Surface Water Supply of the United States 1946

Part 13. Snake River Basin

Prepared under the direction of C. G. PAULSEN, *Chief Hydraulic Engineer*

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PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Idaho, Oregon, Washington, and Wyoming and other agencies by personnel of the Water Resources Branch under the direction of:

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SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1946

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, 1946. 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 10,900 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1946, 5,810 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. It is computed on basis of a level pool and does not include bank storage unless otherwise indicated.

EXPLANATION OF DATA

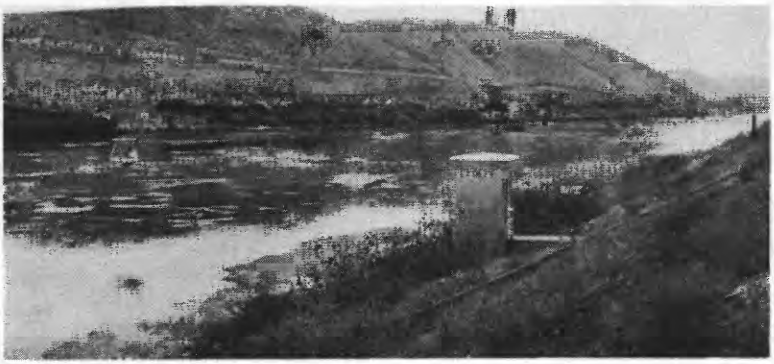
The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording 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 those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. 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.

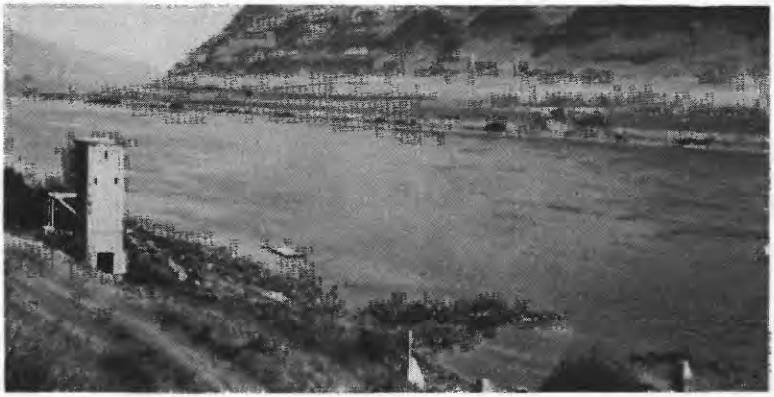
At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed 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. For those stations at which the stage-discharge relation is affected by ice, the days included in the periods of ice effect either are indicated in the table by symbols referring to a footnote that states this fact or are given in a general note following the table. The days on which discharge measurements were made during or between periods of ice effect, shortly before the first period, or shortly after the last period are similarly indicated by a footnote.

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 the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating



A. SNAKE RIVER AT KING HILL, IDAHO.

B. SNAKE RIVER NEAR MURPHY, IDAHO



C. SNAKE RIVER NEAR CLARKSTON, WASH.

FIGURE 1.—GAGING-STATION STRUCTURES

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.

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 and eastern Gulf of Mexico basins (James River to Mississippi River).
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 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., 410 Grand Theater Building.
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., 105 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., 406 Mineral Industries Building.
New Philadelphia, Ohio, Muskingum Watershsd Conservancy District Building.
Ocala, Fla, 304 Post Office Building.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 908 Capital Club Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Washington, D. C., Federal Works Agency Building.
Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:
Albuquerque, N. Mex., 723 North Second Street.
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 7 Eltinge Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 126 New Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honclulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 510 Rudge-Guenzel Building.
Los Angeles, Calif. 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 535 State Capitol.
Pierre, S. Dak., City Hall.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Ramsey Building.
St. Louis, Mo., 1004 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 702 Appraisers 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.

Prior to publication, records of discharge in provisional form for individual stations may usually be obtained from the district offices listed above.

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

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

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 gaging 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 covsred 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. 5), contains, for the area covered by that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record have been collected. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1946

(For basins included see p. 5).

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	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934
1942.....	951	952	953	954	955	956	957	958	959	960	961	962	963	964
1943.....	971	972	973	974	975	976	977	978	979	980	981	982	983	984
1944.....	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014
1945.....	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044
1946.....	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. 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 and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

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 alphabetically, some by States and some by drainage basins.

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

Report	Period	Water-Supply Paper
STATE		
Alabama, Water powers of, with an appendix on stream measurements in Mississippi.	1895-1903	107
California, Water resources of, part 1, Stream measurements in Sacramento River Basin.	1887-1912	298
California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.	1878-1912	299
California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.	1891-1912	300
California, southern, Surface water supply of Pacific slope of	1890-1918	447
California, Surface water supply of Sacramento River Basin	1895-1927	597-E
California, Surface water supply of San Joaquin River Basin	1895-1927	636-D
California, southern, Surface water supply of Pacific slope basins in	1894-1927	636-E
California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.	1895-1927	637-A
Colorado, Water resources of	1884-1900	74
Georgia, Water resources of	1895-1905	197
Massachusetts, Surface waters of	1845-1915	415
Nebraska, Surface water supply of	1894-1906	230
Oregon, Surface water supply of	1878-1910	370
Texas, Summary of records of surface waters of	1898-1937	850
Vermont, Surface waters of	1875-1916	424
Washington, Summary of hydrometric data in	1878-1919	492
Washington, Summary of records of surface waters of	1919-35	870
Wisconsin, northern, Water power of	1895-1905	156
Wyoming, Surface waters of, and their utilization	1894-1921	469
DRAINAGE BASIN		
Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization	1888-1914	395
Colorado River, upper (Colo., Utah), and its utilization	1897-1927	617
Colorado River Basin (Ariz., Calif., Colo., Utah, Wyo.), Surface waters at base stations in.	1891-1938	918
Colorado River Basin (Ariz., Calif., Nev., N. Mex., Utah), Surface waters at stations on tributaries in lower.	1888-1938	1049
Columbia River Basin, upper (Mont., Idaho), Surface waters of	1898-1938	916
Great Salt Lake Basin, Water powers of	1889-1920	517
Green River (Colo., Utah, Wyo.) and its utilization	1894-1926	618
Kennebec River Basin (Maine), Water resources of	1890-1906	198
Milk River. See St. Mary and Milk Rivers		
Missouri and St. Mary River Basins (Mont.), Surface waters of	1881-1938	917
New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of	1895-1920	536
Penobscot River Basin (Maine), Water resources of	1904-9	279
Potomac River Basin (D. C., Md., W. Va.)	1895-1906	192
Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of	1888-1913	358
St. Mary and Milk Rivers (Mont., Canada), Water supply of	1898-1917	491
St. Mary River. See St. Mary and Milk Rivers; Missouri and St. Mary River Basin.		
Sevier Lake Basin (Utah), Utilization of surface water resources of	1889-1937	920
Susquehanna River Basin (Pa., Md.), Hydrography of	1890-1904	109

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	1881-1935	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]	State Water Commission.
Georgia	1895-1906	Bull. 16, Water powers of Georgia	Geological Survey of Georgia.
Do	1907-19	Bull. 38, 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.
Indiana	1923-27	Pub. 72, Surface water supply of Indiana	Department of Conservation.
Do	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa	1873-1932	Stream-flow records of Iowa	State Planning Board.
Do	1873-1940	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.

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
Kansas	1895-1919	Surface waters of Kansas	Kansas Water Commission.
Do	1919-24	....do	Do.
Do	1924-28	Report of Division of Water Resources	State Board of Agriculture.
Do	1928-35	Stream-flow data of Kansas	Do.
Do	1935-39	....do	Do.
Kentucky	1910-20	Surface waters of Kentucky	Kentucky Geological Survey.
Louisiana	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine	1887-1920	1st annual report[2]	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.
Do	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River Basin.	Department of Geology, Mines, and Water Resources.
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	1881-1938	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 Hampshire	1889-1922	Annual and statistical report, vol. 12[2]	Public Service Commission.
New Jersey	1892-1928	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.
Do	1934-40	Special Rept. 9, Surface water supply of New Jersey.	Do.
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.[3]	Department of Conservation and Development.
Do	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
Do	1866-1945	Hydrologic Data on the Neuse River Basin.	Do.
Do	1820-1945	Hydrologic Data on the Cape Fear River Basin.	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.
Do	1882-1944	Supplement B, 4th biennial report	State Water Conservation Commission.
Ohio	1898-1921	Bull. 73, Ohio stream flow	Engineering Experiment Station, Ohio State University.
Do	1898-1944	Bull. 127, Ohio stream flow, Part 2	Do.
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	Office of the State Engineer.
Do	1906-10	7th biennial report	Do.
Do	1911-16	10th biennial report	Do.
Virginia	1895-1927	Bull. 31, Water resources of Virginia	Virginia Geological Survey.
Do	1927-42	Bull. 4, Surface water supply of Virginia (Potomac, Rappahannock, and York River Basins).	Virginia Conservation Commission.
Do	1927-42	Bull. 5, Surface water supply of Virginia (James River Basin).	Do.
Do	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River Basins).	Do.
Do	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River Basins).	Do.
Washington	1873-1933	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, Kansas, 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 ir 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.
966	Minor floods of 1938 in North Atlantic States.
967-A	Floods of September 1939 in Colorado River Basin below Boulder Dam.
967-B	Flood of July 5, 1939, in eastern Kentucky.
967-C	Flood of August 21, 1939, in town of Baldwin, Maine.
994	Cloudburst floods in Utah, 1850 to 1938.
997	Floods in Colorado.
1046	Texas floods of 1940.

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 1945 to September 1946 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, 1932-46..	Idaho Water District 36.
Malheur River.....	SW¼ sec. 32, T. 20 S., R. 41 E., near Namorf, Oreg.	1931-46†.....	Oregon State engineer.
Do.....	Below Nevada Dam, near Vale, Oreg.....	1934, 1936-42, 1944-46†.	Do.
Snake River tributaries.	Near Irwin, Idaho.....	1940-46‡.....	Idaho Water District 36.
Teton River tributaries and diversions.	Near Driggs, Idaho.....	1934-46‡.....	Do.
Thief Valley Reservoir.	NE¼SW¼ sec. 26, T. 6 S., R. 40 E., at Thief Valley Dam, 7 miles east of North Powder, Oreg.	1944-46†.....	Oregon State engineer.

† 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.	1925-46†	Oregon State engineer.
Wallowa River	Below Wallowa Lake, Oreg.	1926-46†	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 1937-46 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 1932 to collect records of runoff from one area of about 760 acres and three areas of less than 70 acres each near Pullman, Wash. 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, M. R. Kulp, State reclamation engineer.

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

Utah: Office of the State Engineer, E. H. Watson.

Washington: State Department of Conservation and Development, Art Garton, director, and C. J. Bartholet, consulting engineer for the department.

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

Financial assistance was furnished by the Corps of Engineers, War Department, in the operation of 18 gaging stations, of which 14 were in Idaho and 4 in Wyoming.

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

Assistance in collecting records was rendered by the following organizations and watermasters.

