010	12,700	11,000	12,700	9,700	1,150	637
8	555	1,240	1,640	2,680	2,820	1,140	14,900	10,000	11,800	9,700	1,150	656
9	555	1,420	1,700	2,580	2,520	2,600	16,100	9,090	10,600	9,090	1,170	685
10	555	1,610	1,840	2,460	2,310	2,680	16,900	8,790	10,600	7,930	1,020	695
11	609	1,530	1,840	2,310	2,240	2,450	14,500	9,210	11,300	7,930	1,440	715
12	674	1,400	1,770	2,100	2,310	2,520	14,500	7,650	11,600	7,560	2,490	695
13	664	1,320	1,770	1,960	2,520	3,140	16,500	6,860	12,000	6,610	2,340	715
14	654	1,460	1,770	2,030	2,520	4,640	17,700	6,610	12,000	5,780	1,860	725
15	654	1,360	1,770	2,170	2,520	4,170	18,500	6,130	12,000	5,210	1,660	725
16	654	1,840	1,700	2,100	2,520	3,640	19,300	6,130	11,300	4,980	1,370	745
17	645	2,350	1,640	2,240	2,520	3,460	19,300	5,670	11,000	4,190	1,220	796
18	645	2,170	1,630	1,640	2,520	3,300	18,900	5,360	11,000	3,740	1,040	796
19	627	2,100	1,690	1,360	2,520	2,960	18,500	5,460	12,700	3,410	1,010	766
20	636	1,840	1,470	1,700	2,750	2,980	19,300	5,790	13,600	3,330	979	806
21	636	1,590	1,460	4,900	2,820	2,750	18,500	6,370	13,400	3,170	870	848
22	636	1,400	1,630	6,860	3,810	2,820	16,100	7,380	13,000	3,090	870	848
23	609	1,440	2,460	6,130	4,170	2,750	16,900	8,600	13,400	3,170	828	848
24	627	1,460	3,640	4,940	3,550	2,750	15,300	9,700	12,700	3,170	775	859
25	645	2,540	4,450	4,170	3,300	2,900	14,500	11,000	11,600	2,940	715	924
26	654	2,520	3,550	4,080	3,220	3,390	13,800	12,000	11,000	3,020	695	1,030
27	654	2,310	2,380	3,640	3,060	4,280	12,300	13,000	10,600	2,640	666	990
28	770	2,380	2,100	3,640	3,140	5,460	11,300	14,200	10,600	2,660	637	990
29	960	2,170	2,750	3,300	-	6,610	12,700	15,300	11,000	2,340	605	1,260
30	920	3,300	2,820	3,140	-	7,930	12,700	16,500	11,000	2,130	599	1,260
31	960	-	6,250	2,520	-	8,210	-	16,900	-	1,660	599	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	20,254	980	555	653	40,170
November	52,860	3,240	1,240	1,782	104,800
December	69,270	5,360	1,460	2,235	137,400
Calendar year 1942	1,066,234	14,500	360	2,921	2,115,000
January	107,380	6,860	1,380	3,464	213,000
February	78,170	4,170	2,240	2,792	186,000
March	108,140	8,210	1,010	3,592	208,500
April	449,680	19,500	7,930	14,990	891,800
May	305,400	16,900	5,360	9,852	606,800
June	391,200	20,600	10,600	13,040	775,900
July	182,330	11,000	1,660	5,682	361,600
August	36,441	2,490	599	1,176	72,260
September	24,194	1,260	637	806	47,990
Water year 1942-43	1,822,259	20,600	555	4,992	3,614,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Clear Creek at Lowman, Idaho

Location.- Staff gage, lat. 44°05', long. 115°37', SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 9 N., R. 7 E., 200 feet upstream from mouth and 350 feet downstream from highway bridge at Lowman.

Drainage area.- 59.6 square miles.

Records available.- May 1941 to September 1943.

Extremes.- Maximum discharge observed during year, 754 second-feet May 31 (gage height, 5.32 feet); minimum daily discharge, 25 second-feet Jan. 18, 1941-43. Maximum discharge observed, that of May 31, 1943; maximum gage height observed, 6.10 feet, Jan. 9, 10, 1942, ice jam; minimum daily discharge, that of Jan. 18, 1943.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage usually read twice daily. Feeder canal for small power plant diverts 1 mile above gage; water is returned to creek above station except that used for irrigation of small pasture adjacent to Lowman.

Rating tables, water year 1942-43, except periods of ice effect (gage-height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 6

Jan. 7 to Sept. 30

2.0	26	2.8	83
2.2	37	3.0	104
2.4	50	3.3	145
2.6	65		

2.0	33	3.5	193
2.2	44	4.0	288
2.5	66	4.5	420
2.8	96	5.0	610
3.1	133	5.4	790

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	30	40	69	40	55	134	396	709	469	98	50
2	32	30	40	63	40	56	162	427	632	444	86	50
3	32	29	35	51	40	55	188	444	550	414	89	50
4	31	29	35	51	40	52	180	476	498	390	68	48
5	31	29	35	49	40	49	182	476	414	372	97	48
6	31	29	35	44	40	50	196	414	391	335	79	47
7	31	29	35	40	35	51	232	360	355	312	79	45
8	30	30	35	40	35	52	275	325	363	315	77	45
9	30	30	35	40	35	50	257	312	414	278	77	45
10	31	*32	35	35	35	51	243	308	455	278	73	44
11	30	33	35	35	35	54	236	280	506	259	73	43
12	30	33	35	35	35	55	297	263	526	247	70	42
13	30	34	*35	35	35	54	369	259	506	232	68	42
14	30	33	35	40	35	52	393	249	486	212	68	42
15	30	36	34	40	40	48	430	234	424	202	67	41
16	30	35	35	40	40	50	486	230	414	193	65	42
17	30	35	35	35	40	50	486	239	510	180	63	41
18	30	35	35	25	40	50	506	257	570	172	62	41
19	30	35	35	35	45	50	550	290	606	162	61	40
20	31	30	35	40	47	50	514	335	558	156	60	39
21	32	30	35	50	51	50	538	372	538	152	58	40
22	30	35	40	70	51	50	a491	434	570	144	55	40
23	30	40	40	65	52	53	444	480	566	137	54	39
24	30	42	40	60	48	55	417	502	514	133	54	39
25	31	42	40	55	48	57	355	514	498	128	54	39
26												
28	32	42	35	*52	47	61	352	558	486	124	52	39
27	32	45	40	45	50	70	320	586	462	110	51	39
28	32	42	45	45	50	114	360	655	483	106	50	38
29	32	51	45	40	-	*130	360	691	468	104	48	38
30	30	42	45	40	-	132	358	696	476	101	50	37
31	30	-	63	40	-	126	-	750	-	101	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-foot
October	953	32	30	30.7	0.515	0.59	1,890
November	1,047	51	29	34.9	1.586	.65	2,080
December	1,177	63	34	38.0	1.638	.73	2,350
Calendar year 1942	30,897	472	-	84.6	1.42	19.24	61,200
January	1,399	70	25	45.1	.757	.87	2,770
February	1,176	57	35	42.0	.705	.73	2,330
March	1,932	132	48	62.3	1.05	1.21	3,830
April	10,311	550	134	344	5.77	6.43	20,450
May	12,812	750	230	413	6.93	7.99	25,410
June	14,956	709	355	499	8.37	9.33	29,660
July	6,952	469	101	225	3.78	4.34	13,610
August	2,097	98	48	66.7	1.12	1.29	4,100
September	1,273	50	37	42.4	.711	.79	2,520
Water year 1942-43	56,065	750	25	154	2.58	34.95	111,200

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.- Stage-discharge relation affected by ice Nov. 16-23, Dec. 2-13, 16-30, Jan. 7 to Feb. 2, Feb. 4-19, Mar. 17-22.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Deadwood Reservoir near Lowman, Idaho

Location.- Staff gage, lat. 44°18', long. 115°39', in SE $\frac{1}{4}$  sec. 8, T. 11 N., R. 7 E., at dam on Deadwood River, 15 miles north of Lowman. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.- 108 square miles.

Records available.- October 1935 to September 1943.

Extremes.- Maximum elevation observed during year, 5,337.1 feet June 1, 2; minimum observed, 5,305.7 feet Nov. 5.

1935-43: Maximum elevation observed, that of June 1, 2, 1943; minimum observed, 5,260.1 feet Oct. 1, 1935.

Remarks.- Reservoir is formed by concrete-arch dam, completed in 1930; storage began Nov. 2, 1930. Reported capacity 160,400 acre-feet between elevations 5,230.0 feet (minimum operating level because of fish protection, 27 feet above sill of emergency gate in front of needle valve) and 5,334.0 feet (crest of spillway). Storage below elevation 5,230.0 feet, about 1,500 acre-feet. Water is used to augment flow of Payette River at Black Canyon power plant near Emmett. During late fall of 1936, Bureau of Reclamation cut a transmountain canal to divert a small flow of water from a tributary of Johnson Creek in Salmon River Basin to Deadwood River Basin for supplemental storage in Deadwood Reservoir. Discharge measurements or field estimates made on June 12, July 13, and Sept. 6, 1943, indicate flow in this canal of 25, 12.6, and 1.5 second-feet, respectively. Gage read once daily.

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

Elevation, in feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308.8	306.4	308.1	310.5	313.1	314.8	316.7	322.5	337.1	336.2	334.75	332.25
2	308.85	306.25	308.2	310.8	313.15	314.85	316.7	323.0	337.1	336.2	334.7	332.1
3	308.9	306.1	308.25	310.85	313.2	314.9	316.8	323.5	337.1	336.2	334.7	332.0
4	308.8	306.9	308.3	310.9	313.3	314.95	316.3	324.1	336.6	336.15	334.7	331.85
5	308.7	306.7	308.35	310.95	313.4	315.0	315.8	324.7	336.45	336.1	334.65	331.65
6	308.5	305.75	308.4	311.0	313.5	315.05	315.3	325.4	336.3	336.05	334.65	331.35
7	308.15	305.8	308.5	311.0	313.6	315.1	314.8	326.0	336.15	336.0	334.5	331.2
8	308.0	305.9	308.6	311.05	313.65	315.2	314.3	326.5	336.05	336.0	334.35	330.95
9	307.7	306.0	308.7	311.05	313.65	315.3	313.7	326.9	336.05	336.0	334.35	330.7
10	307.4	306.05	308.9	311.1	313.7	315.35	313.2	327.4	336.1	335.95	334.35	330.4
11	307.0	306.1	309.1	311.1	313.75	315.4	312.7	327.8	336.2	335.85	334.4	330.1
12	306.6	306.15	309.15	311.15	313.8	315.45	312.2	328.2	336.3	335.75	334.4	329.8
13	306.2	306.2	309.2	311.2	313.9	315.55	311.8	328.6	336.3	335.6	334.45	329.5
14	306.1	306.25	309.25	311.25	314.0	315.65	312.2	328.9	336.3	335.5	334.45	329.15
15	306.15	306.4	309.25	311.3	314.05	315.7	312.8	329.2	336.2	335.45	334.45	328.8
16	306.2	306.5	309.25	311.5	314.1	315.75	313.3	329.5	336.2	335.4	334.45	328.45
17	306.25	306.6	309.3	311.6	314.15	315.8	314.0	329.9	336.2	335.35	334.45	328.1
18	306.3	306.8	309.3	311.65	314.2	315.85	314.6	330.2	336.25	335.3	334.35	327.7
19	306.35	306.9	309.3	311.65	314.25	315.9	315.3	330.6	336.4	335.2	334.25	327.3
20	306.4	306.95	309.35	311.7	314.3	315.95	316.2	331.0	336.55	335.2	334.2	326.9
21	306.45	307.0	309.35	312.2	314.35	316.0	317.0	331.5	336.4	335.15	334.0	326.5
22	306.5	307.05	309.4	312.4	314.4	316.05	317.7	332.1	336.4	335.1	333.9	326.1
23	306.55	307.1	309.45	312.5	314.5	316.1	318.4	332.9	336.4	335.05	333.7	325.75
24	306.6	307.3	309.6	312.5	314.55	316.15	318.9	332.85	336.3	335.0	333.55	325.35
25	306.65	307.4	309.8	312.6	314.6	316.25	319.5	334.7	336.2	335.0	333.4	324.9
26	306.7	307.5	309.85	312.65	314.65	316.35	320.1	335.4	336.2	334.95	333.25	324.45
27	306.75	307.7	309.9	312.7	314.7	316.4	320.6	336.0	336.2	334.9	333.1	324.0
28	306.8	307.8	310.0	312.8	314.75	316.45	321.0	336.3	336.2	334.85	332.95	323.4
29	306.85	307.9	310.1	312.9	-	316.5	321.5	336.6	336.2	334.8	332.8	322.7
30	306.9	308.0	310.2	313.0	-	316.55	322.0	336.75	336.2	334.8	332.6	322.0
31	306.6	-	310.3	313.05	-	316.6	-	336.9	-	334.8	332.4	-

Note.- Add 5,000 feet to obtain elevations above mean sea level.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

Deadwood River below Deadwood Reservoir, near Lowman, Idaho

**Location.**— Water-stage recorder, lat. 44°18', long. 115°39', in NE¼ sec. 17, T. 11 N., R. 7 E., 300 feet 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 square miles.

**Records available.**— October 1926 to September 1943.

**Average discharge.**— 16 years (1927-43), 188 second-feet.

**Extremes.**— Maximum discharge during year, 1,740 second-feet June 1 (gage height, 5.46 feet), from rating curve extended above 1,200 second-feet; minimum not determined, occurred when gates at dam were closed.

1926-43: Maximum discharge, 2,150 second-feet May 26, 1928 (gage height, 5.67 feet, site and datum then in use); small amount of leakage from reservoir for long periods during 1930-43 when gates in dam were closed.

**Remarks.**— Records good except those below 5 second-feet, which are poor. Flow regulated since Nov. 2, 1930, by Deadwood Reservoir (see preceding page). During late fall of 1936 the Bureau of Reclamation cut an intermountain canal to divert a small flow from a tributary of Johnson Creek in Salmon River Basin to Deadwood River Basin for supplemental storage in Deadwood Reservoir. Discharge measurements or field estimates made on June 12, July 13, Sept. 6, 1943, indicate flow in this canal of 25, 12.6, and 1.5 second-feet, respectively.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	293					h75		1,710	1,100	225	321
2	7	293					h84		1,690	1,080	222	321
3	e166	296					h468		1,550	1,060	216	326
4	h279	296					h976		1,350	1,060	207	326
5	h279	e166					hl, 180		1,290	1,010	195	326
6	h307						hl, 180		1,160	950	307	371
7	314						hl, 180		1,080	955	349	397
8	301						hl, 190		1,020	925	217	450
9	342						hl, 190		995	900	93	481
10	462						hl, 190		1,020	841	102	481
11	542						hl, 190		1,060	782	107	481
12	539						hl, 190	a3	1,120	721	111	492
13	385						e399		1,140	650	118	563
14	6		a3	a3	a3	a3			1,160	594	118	598
15	5								1,130	551	118	602
16	4								1,090	513	118	602
17	4								1,080	474	195	806
18	4	a3							1,120	450	236	806
19	4								1,200	428	227	610
20	4								1,240	408	267	610
21	4								1,220	391	314	614
22	4						a3		1,200	379	316	614
23	4								1,180	363	318	675
24	4							e10	1,150	344	324	713
25	4							176	1,120	326	324	713
26	4							478	1,100	311	324	713
27	4							836	1,080	294	324	885
28	4							1,120	1,070	279	324	935
29	4					e26		1,290	1,080	262	326	1,050
30	197					h72		1,410	1,090	250	326	1,180
31	290					h72		1,550		236	326	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,475	542	4	144	8,880
November.....	1,418	296	-	47.3	2,810
December.....	93	-	-	3.0	184
Calendar year 1942 .....	90,970.5	996	-	249	180,400
January.....	93	-	-	3.0	184
February.....	94	-	-	3.0	187
March.....	254	72	-	8.2	504
April.....	11,543	1,190	-	385	22,900
May.....	6,939	1,550	-	224	13,760
June.....	35,485	1,710	995	1,183	70,280
July.....	18,865	1,100	236	609	37,420
August.....	7,295	349	93	235	14,470
September.....	17,712	1,180	321	590	35,130
Water year 1942-43 .....	104,256	1,710	-	296	206,800

a No gage-height record; discharge comprised of leakage and seepage only and computed on basis of information furnished by observer and comparable records of previous years.

e Gage reading not representative of average for day; discharge computed as being comprised of leakage and seepage for part of day.

h Computed from staff-gage readings.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Deadwood River near Lowman, Idaho

**Location.**— Water-stage recorder, lat. 44°05', long. 115°40', in sec. 29, T. 9 N., R. 7 E., 700 feet upstream from mouth and 2½ miles west of Lowman.

**Records available.**— August 1921 to September 1943.

**Average discharge.**— 22 years, 366 second-feet.

**Extremes.**— Maximum discharge during year, 3,400 second-feet June 1 (gage height, 4.63 feet); minimum, 33 second-feet Nov. 21 (gage height, 0.84 foot); minimum daily, 40 second-feet Jan. 18.

1921-43: Maximum discharge, 4,230 second-feet May 9, 1928 (gage height, 5.17 feet), from rating curve extended above 3,200 second-feet; minimum, 28 second-feet Nov. 4, 1935 (gage height, 0.83 foot); minimum daily, 34 second-feet Nov. 4, 1935.

**Remarks.**— Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Deadwood Reservoir (see p.152). Small amount of water diverted from tributary of Johnson Creek in Salmon River Basin to Deadwood River Basin during year.

**Correction.**— The minimum daily discharge during January 1942 was not determined; the figure published in Water-Supply Paper 963 is in error.

Rating table, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Jan. 27-30, Feb. 7-11, Feb. 19 to Apr. 3)

0.9	40	1.7	211	3.0	995
1.0	53	2.0	329	3.5	1,530
1.2	85	2.3	458	4.0	2,250
1.4	127	2.6	580	4.6	3,340

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	378	97	225	90	120	399	1,010	3,260	1,730	399	437
2	59	368	89	196	95	114	477	1,100	3,170	1,680	399	431
3	59	368	65	140	85	114	756	1,160	2,810	1,650	399	437
4	236	358	71	132	80	127	1,190	1,890	2,470	1,620	378	437
5	329	325	90	109	84	120	1,280	1,890	2,250	1,580	354	431
6	344	76	95	105	85	107	1,320	1,080	2,030	1,470	399	454
7	363	64	90	100	85	112	1,450	942	1,880	1,460	506	500
8	349	82	95	95	85	112	1,510	810	1,810	1,430	448	531
9	399	66	95	100	82	106	1,520	772	1,890	1,390	228	587
10	448	58	100	100	78	103	1,470	772	1,930	1,310	225	587
11	597	*53	95	90	78	103	1,460	701	1,980	1,220	225	587
12	594	60	90	85	80	101	1,630	653	2,090	1,140	225	587
13	575	64	85	100	78	127	1,290	607	2,090	1,020	225	626
14	101	78	*80	110	76	123	1,020	587	2,080	935	225	673
15	64	186	73	110	76	114	1,130	568	1,980	874	232	680
16	60	109	70	90	80	107	1,220	537	1,680	818	232	680
17	59	61	65	80	85	107	1,220	531	1,900	772	266	680
18	59	61	65	40	88	a105	1,240	562	2,030	735	358	680
19	59	80	70	60	91	a100	1,400	646	2,190	708	349	680
20	59	45	90	150	95	a100	1,300	729	2,190	697	353	680
21	59	48	100	250	99	a100	1,370	850	2,110	660	426	680
22	59	93	100	200	116	a105	1,240	1,000	2,080	633	437	680
23	59	63	95	170	123	a110	1,150	1,150	2,020	607	437	716
24	59	160	82	180	118	a120	1,120	1,530	1,930	576	437	766
25	58	130	80	150	114	134	1,020	1,610	1,840	549	442	765
26	58	91	73	140	114	168	925	1,610	1,770	525	437	765
27	64	107	65	*127	116	186	802	2,140	1,740	500	437	866
28	58	97	100	112	118	232	891	2,490	1,720	477	437	1,000
29	59	99	130	105	-	316	1,020	2,680	1,730	454	437	1,040
30	91	118	116	97	-	*404	969	2,770	1,740	431	448	1,250
31	349	-	120	90	-	373	-	3,000	-	415	442	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,826	594	58	188	11,560
November.....	4,054	378	45	135	8,040
December.....	2,731	130	65	88.1	5,420
Calendar year 1942.....	153,254	1,800	45	420	304,000
January.....	3,798	250	40	123	7,530
February.....	2,594	123	76	92.6	5,150
March.....	4,459	404	100	144	8,840
April.....	34,768	1,630	399	1,159	65,960
May.....	37,057	3,000	531	1,195	73,500
June.....	32,560	3,260	1,720	2,085	124,100
July.....	29,954	1,730	415	966	59,410
August.....	11,237	506	225	362	22,290
September.....	19,891	1,230	431	663	39,450
Water year 1942-43.....	218,930	3,260	40	600	454,200

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for other stations in Payette River Basin.

Note.— Stage-discharge relation affected by ice Dec. 5-13, 16-23, 27-29, Jan. 7-26, Jan. 31 to Feb. 5, Feb. 12-18.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Payette Lake at McCall, Idaho  
(Formerly published as Payette Lake at Lardo, Idaho)

Location.- Staff gage, 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. Datum of gage is 4,962.24 feet above mean sea level, adjustment of 1912.

Drainage area.- 131 square miles.

Records available.- August 1921 to September 1943 (fragmentary).

Extremes.- Maximum gage height observed during year, 8.13 feet July 23; minimum observed, 1.52 feet Oct. 30.  
1921-43: Maximum gage height observed, 8.75 feet July 13, 1935; minimum observed, 0.95 foot Oct. 3, 1931.

Remarks.- Elevation of Payette Lake is regulated within natural ranges by a structure consisting of a series of concrete-filled cribs supporting removable flashboards, completed in 1923. Some regulation is reported to have been effected by timber flashboards for several earlier years. Lake area is approximately 5,000 acres and no capacity table has been developed. Water is used for irrigation of lands in vicinity of Emmett. No diversion above station. Because of draw-down in outlet channel, stages at the gage are slightly lower at times than stages of lake.

Cooperation.- Gage-height record furnished by Forest Service supplemented during period May 9 to Aug. 11 by observations by employee of Payette Valley Water Users Association and Bureau of Reclamation.

Gage height, in feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	5.08	7.38	6.93	7.88	-
2	1.69	-	-	3.62	-	-	-	-	7.24	6.93	7.93	-
3	-	-	-	-	-	-	3.82	-	6.98	6.98	7.83	-
4	-	-	-	-	-	-	-	-	6.68	7.06	7.83	2.20
5	-	-	2.87	-	-	-	-	-	6.16	7.06	7.81	-
6	-	-	-	-	-	3.42	-	-	5.98	6.99	7.78	-
7	-	1.72	-	-	-	-	-	5.33	5.78	7.08	7.76	-
8	-	-	-	-	-	-	-	-	5.69	7.18	6.68	-
9	-	-	3.16	3.52	-	-	-	5.13	5.79	7.29	5.30	-
10	-	-	-	-	3.53	-	-	5.06	5.88	7.25	4.58	-
11	-	-	-	-	-	-	-	4.98	5.96	7.33	3.80	2.02
12	-	1.84	-	-	-	-	-	4.93	5.98	7.28	-	-
13	-	-	-	-	3.55	-	-	4.83	5.98	7.18	-	-
14	-	1.89	-	-	-	-	-	4.83	6.08	7.18	-	-
15	-	-	-	-	-	-	-	4.83	5.98	7.28	-	-
16	-	-	-	3.48	-	-	-	4.78	5.98	7.38	-	-
17	1.60	-	-	-	-	-	5.05	4.73	6.08	7.33	-	1.90
18	-	-	-	-	-	-	-	4.78	6.38	7.39	-	1.88
19	-	-	3.32	-	-	3.49	-	4.88	6.48	7.48	-	-
20	-	-	-	-	3.47	3.47	-	4.98	6.48	7.63	2.63	-
21	-	2.21	-	-	3.51	-	-	5.18	6.38	7.78	-	-
22	-	-	-	-	-	-	-	5.43	6.38	7.98	-	-
23	-	-	-	3.67	-	-	-	5.68	6.28	8.13	-	-
24	1.54	-	-	-	-	-	-	5.90	6.18	8.08	-	1.84
25	-	-	-	-	-	-	-	6.08	6.08	8.06	-	-
26	-	-	-	-	3.47	-	-	6.28	6.08	8.03	-	-
27	-	-	3.54	-	-	-	-	6.48	6.08	7.98	-	-
28	-	-	-	-	-	3.51	-	6.68	6.18	7.98	2.12	-
29	-	-	-	-	-	-	-	6.78	6.48	7.98	-	-
30	1.52	-	-	3.59	-	-	5.08	6.88	6.73	7.88	-	-
31	-	-	-	-	-	-	-	6.88	-	7.88	-	-

Note.- Dam at outlet of Payette Lake washed out Aug. 8, 1943, at 8:30 a.m. Cofferdam which was placed by contractor in lake outlet preparatory to renewal of structure became effective Sept. 22.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## PAYETTE RIVER BASIN

North Fork Payette River at McCall, Idaho  
(Formerly published as North Fork Payette River at Lardo, Idaho)

Location.- Water-stage recorder, lat. 44°54'30", long. 116°07'30", in sec. 8, T. 18 N., R. 3 E., at McCall, a quarter of a mile downstream from outlet of Payette Lake.

Drainage area.- 144 square miles.

Records available.- September 1908 to June 1917, May 1919 to September 1943.

Average discharge.- 32 years (1908-16, 1919-43), 347 second-feet.

Extremes.- Maximum discharge during year, 3,440 second-feet June 1 (gage height, 6.88 feet); minimum, 0.4 second-foot Sept. 30 (gage height, 0.83 foot).

1908-17, 1919-43: Maximum discharge, 4,260 second-feet June 10, 1933; maximum gage height, 7.5 feet June 5, 1909, June 10, 1933; practically no flow Nov. 5-8, 1931, Nov. 17-24, 1932, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1936.

Remarks.- Records good except those for period of no gage-height record, which are fair. Flow partly regulated at dam at outlet of Payette Lake. Dam failed Aug. 8 and was not replaced during remainder of water year. Since water year 1939 some water bypassed station through fish hatchery (see p. 159).

Cooperation.- Gage-height record collected in cooperation with U. S. Forest Service.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	6	1	104	96	66	115	950	3,330	1,640	152	130
2	45	4	1	109	93	64	119	950	3,220	1,680	148	130
3	42	2	1	111	93	64	128	985	2,800	1,680	145	128
4	39	2	2	104	99	63	141	1,090	2,300	1,680	141	130
5	37	1	1	102	98	63	150	1,170	1,910	1,780	138	128
6	35	1	2	98	95	62	159	1,210	1,680	1,680	156	121
7	33	1	2	93	94	63	192	1,130	1,500	1,600	154	117
8	32	2	2	88	94	66	214	1,060	1,460	1,420	2,060	111
9	30	1	7	84	91	66	236	985	1,500	1,290	2,700	107
10	29	1	10	79	89	64	246	950	1,600	1,250	2,100	102
11	32	1	12	76	98	64	274	915	1,680	1,170	1,550	98
12	36	1	13	72	100	64	324	860	1,680	1,060	1,210	94
13	33	1	18	70	94	70	398	918	1,780	950	915	89
14	32	1	20	67	81	76	495	749	1,820	707	737	84
15	32	1	22	60	88	78	616	683	1,780	376	594	81
16	31	.9	22	.69	84	79	755	610	1,680	227	485	76
17	30	.9	24	a85	82	79	915	604	1,780	175	412	72
18	28	.8	24	a80	79	78	1,060	621	1,960	150	354	69
19	27	.8	25	a85	76	75	1,210	689	2,250	136	304	64
20	27	.9	27	a90	73	75	1,370	785	2,250	128	260	61
21	25	1	30	a110	72	72	1,420	985	2,150	115	230	61
22	25	1	36	a125	75	69	1,370	1,210	2,100	159	202	39
23	24	1	47	120	75	67	1,330	1,370	2,050	421	180	2
24	23	1	56	128	73	67	1,250	1,640	1,910	525	159	2
25	21	1	58	119	72	69	1,210	1,860	1,820	480	145	.8
26	21	1	60	117	70	75	1,170	1,980	1,730	421	132	.6
27	20	2	a70	115	69	72	1,090	2,250	1,730	354	121	.6
28	15	1	79	115	67	79	1,020	2,450	1,680	248	117	.6
29	6	1	82	111	-	94	985	2,700	1,460	194	117	.5
30	5	1	91	107	-	96	950	2,600	1,500	172	119	.4
31	5	1	96	100	-	107	-	2,900	-	162	126	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	868	48	5	28.0	1,720
November.....	40.3	5	.8	1.34	80
December.....	941	96	1	30.4	1,870
Calendar year 1942.....	122,727.5	3,110	.8	336	245,400
January.....	2,952	130	60	95.2	5,860
February.....	2,379	100	67	85.0	4,720
March.....	2,236	107	62	75.1	4,440
April.....	20,900	1,420	115	697	41,450
May.....	39,729	2,900	604	1,282	78,800
June.....	58,090	3,330	1,460	1,936	118,200
July.....	24,168	1,820	115	780	47,940
August.....	16,323	2,700	117	527	32,380
September.....	2,099.5	130	.4	70.0	4,160
Water year 1942-43.....	170,725.8	3,330	.4	468	338,600

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for station at Cascade.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## North Fork Payette River at Cascade, Idaho

Location.- Staff gage, lat. 44°31', long. 116°02', in NE¼ sec. 36, T. 14 N., R. 3 E., at Cascade, 375 feet downstream from Halleck and Howard mill dam, half a mile upstream from Beaver Creek, and 2½ miles downstream from Willow Creek.

Drainage area.- 626 square miles.

Records available.- May 1941 to September 1943.

Extremes.- Maximum discharge observed during year, 7,000 second-feet June 3 (gage height, 6.33 feet); minimum observed, 78 second-feet (gates in mill dam closed) Nov. 27 (gage height, 0.54 foot); minimum daily, 131 second-feet Oct. 22, 23.  
1941-43: Maximum discharge observed, that of June 3, 1943; minimum observed, that of Nov. 27, 1942; minimum daily, that of Oct. 22, 23, 1942.

Remarks.- Records good except those below 300 second-feet, which are fair, and those for periods of ice effect, which are poor. Gage read twice daily. Flow regulated by Payette Lake (see p. 155), Lake Fork Reservoir (see p. 161), and slightly affected by flashboards on Halleck and Howard mill dam. Several diversions from tributaries above station for irrigation.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	a270	544	720	550	440	1,520	3,060	6,250	3,580	a440	331
2	145	278	479	650	520	450	1,820	a2,800	6,850	3,450	402	324
3	145	278	331	600	510	430	2,420	2,800	7,000	3,450	395	331
4	a140	271	278	550	540	420	a2,600	2,800	6,100	a3,600	388	331
5	140	246	264	530	540	420	2,420	2,930	5,360	3,560	359	a320
6	135	209	a200	500	520	400	2,180	2,930	a4,600	3,450	345	304
7	145	203	258	450	500	400	2,670	2,800	3,970	3,320	345	304
8	140	a280	264	420	470	420	3,190	2,670	3,320	3,190	a450	297
9	140	359	264	400	450	400	3,320	a2,500	3,190	2,930	616	296
10	145	304	264	380	440	370	2,800	2,300	3,320	2,670	1,940	284
11	a170	235	*324	360	450	360	a3,000	2,180	3,320	a2,300	2,420	276
12	208	197	359	350	460	370	3,450	2,180	3,580	2,080	1,820	a270
13	245	191	a320	360	450	400	3,640	2,080	a3,800	1,940	1,470	264
14	215	278	317	370	450	450	a240	1,940	3,970	1,700	1,500	258
15	197	a740	317	370	450	*440	4,520	1,820	4,100	1,470	a1,000	239
16	180	634	317	300	460	420	4,660	a1,700	4,100	1,080	820	233
17	175	440	310	230	*470	410	4,800	1,580	3,710	872	720	233
18	a170	395	310	200	470	390	a4,800	1,580	3,710	a740	701	233
19	170	465	310	230	480	380	4,800	1,640	4,100	710	644	a210
20	209	235	a310	400	490	370	4,940	1,760	a4,500	654	589	233
21	175	175	317	550	500	370	5,080	1,940	4,660	625	527	233
22	131	a230	317	700	540	380	5,080	2,300	4,520	654	a490	239
23	131	463	304	700	540	400	4,660	a2,600	4,520	710	440	239
24	160	820	297	670	530	420	4,100	2,930	4,240	820	418	221
25	a150	607	a294	640	520	450	a4,100	3,320	3,970	a1,000	395	197
26	145	590	290	620	500	500	3,970	3,710	3,580	872	373	a150
27	165	300	310	610	480	571	3,580	4,100	a3,500	701	278	180
28	175	388	324	600	450	a800	3,320	4,520	3,450	720	310	165
29	170	a540	370	590	-	1,080	3,640	4,940	3,580	607	a310	155
30	175	692	430	580	-	1,360	3,450	a5,200	3,580	527	504	165
31	185	-	495	*570	-	1,420	-	5,650	-	455	324	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet.
October	5,146	245	131	166	10,210
November	11,296	820	175	377	22,410
December	10,088	544	200	325	20,010
Calendar year 1942	331,315	6,160	131	908	657,200
January	15,200	720	200	490	30,150
February	13,740	550	440	491	27,250
March	15,991	1,420	360	513	31,520
April	109,170	5,080	1,520	3,639	216,500
May	87,240	5,650	1,580	2,814	173,000
June	129,450	7,000	3,190	4,282	254,800
July	54,437	3,600	455	1,756	108,000
August	21,333	2,420	278	688	42,310
September	7,511	331	150	250	14,900
Water year 1942-43	479,502	7,000	131	1,314	951,100

\* Winter discharge measurement made on this day.  
a No gage-height record; discharge computed on basis of records for station near Smiths Ferry or interpolated.

Note.- Stage-discharge relation affected by ice Dec. 18, 19, 26, 27, 29, 30, Jan. 2 to Mar. 26.  
Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## PAYETTE RIVER BASIN

North Fork Payette River near Smiths Ferry, Idaho

**Location.**—Water-stage recorder, lat. 44°16', long. 116°04', in S $\frac{1}{2}$  sec. 23, T. 11 N., R. 3 E., 450 feet downstream from Beaver Creek, 2 $\frac{1}{2}$  miles downstream from Tripod Creek, and 2 5/8 miles southeast of Smiths Ferry. Datum of gage is 4,505.9 feet above mean sea level (levels by Bureau of Reclamation).

**Drainage area.**—893 square miles.

**Records available.**—May 1941 to September 1943.

**Extremes.**—Maximum discharge during year, 9,110 second-feet June 3 (gage height, 10.70 feet); minimum, 160 second-feet Oct. 10 (gage height, 2.43 feet); minimum daily, 167 second-feet Oct. 10.

1941-43: Maximum discharge, that of June 3, 1943; minimum observed and minimum daily, those of Oct. 10, 1942.

**Remarks.**—Records good except those for periods of ice effect, which are fair. Flow regulated by Payette Lake (see p. 155) and Lake Fork Reservoir (see p. 161). Several diversions from tributaries above station for irrigation.

Rating table, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

2.4	153	4.6	1,090	7.6	3,960
2.7	228	5.0	1,370	8.2	4,770
3.0	312	5.5	1,760	8.5	5,870
3.4	442	6.0	2,200	9.4	6,660
3.8	630	6.5	2,680	10.0	7,740
4.2	850	7.0	3,220	10.6	8,910

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	205	303	880	1,060	*850	700	2,580	4,630	7,930	4,350	641	376
2	154	336	668	1,000	800	700	3,110	4,490	8,510	4,350	614	373
3	176	358	500	900	750	676	3,960	4,350	8,910	4,220	593	367
4	186	348	403	860	775	650	4,350	4,490	8,710	4,350	567	361
5	189	336	398	800	800	650	4,630	4,490	7,370	4,350	542	354
6	178	300	315	750	800	625	4,090	4,490	6,320	4,220	504	348
7	179	289	312	700	775	625	4,630	4,220	5,360	4,090	466	345
8	174	354	318	650	750	659	5,360	4,090	4,770	3,980	458	336
9	169	406	354	625	725	600	5,830	3,960	4,350	3,700	458	327
10	187	*410	408	575	700	550	5,060	3,700	4,350	3,460	1,340	321
11	186	351	431	575	675	550	4,910	3,460	4,350	3,220	2,430	315
12	225	300	466	560	700	550	5,360	3,220	4,350	3,000	2,380	306
13	266	280	*480	575	700	600	5,990	3,110	4,630	2,680	1,880	298
14	269	312	450	600	700	700	6,660	2,890	4,770	2,390	1,660	295
15	263	625	450	600	700	*675	6,630	2,780	4,910	2,160	1,300	296
16	250	850	450	500	700	650	7,010	2,630	4,910	1,760	1,090	283
17	242	674	440	375	700	625	7,010	2,530	4,770	1,400	970	277
18	236	598	428	325	725	600	7,010	2,430	4,770	1,250	850	275
19	231	514	438	375	725	575	7,010	2,680	4,910	1,120	768	277
20	228	450	428	500	750	575	7,010	2,630	5,210	1,030	702	275
21	252	312	458	800	775	575	7,190	2,390	5,510	970	641	280
22	239	327	424	850	800	575	7,190	3,220	5,670	970	577	280
23	197	450	466	900	800	600	6,660	3,700	5,360	1,000	537	277
24	205	740	424	900	800	650	5,990	3,960	5,210	1,030	491	275
25	280	910	413	925	775	700	5,670	4,350	4,910	1,250	466	268
26	225	707	327	950	775	800	5,510	4,770	4,630	1,060	442	239
27	228	527	386	950	750	900	5,210	5,210	4,220	1,090	413	228
28	231	403	435	900	700	1,200	5,060	5,670	4,220	970	333	220
29	239	598	474	900	-	1,600	5,210	5,990	4,220	910	370	215
30	239	795	598	875	-	2,200	5,060	6,490	4,350	768	370	210
31	247	-	795	875	-	2,400	-	7,190	-	696	367	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,763	289	167	218	13,410
November.....	14,163	910	280	472	28,090
December.....	14,173	880	312	467	28,110
Calendar year 1942.....	424,768	7,430	167	1,164	842,600
January.....	22,710	1,060	325	733	45,040
February.....	20,975	850	676	749	41,600
March.....	24,725	2,400	550	798	49,040
April.....	167,150	7,190	2,680	5,572	331,500
May.....	124,610	7,190	2,480	4,020	247,200
June.....	162,460	8,910	4,220	5,415	322,300
July.....	71,724	4,350	696	2,314	142,300
August.....	25,120	2,430	333	810	49,820
September.....	8,596	376	210	296	17,630
Water year 1942-43.....	663,459	8,910	167	1,818	1,316,000

\* Winter discharge measurement made on this day.

Note.—Stage-discharge relation affected by ice Dec. 13-17, Jan. 2 to Mar. 31.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Fish hatchery diversion at McCall, Idaho

Location.- Staff gage and Parshall flume, lat. 44°54'30", long. 116°07' in sec. 8, T. 18 N., R. 3 E., immediately below outlet from fish hatchery tanks, just above point of return to North Fork Payette River, and 1 mile west of McCall.

Records available.- October 1942 to September 1943.

Extremes.- Maximum discharge observed during year, 4.8 second-feet Apr. 18-24, 26-28, May 1, 2, 4, 5, 7-11, July 2, 4; maximum gage height observed, 1.12 feet June 2, affected by backwater from North Fork Payette River. No flow Sept. 22-30.

Remarks.- Records poor. Gage read once daily. Flow regulated by operation of fish hatchery, water for which is diverted from Payette Lake or North Fork Payette River and bypasses gaging station on that stream.