Idaho: City of Pocatello, Idaho Power Co., Board of Control for Boise Project, 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 Warmsprings 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 (until February 12, 1946) succeeded by Carl G. Paulsen, and Joseph V. B. Wells, chief of the division of surface water since September 17, 1946. The data for the stations in the several States were collected and prepared for publication under supervision of district engineers as listed below.

Idaho: Stations on Snake River between Heise and Milner, stations on tributaries of Snake River above American Falls Reservoir (except Teton River near Victor, Teton Creek and Horseshoe Creek near Driggs, and Packsaddle Creek and Spring Creek near Tetonia), and diversions from Snake River at and above Milner, Lynn Crandall; all other stations in Idaho, T. R. Newell.

Nevada: M. T. Wilson (except for Salmon Falls Creek near San Jacinto, T. R. Newell).

Oregon: G. H. Canfield (except for Snake River at Oxbow, T. R. Newell), the work being done in collaboration with C. E. Stricklin, State engineer.

Washington: F. M. Veatch.

Wyoming: Jackson Lake and Snake River at Moran, Lynn Crandall; Salt River near Smoot and at Wyo.-Idaho State line, Cottonwood Creek near Smoot, and Swift Creek near Afton, Robert Follansbee; all other stations in Wyoming, T. R. Newell.

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, associate engineer, section of reports.

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 1946 (1908-10 fragmentary).

Extremes.- Maximum contents during year, 852,870 acre-feet June 23-24 (elevation, 6,769.23 feet); minimum, 397,600 acre-feet Sept. 21-22 (elevation, 6,750.21 feet).
1908-46: Maximum contents, 857,220 acre-feet June 23, 1937 (elevation, 6,769.40 feet); no usable contents on several days during 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 to 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	568,740	592,880	620,770	652,760	663,660	630,130	581,490	622,440	847,000	850,050	656,640	458,280
2	569,450	595,250	621,490	653,250	663,420	629,160	579,120	628,680	847,230	850,050	648,650	453,960
3	570,150	597,860	621,970	654,200	662,690	627,960	577,220	634,700	848,250	850,330	641,190	446,230
4	570,860	598,340	622,920	655,430	662,450	626,760	574,390	642,630	850,820	850,050	633,010	439,630
5	571,330	598,570	624,120	656,640	661,240	625,800	571,570	651,550	850,820	849,530	624,600	434,430
6	571,800	599,280	625,080	658,090	660,270	624,840	568,740	661,000	851,580	849,530	615,520	428,790
7	572,270	599,520	626,280	659,540	659,540	624,120	565,440	670,200	850,560	849,280	609,780	426,540
8	572,740	600,230	626,760	660,750	658,820	623,400	562,140	680,180	849,280	847,230	700,710	425,860
9	573,450	600,950	627,240	661,720	658,090	622,440	560,260	690,660	850,560	844,670	595,980	423,830
10	574,160	601,660	627,720	662,930	657,610	621,730	558,370	700,690	850,560	839,590	587,900	421,800
11	574,860	603,100	628,200	663,900	657,360	620,290	555,780	708,300	850,050	833,230	579,120	422,480
12	575,570	603,810	628,680	664,630	656,150	619,100	553,660	715,180	850,050	827,890	569,920	422,250
13	576,280	604,770	629,890	665,600	654,940	618,620	551,080	722,300	848,760	820,260	561,910	422,030
14	576,990	605,480	630,850	666,080	653,730	618,380	548,740	729,220	850,050	811,930	554,600	420,220
15	577,700	606,200	631,570	667,290	652,520	617,910	547,110	735,650	851,070	804,350	546,870	416,160
16	578,410	607,160	632,050	664,870	651,310	617,190	545,700	741,590	852,100	796,520	539,380	412,350
17	579,120	608,350	633,010	664,870	649,860	616,230	547,340	748,030	851,580	788,740	531,430	408,330
18	580,310	609,550	633,490	664,870	648,400	615,280	550,620	756,240	848,760	780,460	525,140	403,630
19	581,490	610,500	634,220	664,630	647,440	614,080	554,600	763,720	847,480	771,690	517,470	401,170
20	583,870	611,930	635,180	664,390	646,240	612,410	559,080	773,190	848,000	761,970	510,040	399,160
21	585,050	612,650	635,900	664,390	645,520	611,460	564,500	781,720	848,760	752,260	502,400	397,600
22	585,530	612,890	637,340	664,390	644,800	610,020	569,210	790,240	851,070	743,070	495,010	397,600
23	586,480	613,370	639,020	664,630	644,080	608,350	569,210	798,790	852,870	733,190	487,390	398,040
24	586,950	614,080	640,470	665,110	642,870	607,160	569,680	808,140	852,870	724,770	481,860	398,710
25	587,660	615,040	641,910	665,360	642,150	605,960	569,920	816,720	851,580	717,880	475,910	399,380
26	588,140	616,230	642,870	665,110	641,190	602,380	577,940	826,610	850,300	706,590	470,180	400,080
27	588,850	617,670	643,840	665,600	638,060	598,570	587,900	835,520	850,050	697,740	463,990	400,500
28	589,320	618,620	644,800	665,840	633,980	595,010	596,670	842,390	850,050	690,190	463,080	401,170
29	590,030	619,340	649,620	665,360	-	591,690	605,250	846,460	850,300	681,470	461,700	401,840
30	590,980	620,060	651,070	664,630	-	588,850	613,610	847,480	850,050	672,630	460,780	402,740
31	592,170	-	651,800	663,900	-	585,760	-	847,000	-	664,630	459,870	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	6,757.63	568,030	-
Oct. 31	6,758.65	592,170	+24,140
Nov. 30	6,759.82	620,060	+27,890
Dec. 31	6,761.14	651,800	+31,740
Calendar year 1945	-	-	+294,210
Jan. 31	6,761.64	683,900	+12,100
Feb. 28	6,760.40	633,980	-29,920
Mar. 31	8,758.38	585,760	-48,220
Apr. 30	6,759.55	613,610	+27,850
May 31	6,769.00	847,000	+233,390
June 30	6,769.12	850,050	+3,050
July 31	6,761.67	664,630	-185,420
Aug. 31	6,752.97	459,870	-204,760
Sept.30	6,750.44	402,740	-57,130
Water year 1945-46	-	-	-165,290

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 1946.

Average discharge.- 43 years, 1,407 second-feet.

Extremes.- Maximum discharge during year, 9,360 second-feet June 6 (gage height, 9.68 feet); minimum daily, 16 second-feet Jan. 4-6.
1903-46: 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. 1 to Mar. 18, which are good. Flow regulated by Jackson Lake (see preceding page).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	64	54	54	979	2,480	2,140	47	3,320	2,360	5,280	2,140
2	119	62	54	54	979	930	2,130	47	3,320	2,360	5,000	4,190
3	119	60	54	18	979	930	2,120	46	3,500	2,360	5,060	4,610
4	119	60	54	16	979	930	2,150	46	5,200	2,360	5,620	3,920
5	119	60	53	16	979	930	2,150	46	7,020	2,330	5,860	3,510
6	119	62	53	16	1,050	930	2,140	43	8,830	2,100	4,260	2,220
7	119	62	51	17	1,040	937	2,130	41	7,070	2,120	4,100	1,630
8	119	62	51	18	1,040	937	1,990	40	5,010	3,710	4,370	1,620
9	119	62	51	19	1,040	937	1,890	59	5,520	4,100	4,800	1,500
10	65	60	51	20	1,040	937	1,890	72	7,100	4,720	5,240	848
11	65	60	51	22	1,040	937	1,870	59	7,240	4,640	5,220	500
12	65	59	51	23	1,040	937	1,870	44	7,200	5,300	5,250	500
13	65	59	51	23	1,030	937	1,870	44	5,020	6,330	5,080	921
14	65	59	51	221	1,030	937	1,870	43	4,060	6,040	4,870	2,510
15	65	57	53	500	1,030	937	1,860	39	4,960	5,790	4,580	2,710
16	65	57	53	500	1,030	937	983	39	5,700	5,760	4,440	3,350
17	65	57	53	500	1,030	937	62	39	5,930	5,770	4,240	3,340
18	65	57	54	500	1,040	937	46	41	5,110	6,130	4,560	2,340
19	65	57	54	500	1,040	1,230	46	41	3,250	6,420	4,730	1,510
20	65	56	54	500	1,040	1,470	46	41	3,060	6,490	4,580	1,420
21	64	56	54	505	1,040	1,470	46	41	2,640	6,610	4,610	975
22	64	56	54	505	1,040	1,460	1,500	40	2,740	6,590	4,640	376
23	64	56	54	505	1,030	1,460	2,530	43	3,250	6,590	4,180	303
24	64	54	53	505	1,030	1,460	2,540	46	3,440	6,520	3,950	39
25	64	54	53	500	1,030	1,460	885	46	3,380	6,300	3,920	38
26	64	54	51	500	2,530	2,400	57	46	3,110	6,030	3,160	35
27	64	54	51	500	2,480	2,400	55	719	2,830	5,640	2,080	32
28	64	54	51	495	2,480	2,420	55	2,790	2,820	5,760	1,900	30
29	64	56	54	993	-	2,340	54	5,620	2,630	5,960	1,250	30
30	64	54	53	993	-	2,150	51	5,080	2,440	5,740	888	30
31	64	-	53	993	-	2,140	-	3,710	-	5,720	1,010	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,490	119	64	80.3	4,940
November	1,740	64	54	58.0	3,450
December	1,632	54	51	52.6	3,240
Calendar year 1945	319,015	6,560	2	874	632,800
January	10,531	993	16	340	20,890
February	33,115	2,530	979	1,183	65,680
March	42,234	2,480	930	1,362	83,770
April	39,026	2,540	46	1,301	77,410
May	19,098	5,620	39	616	37,880
June	136,700	8,830	2,440	4,557	271,100
July	154,650	6,610	2,090	4,989	306,700
August	128,728	5,860	888	4,153	255,300
September	47,177	4,610	30	1,573	93,570
Water year 1945-46	617,121	8,830	16	1,690	1,224,000

Note.- Stage-discharge relation affected by ice Jan. 14-15. Staff-gage readings used Oct. 1 to May 27.

Snake River below Greys River, at Alpine, Idaho

Location.- Wire-weight gage, lat. 43°10'20", long. 111°02'30", in SW¼ sec. 19, T. 37 N., R. 118 W. sixth principal meridian, Wyo., at State line bridge on U. S. Highway 89, a quarter of a mile south of Alpine, Idaho, post office, 1¼ miles upstream from Salt River, and 2 miles downstream from Greys River.

Drainage area.- 3,940 square miles.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 22,400 second-feet June 7 (gage height, 9.15 feet); minimum daily, 1,400 second-feet Dec. 19, Jan. 13-15 during period of ice effect; minimum gage height observed, 2.74 feet Dec. 19.
1944-46: Maximum discharge observed, that of June 7, 1946; minimum observed, 1,190 second-feet Mar. 6, Apr. 3, 1945 (gage height, 2.29 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Gage read once daily except May 24, May 26 to June 17, June 19 to July 2, when it was read twice daily. Diversions from tributaries above gage. Some regulation by Jackson Lake (see p. 14).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,650	2,270	2,000	1,910	2,400	4,020	4,250	9,000	11,400	10,200	9,220	3,830
2	2,630	2,280	1,910	1,920	2,600	2,960	4,340	9,000	11,100	10,200	8,490	4,000
3	2,600	2,280	1,830	1,940	2,600	2,720	4,280	9,040	11,400	9,980	8,490	6,630
4	2,600	2,250	1,700	1,940	2,600	2,610	4,230	10,500	13,200	10,200	8,560	6,140
5	2,580	2,270	1,840	1,890	2,600	2,610	4,430	10,600	17,300	9,830	8,690	6,220
6	2,540	2,300	1,830	1,890	2,600	2,690	4,340	11,800	20,800	9,470	8,520	5,310
7	2,540	2,250	1,870	1,870	2,600	2,560	4,230	11,500	22,000	9,180	7,560	4,430
8	2,520	2,220	1,750	1,890	2,600	2,560	4,340	12,400	18,800	10,000	7,370	4,190
9	2,490	2,110	1,700	1,840	2,600	2,510	4,390	12,000	16,900	10,100	a7,600	4,430
10	2,470	2,050	1,650	1,750	2,600	2,520	4,320	10,800	19,200	10,500	7,880	3,690
11	2,400	2,050	1,640	1,650	2,600	2,610	4,230	9,360	20,300	9,830	7,690	3,120
12	2,380	2,030	1,630	1,450	2,600	2,720	4,590	8,690	19,700	10,500	7,950	2,970
13	2,420	2,130	1,630	1,400	2,600	2,610	4,610	8,590	18,800	11,400	7,820	2,900
14	2,400	a2,100	1,630	1,400	2,800	2,650	6,080	8,010	16,400	11,500	7,650	2,940
15	2,380	*2,050	1,550	1,400	2,600	2,630	6,750	a7,820	16,200	a11,000	7,060	4,450
16	2,400	2,070	1,450	1,450	2,600	2,610	7,850	7,620	17,400	10,500	a6,800	5,330
17	2,380	2,130	1,450	1,800	2,600	2,600	7,400	7,530	18,300	10,500	6,540	5,440
18	2,440	2,050	1,450	*1,850	2,600	2,700	8,150	9,000	17,700	10,300	7,180	5,310
19	2,450	2,080	1,400	1,900	2,600	a2,900	8,900	9,430	14,700	10,400	7,120	3,870
20	2,380	2,030	1,600	2,000	2,600	*3,090	10,200	9,040	12,600	10,400	6,870	3,830
21	2,350	2,050	1,800	2,000	2,600	3,200	10,200	9,610	12,200	10,600	6,870	3,470
22	2,280	2,070	2,100	2,000	2,600	3,200	10,300	9,220	11,800	10,500	7,060	3,710
23	2,300	2,070	1,940	2,000	2,600	3,200	10,400	9,220	12,400	10,400	6,810	3,140
24	2,270	2,050	1,920	2,000	2,510	3,280	10,600	9,400	13,100	10,500	6,570	2,780
25	2,230	2,030	1,890	2,000	2,760	3,240	10,800	9,040	12,000	10,100	6,280	2,520
26	2,250	2,030	1,840	2,000	3,120	3,850	11,600	9,330	11,000	10,300	6,250	2,450
27	2,250	2,020	1,860	2,000	3,710	a4,200	11,800	10,200	10,600	10,200	4,880	2,400
28	2,220	2,070	2,080	2,000	3,810	4,340	12,100	11,800	10,600	9,610	4,660	2,350
29	2,200	2,030	2,280	2,000	-	4,340	11,600	14,600	10,700	9,360	4,430	2,350
30	2,270	2,020	2,180	2,100	-	4,360	10,400	14,800	10,400	9,220	3,810	2,330
31	2,300	-	1,950	2,300	-	4,300	-	12,900	-	9,540	3,830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	74,570	2,650	2,200	2,405	147,900
November	63,440	2,300	2,020	2,115	125,800
December	55,350	2,280	1,400	1,785	109,800
Calendar year 1945	1,596,790	18,600	1,190	4,375	3,167,000
January	57,540	2,300	1,400	1,856	114,100
February	75,510	3,810	2,400	2,697	149,800
March	96,390	4,380	2,510	3,109	191,200
April	221,710	12,100	4,230	7,390	439,800
May	311,850	14,600	7,530	10,060	618,500
June	449,000	22,000	10,400	14,970	890,600
July	316,320	11,500	9,180	10,200	627,400
August	216,510	9,220	3,810	6,984	429,400
September	116,110	6,630	2,330	3,870	230,300
Water year 1945-46	2,054,300	22,000	1,400	5,628	4,075,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations near Heise and at Moran.
Note.- Stage-discharge relation affected by ice Dec. 4, 8-22, Jan. 10 to Feb. 23.

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 1946, except winters of 1914-24.

Average discharge.- 36 years, 6,721 second-feet.

Extremes.- Maximum discharge during year, 26,200 second-feet June 7 (gage height, 8.35 feet); minimum, 1,770 second-feet Dec. 20 (gage height, 1.60 feet).
1910-46: 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 good. Station is above all irrigation diversions from main river except Riley ditch (4,200 acre-feet diverted during year), which diverts 1 mile upstream from station. About 130,000 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,020	3,550	3,180	3,160	3,230	4,940	6,430	18,100	15,600	12,400	10,900	4,860
2	4,000	3,570	3,080	*3,100	3,250	4,820	6,380	15,800	14,600	12,200	10,400	5,220
3	3,980	3,550	2,800	3,050	3,250	3,720	6,350	14,600	14,400	12,000	9,710	6,880
4	3,930	3,530	2,710	3,070	3,300	3,460	6,220	15,100	15,600	12,000	9,530	8,040
5	3,910	3,530	2,840	3,080	3,380	3,380	6,430	16,300	19,000	11,800	9,850	7,760
6	3,890	3,530	3,010	3,010	3,430	3,440	6,690	17,600	22,800	11,600	10,100	7,580
7	3,840	3,570	3,070	2,900	3,430	3,360	6,710	17,600	25,800	11,100	9,150	6,770
8	3,820	3,510	3,030	2,900	3,430	*3,300	6,790	17,400	23,700	10,500	8,290	5,860
9	3,780	3,300	2,840	2,800	3,430	3,300	6,930	18,000	21,000	11,600	8,480	5,730
10	3,740	3,200	2,690	2,640	3,430	3,320	6,740	17,300	21,600	11,700	8,580	5,860
11	3,720	3,260	2,600	2,530	3,430	3,360	6,510	15,500	23,600	12,000	9,110	5,100
12	3,670	3,320	2,580	2,200	3,430	3,380	6,880	13,900	23,300	11,600	9,110	4,620
13	3,650	3,360	2,570	2,100	3,430	3,510	7,700	13,300	22,400	12,300	9,150	4,340
14	3,610	3,280	2,550	2,100	*3,430	3,700	9,110	12,900	20,200	13,400	8,910	4,200
15	3,590	3,260	2,450	2,150	3,450	3,570	11,000	12,100	19,000	13,100	8,770	5,200
16	3,590	3,340	2,250	2,150	3,460	3,480	12,700	11,600	19,800	12,400	8,250	5,990
17	3,590	3,360	2,200	2,600	3,480	3,420	14,600	11,500	20,600	12,200	8,160	7,010
18	3,670	3,300	2,200	2,630	3,480	3,400	15,000	12,100	20,700	11,900	7,850	7,010
19	3,740	3,260	2,100	2,670	3,480	3,460	16,200	13,200	19,000	12,000	7,970	6,660
20	3,720	3,280	2,300	2,700	3,480	3,700	17,600	13,100	15,900	12,000	8,250	5,420
21	3,700	3,240	2,600	2,750	3,470	4,340	18,100	12,700	14,800	12,000	8,040	5,180
22	3,670	3,050	3,000	2,750	3,470	4,360	16,200	13,100	14,400	11,900	8,040	5,010
23	3,610	2,950	3,260	2,750	3,460	4,340	16,000	12,700	14,600	11,800	8,220	4,550
24	3,570	2,950	3,070	2,750	3,420	4,360	17,800	12,700	15,400	11,800	8,100	4,180
25	3,510	2,950	2,930	2,750	3,550	4,340	19,300	12,400	15,000	11,800	7,700	4,020
26	3,480	3,120	2,910	2,750	3,510	4,340	20,300	12,400	13,700	11,800	7,610	3,780
27	3,480	3,160	2,910	2,750	3,400	5,280	20,300	13,300	12,800	11,400	7,460	3,650
28	3,460	3,160	3,070	2,750	4,650	5,800	19,800	14,600	12,500	10,700	6,250	3,590
29	3,420	*3,100	3,550	2,780	-	6,170	19,200	17,000	12,700	10,500	6,060	3,570
30	3,420	3,120	3,740	*2,840	-	6,350	19,200	19,200	12,600	10,800	5,600	3,530
31	3,550	-	3,440	3,100	-	6,380	-	17,700	-	10,800	5,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	114,330	4,020	3,420	3,688	226,800
November	98,660	3,570	2,950	3,289	195,700
December	87,530	3,740	2,100	2,824	173,600
Calendar year 1945	2,284,670	22,200	1,800	6,259	4,532,000
January	84,260	3,160	2,100	2,718	167,100
February	97,040	4,650	3,230	3,466	192,500
March	128,080	6,380	3,300	4,132	254,000
April	369,170	20,300	6,220	12,310	732,200
May	454,800	19,200	11,500	14,670	902,100
June	537,100	25,800	12,500	17,900	1,065,000
July	365,100	13,400	10,500	11,780	724,200
August	258,660	10,900	5,060	8,344	513,000
September	161,170	8,040	3,530	5,372	319,700
Water year 1945-46	2,755,900	25,800	2,100	7,550	5,466,000

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11-22, Jan. 11 to Feb. 22.

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

Between Heise and Shelley gaging stations, 47 canals divert water from Snake River for irrigation; of these 36 divert above mouth of Henrys Fork. Records available during each irrigation season from 1919 to 1946. 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.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								2,220	3,560	7,670	8,310	5,100
2								2,630	3,470	7,920	8,070	5,660
3								3,160	3,810	7,760	8,030	5,920
4								4,170	4,470	7,640	7,930	6,430
5								4,420	5,290	7,820	8,020	6,270
6								5,040	5,980	7,980	8,100	6,000
7								5,340	6,800	8,300	8,040	5,880
8								5,620	7,460	8,220	7,770	5,600
9								5,750	7,740	8,710	7,410	5,410
10								5,580	8,550	8,930	7,880	5,430
11								5,300	8,980	8,920	7,790	5,110
12								5,370	9,160	8,900	7,720	4,950
13								5,400	9,380	8,630	7,730	4,890
14								5,710	9,320	8,770	7,730	4,930
15								6,150	9,220	8,780	7,560	5,190
16								6,300	8,400	8,860	7,040	5,340
17								6,600	8,300	8,960	7,310	5,660
18								6,660	7,640	8,970	7,170	5,450
19								6,630	7,360	8,980	7,100	5,280
20								6,610	7,480	9,050	7,010	4,850
21								6,930	7,660	8,950	7,000	4,490
22								7,100	7,300	8,850	7,030	4,180
23								7,260	6,920	8,890	7,020	4,060
24								7,330	6,660	8,810	6,870	4,100
25								7,110	6,440	8,800	6,660	3,850
26								6,860	6,280	8,770	6,200	3,780
27								6,660	6,720	8,690	5,950	3,620
28								6,130	6,890	8,570	5,520	3,690
29								4,450	7,590	8,450	5,350	3,790
30								3,840	7,720	8,550	5,540	3,590
31								3,480	-	8,500	5,220	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	171,810	7,330	2,220	5,542	340,800
June	212,550	9,380	3,470	7,085	421,600
July	265,800	9,050	7,670	8,574	527,200
August	222,080	8,310	5,220	7,164	440,500
September	148,500	6,430	3,590	4,950	294,500
The period	-	-	-	-	2,025,000

Snake River near Shelley, Idaho

Location.- Water-stage recorder, lat. 43°25', long. 112°08', in sec. 17, T. 1 N., R. 37 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 1946 (summer months only during some years).