Cooperation.- Gage readings furnished by Idaho State Fish and Game Commission.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1.9	3.2	3.8	3.6	3.8	4.3	4.8		4.6	4.7	1.8
2		2.1	3.3	3.8	3.6	3.8	4.3	4.6	4.0	4.8	4.5	1.7
3		2.1	3.4	3.8	3.6	3.8	4.3	4.6		4.7	4.6	1.6
4		2.2	3.6	3.8	3.6	3.8	4.4	4.8	4.3	4.8	4.3	1.6
5	a2.0	2.1	3.4	3.8	3.6	3.8	4.4	4.8	4.2	4.6	4.5	1.8
6		2.0	3.0	3.8	3.6	3.8	4.4	4.5	4.3	4.4	4.6	2.0
7		1.8	3.3	3.8	3.8	3.7	4.4	4.8	4.6	4.4	4.8	2.0
8		2.3	3.4	3.7	3.8	3.8	4.4	4.8	4.5	4.5	4.5	2.2
9	2.1	2.3	3.8	3.7	3.7	3.8	4.5	4.8	4.5	4.6	3.4	2.2
10	2.1	2.3	3.7	3.8	3.8	3.7	4.5	4.8	4.2	4.6	4.5	2.1
11	2.0	2.2	3.6	3.7	3.8	3.8	4.5	4.8	4.2	4.5	4.2	2.1
12	2.0	2.1	3.7	3.8	3.8	3.8	4.5	4.3	4.3	4.6	1.8	2.0
13	2.2	2.1	3.7	3.7	3.8	3.8	4.5	4.2	4.3	4.5	1.8	2.1
14	2.0	2.2	3.8	3.7	3.7	3.8	4.5	4.3	4.5	4.5	2.0	2.1
15	2.1	2.2	3.6	3.7	3.8	3.8	4.5	4.3	4.3	4.5	1.8	2.2
16	2.1	2.1	3.8	3.6	3.8	3.7	4.5	4.2	4.5	4.5	1.8	2.0
17	2.1	2.1	3.8	3.8	3.8	3.7	4.5	4.1	4.6	4.5	2.0	1.9
18	1.8	2.1	3.6	3.6	3.8	3.8	4.8	4.3	4.2	3.8	1.8	2.1
19	1.8	2.2	3.8	3.8	3.8	4.1	4.8	4.2	4.3	4.5	2.0	2.0
20	2.0	2.1	3.8	3.6	3.8	4.3	4.8	4.5	4.6	4.6	2.0	2.0
21	2.0	2.2	3.9	3.6	3.7	4.3	4.8	4.3	4.3	4.5	1.8	2.0
22	1.6	2.8	3.9	3.6	3.8	4.3	4.8	4.5	4.2	4.6	1.8	0
23	1.7	2.9	3.8	3.6	3.8	4.2	4.8	4.3	4.5	4.5	2.0	0
24	1.5	2.8	3.8	3.6	3.8	4.3	4.8	4.3	4.6	4.6	2.0	0
25	2.0	2.7	3.8	3.6	3.8	4.3	4.5	4.3	4.2	4.5	2.1	0
26	2.2	2.8	3.8	3.7	3.7	4.3	4.8	4.2	4.3	4.5	1.8	0
27	2.3	2.8	3.7	3.6	3.8	4.3	4.8	4.2	4.5	4.6	2.0	0
28	2.2	3.0	3.8	3.6	5.8	4.2	4.8	4.3	4.3	4.5	2.0	0
29	2.3	3.0	3.8	3.6	-	4.5	4.5	4.3	4.1	4.6	1.8	0
30	1.9	3.1	3.8	3.6	-	4.3	4.4	4.3	4.1	4.5	1.8	0
31	1.9	-	3.8	3.6	-	4.3	-	4.3	-	4.6	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	61.9	2.3	1.5	2.00	123
November.....	70.6	3.1	1.8	2.35	140
December.....	113.1	3.9	3.2	3.65	224
Calendar year 1942.....	-	-	-	-	-
January.....	114.5	3.8	3.6	3.69	227
February.....	104.8	3.8	3.6	3.74	208
March.....	123.5	4.3	3.7	3.98	245
April.....	135.9	4.8	4.3	4.56	272
May.....	132.0	4.8	4.1	4.45	274
June.....	129.3	4.6	-	4.31	256
July.....	140.5	4.8	3.8	4.53	279
August.....	86.2	4.7	1.7	2.78	171
September.....	41.5	2.2	0	1.38	82
Water year 1942-43.....	1,280.8	4.8	0	3.45	2,500

a No gage-height record; discharge estimated.

c Backwater from North Fork Payette River; discharge estimated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## PAYETTE RIVER BASIN

Lake Fork Payette River above reservoir, near McCall, Idaho

Location.— Water-stage recorder, lat. 44°55', long. 116°00', in NW¼ sec. 8, T. 18 N., R. 4 E., three-quarters of a mile downstream from power plant, 2½ miles upstream from Lake Fork Reservoir dam, and 5 miles east of McCall.

Drainage area.— 54.6 square miles.

Records available.— May 1926 to September 1943 (irrigation seasons only prior to 1943).

Extremes.— Maximum discharge during year, 1,680 second-feet May 31 (gage height, 6.34 feet), from rating curve extended above 1,100 second-feet; minimum, 5.6 second-feet (regulated) Oct. 24, 25 (gage height, -0.02 foot).  
1926-43. Maximum discharge observed, 2,520 second-feet June 9, 1933 (gage height, about 7.9 feet, present datum, from high-water mark), from rating curve extended above 1,100 second-feet; practically no flow at times in 1937 and 1939 caused by regulation by power plant.

Remarks.— Records good except those for Dec. 3-8, Dec. 16 to Apr. 5, which are fair. Diurnal fluctuations at low flow caused by power plant of McCall Light & Power Co. and small reservoirs above station. No diversion above station.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	38	48	50	41	41	80	376	1,080	785	c108	a34
2	8.0	26	46	46	41	47	93	412	734	734	c107	a32
3	12	33	45	44	41	42	126	424	554	862	c99	a31
4	12	25	45	40	41	47	120	582	461	617	c89	a30
5	12	22	44	43	41	47	119	500	412	702	c81	27
6	12	21	44	40	41	43	134	412	400	734	c56	27
7	12	20	43	39	43	45	184	354	436	534	c36	27
8	12	22	43	39	39	44	228	310	513	800	c39	28
9	12	22	42	39	38	46	211	308	610	734	54	27
10	12	20	*42	39	38	48	171	298	655	c590	57	27
11	20	*18	38	41	39	43	220	268	670	c537	56	27
12	26	19	38	43	38	40	332	247	570	c461	57	26
13	18	19	38	49	38	44	424	239	719	c374	53	26
14	16	27	37	48	39	50	528	230	655	c383	48	23
15	19	84	34	43	36	46	610	222	554	c386	50	26
16	18	49	31	41	34	41	686	220	596	c350	47	24
17	16	36	35	30	36	39	670	233	783	c530	46	23
18	16	34	34	25	41	*41	702	282	1,040	c339	46	23
19	16	30	36	30	39	39	500	365	1,000	c532	42	22
20	15	26	32	36	39	38	670	436	534	c532	40	21
21	15	25	35	50	39	41	610	610	766	c323	38	21
22	15	26	38	65	42	38	487	655	766	c402	37	20
23	14	34	39	60	43	37	436	783	655	c306	36	20
24	9.6	136	38	56	43	38	448	870	655	c274	34	19
25	6.0	80	38	50	46	41	424	924	686	c254	34	19
26	12	89	30	45	41	48	354	1,000	702	c230	33	18
27	15	68	35	43	38	51	317	1,000	766	c208	32	18
28	15	53	40	42	38	62	332	1,120	617	c183	30	19
29	16	50	40	*41	-	76	365	1,080	870	c160	a30	19
30	14	54	40	41	-	89	321	888	870	c122	a36	18
31	19	-	45	41	-	82	-	1,540	-	c104	a38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	450.6	26	6.0	14.5	894
November.....	1,210	136	18	40.3	2,400
December.....	1,213	48	30	39.1	2,410
Calendar year .....	-	-	-	-	-
January.....	1,334	65	25	43.0	2,650
February.....	1,114	45	34	39.8	2,210
March.....	1,470	89	37	47.4	2,980
April.....	11,197	800	80	373	22,210
May.....	16,988	1,540	220	548	33,700
June.....	20,928	1,080	400	698	41,610
July.....	13,960	862	104	460	27,670
August.....	1,666	103	30	51.2	3,160
September.....	721	34	18	24.0	1,430
Water year 1942-43 .....	72,161.6	1,540	6.0	198	143,200

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of auxiliary record at power plant.

c Stage-discharge relation indefinite because of backwater from reservoir; discharge computed on basis of special gage-height computation developed from auxiliary gage-relation curve.

Note.— Float restrained by ice in well Dec. 3-8, Dec. 16 to Apr. 5; discharge interpolated Dec. 3-8 and computed on basis of auxiliary record at power plant Dec. 16 to Apr. 5.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Lake Fork Reservoir near McCall, Idaho

Location.— Staff gage and graduations on concrete gate-control structure of dam on Lake Fork Payette River, lat. 44°54', long. 116°03', in NW¼ sec. 13, T. 18 N., R. 3 E., 3 miles east of McCall. Datum of gage is at mean sea level (levels by Lake Irrigation District).

Records available.— April 1926 to September 1943.

Extremes.— Maximum contents observed during year, 19,300 acre-feet July 22 (elevation, 5,118.48 feet); no storage during fall and winter.  
1926-43: Maximum contents observed, 19,740 acre-feet June 19, 1941 (elevation, 5,118.75 feet); probably no storage above elevation 5,101.0 feet during fall and winter each.

Remarks.— Reservoir is formed by earth and rock-fill dam completed in 1926. Capacity, 18,940 acre-feet between elevations 5,101.0 feet (lower limit of capacity table, 4.0 feet above gate sill of outlet) and 5,117.0 feet (top of flashboards, 5.0 feet above spillway crest). Dead storage unknown. Water is used for irrigation of about 6,800 acres of land in vicinity of Norwood. Figures given herein represent contents above 5,101.0 feet. There is some usable storage below elevation 5,101.0 feet, but natural flow passing through reservoir when outlet gates are operating prevents withdrawal of storage to elevation of sill of gates. Gage read once daily. Time of reading variable. Storage figures from gage heights as observed.

Cooperation.— Elevation record and capacity table furnished by Lake Irrigation District.

Contents, in acre-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								4,811	15,700	17,810	18,050	8,730
2								-	15,590	17,680	17,810	8,614
3								4,758	14,650	17,630	17,500	8,298
4								5,394	14,150	18,130	17,330	8,028
5								-	15,880	18,130	17,100	7,840
6								6,552	13,690	18,080	16,810	7,613
7								-	14,000	18,560	16,470	7,399
8								6,676	14,150	19,010	18,040	7,210
9								6,629	14,420	19,170	18,710	7,021
10								6,794	15,230	19,040	16,400	6,769
11								7,021	15,770	18,580	15,120	6,594
12								-	16,010	18,680	14,830	6,418
13								7,399	16,320	18,440	14,510	6,186
14								7,625	16,390	18,620	14,180	6,012
15								7,651	16,320	18,680	13,880	5,836
16								7,777	16,160	18,560	13,620	-
17								-	16,320	18,590	13,310	-
18								8,028	16,660	19,010	13,020	-
19								-	16,970	19,090	12,710	-
20								-	16,910	19,140	12,320	-
21								-	16,690	19,170	12,020	-
22								10,390	16,660	18,300	11,750	-
23								-	16,490	19,250	11,420	-
24								12,620	16,360	19,170	11,040	-
25								-	16,780	19,040	10,730	-
26								14,460	17,100	19,010	10,440	-
27								-	17,290	18,880	10,100	-
28								-	17,490	18,770	9,810	-
29								15,230	17,680	18,680	9,465	-
30								15,080	17,760	18,480	9,243	-
31								15,260	-	18,330	9,040	-

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
May 31.....	5,115.92	15,260	-
June 30.....	5,117.52	17,760	+2,500
July 31.....	5,117.86	18,330	+570
Aug. 31.....	5,111.75	9,040	-9,290

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Lake Fork Payette River below Lake Irrigation District Canal, near McCall, Idaho

Location.- Water-stage recorder, lat. 44°54', long. 116°03', in SW<sup>1</sup>/<sub>4</sub> sec. 13, T. 18 N., R. 3 E., 300 feet downstream from diversion dam for Lake Irrigation District Canal, half a mile downstream from Lake Fork Reservoir, and 3 miles southeast of McCall.

Records available.- October 1940 to September 1943.

Extremes.- Maximum discharge during year, 1,380 second-feet June 1 (gage height, 8.13 feet); minimum daily discharge, 13 second-feet Oct. 8-11, 13-20, 25-29.

1940-43: Maximum discharge, that of June 1, 1943; minimum, 1.3 second-feet (regulated Dec. 11, 12, 13, 1941 (gage height, 1.94 feet)).

Remarks.- Records good except those for Jan. 7 to Mar. 28, which are fair. Flow regulated by Lake Fork Reservoir (see preceding page) and Lake Irrigation District Canal.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	17	63	48			72	474	1,350	785	75	62
2	16	18	62	50			74	470	1,200	715	74	58
3	16	19	60	50			86	378	945	645	75	87
4	15	19	56	50			97	265	780	650	81	55
5	16	23	54	49			104	326	628	660	81	55
6	16	41	54	49			110	333	480	521	81	57
7	14	42	53				124	356	396	424	81	54
8	13	41	53			55	145	333	460	576	76	55
9	13	39	53				168	274	433	635	75	57
10	13	37	52				175	170	291	581	74	57
11	13	34	*50				180	173	500	518	76	52
12	14	32	49				206	175	622	444	76	48
13	13	31	49				242	175	720	393	75	47
14	13	31	47	50			294	176	760	157	76	46
15	13	40	46		50		343	178	710	138	78	51
16	13	46	45				406	178	640	136	80	70
17	13	47	44				448	178	665	113	78	69
18	13	47	44			(*)	462	181	835	104	75	69
19	13	46	43				492	184	972	127	74	69
20	13	44	42				524	189	945	145	70	70
21	20	40	41				538	195	385	150	70	74
22	15	39	42			60	542	198	810	192	71	73
23	15	39	43				538	200	735	192	70	73
24	14	48	43				538	254	509	165	70	70
25	13	61	45				538	500	404	129	71	65
26	13	63	46	55			528	760	504	102	71	65
27	13	64	46				520	918	531	88	71	65
28	13	64	45				510	1,060	660	81	71	64
29	13	63	46	(*)	-	53	502	1,140	735	70	71	64
30	14	63	48		-	62	488	1,060	785	76	62	64
31	15	-	48		-	70	-	1,140	-	80	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	438	20	13	14.1	869
November.....	1,238	64	17	41.3	2,480
December.....	1,512	68	41	48.8	3,000
Calendar year 1942.....	39,598	1,020	1.6	108	78,540
January.....	1,601	-	-	51.6	3,180
February.....	1,400	-	-	50.0	2,780
March.....	1,660	70	-	53.5	3,290
April.....	9,991	542	72	333	19,320
May.....	12,573	1,140	170	406	24,940
June.....	20,868	1,350	221	696	41,590
July.....	9,872	785	70	312	19,180
August.....	2,289	81	62	73.8	4,540
September.....	1,835	74	46	61.2	3,640
Water year 1942-43.....	65,077	1,350	13	178	129,100

\* Winter discharge measurement made on this day.

Note.- Stage discharge relation affected by ice Dec. 20, 26, Jan. 4, Jan. 7 to Mar. 28 (doubtful or no gage-height record Jan. 9-28, Feb. 1 to Mar. 17, Mar. 20-22) discharge computed on basis of 1 discharge measurement, records for station above reservoir, and weather records).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Lake Irrigation District Canal near McCall, Idaho

Location.- Staff gage, lat. 44°54', long. 116°03', in SW $\frac{1}{4}$  sec. 13, T. 18 N., R. 3 E., 800 feet downstream from head of canal, half a mile south of Lake Fork Reservoir, and 3 miles east of McCall.

Records available.- May 1926 to September 1943.

Extremes.- Maximum discharge observed during year, 155 second-feet July 8 (gage height, 4.93 feet); practically no flow during nonirrigation season.

1926-43: Maximum discharge observed, 159 second-feet July 8, 9, 1942 (gage height, 4.96 feet); no flow or small amount of leakage through head gate during nonirrigation seasons.

Remarks.- Records good except those for discharges below 1 second-foot, which are poor. Staff gage read once or twice a day. No diversions between head and station. Canal diverts water from right bank of Lake Fork Payette River in SW $\frac{1}{4}$  sec. 13, T. 18 N., R. 3 E., for irrigation of 6,800 acres of land near McCall and Norwood, in the Lake Irrigation District project.

Cooperation.- Gage-height record furnished by watermaster for Lake Irrigation District.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a11	a4						†0.2	a0.2	146	148	105
2	10	a4							a.2	146	148	106
3	a9	a4							†.2	148	148	99
4	a9	a4							a.2	150	148	88
5	a9	4							a.2	148	142	78
6												
7	a9	e3							a.2	148	138	76
8	a9								a.2	149	138	76
9	9								e1	151	138	77
10	a9	a.2				a0.2			8	150	138	77
11									14	151	136	77
12	a8								16	152	135	79
13	e	†.2							20	152	128	79
14	a8								23	152	124	79
15	a9								25	151	124	74
16	9								27	152	123	e59
17			a0.2	a0.2	a0.2		a0.2	a.2	32	152	123	
18	a9								61	151	125	
19	a9								76	152	125	
20	a8								90	152	125	
21	a8								93	152	125	
22												
23	8	a.2							95	152	125	
24	7								103	152	125	
25	a6								117	152	125	a.7
26	a7								123	148	128	
27	a7					a.2			151	148	125	
28												
29	a7								136	148	119	
30	a7								139	148	116	
31	a4								144	148	111	
									147	148	109	
									146	148	106	
									-	148	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	247	11	4	8.0	490
November.....	27.8	4	-	.93	55
December.....	6.2	-	-	.20	12
Calendar year 1942 .....	-	-	-	-	-
January.....	6.2	-	-	.20	12
February.....	5.6	-	-	.20	11
March.....	6.2	-	-	.20	12
April.....	6.0	-	-	.20	12
May.....	6.2	-	-	.20	12
June.....	1,758.4	147	.2	58.6	3,490
July.....	4,646	152	146	150	9,210
August.....	3,989	148	105	128	7,870
September.....	1,213.5	105	-	40.4	2,410
Water year 1942-43 .....	11,897.1	152	-	32.6	23,600

† Discharge measurement or field estimate.

a No gage-height record; discharge interpolated or computed on basis of discharge measurements, field estimates, and observer's notes.

e Discharge computed on basis of information furnished by watermaster and reported head-gate changes.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## PAYETTE RIVER BASIN

## Cruzen Canal at Lake Fork, Idaho

Location.- Staff gage, lat. 44°50', long. 116°04', in NE¼ sec. 3, T. 17 N., R. 3 E., 500 feet below head gates and 1 mile northeast of town of Lake Fork.

Records available.- August 1938 to September 1943 (fragmentary).

Remarks.- Records good. Staff gage read once or twice daily. Flow regulated at head gate of canal. No diversions between head and station. Canal diverts water from right bank of Lake Fork Payette River in NE¼ sec. 3, T. 17 N., R. 3 E., for irrigation.

Cooperation.- Gage readings furnished by watermaster for Lake Fork Payette River.

## Monthly discharge, 1942-43

Month	Maximum	Minimum	Mean	Acre-feet
October.....	12	6.8	10.8	666
November 1-12.	3.5	2.8	3.22	77
December.....				
May 24-31.....	37	7.0	23.6	375
June.....	53	22	44.5	2,650
July.....	59	52	55.9	3,440
August.....	53	42	48.4	2,980
September.....	42	19	27.8	1,650

## Porter Creek near Gardena, Idaho

Location.- Staff gage, lat. 43°57', long. 116°11', in NE¼ sec. 14, T. 7 N., R. 2 E., at Hood Ranch house, 0.8 mile upstream from mouth and 2 miles south of Gardena.

Drainage area.- 21.2 square miles.

Records available.- November 1938 to September 1943.

Extremes.- Maximum discharge observed during year, 160 second-feet Dec. 24 (gage height, 3.50 feet), from rating curve extended above 80 second-feet by logarithmic plotting; minimum observed, 0.2 second-foot Aug. 11-17; minimum gage height observed, 0.37 foot Aug. 11, 12.

1938-43: Maximum discharge observed, 181 second-feet Aug. 1, 1941 (gage height, 3.56 feet, from floodmark), from rating curve extended above 50 second-feet; no flow at times.

Remarks.- Records good Oct. 1 to Apr. 16; fair Apr. 17 to Sept. 30 except those for discharges below 1 second-foot, which are poor. Gage read twice daily. Several diversions above station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	5.1	13	100	22	31	81	62	37	9.6	2.8	1.0
2	.9	4.1	11	88	22	28	92	63	36	7.3	3.5	1.2
3	.7	4.3	7.5	53	20	26	97	60	35	7.3	3.9	1.2
4	1.2	4.1	7.7	45	22	26	86	66	31	8.2	3.9	1.0
5	1.4	3.9	7.2	34	20	25	81	62	27	7.3	3.5	.8
6	1.1	3.9	6.9	33	20	23	84	54	27	7.3	2.7	.6
7	.9	4.7	6.1	31	23	23	88	48	26	7.3	1.4	.8
8	1.0	9.4	6.6	27	21	47	126	46	25	5.3	.5	.6
9	.5	4.3	7.7	25	20	26	109	44	25	5.3	.7	.7
10	.6	4.1	11	21	17	24	88	39	25	4.8	.4	.5
11	1.8	4.1	8.0	21	18	24	79	35	23	5.3	.3	.4
12	2.9	4.1	7.2	20	16	27	86	33	23	4.8	.2	.4
13	2.7	3.9	7.5	18	21	92	100	32	22	4.2	.2	.8
14	2.5	4.3	7.7	17	20	53	106	33	21	3.7	.2	.8
15	2.5	6.1	7.7	16	22	46	114	32	20	3.6	.2	.8
16	2.9	4.7	8.0	16	23	38	114	30	20	3.6	.2	.8
17	2.5	4.7	8.0	14	24	37	e106	29	21	3.3	.2	.8
18	2.5	5.5	6.9	14	24	32	e96	29	20	3.2	.5	.7
19	2.5	5.1	6.8	20	27	30	e90	28	17	3.2	.7	.5
20	2.7	4.5	7.2	21	29	29	e85	29	16	2.8	.7	.7
21	2.5	4.3	7.2	76	32	25	80	31	13	2.8	.8	.9
22	2.4	4.7	32	57	60	26	69	29	13	2.9	.8	.8
23	2.2	4.7	26	53	39	25	64	32	13	2.8	.8	.5
24	2.4	5.5	149	37	34	26	58	32	13	2.7	.8	.9
25	2.1	4.9	35	34	32	31	60	29	13	2.8	.8	1.2
26	1.9	5.1	13	34	31	42	51	28	12	2.6	.7	1.2
27	2.5	12	18	33	31	53	48	27	12	2.6	.7	1.1
28	3.0	7.2	29	32	31	70	69	26	12	2.5	.7	1.1
29	4.1	20	22	27	-	70	64	26	11	2.7	.8	1.1
30	3.9	16	70	25	-	75	59	28	9.3	2.9	1.4	1.1
31	5.1	-	68	28	-	81	-	34	-	2.7	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	66.8	5.1	0.5	2.15	132
November.....	179.4	20	3.9	5.98	356
December.....	626.7	149	6.1	20.2	1,240
Calendar year 1942 .....	5,025.5	149	.1	13.8	9,960
January.....	1,065	100	14	34.4	2,110
February.....	723	60	17	25.8	1,430
March.....	1,220	81	23	39.4	2,420
April.....	2,526	126	46	84.2	5,010
May.....	1,175	66	26	37.9	2,330
June.....	618.5	37	9.3	20.6	1,230
July.....	137.4	9.6	2.5	4.43	273
August.....	35.0	3.9	.2	1.16	71
September.....	25.0	1.2	.4	.83	50
Water year 1942-43 .....	8,398.6	149	.2	23.0	16,650

e Stage-discharge relation indefinite; discharge computed on basis of weather records and records for Moore Creek near Arrowrock.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Weiser River at Tamarack, Idaho

Location.- Staff gage, lat. 44°57', long. 116°23', in sec. 30, T. 19 N., R. 1 E., 0.4 mile southeast of Tamarack.

Drainage area.- 36.5 square miles.

Records available.- September 1936 to September 1943.

Extremes.- Maximum discharge observed during year, 614 second-feet Apr. 15 (gage height, 5.37 feet); minimum observed, 5.1 second-feet Sept. 10-30 (gage height, 0.80 foot).  
1936-43: Maximum discharge observed, 775 second-feet Mar. 27, 1940 (gage height, 6.00 feet); minimum observed, 1.7 second-feet July 30, 1938 (gage height, 0.52 foot), while water was being stored in mill pond.

Remarks.- Records fair. Gage usually read twice daily. No diversion or regulation.  
Small flow from Boulder Creek in Salmon River Basin enters Weiser River above station through transmountain diversion during late irrigation season.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		8.0	12	26	14	20	278	224	66	17	9.3	d7.5
2		9.2	11	32	13	19	254	224	62	17	8.7	d7.0
3		7.9	11	31	12	18	*286	210	57	17	8.5	d6.5
4		7.9	11	28	12	18	286	164	55	18	8.5	6.1
5		7.4	11	28	11	17	296	146	49	15	8.5	5.9
6	5.5	7.4	11	28	10	16	270	140	48	13	8.5	5.7
7		d9.0	10	26	10	16	320	135	44	13	8.5	5.7
8		d13	10	22	10	d15	434	130	40	d12	8.5	5.5
9		d10	9.5	20	*9	d15	476	120	37	d12	8.5	5.5
10		d8.0	9.5	19	10	d14	320	109	34	d12	8.5	5.1
11		7.4	9.5	19	10	d14	356	d100	32	d11	8.5	5.1
12		7.4	*9.5	19	10	d14	455	495	32	d11	8.2	5.1
13		10	9.5	18	10	d16	498	490	32	d11	8.2	5.1
14		16	*9.5	17	10	19	520	480	34	d10	8.2	5.1
15		19	9.5	16	10	20	590	475	33	d10	8.2	5.1
18		15	9.5	16	10	d18	543	d70	29	d10	8.2	5.1
17		10	9.5	13	10	d17	520	d65	26	10	7.7	5.1
18		10	9.5	10	11	d16	476	d60	24	10	d7.5	5.1
19		9.5	9.5	15	11	d19	455	d80	24	10	d7.4	5.1
20		9.5	9.5	17	11	d15	394	d65	24	10	d7.2	5.1
21	7.0	9.5	9.5	18	13	d15	375	67	24	10	d7.1	5.1
22		9.5	9.2	20	15	d16	320	67	23	11	d7.0	5.1
23		9.5	9.2	35	16	17	270	67	23	9.0	d6.9	5.1
24		10	9.5	d25	16	19	254	67	22	9.0	d6.8	5.1
25		d17	*9.5	d25	16	21	254	67	21	9.0	d6.6	5.1
26		d13	9.5	d25	18	56	254	85	21	9.0	d6.5	5.1
27		d13	9.5	d23	19	78	254	84	21	9.0	6.3	5.1
28		d13	9.5	20	20	132	239	59	21	8.7	6.1	5.1
29		12	9.5	18	-	202	239	52	20	8.7	6.1	5.1
30		12	11	16	-	231	224	54	18	9.0	d7.0	5.1
31		-	15	13	-	262	-	64	-	9.3	d7.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	202.0	-	-	6.52	401
November.....	320.1	19	7.4	10.7	635
December.....	311.9	15	9.2	10.1	619
Calendar year 1942 .....	14,496.8	511	-	39.7	28,750
January.....	658	35	10	21.2	1,310
February.....	347	20	9	12.4	688
March.....	1,382	262	14	44.6	2,740
April.....	10,700	590	224	357	21,220
May.....	5,055	224	52	98.5	6,060
June.....	996	66	18	35.2	1,980
July.....	350.7	13	8.7	11.3	695
August.....	239.2	9.3	6.1	7.72	474
September.....	162.5	7.5	5.1	5.42	322
Water year 1942-43 .....	18,724.4	590	-	51.3	37,140

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Starkey and other stations in Weiser River Basin.

b Doubtful gage-height record; discharge computed on basis of weather records and records for station at Starkey and other stations in Weiser River Basin.

Notes.- Stage-discharge relation affected by ice Jan. 17-19, 23, Jan. 29 to Feb. 21. Backwater from beaver dams Oct. 1 to Nov. 2.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## WEISER RIVER BASIN

## Weiser River at Starkey, Idaho

Location.— Water-stage recorder, lat. 44°51', long. 116°27', in sec. 34, T. 18 N., R. 1 W., at Starkey Hot Springs (Starkey post office), 10 miles north of Council.

Drainage area.— 106 square miles.

Records available.— August to September 1920, March 1939 to September 1943.

Extremes.— Maximum discharge during year, 1,540 second-feet Apr. 15 (gage height, 5.25 feet); minimum, 14 second-feet Sept. 14; minimum gage height, 1.37 feet Oct. 5, 6, 8-10.

1920, 1939-43: Maximum discharge, 2,450 second-feet Mar. 27, 1940 (gage height, 6.00 feet), from rating curve extended above 700 second-feet by logarithmic plotting; minimum, 8.0 second-feet Aug. 31, 1939, Aug. 23, 1940; minimum gage height, 1.04 feet Aug. 31, 1939.

Remarks.— Records good except those for period of no gage-height record, which are fair. Several small diversions from river and tributaries above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 22				Jan. 23 to Sept. 30					
1.3	14	2.1	74	1.4	12	2.6	156	4.6	1,060
1.5	23	2.3	108	1.6	22	3.0	270	5.0	1,340
1.7	34	2.5	153	1.8	36	3.4	422	5.3	1,580
1.9	50			2.0	54	3.8	606		
				2.3	96	4.2	820		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	28	40	129	64	93	a650	668	552	118	27	23
2	17	26	40	121	60	93	a700	668	542	110	28	22
3	17	26	28	97	58	94	776	662	422	118	27	20
4	17	28	29	87	58	93	782	754	358	120	27	20
5	17	26	37	90	53	85	694	694	309	109	25	19
6	17	29	40	.77	51	77	721	586	277	101	25	18
7	17	30	38	65	61	76	910	506	254	90	24	17
8	17	46	39	61	51	72	1,100	431	231	86	23	17
9	17	35	41	68	46	67	1,030	393	225	83	23	17
10	17	30	46	64	47	62	838	377	210	77	23	17
11	24	27	42	56	50	65	e20	346	199	72	22	16
12	26	27	40	52	47	67	1,000	324	202	69	22	16
13	22	28	41	57	47	a80	1,200	298	194	64	22	15
14	20	34	40	61	46	a100	1,380	274	191	59	21	15
15	20	73	40	59	47	a95	1,460	254	188	58	21	15
16	20	47	39	48	46	a90	1,460	254	161	53	22	15
17	19	41	38	35	48	a85	1,380	226	161	50	21	16
18	19	46	38	28	49	a80	1,340	226	170	49	20	18
19	18	40	38	46	52	a80	1,340	237	168	48	20	16
20	18	30	38	46	58	a75	1,270	250	158	48	20	16
21	18	28	38	76	66	a75	1,130	280	149	48	20	16
22	18	36	39	141	73	a90	958	294	163	61	20	16
23	19	36	43	126	74	a125	862	312	145	49	20	16
24	19	62	44	100	74	a175	798	312	136	44	19	16
25	18	46	42	94	72	a250	787	305	132	42	19	16
26	18	46	24	100	74	a400	710	298	128	40	19	16
27	19	47	41	90	82	a550	611	284	124	38	18	16
28	20	46	51	80	90	a650	611	274	120	36	18	16
29	20	43	46	73	-	a650	673	257	122	34	18	16
30	20	43	46	66	-	a625	662	250	124	32	23	16
31	22	-	70	55	-	a600	-	414	-	30	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	587	26	17	18.9	1,160
November.....	1,132	73	26	37.7	2,250
December.....	1,255	70	24	40.5	2,490
Calendar year 1942.....	43,816	1,150	15	120	86,900
January.....	2,346	141	26	75.7	4,650
February.....	1,634	90	46	58.4	3,240
March.....	5,819	60	52	138	11,540
April.....	28,663	1,460	611	965	56,830
May.....	11,686	754	225	377	23,180
June.....	6,497	552	120	217	12,890
July.....	2,036	120	30	65.7	4,040
August.....	680	28	18	21.9	1,350
September.....	506	23	15	16.9	1,000
Water year 1942-43.....	62,831	1,460	15	172	124,600

a No gage-height record; discharge computed on basis of weather records and records for other stations in Weiser River Basin.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Weiser River near Council, Idaho

**Location.**— Water-stage recorder, lat. 44°41', long. 116°29', in sec. 29, T. 16 N., R. 1 W., 0.7 mile downstream from Cottonwood Creek, 2 miles upstream from Middle Fork, and 3½ miles southwest of Council.

**Drainage area.**— 390 square miles.

**Records available.**— April 1937 to September 1943.

**Extremes.**— Maximum discharge during year, 3,600 second-feet Apr. 8 (gage height, 7.84 feet); minimum, 41 second-feet Sept. 17 (gage height, 0.86 foot).

1937-43: Maximum discharge, 6,700 second-feet Mar. 16 or 17, 1938 (gage height, 7.6 feet from floodmark, site and datum then in use), from rating curve extended above 3,500 second-feet; minimum, 22 second-feet June 29, 1940 (gage height, 0.89 foot).

**Remarks.**— Records good except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.171) and other reservoirs. Many diversions above station for irrigation.

Rating tables, water year 1942-43, except period of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 21

Jan. 22 to Sept. 30

1.1	46	2.4	291	0.9	44	2.4	309	4.5	1,200	/
1.5	68	3.2	560	1.1	61	2.8	437	5.5	1,800	
1.6	112	4.0	895	1.4	99	3.2	597	6.5	2,510	
2.0	190	5.0	1,420	1.7	149	3.6	756	7.5	3,330	
				2.0	209	4.0	940			

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	87	190	1,560	332	648	2,510	1,550	1,700	304	77	86
2	49	86	204	1,020	298	648	2,750	1,580	1,490	277	75	84
3	52	92	159	680	279	568	2,830	1,580	1,230	290	76	82
4	53	77	155	542	279	568	2,870	1,730	1,040	318	77	84
5	51	73	151	490	266	503	2,450	1,670	940	274	89	82
6	49	74	159	406	259	426	2,430	1,490	922	251	59	82
7	48	77	155	347	261	434	2,670	1,340	778	237	59	81
8	47	190	153	324	*272	409	3,150	1,170	733	225	91	72
9	48	123	171	312	239	392	3,150	1,060	711	205	91	57
10	48	92	177	288	237	372	2,590	1,020	690	192	86	54
11	69	77	180	255	249	395	2,220	915	648	172	84	48
12	81	72	180	225	239	454	2,430	868	648	153	82	48
13	63	73	184	227	244	711	2,750	800	648	144	80	49
14	57	92	194	237	251	868	3,070	733	668	131	78	46
15	58	220	*184	235	261	668	3,150	690	587	117	78	46
16	54	149	190	204	266	567	3,150	627	529	108	84	46
17	52	157	195	b150	274	548	3,070	607	548	102	80	46
18	53	271	192	b100	285	484	2,910	607	568	96	78	46
19	52	195	188	b150	301	484	2,910	627	568	92	77	50
20	51	136	190	b175	335	459	2,630	668	529	85	77	61
21	50	109	190	b350	399	469	2,590	733	488	76	77	50
22	50	125	206	1,670	488	548	2,220	690	510	85	78	51
23	48	126	283	940	529	690	2,010	733	455	80	80	50
24	49	277	360	690	529	890	1,870	778	426	72	78	51
25	50	197	453	587	506	1,140	1,870	822	386	68	78	51
26	51	169	306	510	510	1,870	1,700	868	350	64	77	53
27	54	173	303	a450	568	2,360	1,490	868	344	59	76	53
28	55	190	327	a410	627	2,750	1,550	868	332	60	77	53
29	57	186	312	a380	-	2,830	1,610	845	318	59	78	53
30	60	192	466	a340	-	2,670	1,560	845	321	65	88	52
31	67	-	990	a300	-	2,590	-	1,250	-	81	89	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,675	81	47	54.0	3,320
November.....	4,147	277	72	138	8,230
December.....	7,769	990	151	251	15,410
Calendar year 1942	147,392	2,530	44	404	292,400
January.....	14,364	1,670	100	463	28,470
February.....	9,583	627	237	342	19,010
March.....	29,413	2,830	372	949	58,340
April.....	74,130	3,150	1,490	2,471	147,000
May.....	30,612	1,730	607	987	60,750
June.....	20,008	1,700	318	667	39,650
July.....	4,544	318	59	147	9,010
August.....	2,513	91	75	81.1	4,980
September.....	1,759	86	46	58.6	3,490
Water year 1942-43	200,504	3,150	46	549	397,700

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for other stations on Weiser River.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## WEISER RIVER BASIN

Weiser River near Cambridge, Idaho

Location.— Water-stage recorder, lat. 44°35', long. 116°38', in NE¼ sec. 1, T. 14 N., R. 3 W., 2½ miles northeast of Cambridge.

Drainage area.— 605 square miles.

Records available.— March 1939 to September 1943.

Extremes.— Maximum discharge during year, 5,320 second-feet Apr. 9 (gage height, 7.83 feet); minimum, 44 second-feet Sept. 17, 18 (gage height, 1.06 feet).

1939-43: Maximum discharge, 6,670 second-feet Mar. 31, 1940 (gage height, 8.30 feet); minimum, 25 second-feet Sept. 3, 1940 (gage height, 0.99 foot).

Remarks.— Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.171) and other reservoirs. Diversions above station for irrigation.

Rating table, water year 1942-43, except period of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Nov. 18)

1.1	47	2.6	352	5.1	1,830
1.3	69	3.0	517	5.6	2,270
1.5	96	3.4	717	6.1	2,790
1.7	129	3.8	960	6.6	3,400
2.0	186	4.2	1,195	7.1	4,120
2.3	258	4.6	1,460	7.6	4,960

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	101	356	2,140	472	1,000	3,820	2,270	3,680	772	122	112
2	62	127	370	1,670	459	1,000	4,040	2,320	3,080	712	119	110
3	64	133	315	1,160	421	a875	4,120	2,370	2,320	717	122	107
4	65	122	272	890	408	a825	3,900	2,680	1,960	761	110	106
5	68	109	290	801	397	a750	3,340	2,570	1,710	669	120	104
6	69	104	296	635	332	650	3,200	2,270	1,600	613	119	101
7	68	109	287	*531	*332	650	3,610	2,040	1,500	584	119	99
8	65	250	284	512	393	625	4,360	1,790	1,480	550	117	86
9	63	201	306	517	370	600	4,960	1,750	1,460	504	119	77
10	62	145	326	476	325	600	3,610	1,670	1,390	455	112	69
11	64	124	312	429	374	650	3,020	1,530	1,360	409	99	63
12	88	115	309	370	367	800	3,270	1,420	1,360	359	99	57
13	101	117	318	356	367	1,200	3,820	1,360	1,390	332	101	56
14	95	126	313	385	385	1,600	4,280	1,260	1,380	309	98	53
15	92	315	321	366	401	1,100	4,610	1,200	1,260	284	95	50
16	88	250	438	332	417	900	4,700	1,160	1,160	261	99	51
17	83	220	345	261	426	825	4,170	1,130	1,160	245	99	51
18	82	442	345	155	442	750	4,280	1,160	1,260	230	92	47
19	79	385	335	158	463	700	4,280	1,230	1,260	218	90	50
20	79	264	335	232	499	675	4,200	1,320	1,200	201	92	54
21	78	210	335	b400	600	750	3,820	1,420	1,130	182	93	55
22	77	215	356	b2,500	700	800	3,270	1,420	1,130	193	92	56
23	76	225	504	b1,800	800	1,200	3,840	1,530	1,070	180	98	55
24	74	421	696	b1,200	800	1,500	2,620	1,670	1,010	164	92	55
25	73	359	1,010	b900	750	2,000	2,570	1,710	950	153	90	54
26	73	290	675	b800	750	2,750	2,470	1,790	890	145	90	55
27	74	306	584	a700	850	3,680	2,140	1,790	860	136	88	56
28	77	345	574	a625	950	4,360	2,180	1,830	860	127	88	56
29	73	338	569	a575	-	4,440	2,470	1,790	830	119	90	55
30	79	370	649	a525	-	4,040	2,270	1,710	830	115	102	57
31	85	-	1,500	433	-	3,680	-	2,620	-	129	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,339	101	58	75.5	4,640
November.....	6,836	442	101	228	13,560
December.....	13,515	1,500	264	446	27,400
Calendar year 1942.....	227,664	3,790	50	624	451,600
January.....	22,874	2,500	155	738	45,370
February.....	14,350	950	325	612	25,460
March.....	45,975	4,440	600	1,493	31,190
April.....	106,680	4,960	2,140	3,556	211,600
May.....	53,680	2,680	1,130	1,732	106,600
June.....	42,420	3,680	530	1,416	84,280
July.....	10,528	772	115	349	21,480
August.....	3,186	122	88	103	6,320
September.....	2,066	112	47	68.9	4,100
Water year 1942-43.....	325,119	4,960	47	601	644,900

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations near Council and above Crane Creek near Weiser.

b Stage-discharge relation affected by ice.

Notes.— Doubtful gage-height record Feb. 21 to Mar. 2, Mar. 6-26; discharge computed on basis of weather records and records for stations near Council and above Crane Creek near Weiser.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Weiser River above Crane Creek, near Weiser, Idaho

Location.- Water-stage recorder, lat. 44°18', long. 116°48', in sec. 10, T. 11 N., R. 4 W., 1 mile upstream from Crane Creek and 9 miles northeast of Weiser.

Drainage area.- 1,160 square miles.

Records available.- July 1920 to September 1943.

Average discharge.- 22 years (1921-43), 848 second-feet.

Extremes.- Maximum discharge during year, 7,900 second-feet Jan. 22; maximum gage height, 9.0 feet Jan. 21, ice jam; minimum discharge, 45 second-feet Sept. 16, 17 (gage height, 0.98 foot).  
1920-43: Maximum discharge, 16,900 second-feet Mar. 19, 1932 (gage height, 10.8 feet, from floodmarks), from rating curve extended above 9,000 second-feet by logarithmic plotting; minimum, 5 second-feet (estimated) Aug. 11 to Sept. 10, 1931.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow partly regulated by Lost Valley Reservoir (see p. 171) and other reservoirs. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	165	634	5,140	642	1,820	5,230	3,160	4,700	1,180	140	115
2	105	214	621	4,360	904	1,880	5,410	3,160	4,440	1,080	188	112
3	106	207	871	2,680	860	1,560	5,410	3,230	3,920	1,010	121	107
4	107	192	436	1,820	792	1,460	5,230	3,460	3,000	1,150	194	107
5	110	178	464	1,540	776	1,350	4,700	3,540	2,640	1,020	112	110
6	112	165	487	1,270	723	1,150	4,360	3,230	2,360	912	115	110
7	112	168	468	994	723	1,140	4,700	2,930	2,160	885	118	104
8	110	250	b426	880	760	1,060	5,230	2,640	2,100	805	115	98
9	110	367	b478	977	702	1,130	6,790	2,430	2,100	785	121	96
10	107	264	541	904	614	1,180	5,230	2,360	2,100	691	116	83
11	118	207	571	790	702	1,260	4,190	2,160	2,100	618	110	80
12	149	185	553	695	660	1,480	4,100	2,040	2,040	564	96	68
13	182	178	559	667	674	2,390	4,700	1,860	2,160	501	98	60
14	165	162	589	640	738	3,930	5,060	1,740	2,100	460	96	56
15	146	260	577	634	775	3,660	5,410	1,630	2,040	406	95	56
16	140	442	634	647	805	2,460	5,600	1,530	1,600	374	83	49
17	137	318	674	b550	796	2,090	5,600	1,500	1,800	345	85	49
18	131	426	667	b300	820	1,820	5,410	1,510	1,920	311	86	49
19	131	614	647	b360	865	1,760	5,230	1,590	1,980	288	78	51
20	131	414	634	b750	920	1,620	5,230	1,740	1,920	262	63	60
21	131	310	621	b2,000	1,100	1,880	4,970	1,860	1,740	245	85	58
22	125	270	634	5,910	1,320	2,090	4,360	2,040	1,740	232	86	64
23	125	292	1,060	4,780	1,620	2,760	3,860	2,100	1,630	241	88	68
24	120	350	1,860	2,600	1,750	3,130	3,620	2,430	1,620	216	63	71
25	123	559	3,060	1,880	1,650	3,610	3,540	2,570	1,440	197	83	71
26	123	420	1,950	*1,750	1,600	5,320	3,460	2,710	1,330	182	76	73
27	126	398	1,310	1,560	1,640	6,460	3,080	2,780	1,270	157	83	68
28	126	487	1,130	1,350	1,750	6,980	3,000	2,780	1,250	140	78	73
29	131	535	1,140	1,150	-	6,980	3,540	2,860	1,220	137	71	73
30	134	696	1,160	1,040	-	6,190	3,230	2,640	1,180	134	78	73
31	143	-	3,150	812	-	5,240	-	3,160	-	128	104	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,898	192	95	188	7,730
November	9,609	614	165	320	19,060
December	28,262	3,130	425	912	56,060
Calendar year 1942	370,065	4,440	75	1,014	734,100
January	51,390	5,910	300	1,658	101,900
February	28,062	1,620	614	1,002	55,660
March	86,360	6,980	1,060	2,736	171,300
April	137,370	6,790	3,000	4,646	276,400
May	75,370	5,540	1,600	2,431	149,500
June	63,400	4,700	1,180	2,113	125,800
July	15,628	1,160	128	501	30,800
August	3,028	140	71	97.6	6,000
September	2,511	115	49	77.0	4,580
Water year 1942-43	806,685	6,980	49	1,388	1,005,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## WEISER RIVER BASIN

East Fork Weiser River near Council, Idaho

Location.- Water-stage recorder, lat. 44°46', long. 116°16', in SE¼ sec. 31, T. 17 N., R. 2 E., three-quarters of a mile southwest of Sqaw Creek ranger station and 9 miles northeast of Council. Datum of gage is 6,224.1 feet above mean sea level.