Extremes.- Maximum discharge during year, 24,900 second-feet Apr. 29 (gage height, 11.76 feet); minimum, 705 second-feet Sept. 15 (gage height, 3.54 feet).
1915-46: 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. 55), Island Park Reservoir (see p. 47), and Grassy Lake (see p. 55). Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,940	3,950	3,710	5,060	5,200	6,340	7,670	22,700	19,200	7,290	4,270	2,400
2	4,780	4,000	3,730	4,610	3,500	6,700	7,560	20,400	16,900	7,000	4,330	2,080
3	4,580	4,140	3,520	4,220	3,900	6,630	7,290	17,300	15,400	6,540	4,170	1,940
4	4,520	4,140	3,270	4,040	3,900	6,110	7,460	15,300	14,700	6,180	3,830	2,590
5	4,410	4,140	3,310	4,070	*4,400	5,350	a7,460	14,800	14,700	6,110	3,730	3,750
6	4,300	4,040	3,520	4,140	4,200	5,280	7,460	15,300	17,000	5,630	3,630	4,070
7	4,140	4,300	3,300	4,520	4,300	5,510	7,630	15,900	19,700	5,250	3,730	4,250
8	4,070	4,410	3,260	3,750	4,100	5,060	7,670	15,500	21,800	4,780	5,170	3,950
9	3,920	*4,300	3,240	4,070	4,300	4,870	7,800	15,800	20,200	3,900	2,560	3,440
10	3,870	4,250	2,600	3,950	4,050	4,330	7,900	16,400	16,700	4,220	2,630	3,310
11	3,800	4,360	2,650	3,170	3,900	4,330	7,670	15,800	16,400	4,200	2,720	3,210
12	3,750	4,520	2,400	2,680	3,950	*4,490	7,430	a14,500	17,600	4,140	3,230	2,660
13	3,730	4,520	2,400	2,310	3,950	4,780	8,070	a12,800	17,700	4,020	3,330	2,290
14	3,640	4,460	2,200	2,150	3,950	4,900	8,900	a11,000	16,600	4,780	3,490	1,820
15	3,620	4,250	2,000	2,150	3,950	5,030	10,700	a9,700	14,500	5,540	3,330	1,350
18	3,520	4,300	2,200	2,200	3,950	4,780	12,800	8,700	14,000	5,060	3,570	1,790
17	3,500	4,360	2,250	2,250	4,000	4,660	14,700	8,210	15,100	4,360	3,210	2,860
18	3,640	a4,250	2,200	2,450	4,050	4,720	16,400	7,940	16,100	4,140	3,010	3,920
19	3,640	a4,150	2,000	2,600	4,100	4,460	17,200	8,620	16,200	3,970	3,000	4,410
20	3,870	a4,050	1,900	2,950	4,200	4,610	18,700	9,610	13,900	3,970	2,930	4,550
21	3,900	a3,950	1,800	3,200	4,400	5,150	20,200	9,260	10,900	4,270	3,130	3,710
22	3,920	3,850	2,200	3,200	4,450	5,860	21,400	8,870	9,860	4,460	3,230	3,520
23	4,000	a3,700	2,400	3,300	4,500	5,600	20,700	9,120	9,950	4,490	3,210	3,480
24	4,020	3,620	2,900	3,350	4,650	5,470	20,800	9,220	10,400	4,610	3,640	3,210
25	4,000	3,590	3,730	3,200	4,750	5,410	21,800	9,540	11,600	4,750	3,970	3,010
28	3,920	3,870	3,660	3,200	4,800	5,190	22,900	9,540	11,300	4,840	4,140	2,900
27	3,870	3,830	3,660	3,600	4,850	5,440	23,900	9,970	9,720	4,940	4,300	2,740
28	3,800	3,830	3,710	3,550	4,900	6,050	24,600	11,500	8,480	4,870	4,440	2,540
29	3,800	3,780	*4,070	3,200	-	6,630	24,600	14,700	7,670	4,380	3,800	2,350
30	3,800	3,750	4,460	2,700	-	7,200	23,600	18,000	7,630	4,100	3,440	2,510
31	3,850	-	5,220	2,750	-	7,530	-	20,500	-	4,300	2,930	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	123,120	4,940	3,500	3,972	244,200
November	122,660	4,520	3,590	4,089	243,300
December	93,470	5,220	1,800	3,015	185,400
Calendar year 1945	2,026,630	20,100	1,800	5,552	4,020,000
January	102,590	5,080	2,150	3,309	203,500
February	117,150	4,900	3,200	4,184	232,400
March	168,470	7,530	4,330	5,435	334,200
April	422,970	24,600	7,290	14,100	838,900
May	406,300	22,700	7,940	13,110	805,900
June	432,090	21,800	7,630	14,400	857,000
July	151,090	7,290	3,900	4,874	299,700
August	108,230	4,440	2,560	3,491	214,700
September	90,810	4,550	1,350	3,027	180,100
Water year 1945-46	2,338,950	24,600	1,350	6,406	4,639,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for stations near Heise and near Blackfoot.
Note.- Stage-discharge relation affected by ice Dec. 7-24, Jan. 14 to Feb. 27.

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

Between Shelley and Blackfoot gaging stations, 13 canals divert water from Snake River for irrigation. Records available during each irrigation season from 1919 to 1946. The two largest canals are equipped with recorders, the others with staff gages, which are read once daily. Discharge combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1,730	1,490	2,740	3,520	2,420
2								1,950	1,400	2,760	3,620	2,190
3								2,200	1,390	2,300	3,580	1,470
4								2,580	1,570	2,370	3,440	1,970
5								2,760	1,990	2,800	3,430	1,980
6								2,790	2,140	3,320	3,360	1,900
7								2,940	2,740	3,470	3,420	1,810
8								3,080	2,950	3,420	2,870	1,650
9								3,110	3,100	3,290	1,990	1,540
10								3,080	3,330	3,430	1,980	1,500
11								2,960	3,830	3,480	1,860	1,550
12								2,880	3,680	3,510	1,790	1,790
13								2,820	3,550	3,490	2,400	1,940
14								2,900	3,700	3,690	2,800	1,930
15								2,980	3,630	3,800	2,820	1,640
16								2,990	3,580	3,740	2,790	1,090
17								3,040	3,640	3,690	2,720	1,680
18								3,040	3,350	3,670	2,620	2,280
19								3,090	2,950	3,610	2,610	2,200
20								3,080	2,720	3,560	2,600	1,960
21								3,040	2,800	3,700	2,680	1,770
22								2,980	2,820	3,750	2,680	1,580
23								2,770	2,760	3,690	2,550	1,590
24								2,560	2,650	3,610	2,420	1,570
25								2,520	2,480	3,690	2,360	1,550
26								2,580	2,420	3,770	2,600	1,570
27								2,440	2,290	3,780	2,560	1,660
28								2,160	2,430	3,770	2,330	1,760
29								1,850	2,520	3,690	2,240	1,850
30								1,690	2,610	3,570	2,370	1,800
31								1,620	-	3,470	2,420	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	82,170	3,110	1,620	2,651	163,000
June	82,510	3,830	1,390	2,750	163,700
July	106,430	3,800	2,300	3,433	211,100
August	83,430	3,620	1,790	2,691	165,500
September	53,190	2,420	1,090	1,773	105,500
The period	-	-	-	-	808,800

Snake River near Blackfoot, Idaho
(Formerly published as Snake River at Clough Ranch, near Blackfoot, Idaho)

Location.- Water-stage recorder, lat. 43°07', long. 112°31', in SE¼ 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 1946.

Extremes.- Maximum discharge during year, 23,700 second-feet Apr. 29 (gage height, 10.48 feet); minimum, 212 second-feet Sept. 16 (gage height, 0.58 foot).
1910-46: 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 upstream.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. Some regulation by Jackson Lake (see p. 14), Henrys Lake (see p. 55), Island Park Reservoir (see p. 47), Grassy Lake (see p. 55), 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,800	4,140	3,970	4,970	2,620	4,970	7,300	21,800	18,800	5,140	880	737
2	4,560	4,280	4,030	4,780	3,290	5,690	7,360	19,900	16,600	4,740	912	460
3	4,350	4,320	3,970	4,420	3,600	6,010	7,180	16,600	15,000	4,610	904	395
4	4,150	4,410	3,600	4,330	3,810	5,770	7,260	13,700	14,000	4,030	681	390
5	4,080	4,390	3,560	4,300	3,440	5,260	7,160	12,100	13,100	3,760	588	1,010
6	3,990	4,320	3,560	4,240	3,850	5,070	7,130	12,300	13,300	2,960	522	2,140
7	3,780	4,390	3,920	3,870	3,960	5,030	7,400	12,600	15,500	2,120	440	2,390
8	3,720	4,520	3,440	4,210	3,630	4,800	7,560	12,500	17,500	1,750	430	2,870
9	3,510	4,560	3,440	3,690	3,870	4,460	7,660	12,100	18,000	1,220	576	2,540
10	3,410	4,420	2,760	3,670	3,970	4,350	7,820	13,400	14,400	702	681	2,280
11	3,360	4,500	3,090	3,160	3,850	4,240	7,770	13,500	12,300	765	744	2,120
12	3,360	4,610	2,620	2,420	3,580	4,370	7,480	12,200	12,900	674	1,130	1,850
13	3,360	4,710	2,640	2,130	3,720	4,610	7,560	10,200	13,800	552	1,040	1,200
14	3,290	4,670	2,350	2,020	3,720	4,740	8,260	8,780	13,200	612	872	618
15	3,200	4,570	2,140	2,080	3,700	4,860	9,510	8,110	11,500	1,310	779	a380
16	3,190	4,500	2,090	2,100	3,760	4,860	11,300	7,030	10,300	1,490	702	226
17	3,080	4,650	2,620	2,170	3,780	4,610	13,300	5,990	11,100	1,030	758	516
18	3,220	4,520	2,480	2,280	3,870	4,540	15,200	5,300	12,400	630	486	1,420
19	3,290	4,370	a2,250	2,270	3,810	4,370	16,100	5,390	13,600	504	440	2,120
20	3,420	4,240	a2,050	2,640	4,050	4,370	17,200	6,400	13,000	400	405	2,640
21	3,650	4,140	1,980	2,980	4,170	4,610	18,900	6,630	9,750	410	420	a3,200
22	3,650	4,030	2,280	3,120	4,390	5,220	20,400	6,180	7,720	606	570	a2,500
23	3,790	3,760	2,540	2,900	4,320	5,430	20,600	6,370	7,610	716	624	a2,250
24	3,830	3,650	3,250	3,300	4,520	5,320	20,200	6,900	8,180	779	944	a2,200
25	3,870	3,850	3,920	3,140	4,610	5,280	21,000	7,260	9,460	960	1,780	1,620
26	3,780	3,960	3,740	2,930	4,610	5,140	21,800	7,560	10,100	960	1,930	a1,700
27	3,740	4,150	3,720	3,490	4,840	4,940	22,700	7,870	8,810	987	1,730	a1,450
28	3,700	4,100	3,900	3,440	4,820	5,350	23,100	9,150	7,280	1,110	2,410	1,200
29	3,740	4,060	4,170	3,480	-	5,870	23,500	11,700	5,930	1,050	2,370	1,020
30	3,780	4,010	4,330	2,820	-	6,460	22,700	15,100	5,430	751	1,670	872
31	3,870	-	4,630	2,570	-	7,000	-	18,500	-	800	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	114,520	4,800	3,080	3,694	227,100
November	128,800	4,710	3,650	4,293	255,500
December	99,040	4,630	1,980	3,195	196,400
Calendar year 1945	1,567,947	18,200	246	4,296	3,110,000
January	99,920	4,970	2,020	3,223	198,200
February	110,160	4,840	2,620	3,934	218,500
March	157,600	7,000	4,240	5,084	312,600
April	402,410	23,500	7,130	13,410	798,200
May	333,120	21,800	5,300	10,750	660,700
June	360,570	18,800	5,430	12,020	715,200
July	48,128	5,140	400	1,553	95,460
August	29,678	2,370	405	957	58,870
September	46,314	3,200	226	1,544	91,860
Water year 1945-46	1,930,260	23,500	226	5,288	3,829,000

a No gage-height record; discharge computed on basis of records for station near Shelley, diversions Shelley to Blackfoot, and Blackfoot River.

American Falls Reservoir at American Falls, Idaho

Location.- Water-stage recorder, lat. 42°46', long. 112°53', in sec. 3C, 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 1946.

Extremes.- Maximum contents during year, 1,719,740 acre-feet June 20 (elevation, 4,354.85 feet); minimum, 688,480 acre-feet Sept. 21 (elevation, 4,332.20 feet).
1926-46: Maximum contents, 1,726,580 acre-feet June 10, 1938 (elevation, 4,354.97 feet); minimum since full capacity was attained on July 13, 1927, 17,200 acre-feet Oct. 22, 1931 (elevation, 4,299.72 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	939,370	1,140,910	1,203,100	1,219,780	1,176,260	1,226,020
2	950,560	1,145,990	1,205,450	1,223,140	1,176,260	1,232,250
3	961,410	1,151,520	1,206,400	1,223,620	1,176,260	1,241,840
4	970,590	1,155,670	1,204,980	1,220,740	1,176,730	1,250,950
5	978,940	1,157,510	1,202,160	1,218,820	1,179,080	1,260,610
6	989,110	1,162,600	1,203,100	1,217,380	1,180,970	1,268,400
7	1,000,700	1,164,010	1,197,920	1,215,460	1,180,500	1,276,680
8	1,012,290	1,165,900	1,205,450	1,212,590	1,181,910	1,284,470
9	1,020,440	1,175,320	1,204,960	1,211,630	1,182,850	1,292,260
10	1,028,650	1,178,140	1,205,450	1,208,750	1,183,790	1,299,570
11	1,037,010	1,184,730	1,204,980	1,206,870	1,184,260	1,303,950
12	1,044,940	1,186,620	1,204,040	1,204,040	1,184,260	1,310,850
13	1,052,860	1,191,800	1,202,160	1,199,800	1,184,730	1,322,730
14	1,061,230	1,199,330	1,199,800	1,195,090	1,185,200	1,330,160
15	1,068,270	1,201,220	1,197,920	1,191,330	1,185,680	1,339,560
16	1,073,630	1,203,100	1,196,040	1,188,030	1,185,680	1,347,980
17	1,076,780	1,203,100	1,194,620	1,185,200	1,186,150	1,358,940
18	1,079,940	1,204,040	1,195,090	1,182,380	1,186,620	1,365,000
19	1,085,800	1,201,690	1,195,090	1,180,970	1,187,090	1,366,000
20	1,085.800	1,203,100	1,195,090	1,179,550	1,187,090	1,370,040
21	1,092,560	1,204,510	1,196,040	1,178,140	1,188,030	1,373,060
22	1,095,270	1,205,450	1,197,450	1,176,730	1,189,910	1,373,570
23	1,101,580	1,202,160	1,197,450	1,177,200	1,198,860	1,377,100
24	1,104,740	1,200,740	1,198,390	1,177,670	1,213,070	1,376,090
25	1,111,050	1,196,040	1,200,740	1,177,200	1,225,060	1,381,130
26	1,119,250	1,196,980	1,203,100	1,177,670	1,226,020	1,381,640
27	1,124,780	1,198,860	1,206,400	1,178,140	1,226,500	1,377,100
28	1,130,510	1,201,220	1,209,230	1,178,140	1,225,060	1,373,060
29	1,136,770	1,202,160	1,209,710	1,178,610	-	1,369,030
30	1,139,070	1,201,690	1,213,550	1,178,610	-	1,368,020
31	1,142,300	-	1,217,380	1,177,670	-	1,368,020

Contents, in acre-feet, of American Falls Reservoir at American Falls, Idaho, water year October 1945 to September 1946--Continued

Day	Apr.	May	June	July	Aug.	Sept.
1	1,371,550	1,567,790	1,680,380	1,700,560	1,246,640	808,460
2	1,372,560	1,595,510	1,702,240	1,694,400	1,231,290	798,460
3	1,372,560	1,616,160	1,703,360	1,688,250	1,217,380	785,890
4	1,374,580	1,622,780	1,700,560	1,679,260	1,203,100	776,870
5	1,375,080	1,619,460	1,702,240	1,669,210	1,186,150	768,940
6	1,375,080	1,621,120	1,706,160	1,659,810	1,169,190	762,450
7	1,376,590	1,622,220	1,716,890	1,646,550	1,150,600	755,600
8	1,377,100	1,824,990	1,715,750	1,631,620	1,136,770	751,990
9	1,376,090	1,632,730	1,715,180	1,614,530	1,121,550	749,870
10	1,378,110	1,642,120	1,712,900	1,603,120	1,105,190	748,110
11	1,382,650	1,641,570	1,707,280	1,585,120	1,088,510	745,300
12	1,384,160	1,644,890	1,707,840	1,568,880	1,074,080	741,440
13	1,384,660	1,644,890	1,709,520	1,551,710	1,057,700	738,280
14	1,385,670	1,646,550	1,711,200	1,534,680	1,044,060	733,610
15	1,388,190	1,645,440	1,711,760	1,517,630	1,030,410	724,240
16	1,400,300	1,642,680	1,708,400	1,502,840	1,015,290	714,790
17	1,417,170	1,638,810	1,704,480	1,486,610	999,840	704,540
18	1,437,220	1,634,940	1,703,520	1,471,940	985,680	700,100
19	1,451,100	1,632,170	1,715,750	1,454,700	970,590	693,610
20	1,466,180	1,622,220	1,719,740	1,438,250	954,320	691,560
21	1,482,420	1,617,800	1,716,320	1,420,770	938,160	686,480
22	1,501,270	1,615,980	1,708,720	1,403,850	923,200	694,970
23	1,515,510	1,608,550	1,704,480	1,387,190	908,640	697,020
24	1,522,960	1,607,460	1,700,560	1,372,060	892,730	700,780
25	1,525,620	1,606,380	1,705,040	1,355,920	880,570	704,540
26	1,517,110	1,604,750	1,708,960	1,339,070	869,590	705,220
27	1,512,850	1,801,480	1,710,640	1,322,240	860,230	707,270
28	1,510,180	1,602,570	1,712,900	1,307,880	850,710	711,710
29	1,510,720	1,613,440	1,706,160	1,291,770	841,180	715,470
30	1,534,140	1,630,520	1,706,160	1,276,190	829,750	718,970
31	-	1,653,180	-	1,258,170	818,470	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,338.58	924,820	-
Oct. 31	4,343.58	1,142,300	+217,480
Nov. 30	4,344.85	1,201,890	+59,590
Dec. 31	4,345.18	1,217,380	+15,690
Calendar year 1945	-	-	+100,900
Jan. 31	4,344.34	1,177,670	-39,710
Feb. 28	4,345.34	1,225,060	+47,390
Mar. 31	4,348.26	1,368,020	+142,960
Apr. 30	4,351.47	1,534,140	+166,120
May 31	4,353.66	1,653,180	+119,040
June 30	4,354.61	1,706,160	+52,980
July 31	4,346.03	1,258,170	-447,990
Aug. 31	4,335.85	818,470	-439,700
Sept.30	4,333.09	718,970	-99,500
Water year 1945-46	-	-	-205,850

Snake River at Neeley, Idaho

Location.- Water-stage recorder, lat. 42°45', long. 112°54', in SW¼ sec. 31, T. 7 S., R. 31 E., 0.9 mile downstream from American Falls Dam. Datum of gage is 4,241.4 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 2½ miles downstream from present site, by adding inflow between sites.

Records available.- March 1906 to September 1946.