Drainage area.- 2.0 square miles.

Records available.- September 1932 to October 1943 (fragmentary). Discontinued.

Extremes.- Maximum discharge during period, October 1942 to October 1943, not determined; probably no flow at times during winter.

1932-43: Maximum discharge recorded, 77 second-feet June 16, 1938, from rating curve extended above 50 second-feet; maximum gage height recorded, 4.11 feet June 9, 1933 (ice affected); no flow Apr. 8, 1937, and probably no flow at times during each winter from 1938 to 1943.

Remarks.- Records good except those below 1.0 second-foot, which are fair, and those for periods of no gage-height record, which are poor. No diversion or regulation above station.

Discharge, in second-feet, 1942-43  
1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7							-		42	6.6	1.7
2	.7							-		40	6.4	1.7
3	.7							-	a50	41	6.9	1.7
4	.7							-		38	5.2	1.7
5	.7							-		36	4.8	1.7
6	.7	a0.5						-		36	4.4	1.7
7	.7							h5.0		38	4.0	1.7
8	.6									38	3.9	1.7
9	.6									36	3.6	1.8
10	.7	b.5								31	3.4	1.9
11	.9	-								27	3.3	2.0
12	.9	-								23	3.1	2.0
13	.8	-								20	3.0	2.0
14	.8	-						a6	a40	20	2.9	2.0
15	.7	-								19	2.8	1.9
16	.7	-								17	2.6	1.9
17	.7	-								17	2.6	1.9
18	.7	-								16	2.4	1.8
19	.6	-								16	2.4	1.7
20	.6	-								16	2.4	1.7
21	.6	-								39	2.3	1.7
22	.6	-								40	2.2	1.7
23		-							a40	38	2.2	1.6
24		-								38	2.2	1.6
25		-								38	2.2	1.4
26		-								38	2.1	1.3
27	a.6	-								39	1.9	1.3
28		-								41	1.9	1.3
29		-						a50		43	2.0	1.1
30		-								46	2.1	1.1
31		-								-	1.9	-

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 2 discharge measurements, weather records, and records for Johnson Creek below Johnson Park near Council and Boulder Creek near Tamarack.

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

1943

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 1	1.0	Oct. 6	1.0	Oct. 11	a2.0
2	1.0	7	.9	12	a1.2
3	1.0	8	.9	13	a1.1
4	1.0	9	.9	14	a1.0
5	1.0	10	1.7	15	a.9
				16	h.9

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Boulder Creek near Tamarack.

h Computed from staff-gage readings.

Monthly discharge, in second-feet, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1942	20.8	0.9	-	0.67	0.335	0.39	41
November 1-10	5.0	-	-	.50	.250	.09	10
December	-	-	-	-	-	-	-
Calendar year	-	-	-	-	-	-	-
May 7-31, 1943	584	-	-	23.4	11.7	10.9	1,160
June	1,250	-	-	41.7	20.8	23.2	2,480
July	693.3	42	7.1	22.4	11.2	12.9	1,380
August	98.6	6.6	1.9	3.18	1.59	1.83	196
September	50.2	2.0	1.1	1.67	.836	.93	100
October 1-15, 1943	17.5	2.0	.9	1.09	.545	.33	35

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## West Fork Weiser River near Fruitvale, Idaho

Location.— Staff gage, lat. 44°50', long. 116°28', in NW $\frac{1}{4}$  sec. 9, T. 17 N., R. 1 W., at Taylor Ranch,  $\frac{1}{2}$  miles northwest of Fruitvale and  $\frac{1}{2}$  miles upstream from mouth.

Drainage area.— 78 square miles.

Records available.— October 1910 to January 1913, October 1919 to September 1925, April 1937 to September 1943.

Extremes.— Maximum discharge observed during year, 920 second-feet Apr. 19; maximum gage height observed, 4.86 feet Apr. 8; minimum discharge observed, 3.7 second-feet Nov. 21; minimum gage height observed, 0.76 foot July 24-29.

1910-13, 1919-25, 1937-43: Maximum discharge observed, 1,170 second-feet Mar. 31, 1940 (gage height, 4.79 feet, present datum); minimum observed, 0.5 second-foot July 23-27, 1911.

Remarks.— Records fair except those for period of ice effect, which are poor. Gage usually read twice daily. Several diversions above and below station for irrigation. Flow regulated by Lost Valley Reservoir (see following page).

## Discharges, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	10	18	70	40	112	345	428	316	35	43	60
2	25	9.9	17	73	40	107	428	465	332	34	43	60
3	25	12	b16	58	38	101	465	505	316	45	40	61
4	25	11	b14	48	40	94	465	548	272	45	66	61
5	25	*7.8	b13	49	40	85	445	548	234	36	58	58
6	25	9.0	b15	44	35	77	525	505	211	34	63	56
7	25	9.9	b15	b40	35	71	570	428	200	34	68	56
8	22	all	b16	b37	*55	67	760	345	180	33	66	25
9	22	12	b18	38	b32	62	685	315	162	34	71	25
10	22	10	b20	37	b30	58	485	302	145	33	65	25
11	a17	5.2	b20	30	36	60	410	316	137	30	66	25
12	12	12	b22	b29	32	65	548	301	137	32	63	22
13	9.0	10	a23	28	32	80	685	259	124	31	64	23
14	8.7	13	a24	33	36	100	810	234	122	22	63	23
15	8.7	18	24	30	40	82	865	222	117	22	70	23
16	9.0	13	*25	b25	b40	85	920	200	111	20	70	23
17	9.0	a10	24	b20	b58	73	865	180	101	19	63	24
18	9.0	a8.0	24	b15	b45	67	865	180	94	18	64	24
19	9.0	a7.0	25	b20	60	64	920	180	92	18	64	23
20	8.7	6.6	24	b30	58	61	865	171	88	17	64	23
21	9.0	7.2	24	b50	70	62	810	137	86	16	64	24
22	8.7	15	26	b100	82	72	735	91	82	16	63	25
23	9.0	15	30	77	82	93	660	97	77	15	63	24
24	8.7	17	32	40	78	111	615	113	72	14	63	24
25	a9.0	9.4	33	25	78	141	639	162	71	14	65	24
26	9.0	15	b28	32	81	255	570	180	37	14	63	24
27	9.0	18	30	44	96	315	445	200	37	14	61	24
28	9.0	21	39	42	105	410	428	211	36	14	58	24
29	9.0	17	34	40	-	410	445	211	36	14	59	24
30	9.4	18	40	44	-	345	410	222	34	39	62	24
31	9.9	-	52	b35	-	290	-	272	-	45	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	440.8	25	8.7	14.2	874
November.....	358.0	21	5.2	11.9	710
December.....	765	52	13	24.7	1,520
Calendar year 1942.....	32,368.9	710	5.2	98.7	64,210
January.....	1,283	100	15	41.4	2,540
February.....	1,440	105	30	51.4	2,860
March.....	4,075	410	58	131	8,080
April.....	18,682	920	345	623	37,060
May.....	8,648	548	91	276	16,950
June.....	4,059	332	34	135	8,050
July.....	803	45	14	25.9	1,590
August.....	1,914	71	40	61.7	3,800
September.....	959	61	22	32.0	1,900
Water year 1942-43.....	45,326.6	920	5.2	119	85,930

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Lost Valley Reservoir near Tamarack, Idaho

Location.— Staff gage, lat. 44°57'30", long. 116°28', 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 square miles.

Records available.— May to September 1924, May 1926 to September 1943.

Extremes.— Maximum gage height observed during year, 26.86 feet June 6; minimum observed, 13.41 feet Oct. 10.

1924, 1926-43: Maximum gage height observed, 26.90 feet May 14, 1940; gage not read when reservoir was nearly empty.

Remarks.— Reservoir is formed by earth dam completed in 1910 and raised 6 feet in 1929. Permanent spillway crest is at gage height 22.28 feet; during 1938 temporary flash-board structure was raised to permit storage to gage height about 26 feet. Water is used for irrigation of lands in Weiser River Basin.

Cooperation.— Several gage readings furnished by Lost Valley Reservoir Co.



Gage height, in feet, of Lost Valley Reservoir near Tamarack, Idaho,  
water year October 1942 to September 1943

Date	Gage height	Date	Gage height	Date	Gage height	Date	Gage height
Oct. 10	13.41	Apr. 14	24.20	May 24	26.90	July 23	25.92
Nov. 2	13.71	29	24.80	June 6	26.66	Aug. 20	22.48
Dec. 15	13.71	May 11	24.82	16	26.24	27	21.27
Apr. 4	17.00	21	24.40	20	26.06	Sept. 18	18.64

Lost Creek near Tamarack, Idaho

Location.- Water-stage recorder, lat. 44°57', long. 116°28', in sec. 28, T. 19 N., R. 1 W., 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 square miles.

Records available.- January 1910 to August 1914, May 1920 to September 1921, May 1924 to September 1943.

Average discharge.- 13 years (1930-43), 34.6 second-feet.

Extremes.- Maximum discharge during year, 429 second-feet Apr. 19 (gage height, 3.31 feet); minimum recorded, 2 second-feet May 21-23 (gage height, 1.00 foot).

1910-14, 1920-21, 1924-43: Maximum discharge, about 688 second-feet May 17, 18, 1921 (gage height, 4.28 feet); practically no flow at times gates in dam were closed.

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

No diversion between reservoir and station; practically entire flow diverted below station during irrigation season. Flow regulated by Lost Valley Reservoir (see preceding page).

Cooperation.- Water-stage recorder inspected by employees of Lost Valley Reservoir Co.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	a5					8	a250	a170	a35	a45	a80
2	27	b5					8	a260	a180	a35	a43	a61
3	27					a7	5	a270	a170	a40	46	a61
4	27						31	a280	a160	a40	68	a62
5	26						48	a280	a140		68	a63
6	26						48	a260	h132		68	a64
7	26						48	a220	a120	a35	66	55
8	26						48	a200	a110		66	27
9	26						49	a180	a100		66	27
10	14	a5					61	a170	a95		66	27
11	7						52	171	a90		65	27
12	7						53	163	a90	a25	65	27
13	7						69	160	a85		a65	27
14	7					a7	143	136	a80	h18	a65	27
15	7						244	128	h78	a18	a65	28
16	6				a7	a7	332	120	a76	a17	a65	28
17	6						374	113	a70	a16	a65	28
18	6						409	109	a70	a15	a65	28
19	6						417	109	a65	a15	a65	28
20	6						397	113	h60	a15	65	28
21	6						374	42		a14	65	28
22	6					7	343	2	a55	a14	64	28
23	6	a6	a7			7	316	2		14	64	29
24	6					7	298	17		14	62	28
25	7					7	287	76		14	62	28
26	7						270	108		13	61	28
27	6					7	a260	126	a35	13	61	28
28	6					7	a252	126		12	61	28
29	6					7	h247	a140		20	61	28
30	a6					7	a240	a140		48	60	28
31	a6					8	-	a160	-	46	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	385	27	6	12.4	764
November.....	185	-	-	5.5	327
December.....	212	-	-	6.8	420
Calendar year 1942 .....	14,778	318	-	40.5	29,320
January.....	217	-	-	7.0	430
February.....	196	-	-	7.0	389
March.....	218	-	-	7.0	432
April.....	5,723	417	8	191	11,360
May.....	4,651	280	2	149	9,190
June.....	2,570	180	-	85.7	5,100
July.....	771	48	12	24.9	1,530
August.....	1,931	68	43	62.3	3,830
September.....	1,066	64	27	35.5	2,110
Water year 1942-43 .....	18,065	417	2	49.5	35,870

a No gage-height record; discharge interpolated or computed on basis of records of gate changes, weather records, and records for West Fork Weiser River near Fruitvale.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Hornet Creek near Council, Idaho

Location.- Staff gage, lat. 44°45', long. 116°29', in sec. 5, T. 16 N., R. 1 W., 2½ miles upstream from mouth and 2½ miles northwest of Council.

Drainage area.- 107 square miles.

Records available.- April 1937 to October 1943 (discontinued). Fragmentary prior to August 1939.

Extremes.- 1942-43: Maximum daily discharge during water year, 800 second-feet Apr. 9 (gage overtopped, discharge computed by special methods); minimum observed, 2.0 second-feet Aug. 14-16; minimum gage height observed, 2.34 feet Oct. 1, 2.

1943: Maximum discharge observed during period Oct. 1-23, 20 second-feet Oct. 23 (gage height, 4.78 feet); minimum observed, 5.8 second-feet Oct. 2.

1937-43: Maximum discharge observed, 1,180 second-feet Feb. 28, 1940 (gage height, 6.90 feet; present datum); no flow Aug. 19, 20, 1939, and probably at times during periods of no record.

Remarks.- Records good except those for period of ice effect and those for Oct. 12-23, 1943, which are fair. Gage read once daily. Slight regulation by two small reservoirs on South Fork. Several diversions above station for irrigation.

## Discharge, in second-feet, 1942-43

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	21	45	364	74	133	615	224	256	85	8.8	8.8
2	5.0	21	45	216	72	113	715	224	204	85	8.8	8.8
3	6.6	23	21	148	66	88	760	224	165	62	4.6	8.8
4	7.7	18	23	120	60	100	715	245	147	93	4.6	8.8
5	7.9	16	38	113	62	88	615	224	130	80	4.0	8.8
6	7.9	16	38	78	62	56	615	204	122	72	4.6	7.9
7	7.4	16	32	88	62	88	680	164	122	65	4.6	7.9
8	8.5	42	42	60	466	82	750	165	130	62	4.6	7.0
9	9.2	23	42	68	46	77	6900	165	130	56	5.2	6.4
10	8.5	19	39	66	52	51	680	147	130	53	5.2	5.8
11	16	17	41	54	62	68	565	138	122	49	5.2	5.2
12	20	16	*42	44	58	62	645	130	130	40	4.6	5.2
13	16	16	44	44	62	100	680	122	147	36	5.2	5.8
14	16	18	42	54	64	148	680	114	138	34	2.0	5.8
15	16	68	44	51	66	113	645	105	130	26	2.0	6.4
16	15	32	47	32	58	113	615	99	122	24	2.0	6.4
17	14	31	47	16	60	106	555	99	122	22	2.6	4.6
18	14	88	49	23	60	68	465	99	130	21	2.4	6.4
19	14	49	47	b50	72	94	495	99	136	17	2.4	5.4
20	14	34	47	b40	77	66	415	108	130	12	2.4	6.4
21	12	30	47	b60	94	74	415	114	113	8.8	2.8	6.4
22	12	32	49	b400	106	94	340	130	122	7.9	2.6	6.4
23	12	32	60	b250	113	120	290	147	111	10	3.2	6.4
24	12	120	74	b175	106	155	267	165	105	7.0	3.2	5.8
25	12	61	113	148	100	197	267	164	99	5.8	3.2	5.8
26	12	50	47	106	100	417	234	184	96	6.4	3.2	6.4
27	12	45	72	100	113	695	204	184	95	6.4	3.6	6.4
28	12	42	74	88	135	680	224	194	96	6.4	4.0	6.4
29	12	43	68	82	82	713	245	184	91	6.4	4.0	6.4
30	12	45	76	72	-	715	224	165	88	11	4.0	5.8
31	15	-	188	44	-	645	-	245	-	11	4.0	-

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Gage overtopped; discharge computed on basis of records for Mann Creek near Weiser and computed inflow to Weiser River between Starkey and Council.

1943

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 1	6.4	Oct. 9	7.0	Oct. 17	9.2
2	5.8	10	7.0	18	10
3	6.4	11	13	19	10
4	6.4	12	10	20	10
5	7.0	13	9.2	21	19
6	7.9	14	9.2	22	16
7	7.0	15	8.4	23	20
8	7.0	16	9.7		

## Monthly discharge, in second-feet, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1942	363.7	20	5.0	11.7	721
November	1,084	120	16	36.1	2,150
December	1,661	188	21	54.2	3,330
Calendar year 1942	30,468.6	527	.2	63.5	60,430
January 1943	3,264	400	16	105	6,470
February	2,126	133	46	75.9	4,220
March	6,354	718	51	205	12,600
April	15,425	800	204	514	30,600
May	5,005	245	99	161	9,930
June	3,659	256	88	129	7,650
July	1,101.1	93	5.8	35.6	2,180
August	124.0	8.8	2.0	4.00	246
September	199.8	8.8	4.6	6.66	396
Water year 1942-43	40,586.6	800	2.0	111	80,490
October 1-23, 1943	221.6	20	5.8	9.63	440

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Middle Fork Weiser River near Mesa, Idaho

Location.— Staff gage, lat. 44°39', long. 116°27', in NW¼ sec. 10, T. 15 N., R. 1 W., at old highway bridge, 1½ miles north of Mesa and 2½ miles upstream from mouth.

Drainage area.— 86.5 square miles.

Records available.— August 1919 to November 1921, April 1937 to September 1943. October 1910 to August 1913 at site three-quarters of a mile upstream.

Extremes.— Maximum discharge during year not determined; minimum observed, 1.3 second-feet Sept. 24, 28; minimum gage height observed, 0.57 foot Sept. 9-13, 23, 24, 28, 1919-21, 1937-43; Maximum discharge observed, 1,380 second-feet May 1, 1938, from rating curve extended above 1,000 second-feet; maximum gage height, observed, 4.88 feet Dec. 11, 1937, present datum; no flow at times in 1937, 1939-41.

Remarks.— Records fair except those for periods of ice effect, doubtful gage-height records, or indefinite stage-discharge relation, which are poor. Gage read twice daily. Mesa Orchards Canal diverts about 6½ miles above station.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	52	55	312	68	92	376	525	1,000	235	31	6.3
2	9.2	55	57	280	65	89	426	550	900	219	36	4.8
3	10	36	42	174	62	83	447	600	600	205	31	5.0
4	9.6	31	42	62	55	85	426	650	550	191	25	5.6
5	8.7	25	52	79	55	81	384	600	500	179	21	3.8
6	7.9	26	61	76	54	79	426	550	450	162	18	2.3
7	6.6	22	46	60	52	70	470	500	475	148	15	1.9
8	6.6	435	65	63	*61	68	695	500	475	130	15	1.7
9	6.9	430	55	60	42	63	540	500	475	130	18	1.6
10	6.9	17	46	62	44	60	426	500	475	125	17	1.6
11	10	18	*46	57	54	62	425	450	475	125	15	1.4
12	14	18	48	42	48	66	450	400	475	120	13	1.6
13	12	21	45	39	52	63	550	400	450	118	11	1.6
14	12	425	42	54	57	63	600	400	425	105	10	2.3
15	13	445	45	55	60	66	650	375	425	94	6.9	3.2
16	12	440	45	b50	60	68	650	400	400	81	6.3	3.6
17	12	445	42	b40	78	70	675	375	400	70	6.0	4.8
18	11	98	45	b50	70	68	675	400	400	34	5.6	6.3
19	11	480	46	b60	66	65	700	425	400	29	5.3	5.6
20	11	450	42	98	78	62	700	450	375	38	4.8	4.3
21	13	440	49	176	81	60	650	500	350	54	4.5	3.6
22	12	445	63	308	103	66	600	550	350	70	4.3	2.3
23	12	54	74	176	98	74	550	600	345	66	4.3	1.6
24	11	52	103	148	94	135	600	625	308	54	3.8	1.3
25	12	60	89	122	85	210	600	625	290	45	3.4	1.6
26	12	45	70	103	85	345	600	650	280	55	3.4	1.7
27	17	49	66	78	92	380	550	650	266	39	2.9	1.7
28	16	60	70	78	98	396	500	675	272	32	2.6	1.3
29	13	65	63	78	-	376	550	675	283	34	2.7	1.6
30	13	57	112	72	-	384	500	650	266	31	4.3	2.0
31	31	-	210	72	-	388	-	650	-	34	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	361.1	31	6.6	11.6	716
November.....	1,296	98	12	43.2	2,670
December.....	1,916	210	42	61.8	3,800
Calendar year 1942 .....	37,412.6	640	.4	102	74,210
January.....	3,192	312	30	103	6,330
February.....	1,907	103	42	68.1	3,780
March.....	4,235	396	60	137	8,400
April.....	18,291	700	376	543	32,310
May.....	16,600	650	375	536	32,930
June.....	13,155	1,000	266	436	26,050
July.....	3,050	235	29	98.4	6,050
August.....	358.1	36	2.6	11.6	710
September.....	88.2	6.3	1.3	2.94	176
Water year 1942-43 .....	62,429.4	1,000	1.3	171	123,800

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Doubtful gage-height record; discharge computed on basis of weather records, inflow to Weiser River between stations near Council and near Cambridge, and records for other stations on nearby streams in Weiser River Basin.

d Note.— Stage-discharge relation indefinite Apr. 11 to June 22 (no gage-height record June 2-10); discharge computed on basis of discharge measurements May 12 and June 23, weather records, records for Little Weiser River near Indian Valley, and computed inflow to Weiser River between stations near Council and near Cambridge.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Mesa Orchards Canal near Mesa, Idaho

Location.- Staff gage, lat. 44°38', long. 116°25', in sec. 14, T. 15 N., R. 1 W., 1,500 feet upstream from end of flume, 1½ miles northeast of Mesa, and 3 miles downstream from head gates.

Records available.- 1924, 1928, 1930-43 (irrigation seasons only).

Extremes.- Maximum daily discharge observed during year, 36 second-feet Aug. 3-8; maximum gage height observed, 2.46 feet Aug. 3-7; no flow at times.  
1924, 1928, 1930-43: Maximum discharge observed, 38 second-feet June 18, 19, 1940; maximum gage height observed, that of Aug. 3-7, 1943; no flow during nonirrigation seasons.

Remarks.- Records good April to September, others fair. Gage read twice daily, and gage changes noted. Canal diverts water from Middle Fork Weiser River in SE¼NW¼ sec. 9, T. 15 N., R. 1 E., for irrigation of Mesa orchards and for domestic supply of Mesa. Flow regulated by gates in diversion dam and waste gates in flume above gage.

Cooperation.- Gage-height record furnished by The Mesa Co.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a3						-	6	10	24	a35	29
2	a3						-	6	9	24	35	29
3	3	5					-	6	11	24	36	28
4	a2						-	6	11	a24	36	27
5	2						-	6	9	24	36	a27
6	9						-	6	a9	24	36	26
7							-	6	9	26	36	25
8							-	6	9	30	a36	25
9							-	6	a9	32	35	25
10							-	6	11	35	35	23
11							-	a6	13	34	35	23
12							-	5	13	34	35	a22
13							-	a5	a13	35	35	21
14							-	5	12	35	35	21
15							-	a5	12	35	a35	20
16								13	5	12	35	20
17	6							11	a5	12	35	20
18								8	12	35	35	20
19								10	13	12	34	a20
20								10	14	a12	34	20
21								10	14	13	33	20
22								10	15	13	34	a34
23								10	14	13	34	20
24								9	14	13	34	19
25								6	17	13	a34	19
26								6	22	15	33	a18
27								7	21	a17	33	18
28								6	19	20	33	18
29								6	25	23	34	a30
30								6	23	23	35	18
31								-	18	-	35	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October 1-6.....						19	6	2	3.2	38		
November.....						-	-	-	-	-		
December.....						-	-	-	-	-		
Calendar year						-	-	-	-	-		
January.....						-	-	-	-	-		
February.....						-	-	-	-	-		
March.....						-	-	-	-	-		
April 16-30.....						130	13	6	5.7	268		
May.....						333	25	5	10.7	660		
June.....						333	23	9	12.8	760		
July.....						983	35	24	31.7	1,960		
August.....						1,032	36	22	33.3	2,060		
September.....						659	29	18	22.0	1,310		
Water year						-	-	-	-	-		

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## WEISER RIVER BASIN

Johnson Creek below Johnson Park, near Council, Idaho

Location.- Water-stage recorder, lat. 44°46', long. 116°38', in SE $\frac{1}{4}$  sec. 36, T. 17 N., R. 3 W., 50 feet downstream from Johnson Park Creek, three-quarters of a mile southeast of Johnson Park, and 10 miles northwest of Council.

Drainage area.- 5 square miles.

Records available.- March 1941 to September 1943.

Extremes.- Maximum discharge during year, 130 second-feet May 31 (gage height, 2.20 feet), from rating curve extended above 72 second-feet; minimum recorded, 1.3 second-feet Oct. 28.

1941-43: Maximum discharge, 181 second-feet May 22, 1942 (gage height, 2.57 feet), from rating curve extended above 60 second-feet; minimum recorded, 0.5 second-foot Sept. 18, 1941.

Remarks.- Records good except those below 5 second-feet, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8					-	3.6	47	95	26	4.0	2.0
2	1.8					-	4.4	54	75	25	4.0	1.9
3	1.8					-	5.0	67	63	28	3.8	1.8
4	1.8					-	5.2	70	56	26	3.6	1.8
5	1.8					-	5.5	54	52	22	3.5	1.8
6	1.8					-	6.1	52	54	21	3.4	1.8
7	1.8					-	8.1	46	53	20	3.3	1.8
8	1.8					-	15	51	53	19	3.1	1.7
9	1.8					-	20	52	54	17	3.1	1.7
10	1.8					-	16	49	54	16	3.1	1.7
11	2.8					-	15	40	52	15	3.0	1.7
12	2.7					-	20	35	58	13	2.8	1.7
13	2.2					-	34	32	64	12	2.7	1.7
14	2.0					-	44	28	56	11	2.5	1.7
15	2.0					-	47	26	48	10	2.5	1.7
16	1.9					-	50	30	45	9.6	2.7	1.7
17	1.9					-	52	35	45	9.8	2.4	1.7
18	1.9					-	62	40	47	8.4	2.3	1.7
19	1.9					-	64	49	49	7.7	2.3	1.7
20	1.9					-	48	52	44	7.1	2.2	al.7
21	1.8					-	39	59	40	6.8	2.2	al.7
22	1.8					1.8	35	64	42	6.8	2.2	al.7
23	1.8					1.7	40	76	38	6.1	2.2	al.7
24	1.8					1.7	42	81	35	5.5	2.1	al.7
25	1.8					1.7	34	86	33	5.2	2.0	al.7
26	1.8					2.0	26	88	31	5.0	2.0	al.7*
27	1.8					2.3	23	a90	30	4.7	2.0	al.7
28	2.1					2.8	62	91	29	4.6	1.9	al.7
29	2.0					3.1	49	76	28	4.4	1.9	al.7
30	2.0					3.5	47	82	27	4.2	2.3	al.7
31	1.9					3.5	-	105	-	4.1	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	59.8	2.8	1.8	1.93	119
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 22-31.....	24.1	3.5	1.7	2.41	48
April.....	924.9	64	3.6	30.8	1,830
May.....	1,807	105	26	58.3	3,590
June.....	1,450	95	27	48.3	2,880
July.....	380.0	28	4.1	12.3	754
August.....	83.3	4.0	1.9	2.69	165
September.....	52.0	2.0	1.7	1.73	103
Water year.....	-	-	-	-	-

† Result of discharge measurement.

a No gage-height record; discharge interpolated or computed on basis of records for other stations in Weiser River Basin.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## WEISER RIVER BASIN

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## Rush Creek at Cambridge, Idaho

Location.— Staff gage, lat. 44°35', long. 116°40', in SW¼ sec. 2, T. 14 N., R. 3 W., in Cambridge, 150 feet upstream from Superior Street and three-eighths of a mile upstream from mouth.

Records available.— March 1938 to October 1943 (discontinued).

Extremes.— Maximum discharge observed during period Oct. 1, 1942, to Oct. 6, 1943, 396 second-foot May 31 (gage height, 5.12 feet); minimum observed, 0.1 second-foot Aug. 15, 16, 18, Sept. 15, 17, 19; minimum gage height observed, 1.20 feet Aug. 15, 16, 18, 1938-43: Maximum discharge observed, 582 second-foot (discharge measurement) Mar. 16, 1938 (gage height, 6.07 feet); no flow at times during each year 1938-40, 1942.

Remarks.— Records good except those for periods of ice effect, which are fair. Gage read twice daily. Several diversions above station for irrigation. Flow slightly regulated by power plant 8 miles above station.

## Discharge, in second-feet, 1942-43

1942-43												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	8.3	14	64	b18	40	117	72	359	132	1.2	0.5
2	1.2	7.6	14	46	20	40	117	82	231	122	1.1	.4
3	1.3	7.0	b12	35	20	37	117	92	169	122	1.1	.6
4	1.2	5.0	b10	b30	b19	36	102	122	168	122	1.1	.4
5	1.1	5.6	13	32	*b19	32	92	117	147	102	1.1	.4
6	.9	6.4	b13	24	15	26	82	107	137	97	1.4	.3
7	.8	6.4	b13	*b16	15	29	92	97	147	97	1.4	.4
8	1.2	6.4	b14	b15	b15	27	107	92	147	92	1.3	.2
9	1.3	7.0	b15	b15	b15	29	92	97	169	82	.2	.2
10	1.2	7.0	b15	b15	b15	30	68	102	180	58	.2	.2
11	2.6	6.4	*b14	b15	b14	36	64	92	180	60	.2	.2
12	3.3	5.9	13	14	14	36	68	82	204	36	.2	.2
13	3.0	5.9	13	12	13	62	77	68	180	40	.2	.2
14	2.6	6.4	13	14	14	97	92	64	158	40	.2	.2
15	2.6	11	14	b13	16	68	97	60	147	29	.1	.1
16	3.0	8.3	15	b11	18	60	102	77	147	26	.1	.2
17	2.8	7.6	16	b9	b19	56	*104	60	169	25	.2	.1
18	2.6	20	14	b8	b20	45	107	68	192	20	.1	.2
19	2.8	11	14	8.3	b21	60	117	82	192	20	.2	.1
20	2.8	9.6	14	8.9	22	52	112	107	169	19	.3	.2
21	2.4	8.6	14	12	26	48	97	117	158	18	.2	.2
22	2.8	8.9	17	b80	31	*54	87	142	158	16	.2	.2
23	3.0	9.2	20	b60	34	60	72	180	142	14	.4	.4
24	3.3	12	42	b40	34	72	68	204	137	13	.3	.5
25	3.0	9.9	60	b55	33	72	77	245	127	9.2	.2	.4
26	3.3	10	b55	b30	33	158	64	231	127	9.9	.2	.4
27	3.3	13	b30	b30	35	180	72	245	132	8.0	.2	.2
28	3.7	12	b25	b25	38	180	97	260	132	7.6	.3	.2
29	4.0	13	22	25	-	158	87	231	127	4.8	.6	.4
30	3.7	14	30	20	-	*127	72	204	132	3.5	.9	.2
31	5.6	-	41	b17	-	112	-	369	-	2.8	1.1	-

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Gage reading not representative of mean for day. Discharge computed on basis of weather records and records for Pine Creek near Cambridge, Hornet Creek near Council, and other nearby stations in Weiser River Basin.

## 1943

Date	Discharge	Date	Discharge
Oct. 1	0.4	Oct. 5	0.2
2	.2	6	.2
3	.2	13	3.5
4	.2		

## Monthly discharge, in second-feet, 1942-43

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1942.....	77.7	5.6	0.8	2.51	154
November.....	270.3	20	5.6	9.01	536
December.....	609	60	10	19.6	1,210
Calendar year 1942.....	14,512.3	324	0	39.2	28,390
January 1943.....	779.2	80	8.3	25.1	1,550
February.....	606	38	13	21.6	1,200
March.....	2,139	180	26	69.0	4,240
April.....	2,719	117	64	90.6	5,390
May.....	4,158	359	60	134	8,250
June.....	4,954	359	127	165	9,830
July.....	1,457.8	132	2.8	47.0	2,890
August.....	16.5	1.4	.1	.55	33
September.....	8.2	.6	.1	.27	16
Water year 1942-43.....	17,794.7	359	.1	48.8	35,300
October 1-6, 1943.....	1.4	.4	.2	.23	2.8

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Pine Creek near Cambridge, Idaho

Location.- Staff gage, lat. 44°35', long. 116°44', in SW $\frac{1}{4}$  sec. 32, T. 15 N., R. 3 W., 300 feet upstream from West Fork and 3.2 miles northwest of Cambridge.

Records available.- April 1938 to September 1943.

Extremes.- Maximum discharge observed during year, 326 second-feet Mar. 29 (gage height, 2.68 feet); minimum observed, 6.2 second-feet Aug. 14-18, Sept. 16 (gage height, 0.46 foot).

1938-43: Maximum discharge observed, 392 second-feet Apr. 1, 1940 (gage height, 3.26 feet), from rating curve extended above 250 second-feet; minimum observed, 2 second-feet on several days July to October 1939 and July and August 1940; minimum gage height observed, 0.34 foot July 24, 1939.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily. Several diversions above station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	15	16	41	b25	71	209	80	155	72	10	8.9
2	9.0	14	16	37	25	67	219	82	123	63	10	9.2
3	9.5	13	13	31	23	64	230	87	102	65	10	9.6
4	9.5	12	11	27	23	58	219	104	86	59	10	9.8
5	9.5	12	14	b25	*21	52	189	102	78	52	9.5	9.5
6	9.5	11	13	b23	21	49	189	93	72	43	9.5	9.2
7	9.0	11	14	*b20	21	54	189	89	67	42	9.5	9.5
8	9.0	17	b15	b18	22	43	209	89	67	39	9.5	10
9	9.0	14	15	b20	21	42	189	79	85	35	8.9	9.2
10	9.0	13	*15	b20	21	43	153	77	97	34	7.6	9.2
11	11	13	14	b20	20	43	159	74	90	31	7.2	9.8
12	11	13	14	19	19	47	140	70	90	30	7.0	9.2
13	9.9	13	15	19	21	67	147	68	97	26	6.8	8.2
14	9.9	13	16	19	23	71	156	66	87	22	6.5	6.8
15	11	18	17	20	23	66	155	62	77	20	6.5	7.2
16	11	16	16	17	25	64	156	58	77	22	6.5	6.8
17	11	15	16	b16	25	61	146	60	87	21	6.5	7.2
18	11	20	16	b15	26	54	151	62	103	19	6.5	8.2
19	11	15	16	b16	27	50	151	72	98	17	6.8	8.6
20	11	14	16	b20	30	48	135	82	90	16	7.0	8.2
21	11	11	15	b30	37	50	123	90	83	16	6.8	9.2
22	11	14	19	b50	47	53	104	102	79	16	7.0	8.6
23	11	14	23	36	50	67	94	130	73	14	6.8	8.6
24	10	15	22	b35	52	90	93	139	67	14	7.0	8.6
25	10	14	27	b50	50	105	90	147	69	13	7.0	7.9
26	10	14	18	28	53	211	83	153	68	12	7.0	7.0
27	10	16	18	30	56	217	76	156	69	9.8	7.2	7.9
28	10	16	23	26	61	271	87	144	74	9.8	7.0	9.2
29	11	18	23	25	-	304	83	123	68	10	7.2	9.2
30	11	16	21	25	-	272	82	112	72	10	7.9	8.9
31	13	-	26	b23	-	219	-	162	-	10	8.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	317.8	13	9.0	10.3	630
November.....	432	20	11	14.4	857
December.....	533	27	11	17.2	1,060
Calendar year 1942 .....	15,998.2	340	3.8	43.8	31,730
January.....	781	41	15	25.2	1,650
February.....	868	61	19	31.0	1,720
March.....	2,973	304	42	95.9	5,900
April.....	4,386	230	76	146	8,700
May.....	3,014	162	58	97.2	5,980
June.....	2,550	158	67	85.0	5,060
July.....	862.6	72	9.8	27.8	1,710
August.....	241.3	10	6.5	7.78	479
September.....	259.3	10	6.8	8.64	514
Water year 1942-43 .....	17,218.0	304	6.5	47.2	34,160

a Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Little Weiser River near Indian Valley, Idaho

**Location.**— Staff gage, lat. 44°30', long. 116°24', in NE¼ sec. 1, T. 13 N., R. 1 W., 60 feet downstream from barn at Richardson Ranch, 1 mile upstream from diversion feeding C. Ben Ross Reservoir, and 4½ miles southeast of Indian Valley.

**Drainage area.**— 81.9 square miles.

**Records available.**— April 1938 to September 1943. June 1920 to February 1921, March to September 1923, and February 1924 to October 1927 at nearby sites.

**Extremes.**— Maximum discharge observed during year, 925 second-feet May 31 (gage height, 4.53 feet); minimum observed, 9.6 second-feet Oct. 22, 24 (gage height, 0.28 foot). 1920-21, 1923-27, 1938-43: Maximum discharge observed, about 1,840 second-feet Feb. 4, 1925; minimum observed, 3.6 second-feet Aug. 28-30, Sept. 4, 5, 1924.

**Remarks.**— Records good except those for periods of ice effect, nonrepresentative gage readings, or no gage-height record, which are fair. Gage read twice daily. One small ranch diversion above station. Many diversions below station for irrigation including feeder canal to C. Ben Ross Reservoir.

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Nov. 24 to Dec. 31)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

0.2	7.8	1.3	60	0.3	11	2.2	188
.4	13	1.6	99	.6	22	2.7	300
.6	19	2.0	166	1.0	42	3.2	445
.8	26	2.4	248	1.4	75	3.8	645
1.0	36			1.8	121	4.5	925

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	26	65	300	a60	106	312	365	800	218	37	14
2	11	18	57	152	61	128	415	a360	610	198	40	14
3	10	22	49	114	70	121	a425	340	475	218	37	12
4	11	16	45	114	64	108	a375	445	415	178	41	12
5	10	15	46	102	67	106	325	415	355	169	41	13
6	10	16	43	*85	a60	a100	385	355	312	169	34	13
7	10	15	35	90	*52	a90	415	a330	340	160	32	13
8	10	31	33	94	50	79	680	312	355	136	28	12
9	10	23	34	90	54	64	505	288	355	121	30	13
10	10	15	38	60	62	83	a480	288	385	121	24	12
11	16	12	34	54	61	a90	415	263	370	108	26	12
12	14	14	40	49	61	a100	370	281	385	102	26	14
13	12	15	39	48	a70	a130	445	240	370	90	25	13
14	12	19	39	47	a80	a175	575	229	370	90	23	13
15	12	30	38	b45	81	a100	610	218	370	85	25	13
16	12	25	30	b40	78	71	610	218	370	85	23	13
17	11	22	38	b55	82	75	a625	229	385	76	22	13
18	a12	32	39	b30	73	79	a625	240	385	78	22	14
19	12	26	36	b35	75	71	a625	281	340	86	22	13
20	12	15	38	b80	85	a80	a600	325	312	76	22	13
21	10	17	39	152	a90	a90	a550	370	300	68	19	13
22	9.9	26	65	218	96	121	a500	370	325	68	17	13
23	9.9	25	77	198	121	121	445	415	355	62	17	13
24	9.9	32	a100	90	121	152	a500	475	340	82	16	12
25	a10	35	a150	90	108	a160	575	540	263	a55	16	13
26	10	34	55	90	114	169	575	540	300	50	14	13
27	10	84	a75	73	a110	300	506	540	288	49	14	12
28	11	47	92	70	108	a320	505	575	240	43	12	12
29	11	47	107	84	-	325	415	575	288	41	15	13
30	12	83	185	a80	-	275	365	540	288	43	15	12
31	16	-	248	a55	-	229	-	925	-	41	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	344.7	15	9.9	11.1	0.136	0.16	684
November		63	12	29.6	.561	.40	1,760
December	2,009	248	30	64.8	.791	.91	3,980
Calendar year 1942	34,653.7	570	9.9	94.9	1.16	15.74	68,740
January	2,854	300	30	92.1	1.12	1.30	5,660
February	2,210	121	50	78.9	.963	1.00	4,380
March	4,211	325	64	136	1.66	1.91	8,350
April	14,722	680	312	491	6.00	6.69	29,200
May	11,647	925	218	382	4.66	5.58	23,500
June	11,046	800	240	368	4.49	5.02	21,910
July	3,145	218	41	101	1.23	1.43	6,240
August	748	41	12	24.1	.294	.34	1,480
September	385	14	12	12.8	.156	.17	764
Water year 1942-43	54,408.7	925	9.9	149	1.82	24.71	107,900

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for other stations in Weiser River Basin.

b Stage-discharge relation affected by ice.

c Gage reading not representative of mean for day; discharge computed on basis of weather records and records for other stations in Weiser River Basin.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## Crane Creek Reservoir near Midvale, Idaho

Location.- Staff gage, lat. 44°22', long. 116°37', in SE¼ sec. 19, T. 12 N., R. 2 W., at gate-control structure near left end of dam on Crane Creek, 10 miles southeast of Midvale.

Drainage area.- 242 square miles.

Records available.- November 1923 to September 1943.

Extremes.- Maximum gage height observed during year, 50.2 feet Mar. 15; minimum observed 35.62 feet Oct. 31.

1923-43: Maximum gage height observed, 56.3 feet Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, Sept. 25 to Dec. 1, 1929.

Remarks.- Reservoir is formed by earth dam completed in 1910 and raised in 1920-21.

Capacity is reported to be about 60,000 acre-feet at gage height 55.0 feet (elevation of spillway crest). Water is used for irrigation of lands in lower Weiser Valley.

Gage read once daily.

Cooperation.- Gage-height record furnished by Crane Creek Reservoir Administration Board.

Gage height in feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	48.7	46.4	-	49.8	48.1	-	47.6	46.1	-
2	35.0	-	-	49.1	-	-	-	48.1	-	-	-	-
3	35.95	-	-	-	45.1	48.2	48.5	48.1	-	-	-	-
4	-	-	-	48.9	-	48.3	-	-	-	-	-	-
5	35.9	-	36.2	48.6	44.2	48.25	48.5	48.1	-	47.45	46.3	42.0
6	35.9	-	-	-	-	-	-	-	47.85	47.45	-	-
7	35.9	35.75	-	47.5	-	-	48.2	48.1	47.8	-	46.55	41.7
8	35.85	-	-	46.9	42.9	48.1	-	48.1	47.8	-	46.5	41.6
9	-	-	-	46.2	42.2	-	48.5	-	-	47.3	-	41.6
10	-	-	-	-	-	-	-	48.1	-	47.3	-	-
11	-	-	-	45.2	-	48.2	48.2	-	47.8	-	45.1	41.2
12	-	-	36.9	44.9	-	-	-	48.1	47.8	-	-	-
13	35.8	-	-	-	-	49.5	48.1	48.1	-	47.2	-	-
14	35.8	35.8	-	44.4	-	-	-	48.1	47.8	-	-	40.9
15	35.8	-	-	-	-	50.2	48.0	48.1	47.8	-	44.6	40.7
16	-	-	-	-	-	-	-	-	-	-	-	-
17	35.75	-	-	44.9	-	-	-	-	47.75	-	-	-
18	35.75	-	-	-	-	49.6	48.0	48.0	47.75	-	44.3	40.2
19	35.75	-	39.2	-	-	-	48.0	48.0	47.7	47.0	-	40.1
20	35.75	-	-	-	44.2	48.7	47.95	-	-	47.0	-	-
21	35.7	35.9	-	-	-	-	-	48.0	47.65	47.0	-	39.3
22	35.7	-	-	50.0	-	48.1	47.95	-	47.65	46.9	-	-
23	-	-	-	-	-	-	47.95	48.0	-	-	43.9	39.5
24	35.7	-	-	-	46.1	47.5	-	-	-	46.9	-	-
25	-	-	-	50.0	-	47.4	-	48.0	47.6	-	43.6	39.2
26	-	-	43.3	-	-	-	-	-	-	-	-	-
27	-	-	-	49.2	47.0	47.6	-	47.9	-	-	-	-
28	-	36.0	-	48.7	-	48.5	-	47.9	47.5	46.55	-	39.0
29	-	-	-	-	-	-	48.1	-	-	-	-	38.85
30	-	-	-	-	-	48.9	-	47.85	-	-	-	-
31	35.65	-	47.6	47.2	-	-	-	47.85	-	-	42.6	-

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Crane Creek near Midvale, Idaho

Location.- Water-stage recorder and concrete control, lat. 44°22', long. 116°37'30", in SE $\frac{1}{4}$  sec. 19, T. 12 N., R. 2 W., 400 feet downstream from Crane Creek Dam and 10 miles southeast of Midvale.

Drainage area.- 242 square miles.

Records available.- October 1910 to April 1916, May 1924 to September 1943.

Average discharge.- 22 years (1912-15, 1924-43), 70.6 second-feet.

Extremes.- Maximum discharge during year, 862 second-feet Jan. 2 (gage height, 3.35 feet); practically no flow at times when gates in dam were closed.

1910-16, 1924-43: Maximum discharge observed, 4,240 second-feet Dec. 3, 1910 (gage height, 8.9 feet), from rating curve extended above 3,500 second-feet; practically no flow at times in each year when gates in dam were closed.

Remarks.- Records good. Flow regulated by Crane Creek Reservoir (see p. 180). No large diversions above station.

Cooperation.- Gage-height record furnished by Crane Creek Reservoir Administration Board.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used July 21 to Sept. 30)

0.1	2.0	1.0	66	2.4	366
.3	9.0	1.3	101	2.8	550
.5	20	1.6	143	3.2	770
.7	36	2.0	226	3.5	960

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68		0	694	794	0	300	24	10	8	77	113
2	68		0	812	794	0	358	24	10	8	77	113
3	48		0	850	722	34	358	24	10	8	77	113
4	2		0	856	628	126	358	24	9	8	77	111
5	4		0	856	628	204	358	24	9	8	77	111
6	11		0	850	628	204	358	24	9	8	77	111
7	11		0	843	628	204	221	23	9	8	77	111
8	11		0	812	628	204	237	23	9	8	68	111
9	10		0	746	311	204	294	23	9	8	114	111
10	10		0	638	0	204	432	23	9	8	114	110
11	10		0	575	0	243	360	23	10	8	114	110
12	10		0	378	0	296	220	23	10	8	114	109
13	10		0	220	0	373	184	23	10	8	113	109
14	10		0	139	0	525	166	23	9	8	114	108
15	10		0	0	0	560	114	23	9	8	114	110
16	10		0	0	0	600	73	23	9	8	114	127
17	10		0	0	0	600	73	23	9	8	114	127
18	10		0	0	0	688	73	18	9	8	114	127
19	10		0	0	0	688	73	13	9	8	114	127
20	10		0	0	0	688	73	13	9	8	113	127
21	10		0	0	0	688	73	13	9	16	113	126
22	10		0	358	0	655	59	13	9	66	113	126
23	10		0	806	0	600	24	13	9	66	113	117
24	7		0	806	0	595	24	13	10	66	113	101
25	0		0	812	0	376	24	13	10	66	113	101
26	0		0	830	0	66	24	13	9	66	111	101
27	0		0	824	0	66	24	13	9	67	111	101
28	0		0	830	0	98	24	12	8	77	111	101
29	0		0	824	-	149	24	10	8	77	113	101
30	0		0	818	-	187	24	10	8	77	113	101
31	0		252	818	-	262	-	10	-	77	113	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	378	68	0	12.2	750
November	0	0	0	0	0
December	252	252	0	8.1	500
Calendar year 1942	37,815	856	0	104	75,000
January	17,001	856	0	548	33,720
February	5,749	794	0	205	11,400
March	10,327	688	0	335	20,460
April	5,067	432	24	169	10,050
May	574	24	10	18.5	1,140
June	275	10	8	9.2	545
July	878	77	8	28.3	1,740
August	3,230	114	77	104	6,410
September	3,569	127	101	112	6,680
Water year 1942-43	47,100	856	0	129	93,480

a No gage-height records; discharge interpolated.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Crane Creek at mouth, near Weiser, Idaho

Location.— Water-stage recorder and concrete control, lat. 44°18', long. 116°47', in sec. 14, T. 11 N., R. 4 W., just downstream from steel highway bridge at Harris Ranch, a quarter of a mile upstream from mouth, and 10 miles northeast of Weiser.

Drainage area.— 288 square miles.

Records available.— July 1920 to September 1943.

Average discharge.— 22 years (1921-43), 77.6 second-feet.

Extremes.— Maximum discharge during year not determined; maximum gage height, 6.30 feet Jan. 21, ice jam; minimum discharge recorded, 4.6 second-feet June 4, 5.

1920-43: Maximum discharge, 2,350 second-feet about Feb. 7, 1925 (gage height, 6.80 feet, from well-defined marks on gage), from rating curve extended above 1,000 second-feet; minimum, 0.2 second-foot Mar. 26, 1931; minimum gage height, 1.30 feet Jan. 21, 1922.

Remarks.— Records good except those for Mar. 5-13, which are fair, and those for Dec. 22-31, Jan. 9-22, Feb. 9 to Mar. 4, which are poor. Flow regulated by Crane Creek Reservoir (see p. 180). Several small ditches divert above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	a5.3	21	a1,100	889	a60	380	39	7.2	6.8	75	107
2	70	a5.3	a18	1,050	868	a80	388	38	6.6	7.6	76	108
3	67	a5.3	a14	1,010	e19	a80	385	38	5.6	5.9	76	107
4	18	a5.3	11	982	705	a175	385	37	4.6	5.3	76	106
5	8.0	a5.3	10	974	681	a250	385	35	4.6	5.3	a75	106
6	7.2	5.3	10	928	681	a250	382	35	5.0	6.2	a74	105
7	15	5.6	9.7	950	675	a250	385	35	5.6	6.2	73	105
8	16	10	9.7	h918	675	a250	387	35	5.9	6.6	76	107
9	16	8.4	10	a850	a400	a250	329	34	5.6	6.9	109	105
10	16	6.6	16	a725	a20	a250	a63	a34	5.6	6.9	110	105
11	16	5.9	27	a650	a20	a300	406	a34	6.2	7.2	110	105
12	17	5.9	18	a460	h20	h350	240	a34	6.9	7.6	110	104
13	17	5.9	a18	a275	a21	a425	205	a34	7.2	7.2	109	104
14	17	5.9	a19	a175	a22	a650	163	a34	7.2	6.6	110	103
15	17	5.9	a19	h17	a23	a650	154	34	9.2	6.6	110	105
18	17	6.2	a19	a17	a24	687	83	33	9.2	6.2	109	120
17	17	5.9	a20	a16	a26	693	83	a33	8.8	7.2	109	120
18	17	7.6	20	a15	a26	a700	83	a25	9.7	6.9	109	120
19	17	8.0	19	a20	h27	a750	82	a23	10	7.2	108	120
20	16	6.6	18	a100	a30	a750	83	a22	10	7.2	110	120
21	16	6.6	18	b300	a40	a750	83	a22	8.4	8.0	109	120
22	16	6.6	a25	b900	a50	a725	80	a22	7.2	41	108	120
23	16	6.6	a125	942	a65	a675	45	22	7.2	68	105	114
24	16	6.6	a275	903	a65	a675	41	22	7.2	61	104	98
25	12	6.6	h312	896	a60	a500	43	19	7.6	65	104	97
26	6.6	6.9	a100	918	h57	a175	42	9.0	7.2	64	105	94
27	a6.3	8.0	a50	918	a60	134	41	5.9	6.9	64	105	94
28	a6.0	9.2	a40	910	a60	128	49	6.2	6.9	66	104	94
29	a5.6	18	a40	903	-	174	46	6.6	7.6	73	104	93
30	h5.3	32	a100	903	-	205	40	6.6	7.6	75	105	94
31	a5.3	-	a450	896	-	287	-	6.2	-	75	107	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	582.3	70	5.3	18.8	1,150
November	1,233.3	32	5.3	7.78	463
December	1,981.4	450	9.7	60.0	3,590
Calendar year 1942	46,136.0	1,240	4	126	91,510
January	20,609	1,100	15	665	40,880
February	7,108	889	20	254	14,100
March	12,288	760	60	395	24,510
April	5,720	483	40	191	11,350
May	315.5	39	5.9	28.3	1,620
June	214.5	10	4.6	7.15	425
July	783.6	75	5.3	25.3	1,550
August	3,074	110	73	99.2	6,100
September	3,198	120	93	107	6,340
Water year 1942-43	56,457.6	1,100	4.6	155	112,000

a No gage-height record; discharge computed on basis of weather records, records for Crane Creek near Midvale and for other stations in Weiser River Basin.

b Stage-discharge relation affected by ice.

c Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Weiser Irrigation District Canal near Weiser, Idaho

Location.— Water-stage recorder, lat. 44°15', long. 116°51', in sec. 32, T. 11 N., R. 4 W., 3½ miles downstream from headworks of canal and 7 miles east of Weiser.

Records available.— April 1920 to September 1943 (winter records fragmentary).

Extremes.— Maximum discharge during year, 214 second-feet June 1 (gage height, 3.08 feet); minimum, not determined (consists of leakage during nonirrigation season when gates were closed).

1920-43: Maximum discharge, 221 second-feet July 15, 1932; maximum gage height, 3.43 feet May 5, 1926; no flow at times when gates were closed.

Remarks.— Records good except those during periods of ice effect or fragmentary or no gage-height record, which are fair. Canal diverts water from Weiser River in sec. 35, T. 11 N., R. 4 W., 3½ miles above station for irrigation of about 7,000 acres included in projects of Weiser and Weiser Bench Irrigation Districts. One farm lateral diverts a quarter of a mile above station.

Cooperation.— Gage-height record furnished by Weiser Irrigation District.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	124	86	-	-	-	4.5	-	179	150	167	166	161
2	125	87	-	-	-	4.5	-	179	149	189	184	161
3	110	87	-	-	-	4.8	a0.7	180	177	190	181	160
4	108	-	-	2.5	-	4.9	-	178	172	192	183	169
5	105	-	-	2.9	-	4.9	-	181	169	193	189	169
6	105	-	-	2.9	-	5.3	-	180	187	190	157	159
7	105	-	-	2.9	-	-	-	179	169	188	189	169
8	105	-	*7.6	2.9	-	-	a.6	136	173	189	188	189
9	113	-	7.8	2.9	-	-	-	107	173	187	167	189
10	120	-	7.8	3.3	-	-	-	146	173	186	166	187
11	-	-	9.1	3.3	-	-	-	177	173	189	165	164
12	-	-	9.1	-	-	-	b.6	177	173	187	162	153
13	-	-	8.4	-	-	-	a.6	181	173	185	168	162
14	-	-	8.4	-	-	-	a60	188	173	188	170	149
15	-	-	8.4	-	-	.8	f110	189	173	188	169	147
16	-	-	-	-	-	.8	133	184	171	187	163	162
17	-	-	-	-	-	.8	139	184	171	187	163	146
18	-	-	-	-	-	.8	139	184	173	190	169	147
19	-	-	-	-	-	.8	141	191	173	188	153	146
20	-	-	-	-	-	.8	140	202	175	188	154	149
21	-	-	-	-	-	-	140	201	174	185	153	149
22	-	-	-	4.5	-	-	140	203	173	185	154	150
23	-	-	-	4.1	-	-	139	201	174	190	154	142
24	-	-	-	b3.5	-	-	140	205	170	190	154	136
25	-	-	-	b2.0	-	a.8	142	204	171	189	154	136
26	-	-	-	*2.1	-	-	147	205	171	188	151	136
27	-	-	-	2.3	4.1	-	150	206	170	184	152	135
28	-	-	-	2.3	4.1	-	154	205	181	171	182	135
29	86	-	-	-	-	-	159	204	187	168	154	135
30	86	-	-	-	-	a.7	169	205	187	163	159	156
31	86	-	-	-	-	-	-	205	-	161	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 8-15	66.8	9.1	7.8	8.35	132
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,350.2	189	-	78.3	4,680
May	5,750	206	107	165	11,400
June	5,058	187	49	169	10,030
July	5,742	193	161	185	11,390
August	4,946	170	151	160	9,810
September	4,477	161	135	149	8,680
Water year	-	-	-	-	-

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed from reported head-gate changes.

b Stage-discharge relation affected by ice.

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## WEISER RIVER BASIN

## Mann Creek near Weiser, Idaho

Location.— Staff gage, lat. 44°24', long. 116°54', in sec. 11, T. 12 N., R. 5 W., at Richards Ranch, 12 miles upstream from mouth and 11 miles northeast of Weiser. Prior to May 13, staff gage at site 330 feet downstream at datum 4.21 feet lower.

Drainage area.— 56 square miles.

Records available.— March 1911 to September 1913, July to November 1920, April 1937 to September 1943.

Extremes.— Maximum discharge during year not determined; maximum gage height not determined (gage overtopped); minimum discharge observed, 1.5 second-feet Aug. 21 (gage height, 0.74 foot).

1911-13, 1920, 1937-43: Maximum discharge, 1,540 second-feet Mar. 27, 1940 (gage height, 5.45 feet, from floodmark, site and datum then in use), from rating curve extended above slope-area determination at gage height 4.21 feet; no flow Aug. 18 to Sept. 22, 1937, July 31 to Sept. 13, 1939.

Remarks.— Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair, and those for period of indefinite stage-discharge relation, which are poor. Gage read twice daily. One diversion above station for irrigation.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	9.1	9.5	82	a20	65	240	190	81	15	5.8	5.1
2	3.4	7.2	9.5	42	a25	65	280	190	58	14	5.8	3.7
3	3.4	6.9	b10	26	a25	50	330	196	51	20	5.5	3.7
4	3.4	6.6	b10	20	a20	45	320	190	43	18	5.1	3.7
5	3.4	6.3	b10	26	*20	45	375	161	40	16	5.1	3.4
6	2.3	5.7	b10	26	16	45	400	161	40	14	5.1	3.4
7	2.5	6.3	b10	d26	16	45	425	135	37	11	5.1	3.0
8	2.5	12	*11	*26	20	35	475	124	31	10	4.8	2.5
9	3.6	9.5	11	d25	24	35	450	112	29	9.6	4.4	2.5
10	3.8	7.9	11	d25	23	35	450	112	29	11	4.4	2.2
11	5.4	6.9	12	d25	16	35	425	112	29	13	4.4	2.2
12	5.4	6.9	12	d25	18	35	450	112	29	13	4.0	2.0
13	5.1	6.9	12	d20	21	65	475	99	26	13	3.7	1.8
14	5.1	7.2	12	d20	21	80	500	90	28	13	3.0	1.8
15	5.1	11	14	d20	22	70	475	84	25	11	3.0	2.0
16	4.5	8.7	14	d15	25	70	450	78	25	11	3.0	2.2
17	4.5	14	14	d15	25	60	400	75	24	10	3.0	2.2
18	4.5	9.5	14	d10	30	60	350	66	22	10	3.0	2.2
19	4.5	8.3	14	a20	30	58	300	66	23	10	2.5	2.2
20	4.5	5.1	12	a40	35	55	272	62	22	10	2.0	2.2
21	4.5	4.5	12	a70	50	55	254	68	22	10	1.5	2.8
22	4.5	9.1	14	b100	55	55	205	66	23	9.6	3.0	2.8
23	4.5	8.3	18	a70	50	60	161	75	23	8.8	3.0	2.5
24	4.5	9.1	23	a70	50	65	181	72	23	8.3	3.4	2.2
25	4.5	5.7	26	a35	50	60	161	66	18	8.3	3.7	2.0
26	4.8	7.2	d25	a30	50	90	161	62	19	7.4	3.0	2.0
27	5.1	7.5	d20	a30	50	100	135	63	16	6.5	3.0	2.2
28	5.1	6.9	20	a25	60	240	215	61	15	6.5	2.8	2.5
29	5.1	12	16	a25	-	240	221	51	14	6.2	2.0	2.5
30	5.4	9.9	18	a20	-	250	221	51	15	5.8	4.4	2.5
31	6.6	-	26	a15	-	200	-	72	-	5.8	5.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	135.1	6.6	2.3	4.56	288
November.....	242.2	14	4.5	8.07	490
December.....	460	36	6.5	14.8	912
Calendar year 1942.....	19,029.9	418	2.3	52.1	37,740
January.....	994	100	10	32.1	1,970
February.....	867	60	16	31.0	1,720
March.....	2,445	240	35	78.9	4,850
April.....	9,718	500	135	324	19,280
May.....	3,122	196	51	101	6,190
June.....	879	81	14	29.3	1,740
July.....	335.8	20	5.8	10.8	666
August.....	118.6	5.8	1.5	3.83	235
September.....	75.0	5.1	1.8	2.60	155
Water year 1942-43.....	19,394.7	500	1.6	53.1	38,470

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Hornet Creek near Council and other nearby stations in Weiser River Basin.

b Stage-discharge relation affected by ice.

c Doubtful gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Hornet Creek near Council and other nearby stations in Weiser River Basin.

Note.— Stage-discharge relation indefinite Feb. 16 to Apr. 19 (no gage-height record Apr. 7-13); discharge computed on basis of discharge measurements, weather records, and records for Hornet Creek near Council and other nearby stations in Weiser River Basin.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Unity Reservoir near Unity, Oreg.

Location.- Staff gage and low-water reference mark, lat. 44°30', long. 118°11', in SW $\frac{1}{4}$  sec. 21, T. 12 S., R. 37 E., at Unity Dam on Burnt River, just downstream from Job Creek, half a mile downstream from confluence of North, Middle, and South Forks of Burnt River, and 4 $\frac{1}{2}$  miles north of Unity. Gage readings are elevations above mean sea level, datum of Bureau of Reclamation.

Drainage area.- 309 square miles.

Records available.- March 1938 to September 1943.

Extremes.- Maximum contents observed during year, 25,490 acre-feet Apr. 13-17 (elevation, 3,820.3 feet); minimum observed, 5,520 acre-feet Mar. 23-25 (elevation, 3,793.0 feet). 1938-43: Maximum contents observed, 25,770 acre-feet Apr. 13, 1942 (elevation, 3,820.6 feet); minimum observed, 2,710 acre-feet Oct. 5, 1938 (elevation, 3,787.0 feet).

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-feet between elevations 3,776.5 feet (bottom of outlet gates) and 3,820.0 (top of radial gates on spillway when closed). Dead storage, 600 acre-feet below elevation 3,776.5 feet. Records given herein represent usable contents. Water used for irrigation of lands in Burnt River Irrigation District near Hereford and Bridgeport. Gage read or water-surface elevation measured from reference mark once daily by employee of Burnt River Irrigation District. Monthly contents computed from capacity table based on surveys by Bureau of Reclamation.

Monthly elevation and contents, water year October 1942 to September 1943

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	3,796.1	7,228	-
Oct. 31.....	3,796.2	7,286	+58
Nov. 30.....	3,798.5	8,536	+1,250
Dec. 31.....	3,799.6	9,546	+1,012
Calendar year 1942.	-	-	-2,222
Jan. 31.....	3,799.5	9,285	-63
Feb. 28.....	3,796.5	7,460	-1,825
Mar. 31.....	3,808.6	11,980	+4,520
Apr. 30.....	3,819.9	25,120	+13,140
May 31.....	3,819.8	25,030	-90
June 30.....	3,816.1	21,730	-3,300
July 31.....	3,809.5	16,300	-5,430
Aug. 31.....	3,802.0	10,900	-5,400
Sept. 30.....	3,793.1	5,574	-5,326
Water year 1942-43.	-	-	-1,654

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Burnt River near Hereford, Oreg.

Location.— Water-stage recorder, lat. 44°30', long. 118°11', in SE¼ sec. 21, T. 12 S., R. 37 E., at entrance to canyon, 1,250 feet downstream from Unity Dam, 0.7 mile downstream from South Fork, and 7 miles west of Hereford. Prior to Apr. 16 concrete weir with steel crest.

Drainage area.— 309 square miles.

Records available.— March 1915 to September 1916, October 1928 to September 1943.

Average discharge.— 14 years (1929-43), 70.3 second-feet.

Extremes.— Maximum discharge during year, 2,220 second-feet Apr. 17 (gage-height, 4.06 feet, caused by opening of automatic spillway gates), from rating curve extended above 1,300 second-feet by logarithmic plotting; minimum, 2.7 second-feet Nov. 15, 16.

1915-16, 1928-43: Maximum discharge, that of Apr. 17, 1943; no flow at times; minimum discharge before construction of Unity Reservoir Dam, 1.6 second-feet Aug. 31, 1935 (gage height, 0.92 foot).

Remarks.— Records good except those for Jan. 23, Apr. 3, 6-15, and those above 1,400 second-feet, which are poor. Many small diversions above station for irrigation. Some regulation from reservoir on South Fork, 3 miles above mouth (capacity, about 700 acre-feet) and by Unity Reservoir (see preceding page).

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 16

Apr. 16 to Sept. 30

0.1	3.0	0.8	52	2.5	325	-0.9	90	1.0	535
.2	7.0	1.1	86	3.0	436	-.6	131	1.5	735
.4	18	1.5	140	3.5	568	-.3	185	2.0	970
.6	33	2.0	222			0.0	249	2.5	1,220
						.5	382		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	3.0	29	38	h55	171	300	407	177	155	102	111
2	74	3.0	29	38	h52	171	492	425	195	153	107	112
3	74	3.0	29	38	h55	171	430	407	195	146	108	111
4	74	3.0	29	38	h55	171	387	393	193	136	106	111
5	73	3.0	29	36	h55	171	450	368	191	134	104	111
6	73	3.0	29	38	h67	171	466	402	169	133	116	110
7	72	3.0	29	38	h107	171	556	309	152	131	136	111
8	72	3.0	29	38	h107	171	609	287	166	130	126	111
9	43	3.0	29	38	h107	169	621	329	157	128	113	111
10	3.0	3.0	29	38	h107	169	633	275	155	125	107	111
11	3.0	3.0	29	42	h107	174	624	374	152	124	116	110
12	3.0	3.0	29	55	h107	184	645	251	152	120	118	108
13	3.0	3.0	29	63	h107	182	657	209	156	119	115	107
14	3.4	3.0	29	63	h107	182	716	228	152	124	108	107
15	3.4	2.7	29	63	h104	182	563	235	159	124	112	104
16	3.4	14	29	63	h109	181	1,170	224	153	124	116	102
17	3.4	20	29	63	h137	182	1,150	177	159	122	110	102
18	3.4	20	30	59	h137	179	1,240	176	157	119	115	100
19	3.4	20	30	53	h137	179	1,130	176	155	112	115	99
20	3.4	20	30	53	h137	177	1,020	151	155	110	110	98
21	3.4	20	30	53	140	176	833	161	159	110	108	98
22	3.4	20	30	f53	152	176	555	159	159	110	113	98
23	3.4	20	30	a62	163	176	461	159	164	108	110	96
24	3.4	20	34	f70	163	176	461	157	168	107	110	95
25	3.4	20	40	f70	161	176	461	157	168	106	111	95
26	3.4	20	40	h58	160	179	455	161	166	108	111	94
27	3.0	19	38	h80	160	189	449	164	162	102	111	94
28	3.0	19	38	h80	163	201	326	159	161	103	110	93
29	3.0	22	36	h80	-	211	309	159	159	103	110	91
30	5.0	29	38	h80	-	230	379	161	155	102	110	91
31	3.0	-	38	h55	-	327	-	162	-	99	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	701.2	75	3.0	22.6	1,390
November.....	347.7	29	2.7	11.6	690
December.....	977	40	29	31.5	1,940
Calendar year 1942.....	38,066.9	795	2.7	104	75,500
January.....	1,698	80	35	54.8	3,370
February.....	3,218	163	52	115	6,380
March.....	5,725	327	169	185	11,360
April.....	18,528	1,240	300	618	36,750
May.....	7,582	425	151	245	15,040
June.....	4,934	185	152	154	9,790
July.....	3,722	155	99	120	7,380
August.....	3,470	136	102	112	6,890
September.....	3,092	112	91	103	6,130
Water year 1942-43.....	53,994.9	1,240	2.7	148	107,100

a No gage-height record; discharge interpolated.

f Computed from partly estimated gage-height record.

h Computed from staff-gage reading.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Powder River at Salisbury, Oreg.

**Location.**— Water-stage recorder, lat. 44°39', long. 117°52', in NE¼ sec. 36, T. 10 S., R. 39 E., 700 feet downstream from Salisbury siding of Sumpter Valley Railroad and Stices Gulch and 8½ miles south of Baker. Datum of gage is 3,633.84 feet above mean sea level (Oregon State Highway Department bench mark).

**Drainage area.**— 230 square miles.

**Records available.**— December 1903 to August 1914 and October 1928 to September 1943, in reports of Geological Survey. January 1904 to July 1914 and June 1926 to September 1938 in reports of State engineer.

**Average discharge.**— 25 years (1904-13, 1926-28, 1929-43), 111 second-feet.

**Extremes.**— Maximum discharge during year, 1,040 second-feet Apr. 16 (gage height, 5.78 feet); minimum recorded, 9.3 second-feet Oct. 1 but may have been less during period of no gage-height record, Oct. 5-22.

1903-14, 1926-43: Maximum discharge, 1,820 second-feet Mar. 20, 1910 (gage height, 7.06 feet, site and datum then in use); 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. Divisions above station for irrigation.

Rating tables, water year 1942-43, except periods of ice effect (gage height in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1-4)

Oct. 1 to Jan. 27

Jan. 28 to Sept. 30

1.3	13	1.3	13	2.2	125
1.4	19	1.4	18	2.5	183
1.5	27	1.5	26	3.0	290
1.6	38	1.6	36	3.5	411
1.8	65	1.8	60	4.5	674
2.0	98	2.0	90	5.5	960

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	18	59	108	125	144	539	386	510	265	40	17
2	9.8	17	54	91	125	148	642	394	451	252	39	16
3	9.8	18	46	71	100	144	671	398	374	263	38	16
4	9.8	17	43	56	100	142	686	418	332	267	37	16
5	9.8	17	37	71	87	138	647	421	297	234	37	16
6	9.8	17	39	57	60	123	685	396	289	216	36	16
7	9.8	17	39	46	74	123	744	351	258	232	39	16
8	9.8	18	45	46	56	123	797	315	283	201	39	16
9	9.8	17	45	52	66	123	682	292	315	161	38	16
10	9.8	16	45	46	60	120	539	292	339	159	34	16
11	14	17	45	43	67	133	479	288	330	140	32	16
12	14	18	45	52	67	144	552	272	327	125	30	16
13	13	20	57	55	78	197	688	249	313	114	26	16
14	13	22	64	64	79	187	849	225	297	104	24	16
15	17	20	57	62	71	163	978	203	299	92	24	14
18	15	29	55	65	82	152	1,030	187	276	98	24	14
17	14	22	59	64	80	140	939	165	272	87	20	14
18	14	23	62	64	85	116	814	159	320	76	19	14
19	13	23	62	65	93	123	786	159	386	70	17	14
20	13	22	64	68	109	104	736	177	354	87	17	13
21	13	25	68	63	129	107	647	189	313	87	17	13
22	13	20	67	65	150	114	528	218	295	66	16	13
23	14	38	62	65	154	127	454	295	287	61	16	13
24	13	41	67	60	144	148	411	416	252	59	16	14
25	13	43	50	60	136	199	416	471	256	56	16	12
26	13	46	31	60	134	339	381	518	243	55	16	12
27	13	41	38	66	134	552	344	518	243	50	16	12
28	13	48	50	92	142	752	344	516	247	46	15	12
29	13	51	46	93	-	811	356	513	253	45	16	12
30	13	57	54	92	-	764	366	479	265	43	16	12
31	16	-	70	79	-	582	-	479	-	42	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	394.5	17	9.3	12.4	783
November	818	57	16	27.3	1,680
December	1,650	70	31	53.2	3,270
Calendar year 1942	49,699.1	760	9.3	136	98,560
January	2,278	130	40	73.5	4,520
February	2,606	154	56	100	5,570
March	7,282	811	104	235	14,440
April	18,732	1,030	344	624	37,150
May	10,350	518	159	334	20,530
June	9,206	510	243	307	16,280
July	3,823	267	42	123	7,880
August	787	40	15	25.4	1,580
September	433	17	12	14.4	859
Water year 1942-43	58,549.5	1,030	9.3	160	116,100

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of notes by observer, weather records, and records for Grande Ronde River at La Grange and Catherine Creek near Union.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.



## Powder River near Robinette, Oreg.

Location.- Staff gage, lat. 44°46', long. 117°04', in SE $\frac{1}{4}$  sec. 22, T. 9 S., R. 46 E., downstream from all tributaries, 2 miles northwest of Robinette, and 2 $\frac{1}{2}$  miles upstream from mouth.

Drainage area.- 1,710 square miles.

Records available.- September 1928 to September 1943.

Average discharge.- 15 years, 467 second-feet.

Extremes.- Maximum discharge observed during year, 3,340 second-feet Apr. 19, 20 (gage height, 5.40 feet); minimum observed, 119 second-feet Oct. 2 (gage height, 0.98 foot). 1928-43: Maximum discharge observed, 4,180 second-feet June 15, 16, 1933 (gage height, 6.9 feet, site and datum then in use); minimum observed, 18 second-feet Sept. 2-10, 1930.

Remarks.- Records fair except those for periods of doubtful gage-height record, which are poor. Gage read twice daily. Many diversions above station for irrigation, none below. One canal with capacity of about 5 second-feet diverts around station on left bank.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	186	282	490	453	1,100	1,800	1,960	2,040	1,740	318	200
2	123	171	252	565	545	1,030	1,750	2,020	1,830	1,720	318	188
3	123	174	246	d500	520	1,080	1,800	2,040	1,650	1,880	310	180
4	128	180	188	d450	505	1,100	1,920	1,930	1,480	1,850	294	169
5	128	171	205	d490	495	1,080	1,920	1,920	1,370	1,860	278	174
6	133	174	206	d490	490	1,010	2,050	1,810	1,330	1,940	286	152
7	130	200	213	d450	458	1,080	2,300	1,720	1,240	2,040	266	152
8	135	194	216	d420	462	1,180	2,550	1,620	1,260	2,060	229	147
9	130	197	226	d390	417	1,060	2,560	1,570	1,310	1,980	197	147
10	137	177	238	d350	374	1,000	2,350	1,430	1,400	1,660	188	142
11	135	186	229	d330	d420	1,010	2,410	1,310	1,450	1,450	177	147
12	150	183	229	d350	d450	1,010	2,250	1,220	1,480	1,220	163	147
13	148	203	235	591	d480	994	2,460	1,100	1,470	994	163	140
14	140	209	242	570	d500	1,080	2,670	1,060	1,450	928	160	135
15	152	d250	263	500	d490	961	2,850	974	1,370	883	145	133
16	150	d230	278	412	505	816	3,120	948	1,390	786	147	142
17	145	200	266	358	510	774	3,060	858	1,480	738	137	145
18	145	174	263	d250	590	798	3,180	786	1,800	690	133	145
19	140	174	260	d270	618	828	3,280	810	2,050	708	133	145
20	142	183	266	326	*657	822	3,230	822	1,840	679	130	158
21	150	163	274	738	816	792	2,960	822	1,830	690	130	163
22	145	206	274	780	1,020	792	2,600	896	1,790	822	128	158
23	*145	d230	-308	732	1,050	804	2,550	1,180	1,600	846	142	163
24	145	d250	d300	655	1,040	852	2,420	1,410	1,540	602	147	158
25	142	d250	d280	540	1,100	1,170	2,270	1,630	1,540	575	137	158
26	145	d220	d250	555	1,100	1,200	2,000	1,880	1,600	540	133	158
27	150	d230	d280	510	1,190	1,350	1,760	1,920	1,630	510	140	152
28	155	d250	322	490	1,100	1,570	1,740	2,100	1,730	453	133	147
29	d150	d260	266	485	-	1,590	1,790	2,090	1,660	399	133	147
30	d155	d270	278	448	-	1,850	1,900	2,040	1,730	374	169	147
31	d170	-	326	412	-	1,660	-	2,170	-	334	203	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,393	170	123	142	8,710
November.....	6,145	270	163	205	12,190
December.....	7,946	326	188	256	15,760
Calendar year 1942.....	261,324	2,780	101	716	518,300
January.....	14,857	780	250	479	29,470
February.....	18,345	1,190	374	655	36,390
March.....	33,583	1,880	774	1,077	66,210
April.....	71,500	3,280	1,740	2,363	141,800
May.....	46,046	2,170	766	1,486	91,330
June.....	47,240	2,050	1,240	1,575	93,700
July.....	33,751	2,060	334	1,089	66,940
August.....	5,757	318	128	186	11,420
September.....	4,639	200	133	155	9,200
Water year 1942-43.....	294,002	3,280	123	805	583,100

\* Winter discharge measurement made on this day.  
 d Doubtful gage-height record, (or, in December and January, stage-discharge relation affected by ice); discharge computed on basis of weather records and records for Powder River at Salisbury and Innaha River at Innaha.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Imnaha River at Imnaha, Oreg.

Location.- Water-stage recorder, lat. 45°34'. long. 116°51', in SW¼ sec. 16, T. 1 N., R. 48 E., at Imnaha, three-eighths of a mile downstream from Sheep Creek.

Drainage area.- 705 square miles.

Records available.- June 1928 to September 1943.

Average discharge.- 15 years, 439 second-feet.

Extremes.- Maximum discharge during year, 2,440 second-feet Apr. 16 (gage height, 4.91 feet); minimum, 58 second-feet Jan. 19 (storage behind ice jam).  
1928-43: Maximum discharge, 5,400 second-feet May 23, 1942 (gage height, 6.70 feet), from rating curve extended above 1,800 second-feet; minimum, 35 second-feet Jan. 26, 1936, Jan. 8, 1937.

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

Rating tables, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Apr. 17-27)

Oct. 1 to Apr. 16

Apr. 17 to Sept. 30

1.6	100	3.0	555	1.8	107	3.4	800
1.8	148	3.4	920	2.0	158	3.9	1,190
2.0	203	3.9	1,350	2.3	250	4.4	1,670
2.3	300	4.4	1,850	2.6	375	5.0	2,350
2.6	435	5.0	2,550	3.0	570		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	175	209	230	224	376	1,020	1,650	1,810	1,680	515	215
2	130	170	209	230	239	362	1,190	1,710	1,550	1,640	500	209
3	133	183	178	212	224	340	1,310	1,750	1,350	1,590	480	200
4	133	170	130	189	221	349	1,140	1,780	1,220	1,690	450	197
5	128	156	136	233	218	328	1,100	1,670	1,080	1,680	425	197
6	123	153	183	224	224	276	1,170	1,470	1,040	1,670	398	194
7	118	148	175	197	233	312	1,430	1,300	1,030	1,800	380	191
8	118	156	192	178	224	282	1,770	1,130	1,080	1,850	366	185
9	121	153	197	170	197	272	1,720	1,080	1,160	1,810	348	185
10	128	140	212	146	195	252	1,450	1,040	1,250	1,560	334	182
11	151	138	206	114	218	252	1,300	996	1,240	1,390	322	177
12	195	143	197	b113	235	259	1,540	926	1,320	1,220	302	172
13	167	143	197	b221	236	268	1,900	877	1,350	1,040	298	163
14	156	146	197	239	259	272	2,200	835	1,600	1,020	294	163
15	153	302	169	230	300	255	2,260	782	1,470	1,030	290	161
16	151	230	186	197	344	259	2,270	770	1,400	948	286	155
17	148	197	186	b140	354	252	2,130	752	1,490	898	274	153
18	143	206	163	b110	367	233	2,040	758	1,760	877	274	153
19	140	181	189	b120	380	249	2,190	794	1,980	898	298	150
20	138	162	186	b200	415	221	2,010	912	1,850	948	266	148
21	136	136	186	b282	480	233	1,810	1,010	1,720	956	246	148
22	136	183	189	308	534	233	1,570	1,160	1,700	956	243	145
23	138	195	192	286	512	233	1,460	1,410	1,570	870	266	142
24	138	286	192	255	455	255	1,420	1,650	1,460	835	240	142
25	136	255	197	243	400	300	1,400	1,710	1,450	800	236	140
26	136	236	136	296	367	435	1,240	1,840	1,400	776	232	140
27	140	246	153	282	353	748	1,050	1,850	1,470	740	206	137
28	143	227	212	*262	362	-	1,040	1,120	1,900	1,550	674	194
29	138	215	*203	239	-	1,280	1,380	1,850	1,640	608	197	140
30	143	218	200	221	-	1,330	1,390	1,750	1,640	560	254	140
31	146	-	212	186	-	1,100	-	1,880	-	530	240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,334	195	118	140	8,600
November.....	5,649	302	136	188	11,200
December.....	5,809	212	130	187	11,520
Calendar year 1942.....	228,284	3,150	118	625	452,800
January.....	6,558	308	110	212	13,010
February.....	8,773	534	195	313	17,400
March.....	12,876	1,330	221	415	25,540
April.....	47,010	2,270	1,020	1,567	93,240
May.....	41,002	1,900	752	1,323	81,330
June.....	43,530	1,980	1,030	1,451	86,340
July.....	36,044	1,590	550	1,163	71,490
August.....	9,654	515	194	311	19,150
September.....	4,961	215	137	165	9,840
Water year 1942-43.....	226,200	2,270	110	620	448,700

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Salmon River near Obsidian, Idaho

Location.- Water-stage recorder, lat. 43°58', long. 114°48', in sec. 3, T. 7 N., R. 14 E., three-eighths of a mile below irrigation diversion dam, 1 mile upstream from Lost Creek, and 2½ miles southeast of Obsidian.

Drainage area.- 94.7 square miles.

Records available.- November 1940 to September 1943.

Extremes.- Maximum discharge during year, 664 second-feet May 30; maximum gage height not determined, probably occurred during period of ice effect; minimum discharge recorded, 5 second-feet Oct. 9.

1940-43: Maximum discharge, that of May 30, 1943; maximum gage height recorded, 4.74 feet (ice jam) sometime between Dec. 5, 1940, and Jan. 23, 1941; minimum discharge, 2 second-feet Sept. 7-11, 1942.