Extremes.- Maximum discharge during year, 26,900 second-feet Apr. 25-27 (gage height, 9.31 feet); minimum, 78 second-feet Feb. 24 (gage height 1.03 feet).
1906-46: 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. 22) 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,730	5,050	6,360	6,830	5,820	7,220	10,100	10,300	8,100	10,500	11,100	9,230
2	2,400	5,160	6,490	7,090	5,820	4,220	10,100	10,300	14,600	10,400	11,000	9,050
3	2,420	5,390	6,530	8,230	5,820	3,820	10,100	13,500	19,800	10,700	11,000	9,140
4	2,420	5,540	6,440	8,820	5,900	3,850	10,100	16,000	17,200	11,300	11,000	9,050
5	2,420	5,660	6,280	8,680	5,940	3,880	10,100	16,000	12,900	11,200	11,200	8,000
6	2,190	4,980	6,280	8,500	6,070	3,910	10,100	16,000	11,200	10,900	11,300	7,430
7	432	4,530	6,030	8,320	6,070	3,940	10,100	14,000	15,700	10,900	11,600	7,560
8	1,770	4,630	6,530	8,140	6,110	3,940	10,100	12,800	19,600	11,200	11,600	7,650
9	2,440	5,050	6,490	8,100	6,190	3,970	10,100	12,800	19,600	11,400	11,400	6,830
10	2,440	5,130	6,530	7,870	6,190	4,000	10,100	12,900	19,500	11,300	11,200	6,360
11	2,460	5,350	6,490	7,690	6,190	4,000	10,100	12,900	16,400	11,500	11,200	6,360
12	2,480	5,390	6,400	7,470	6,230	4,000	10,100	12,900	14,700	11,600	11,200	6,530
13	2,480	5,470	6,280	7,220	6,280	4,000	10,100	12,900	14,700	11,600	10,900	6,660
14	2,480	5,430	6,230	6,910	6,280	4,000	10,100	12,900	14,700	11,600	10,800	6,700
15	2,890	5,390	6,070	6,660	6,320	4,000	9,000	12,200	14,800	11,700	10,800	7,340
16	3,790	6,280	6,030	6,440	6,320	4,000	6,230	11,300	14,800	11,800	11,000	8,000
17	4,190	7,470	5,390	6,280	6,360	4,030	6,230	11,300	13,400	11,800	11,300	7,920
18	4,190	7,470	5,130	6,110	6,400	5,780	7,650	11,300	12,700	11,800	11,400	7,650
19	3,910	7,390	5,130	5,990	6,400	7,170	11,900	11,300	12,900	11,700	11,400	6,320
20	3,760	7,470	5,130	5,860	6,360	7,170	11,900	11,300	15,600	11,600	11,300	5,200
21	3,790	7,610	5,130	5,860	6,280	7,170	11,900	11,300	17,100	11,500	11,300	4,570
22	3,790	7,610	5,200	5,860	5,500	7,170	13,400	11,300	13,000	11,500	11,200	4,280
23	3,790	7,430	5,240	5,860	80	7,220	17,600	11,300	11,200	11,400	11,100	3,730
24	3,790	7,300	5,310	5,860	78	7,260	21,200	11,300	11,700	11,900	11,100	3,340
25	3,670	7,000	5,510	5,820	5,570	8,360	24,500	11,300	11,400	12,000	10,800	3,200
26	3,620	6,440	5,660	5,860	8,100	10,100	26,900	11,300	11,000	12,000	10,200	3,200
27	3,620	6,110	5,860	5,860	8,100	10,100	26,900	11,200	11,000	12,000	10,000	3,200
28	3,620	6,190	5,990	5,900	8,050	10,100	26,800	9,980	10,900	12,000	10,200	2,780
29	4,440	6,280	6,070	5,900	-	10,100	18,900	9,650	10,700	11,800	10,000	2,480
30	5,130	6,230	6,320	5,900	-	10,000	11,000	7,740	10,600	11,500	9,980	2,480
31	5,240	-	6,570	5,860	-	10,000	-	7,650	-	11,400	9,750	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	97,792	5,240	432	3,155	194,000
November	182,430	7,610	4,530	6,081	361,800
December	185,100	6,570	5,130	5,971	367,100
Calendar year 1945	2,577,003	23,500	115	7,060	5,111,000
January	211,750	8,820	5,820	6,831	420,000
February	164,828	8,100	78	5,887	326,900
March	188,480	10,100	3,820	6,080	373,800
April	393,410	26,900	6,230	13,110	780,300
May	368,920	16,000	7,650	11,900	731,700
June	421,500	19,800	8,100	14,050	836,000
July	355,500	12,000	10,400	11,470	705,100
August	339,330	11,600	9,750	10,950	673,100
September	182,240	9,230	2,480	6,075	361,500
Water year 1945-46	3,091,280	26,900	78	8,469	6,131,000

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 1946.

Extremes.- Maximum contents during year, 99,400 acre-feet May 30 (gage height, 45.35 feet); minimum, 48,410 acre-feet Oct. 22 (gage height, 40.80 feet).
1909-46: 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 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88,080	52,030	72,380	72,160	71,390	65,450	69,190	81,620	97,590	96,870	97,470	98,560
2	87,500	53,540	72,260	72,720	71,610	62,930	68,970	79,930	96,390	96,270	97,350	97,840
3	85,520	56,980	72,180	73,170	71,610	60,420	68,420	79,930	95,670	95,790	97,230	96,870
4	83,540	59,880	71,940	74,740	71,610	59,770	66,440	83,660	95,430	95,910	96,870	96,510
5	81,510	62,380	71,610	75,200	71,830	59,130	66,110	83,540	95,430	95,910	96,390	96,270
6	79,370	65,230	72,050	75,420	71,940	58,700	65,890	84,940	94,840	96,390	95,910	94,950
7	75,420	65,230	71,390	75,200	71,830	59,240	66,000	84,700	95,430	96,150	95,670	94,020
8	70,070	64,580	72,050	74,860	72,050	59,020	65,890	81,620	96,150	96,150	96,870	94,250
9	66,660	67,210	72,160	74,970	72,050	59,450	65,450	82,860	96,390	95,910	97,590	96,150
10	63,810	68,090	72,260	74,520	71,720	59,240	66,000	84,470	95,910	96,630	97,720	96,150
11	60,960	68,970	72,160	74,410	72,160	58,700	66,110	86,330	95,550	96,750	97,350	95,670
12	58,050	69,520	72,050	74,070	72,380	59,450	65,890	87,030	95,910	96,390	97,470	95,180
13	55,150	70,290	71,830	73,730	72,260	60,200	65,450	87,270	95,670	96,630	96,390	95,180
14	52,570	70,730	71,720	73,170	72,490	59,450	65,670	88,200	94,950	97,110	95,910	94,490
15	49,890	70,070	71,610	72,720	72,490	59,770	65,890	88,430	95,180	96,150	95,910	91,690
16	48,620	70,180	71,170	72,380	71,500	59,340	63,480	88,430	94,950	96,390	95,180	90,990
17	48,940	72,380	71,170	72,050	72,050	59,560	64,900	88,080	95,430	96,870	94,840	92,160
18	49,150	73,390	70,070	71,720	71,720	59,560	64,800	87,850	96,270	97,110	95,670	93,790
19	50,210	73,620	69,740	71,610	71,390	62,820	68,970	87,960	97,590	97,230	96,150	95,910
20	49,260	73,620	69,520	71,390	71,170	64,360	71,940	87,730	97,230	96,870	96,390	95,430
21	49,890	74,070	69,630	71,390	71,170	64,360	72,050	87,150	97,840	96,390	96,630	93,320
22	48,410	73,840	69,740	71,940	71,080	64,250	73,620	87,500	96,750	96,270	96,870	94,950
23	49,260	73,390	69,960	72,050	67,100	64,360	85,400	87,960	95,910	95,430	96,270	94,950
24	49,470	73,500	70,070	71,610	65,340	63,810	91,340	90,060	96,630	95,550	96,630	94,370
25	49,790	72,940	70,070	71,500	63,260	64,580	93,090	91,460	98,560	96,150	96,630	92,620
26	49,890	74,290	70,400	71,280	63,480	67,430	92,970	93,790	99,040	96,630	97,110	90,060
27	49,790	74,070	70,510	71,280	63,260	68,530	93,320	95,910	98,320	97,590	96,150	88,550
28	49,680	74,520	71,170	71,170	63,920	89,080	93,200	96,630	98,680	98,320	95,910	87,150
29	49,680	74,290	71,060	71,170	-	68,090	92,390	97,840	97,590	99,160	96,630	85,640
30	49,890	72,380	71,720	71,170	-	67,870	84,010	99,400	97,960	98,440	96,870	83,770
31	51,390	-	72,050	71,170	-	68,970	-	98,560	-	96,990	97,590	-

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	44.68	91,460	-
Oct. 31.....	41.08	51,390	-40,070
Nov. 30.....	43.01	72,380	+20,990
Dec. 31.....	42.98	72,050	-330
Calendar year 1945...	-	-	+4,180
Jan. 31.....	42.90	71,170	-880
Feb. 28.....	42.24	63,920	-7,250
Mar. 31.....	42.70	68,970	+5,050
Apr. 30.....	44.04	84,010	+15,040
May 31.....	45.28	98,560	+14,550
June 30.....	45.23	97,960	-600
July 31.....	45.15	96,990	-970
Aug. 31.....	45.20	97,590	+600
Sept.30.....	44.02	83,770	-13,820
Water year 1945-46...	-	-	-7,690

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 1946. August 1895 to December 1899 and May 1901 to December 1910 at site at Montgomery Ferry, 6 miles downstream.

Extremes.- Maximum discharge during year, 25,300 second-feet Apr. 27 (gage height, 12.10 feet); minimum, 970 second-feet Feb. 24 (gage height, 3.55 feet).
1910-46: 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. 22), Lake Walcott (see preceding page), 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,690	4,630	6,960	6,630	5,950	8,210	10,500	9,830	7,680	8,240	8,480	7,380
2	2,200	4,650	6,930	6,880	5,980	6,230	10,400	8,540	13,000	8,090	8,390	7,330
3	2,770	4,590	6,960	7,180	6,020	4,590	11,300	8,870	18,300	8,150	8,510	7,530
4	2,750	4,540	6,740	8,330	6,120	4,280	10,900	11,800	15,800	8,300	8,570	7,560
5	2,750	4,560	6,540	8,660	6,230	4,280	10,500	12,800	11,500	8,390	8,630	7,270
6	2,720	4,590	8,650	8,900	6,280	4,210	10,500	13,300	8,690	8,210	8,630	6,760
7	2,700	4,610	6,410	8,780	6,380	4,300	10,500	12,800	12,200	8,150	8,660	6,460
8	2,980	4,650	6,650	8,540	6,410	4,210	10,400	10,400	16,600	8,300	8,540	6,330
9	3,170	4,670	6,760	8,450	6,410	4,230	10,400	9,730	16,800	8,570	8,390	5,950
10	3,170	4,940	6,790	8,330	6,460	4,230	10,600	8,930	16,900	8,450	8,590	5,560
11	3,150	5,210	6,760	8,120	6,490	4,190	10,600	9,080	14,900	8,600	8,450	5,540
12	3,150	5,470	6,710	7,940	6,540	4,280	10,500	9,670	12,100	8,600	8,510	5,560
13	3,070	5,680	6,650	7,700	6,540	4,520	10,400	10,000	12,000	8,480	8,420	5,560
14	3,090	5,920	6,520	7,410	6,540	4,370	10,500	10,300	11,900	8,570	8,270	5,920
15	3,110	5,710	6,440	7,130	6,740	4,480	10,500	9,800	12,000	8,690	8,420	6,310
16	3,130	5,730	6,310	6,850	6,900	4,320	7,440	8,780	12,100	8,570	8,450	6,490
17	3,130	6,850	6,200	6,600	6,100	4,500	5,950	8,600	11,000	8,510	8,450	6,230
18	3,150	7,620	5,640	6,440	7,020	4,520	6,200	8,660	9,980	8,630	8,450	5,560
19	3,110	7,620	5,400	6,280	6,790	6,020	8,690	8,660	10,500	8,600	8,450	4,890
20	3,250	7,790	5,730	6,180	6,680	7,210	11,100	8,420	12,700	8,570	8,450	4,520
21	3,110	8,120	5,680	5,900	6,630	7,470	11,600	8,390	14,800	8,570	8,420	4,040
22	3,150	8,120	5,490	5,920	6,630	7,410	9,670	8,330	12,000	8,600	8,360	3,390
23	3,130	7,700	5,540	6,180	3,800	7,500	11,800	8,300	8,480	8,510	8,390	3,110
24	3,090	7,650	5,520	6,310	1,060	7,270	17,200	8,150	8,870	8,600	8,420	2,920
25	3,130	7,360	5,560	6,250	4,770	7,910	21,800	8,030	8,870	8,480	8,420	2,920
26	3,130	6,330	5,830	6,200	8,420	9,270	24,500	8,030	8,930	8,480	8,360	2,900
27	3,130	6,330	5,900	6,050	8,180	9,980	25,100	8,060	8,780	8,480	8,120	2,900
28	3,150	6,360	6,180	6,050	7,700	10,300	25,000	8,870	8,690	8,690	7,940	2,680
29	3,660	6,820	6,330	6,120	-	10,400	21,000	8,960	8,510	8,810	7,700	2,070
30	4,520	7,070	6,490	6,150	-	10,400	13,100	7,790	8,300	8,630	7,650	2,070
31	4,540	-	6,600	6,050	-	10,600	-	7,130	-	8,660	7,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	95,960	4,540	1,690	3,095	190,300
November	181,890	8,120	4,540	6,063	360,800
December	194,870	6,960	5,400	6,286	386,500
Calendar year 1945	2,242,790	22,800	1,380	6,145	4,449,000
January	218,510	8,900	5,900	7,048	433,400
February	175,770	8,420	1,060	6,278	348,600
March	195,690	10,600	4,190	6,313	388,100
April	378,650	25,100	5,950	12,620	751,000
May	289,010	13,300	7,130	9,323	573,200
June	352,880	18,300	7,680	11,760	699,900
July	263,180	8,810	8,090	8,490	522,000
August	258,820	8,660	7,550	8,349	513,400
September	153,710	7,560	2,070	5,124	304,900
Water year 1945-46	2,758,940	25,100	1,060	7,559	5,472,000

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 1946.