Remarks.- Records good except those above 450 second-feet and those for May 7-18, Aug. 9-12, which are fair, and those for Dec. 6 to Mar. 22, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	38	31				29	215	496	597	150	49
2	13	38	30				30	232	434	565	152	50
3	18	38	22				30	250	365	559	146	51
4	22	37	19				29	297	318	548	136	49
5	22	36	24				29	297	283	501	128	48
6	16	35					30	286	253	501	123	48
7	12	36					31	a260	247	522	117	48
8	12	38					31	a320	250	543	112	47
9	10	31					31	a210	293	554	a110	47
10	6	32					31	a230	365	501	a105	46
11	7	28										
12	14	38	30			25	34	a220	421	453	a100	46
13	30	*35					35	a215	482	399	a95	46
14	34	35					40	a210	482	345	a90	46
15	34	38					53	a205	418	322	81	49
				30	25		82	a200	378	318	81	47
16	34	34					119	a195	369	293	81	47
17	34	33					138	a190	403	263	75	47
18	34	33					180	a195	496	250	72	47
19	34	32	+31				157	204	522	258	81	47
20	33	22					144	210	593	253	53	50
21	33	26					136	232	559	279	51	50
22	33	34					132	279	628	369	50	49
23	33	33				*28	146	345	582	297	50	49
24	34	36				29	150	448	527	263	52	49
25	37	29	30			29	159	491	517	250	55	48
26	37	32				31	148	532	522	235	55	50
27	38	27				30	144	538	543	220	51	50
28	37	32				30	177	582	570	207	51	49
29	36	33			-	30	163	610	582	186	51	49
30	37	31			-	29	177	646	576	165	51	48
31	37	-			-	29	-	665	-	154	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	824	38	6	26.6	1,630
November.....	1,000	38	22	33.3	1,980
December.....	907	-	-	29.3	1,800
Calendar year 1942.....	22,817	416	2	62.5	45,250
January.....	930	-	-	30.0	1,840
February.....	700	-	-	25.0	1,390
March.....	815	-	-	26.3	1,620
April.....	2,765	177	29	92.8	5,520
May.....	9,819	646	190	317	19,480
June.....	13,572	928	247	452	26,920
July.....	11,158	587	154	360	22,130
August.....	2,635	182	50	85.0	5,230
September.....	1,448	51	46	48.3	2,870
Water year 1942-43.....	46,593	646	6	128	92,410

\* Winter discharge measurement made on this day.

† Result of discharge measurement.

a No gage-height record; discharge interpolated or computed on basis of recorded range in stage and records for stations on nearby streams.

Note.- Stage-discharge relation affected by ice during most of period Dec. 6 to Mar. 22 (no gage-height record Dec. 8-18, Jan. 14 to Mar. 22; discharge computed on basis of records for stations on nearby streams).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Salmon River below Valley Creek, at Stanley, Idaho

Location.- Water-stage recorder, lat. 44°14', long. 114°55', in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 11 N., R. 13 E., three-quarters of a mile downstream from Valley Creek and  $\frac{1}{4}$  mile north-east of Stanley. Datum of gage is 6,190.32 feet above mean sea level, datum of 1929.

Drainage area.- 535 square miles.

Records available.- July 1925 to September 1943.

Average discharge.- 18 years, 591 second-feet.

Extremes.- Maximum discharge during year, 3,850 second-feet May 30, 31 (gage height, 3.87 feet); minimum daily, 220 second-feet Jan. 18.

1925-43: Maximum discharge, 5,020 second-feet June 27, 1927 (gage height, 4.41 feet), from rating curve extended above 4,000 second-feet; minimum, 100 second-feet (estimated) Nov. 20-30, 1929.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	282	390	416	396	350	330	400	2,120	3,650	3,550	1,370	581
2	282	390	410	396	360	320	h410	2,120	3,260	3,650	1,500	589
3	282	410	377	350	360	300	470	2,190	2,810	3,550	1,400	589
4	287	377	370	310	350	320	470	2,400	2,400	3,750	1,310	573
5	287	370	353	350	350	340	450	2,330	2,120	3,450	1,240	565
6	287	364	364	360	370	320	500	2,120	1,920	3,260	1,170	549
7	277	364	364	350	370	330	540	1,980	1,790	3,260	1,120	541
8	277	403	353	330	370	350	h597	1,850	1,730	3,360	1,090	533
9	282	364	364	340	360	330	605	1,790	1,860	3,550	1,050	533
10	282	358	396	340	330	h307	613	1,790	2,050	3,350	1,010	517
11	297	324	370	330	350	320	654	1,670	2,330	3,080	960	517
12	307	325	364	320	350	340	730	1,610	2,720	2,810	921	517
13	318	341	364	350	340	380	809	1,550	2,900	2,480	883	517
14	318	364	358	360	330	340	902	1,500	2,720	2,260	864	509
15	324	494	353	360	310	330	1,030	1,440	2,400	2,190	845	502
16	318	429	347	320	300	330	1,200	1,400	2,260	2,120	836	494
17	318	416	377	300	310	h355	1,350	1,370	2,330	1,950	818	494
18	312	416	341	280	320	330	1,440	1,360	2,640	1,920	800	494
19	312	396	336	240	330	330	1,670	1,380	3,260	1,920	773	487
20	318	341	h336	300	330	320	1,670	1,440	3,650	1,920	730	487
21	318	341	353	400	320	320	1,790	1,550	3,350	1,980	712	487
22	318	377	341	380	340	330	1,730	1,790	3,450	2,480	687	480
23	318	390	353	350	340	330	1,850	2,080	3,450	2,260	670	480
24	307	533	353	330	330	330	1,920	2,480	3,160	2,120	662	480
25	307	466	353	360	310	h355	1,790	2,720	2,690	1,980	670	480
26	318	416	297	390	310	360	1,730	2,800	2,900	1,920	654	487
27	341	429	341	380	320	370	1,610	3,080	2,980	1,850	630	525
28	312	410	377	380	330	380	1,850	3,450	3,080	1,790	613	502
29	312	429	370	*370	-	400	1,790	3,650	3,550	1,670	605	487
30	336	429	370	360	-	420	1,790	3,850	3,450	1,550	597	480
31	341	-	383	300	-	400	-	3,850	-	1,450	597	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-foot
October	9,494	341	277	306	0.572	0.66	18,830
November	11,855	533	324	395	.738	.82	23,510
December	11,202	416	297	361	.676	.78	22,220
Calendar year 1942	227,321	2,640	-	623	1.16	15.81	450,900
January	10,642	400	220	343	.641	.74	21,110
February	9,440	370	300	337	.630	.66	18,720
March	10,577	420	300	341	.637	.74	20,980
April	34,390	1,920	400	1,146	2.14	2.39	58,210
May	66,780	3,850	1,360	2,154	4.03	4.64	132,500
June	82,940	3,650	1,730	2,765	5.17	5.77	164,500
July	78,350	3,750	1,430	2,527	4.72	5.44	155,400
August	27,787	1,500	597	896	1.67	1.93	55,110
September	15,476	589	480	516	.964	1.08	30,700
Water year 1942-43	368,913	3,850	220	1,011	1.89	25.66	731,800

\* Winter discharge measurement made on this day.

h Computed from staff-gage reading.

Note.- Stage-discharge relation affected by ice during most of period Jan. 3 to Mar. 9. No gage-height record Nov. 12, Jan. 10-13, 21-28, Feb. 2-16, 18-23, Feb. 25 to Mar. 2, Mar. 4-9, 11-16, 18-24, Mar. 26 to Apr. 1, Apr. 3-7; discharge computed on basis of 1 discharge measurement, occasional staff-gage readings, weather records, and records for other stations on Salmon River.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Salmon River below Yankee Fork, near Clayton, Idaho

Location.— Water-stage recorder, lat. 44°16', long. 114°44', in sec. 20, T. 11 N., R. 15 E., a quarter of a mile downstream from Sunbeam Dam and Yankee Fork and 18 miles upstream from Clayton.

Drainage area.— 841 square miles.

Records available.— October 1921 to September 1943.

Average discharge.— 20 years (1922-24, 1925-43), 869 second-feet.

Extremes.— Maximum discharge during year, 7,200 second-feet May 29 (gage height, 9.30 feet); minimum daily, 290 second-feet Jan. 18; minimum, 266 second-feet Jan. 20 (gage height, 1.98 feet), ice jam upstream.  
1921-43: Maximum discharge, 8,000 second-feet (estimated) June 27, 1927; minimum, 160 second-feet (estimated) Nov. 25-30, 1929.

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

Rating tables, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 19

Jan. 20 to Sept. 30

2.1	354	2.1	320	3.5	1,090	6.0	3,090
2.3	444	2.3	415	4.0	1,440	7.0	4,170
2.6	591	2.6	565	4.5	1,900	8.0	5,420
2.9	748	3.0	780	5.0	2,200	9.3	7,200

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	398	516	536	497	425	a360	550	3,110	6,320	5,890	a1,850	780
2	398	512	528	497	435	a360	615	3,450	5,580	5,670	a1,900	792
3	398	541	468	450	430	a350	720	3,540	4,750	5,710	a1,850	994
4	403	497	454	400	410	360	714	4,070	4,070	5,860	a1,800	766
5	403	487	454	450	410	a410	730	4,090	3,590	6,390	a1,660	752
6	403	482	473	450	a430	a380	769	3,580	3,210	5,160	a1,560	736
7	389	473	468	420	a430	a390	942	3,260	3,050	5,170	h1,510	730
8	385	521	468	420	a430	a410	1,100	2,840	3,040	5,280	a1,450	720
9	385	475	473	450	a420	a400	1,110	2,770	3,370	5,290	a1,400	708
10	385	449	497	450	a350	a360	1,060	2,860	3,940	5,030	a1,350	698
11	412	416	478	410	a400	a370	1,100	2,620	4,510	4,640	a1,300	692
12	435	416	468	400	412	h385	1,400	2,460	4,990	4,190	1,240	686
13	435	439	468	430	385	a440	1,660	2,310	5,160	3,720	1,200	681
14	435	492	468	460	370	a410	1,900	2,210	4,680	3,360	1,170	676
15	444	663	449	440	360	a400	2,160	2,160	4,350	3,240	1,160	669
16	435	576	430	400	350	a390	2,580	2,060	4,150	3,100	1,140	648
17	430	546	458	390	360	a400	2,620	2,000	4,460	2,930	1,100	648
18	430	551	435	290	365	a380	2,840	1,990	5,340	2,850	1,060	637
19	430	516	430	300	375	360	3,160	2,110	6,390	2,770	1,030	626
20	439	444	439	400	375	365	2,990	2,400	6,400	2,760	984	626
21	435	430	473	460	375	360	2,970	2,690	5,900	2,790	954	626
22	435	482	463	450	390	370	2,760	3,310	6,050	3,360	924	620
23	444	521	468	435	370	370	2,850	4,000	5,910	5,150	906	615
24	426	705	468	435	380	375	3,030	4,950	5,470	a2,800	898	615
25	421	616	463	455	347	400	2,830	5,300	5,200	a2,650	900	610
26	435	516	389	465	347	415	2,580	5,670	5,150	a2,500	976	615
27	463	551	430	460	360	435	2,380	5,940	5,280	a2,400	852	676
28	421	536	473	465	a370	455	2,620	6,680	5,510	a2,350	828	637
29	426	551	465	445	-	500	2,640	7,100	5,730	a2,200	810	615
30	449	551	458	445	-	545	2,570	7,090	5,660	h2,090	798	605
31	473	-	478	420	-	530	-	6,840	-	a1,950	798	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	13,100	473	385	423	0.503	0.58	25,980
November	15,469	705	416	516	.614	.68	30,680
December	14,366	536	399	463	.551	.64	28,490
Calendar year 1942	347,970	5,420	-	953	1.13	15.40	690,200
January	13,309	497	290	429	.510	.59	26,400
February	10,906	435	347	390	.454	.48	21,630
March	12,495	545	350	403	.479	.55	24,780
April	57,710	3,160	550	1,924	2.29	2.55	114,500
May	115,450	7,100	1,980	3,724	4.43	5.11	229,000
June	147,590	6,400	3,040	4,920	5.85	6.53	292,700
July	116,220	5,890	1,950	3,749	4.46	5.14	230,500
August	37,238	1,900	798	1,201	1.43	1.65	73,860
September	20,302	804	605	877	.905	.90	40,270
Water year 1942-43	574,155	7,100	290	1,573	1.87	25.40	1,159,000

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Salmon River near Challis and weather records.

h Computed from staff-gage reading.

Note.— Stage-discharge relation affected by ice Jan. 3-20, Feb. 15-18, and during first few days of March.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Salmon River near Challis, Idaho

Location.- Water-stage recorder, lat. 44°23', long. 114°15', in sec. 7, T. 12 N., R. 19 E., 250 feet downstream from Bayhorse Creek and 9 miles south of Challis. Datum of gage is 5,163.99 feet above mean sea level, datum of 1929.

Drainage area.- 1,740 square miles.

Records available.- October 1928 to September 1943.

Average discharge.- 15 years, 1,274 second-feet.

Extremes.- Maximum discharge during year, 10,500 second-feet May 30 (gage height, 8.07 feet); minimum, 218 second-feet Jan. 18 (gage height, 1.19 feet).  
1928-43: Maximum discharge, that of May 30, 1943; minimum, 160 second-feet Dec. 14, 1940.

Remarks.- Records good except those for period of ice effect, which are fair. Some diversion above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	652	726	764	737	621	631	1,030	3,970	8,570	8,570	2,850	1,250
2	647	753	748	726	726	585	1,100	4,720	7,900	8,320	2,920	1,250
3	647	753	682	668	699	545	1,210	4,920	6,850	8,520	2,920	1,280
4	647	753	600	565	636	590	1,170	5,460	5,920	8,570	2,710	1,250
5	647	710	595	636	657	662	1,210	5,800	5,140	7,620	2,510	1,210
6	647	699	652	694	684	575	1,250	5,240	4,620	7,570	2,380	1,170
7	641	694	673	606	684	600	1,450	4,720	4,340	7,570	2,320	1,170
8	626	737	678	615	673	657	1,680	4,150	4,240	7,570	2,260	1,140
9	626	732	684	621	657	641	1,720	3,890	4,620	7,820	2,140	1,140
10	631	657	732	621	550	585	1,830	4,060	5,460	7,330	2,080	1,100
11	662	610	710	595	662	605	1,580	3,800	6,390	6,850	1,980	1,060
12	715	600	673	575	668	631	1,920	3,620	6,850	6,260	1,920	1,060
13	715	652	678	626	626	732	2,260	3,360	7,330	5,460	1,870	1,060
14	710	710	678	737	600	668	2,580	3,220	7,090	5,030	1,820	1,030
15	715	649	652	699	580	615	3,000	3,140	6,150	4,820	1,770	1,030
16	715	649	626	600	545	605	3,220	3,000	5,800	4,620	1,820	1,000
17	705	766	647	575	555	621	3,620	2,850	6,150	4,340	1,720	1,000
18	689	793	*626	390	600	590	5,800	2,780	7,570	4,150	1,720	969
19	689	770	610	355	641	600	4,340	2,850	9,090	4,150	1,630	969
20	689	689	615	580	673	565	4,240	3,140	9,360	4,060	1,580	969
21	659	580	699	6900	641	565	4,060	3,540	8,570	4,150	1,540	969
22	684	641	673	678	657	590	3,880	4,340	9,090	5,140	1,500	969
23	684	781	699	732	678	605	3,800	5,240	8,830	4,820	1,450	969
24	684	678	684	662	652	615	4,150	8,850	8,070	4,540	1,410	969
25	657	908	673	626	590	694	3,970	7,330	7,820	4,060	1,410	969
26	668	753	545	710	565	759	3,710	7,820	7,570	3,970	1,410	969
27	668	803	502	748	590	878	3,380	8,320	7,820	3,800	1,360	1,000
28	684	792	699	737	605	969	3,460	9,360	8,070	3,620	1,320	1,000
29	636	775	699	699	-	1,060	3,710	10,200	8,570	3,880	1,280	969
30	673	803	668	*694	-	1,060	3,460	10,200	8,570	3,140	1,250	938
31	698	-	726	521	-	969	-	9,640	-	2,920	1,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	20,852	715	626	675	0.887	0.45	41,360
November	22,241	908	580	741	.426	.48	44,110
December	20,540	764	502	663	.381	.44	40,740
Calendar year 1942	539,679	8,830	-	1,479	.850	11.54	1,070,000
January	20,097	900	355	648	.372	.43	39,880
February	17,715	726	545	633	.364	.39	35,140
March	21,067	1,060	545	690	.391	.45	41,790
April	31,590	4,340	1,030	2,720	1.56	1.74	161,800
May	181,540	10,200	2,780	5,211	2.99	3.45	320,400
June	212,410	9,360	4,240	7,080	4.07	4.54	421,300
July	172,540	8,570	2,920	5,566	3.20	3.69	342,200
August	58,100	2,920	1,250	1,874	1.08	1.24	115,200
September	31,828	1,280	938	1,061	.610	.68	63,130
Water year 1942-43	840,520	10,200	355	2,308	1.32	17.97	1,667,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Salmon River at Salmon, Idaho

Location.- Water-stage recorder, lat. 45°11', long. 113°54', in sec. 6, T. 21 N., R. 22 E., just upstream from Lemhi River, near Rose ranch buildings, 1,000 feet downstream from island, and three-eighths of a mile downstream from highway bridge at Salmon.

Drainage area.- 3,600 square miles.

Records available.- April 1912 to September 1916, July 1919 to September 1943.

Average discharge.- 26 years (1913-16, 1920-43), 1,778 second-feet.

Extremes.- Maximum discharge during year, 10,700 second-feet May 31 (gage height, 7.18 feet); minimum, 586 second-feet Jan. 19 (gage height, 2.38 feet).  
1912-16, 1919-43: Maximum discharge observed, 16,400 second-feet June 12, 1921 (gage height, 9.35 feet, staff gage at site 700 feet upstream); minimum, 242 second-feet Jan. 8, 1937 (gage height, 1.50 feet).

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 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used July 14 to Sept. 30)

2.4	600	3.5	1,840	5.0	4,730
2.7	850	4.0	2,680	6.0	7,280
3.0	1,150	4.5	3,560	7.2	10,700

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	913	1,170	1,340	1,300	888	1,000	a2,400	4,400	10,100	9,240	3,870	1,620
2	913	1,200	1,310	1,340	1,010	1,020	a2,300	4,840	9,520	9,840	3,780	1,620
3	922	1,230	1,270	1,220	1,200	886	a2,400	5,200	8,680	9,960	3,870	1,680
4	931	1,260	1,200	1,120	1,200	886	a2,500	5,370	7,840	9,240	3,560	1,680
5	940	1,260	1,110	1,030	1,100	940	a2,400	6,090	6,570	5,960	3,360	1,600
6	940	1,210	1,110	1,150	1,110	1,040	a2,500	6,350	6,550	8,400	3,060	1,560
7	940	1,200	1,160	1,160	1,120	960	a2,600	5,830	5,830	8,400	2,960	1,560
8	931	1,280	1,200	1,020	1,150	1,000	a2,800	5,320	5,700	8,120	2,780	1,540
9	922	1,270	1,210	1,080	1,140	1,120	a2,800	4,960	5,700	8,400	2,680	1,610
10	931	1,250	1,200	1,050	1,060	1,080	a2,600	4,960	6,350	8,120	2,590	1,480
11	980	1,200	*1,220	1,010	* 950	1,010	a2,400	4,960	7,000	7,840	2,500	1,460
12	1,060	1,160	1,200	922	1,070	1,030	2,410	4,640	7,580	7,280	2,410	1,440
13	1,110	1,150	1,160	886	1,120	1,180	2,870	4,730	8,120	6,740	2,320	1,430
14	1,130	1,200	1,190	1,060	1,080	1,510	3,260	4,620	8,400	6,220	2,150	1,400
15	1,140	1,280	1,160	1,400	1,020	1,350	3,760	4,400	7,840	5,960	2,130	1,390
16	1,150	1,410	1,140	1,260	980	1,150	4,180	4,990	7,280	5,700	2,150	1,370
17	1,150	1,370	1,140	990	960	1,070	4,510	4,150	7,140	5,570	2,120	1,370
18	1,140	1,340	1,160	814	970	1,050	4,730	3,980	7,840	5,440	2,050	1,350
19	1,140	1,340	1,110	680	1,000	1,030	5,080	3,860	8,960	5,200	2,020	1,310
20	1,130	1,260	1,100	b650	1,070	1,020	5,320	3,760	10,100	4,840	1,960	1,310
21	1,120	1,170	1,120	b960	1,160	990	5,080	3,980	9,800	4,840	1,900	1,310
22	1,120	1,100	1,250	b1,800	1,120	980	4,840	4,290	9,520	5,200	1,840	1,310
23	1,120	1,210	1,200	b1,500	1,120	1,020	4,620	5,080	9,520	5,700	1,800	1,280
24	1,110	1,340	1,200	b1,300	1,130	1,060	4,730	6,350	8,960	5,440	1,750	1,280
25	1,110	1,460	1,190	1,160	1,070	1,190	4,640	7,560	8,400	5,200	1,740	1,280
26	1,120	1,410	1,130	1,100	980	1,530	4,620	8,120	8,400	5,080	1,750	1,280
27	1,130	1,310	940	*1,170	950	1,700	4,400	8,680	8,400	4,840	1,700	1,300
28	1,140	1,340	922	1,260	960	2,150	4,290	8,960	8,680	4,730	1,680	1,350
29	1,140	1,320	1,160	1,210	-	a2,400	4,510	9,800	8,960	4,510	1,660	1,340
30	1,120	1,320	1,170	1,120	-	a2,600	4,400	10,400	9,240	4,400	1,630	1,300
31	1,140	-	1,230	1,060	-	a2,600	-	10,700	-	3,980	1,630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	32,783	1,150	913	1,058	65,020
November	37,970	1,480	1,100	1,266	75,310
December	36,202	1,340	922	1,168	71,810
Calendar year 1942	756,453	9,980	650	2,072	1,500,000
January	34,572	1,340	650	1,115	68,570
February	29,668	1,200	868	1,060	58,850
March	39,501	2,800	886	1,274	78,360
April	110,150	5,320	2,300	3,672	218,500
May	180,660	10,700	3,660	5,834	368,700
June	243,060	10,100	5,700	8,102	462,100
July	201,790	9,240	3,980	6,509	400,200
August	73,380	3,870	1,630	2,367	145,500
September	42,640	1,660	1,280	1,421	84,580
Water year 1942-43	1,062,576	10,700	650	2,911	2,107,000

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for other Salmon River stations.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Salmon River at Whitebird, Idaho

Location.— Water-stage recorder, lat. 45°45', long. 116°20', in sec. 22, T. 28 N., R. 1 E., just upstream from Whitebird Creek, half a mile downstream from Canfield-Joseph highway bridge, and 1 mile southwest of Whitebird.

Drainage area.— 13,400 square miles.

Records available.— August 1910 to September 1917, October 1919 to September 1943.

Average discharge.— 31 years, 10,400 second-feet.

Extremes.— Maximum discharge during year, 73,900 second-feet June 1 (gage height, 28.63 feet); minimum, 2,750 second-feet Jan. 20 (gage height, 11.56 feet).  
1910-17, 1919-43: Maximum discharge observed, 88,800 second-feet June 9, 1921 (gage height, 31.2 feet), from rating curve extended above 75,000 second-feet; minimum discharge, 1,580 second-feet Dec. 11, 1932 (gage height, 10.23 feet), from rating curve extended below 2,200 second-feet.  
Maximum stage known, about 37.5 feet, present datum, June 1894 (discharge, 120,000 second-feet).

Remarks.— Records excellent except those for period of ice effect, which are fair. Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Rating table, water year 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Aug. 6 to Sept. 30)

11.6	2,800	13.5	8,020	17.0	14,800	24.0	45,000
12.0	3,560	14.0	7,040	18.0	18,100	25.0	57,500
12.5	4,170	15.0	9,290	20.0	26,000	28.0	69,800
13.0	5,060	16.0	11,900	22.0	35,400	28.5	73,000

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,880	4,680	5,650	5,340	4,770	5,230	13,600	27,600	72,500	55,500	12,400	6,340
2	3,850	5,010	5,550	6,140	4,820	5,400	12,800	29,500	66,600	52,300	12,000	6,200
3	3,850	5,160	5,380	6,240	4,200	5,290	14,300	32,000	58,500	51,000	12,800	6,100
4	3,830	5,310	4,950	5,650	4,390	4,950	16,100	35,300	51,100	52,900	13,000	6,280
5	3,810	5,190	4,450	4,930	4,660	4,810	15,900	39,100	45,000	49,800	12,000	6,120
6	3,810	4,880	4,220	4,310	4,680	4,970	15,300	39,400	40,700	46,400	11,000	5,920
7	3,810	4,720	4,480	4,320	4,660	4,880	16,500	36,800	38,100	45,100	10,400	5,780
8	3,800	4,700	4,520	4,520	4,720	4,740	18,800	33,100	37,000	44,700	9,930	5,670
9	3,780	4,860	4,630	4,080	4,760	4,930	20,400	29,900	38,400	44,000	9,530	5,590
10	3,730	4,840	4,580	3,850	4,680	4,930	20,100	28,700	41,300	40,500	9,190	5,550
11	3,800	4,660	4,920	3,610	4,520	4,990	18,200	26,800	45,700	37,500	8,930	5,400
12	4,220	4,290	5,040	3,400	4,410	4,860	17,800	25,100	45,700	34,500	8,650	5,270
13	4,600	4,120	5,020	3,320	4,560	4,900	20,600	23,500	51,900	31,700	8,330	5,140
14	4,470	4,240	4,880	3,850	4,790	5,100	25,700	22,200	53,200	28,300	8,010	5,080
15	5,410	5,290	4,930	4,630	4,970	5,420	31,300	21,000	50,800	25,900	7,640	4,990
16	4,410	6,400	4,950	5,250	4,880	5,860	36,100	20,100	47,600	24,200	7,500	4,920
17	4,360	6,040	4,810	4,830	4,720	5,210	38,900	19,300	48,200	22,800	7,590	4,860
18	4,310	5,650	4,560	3,770	4,740	4,860	40,300	18,800	54,600	21,600	7,380	4,790
19	4,260	5,550	4,520	2,920	4,840	4,760	42,900	19,100	62,800	20,600	7,120	4,760
20	4,220	5,310	*4,320	3,000	5,120	4,570	46,100	20,600	67,200	19,900	6,890	4,740
21	4,200	4,860	4,290	3,400	5,540	4,660	44,500	23,800	63,600	19,500	6,720	4,740
22	4,190	4,380	4,390	b5,000	5,980	4,580	40,500	28,500	62,100	19,800	6,580	4,740
23	4,190	4,310	4,660	b5,400	6,280	4,590	35,900	35,700	60,000	20,900	6,420	4,650
24	4,270	5,920	4,880	b7,500	6,260	4,850	33,900	45,500	56,500	20,100	6,320	4,590
25	4,220	7,680	4,930	b6,500	5,980	5,080	33,500	52,600	52,900	18,500	6,260	4,560
26	4,140	7,170	4,790	b5,500	*5,650	5,710	32,400	57,900	50,700	17,200	6,240	4,500
27	4,150	6,380	4,270	5,120	5,310	7,500	29,700	61,200	50,900	16,200	6,160	4,470
28	4,290	6,020	3,620	5,080	5,210	*9,800	27,200	66,100	51,900	15,300	6,000	4,480
29	4,270	5,840	4,070	5,170	-	12,600	27,300	71,300	53,000	14,500	5,860	4,490
30	4,220	5,630	4,700	5,120	-	15,100	27,100	75,500	54,500	13,700	6,060	4,540
31	4,270	-	4,950	4,840	-	15,600	-	72,600	-	12,900	6,280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	127,500	4,500	3,730	4,113	252,900
November.....	159,100	7,680	4,120	5,303	315,600
December.....	146,210	5,650	3,620	4,716	290,000
Calendar year 1942 .....	4,186,880	58,100	3,510	11,470	8,304,000
January.....	147,590	7,500	2,920	4,761	292,700
February.....	139,510	6,280	4,200	4,982	275,700
March.....	190,420	15,600	4,520	6,143	377,700
April.....	313,800	46,100	12,900	27,130	1,614,000
May.....	1,134,500	72,600	18,800	36,600	2,250,000
June.....	1,675,800	72,500	37,000	52,530	3,126,000
July.....	937,700	55,500	12,900	30,250	1,860,000
August.....	259,190	13,000	5,890	8,361	514,100
September.....	155,360	8,540	4,470	5,179	308,200
Water year 1942-43 .....	5,786,680	72,600	2,920	15,850	11,480,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.



## Alturas Lake Creek near Obsidian, Idaho

Location.— Water-stage recorder, lat. 43°56', long. 114°50', in SW $\frac{1}{4}$  sec. 9, T. 7 N., R. 14 E., 1 mile downstream from outlet of Perkins Lake, 1 $\frac{1}{2}$  miles downstream from outlet of Alturas Lake, and 4 miles south of Obsidian.

Drainage area.— 35.7 square miles.

Records available.— November 1940 to September 1943.

Extremes.— Maximum discharge during year, 612 second-feet May 31 (gage height, 5.30 feet); minimum recorded, 12 second-feet Oct. 3-10, 30 (gage height, 1.34 feet).  
1940-43: Maximum discharge, that of May 31, 1943; minimum recorded, 12 second-feet Mar. 16-19, 1941, Oct. 3-10, 30, 1942.

Remarks.— Records good except those for May 8-18, Aug. 9-13, which are fair, and those for Nov. 8 to Apr. 6, which are poor. No diversion or regulation above station.

Rating table, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

1.9	10	2.8	84	4.0	264
2.0	15.5	3.1	117	4.4	361
2.2	29	3.4	156	4.8	467
2.5	55	3.7	204	5.3	612

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	16					23	156	543	555	138	38
2	13	16					24	164	478	564	133	37
3	12	17					25	176	405	558	127	37
4	12	18					26	201	338	561	119	36
5	12	18					27	222	285	538	111	35
6	12	17					28	236	242	512	104	34
7	12	17					30	234	218	509	97	34
8	12		23	22			31	230	206	529	92	33
9	12						34	220	215	540	90	32
10	12	17					35	215	253	523	85	31
11	14					17	38	205	318	484	80	30
12	14						42	195	382	440	75	30
13	15	*18					48	180	421	379	70	28
14	15	19					57	180	416	356	66	28
15	15						71	170	374	316	64	27
16	14				17		87	160	344	299	62	27
17	14		25				111	150	336	290	60	26
18	14	18					133	140	377	264	58	25
19	14		*25				159	141	484	255	55	23
20	14						184	145	535	251	52	23
21	14						199	158	512	264	50	23
22	14	19					192	159	520	294	48	23
23	14	21				17	184	234	529	285	46	23
24	13	22		20		17	176	309	501	266	45	23
25	13		25			17	173	379	473	240	44	23
26	13					18	166	426	467	228	43	23
27	13	23				19	156	467	473	217	43	26
28	13					20	164	506	495	201	42	25
29	13					21	158	546	523	182	41	24
30	12					22	150	597	535	165	39	24
31	13					22		600		148	38	

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	410	15	12	13.2	0.370	0.43	813
November	567	-	-	18.9	.529	.59	1,120
December	745	-	-	24.0	.672	.78	1,480
Calendar year 1942	22,003	399	-	60.3	1.69	22.92	43,640
January	650	-	-	21.0	.588	.68	1,290
February	476	-	-	17.0	.476	.50	944
March	547	-	-	17.6	.493	.57	1,080
April	2,931	199	23	97.7	2.74	3.05	5,810
May	8,141	600	140	263	7.37	8.48	16,150
June	12,198	543	206	407	11.4	12.71	24,190
July	11,193	564	148	361	10.1	11.65	22,180
August	2,217	138	38	71.5	2.00	2.31	4,400
September	651	38	23	28.4	.796	.89	1,690
Water year 1942-43	40,916	600	-	112	3.14	42.64	81,150

\* Winter discharge measurement made on this day.

Note.— Stage-discharge relation affected by ice Nov. 8-13, 15-22, Nov. 24 to Apr. 6. No gage-height record Dec. 12-18, Jan. 6 to Apr. 6, May 8-18, Aug. 9-13; discharge computed on basis of 3 discharge measurements, weather records, and records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Valley Creek at Stanley, Idaho

Location.— Staff gage, lat.  $44^{\circ}13'$ , long.  $114^{\circ}56'$ , in sec. 3, T. 10 N., R. 13 E., 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 square miles.

Records available.— December 1910 to October 1913, May 1921 to September 1943.

Average discharge.— 23 years (1911-13, 1922-43), 182 second-feet.

Extremes.— Maximum daily discharge during year, 1,300 second-feet (estimated) May 30 (gage height, not determined); minimum observed, 63 second-feet Nov. 13 (gage height, 1.03 feet).

1910-13, 1921-43: Maximum discharge observed, 1,850 second-feet May 29, 1921 (gage height, 4.4 feet), from rating curve extended above 1,300 second-feet; minimum, 40 second-feet (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Remarks.— Records fair except those for May 21 to June 4, which are poor. Gage read once daily. Diversions above station for irrigation.

Rating table, water year 1942-43, except periods of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1-31)

1.0	58	2.4	550
1.2	94	2.7	730
1.5	164	3.0	940
1.8	260	3.2	1,090
2.1	385	3.5	1,340

Discharge, in second-feet, water year October 1942 to September 1943<sup>1</sup>

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a69	a96	a110	100	98	94	a126	800	a1,200	1,090	a450	a164
2	a70	96	107	a96	a96	a87	138	835	a1,000	1,090	462	164
3	a71	a100	a80	a92	94	80	a143	835	a930	1,090	a450	a160
4	72	96	85	88	a94	a88	148	940	a870	1,090	436	156
5	a72	a94	a90	a92	94	96	a150	905	800	1,010	a360	a150
6	a72	92	a90	94	a100	a90	a165	835	765	1,010	298	146
7	a70	a92	90	a92	a100	94	178	835	670	1,010	a280	a145
8	a70	a100	a92	102	a100	a195	640	700	1,010	a270	143	
9	a70	96	93	92	a95	a95	209	700	670	940	260	a140
10	a70	a85	a95	a92	90	90	225	800	835	905	a240	138
11	86	75	95	90	a98	a94	225	640	800	870	225	a137
12	a94	a75	a96	a90	a96	94	a220	640	940	800	242	a137
13	83	*79	a94	90	94	a100	a215	580	1,010	730	209	136
14	a82	a90	90	a95	a94	a95	490	900	800	700	a215	a134
15	a82	a115	a86	a95	94	90	a225	490	730	610	a220	131
16	81	100	82	80	a92	a85	242	490	800	550	225	a130
17	a81	a96	a78	a80	90	79	a280	462	835	490	a215	129
18	a81	95	75	a80	a90	a80	340	a450	905	520	209	a128
19	81	a88	a73	a80	90	84	462	a450	1,090	550	a200	a127
20	a80	80	*72	a90	a91	a80	670	550	1,090	a550	193	126
21	79	a75	a74	a100	a93	a82	730	a600	1,090	550	a190	a125
22	a80	a90	a76	100	94	800	a650	1,090	a600	a185	124	
23	86	109	78	a98	a92	a89	765	a700	1,090	580	a180	a123
24	a83	a120	a82	a96	90	92	670	a850	1,010	a560	178	122
25	a80	100	85	95	a82	a95	700	a1,000	940	a540	a178	a121
26	81	a92	a65	a97	79	98	730	a1,050	905	520	178	a125
27	a86	107	a75	a98	a85	a96	870	a1,100	940	a490	a170	136
28	79	a110	85	95	a90	a95	870	a1,200	1,010	462	164	a130
29	a80	a112	a88	*90	-	94	800	a1,250	1,010	a450	a164	126
30	83	115	90	a85	-	a115	800	a1,300	1,090	435	a164	a120
31	a90	-	a92	a80	-	113	-	a1,200	-	a440	164	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	2,434	90	69	78.5	0.446	0.51	4,830
November	2,870	120	75	95.7	.544	.61	5,690
December	2,663	110	65	85.9	.488	.56	5,280
Calendar year 1942	68,050	1,010	55	186	1.06	14.39	135,000
January	2,834	100	80	91.4	.519	.60	5,620
February	2,597	102	79	92.8	.527	.55	5,150
March	2,850	115	79	91.9	.522	.60	5,650
April	12,500	870	126	417	2.37	2.64	24,790
May	24,267	1,300	450	783	4.45	5.13	48,130
June	27,615	1,200	670	920	5.23	5.84	54,770
July	22,242	1,090	435	717	4.07	4.70	44,120
August	7,574	462	164	244	1.39	1.60	15,020
September	4,073	164	120	136	.773	.86	8,080
Water year 1942-43	114,519	1,300	65	314	1.78	24.20	227,100

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of weather records and records for nearby stations.

Note.— Stage-discharge relation affected by ice during approximate periods Nov. 11, 17-22, Dec. 4-29, Jan. 7-31, Feb. 10, Mar. 2, 3.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Yankee Fork Salmon River near Clayton, Idaho

Location.- Water-stage recorder, lat. 44°17', long. 114°44', in sec. 17, T. 11 N., R. 15 E., half a mile upstream from mouth and 17 miles west of Clayton.

Drainage area.- 195 square miles.

Records available.- May 1921 to September 1943.

Average discharge.- 20 years (1922-24, 1925-43), 189 second-feet.

Extremes.- Maximum discharge during year, 2,410 second-feet May 29 (gage height, 6.52 feet); minimum not determined, probably occurred during period of ice effect.

1921-43: Maximum discharge, 3,360 second-feet June 12, 1921 (gage height, 6.79 feet, site and datum then in use), from rating curve extended above 2,300 second-feet; minimum, 10 second-feet (estimated) Dec. 5, 6, 1927.

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

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	71	69				95	639	1,340	1,590	280	131
2	65	64					116	875	1,620	1,420	306	140
3	65	70		60			146	925	1,340	1,450	293	136
4	64	62					166	1,180	1,130	1,420	269	126
5	64	62					170	1,260	950	1,260	261	122
6	63	61			45		179	1,010	850	1,190	236	119
7	63	58					220	850	825	1,220	228	116
8	62	67					276	705	875	1,250	220	115
9	61	58					306	682	1,100	1,190	218	112
10	61	52					290	705	1,420	1,070	209	109
11	66	49					271	682	1,660	950	203	109
12	72	652					327	615	1,620	850	195	109
13	67	60					442	560	1,620	750	189	108
14	64	75				40	616	515	1,450	660	185	105
15	65	90					775	507	1,510	639	181	104
16	64	75					825	477	1,510	598	181	102
17	62	71					980	455	1,520	560	178	102
18	62	71		45			980	452	1,940	528	170	101
19	61	64					1,100	524	2,250	514	164	100
20	61	56	*65		40		825	682	2,010	500	159	100
21	60	50	64				705	825	1,840	494	155	96
22	60	70	65				618	1,190	1,940	542	152	96
23	61	85	61				598	1,520	1,800	494	148	95
24	59	95	59				682	1,870	1,620	465	148	92
25	56	85	57		55		539	1,900	1,520	423	150	90
26	58	72	51			50	579	2,010	1,520	405	145	90
27	62	75	46			60	507	2,090	1,560	381	140	98
28	55	62	57			70	497	2,250	1,590	358	136	91
29	53	78	63			90	497	2,330	1,620	338	131	89
30	59	76	62	*58		100	497	2,250	1,620	314	131	89
31	64	-	62	50		92	-	2,010	-	293	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,924	72	53	62.1	0.318	0.37	3,820
November	2,056	95	49	68.5	.351	.39	4,080
December	1,861	69	46	60.0	.308	.35	3,690
Calendar year 1942	84,454	2,170	-	231	1.18	16.11	167,500
January	1,678	-	-	54.1	.277	.32	3,330
February	1,170	-	-	41.8	.214	.22	2,320
March	1,462	100	-	47.2	.242	.28	2,900
April	14,926	1,100	95	498	2.55	2.55	29,610
May	34,521	2,330	452	1,114	5.71	6.58	68,470
June	45,500	2,250	625	1,510	7.74	5.54	89,650
July	24,096	1,590	293	777	3.98	4.90	47,790
August	5,879	306	131	190	.974	1.12	11,660
September	3,194	140	69	106	.544	.61	6,340
Water year 1942-43	138,067	2,330	-	378	1.94	26.33	273,900

\* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 12-14, 22-25, Dec. 2-20, Dec. 31 to Mar. 30 (no gage-height record Dec. 12-19, Mar. 16-27; discharge computed on basis of difference in flow between stations on Salmon River below Yankee Fork and below Valley Creek).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Pahsimeroi River near May, Idaho

Location.— Staff gage, lat. 44°42', long. 114°03', in W½ sec. 25, T. 16 N., R. 20 E., 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.

Records available.— October 1929 to September 1943.

Average discharge.— 13 years (1930-43), 187 second-feet.

Extremes.— Maximum discharge observed during year, 454 second-feet May 30 (gage height, 2.81 feet); minimum observed, 132 second-feet May 24.  
1929-43: Maximum discharge observed, that of May 30, 1943; minimum observed, 75 second-feet Apr. 28, 1934.

Remarks.— Records fair. Gage read once daily. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	198	287	314	303	220	237	306	262	306	280	179	185
2	198	291	314	306	224	233	306	262	192	272	185	201
3	214	310	310	306	227	233	295	258	201	276	182	204
4	a216	318	299	299	233	227	291	258	195	284	182	204
5	217	322	291	287	237	230	284	254	188	280	182	201
6	224	314	276	284	237	230	287	254	192	265	179	201
7	224	310	272	269	240	230	284	247	a164	251	182	204
8	227	314	269	258	240	233	280	247	a176	251	185	207
9	233	314	272	258	240	233	272	240	a168	244	185	207
10	244	314	272	254	244	233	272	244	a160	244	188	204
11	269	306	272	254	240	240	265	214	153	244	192	204
12	262	310	276	247	240	240	269	207	168	240	185	204
13	258	314	276	251	237	244	272	182	227	233	182	201
14	258	314	276	258	233	251	276	173	224	224	182	204
15	269	314	280	262	230	261	264	173	210	214	185	207
16	269	322	287	262	230	254	280	171	204	210	185	204
17	276	325	284	254	230	254	276	168	192	204	185	204
18	272	322	284	258	230	251	280	163	204	201	185	207
19	272	318	284	254	237	251	276	166	247	195	182	210
20	269	310	284	258	237	254	272	160	382	188	182	224
21	265	306	287	303	237	254	269	153	386	185	182	233
22	265	306	291	430	244	258	265	155	333	185	185	233
23	258	306	299	310	244	262	265	139	284	185	182	233
24	265	299	306	265	240	262	269	132	265	188	185	233
25	265	299	306	233	240	295	265	135	227	188	185	233
26	262	299	303	230	244	341	265	135	210	185	185	233
27	265	303	291	227	240	352	262	247	207	185	182	233
28	269	314	291	227	237	386	262	299	224	179	182	233
29	276	318	295	227	-	390	262	418	237	179	182	233
30	276	322	303	224	-	382	258	454	269	179	188	237
31	280	-	303	224	-	310	-	406	-	179	185	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,815	280	198	252	15,500
November.....	9,321	325	287	311	16,490
December.....	8,967	314	269	289	17,790
Calendar year 1942.....	87,065	390	150	239	172,700
January.....	8,282	430	224	267	16,430
February.....	6,612	244	220	236	13,110
March.....	9,301	390	227	268	16,460
April.....	8,269	306	256	276	16,400
May.....	6,976	454	132	225	13,840
June.....	6,815	386	153	227	13,520
July.....	6,817	284	179	220	13,520
August.....	5,697	192	179	184	11,300
September.....	6,421	237	185	214	12,740
Water year 1942-43.....	90,293	454	132	247	179,100

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## SALMON RIVER BASIN

## Lemhi River at Salmon, Idaho

Location.— Staff gage, lat. 45°10', long. 113°52'30", in SE¼ sec. 5, T. 21 N., R. 22 E., 900 feet upstream from diversion gates of power canal, 1,520 feet downstream from Kirtly Creek, and 1 mile southeast of Salmon. Prior to Oct. 1, 1942, staff gage at site 200 feet upstream at different datum.