Extremes.- Maximum discharge during year, 19,800 second-feet Apr. 27 (gage height, 18.67 feet); minimum daily, 10 second-feet July 26-29, Aug. 3-9.
1909-46: 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 good. Flow regulated by American Falls Reservoir (see p. 22), Lake Walcott (see p. 25), 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 its 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.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	399	3,250	8,180	5,690	5,170	7,410	10,400	4,180	142	74	11	102
2	780	3,230	5,940	5,990	5,170	6,510	10,300	1,050	1,560	43	11	103
3	1,700	3,480	6,130	6,230	4,870	4,810	10,500	568	10,900	27	10	104
4	1,750	3,330	5,910	7,060	4,780	3,540	10,900	2,660	9,660	27	10	104
5	1,430	3,300	5,440	7,610	4,730	3,290	9,790	3,760	5,090	26	10	662
6	1,360	3,340	5,560	8,010	5,500	3,300	9,640	5,510	775	26	10	598
7	1,260	3,330	5,450	7,950	5,300	3,480	10,000	5,300	1,910	31	10	95
8	1,170	3,330	5,570	7,600	5,540	3,540	9,660	2,760	6,100	26	10	102
9	1,410	3,700	5,760	7,600	5,640	3,520	9,330	2,160	6,700	24	10	103
10	1,850	3,610	5,630	7,370	5,580	3,400	9,330	1,500	8,530	25	11	102
11	1,910	4,230	5,660	7,190	5,430	3,010	9,530	414	7,900	21	11	100
12	1,790	4,400	5,780	6,920	5,220	3,400	9,360	1,370	4,390	19	11	100
13	1,800	4,490	5,510	6,580	5,700	3,630	8,950	1,590	3,940	15	11	99
14	1,840	5,180	4,880	6,380	5,970	3,500	8,930	2,090	3,760	14	18	99
15	1,850	4,940	5,160	6,090	5,910	3,860	8,980	1,920	3,610	14	88	97
16	1,660	4,640	5,680	6,120	5,910	3,520	7,240	476	3,630	14	69	97
17	1,850	5,370	5,680	5,910	5,590	3,750	4,060	325	3,480	15	89	152
18	1,910	5,680	4,990	5,310	5,670	3,690	4,100	255	2,310	14	89	610
19	2,050	5,940	4,700	5,520	6,160	4,520	4,910	579	2,590	14	91	505
20	2,080	5,970	4,080	5,140	5,890	6,060	7,590	252	3,580	16	97	180
21	2,130	6,420	4,930	5,090	5,690	6,640	7,640	268	6,550	19	97	102
22	2,120	6,830	5,060	4,840	5,780	6,520	7,590	242	6,030	22	97	102
23	2,150	6,950	4,890	5,070	5,240	6,650	4,770	209	612	16	94	102
24	2,160	6,610	4,720	5,320	616	6,550	10,900	209	765	17	94	100
25	2,270	6,320	4,750	5,180	1,270	6,640	15,400	205	599	13	102	100
26	3,350	5,770	4,880	4,740	7,120	7,460	16,000	199	744	10	275	98
27	3,330	5,300	5,050	5,610	7,490	8,660	19,400	199	531	10	115	99
28	3,240	5,560	5,110	5,380	6,770	9,470	19,800	240	716	10	111	100
29	3,530	5,470	5,190	5,010	-	10,000	17,700	985	322	10	106	96
30	4,710	6,290	5,450	4,910	-	10,100	5,760	1,140	350	12	97	102
31	4,650	-	5,670	4,870	-	10,100	-	162	-	11	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	65,689	4,710	399	2,119	130,300
November	146,440	6,950	3,230	4,861	290,500
December	165,830	6,180	4,080	5,349	328,900
Calendar year 1945	696,975	16,600	9	2,457	1,779,000
January	188,250	6,010	4,740	6,073	373,400
February	149,926	7,490	616	5,354	297,400
March	170,350	10,100	3,010	5,495	337,900
April	300,480	19,600	4,080	10,020	596,000
May	42,777	5,510	162	1,380	84,850
June	112,618	10,900	142	3,754	223,400
July	643	74	10	20.7	1,280
August	1,384	275	10	64.0	3,940
September	5,117	662	95	171	10,150
Water year 1945-46	1,350,104	19,600	10	3,699	2,678,000

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, 2¼ miles upstream from Shoshone Falls, and 4 miles north of Kimberly.
Records available.- July 1923 to September 1946.
Extremes.- Maximum discharge during year, 18,100 second-feet Apr. 28 (gage height, 18.60 feet); minimum, 20 second-feet (regulated) July 21, Aug. 13-15 (gage height, 1.41 feet); minimum daily, 241 second-feet July 7.
1923-46: 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 recorded, 10 second-feet (regulated) May 17, 1944 (gage height, 1.15 feet); minimum daily recorded, 139 second-feet July 4, 1941.
Remarks.- Records excellent except those for periods of no gage-height record, which are fair. Flow regulated by Twin Falls power plant and several reservoirs above station. Practically entire flow is diverted at Milner during irrigation season; no diversion between Milner and Kimberly.

Rating table, water year 1945-46
(gage height, in feet, and discharge, in second-feet)

3.5	238	6.0	910	12.0	5,750
4.0	332	7.0	1,320	14.0	8,750
4.5	445	8.0	1,800	16.0	12,600
5.0	580	9.0	2,480	18.6	18,100
5.5	735	10.0	3,400		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jnly	Aug.	Sept.
1	646	3,740	6,660	6,160	5,880	7,780	10,200	5,480	646	726	415	543
2	990	3,640	6,410	6,360	5,790	7,200	10,200	2,230	422	554	443	570
3	1,710	3,930	6,470	6,580	5,490	5,540	10,200	962	9,070	467	442	543
4	2,150	3,800	6,470	7,170	5,410	3,950	10,700	1,860	10,400	313	430	587
5	1,940	3,790	6,020	8,050	5,360	3,540	9,730	3,710	6,160	466	465	a700
6	1,830	3,780	6,030	8,180	5,820	3,800	9,580	5,410	1,940	409	446	a1,100
7	1,790	3,790	5,910	8,550	5,670	3,630	9,850	5,620	1,560	241	447	a1,150
8	1,740	3,800	5,960	7,970	5,800	3,880	9,660	3,320	6,940	454	442	a750
9	1,730	4,050	6,120	8,100	6,020	3,910	9,370	2,660	8,680	406	455	a650
10	2,120	4,260	6,220	7,810	5,950	3,730	9,300	2,140	8,450	432	462	a630
11	2,270	4,600	6,240	7,670	5,790	3,400	9,460	1,250	8,450	419	421	620
12	2,190	4,900	6,300	7,440	5,570	3,660	9,300	1,040	4,930	417	429	613
13	2,130	4,880	6,020	7,140	6,020	3,970	9,060	1,790	4,190	449	470	593
14	2,200	5,460	5,500	6,900	6,300	3,520	8,920	2,320	4,000	373	428	591
15	2,210	5,630	6,100	6,720	6,240	4,400	8,940	2,270	3,910	436	510	575
16	2,220	5,090	5,750	6,620	6,290	3,800	8,160	1,420	4,020	381	471	504
17	2,220	5,390	5,960	6,550	6,300	4,010	4,380	866	4,150	416	508	627
18	2,190	6,230	5,360	6,020	5,950	4,050	4,300	728	2,430	410	492	a750
19	2,310	6,410	5,140	6,020	6,580	4,400	4,860	638	2,770	432	554	a1,000
20	2,460	6,400	3,970	5,950	6,100	6,160	7,320	943	3,170	422	550	a1,050
21	2,480	6,840	5,100	5,650	6,300	6,840	8,020	614	6,590	257	529	a900
22	2,460	7,170	5,420	5,520	6,190	6,720	7,880	605	6,900	440	575	a700
23	2,480	7,540	5,420	5,570	6,090	6,780	4,870	606	2,260	417	532	a650
24	2,540	7,040	5,230	5,990	2,420	6,720	9,850	565	958	404	571	a650
25	2,560	6,880	5,200	5,820	970	6,710	13,900	591	1,080	412	558	a800
26	3,410	6,400	5,300	5,230	5,870	7,780	16,600	529	1,110	425	563	a625
27	3,760	5,740	5,570	6,120	7,940	8,660	17,600	568	1,140	445	690	a625
28	3,670	5,980	5,570	5,880	7,200	9,230	17,900	614	1,050	414	624	622
29	3,800	5,940	5,650	5,490	-	9,770	17,400	863	1,030	434	558	548
30	4,990	6,620	5,940	5,330	-	9,850	7,940	2,180	807	490	571	568
31	5,250	-	6,160	5,420	-	9,850	-	1,020	-	423	574	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	76,426	5,250	648	2,465	151,800
November	159,700	7,540	3,640	5,323	316,800
December	179,170	6,660	3,970	5,780	355,400
Calendar year 1945	1,023,931	15,600	266	2,805	2,032,000
January	203,980	6,550	5,230	8,580	404,600
February	161,310	7,940	970	5,761	320,000
March	177,240	9,850	3,400	5,717	351,600
April	295,450	17,900	4,300	9,848	586,000
May	55,392	5,620	529	1,787	109,900
June	119,213	10,400	422	3,974	236,500
July	13,184	726	241	425	26,150
August	15,625	690	415	504	30,990
September	20,634	1,150	504	688	40,950
Water year 1945-46	1,477,324	17,900	241	4,047	2,930,000

a No gage-height record; discharge computed on basis of records for stations at Milner and near Twin Falls.

Snake River near Twin Falls, Idaho

Location.- Water-stage recorder, lat. 42°36', long. 114°29', in NW¼NW¼ 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 1946.

Extremes.- Maximum discharge during year, 19,100 second-feet Apr. 28 (gage height, 11.42 feet); minimum, 390 second-feet (regulated) July 5 (gage height, 2.03 feet); minimum daily, 498 second-feet July 5.