Records available.— August 1928 to September 1943 (discontinued).

Average discharge.— 15 years, 246 second-feet.

Extremes.— Maximum discharge observed during year, 1,410 second-feet June 19 (gage overtopped); minimum observed, 66 second-feet Aug. 20, 21.

1928-43: Maximum discharge, 2,400 second-feet June 3, 1926 (gage height, 4.0 feet, from floodmarks, site and datum then in use); from rating curve extended above 1,200 second-feet; minimum observed, 14 second-feet July 22, 23, 1931, Aug. 30 to Sept. 3, 1937.

Remarks.— Records fair. Many diversions above station for irrigation. Idaho Power Co. diverts water 1,100 feet below station for power development.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	345	298	280	b250	230	635	665	1,110	a1,050	252	198
2	161	345	275	299	275		665	695	1,110	975	665	288
3	186	345	257	248	284		725	725	1,110	975	598	267
4	206	320	b240	b230	320		665	725	1,040	1,110	390	245
5	183	345	252	b220	302	b230	605	755	975	975	275	239
6	176	320	257	b220	250		635	755	845	975	275	222
7	183	320	266	b210	275		635	695	785	845	275	214
8	179	370	270	b200	293		635	695	665	845	275	198
9	161	370	288	b200	284	b220	665	605	665	845	270	190
10	161	345	302	190	214	b210	665	575	695	755	262	176
11	183	*320	302	b200	275	b210	545	485	785	755	230	176
12	239	345	293	b240	248	214	575	515	845	695	206	190
13	239	320	284	284		284	575	455	910	635	198	206
14	239	345	280	345		302	605	455	1,110	a1,800	190	230
15	239	370	275	320		239	665	485	1,040	a530	148	210
16	239	370	284	230	b240	239	725	485	975	485	135	190
17	248	370	*284	b220		239	755	455	975	425	128	206
18	275	345	284	b200		239	725	425	1,110	425	94	214
19	302	370	280	190		239	785	345	e1,410	370	75	210
20	293	345	248	222	239	239	815	320	e1,330	302	66	210
21	293	345	248	320	239	214	785	284	e1,250	320	66	214
22	302	370	252	485	230	239	725	311	e1,220	a400	70	205
23	311	370	262	370	222	239	725	398	1,180	485	105	198
24	306	345	284	284	222	257	665	515	1,110	455	148	190
25	293	370	270	b290	230	398	665	a560	1,040	425	190	190
26	302	345	239	311	b230	575	725	605	975	398	176	198
27	311	320	b230	345	b230	1,040	665	665	975	370	168	190
28	320	306	b250	*257	b230	1,040	815	845	975	398	168	190
29	320	316	b270	b250	-	1,110	665	1,040	975	320	176	190
30	320	316	275	b240	-	1,110	665	1,110	1,110	302	206	190
31	345	-	275	b220	-	665	-	1,180	-	275	222	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,683	345	161	248	15,240
November.....	10,328	370	306	344	20,490
December.....	8,365	302	230	270	16,590
Calendar year 1942.....	158,700	2,110	48	435	314,800
January.....	8,099	485	190	261	16,060
February.....	7,052	320	214	252	15,990
March.....	11,601	1,110	210	374	23,010
April.....	20,400	815	545	680	40,460
May.....	18,828	1,180	284	607	37,340
June.....	30,300	1,410	665	1,010	60,100
July.....	18,700	1,110	275	603	37,090
August.....	6,432	665	66	207	12,760
September.....	6,228	298	176	208	12,350
Water year 1942-43.....	154,016	1,410	66	422	305,500

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

c Gage overtopped; discharge computed on basis of gage heights from gage located 200 feet upstream and corrected by means of gage-relation curve.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Middle Fork Salmon River near Cape Horn, Idaho

Location.- Water-stage recorder, lat.  $44^{\circ}25'$ , long.  $115^{\circ}18'$ , in sec. 34, T.13 N., R. 11 E., 1,100 feet downstream from Little Beaver Creek, half a mile downstream from confluence of Marsh and Beaver Creeks, and  $1\frac{1}{2}$  miles northwest of Cape Horn.

Drainage area.- 138 square miles.

Records available.- September 1928 to September 1943 (no winter records 1941-43).

Average discharge.- 13 years (1928-41), 197 second-feet.

Extremes.- Maximum discharge during year, 2,340 second-feet on about May 31 (gage height, 6.20 feet, from floodmarks); minimum recorded, 50 second-feet Oct. 28 (gage height, 2.28 feet), but may have been less during period of no record in winter.  
1928-43: Maximum discharge, 2,340 second-feet June 9, 1933, and about May-31, 1943, maximum gage height, 6.26 feet June 9, 1933; minimum discharge recorded, 35 second-feet (estimated) Nov. 26-30, 1929, but may have been less during some winters.

Remarks.- Records good except those for Nov. 1-18, May 3 to June 7, which are fair, and those for Nov. 19-30, which are poor. No diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	105					85	510	2,000	1,560	305	155
2	89	99					90	570	1,600	1,420	326	164
3	89	98					90	700	1,400	1,510	305	159
4	89	90					98	800	1,300	1,460	282	150
5	87	87					99	900	1,200	1,290	272	145
6	87	85					109	800	1,100	1,250	259	143
7	87	90					121	700	1,000	1,250	250	141
8	87	83					136	600	995	1,250	241	136
9	85	b80					143	500	1,100	1,210	235	136
10	87	b75					141	700	1,250	1,100	226	132
11	96	b70					152	600	1,420	985	220	132
12	98	b70					186	550	1,650	900	215	130
13	92	b75					226	550	1,560	780	212	130
14	90	b90					279	500	1,460	725	206	127
15	90	111					344	500	1,250	692	203	125
16	89	103					397	500	1,250	654	201	125
17	87	b95					454	550	1,420	610	195	125
18	87	b90					515	600	1,750	580	190	121
19	87	80					595	700	2,060	560	187	119
20	85	75					590	900	1,950	547	185	117
21	85	80					547	1,000	1,750	547	179	115
22	85	90					488	1,100	1,850	556	177	111
23	89	100					515	1,300	1,700	510	172	109
24	83	120					528	1,500	1,560	484	169	105
25	82						497	1,600	1,460	460	169	103
26	82						446	1,700	1,460	421	164	111
27	87	100					417	1,800	1,510	397	162	130
28	78						425	2,000	1,560	374	157	113
29	82						405	2,100	1,600	355	157	107
30	85						417	2,200	1,600	333	162	106
31	92						-	2,300	-	316	162	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	2,707	98	78	87.3	0.633	0.73	5,370
November	2,741	-	-	91.4	.662	.74	5,440
December	-	-	-	-	-	-	-
Calendar year	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	9,534	595	85	318	2.30	2.57	18,910
May	31,480	2,300	500	1,015	7.56	8.48	62,440
June	44,775	2,080	995	1,492	10.8	12.07	88,810
July	25,086	1,560	316	809	5.86	6.76	49,760
August	6,545	326	157	211	1.53	1.76	12,980
September	3,821	164	103	127	.920	1.03	7,580
Water year	-	-	-	-	-	-	-

b Stage-discharge relation affected by ice.

Note.- No gage-height record Nov. 19-30, Apr. 1, May 3 to June 7; discharge computed on basis of floodmark and records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Bear Valley Creek near Cape Horn, Idaho

Location.- Water-stage recorder in about sec. 31, T. 13 N., R. 10 E., 250 feet down-stream from Fir Creek, 5 miles upstream from mouth, and 7 miles northwest of Cape Horn.

Drainage area.- 180 square miles.

Records available.- September 1921 to September 1928 (fragmentary), October 1928 to September 1943 (no winter records 1941-43).

Average discharge.- 13 years (1928-41), 239 second-feet.

Extremes.- Maximum discharge during year, 3,090 second-feet June 1 (gage height, 5.30 feet); minimum recorded, 60 second-feet Nov. 11 (gage height, 1.16 feet), but may have been less during winter.

1921-43: Maximum discharge, 3,450 second-feet June 9, 1933 (gage height, 5.49 feet), from rating curve extended above 2,000 second-feet; minimum recorded, 28 second-feet Nov. 11, 1931.

Remarks.- Records good except those for Nov. 12-30, Apr. 1-3, June 5-8, June 11 to July 13, which are fair. No regulation or diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	130					al 60	868	2,910	al, 600	296	170
2	98	133					al 70	1,020	2,500	al, 600	317	164
3	98	140					al 70	1,130	1,910	al, 550	339	170
4	98	128					185	1,330	1,620	al, 500	296	161
5	98	124					188	1,370	1,490	al, 400	275	156
6												
7	98	126					201	1,210	al, 400	al, 300	263	153
8	96	117					222	1,100	al, 330	al, 250	259	148
9	94	119					267	945	1,330	al, 250	252	145
10	94	110					288	982	1,450	al, 200	244	143
11	94	106					296	1,100	1,490	al, 050	236	140
12												
13	98	100					317	945	1,620	a 850	233	138
14	108	b 95					567	875	al, 800	a 850	229	135
15	108	b 100					425	819	al, 700	746	218	135
16	104	128					489	812	al, 600	708	211	135
17	104	170					581	840	al, 400	669	205	135
18												
19	102	167					633	798	al, 400	627	205	133
20	100	145					694	826	al, 500	585	201	130
21	100	124					760	945	al, 800	550	194	130
22	100	b 110					875	1,100	a 2,100	528	188	130
23	100	b 100					910	1,210	a 2,000	506	185	130
24												
25	100	b 110					910	1,330	al, 850	538	185	130
26	100	b 120					840	1,580	al, 900	591	182	128
27	100	138					840	1,720	al, 750	500	179	128
28	100	b 180					875	2,060	al, 600	462	173	126
29	96	b 140					881	2,220	al, 500	415	170	124
30												
31	98						786	2,390	al, 500	386	170	138
	104						714	2,390	al, 550	362	164	170
	100						720	2,670	al, 600	344	158	140
	96	a 135					772	2,670	al, 650	339	156	133
	102						766	2,670	al, 650	317	167	128
	110						-	2,850	-	304	176	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	3,094	110	94	99.8	0.554	0.64	6,140
November	3,635	180	95	128	.711	.79	7,610
December	-	-	-	-	-	-	-
Calendar year	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	16,262	910	160	542	3.01	3.36	32,260
May	44,775	2,850	798	1,444	8.02	9.25	88,810
June	50,900	2,910	1,330	1,697	9.45	10.52	101,000
July	24,877	1,600	304	802	4.46	5.14	49,540
August	6,726	359	156	217	1.21	1.38	13,340
September	4,226	170	126	141	.783	.87	8,380
Water year	-	-	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for Middle Fork Salmon River near Cape Horn.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## South Fork Salmon River near Knox, Idaho.

Location.— Water-stage recorder, lat. 44°39', long. 115°42', in NW¼ sec. 11, T. 15 N., R. 8 E., 800 feet downstream from Curtis Creek, 1 mile upstream from Warm Lake Creek, 1½ miles southwest of Knox, and 21 miles northeast of Cascade. Prior to Oct. 22, staff gage 800 feet downstream at different datum.

Drainage area.— 92 square miles.

Records available.— September 1928 to September 1943.

Average discharge.— 15 years, 129 second-feet.

Extremes.— Maximum discharge during year, 1,510 second-feet May 31 (gage height, 6.19 feet), from rating curve extended above 700 second-feet; minimum recorded, 25 second-feet Nov. 10, but may have been less at times during winter.

1928-43: Maximum discharge observed, 1,560 second-feet June 9, 1933 (gage height, 4.69 feet, site and datum then in use), from rating curve extended above 1,000 second-feet; minimum observed, 16 second-feet Feb. 17, Aug. 19, 20, 1931, but may have been less during a winter period.

Remarks.— Records good except those for Oct. 1-21, which are fair, and those for periods of ice effect, which are poor. Gage read about thrice weekly Oct. 1-21. No diversion above station.

Rating tables, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1-21		Oct. 22 to Sept. 30	
1.3	31	2.5	37
1.4	41	2.6	48
1.5	53	2.8	79
		3.0	119
		3.3	188
		3.6	269
		4.0	400
		4.5	620
		5.0	865
		6.0	1,400

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	69					121	485	1,370	815	132	62
2	a37	55			60		150	521	1,170	745	139	64
3	a36	65					195	545	945	765	130	62
4	36	52					204	634	800	715	121	59
5	a36	46	50				193	634	705	634	115	58
6		46				55						
7	a35	46			48		214	562	638	620	111	56
8	35	45	+50		48		263	508	616	705	104	55
9	a35	49			47		307	444	620	629	102	55
10	a34	46	50		45		317	428	675	575	100	54
	a34	35			42		255	424	725	495	96	52
11	a38	42	47		50		258	373	770	440	94	51
12	a45	48	+48		49		336	353	810	385	88	51
13	43	56	49		48		412	326	820	339	87	52
14	41	58	49		48	50	512	310	810	320	85	49
15	41	152	48		48		606	298	710	301	83	49
16	39	77	45	45	48		675	284	680	281	81	48
17	38	62	51	49	50		690	273	780	261	77	47
18	a38	61	45	49	50		715	289	930	249	76	47
19	a38	49	45	52	52	+48	800	326	1,010	236	74	47
20	38	40	45	54	54		795	378	945	225	72	47
21	37	35	48		55		925	503	885	241	72	47
22	39	62	47		58		680	566	880	241	69	46
23	39	67	47		58		620	820		211	67	46
24	39	166	47		56	48	593	790	770	196	67	46
25	37	92			52		566	880	735	183	67	45
26	40	80			55	59	512	965	720	171	65	45
27	41	70	45		77	77	440	1,040	740	162	62	45
28	39	67			87		498	1,130	760	155	61	45
29	38	48			-	117	508	1,160	790	148	59	45
30	40	48			-	123	462	1,170	950	141	64	44
31	42	-			-	117	-	1,390	-	134	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,184	45	34	38.2	0.415	0.48	2,350
November	1,888	166	35	62.9	.694	.76	3,740
December	1,476	-	-	47.6	.517	.60	2,930
Calendar year 1942	52,306	1,020	34	143	1.55	21.15	103,800
January	1,395	-	-	45.0	.489	.56	2,770
February	1,421	58	42	50.8	.552	.57	2,820
March	1,863	123	60.1	.683	.75	3.70	3,700
April	13,730	325	121	458	4.98	5.55	27,230
May	18,644	1,380	278	601	6.53	7.54	36,980
June	24,579	1,370	616	819	8.90	9.83	48,750
July	11,721	815	134	378	4.11	4.74	23,250
August	2,685	139	59	86.6	.941	1.09	5,330
September	1,519	64	44	50.6	.550	.61	3,010
Water year 1942-43	82,105	1,380	34	225	2.45	33.18	162,900

\* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of weather records and records for Johnson Creek at Yellow Pine.

Note.— Stage-discharge relation affected by ice Nov. 20, 21, 26, Dec. 1-12, 16, 16-20, Dec. 25 to Feb. 4, Feb. 9-11, 14-18, Feb. 25 to Mar. 23 (no gage-height record Jan. 12 to Feb. 4, Mar. 8, 9, 12-14, 17, 19; discharge computed on basis of weather records and records for Johnson Creek at Yellow Pine).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.



## SALMON RIVER BASIN

South Fork Salmon River near Warren, Idaho

Location.- Staff gage, lat. 45°09', long. 115°35', in SE $\frac{1}{4}$  sec. 15, T. 21 N., R. 7 E., 500 feet downstream from Elk Creek, 900 feet north of Elk Creek power plant, and 8 miles southeast of Warren.

Drainage area.- 1,160 square miles.

Records available.- July 1931 to September 1943 (discontinued).

Average discharge.- 11 years (1932-42), 1,599 second-feet.

Extremes.- Maximum discharge observed during period, 13,400 second-feet May 30, 31; maximum gage height observed, 10.94 feet May 30; minimum discharge observed, 325 second-feet Jan. 18.

1931-43: Maximum discharge observed, 20,000 second-feet June 9, 1933 (gage height, 13.16 feet), from rating curve extended above 8,000 second-feet; minimum observed, 180 second-feet Dec. 27, 1939 (gage height, 2.26 feet).

Remarks.- Records good. Gage read twice daily October to June, once daily July to August. No appreciable diversion or regulation.

Rating tables, Oct. 1, 1942, to Sept. 1, 1943, except period of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used June 20 to July 15)

Oct. 1 to June 19

July 16 to Sept. 1

2.8	325	4.5	1,400	7.6	5,610	3.7	720	5.6	2,420
3.1	445	5.0	1,910	8.4	7,220	4.0	920	6.0	2,890
3.4	590	5.5	2,480	9.2	9,030	4.4	1,240	6.5	3,560
3.7	760	6.0	3,110	10.0	11,000	4.8	1,600	7.0	4,340
4.0	970	6.8	4,250	11.0	13,650	5.2	1,990		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	640	830	1,220	640	795	1,700	5,070	12,600	9,610	1,790	780
2	490	670	795	1,050	640	760	1,910	5,430	11,000	8,950	1,990	
3	490	760	615	830	640	700	2,360	7,010	9,750	8,740	1,790	
4	490	700	565	670	640	760	2,480	7,010	8,330	9,000	1,600	
5	490	615	640	670	640	760	2,360	7,010	7,220	8,180	1,610	
6	490	590	700	730	640	670	2,360	6,190	6,900	7,780	1,420	
7	468	565	700	615	640	700	2,720	5,430	6,390	7,720	1,420	
8	468	615	670	540	640	730	3,240	5,070	6,390	7,580	1,330	
9	468	590	670	565	615	700	3,380	4,900	6,590	7,360	1,240	
10	468	515	700	590	615	640	2,980	4,730	7,010	6,870	1,240	
11	540	445	670	540	615	670	2,850	4,410	8,100	5,970	1,160	
12	670	468	640	490	615	670	3,380	3,950	8,790	5,270	1,160	
13	590	515	640	615	615	700	4,100	3,660	8,790	4,700	1,160	
14	565	640	640	700	615	730	5,070	3,520	9,560	4,530	1,080	
15	565	1,400	640	730	590	700	5,990	3,380	8,330	4,190	1,080	
16	540	935	590	590	615	670	7,010	3,240	7,380	4,020	1,080	
17	540	760	590	490	615	670	7,440	3,240	8,560	3,420	1,000	
18	515	760	615	325	640	590	7,440	3,380	10,800	3,280	1,000	
19	515	700	565	330	700	640	8,330	3,660	11,500	3,280	920	
20	490	565	565	6,600	760	670	8,790	4,730	11,000	3,280	920	
21	490	468	590	830	795	590	8,330	5,610	10,200	3,280	885	
22	490	640	615	1,310	565	615	7,010	7,010	10,100	3,710	850	
23	515	730	615	1,050	900	615	6,390	7,660	9,660	3,420	650	
24	515	2,020	615	830	865	615	6,390	9,270	8,790	3,020	850	
25	490	1,400	640	760	795	700	5,990	9,760	8,670	2,650	815	
26	490	970	468	795	780	865	5,430	10,500	8,570	2,530	780	
27	540	935	540	830	760	1,130	4,900	11,000	8,640	2,420	780	
28	515	900	700	760	795	1,400	4,730	11,800	9,050	2,200	750	
29	490	865	730	700	-	1,700	5,250	12,600	9,510	2,090	800	
30	515	900	700	670	-	2,020	5,070	13,400	10,200	1,990	850	
31	515	-	795	615	-	1,700	-	13,400	-	1,890	850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	15,932	670	468	514	0.443	0.51	31,600
November	23,276	2,020	445	776	.669	.75	46,170
December	20,048	830	468	647	.558	.64	39,760
Calendar year 1942	651,359	10,600	445	1,785	1.64	20.89	1,292,000
January	21,990	1,310	325	709	.611	.70	43,620
February	19,265	900	590	688	.593	.62	38,210
March	25,675	2,020	590	835	.720	.83	51,320
April	145,380	8,790	1,700	4,846	4.18	4.66	288,400
May	207,020	13,400	3,240	6,678	5.76	6.64	410,800
June	267,780	12,600	6,390	8,926	7.69	8.68	531,100
July	152,930	9,610	1,890	4,933	4.25	4.90	305,300
August	34,950	1,990	750	1,127	.972	1.12	69,320
September	-	-	-	-	-	-	-
The period	-	-	-	-	-	-	1,853,000

a No gage-height record; discharge interpolated or computed on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## East Fork of South Fork Salmon River at Stibnite, Idaho

Location.- Water-stage recorder, lat. 44°54', long. 115°19', in about sec. 14, T. 18 N., R. 9 E., 30 feet downstream from Meadow Creek, half a mile northeast of Stibnite post office, and 10½ miles upstream from Johnson Creek.

Drainage area.- 19.5 square miles.

Records available.- June 1928 to September 1943 (discontinued). No winter records 1941-43.

Average discharge.- 13 years (1928-41), 23.2 second-feet.

Extremes.- Maximum and minimum discharge during year not determined.

1928-43: Maximum discharge recorded, 369 second-feet June 14, 1933 (gage height, 4.49 feet); minimum discharge, 2 second-feet Oct. 29, 1936 (gage height, 1.71 feet).

Remarks.- Records good. Slight regulation by reservoir on South Fork Meadow Creek (capacity, about 700 acre-feet) and by diversion of about a third of a second-foot from Meadow Creek for transporting mine tailings.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	10			-		-	55				
2	11	10			-		-	57				
3	12	13			-		-	62				
4	12	10			-		-	79				
5	12	10			-		-	70				
6	12	9			-		-	66				
7	11	9			*10		-	60				†18
8	11	10	*11		9		-	53				
9	12	10			-		-	53				
10	12	-			-		-	51	†124			
11	13	-			-		-	49				
12	12	-			-		-	-				
13	12	-			-		-	-				
14	12	-			-		-	-		†87		
15	11	-			-		-	-				
16	10	-			-		-	-				
17	11	11			-	*12	-	-				
18	11	11			-	12	79	-				
19	11	10			-	12	101	-				
20	10	-			-		94	-				
21	11	-			-		82	-				
22	10	-			-		66	-				
23	8	-			-		63	-				
24	9	-			-		60	-				
25	10	-			-		55	-				
26	10	-			-		49	-				
27	10	-			-		46	-				
28	9	-			-		51	-				
29	9	-			-		48	-				
30	a9	-			-		50	-				
31	9	-			-		-	-				

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	333	13	8	10.7	660
November 1-9.....	91	13	9	10.1	180
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April 18-30.....	844	101	46	64.9	1,670
May 1-11.....	655	79	49	59.5	1,300
June.....	-	-	-	-	-
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
Water year.....	-	-	-	-	-

\* Winter discharge measurement made on this day.

† Result of discharge measurement.

a No gage-height record; discharge interpolated.

h Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## East Fork of South Fork Salmon River near Yellow Pine, Idaho

Location.- Water-stage recorder, lat. 44°58', long. 115°27', in NE¼ sec. 27, T. 19 N., R. 8 E., 200 feet upstream from Forest Service highway bridge, 1½ miles east of Yellow Pine, 1½ miles upstream from Quartz Creek, 2 miles downstream from Profile Creek, and 2.8 miles upstream from Johnson Creek.

Drainage area.- 104 square miles.

Records available.- August 1928 to July 1943 (discontinued). No winter records 1941-43.

Average discharge.- 13 years (1928-41), 135 second-feet.

Extremes.- Maximum discharge during year, 1,370 second-feet June 19 (gage height, 4.28 feet); minimum not determined.

1928-43: Maximum discharge, 2,050 second-feet June 14, 1933 (gage height, 5.26 feet), from rating curve extended above 1,100 second-feet; minimum recorded, 25 second-feet Oct. 23, 1935, but may have been less during periods of ice effect.

Remarks.- Records good prior to Nov. 10; poor thereafter. Slight regulation by Bradley Mining Co.'s power plant on this stream and small reservoir on South Fork Meadow Creek.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	64				-		a350	722	926		
2	54	59				-	a110	373	674	887		
3	53	76				-		397	599	880		
4	54	59				-	h141	564	919			
5	54	58				-		a470	519	867		
6	53	56				-			492	854		
7	54	56			t54	-	a160	406	478	867		
8	53	62	t52			-		360	478	854		
9	52	60				-		337	584	830		
10	53	51				-		376	701	770		
11	62	-				-	h176	a360	756	712		
12	62	-				-		348	734	624		
13	58	-				-		289	734	559		
14	56	-				-		302	696	519		
15	56	-				-	a375	289	635	-		
16	55	-				-		266	652	-		
17	53	-				h54		257	782	-		
18	54	-					h559	269	906	-		
19	55	-						308	1,240	-		
20	54	-						359	1,200	-		
21	54	-				a55		417	976	-		
22	53	-					a500	534	893	-		
23	55	-						614	818	-		
24	51	-						770	776	-		
25	51	-						818	782	-		
26	51	-				a60	h366	893	830	-		
27	55	-				a65		947	867	-		
28	52	-				h67		1,030	874	-		
29	53	-					a350	990	900	-		
30	54	-				a100		906	935	-		
31	55	-						962	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,684	62	51	54.3	0.522	0.60	3,340
November 1-10	601	76	51	60.1	.578	.21	1,190
December	-	-	-	-	-	-	-
Calendar year	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March 17-31	1,006	-	-	67.1	.645	.36	2,000
April	9,682	-	-	323	3.11	3.46	19,200
May	15,997	1,030	257	516	4.96	5.72	31,730
June	22,803	1,240	478	760	7.31	8.15	45,230
July 1-14	11,048	926	519	789	7.59	3.95	21,910
August	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-
Water year	-	-	-	-	-	-	-

† Result of discharge measurement.

a No gage-height record; discharge computed on basis of weather records and records for Johnson Creek at Yellow Pine and South Fork Salmon River near Knox.

b Computed from staff-gage reading.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Johnson Creek near Landmark ranger station, Idaho

Location.- Water-stage recorder, lat. 44°41', long. 115°33', in sec. 31, T. 16 N., R. 8 E., 0.5 mile downstream from Bob Cat Creek, 0.8 mile upstream from Lunch Creek, 1½ miles north of Landmark ranger station, and 20 miles south of Yellow Pine.

Drainage area.- 54.7 square miles.

Records available.- October 1942 to September 1943.

Extremes.- Maximum discharge during period, 810 second-feet May 28 (gage height, 5.09 feet), from rating curve extended above 450 second-feet; minimum daily, 8 second-feet (estimated) Jan. 26 to Feb. 15; minimum gage height recorded, 1.86 feet Nov. 11.

Remarks.- Records good except those for period of no gage-height record, which are fair, and those for period of ice effect, which are poor. During late fall of 1936, the Bureau of Reclamation cut a transmountain canal to divert a small flow from a tributary of Johnson Creek to Deadwood River Basin to supplement storage in Deadwood Reservoir. Discharge measurements or field estimates made on June 12, July 13, Sept. 6, 1943, indicated flow in this canal of 25, 12.6, and 1.5 second-feet, respectively.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	21					30	a250	730	411	53	21
2	-	17					35	a280	423	376	87	23
3	-	20			8		40	a310	505	351	55	22
4	-	24					40	a290	441	390	50	20
5	-	22					40	a380	405	331	46	20
6	-	14	18		*8		45	351	390	313	43	19
7	-	16					50	325	396	337	41	19
8	-	17		11		12	60	293	399	316	40	19
9	-	18					70	305	438	283	39	18
10	-	14					70	310	450	286	36	18
11	-	11	17		S		70	272	471	228	35	17
12	-	15	*17				90	245	486	204	34	17
13	-						110	233	502	180	33	17
14	-		17				132	230	486	165	31	16
16	-						163	230	420	164	30	16
16	-					*12	213	220	396	142	30	15
17	-						251	230	429	130	27	15
18	-				9	12	299	269	505	120	26	15
19	-						342	331	548	115	25	15
20	-						363	381	508	111	25	15
21	-		16	9								
22	-	20					a400	468	456	122	24	15
23	-						a350	542	465	148	23	15
24	-					15	a300	617	439	115	23	14
25	-						a310	676	405	98	23	14
26	-				11		a300	692	390	88	23	14
27	-						a270	715	384	79	22	14
28	-						a250	714	384	73	21	14
29	-		14	S		20	a230	743	381	67	21	14
30	-						a240	734	393	62	20	14
31	14	-					a230	721	469	58	21	14
	14	-					-	775	-	57	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	-	-	-	-	-	-	-
November	568	-	-	18.9	0.346	0.39	1,130
December	509	-	-	16.4	0.300	.35	1,010
Calendar year	-	-	-	-	-	-	-
January	303	-	-	9.77	.179	.21	601
February	253	-	-	9.04	.165	.17	502
March	435	-	-	14.0	.256	.30	863
April	5,393	400	30	180	3.29	3.67	10,700
May	13,136	775	220	424	7.75	8.93	26,050
June	13,686	730	381	456	8.34	9.31	27,150
July	5,919	411	57	191	3.49	4.02	11,740
August	998	57	20	32.2	.589	.68	1,980
September	498	25	14	16.6	.303	.34	988
The period	-	-	-	-	-	-	82,710

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and records for station at Yellow Pine.

Note.- Stage-discharge relation affected by ice Nov. 12 to Apr. 13 (no gage-height record Jan. 18 to Feb. 5; discharge computed on basis of records for station at Yellow Pine).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Johnson Creek at Yellow Pine, Idaho

Location.- Water-stage recorder, lat. 44°58', long. 115°30', in NE¼ sec. 29, T. 19 N., R. 8 E., 700 feet upstream from mouth and a quarter of a mile southwest of Yellow Pine post office.

Drainage area.- 213 square miles.

Records available.- August 1928 to September 1943.

Average discharge.- 15 years, 302 second-feet.

Extremes.- Maximum discharge during year, 3,390 second-feet May 29 (gauge height, 6.01 feet); minimum, 40 second-feet Dec. 26 (gauge height, 0.88 foot).  
1928-43: Maximum discharge, 5,150 second-feet June 9, 1933 (gauge height, 7.62 feet), from rating curve extended above 2,600 second-feet; minimum, 22 second-feet Nov. 30, 1933; minimum gauge height, 0.70 foot Nov. 30, 1937.

Remarks.- Records good. Small diversion from Johnson Creek Basin to Deadwood River Basin (See Remarks for station near Landmark Ranger Station).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	91	106	102	89	96	144	810	2,860	1,940	307	a125
2	77	85	102	94	91	93	159	938	2,320	1,800	346	a128
3	75	106	84	87	89	93	187	1,040	1,800	1,890	326	a125
4	75	91	82	75	87	100	202	938	1,550	1,840	296	a122
5	74	84	93	89	89	102	212	1,320	1,400	1,590	274	120
6	74	87	94	89	87	89	227	1,100	1,360	1,550	260	116
7	72	84	91	74	87	98	274	1,000	1,400	1,670	247	116
8	72	91	89	69	87	96	334	905	1,470	1,590	234	116
9	70	84	89	75	85	94	375	905	1,630	1,470	227	112
10	70	66	91	77	78	85	363	905	1,710	1,320	218	110
11	77	67	91	72	89	93	371	810	1,840	1,180	208	106
12	89	78	85	77	89	89	445	750	1,940	1,040	199	106
13	87	82	91	93	85	a90	560	704	1,980	905	190	108
14	82	102	91	106	85	91	709	676	1,840	840	184	104
15	80	141	87	94	85	89	840	660	1,630	810	179	100
16	80	106	85	87	85	87	970	621	1,630	732	179	96
17	77	98	91	77	87	85	1,100	638	1,940	676	170	96
18	75	98	84	67	91	75	1,210	709	2,420	648	164	94
19	75	89	87	77	85	91	1,430	840	2,580	621	159	94
20	74	67	85	91	93	80	1,430	1,040	2,320	605	154	94
21	72	64	93	94	96	82	1,280	1,280	2,170	632	149	93
22	72	96	91	112	102	85	1,100	1,590	2,170	780	144	93
23	72	104	91	102	100	87	1,000	1,800	1,940	610	141	91
24	74	167	91	93	100	89	1,040	2,220	1,800	545	139	89
25	69	144	89	85	94	93	970	2,320	1,710	491	134	89
26	69	118	58	91	93	98	872	2,520	1,760	458	134	87
27	72	118	82	91	96	114	810	2,640	1,800	427	130	96
28	72	110	106	91	96	116	780	3,030	1,840	396	125	91
29	70	112	91	89	-	134	810	3,030	1,890	363	123	87
30	67	110	89	87	-	146	762	2,800	2,220	342	123	85
31	78	-	94	78	-	146	-	3,030	-	323	a125	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	2,319	89	67	74.8	0.351	0.40	4,600
November	2,940	167	64	98.0	.460	.51	5,830
December	2,773	106	58	89.5	.420	.46	5,500
Calendar year 1942	118,694	2,370	58	325	1.53	20.71	235,400
January	2,685	112	67	86.6	.407	.47	5,330
February	2,530	102	78	90.4	.424	.44	5,020
March	3,010	146	75	97.1	.456	.53	5,970
April	20,966	1,430	144	699	3.28	3.65	41,590
May	43,569	3,030	621	1,405	6.60	7.63	86,420
June	56,920	2,980	1,360	1,897	8.91	9.94	112,900
July	30,084	1,940	323	970	4.55	5.25	59,670
August	5,988	346	123	193	.906	1.05	11,880
September	5,089	128	85	103	.484	.54	6,130
Water year 1942-43	176,873	3,030	58	485	2.28	30.98	350,800

a No gage-height record; discharge computed on basis of recorded range in stage and records for station near Landmark Ranger Station.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Secesh River near Burgdorf, Idaho

Location.- Water-stage recorder, lat. 45°14', long. 115°49', in N½ sec. 23, T. 22 N., R. 5 E., at highway bridge, 1½ miles upstream from Long Gulch Creek and 5½ miles southeast of Burgdorf. Prior to Aug. 20, 1943, staff gage 8 feet upstream.

Drainage area.- 102 square miles.

Records available.- April to September 1943.

Extremes.- Maximum discharge observed during period, 1,460 second-feet May 31 (gage height, 6.92 feet, from rating curve extended above 1,000 second-feet; minimum observed, 50 second-feet Sept. 29, 30 (gage height, 3.63 feet).

Remarks.- Records good.

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	485	1,350	934	151	88
2							-	480	1,100	807	177	86
3							-	578	965	831	160	84
4							-	742	891	910	151	77
5							-	625	754	795	136	74
6							-	548	725	748	130	73
7							-	504	731	731	126	71
8							-	440	754	702	117	68
9							-	444	843	686	113	67
10							-	436	934	604	104	66
11							-	414	873	519	106	66
12							217	357	873	523	103	63
13							293	355	873	462	101	62
14							386	351	837	418	96	60
15							a450	317	837	410	88	60
16							519	296	837	361	106	59
17					†31		543	296	990	320	98	58
18							620	331	1,150	320	88	59
19							714	377	1,170	313	87	58
20							674	454	1,050	289	89	58
21							625	543	971	289	88	57
22							514	588	1,060	313	86	57
23							538	919	947	273	84	55
24							528	904	843	a280	81	54
25							499	1,060	861	242	81	53
26							414	1,160	837	225	80	52
27							a410	1,250	873	212	75	52
28							597	1,390	867	192	74	52
29							581	1,420	891	185	75	52
30							393	1,350	947	173	106	52
31							-	1,430	-	164	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October .....							
November .....							
December .....							
Calendar year .....							
January .....	-	-	-	-	-	-	-
February .....	-	-	-	-	-	-	-
March .....	-	-	-	-	-	-	-
April 1-30 .....	9,114	714	217	480	4.71	3.32	18,080
May .....	20,714	1,430	296	668	6.55	7.55	41,090
June .....	27,634	1,350	725	921	9.03	10.08	54,810
July .....	14,211	934	164	458	4.49	5.18	28,190
August .....	3,256	177	74	105	1.03	1.19	6,460
September .....	1,893	68	52	63.1	.619	.69	3,750
Water year .....	-	-	-	-	-	-	152,400

† Result of discharge measurement.

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Boulder Creek near Tamarack, Idaho

Location.- Water-stage recorder, lat. 45°05', long. 116°27', in SW $\frac{1}{4}$  sec. 10, T. 20 N., R. 1 W., 350 feet upstream from transmountain diversion to Weiser River Basin and 8 miles northwest of Tamarack.

Drainage area.- 6.5 square miles.

Records available.- April 1938 to September 1943 (incomplete).

Extremes.- Maximum discharge during year, 150 second-feet May 31 (gage height, 2.41 feet), from rating curve extended above 50 second-feet; minimum not determined, probably occurred during winter.

1938-43: Maximum discharge, 244 second-feet May 23, 1942 (gage height, 2.96 feet), from rating curve extended above 50 second-feet; minimum not determined.

Remarks.- Records good except those below 3 second-feet and those for period of ice effect, which are fair. No regulation. Small diversion to Weiser River Basin about 350 feet below station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	b2.0						-	134	34	4.6	3.5
2	1.4	b2.0						-	113	31	5.1	3.0
3	1.4	b2.0						-	88	33	4.8	3.0
4	1.4	*b2.0						-	69	29	4.8	2.5
5	1.4	-						-	63	25	4.6	2.5
6	1.4	-						-	60	22	4.6	2.5
7	1.4	-						-	64	22	4.6	2.5
8	1.4	-						42	52	19	4.3	2.2
9	1.4	-						42	40	18	4.3	2.2
10	1.4	-						41	36	16	3.8	2.2
11	3.0	-						39	43	15	3.8	2.2
12	2.5	-						35	41	14	3.5	1.8
13	2.0	-						32	52	12	3.5	1.8
14	1.8	-						28	51	11	3.5	1.8
15	1.8	-						26	44	11	3.5	1.8
16	1.5	-						24	41	10	3.8	1.8
17	1.5	-						26	54	9.4	3.5	1.8
18	1.5	-						33	63	6.7	3.2	1.5
19	1.5	-						41	60	8.7	3.2	1.5
20	1.4	-						51	56	6.1	3.0	1.4
21	1.4	-						64	53	8.1	3.2	1.4
22	1.4	-						77	54	8.1	3.2	1.4
23	1.4	-						97	46	7.1	3.2	1.4
24	1.4	-						108	42	6.8	3.2	1.4
25	1.8	-						121	41	6.2	3.2	1.4
26	1.5	-						127	40	6.2	3.0	1.4
27	1.5	-						130	40	5.7	3.0	1.2
28	2.2	-						134	39	5.7	2.6	1.2
29	2.2	-						127	39	5.4	3.0	1.2
30	2.0	-						118	38	5.4	3.2	1.2
31	2.0	-						137	-	5.1	3.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October .....	51.3	3.0	1.4	1.65	0.254	0.29	102
November .....	-	-	-	-	-	-	-
December .....	-	-	-	-	-	-	-
Calendar year .....	-	-	-	-	-	-	-
January .....	-	-	-	-	-	-	-
February .....	-	-	-	-	-	-	-
March .....	-	-	-	-	-	-	-
April .....	-	-	-	-	-	-	-
May 8-31 .....	1,699	137	24	70.8	10.9	9.72	3,370
June .....	1,656	134	36	55.2	8.49	9.48	3,280
July .....	426.7	34	5.1	13.8	2.12	2.44	846
August .....	114.7	5.1	2.8	3.70	.569	.66	220
September .....	56.4	3.2	1.2	1.66	.259	.32	112
Water year .....	-	-	-	-	-	-	-

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

## Grande Ronde River at La Grande, Oreg.

Location.- Water-stage recorder, lat. 45°21', long. 118°09', in sec. 35, T. 2 S., R. 37 E., 2½ miles northwest of La Grande and 4 miles downstream from Fivepoint Creek. Datum of gage is 2,831.25 feet above mean sea level, datum of 1929.

Drainage area.- 678 square miles.

Records available.- February 1918 to June 1923, October 1925 to September 1943. November 1903 to September 1915 at Hilgard, 4 miles upstream.

Average discharge.- 29 years (1905-9, 1910-11, 1912-15, 1918-20, 1921-22, 1925-43), 352 second-feet.

Extremes.- Maximum discharge during year, 3,750 second-feet Mar. 28 (gage height, 6.46 feet); minimum, 22 second-feet Oct. 10, 11 (gage height, 1.56 feet). 1903-15, 1918-23, 1925-43: Maximum discharge, 8,880 second-feet Mar. 18, 1932 (gage height, 8.90 feet); minimum, 3.9 second-feet Aug. 26, 1940 (gage height, 1.23 feet).

Remarks.- Records good except those for December and January, which are fair. Some discharge measurements made at cable 3 miles above gage. Small diversions above station for irrigation.

## Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 1

Jan. 2 to Sept. 30

1.6	26	2.2	141	1.6	24	2.4	200	4.0	1,080
1.7	37	2.6	283	1.8	45	2.7	320	4.6	1,480
1.8	51	3.0	436	2.0	80	3.0	470	5.0	1,960
2.0	88	3.5	790	2.2	130	3.5	740	6.0	3,100

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	63	274	1,090	236	656	2,290	1,890	1,030	510	61	61
2	25	86	237	814	232	620	2,680	1,880	989	465	58	51
3	26	66	168	580	216	530	2,740	1,740	870	475	58	43
4	26	66	132	490	212	545	2,370	1,620	800	550	56	40
5	24	56	144	525	216	490	2,090	1,490	728	445	58	37
6	24	49	155	455	200	350	2,170	1,410	674	390	56	35
7	23	47	129	330	200	470	2,270	1,250	638	365	55	34
8	23	53	135	260	173	525	2,340	1,100	620	320	53	32
9	23	65	158	292	173	555	2,020	1,000	710	292	50	31
10	22	53	241	292	177	465	1,660	968	668	268	48	30
11	24	37	362	284	275	505	1,470	940	620	244	47	29
12	29	37	308	298	982	535	1,620	970	632	228	44	29
13	32	41	676	264	1,120	828	1,920	821	625	204	43	28
14	30	56	881	320	1,070	794	2,310	776	704	185	40	28
15	30	61	708	560	996	650	2,600	716	821	170	39	27
16	33	65	588	475	912	565	2,690	692	764	159	39	27
17	32	54	496	335	877	500	2,390	638	728	146	38	26
18	30	54	420	288	856	400	2,190	610	734	133	35	26
19	29	47	362	345	891	465	2,210	605	825	122	34	26
20	29	33	304	490	1,120	330	2,070	638	864	127	33	26
21	28	36	287	495	1,380	405	2,060	668	821	119	34	26
22	28	53	287	460	1,370	440	1,740	728	821	116	39	26
23	28	63	287	410	1,080	560	1,560	961	758	105	43	25
24	28	105	282	375	912	692	1,400	1,130	716	100	40	25
25	26	98	300	390	734	1,060	1,320	1,160	776	93	36	25
26	28	72	217	360	668	2,040	1,210	1,150	728	87	34	25
27	33	100	253	320	650	2,790	1,110	1,080	662	80	32	24
28	34	126	291	300	650	3,100	1,110	1,020	620	74	31	24
29	34	132	257	268	-	3,060	1,370	940	580	70	34	26
30	35	340	300	248	-	2,900	1,490	856	545	67	59	25
31	45	-	436	181	-	2,190	-	940	-	63	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	883	43	22	28.5	1,750
November.....	2,213	340	33	73.8	4,390
December.....	9,976	881	129	322	19,790
Calendar year 1942.....	172,525	2,730	22	473	342,200
January.....	12,554	1,090	181	405	24,900
February.....	18,579	1,380	173	664	36,850
March.....	30,035	3,100	330	969	59,570
April.....	58,460	2,740	1,110	1,949	116,000
May.....	32,287	1,890	605	1,042	64,040
June.....	22,085	1,050	545	736	45,820
July.....	6,772	550	63	218	13,430
August.....	1,400	74	31	45.2	2,780
September.....	917	61	24	30.6	1,820
Water year 1942-43.....	196,170	3,100	22	537	389,100

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.



## Grande Ronde River at Rondowa, Oreg.

Location.- Water-stage recorder, lat. 45°44', long. 177°47', in NW¼ sec. 23, T. 3 N., R. 40 E., at Rondowa, 500 feet downstream from Wallowa River. Datum of gage is 2,281.4 feet above mean sea level, datum of 1929 (Union Pacific System track profile).

Drainage area.- 2,555 square miles.

Records available.- October 1926 to September 1943.

Average discharge.- 17 years, 1,904 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet Apr. 16 (gage height, 6.67 feet), from rating curve extended above 7,900 second-feet; minimum, 442 second-feet Oct. 1, 10, 11 (gage height, 1.17 feet).  
1926-43: Maximum discharge, 22,400 second-feet Mar. 18, 1932 (gage height, 9.30 feet), from rating curve extended above 10,000 second-feet; minimum, 225 second-feet Dec. 19, 1935.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Many diversions above station for irrigation. Flow slightly regulated by Wallowa Lake Reservoir.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

1.1	400	2.2	1,330	4.0	4,080
1.3	525	2.6	1,510	4.6	5,080
1.6	750	3.0	2,370	5.4	7,140
1.9	1,020	3.5	3,180	6.6	11,100

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	454	862	1,640	4,180	a1,200	2,730	10,000	6,410	7,330	6,200	1,450	889
2	466	787	1,690	3,480	a1,200	2,580	9,280	6,610	6,730	6,970	1,410	880
3	496	750	1,450	2,390	a1,150	2,420	8,860	6,530	6,990	6,530	1,440	890
4	460	750	1,230	2,310	a1,150	2,320	8,310	6,680	6,480	6,830	1,370	882
5	460	710	1,100	2,110	a1,150	2,220	7,690	6,460	6,040	6,270	1,360	835
6	466	878	1,050	1,950	a1,100	2,000	7,750	6,150	4,800	6,080	1,320	810
7	466	655	1,000	1,780	a1,070	1,940	7,890	5,790	4,720	6,530	1,250	784
8	460	726	1,030	1,600	a1,050	2,050	8,530	6,360	4,620	6,700	1,220	767
9	454	718	1,100	1,440	a1,030	2,140	8,070	5,080	5,120	6,550	1,190	754
10	448	670	1,400	1,380	1,150	2,080	7,090	4,680	6,570	6,580	1,110	710
11	473	632	1,600	1,310	1,320	2,040	6,580	4,640	5,480	4,760	1,050	686
12	518	602	1,570	1,240	1,800	2,080	6,830	4,380	5,770	4,180	1,000	870
13	525	610	1,680	1,220	2,460	3,010	7,580	4,100	6,600	3,570	972	662
14	512	655	2,050	1,420	2,960	3,230	8,690	3,850	5,970	3,370	944	640
15	525	618	2,430	2,180	3,180	2,910	9,960	3,600	5,850	3,300	907	525
16	565	784	2,370	2,040	3,180	2,650	10,900	3,400	5,630	3,100	890	610
17	526	734	2,150	1,410	3,110	2,380	10,500	3,290	5,880	2,970	853	610
18	518	726	1,950	a1,200	3,150	2,190	10,000	3,130	7,010	2,860	810	602
19	512	702	1,760	a1,300	3,400	2,080	10,700	3,160	8,070	2,910	784	588
20	506	648	1,600	a1,600	3,530	1,970	9,890	3,370	7,090	3,010	784	581
21	499	574	1,480	a1,800	3,710	1,900	9,460	3,570	6,290	3,030	801	574
22	506	632	1,580	a1,570	4,140	1,930	8,400	4,020	5,920	3,100	826	587
23	506	610	1,680	a1,500	3,890	2,120	7,650	5,590	6,550	2,790	818	567
24	499	1,820	1,640	a1,400	3,570	2,570	7,010	6,830	5,270	2,560	810	567
25	492	1,370	1,910	a1,450	3,200	3,490	6,560	7,220	5,440	2,540	784	560
26	492	1,180	1,550	a1,400	2,920	5,550	6,010	7,720	5,600	2,420	787	553
27	539	1,170	1,430	a1,350	2,790	7,250	5,590	7,630	5,630	2,320	742	532
28	532	1,170	1,610	a1,300	2,760	7,860	5,480	7,780	5,920	2,080	718	525
29	512	1,210	1,650	a1,250	-	8,310	5,660	7,490	6,250	1,810	718	525
30	525	1,560	1,680	a1,200	-	8,780	5,700	7,010	6,270	1,620	764	525
31	610	-	2,490	a1,100	-	9,460	-	7,250	-	1,550	898	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	15,451	610	448	498	30,650
November.....	25,593	1,680	574	853	50,760
December.....	50,230	2,490	1,000	1,620	99,830
Calendar year 1942 .....	794,209	7,800	446	2,176	1,575,000
January.....	53,068	4,150	1,100	712	105,200
February.....	26,392	4,140	1,030	2,389	131,500
March.....	106,240	9,460	1,900	3,427	210,700
April.....	242,570	10,900	5,480	8,089	481,300
May.....	189,040	7,780	3,130	5,453	335,300
June.....	175,890	8,070	4,720	5,963	348,900
July.....	122,740	6,830	1,520	3,959	243,600
August.....	30,770	1,450	718	993	61,030
September.....	19,920	899	525	664	39,510
Water year 1942-43 .....	1,077,954	10,900	448	2,953	2,138,000

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Grande Ronde River at La Grande and Imnaha River at Imnaha.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Catherine Creek near Union, Oreg.

Location.— Water-stage recorder, lat. 45°09', long. 117°47', in SE¼ sec. 2, T. 5 S., R. 40 E., 3 miles downstream from Little Catherine Creek and 6 miles southeast of Union. Datum of gage is 3,082.11 feet above mean sea level, datum of 1929.

Drainage area.— 105 square miles.

Records available.— May 1906 to May 1907 (gage heights only), August 1911 to December 1912, March to September 1915, February 1918 to August 1919, October 1925 to September 1943.

Average discharge.— 20 years (1911-12, 1918-19, 1925-43), 118 second-feet.

Extremes.— Maximum discharge during year, 706 second-feet Apr. 15; maximum gage height, 3.59 feet, affected by ice; minimum discharge, 20 second-feet Oct. 28, Nov. 20 (gage height, 0.68 foot).

1906-7, 1911-12, 1915, 1918-19, 1925-43: Maximum discharge observed, 1,240 second-feet May 21, 1912, June 3 or 4, 1933; minimum, 4 second-feet Nov. 26, 27, 1930.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are poor. A few small diversions above station for irrigation and some water diverted into Big Creek, in Powder River Basin.

Rating tables, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 6

Jan. 7 to Sept. 30

O.S	27	0.9	33	1.4	95	2.3	294
.9	35	1.0	42	1.7	145	2.6	400
1.0	44	1.2	66	2.0	210	3.0	588
1.2	67						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	67	45	41	b90	53	178	330	464	320	62	40
2	27	40	41	43	b90	86	203	348	400	314	65	38
3	26	42	37	40	b85	86	222	358	352	338	61	38
4	26	35	34	43	b85	77	228	377	317	317	58	37
5	26	32	b35	40	b75	72	228	358	288	285	57	36
6	25	32	b35	38	b70	66	275	330	275	282	57	36
7	25	32	b35	b30	b65	61	307	294	275	291	54	35
8	25	36	b35	b30	b50	58	330	263	294	282	53	34
9	24	32	b45	b35	b50	52	272	260	320	287	52	34
10	24	27	50	b30	b50	51	230	255	334	222	50	33
11	30	30	40	b30	b55	51	218	241	324	195	49	32
12	29	31	37	b35	b50	51	289	225	352	178	46	32
13	28	33	46	a40	b62	87	370	210	338	155	45	32
14	26	34	46	a45	62	58	477	198	341	147	43	32
15	29	43	44	a40	69	56	585	167	310	140	44	32
16	27	36	43	a35	72	54	590	180	297	132	46	31
17	26	34	42	b30	73	52	544	172	320	124	44	31
18	26	37	41	b30	73	50	534	176	351	122	42	31
19	25	33	40	b30	79	49	560	198	355	122	41	31
20	25	27	41	b50	92	44	486	228	338	117	41	30
21	25	51	39	a90	109	46	408	243	317	114	41	30
22	25	38	39	a85	116	44	345	291	307	109	41	30
23	26	37	39	a80	105	50	324	472	285	101	41	30
24	25	47	40	a80	92	58	304	534	275	98	40	29
25	25	38	40	b85	83	72	301	555	268	90	39	28
26	25	35	b30	b85	77	111	272	575	285	84	38	27
27	29	42	b30	b80	77	155	255	570	301	80	37	28
28	25	40	b35	b75	79	203	275	570	314	76	36	28
29	29	44	b35	b75	-	228	297	544	317	73	40	28
30	29	53	40	b75	-	228	310	486	330	69	51	28
31	33	-	39	b70	-	192	-	486	-	66	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	820	33	24	26.5	1,630
November.....	1,138	87	27	37.9	2,260
December.....	1,218	50	30	39.3	2,420
Calendar year 1942.....	49,267	600	24	135	97,700
January.....	1,615	90	30	52.1	3,200
February.....	2,145	116	50	76.6	4,250
March.....	2,601	229	44	85.9	5,160
April.....	10,200	590	178	340	20,230
May.....	10,524	575	172	339	20,870
June.....	9,724	454	275	324	19,290
July.....	5,301	338	66	171	10,510
August.....	1,458	65	36	47.0	2,890
September.....	962	40	27	32.1	1,910
Water year 1942-43.....	47,706	590	24	131	94,620

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, recorder graph, and records for Grande Ronde River at La Grande and Powder River at Salisbury.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## East Fork Wallowa River near Joseph, Oreg.

Location.- Staff gage, lat. 45°16', long. 117°13', in SW $\frac{1}{4}$  sec. 29, T. 3 S., R. 45 E., a quarter of a mile upstream from mouth, 1 mile upstream from Wallowa Lake, and 6 miles south of Joseph. Datum of gage is 4,517.69 feet above mean sea level, datum of 1929.

Drainage area.- 9.6 square miles.

Records available.- July 1924 to September 1943.

Average discharge.- 19 years, 12.0 second-feet.

Extremes.- Maximum discharge observed during year, 110 second-feet July 9 (gage height, 2.12 feet); minimum observed, 1.4 second-feet Mar. 8 (gage height, 0.58 feet).

1924-43: Maximum discharge, 300 second-feet July 25, 1937 (gage height, 5.63 feet, from floodmark), based on extension of rating curve above 50 second-feet and unpublished records of storage in Wallowa Lake Reservoir; minimum observed, 0.1 second-foot (regulated) Dec. 7, 1929, Nov. 1, 6, 1935.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Gage read twice daily. Wallowa Falls power plant of Pacific Power & Light Co. diverts water 1 mile above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	5.9	6.6	5.8	4.0	4.0	4.3	13	29	64	32	12
2	6.8	6.6	5.5	4.0	4.5	4.0	4.0	12	29	68	32	11
3	6.8	6.6	5.5	5.4	4.5	5.4	4.7	15	26	66	30	11
4	6.3	5.8	5.7	5.5	4.0	1.8	6.0	15	23	66	28	11
5	6.8	5.2	5.5	5.5	3.8	1.9	3.8	15	20	68	25	12
6	6.6	6.6	5.7	4.5	4.5	1.9	5.0	14	21	78	24	9.9
7	6.6	6.0	5.4	4.3	5.0	5.3	5.8	14	20	60	23	5.6
8	7.1	7.7	5.4	4.0	3.8	1.4	6.0	13	22	90	23	9.9
9	6.0	6.0	5.4	4.3	5.5	1.7	6.0	13	26	108	21	9.3
10	7.1	6.6	5.7	5.5	3.2	4.0	5.8	11	25	99	20	8.0
11	9.6	6.8	4.3	5.4	4.0	3.2	8.0	11	29	99	19	8.0
12	7.5	5.5	5.2	4.5	4.0	2.9	6.6	9.9	33	84	19	9.6
13	7.1	5.5	5.3	4.7	4.5	3.0	8.0	9.3	35	76	18	7.4
14	6.0	6.3	7.7	4.5	5.8	4.0	9.6	8.3	33	70	19	7.4
15	7.1	5.3	7.1	5.8	4.5	2.2	12	9.3	31	68	18	7.1
16	6.6	6.3	6.0	5.2	4.0	2.9	14	9.6	34	56	16	7.4
17	7.1	8.0	5.5	5.2	4.0	2.6	14	5.3	40	55	15	7.4
18	6.6	8.0	5.2	5.2	3.8	1.7	15	9.3	49	57	14	7.4
19	5.0	8.0	4.5	5.2	3.8	2.6	15	9.9	60	55	14	9.9
20	5.0	4.5	6.0	5.2	4.3	2.7	15	11	51	56	13	6.8
21	4.7	4.7	5.8	5.0	5.8	5.4	13	12	45	54	13	6.8
22	4.7	5.6	4.5	4.3	4.0	3.4	13	14	45	56	14	6.8
23	4.7	16	4.0	5.5	2.7	3.2	12	20	44	53	14	6.8
24	5.2	12	4.7	5.4	4.3	3.6	11	20	41	51	14	7.1
25	6.9	8.0	6.0	5.5	5.3	3.0	11	24	44	51	11	7.1
26	4.5	10	5.3	5.0	3.2	4.3	10	27	46	50	11	11
27	3.6	9.9	5.7	5.0	4.0	4.3	9.6	29	54	52	11	6.8
28	3.6	9.6	4.3	4.7	5.0	5.2	11	31	54	46	10	7.1
29	4.7	9.9	4.0	4.3	-	4.7	10	31	56	46	14	6.9
30	4.5	7.1	4.3	5.4	-	4.5	10	33	62	40	13	7.1
31	5.2	-	3.6	5.4	-	4.5	-	35	-	36	12	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October						190.6	9.6	3.6	6.15	379		
November						229.0	16	4.5	7.63	454		
December						165.2	8.3	3.6	5.33	328		
Calendar year 1942						5,447.3	92	1.0	14.9	10,900		
January						193.8	12	4.0	6.25	384		
February						116.4	5.3	2.7	4.16	231		
March						99.9	5.2	1.4	3.22	198		
April						279.2	15	3.8	9.31	554		
May						506.9	35	8.3	16.4	1,010		
June						1,127	62	20	37.6	2,240		
July						1,998	108	36	64.5	3,960		
August						560	32	10	18.1	1,110		
September						269.9	15	6.8	9.00	535		
Water year 1942-43						5,735.8	108	1.4	15.7	11,380		

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records.

b Stage-discharge relation affected by ice.

c Gage height not representative of average for day; discharge computed on basis of gage readings and record of power-plant operation.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Wallowa Falls power-plant tailrace near Joseph, Oreg.

Location.- Staff gage and sharp-crested weir, lat. 45°16', long. 117°13', in SE¼ sec. 29, T. 3 S., R. 45 E., a quarter of a mile upstream from mouth and 6 miles south of Joseph. Datum of gage is 4,624.79 feet above mean sea level, datum of 1929.

Records available.- August 1924 to September 1943.

Average discharge.- 19 years, 7.45 second-feet.

Extremes.- Maximum discharge observed during year, 16 second-feet Aug. 5 (gage height, 0.88 foot); no flow at times.  
1924-43: Maximum discharge, 17 second-feet Dec. 1, 8, 1930, Jan. 9, 10, 1931; no flow at times.

Remarks.- Records fair. Gage read hourly. Flow regulated for impulse wheel in powerhouse. Water diverted at dam on East Fork Wallowa River into a conduit 1 mile above powerhouse and discharged into West Fork a quarter of a mile downstream.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	8.5	9.0	6.7	8.8	8.1	7.8	8.4	9.0	7.7	7.1	10
2	8.6	11	9.2	7.8	8.5	8.1	7.6	6.9	9.0	9.2	10	9.7
3	8.4	10	9.0	7.1	8.5	7.6	7.8	8.1	9.0	10	9.7	9.7
4	7.1	11	8.8	8.5	8.5	8.4	6.5	8.1	8.5	6.3	10	9.7
5	8.8	10	8.0	8.5	8.1	8.1	7.8	7.8	8.1	6.9	10	7.1
6	9.0	10	6.9	8.8	7.8	8.1	8.1	7.6	7.1	9.0	9.0	9.5
7	8.8	10	9.2	8.5	7.1	6.7	7.6	7.8	8.5	9.0	9.7	9.7
8	8.5	8.5	9.5	8.5	8.4	8.5	8.4	6.5	8.8	9.8	6.7	9.7
9	8.8	10	9.5	8.5	8.5	8.4	8.1	6.5	8.5	8.4	10	9.5
10	7.8	8.5	8.8	7.4	8.5	6.1	7.8	8.1	8.5	8.4	9.7	10
11	8.5	7.6	9.0	8.5	8.8	8.1	6.7	7.8	8.8	7.1	9.7	10
12	8.5	9.0	8.8	8.4	8.5	7.8	7.8	8.4	8.4	9.2	9.5	7.6
13	9.0	8.8	7.4	8.1	7.8	7.8	7.6	8.5	6.9	8.8	9.2	10
14	9.5	8.8	9.0	8.4	6.7	6.9	7.6	8.8	8.8	9.2	9.5	10
15	9.0	7.4	9.0	2.7	8.1	8.5	7.4	8.1	8.1	9.2	7.4	10
16	9.0	8.4	7.6	0	7.8	8.4	7.6	7.6	8.8	9.0	9.7	10
17	8.1	8.5	6.8	0	8.1	8.4	7.6	9.0	8.8	10	10	9.5
18	6.7	8.4	9.0	0	8.1	7.8	6.5	8.4	9.2	7.4	10	10
19	9.0	8.4	9.0	0	8.4	7.8	8.1	8.1	8.5	9.5	9.5	7.4
20	9.2	7.8	7.4	0	8.1	7.8	8.1	8.4	6.9	9.2	9.5	9.7
21	9.5	8.1	9.2	2.7	6.9	6.5	8.1	8.1	9.0	9.5	9.5	10
22	9.5	6.7	9.0	8.5	6.1	7.6	7.8	7.8	8.8	9.5	7.4	2.2
23	9.0	9.0	9.0	8.5	8.1	7.6	7.6	8.1	8.5	9.5	9.7	3.2
24	8.5	9.0	9.0	7.1	8.1	7.6	7.8	8.1	8.8	9.7	9.5	9.7
25	6.7	8.8	7.4	8.4	8.1	7.8	6.5	7.1	8.8	8.1	9.5	9.7
26	9.5	7.4	7.8	8.5	8.4	8.1	8.1	8.8	7.8	10	9.5	7.1
27	9.2	8.1	7.4	8.8	7.8	7.8	7.8	8.5	7.4	11	10	10
28	9.5	8.4	8.8	8.4	6.5	6.7	7.8	8.1	9.2	9.5	9.5	9.7
29	9.5	7.1	8.8	8.5	-	8.1	7.8	7.8	9.2	9.5	7.4	9.7
30	9.5	9.0	8.8	8.8	-	8.1	8.1	7.1	9.5	9.7	9.2	9.7
31	9.5	-	8.8	7.4	-	8.1	-	-	-	9.5	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	269.3	9.5	6.5	8.69	534
November.....	262.2	11	6.7	8.74	520
December.....	263.9	9.5	5.8	8.51	523
Calendar year 1942.....	3,045.2	11	0	8.34	6,040
January.....	202.0	8.8	0	6.52	401
February.....	225.1	8.8	6.5	8.04	446
March.....	243.4	8.5	6.5	7.85	483
April.....	229.9	8.4	6.5	7.66	456
May.....	247.8	9.0	6.5	7.99	492
June.....	254.9	9.5	6.9	8.50	506
July.....	277.8	11	6.3	8.96	551
August.....	286.6	10	6.7	9.25	568
September.....	269.8	10	2.2	8.99	535
Water year 1942-43.....	3,032.7	11	0	8.31	6,020

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Hurricane Creek near Joseph, Oreg.

Location.- Water-stage recorder, lat. 45°20', long. 117°18', in NE¼ sec. 3, T. 3 S., R. 44 E., upstream from intake of Moonshine ditch and ¾ miles southwest of Joseph.

Drainage area.- 31 square miles.

Records available.- April to September 1915, April 1924 to September 1943.

Average discharge.- 16 years (1927-43), 65.3 second-feet.

Extremes.- Maximum discharge during year, 774 second-feet July 7 (gage height, 3.13 feet); minimum, 14 second-feet Jan. 18 (gage height, 1.18 feet).  
1915, 1924-43: Maximum discharge, that of July 7, 1943; minimum, 3.4 second-feet Feb. 10, 1938 (gage height, 0.91 foot).

Remarks.- Records fair. No diversion above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 28					May 29 to Sept. 30				
1.3	22	2.1	152		1.4	35	2.2	204	
1.5	42	2.3	215		1.6	60	2.4	285	
1.7	66	2.5	300		1.8	95	2.6	390	
1.9	102				2.0	143	2.8	520	

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	27	39	28	23	22	40	100	194	402	182	54
2	a28	25	37	28	23	21	41	100	175	414	182	53
3	a27	28	32	26	23	21	42	104	156	450	169	50
4	a27	24	29	23	23	23	42	111	146	414	158	49
5	a26	21	30	25	23	22	43	109	135	379	149	49
6		26	21	31	26	22	46	104	138	457	140	53
7		26	21	31	25	22	49	96	152	513	133	52
8		26	21	33	25	22	53	94	178	562	125	52
9		25	21	34	25	22	51	90	226	457	113	50
10		25	20	35	24	22	51	86	254	384	110	50
11		28	20	33	24	22	51	82	240	335	106	49
12		28	20	33	23	22	56	79	249	290	102	49
13		27	21	34	24	22	58	76	203	262	99	49
14		27	26	35	24	22	56	72	191	300	97	49
15		27	28	32	23	22	51	111	175	290	97	47
16		27	25	32	22	22	125	69	194	272	91	46
17		26	25	32	18	22	123	66	280	272	89	46
18		26	25	32	16	22	138	66	362	280	84	46
19		25	24	32	21	22	161	71	357	300	78	45
20		24	22	30	22	22	133	80	272	325	73	43
21		24	22	30	25	23	118	88	240	335	71	43
22		24	27	30	26	24	111	118	222	330	68	43
23		24	54	30	25	24	109	183	204	290	65	42
24		23	56	29	24	23	102	197	208	300	63	41
25		23	40	28	24	23	100	225	233	300	62	38
26		22	39	23	24	22	92	248	226	285	60	38
27		22	39	27	23	22	88	248	262	272	59	38
28		20	36	30	23	22	86	278	300	233	56	37
29		21	41	28	23	-	84	310	320	201	60	37
30		20	39	29	23	-	86	272	362	185	62	36
31		23	-	30	23	-	-	229	-	194	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	774	28	20	25.0	0.806	0.93	1,540
November	858	56	20	28.6	.923	1.03	1,700
December	968	39	23	31.2	1.01	1.16	1,920
Calendar year 1942	25,402	326	20	69.6	2.25	30.48	50,400
January	735	28	16	23.7	.765	.88	1,460
February	628	24	22	22.4	.723	.75	1,250
March	738	40	21	23.8	.768	.89	1,460
April	2,488	161	40	82.9	2.67	2.98	4,930
May	4,126	310	66	133	4.29	4.95	8,160
June	6,861	362	135	229	7.39	8.23	13,610
July	10,283	562	185	332	10.7	12.34	20,400
August	3,059	182	66	88.7	3.18	3.67	6,070
September	1,374	54	36	45.8	1.48	1.65	2,730
Water year 1942-43	32,892	562	16	90.1	2.91	39.46	65,250

a No gage-height record; discharge interpolated.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Lostine River near Lostine, Oreg.

Location.- Water-stage recorder, lat. 45°26', long. 117°26', in NW 1/4 sec. 34, T. 1 S., R. 45 E., 3 1/2 miles south of Lostine and 10 miles upstream from mouth.

Records available.- August 1912 to March 1914, April to September 1915, July 1925 to September 1943.

Average discharge.- 16 years (1912-13, 1928-43), 176 second-feet.

Extremes.- Maximum discharge during year, 1,780 second-feet July 9 (gage height, 6.77 feet); minimum, 20 second-feet Nov. 20 (gage height, 0.68 foot).

1912-14, 1915, 1925-43: Maximum discharge, 2,540 second-feet May 27, 1913; minimum, 10 second-feet Nov. 28-30, 1936.

Remarks.- Records good except those for period of shifting control, which are fair, and those for periods of ice effect or no gage-height record, which are poor. No large diversions above station. Flow regulated slightly by Minam Lake Reservoir.

Rating tables, water year 1942-43, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 17

June 18 to Sept. 30

0.8	27	1.9	147	3.5	480	1.0	48	2.2	219	4.0	685
1.0	42	2.2	197	4.0	640	1.2	67	2.6	297	5.0	1,040
1.3	70	2.6	270	4.8	940	1.5	103	3.0	386	6.0	1,440
1.6	105	3.0	350			1.8	149	3.5	530		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	57	73	61	59	54	117	290	640	1,200	384	86
2	30	46	69	59	56	53	119	292	516	1,220	351	79
3	29	57	60	56	56	55	156	296	440	1,350	353	76
4	28	46	b56	b52	56	60	129	326	355	1,370	320	72
5	27	40	57	56	56	54	126	314	346	1,250	295	69
6	26	40	55	53	56	b55	141	290	358	1,300	274	67
7	26	38	b52	49	55	56	158	266	368	1,520	257	65
8	26	44	55	b40	a45	53	187	243	471	1,560	232	62
9	26	39	58	b40	a40	51	180	236	619	1,480	210	61
10	26	35	62	b40	a45	52	160	225	720	1,170	201	59
11	30	35	58	56	a50	*51	155	216	696	993	158	58
12	34	36	56	40	a47	49	185	200	728	797	178	56
13	32	35	59	47	a45	51	236	192	644	680	174	55
14	32	40	60	58	a45	50	312	182	580	706	169	54
15	33	56	58	64	a45	48	398	172	510	744	166	53
16	30	45	56	58	45	47	456	163	546	702	158	52
17	26	43	56	b56	46	46	438	153	745	665	149	51
18	27	42	56	b25	47	45	459	157	1,150	702	140	51
19	26	38	57	b50	47	46	558	172	1,500	776	129	61
20	26	28	56	104	45	44	462	212	906	846	122	48
21	25	33	56	82	52	44	398	243	783	850	116	46
22	25	43	56	60	56	43	340	342	734	878	111	46
23	25	101	57	58	55	44	322	714	664	759	104	46
24	25	136	56	b60	56	46	296	800	632	741	99	44
25	25	89	56	55	51	52	282	836	715	716	100	42
26	25	74	b50	53	b52	70	245	896	720	674	95	42
27	28	77	58	55	53	91	236	684	867	626	90	60
28	25	68	*57	56	53	106	232	944	1,010	530	86	62
29	28	73	54	57	-	122	230	904	1,150	429	89	60
30	28	53	56	b50	-	128	230	804	1,170	361	102	57
31	34	-	61	b45	-	124	-	745	-	584	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	863	34	25	27.8	1,710
November.....	1,616	136	28	55.9	3,210
December.....	1,790	73	50	57.7	3,550
Calendar year 1942.....	65,340	1,150	25	179	129,600
January.....	1,644	104	25	53.0	3,260
February.....	1,416	59	40	50.6	2,810
March.....	1,902	128	43	61.4	3,770
April.....	7,924	558	117	264	15,720
May.....	12,714	944	157	410	25,220
June.....	21,137	1,300	346	705	41,920
July.....	28,038	1,660	331	904	55,610
August.....	5,570	384	86	180	11,050
September.....	1,730	66	42	57.7	3,430
Water year 1942-43.....	86,344	1,560	25	237	171,300

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Bear Creek near Wallowa and Hurricane Creek near Joseph.

b Stage-discharge relation affected by ice.

Note.- Shifting-control method used Oct. 1 to Dec. 15.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## GRANDE RONDE RIVER BASIN

Bear Creek near Wallowa, Oreg.

Location.— Water-stage recorder, lat. 45°32', long. 117°33', in NE¼ sec. 34, T. 1 N., R. 42 E., at bridge 4½ miles southwest of Wallowa.

Records available.— April to September 1915, April 1931 to September 1943. April 1924 to November 1931 at site 1 mile upstream above intakes of two irrigation ditches with a combined capacity of about 3 second-feet.

Average discharge.— 14 years (1923-43), 101 second-feet.

Extremes.— Maximum discharge during year, 972 second-feet July 7 (gage height, 2.98 feet), from rating curve extended above 550 second-feet; minimum, 7.4 second-feet Oct. 10 (gage height, 0.58 foot).

1915, 1924-43: Maximum discharge, 1,620 second-feet Apr. 22, 1936 (gage height, 3.82 feet, from floodmarks), from rating curve extended above 950 second-feet; minimum, 3 second-feet Jan. 20, Feb. 1, 1937.

Remarks.— Records good except those above 500 second-feet and those for periods of ice effect or no gage-height record, which are poor. Small diversions above station for irrigation.

Rating table, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used May 26 to July 6)

0.6	8.0	1.3	68	2.1	325
.7	12	1.8	106	2.4	805
.9	25	1.7	161	2.8	815
1.1	45	1.9	255		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	24	96	70	b70	68	244	292	561	612	52	21
2	8.8	15	89	67	b75	68	256	320	479	666	59	22
3	8.4	20	75	60	b75	65	274	325	425	714	76	20
4	8.4	19	70	52	b75	64	261	342	380	949	67	19
5	8.0	19	65	52	b75	60	239	a325	347	798	62	18
6	8.0	19	60	48	b75	60	252	a285	347	840	55	17
7	8.0	19	57	45	b70	54	275	a250	374	714	52	17
8	7.7	23	53	b55	b60	52	311	a220	425	642	47	16
9	7.7	20	50	b35	b55	45	275	a210	492	612	44	15
10	7.7	19	48	b35	b60	46	244	196	540	505	41	14
11	10	19	46	34	b65	*44	223	186	519	416	38	14
12	9.6	21	45	31	b65	44	261	168	533	358	36	13
13	9.2	21	50	38	b65	48	342	155	512	311	34	13
14	9.2	24	51	67	65	46	434	143	498	325	31	13
15	10	35	53	80	65	45	472	134	472	316	31	13
16	9.6	31	58	80	65	43	492	126	492	257	29	12
17	8.8	31	64	61	65	41	453	121	598	283	27	12
18	8.8	31	67	a45	65	40	466	124	698	283	26	12
19	8.8	28	*65	a80	67	40	526	140	730	287	25	12
20	8.8	31	64	a140	73	37	453	196	590	287	24	12
21	8.8	40	60	a100	82	38	398	227	505	278	24	12
22	8.8	30	61	a75	96	37	342	325	496	261	23	11
23	8.8	97	57	a70	91	39	316	554	466	227	22	11
24	8.8	192	55	a85	83	45	287	561	460	212	21	10
25	8.8	128	53	a70	75	58	265	568	479	196	21	10
26	9.2	102	47	b72	70	111	231	756	486	182	20	10
27	11	100	52	b70	67	192	208	730	540	158	19	10
28	9.2	83	52	b68	68	244	208	722	650	126	19	10
29	9.6	87	46	b65	-	287	212	666	658	106	20	9.6
30	9.6	102	47	b62	-	306	223	620	682	91	22	9.6
31	15	-	55	b60	-	265	-	620	-	87	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	281.9	15	7.7	9.09	559
November.....	1,430	192	16	47.7	2,840
December.....	1,824	96	45	58.8	3,520
Calendar year 1942.....	39,022.7	635	7.7	107	77,400
January.....	1,932	140	31	62.3	3,830
February.....	1,922	96	55	70.8	3,930
March.....	2,535	308	37	85.0	5,230
April.....	9,449	526	208	315	19,740
May.....	10,597	766	121	342	21,020
June.....	15,430	730	347	514	30,600
July.....	12,029	849	87	308	23,960
August.....	1,149	89	19	37.1	2,280
September.....	408.2	22	9.6	13.5	810
Water year 1942-43.....	59,147.1	849	7.7	162	117,300

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Hurricane Creek near Joseph and Lostine River near Lostine.

b Stage-discharge relation affected by ice.

Time Basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Asotin Creek near Asotin, Wash.

**Location.**— Staff gage, lat. 46°20', long. 117°12', in sec. 20, T. 10 N., R. 45 E., half a mile upstream from Washington Water Power Co.'s diversion for water supply and irrigation, 4 miles upstream from George Creek, and 8 miles west of Asotin.

**Drainage area.**— 171 square miles.

**Records available.**— August 1928 to September 1943, March 1904 to November 1906, August 1910 to October 1911 at practically same site.

**Average discharge.**— 15 years (1928-43), 59.1 second-feet.

**Extremes.**— Maximum discharge observed during year, 373 second-feet Apr. 15 (gage height, 2.10 feet); minimum observed, 29 second-feet Oct. 4-7, 9-10, Aug. 28, Sept. 20; minimum gage height observed, 0.65 foot Oct. 4-7, 9-10.

1904-6, 1910-11, 1928-43: Maximum discharge observed, 1,180 second-feet Apr. 15, 1904 (gage height, 4.3 feet, datum then in use); minimum observed, 16 second-feet Jan. 6, 1937.

**Remarks.**— Records good except those for periods of ice effect or shifting control, which are fair. Gage read twice daily. Large part of low flow diverted for irrigation. No regulation.

**Cooperation.**— Gage-height record and results of one discharge measurement furnished by Washington Water Power Co.

Rating tables, water year 1942-43, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 3				June 4 to Sept. 30			
0.7	33	1.0	69	1.6	202	0.8	26
.8	44	1.2	103	1.8	265	.9	36
.9	56	1.4	147	2.0	335	1.0	47
						1.2	76
						1.4	112
						1.6	156

## Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	653	61	77	49	86	289	134	193	90	37	36
2	31	635	61	78	61	*72	331	134	175	86	36	36
3	30	41	57	75	43	72	346	134	162	93	36	35
4	30	39	53	69	51	75	282	139	140	84	36	34
5	30	35	53	66	48	68	242	137	125	79	39	33
6	30	35	51	64	g64	69	230	132	120	73	39	33
7	30	34	49	61	g54	66	214	121	120	73	36	34
8	30	37	49	56	48	64	242	113	116	67	36	32
9	30	35	49	53	48	62	262	111	142	64	35	32
10	29	34	48	53	47	57	226	105	140	61	35	32
11	33	33	48	51	61	58	199	107	138	58	34	32
12	33	33	48	51	62	58	190	101	135	58	34	30
13	32	33	53	51	64	60	226	102	138	58	34	30
14	32	g38	62	64	80	57	282	99	142	55	33	30
15	31	g60	71	g99	103	56	350	96	151	52	33	30
16	31	60	78	111	109	53	369	92	122	52	32	30
17	31	66	86	b65	105	61	339	88	125	50	31	30
18	30	61	88	b60	107	47	303	86	147	47	32	30
19	31	44	78	b60	109	48	335	86	147	47	32	30
20	31	44	75	105	121	48	303	103	135	46	32	30
21	31	44	69	85	134	61	275	111	131	45	31	30
22	31	44	69	71	160	49	220	117	129	47	34	30
23	31	g49	64	66	154	51	184	152	114	47	34	30
24	32	g90	64	b60	130	54	168	176	110	46	32	30
25	31	78	61	b60	115	62	160	190	108	44	32	30
26	31	66	53	b60	101	82	147	230	104	40	32	30
27	33	64	*60	61	92	g137	125	217	97	41	32	31
28	33	57	58	56	88	176	123	214	97	40	30	32
29	33	56	56	54	-	199	125	199	93	38	34	32
30	33	60	61	53	-	202	119	173	91	38	38	32
31	g55	-	65	49	-	220	-	184	-	36	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	970	35	29	31.3	1,920
November.....	1,461	90	33	48.7	2,900
December.....	1,898	98	48	61.2	3,760
Calendar year 1942.....	22,425	226	26	61.4	44,470
January.....	2,104	111	49	67.9	4,170
February.....	2,403	160	47	68.5	4,770
March.....	2,516	220	47	81.2	4,990
April.....	7,196	369	113	240	14,270
May.....	4,181	230	86	135	8,290
June.....	3,855	193	91	128	7,650
July.....	1,755	93	36	56.6	3,480
August.....	1,057	39	30	34.1	2,100
September.....	945	36	30	31.6	1,870
Water year 1942-43.....	30,341	369	29	83.1	60,170

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

g Discharge computed from graph based on gage readings.

Note.—Shifting-control method used Apr. 20 to June 3.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.



## Selway River near Lowell, Idaho

Location.- Water-stage recorder, lat. 46°05', long. 115°31', in sec. 25, T. 32 N., R. 7 E., a quarter of a mile upstream from O'Hara Creek and 7 miles upstream from Lowell post office.

Drainage area.- 1,510 square miles.

Records available.- April 1911 to September 1912 (gage heights or fragmentary discharge records only); October 1929 to September 1943.

Average discharge.- 14 years (1929-43), 3,272 second-feet.

Extremes.- Maximum discharge during year, 28,400 second-feet May 29 (gage height, 11.48 feet); minimum, 477 second-feet Oct. 10 (gage height, 2.60 feet).  
1929-43: Maximum discharge, 33,800 second-feet June 14, 1933 (gage height, 13.17 feet); minimum, probably less than 100 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent except those for period of no gage-height record, which are fair. No diversion.

Rating table, water year 1942-43 (gage height, in feet,  
and discharge, in second-feet)  
(Shifting-control method used Oct. 1 to Mar. 30)

2.6	450	5.0	3,360
3.0	748	5.0	5,440
3.5	1,220	7.0	9,080
4.0	1,810	8.0	11,400
4.5	2,520	10.0	19,500

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	510	1,680	1,880	1,720	1,250	2,000	7,220	11,000	20,400	15,700	1,940	1,090
2	524	1,080	1,800	1,870	1,300	1,900	7,640	11,400	16,600	14,100	1,880	1,000
3	546	1,110	1,660	1,680	1,300	1,800	8,690	11,800	16,100	13,700	2,010	944
4	551	1,060	1,410	1,400	1,250	1,800	8,080	12,600	14,100	12,900	1,680	889
5	617	899	1,300	1,330	1,250	1,740	7,220	12,900	12,100	11,600	1,720	543
6												
7	497	808	1,400	1,480	1,250	1,510	6,820	11,800	11,400	11,000	1,610	800
8	490	765	1,400	1,380	1,300	1,520	7,940	10,700	11,600	11,000	1,520	774
9	490	880	1,360	1,200	1,300	1,570	9,000	9,650	12,900	11,000	1,450	748
10	484	992	1,360	1,080	1,250	1,490	9,000	9,320	14,900	10,300	1,380	723
11	477	870	1,420	992	1,200	1,360	7,940	9,000	16,600	8,690	1,330	707
12												
13	546	765	1,420	907	1,250	1,340	7,220	9,080	17,800	7,640	1,290	691
14	691	682	1,360	992	1,300	1,340	7,790	7,640	16,900	7,080	1,230	674
15	651	666	1,350	1,480	1,350	1,420	9,650	7,220	16,500	6,420	1,190	658
16	575	800	1,380	2,680	1,400	1,430	12,500	6,950	16,100	5,560	1,140	643
17	575	1,260	1,600	3,190	1,400	1,370	15,300	6,680	16,700	5,560	1,100	628
18												
19	582	1,230	1,600	2,600	1,400	1,340	17,400	6,420	15,300	4,980	1,070	612
20	580	1,010	1,810	1,880	1,450	1,290	17,800	6,300	17,400	4,650	1,050	604
21	539	954	1,810	1,450	1,500	1,230	17,800	6,680	20,800	6,440	1,000	604
22	531	925	1,780	1,620	1,600	1,240	20,000	7,360	20,400	4,330	953	604
23	524	934	1,690	2,080	1,800	1,230	20,000	8,690	19,100	4,330	934	604
24												
25	517	732	1,660	2,080	2,000	1,210	17,600	10,700	17,400	4,120	916	604
26	517	666	1,640	1,940	2,200	1,280	14,900	12,500	16,600	4,020	907	597
27	567	1,440	1,680	1,730	2,000	1,400	13,300	20,400	16,900	4,330	899	582
28	597	5,440	1,650	1,680	1,900	1,600	12,500	20,800	16,700	3,640	870	587
29	560	3,540	1,680	1,300	1,800	2,180	11,800	20,800	14,900	3,270	843	560
30												
31	531	2,370	1,350	1,400	1,700	3,180	10,700	22,200	14,900	3,010	643	539
32	553	2,150	1,120	1,500	1,800	5,440	9,320	23,600	14,900	2,640	608	531
33	589	1,880	1,620	1,500	1,900	6,680	9,320	25,000	14,900	2,600	762	531
34	582	1,710	1,610	1,400	-	7,790	9,980	25,000	15,300	2,370	767	531
35	620	2,080	1,490	1,300	-	9,000	9,980	22,700	16,100	2,150	972	531
36	626	-	1,510	1,200	-	7,790	-	22,200	-	2,010	1,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	17,298	825	477	558	0.370	0.43	34,510
November	41,288	5,440	668	1,376	1.02	1.02	81,850
December	47,860	1,880	1,120	1,644	1.02	1.16	94,930
Calendar year 1942	1,124,090	18,200	477	3,080	2.04	27.70	2,230,000
January	49,631	3,180	907	1,601	1.06	1.22	98,440
February	42,400	2,200	1,200	1,514	1.00	1.04	84,100
March	77,440	9,000	1,210	2,498	1.65	1.91	153,600
April	344,610	20,000	6,820	11,490	7.61	8.49	683,500
May	407,990	25,000	6,300	13,160	8.72	10.05	809,200
June	484,400	20,800	11,400	16,150	10.7	11.93	960,800
July	209,440	15,700	2,010	6,756	4.47	5.16	415,400
August	37,444	2,010	757	1,208	.800	.92	74,270
September	20,413	1,090	531	680	.480	.50	40,490
Water year 1942-43	1,780,194	25,000	477	4,677	3.23	43.85	3,531,000

Note.- No gage-height record Jan. 25 to Mar. 3; discharge computed on basis of recorded range in stage and records for Lochsa River near Lowell, South Fork Clearwater River near Granville, and Clearwater River at Kamiah.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## Clearwater River at Kamiah, Idaho

Location.- Water-stage recorder, lat. 46°14', long. 116°01', in sec. 1, T. 33 N., R. 3 E., 300 feet upstream from highway bridge at Kamiah and 6 miles downstream from South Fork.

Drainage area.- 4,860 square miles.

Records available.- August 1910 to September 1943.

Average discharge.- 33 years, 7,964 second-feet.

Extremes.- Maximum discharge during year, 52,200 second-feet May 29 (gauge height, 13.95 feet); minimum, 946 second-feet Oct. 10 (gauge height, 2.96 feet).  
1910-43: Maximum discharge observed, 81,400 second-feet June 10, 1933 (gauge height, 16.53 feet), from rating curve extended above 70,000 second-feet; minimum discharge, probably less than 200 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent except those below 2,000 second-feet, which are good, and those for periods of ice effect, which are fair. Practically no diversion or regulation above station.

Cooperation.- Gauge-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1942-43, except periods of ice effect (gauge height, in feet, and discharge, in second-feet)

3.0	990	5.0	4,250	9.0	18,100
3.3	1,340	5.5	5,390	10.0	23,400
3.6	1,740	6.0	6,740	12.0	36,400
4.0	2,550	7.0	9,970		
4.5	3,240	8.0	13,700		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	4,250	4,140	5,040	2,550	4,140	18,100	27,000	43,200	29,600	4,040	2,440
2	1,140	3,240	3,940	4,690	2,600	4,040	18,600	25,900	40,100	26,400	3,830	2,170
3	1,200	2,440	3,630	4,040	2,690	3,730	21,200	27,600	34,200	25,500	3,940	2,060
4	1,170	2,500	3,140	3,430	2,600	3,730	20,100	28,300	29,600	25,200	3,830	1,920
5	1,140	2,170	2,690	3,140	2,600	3,730	17,200	28,900	26,400	22,300	3,630	1,800
6	1,100	1,850	2,780	3,240	2,600	3,240	16,200	26,400	24,600	20,600	3,340	1,700
7	1,080	1,730	2,780	3,140	2,870	3,240	17,600	24,600	24,000	20,600	3,240	1,640
8	1,060	1,770	2,690	2,780	2,960	3,240	20,100	22,900	25,800	20,600	3,050	1,570
9	1,030	2,190	2,780	2,440	2,780	3,240	20,100	21,200	29,600	19,600	2,870	1,520
10	1,010	2,000	2,960	2,190	2,620	3,050	18,600	21,200	32,900	17,200	2,780	1,500
11	1,070	1,740	3,050	1,980	2,690	2,960	16,700	19,600	35,700	15,000	2,690	1,460
12	1,340	1,590	3,050	1,910	3,340	2,960	17,200	13,100	33,600	13,700	2,600	1,430
13	1,460	1,430	3,140	2,170	3,830	3,430	20,600	17,200	32,600	13,300	2,440	1,390
14	1,330	1,600	3,530	4,040	3,830	3,630	26,400	16,700	33,600	11,400	2,350	1,350
15	1,270	2,440	3,630	7,050	3,830	3,630	31,500	15,800	31,500	11,000	2,250	1,330
16	1,330	3,440	4,040	6,040	3,730	3,430	35,700	15,400	29,600	10,300	2,190	1,290
17	1,270	2,520	3,940	4,360	3,730	3,240	37,100	15,000	32,200	9,280	2,130	1,290
18	1,200	3,170	3,940	3,900	3,830	3,050	36,400	15,000	40,100	8,610	2,060	1,270
19	1,160	2,140	3,730	3,600	4,140	2,960	40,100	16,200	41,700	8,280	1,970	1,270
20	1,140	1,920	3,630	3,500	4,680	2,960	41,700	13,600	39,400	8,610	1,900	1,270
21	1,110	1,700	3,530	4,000	4,800	2,870	37,900	22,300	34,200	8,280	1,880	1,280
22	1,100	1,600	3,430	4,140	5,390	3,050	32,200	28,600	37,900	7,960	1,850	1,270
23	1,120	2,000	3,630	3,830	5,270	3,430	28,300	35,600	34,200	8,610	1,870	1,270
24	1,200	9,970	3,430	4,800	3,940	3,940	26,400	42,400	30,800	7,160	1,810	1,230
25	1,180	8,610	3,530	3,800	4,360	5,040	24,600	41,700	28,900	6,600	1,770	1,220
26	1,120	5,270	3,050	3,500	4,040	7,640	22,900	44,000	28,300	6,170	1,710	1,170
27	1,140	4,470	2,820	3,500	3,940	12,900	20,600	45,400	28,300	5,770	1,710	1,180
28	1,260	4,040	3,140	3,140	4,040	15,800	19,600	49,700	28,300	5,390	1,630	1,150
29	1,260	3,630	3,440	2,960	-	17,200	21,700	49,700	28,900	4,960	1,590	1,150
30	1,300	4,560	3,630	2,690	-	20,600	21,700	45,600	29,600	4,560	1,850	1,150
31	1,440	-	3,630	2,440	-	18,600	-	44,600	-	4,250	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff
						Inches    Acre-feet
October	36,820	1,460	1,010	1,188	0.245	0.28    73,030
November	90,450	9,970	1,430	3,016	.622	.69    179,500
December	104,770	4,140	2,620	3,350	.697	.80    207,800
Calendar year 1942	2,419,520	35,000	1,010	6,629	1.37	18.54    4,799,000
January	106,390	7,030	1,910	3,432	.708	.82    211,000
February	100,740	5,390	2,350	3,598	.742	.77    199,800
March	179,600	20,600	2,870	6,781	1.19	1.37    355,400
April	747,100	41,700	16,200	24,900	5.15	5.73    1,482,000
May	874,400	49,700	15,000	28,210	5.82	6.70    1,734,000
June	969,900	43,200	24,000	32,600	6.67	7.44    1,924,000
July	407,090	29,600	4,250	13,130	2.71	3.12    807,500
August	77,400	4,040	1,590	2,497	.615	.59    153,500
September	43,740	2,440	1,150	1,468	.301	.34    86,760
Water year 1942-43	3,738,030	49,700	1,010	10,240	2.11	28.65    7,414,000

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## CLEARWATER RIVER BASIN

## Clearwater River at Spalding, Idaho

Location.— Water-stage recorder, lat. 46°25', long. 116°51', in lot 22, sec. 22, T. 36 N., R. 4 W., a quarter of a mile downstream from Lapwai Creek and three-eighths of a mile northwest of Spalding post office.

Drainage area.— 9,570 square miles.

Records available.— March 1926 to September 1943.

Average discharge.— 17 years, 14,110 second-feet.

Extremes.— Maximum discharge during year, 87,200 second-feet May 28 (gage height, 16.02 feet); minimum, 2,000 second-feet Oct. 10 (gage height, 2.47 feet).  
1926-43: Maximum discharge, 172,000 second-feet Dec. 23, 1933, from rating curve extended above 100,000 second-feet by logarithmic plotting; maximum gage height, 25.6 feet Jan. 5, 1928 (present site and datum), from floodmark, ice jam; minimum discharge, probably less than 500 second-feet Jan. 9, 1937, during period of ice effect.

Remarks.— Records excellent except those based on staff-gage readings, which are good, and those for period of ice effect, which are fair. Small diversions from lower tributaries; no regulation.

Rating table, water year 1942-43, except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.7	2,370	5.0	7,710	9.0	26,200
3.0	2,920	6.0	11,200	10.0	33,000
3.5	3,930	7.0	15,400	12.0	48,400
4.0	5,060	8.0	20,400	14.0	66,400

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,120	7,150	9,010	h12,600	5,300	*9,720	58,900	51,800	77,500	46,000	7,120	4,590
2	2,120	9,640	7,710	h12,600	5,200	9,360	56,200	60,700	69,400	42,000	6,840	4,150
3	2,370	5,910	7,410	h10,000	5,400	8,670	53,500	55,300	59,800	39,700	6,700	4,040
4	2,370	6,440	6,570	h8,960	5,600	8,340	50,900	55,300	51,800	39,700	6,840	3,620
5	2,280	5,290	5,780	h5,070	5,700	8,340	42,000	55,300	46,000	35,200	6,170	3,820
6	2,200	4,260	5,530	h7,780	5,700	7,560	39,000	50,900	42,800	32,300	6,170	3,410
7	2,120	3,820	5,660	h7,500	5,800	6,960	40,500	47,600	42,000	31,600	5,910	3,210
8	2,040	3,820	5,530	h6,950	6,300	7,120	45,200	43,600	43,600	31,600	5,660	3,110
9	2,040	4,590	5,410	h5,040	6,500	7,120	44,400	40,500	48,400	30,200	5,530	3,020
10	2,020	4,590	5,780	h5,180	6,000	6,700	42,000	40,500	53,500	26,800	5,290	2,920
11	2,040	3,930	6,300	h4,720	5,700	6,170	38,200	38,200	58,000	23,700	5,050	2,920
12	2,200	5,310	6,440	h4,610	*6,300	6,170	39,000	35,200	56,200	21,400	4,820	2,820
13	2,820	3,110	6,570	h4,610	8,800	6,840	46,000	33,000	55,300	20,900	4,700	2,730
14	2,730	3,020	8,340	h5,550	9,200	8,020	57,100	31,600	56,200	16,800	4,590	2,730
15	2,460	5,410	9,010	h13,400	8,700	6,020	68,400	30,900	55,300	17,300	4,370	2,640
16	2,460	9,720	9,360	12,500	8,600	7,410	75,400	28,800	50,900	16,800	4,260	2,550
17	2,640	6,960	*9,360	8,500	8,670	6,840	76,500	28,800	50,900	15,400	4,150	2,550
18	2,460	5,530	9,010	8,000	8,670	6,440	72,400	28,800	60,700	14,500	4,040	2,580
19	2,280	5,050	8,340	5,000	9,010	6,300	76,500	30,200	68,400	14,100	3,930	2,460
20	2,200	4,590	7,710	6,000	10,400	6,170	80,600	33,800	65,600	13,600	3,720	2,460
21	2,200	4,150	7,560	7,000	11,200	6,040	73,400	39,700	57,100	13,200	3,720	2,460
22	2,120	3,620	7,560	7,500	12,400	6,570	65,500	44,400	58,900	12,800	3,720	2,550
23	2,120	3,620	9,360	7,800	12,000	6,020	55,500	65,500	59,800	13,200	3,820	2,460
24	2,200	14,700	9,010	7,000	10,800	10,100	50,100	76,500	51,800	12,400	3,720	2,460
25	2,280	20,000	8,340	6,000	9,720	13,600	46,000	73,400	48,400	11,200	3,610	2,370
26	2,200	12,000	7,120	5,500	9,010	23,700	43,600	76,500	h46,000	10,400	3,410	2,370
27	2,200	9,010	6,440	6,000	9,010	36,700	39,700	78,600	h45,200	9,720	3,110	2,280
28	2,370	8,340	h5,040	7,000	9,360	44,400	36,700	82,800	44,400	9,670	3,310	2,280
29	2,640	7,410	h8,960	7,000	-	42,800	43,600	82,800	44,400	6,670	3,210	2,200
30	2,580	8,020	h8,660	6,500	-	52,600	44,400	76,500	45,200	8,020	3,210	2,200
31	2,730	-	h8,070	6,000	-	52,600	-	73,400	-	7,560	4,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	71,580	2,620	2,020	2,309	0.241	0.28	142,000
November	197,030	20,000	3,020	6,568	.686	.77	390,800
December	231,950	9,360	5,410	7,482	.782	.90	460,100
Calendar year 1942	4,221,710	19,300	2,020	11,300	1.21	16.41	8,373,000
January	231,170	13,400	4,610	7,457	.779	.90	458,500
February	224,850	12,400	5,200	8,030	.839	.87	446,000
March	445,420	52,600	6,040	14,370	1.50	1.73	883,500
April	1,601,000	80,600	36,700	53,370	5.58	6.22	3,176,000
May	1,590,900	82,800	28,800	51,320	5.36	6.18	3,156,000
June	1,613,400	77,500	42,000	53,750	5.62	6.27	3,200,000
July	648,130	46,000	7,560	20,610	2.18	2.52	1,286,000
August	145,240	7,120	3,210	4,685	.490	.56	288,100
September	86,130	4,590	2,200	2,871	.300	.33	170,800
Water year 1942-43	7,086,800	82,800	2,020	19,420	2.03	27.53	14,060,000

\* Winter discharge measurement made on this day.

h Computed from staff-gage readings at Spalding bridge, 2,300 feet above station.

Note.— Stage-discharge relation affected by ice Jan. 17 to Feb. 16.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

# CLEARWATER RIVER BASIN

223

Lochsa River near Lowell, Idaho

Location.- Water-stage recorder, lat. 46°09', long. 115°35', in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 33, T. 33 N., R. 7 E., three-quarters of a mile upstream from Lowell post office, seven-eighths of a mile upstream from mouth, and 1 $\frac{1}{2}$  miles downstream from Pete King Creek.

Drainage area.- 1,180 square miles.

Records available.- November 1910 to August 1912 (gage heights only), October 1929 to September 1943.

Average discharge.- 14 years (1929-43), 2,484 second-feet.

Extremes.- Maximum discharge during year, 19,400 second-feet May 28 (gage height, 9.79 feet); minimum, 323 second-feet Oct. 10 (gage height, 1.34 feet).  
1929-43: Maximum discharge, 34,800 second-feet June 10, 1933 (gage height, 13.44 feet), from rating curve extended above 25,000 second-feet; minimum, probably less than 100 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent except those for period of no gage-height record, which are good. No diversion.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used July 26 to Sept. 30)

1.3	301	2.5	1,290	5.0	5,350
1.5	415	3.0	1,900	6.0	7,740
1.7	550	3.5	2,600	8.0	13,300
2.0	790	4.0	3,400		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	339	1,660	1,400	1,310	844	1,290	5,460	10,400	16,200	11,000	1,450	697
2	373	844	1,330	1,240	899	1,210	5,800	10,700	14,600	9,850	1,380	699
3	385	890	1,200	1,160	899	1,160	6,390	10,400	12,400	9,860	1,370	649
4	373	853	1,040	995	880	1,160	5,920	11,000	10,700	9,040	1,330	602
5	355	705	995	995	853	1,120	5,130	10,700	9,580	7,990	1,280	572
6	344	610	995	1,000	853	1,020	5,020	9,580	9,310	7,740	1,190	550
7	339	565	965	985	852	1,020	5,800	9,770	9,310	7,740	1,120	529
8	333	699	956	899	871	1,040	6,390	7,990	10,400	7,740	1,080	501
9	328	705	966	817	835	1,020	6,150	7,740	11,800	7,490	1,020	487
10	328	602	1,000	748	799	937	5,460	7,990	13,000	6,270	966	474
11	350	536	al,050	681	835	928	5,240	7,240	13,600	5,460	928	467
12	441	494	al,050	681	853	916	5,800	6,750	13,000	5,020	890	454
13	454	448	al,100	844	918	995	7,240	6,270	12,700	4,820	844	441
14	597	536	al,200	1,770	946	995	9,310	6,030	15,000	4,820	817	454
15	422	1,270	al,200	2,450	946	956	11,200	5,680	12,700	4,020	782	422
16	422	1,190	al,350	1,870	966	916	12,400	5,570	11,800	3,750	764	415
17	391	871	al,300	1,320	995	890	12,400	5,570	13,000	3,480	730	409
18	373	826	1,320	1,100	1,020	853	12,400	5,800	15,600	3,250	697	409
19	361	748	1,250	1,180	1,090	871	14,300	6,390	16,900	3,160	665	409
20	355	697	1,200	1,450	1,140	835	14,300	7,740	14,300	3,150	641	403
21	350	580	1,160	1,410	1,270	817	13,000	9,040	13,000	2,990	633	403
22	344	529	1,200	1,360	1,410	862	11,000	10,400	14,300	2,990	625	409
23	367	1,380	1,240	1,240	1,370	985	9,650	16,200	12,400	2,830	618	397
24	355	4,410	1,170	1,160	1,260	1,170	9,040	15,900	11,200	2,520	602	385
25	350	2,750	1,150	1,060	1,190	1,840	8,510	15,900	11,000	2,380	580	379
26	350	1,850	937	1,060	1,140	2,680	7,740	16,600	10,700	2,170	572	373
27	395	1,570	862	1,060	1,160	4,710	6,990	17,600	10,700	2,050	555	361
28	434	1,400	1,170	1,040	1,210	4,820	6,990	18,700	10,700	1,900	529	361
29	415	1,360	1,210	965	-	4,920	7,990	18,000	11,000	1,770	515	361
30	441	1,640	1,150	899	-	5,680	8,250	16,900	11,500	1,640	730	355
31	705	-	1,170	826	-	5,130	-	16,900	-	1,530	790	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	11,939	705	323	385	0.326	0.36	23,680
November	33,368	4,410	448	1,112	.942	1.05	66,180
December	35,297	1,400	862	1,138	.964	1.11	69,990
Calendar year 1942	759,861	11,000	323	2,082	1.76	23.95	1,507,000
January	35,595	2,450	681	1,148	.973	1.12	70,600
February	28,334	1,410	799	1,012	.858	.89	56,200
March	53,730	5,680	817	1,733	1.47	1.69	106,600
April	251,470	14,300	5,020	8,392	7.10	7.93	498,800
May	330,450	16,700	5,573	10,660	9.03	10.42	655,400
June	369,400	16,800	9,310	12,310	10.4	11.64	732,700
July	149,760	11,000	1,530	4,831	4.09	4.72	297,000
August	26,696	1,450	515	861	.730	.84	52,950
September	13,797	697	355	460	.390	.43	27,370
Water year 1942-43	1,339,826	18,700	323	3,671	3.11	42.22	2,657,000

a No gage-height record; discharge computed on basis of records for Selway River near Lowell.  
Time Basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## South Fork Clearwater River near Grangeville, Idaho

Location.- Staff gage, lat. 45°55', long. 116°01', in SE¼NW¼ sec. 30, T. 30 N., R. 4 E., just downstream from powerhouse of Washington Water Power Co., 6 miles southeast of Grangeville.

Drainage area.- 865 square miles.

Records available.- November 1910 to September 1916, April 1923 to September 1943.

Average discharge.- 24 years (1912-16, 1923-43), 612 second-feet.

Extremes.- Maximum discharge observed during year, 6,660 second-feet Apr. 19 (gage height, 8.40 feet); minimum observed, 142 second-feet Sept. 28 (gage height, 2.80 feet).

1910-16, 1923-43: Maximum discharge observed, 9,830 second-feet May 30, 1912 (gage height, 9.7 feet), from rating curve extended above 6,500 second-feet; practically no flow for parts of Aug. 24, 26, 1935.

Remarks.- Records fair. Diurnal fluctuation caused by power plant just above station. No diversion for irrigation. Gage read twice daily.

Cooperation.- Gage-height record furnished by Washington Water Power Co. in connection with a Federal Power Commission project.

Rating table, water year 1942-43, except periods of ice effect  
(gage height, in feet, and discharge, in second-feet)

2.6	142	4.0	649	6.0	2,270
3.0	199	4.6	960	7.0	3,490
3.3	307	5.0	1,340	8.0	4,990
3.6	441	5.5	1,750		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	169	765	418	355	b280	466	2,170	3,770	4,360	2,380	441	354
2	172	516	360	390	b290	367	2,490	3,770	4,060	2,070	441	307
3	181	490	316	311	b290	390	2,960	3,490	3,630	2,170	466	303
4	164	441	232	261	280	418	2,720	3,630	3,490	2,270	441	257
5	161	328	261	336	276	418	2,270	3,490	3,090	1,580	416	239
6	164	284	272	345	288	341	2,380	3,220	2,960	1,790	394	222
7	158	261	291	320	295	372	2,720	3,090	2,840	1,970	350	236
8	158	284	295	284	299	394	3,090	2,960	2,720	1,890	358	219
9	159	324	299	257	311	380	2,840	2,960	2,840	1,600	354	212
10	153	261	324	246	*307	311	2,490	2,960	2,640	1,480	362	222
11	175	280	341	232	291	336	2,490	2,720	2,720	1,340	354	193
12	284	206	372	254	307	341	2,720	2,600	2,720	1,340	345	184
13	284	219	372	315	354	367	3,090	2,490	2,960	1,340	320	190
14	219	284	441	418	418	376	3,770	2,380	2,960	1,180	281	184
15	206	390	441	541	418	590	4,360	2,270	2,840	1,100	276	187
16	243	385	441	490	390	362	4,990	2,270	2,640	1,030	272	196
17	202	311	418	365	380	358	4,990	2,170	2,720	926	264	172
18	193	284	394	b325	394	288	4,990	2,070	2,960	892	257	175
19	175	261	*380	b350	418	332	5,660	2,170	3,220	926	260	172
20	169	259	376	b400	466	291	5,320	2,270	3,220	827	246	161
21	172	187	362	394	516	320	4,830	2,720	2,960	796	232	175
22	169	206	354	b360	594	362	4,060	2,840	3,220	827	257	178
23	169	324	358	b370	568	390	3,630	4,060	2,960	827	250	169
24	193	960	345	324	541	418	3,490	4,060	2,720	706	243	175
25	167	706	376	311	466	541	3,220	4,060	2,490	649	232	164
26	169	418	311	b310	441	706	2,960	4,360	2,380	822	229	153
27	169	441	328	b310	441	1,260	2,720	4,210	2,070	594	219	156
28	187	441	362	b310	441	1,880	2,600	4,210	1,880	541	206	147
29	181	367	362	b300	-	2,390	2,840	4,210	2,270	518	199	156
30	190	441	341	b290	-	2,720	2,640	3,910	2,270	490	332	156
31	167	-	336	b260	-	2,490	-	4,210	-	466	490	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,761	284	153	186	0.215	0.25	11,430
November	11,214	960	187	374	.432	.48	22,240
December	10,898	441	232	352	.407	.47	21,620
Calendar year 1942	350,993	4,670	153	962	1.11	15.10	696,100
January	10,384	541	232	355	.387	.45	20,600
February	10,760	594	276	384	.444	.46	21,340
March	20,745	2,720	268	669	.773	.89	41,150
April	101,700	5,660	2,170	3,390	3.92	4.37	201,700
May	99,600	4,360	2,070	3,213	3.71	4.28	197,600
June	87,210	4,360	1,980	2,907	3.36	3.76	173,000
July	37,166	2,380	1,466	1,199	1.39	1.60	73,720
August	9,819	490	199	317	.366	.42	19,480
September	6,034	354	147	201	.232	.26	11,970
Water year 1942-43	411,290	5,660	147	1,127	1.30	17.68	815,800

\* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## North Fork Clearwater River near Ansaika, Idaho

Location.- Water-stage recorder, lat. 48°31', long. 116°18', in SE $\frac{1}{4}$  sec. 26, T. 37 N., R. 1 E., at Bruce's Eddy,  $1\frac{1}{2}$  miles northeast of Ansaika and 2 miles upstream from mouth.

Drainage area.- 2,440 square miles.

Records available.- August 1926 to September 1943.

Average discharge.- 17 years, 5,312 second-feet.

Extremes.- Maximum discharge during year, 32,800 second-feet Apr. 16 (gage height, 18.78 feet); minimum, 965 second-feet Oct. 9, 10, 26; minimum gage height, 2.50 feet Oct. 10. 1926-43: Maximum discharge, 100,000 second-feet Dec. 23, 1933 (gage height, 35.5 feet, from floodmarks), from rating curve extended above 24,000 second-feet by logarithmic plotting; minimum, probably less than 250 second-feet Jan. 8, 1937, during period of ice effect.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	995	5,080	3,280	5,800	1,810	3,280	20,800	19,500	25,300	13,200	2,760	1,650
2	1,080	3,400	2,920	5,000	1,940	3,280	20,300	21,100	22,200	12,200	2,640	1,610
3	1,180	3,040	2,760	4,600	2,040	2,980	19,000	20,300	18,800	11,900	2,690	1,650
4	1,120	2,920	2,430	3,700	1,990	2,980	17,600	20,300	16,600	11,500	2,640	1,530
5	1,060	2,080	2,280	3,500	1,990	2,920	14,600	20,000	15,000	10,300	2,480	1,460
8	1,020	1,730	2,230	3,800	1,940	2,640	14,200	18,000	14,600	9,600	2,360	1,420
7	995	1,680	2,180	3,000	1,990	2,640	18,700	16,800	14,500	9,430	2,280	1,380
8	995	1,900	2,080	2,700	2,040	2,590	17,500	14,800	14,800	9,260	2,230	1,320
9	965	2,080	2,080	2,500	1,990	2,640	16,400	14,400	16,800	8,930	2,180	1,280
10	965	1,770	2,180	1,810	1,900	2,430	16,000	15,000	18,500	8,130	2,080	1,280
11	995	1,870	2,280	1,690	1,770	2,280	14,200	13,600	18,800	7,360	2,040	1,280
12	1,120	1,460	2,230	1,690	1,940	2,330	15,900	12,600	18,000	6,760	1,990	1,220
13	1,220	1,320	2,330	1,860	2,080	2,380	19,800	11,900	17,600	6,620	1,940	1,220
14	1,120	1,420	2,700	2,590	2,250	2,640	28,500	11,500	19,300	6,060	1,860	1,180
15	1,080	4,360	2,610	4,300	2,250	2,430	29,600	11,200	18,300	5,780	1,610	1,150
16	1,180	5,220	3,040	4,170	2,260	2,330	31,600	10,600	16,400	5,500	1,770	1,150
17	1,150	3,160	3,100	2,430	2,280	2,180	29,900	10,600	16,100	5,220	1,770	1,150
18	1,060	2,690	3,160	2,300	2,380	2,080	27,400	11,000	19,000	4,980	1,690	1,120
19	1,020	2,280	3,040	2,000	2,480	2,130	29,900	11,700	21,100	4,690	1,650	1,120
20	1,020	2,040	2,860	2,500	2,700	2,080	28,600	15,600	19,000	4,560	1,610	1,120
21	995	1,770	2,810	2,900	2,920	2,040	25,900	15,600	17,300	4,430	1,610	1,150
22	995	1,670	3,040	3,100	3,400	2,130	22,200	17,300	18,000	4,300	1,690	1,180
23	995	2,230	3,780	2,920	3,520	2,430	19,300	25,900	17,500	4,300	1,690	1,120
24	995	9,940	3,400	2,700	3,280	2,920	17,600	27,100	15,600	4,040	1,610	1,120
25	995	6,910	3,160	2,640	2,980	4,300	16,100	26,800	14,900	3,780	1,570	1,080
28	965	4,560	2,800	2,480	2,810	7,970	15,200	27,400	14,000	3,650	1,530	1,060
27	1,020	3,680	2,400	2,540	2,920	13,800	13,800	27,100	13,600	3,520	1,490	1,060
28	1,250	3,280	2,600	2,640	3,100	16,100	13,000	27,700	13,200	3,280	1,420	1,060
29	1,180	2,980	3,500	2,330	-	14,200	16,400	26,500	13,200	3,040	1,380	1,060
30	1,180	3,520	3,400	2,130	-	16,800	16,400	24,200	13,200	2,920	1,420	1,060
31	1,530	-	3,400	1,940	-	17,300	-	24,200	-	2,810	1,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	33,440	1,530	965	1,079	0.442	0.51	66,330
November	92,070	9,940	1,320	3,069	1.26	1.40	182,600
December	86,310	3,780	2,080	2,784	1.14	1.32	171,200
Calendar year 1942	1,420,470	16,800	960	3,892	1.60	21.65	2,817,000
January	88,260	5,200	1,690	2,847	1.17	1.35	175,100
February	66,930	3,520	1,770	2,390	.980	1.02	132,800
March	151,030	17,300	2,040	4,872	2.00	2.30	299,600
April	596,700	31,500	15,000	19,960	8.18	9.12	1,188,000
May	587,700	27,700	10,600	16,310	7.50	8.65	1,128,000
June	511,600	25,300	13,200	17,060	6.99	7.80	1,015,000
July	202,080	13,200	2,810	6,517	2.67	3.08	400,700
August	59,390	2,760	1,380	1,916	.785	.91	117,800
September	37,180	1,650	1,060	1,239	.505	.57	73,750
Water year 1942-43	2,494,630	31,500	965	6,835	2.80	38.03	4,949,000

Note.- No gage-height record Dec. 26 to Jan. 9, Jan. 18-22; discharge computed on basis of records for Clearwater River at Kamiah and near Spalding.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

## CLEARWATER RIVER BASIN

Mission Creek near Winchester, Idaho

Location.- Water-stage recorder, lat. 46°11', long. 116°39', in NE¼ sec. 24, T. 33 N., R. 3 W., 4 miles southwest of Winchester.

Records available.- December 1940 to September 1943.

Extremes.- Maximum discharge during year, 176 second-feet Apr. 1; maximum gage height, 3.67 feet Jan. 17, ice jam; minimum daily discharge, 0.1 second-foot several days during October and September; minimum gage height, 1.17 feet Sept. 26-28.

1940-43: Maximum discharge, that of Apr. 1, 1943; maximum gage height, that of Jan. 17, 1943; minimum daily discharge, 0.1 second-foot at times during 1942 and 1943.

Remarks.- Records good except those for periods of ice effect and those below 1 second-foot, which are poor.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	2.5	1.9	10	1.7	b6.0	124	44	13	8.6	1.0	0.3
2	.3	.9	b2.0	11	1.5	b5.5	111	29	13	7.2	1.0	.4
3	.2	b.8	b2.0	6.9	1.5	b5.5	117	27	11	14	.9	.4
4	.2	b.7	2.1	8.6	1.5	*b5.0	91	25	9.9	11	.9	.3
5	.2	b.6	2.1	7.9	1.3	b4.5	92	24	6.6	7.9	.5	.2
6	.1	*.5	2.0	6.1	1.3	b4.0	96	26	7.9	6.9	.8	.2
7	.1	b.5	1.8	5.0	1.4	b3.5	98	26	7.5	7.2	.8	.2
8	.1	1.1	1.7	4.8	1.3	3.1	93	22	6.7	5.8	.8	.2
9	.1	.9	1.7	5.0	1.3	b2.8	79	19	6.7	5.3	.7	.2
10	.1	b.7	2.7	5.8	1.2	b2.5	70	22	6.4	5.0	.6	.1
11	.3	b.6	3.9	6.1	a1.4	b2.5	76	22	5.6	4.5	.5	.1
12	.4	b.6	3.5	6.1	3.3	b2.5	86	22	5.8	4.8	.5	.1
13	.2	b.5	5.9	b6	b5.5	2.3	90	24	6.9	4.3	.5	.1
14	.2	1.1	5.6	b7	b4.0	b2.5	90	24	6.9	3.9	.4	.1
15	.2	3.5	5.8	b10	b4.0	b2.4	87	30	5.8	3.5	.4	.1
16	.2	b2.0	5.8	b10	3.5	b2.4	78	32	5.3	3.5	.4	.1
17	.1	b1.5	*5.6	b7	3.9	b2.4	65	26	5.0	3.1*	.3	.1
18	.1	b1.3	b4.5	b6	4.8	b2.4	56	24	11	2.9	.3	.1
19	.1	b1.0	4.1	b4	7.2	b2.4	56	22	12	2.6	.3	.1
20	.1	b.9	b5.9	b4	12	b2.4	47	20	8.6	2.4	.5	.1
21	.1	.7	3.5	b5	17	b2.5	44	20	7.5	2.3	.3	.1
22	.1	1.1	b3.7	b5	18	b2.3	33	19	13	2.5	.3	.1
23	.1	2.4	b10	b5	b12	b2.7	28	19	9.9	2.3	.3	.1
24	.1	3.3	b9.0	b4	b9.0	4.8	25	14	9.9	2.0	.3	.1
25	.1	b2.5	b8.0	b4	b7.5	14	24	14	14	1.8	.3	.1
26	.1	b2.0	b6.0	3.7	b7.0	33	24	12	13	1.7	.3	.1
27	.3	1.5	b5.0	2.7	b6.0	65	19	11	10	1.5	.2	.1
28	.1	1.5	b5.0	2.4	b6.0	86	24	11	9.6	1.3	.2	.1
29	.2	2.1	5.6	2.1	-	95	28	10	8.6	1.2	.2	.1
30	.3	2.9	5.3	1.9	-	88	22	11	8.2	1.1	.7	.1
31	.9	-	7.9	1.7	-	79	-	14	-	1.1	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6.1	0.9	0.1	0.20	12
November.....	42.2	3.5	.5	1.41	84
December.....	137.5	10	1.7	4.44	273
Calendar year 1942.....	2,994.8	68	.1	8.20	5,940
January.....	175.8	11	1.7	5.67	349
February.....	144.1	18	1.2	5.15	286
March.....	538.9	95	2.3	17.4	1,070
April.....	1,973	124	19	65.8	3,910
May.....	855	44	10	21.5	1,320
June.....	287.3	14	5.0	8.91	530
July.....	133.1	14	1.1	4.29	264
August.....	15.7	1.0	.2	.61	31
September.....	4.5	.4	.1	.15	8.9
Water year 1942-43.....	4,103.2	124	.1	11.2	8,140

\* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Time basis: Pacific war time. To convert war time to standard time, subtract 1 hour.

Measurements of stream flow in the Snake River Basin made at points other than gaging stations are given in the following table:

Miscellaneous discharge measurements in Snake River Basin during water year  
October 1942 to September 1943

Snake River main stem, Idaho

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 2	Snake River.....	Columbia River..	NW $\frac{1}{4}$ sec. 1, T. 8 S., R. 13 E., at site of former gaging station, just upstream from Upper Salmon Falls, 1/8 mile upstream from Owsley Bridge, and 4 miles south of Hagerman.	6,610
Nov. 2	....do.....	....do.....	....do.....	9,720
Dec. 14	....do.....	....do.....	....do.....	9,620
Jan. 30	....do.....	....do.....	....do.....	9,000
Mar. 16	....do.....	....do.....	....do.....	12,000
Apr. 29	....do.....	....do.....	....do.....	21,800
June 8	....do.....	....do.....	....do.....	19,000
July 20	....do.....	....do.....	....do.....	6,170

Big Lost River Basin, Idaho

Aug. 26	Big Lost River...	Snake River.....	Sec. 17, T. 7 N., R. 20 E., $\frac{1}{2}$ mile above East Fork Big Lost River, 200 feet above highway bridge, and 16 miles southwest of Chilly.	73.4
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Tributaries between Portneuf River and Salmon Falls Creek, Idaho

July 29	Blue Lakes Outlet	Snake River.....	SW $\frac{1}{4}$ sec. 28, T. 9 S., R. 17 E., at mouth, 4 miles north of Twin Falls.	224
Sept. 13	....do.....	....do.....	....do.....	226

Tributaries and diversions between Big Wood River and Owyhee River, Idaho

Oct. 3	Ake lateral No. 2	Mountain Home feeder canal.	Sec. 36, T. 2 S., R. 6 E., at head, 5 miles north of Mountain Home.	1.60
Nov. 3	....do.....	....do.....	....do.....	.41
Dec. 2	....do.....	....do.....	....do.....	1.5
Jan. 5	....do.....	....do.....	....do.....	1.2
27	....do.....	....do.....	....do.....	1.5
Mar. 5	....do.....	....do.....	....do.....	1.5
Apr. 28	....do.....	....do.....	....do.....	3.79
July 1	....do.....	....do.....	....do.....	3.82
17	....do.....	....do.....	....do.....	2.30
Aug. 24	....do.....	....do.....	....do.....	1.52
Sept. 21	....do.....	....do.....	....do.....	1.95
14	Bruneau River...	Snake River.....	Sec. 34, T. 7 S., R. 6 E., at Dunham Ranch, 2 miles south of Hot Spring and 10 miles southeast of Bruneau.	75.1

† Estimated.

Malheur River Basin, Oreg.

Feb. 26	Warm Springs Creek	North Fork Malheur River.	SE $\frac{1}{4}$ sec. 1, T. 19 S., R. 37 E., at road crossing above Agency Valley Reservoir, near Beulah.	68.7
Apr. 27	....do.....	....do.....	....do.....	15.2

Weiser River Basin, Idaho

Nov. 11	Weiser River.....	Snake River.....	Sec. 2, T. 19 N., R. 1 W., below Price Valley dam site and 3 $\frac{1}{2}$ miles northwest of Tamarack.	11.5
12	Johnson Park Creek.	Johnson Creek...	SE $\frac{1}{4}$ sec. 36, T. 17 N., R. 3 W., at mouth, 10 miles northwest of Council.	1.2
Mar. 22	....do.....	....do.....	....do.....	.46
May 28	....do.....	....do.....	....do.....	22.2
June 22	....do.....	....do.....	....do.....	7.62
July 24	....do.....	....do.....	....do.....	.74
Sept. 1	....do.....	....do.....	....do.....	.45
Aug. 19	Rush Creek.....	Weiser River...	Near corner of secs. 27 and 33, T. 16 N., R. 3 W., 300 feet below road bridge below power plant and 5 miles northwest of Cambridge.	7.10
19	....do.....	....do.....	....do.....	8.18
19	....do.....	....do.....	300 feet south of north line of sec. 10, T. 15 N., R. 3 W., just below schoolhouse lane, and 6 miles northwest of Cambridge.	4.01
19	....do.....	....do.....	Sec. 15, T. 15 N., R. 3 W., above heading of Hill ditch, below confluence of Beaver and Rush Creeks, and 4 miles northwest of Cambridge.	5.02
30	Pine Creek.....	....do.....	Sec. 32, T. 15 N., R. 3 W., just below mouth of West Fork Pine Creek and 3 miles west of Cambridge.	11.2
Jan. 8	South Fork Crane Creek.	Crane Creek.....	Sec. 3, T. 11 N., R. 2 W., at bridge near South Crane school, 14 miles southeast of Hildvale.	13.0
May 13	....do.....	....do.....	....do.....	1.3
Oct. 31	Monroe Creek.....	Weiser River...	NW $\frac{1}{4}$ sec. 34, T. 12 N., R. 5 W., 200 feet west of U. S. Highway 95 and 6 miles north of Weiser.	2.03
Dec. 10	....do.....	....do.....	....do.....	3.20
Mar. 6	....do.....	....do.....	....do.....	34.6



## MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements in Snake River Basin during water year  
October 1942 to September 1943--Continued

## Weiser River Basin, Idaho--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Mar. 18	Monroe Creek....	Weiser River....	NW $\frac{1}{4}$ sec. 34, T. 12 N., R. 5 W., 200 feet west of U. S. Highway 96 and 6 miles north of Weiser.	31.1
Apr. 29	....do.....	....do.....	....do.....	104
Apr. 30	....do.....	....do.....	....do.....	21.6
May 13	....do.....	....do.....	....do.....	9.14
June 25	....do.....	....do.....	....do.....	1.80
July 28	....do.....	....do.....	....do.....	†.3
Aug. 28	....do.....	....do.....	....do.....	†.2

† Estimated.

## Salmon River Basin, Idaho

Oct. 9	Panther Creek....	Salmon River....	Sec. 19, T. 23 N., R. 18 E., $\frac{1}{4}$ mile above mouth and 7 miles southwest of Shoup.	85.0
Aug. 23	Seecah River....	South Fork Salmon River.	Sec. 35, T. 22 N., R. 5 E., 1,000 feet below mouth of Alex Creek and 7 miles southeast of Burgdorf.	86.6
21	Warren Creek....	Salmon River....	Sec. 15, T. 23 N., R. 6 E., 20 feet above mouth of Schissler Creek and 5 miles north- west of Warren.	30.8
21	Schissler Creek..	Warren Creek....	Sec. 15, T. 23 N., R. 6 E., 40 feet above mouth and 5 miles northwest of Warren.	4.84
Nov. 2	Mud Creek.....	Little Salmon River.	Sec. 9, T. 19 N., R. 1 E., 0.5 mile upstream from Little Mud Creek and $3\frac{1}{2}$ miles north- east of Tamarack.	1.81
Dec. 12	....do.....	....do.....	....do.....	2.47
Feb. 9	....do.....	....do.....	....do.....	†.3
May 11	....do.....	....do.....	....do.....	80.4
June 19	....do.....	....do.....	....do.....	10.7
July 22	....do.....	....do.....	....do.....	4.00

† Estimated.

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