1911-17, 1919-46: Maximum discharge observed, 32,200 second-feet June 10, 1914 (gage height, 13.3 feet); minimum, 250 second-feet (estimated) Apr. 16, 1936; minimum daily, 311 second-feet Apr. 17, 1936.

Remarks.- Records good except those for period of no gage-height record, which are fair Flow regulated by Twin Falls and Shoshone Falls power plants and several reservoirs above station. No diversion except by small ranch ditches between this station and station at Milner, where practically entire flow is diverted during irrigation season.

Rating table, water year 1945-46
(gage height, in feet, and discharge, in second-feet)

2.2	475	3.5	1,570	7.0	7,680
2.4	594	4.0	2,210	8.0	10,000
2.7	809	5.0	3,770	10.0	15,200
3.0	1,060	6.0	5,570	11.4	19,100

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	772	4,490	7,200	6,530	6,170	8,000	10,700	5,810	896	998	628	786
2	1,080	4,040	6,890	6,740	6,150	7,680	10,800	2,900	786	864	642	802
3	1,620	4,250	6,950	7,040	5,830	5,770	10,700	1,860	8,230	676	655	841
4	2,490	4,230	6,980	7,550	5,730	4,330	11,300	1,690	11,300	551	635	817
5	2,310	4,230	6,460	8,650	5,630	3,920	10,200	4,040	6,760	498	594	880
6	2,110	4,210	6,510	8,760	6,070	4,110	9,980	5,530	2,980	538	635	1,370
7	2,100	4,230	6,380	9,210	6,010	3,890	10,300	5,930	1,540	515	608	1,470
8	2,020	4,210	6,420	8,550	6,050	4,180	10,200	3,790	6,730	532	648	964
9	1,990	4,440	6,530	8,650	6,300	4,180	9,790	3,010	9,190	582	635	864
10	2,380	4,750	6,700	8,350	6,210	4,020	9,690	2,420	9,070	563	635	794
11	2,660	5,000	6,720	8,140	6,130	3,790	9,860	1,810	9,120	569	635	872
12	2,620	5,380	6,760	7,860	5,870	3,910	9,790	1,090	5,610	582	635	833
13	2,460	5,340	6,510	7,550	6,230	4,260	9,530	1,940	4,600	582	608	809
14	2,550	5,890	5,920	7,280	6,570	3,860	9,330	2,490	4,370	544	628	817
15	2,560	6,170	6,480	7,110	6,530	4,620	9,430	2,560	4,280	582	628	802
16	2,560	5,590	6,230	6,980	6,570	4,090	8,850	1,970	4,440	594	705	802
17	2,580	5,870	6,360	6,910	6,610	4,260	5,050	1,080	4,530	594	655	833
18	2,560	6,740	5,870	6,320	6,170	4,390	4,600	930	3,000	621	676	922
19	2,670	6,820	a5,500	6,300	6,950	4,620	5,020	756	3,060	628	705	1,210
20	2,850	6,870	a4,700	6,300	6,460	6,340	7,380	1,120	2,900	582	720	1,300
21	2,870	7,310	a5,500	5,970	6,610	7,130	8,460	896	6,660	504	749	1,110
22	2,900	7,640	5,650	5,930	6,510	7,000	8,280	720	7,280	582	742	888
23	2,870	8,210	5,650	5,850	6,420	7,060	5,230	764	3,060	655	734	880
24	2,920	7,640	5,630	6,300	3,000	7,040	9,900	734	1,280	614	764	864
25	2,950	7,550	5,570	6,190	1,320	6,980	14,400	720	1,100	582	794	809
26	3,740	7,000	5,710	5,490	5,340	7,960	17,400	749	1,240	601	749	833
27	4,250	6,250	5,950	6,400	8,350	9,050	18,700	749	1,320	628	833	833
28	4,130	6,440	5,950	6,230	7,610	9,620	19,000	794	1,150	642	981	841
29	4,180	6,460	6,050	5,830	-	10,500	18,600	896	1,280	608	756	825
30	5,340	7,040	6,300	5,630	-	10,400	9,100	2,140	955	676	802	833
31	5,670	-	6,530	5,690	-	10,400	-	1,690	-	698	802	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	86,762	5,670	772	2,799	172,100
November	174,290	8,210	4,040	5,810	345,700
December	192,760	7,200	4,700	6,218	382,300
Calendar year 1945	1,148,133	16,500	486	3,146	2,277,000
January	216,290	9,210	5,490	6,977	429,000
February	169,380	8,350	1,320	6,049	336,000
March	187,360	10,500	3,790	6,044	371,600
April	311,570	19,000	4,600	10,390	618,000
May	63,578	5,930	720	2,051	126,100
June	128,717	11,300	786	4,291	255,300
July	18,985	998	498	612	37,660
August	21,616	981	594	697	42,870
September	27,504	1,470	786	917	54,550
Water year 1945-46	1,598,812	19,000	498	4,380	1,171,000

a No gage-height record; discharge computed on basis of records for stations at Milner and near Kimberly.

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 3½ miles north of Hagerman.

Records available.- November 1937 to September 1946.

Extremes.- Maximum discharge during year, 24,900 second-feet Apr. 28 (gage height, 14.32 feet); minimum, 3,720 second-feet (regulated) July 8 (gage height, 5.36 feet), from rating curve extended below 5,000 second-feet; minimum daily, 6,230 second-feet July 14.

1937-46: Maximum discharge, 28,800 second-feet June 7, 1943 (gage height, 15.66 feet), from rating curve extended above 22,000 second-feet; minimum, that of July 8, 1946; minimum daily, 5,110 second-feet May 17, 1940.

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 1945-46 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used July 6 to Sept. 30)

6.7	6,150	10.0	13,400
7.0	6,720	11.0	15,900
7.5	7,710	12.0	18,500
8.0	8,760	13.0	21,200
9.0	11,000	14.2	24,600

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,670	11,000	13,300	12,400	11,700	13,600	16,100	11,500	7,490	6,930	6,820	7,190
2	7,630	9,780	13,000	12,500	12,200	13,800	16,400	9,280	7,050	6,910	6,780	7,190
3	7,840	10,200	12,800	12,900	11,900	12,800	16,000	7,430	10,000	6,800	6,820	7,190
4	8,610	10,200	13,000	13,100	11,700	10,000	16,400	6,640	17,300	6,570	6,780	7,330
5	8,910	10,500	12,800	14,300	11,500	9,810	15,600	8,380	13,900	6,570	6,780	7,510
6	8,720	10,500	12,400	14,300	11,700	9,740	15,100	9,880	10,300	6,450	6,660	7,690
7	8,570	10,600	12,300	15,000	12,100	9,540	15,400	11,200	7,830	6,470	6,610	7,880
8	8,510	10,500	12,300	14,400	11,800	9,830	15,800	10,200	9,410	6,420	6,640	7,770
9	8,440	10,500	12,300	14,200	12,100	9,850	15,500	8,530	14,800	6,450	6,640	7,550
10	8,490	11,000	12,500	14,100	12,100	9,780	15,100	7,860	14,800	6,680	6,640	7,470
11	8,930	11,700	12,400	13,900	12,100	9,590	15,300	7,790	14,900	6,470	6,640	7,410
12	9,010	10,800	12,600	13,400	11,800	9,390	15,300	8,950	12,800	6,440	6,660	7,430
13	8,890	11,700	12,500	13,400	11,600	9,920	15,200	6,890	10,700	6,450	6,610	7,390
14	8,910	11,700	12,100	13,200	12,200	10,000	14,900	7,550	10,400	6,230	6,590	7,390
15	8,950	12,600	12,000	13,000	12,300	10,000	15,000	8,000	10,300	6,380	6,620	7,510
16	8,950	12,000	12,200	12,700	12,200	10,000	14,700	7,860	10,400	6,380	6,620	7,550
17	8,950	11,800	12,000	12,800	12,300	9,810	12,000	6,990	10,300	6,380	6,640	7,710
18	8,970	12,700	12,000	12,400	11,900	10,100	10,100	6,450	10,100	6,400	6,620	7,880
19	9,040	12,700	11,200	11,900	12,700	9,980	10,100	6,380	8,820	6,420	6,680	7,880
20	9,120	13,000	10,900	12,200	12,700	11,600	12,000	6,320	9,260	6,440	6,700	8,150
21	9,320	13,000	10,300	11,800	12,300	12,600	13,800	6,570	11,000	6,380	6,720	8,070
22	9,210	13,300	12,000	11,900	12,400	12,900	14,100	6,450	13,400	6,240	6,760	7,860
23	9,260	13,900	12,000	11,600	12,400	12,700	11,700	6,360	11,200	6,360	6,780	7,590
24	9,300	13,900	11,700	12,100	10,700	12,800	12,800	6,450	8,170	6,450	6,830	7,590
25	9,260	13,800	11,500	12,400	8,000	12,700	18,200	6,380	7,470	6,450	6,870	7,510
26	9,590	13,400	11,700	11,900	8,360	12,900	22,200	6,510	7,470	6,420	6,950	7,430
27	10,400	12,600	11,900	11,700	14,200	14,600	23,400	6,850	7,390	6,470	6,990	7,390
28	10,400	12,300	12,200	12,200	14,000	15,100	24,400	6,800	7,370	6,570	7,110	7,470
29	10,300	12,600	12,200	11,800	-	15,600	24,200	6,930	7,170	6,610	7,230	7,510
30	10,600	12,700	12,300	11,600	-	15,900	18,500	7,370	7,150	6,640	7,150	7,490
31	11,500	-	12,400	11,300	-	16,000	-	8,470	-	6,850	7,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	282,250	11,500	7,630	9,105	559,800
November	356,980	13,900	9,760	11,900	708,000
December	376,800	13,300	10,300	12,150	747,400
Calendar year 1945	3,287,880	21,800	5,790	9,008	6,521,000
January	396,400	15,000	11,300	12,790	786,200
February	332,960	14,200	8,000	11,890	660,400
March	362,940	16,000	9,390	11,710	719,900
April	475,300	24,400	10,100	15,840	942,700
May	237,220	11,500	6,320	7,652	470,500
June	308,450	17,300	7,050	10,280	611,800
July	201,680	6,930	6,230	6,508	400,000
August	210,090	7,230	6,590	6,777	416,700
September	226,980	8,150	7,190	7,568	450,200
Water year 1945-46	3,768,030	24,400	6,230	10,320	7,474,000

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. Datum of gage is 2,492.3 feet above mean sea level, by stadia levels.

Records available.- May 1909 to September 1946.

Extremes.- Maximum discharge during year, 28,000 second-feet Apr. 28, 29, (gage height, 12.00 feet); minimum, 6,530 second-feet (regulated) July 14 (gage height, 5.49 feet); minimum daily, 7,300 second-feet May 20.

1909-46: 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 excellent. Flow regulated by many reservoirs above station. Practically entire flow at Milner diverted during irrigation season; flow at King Hill is then derived largely from springs and seepage entering below Milner.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,260	12,900	14,900	14,100	13,000	16,000	18,400	14,100	9,420	8,130	8,080	8,400
2	9,130	11,400	14,700	14,100	13,500	16,300	19,000	12,200	8,820	8,080	8,080	8,400
3	9,290	11,600	14,400	14,400	13,400	15,700	18,400	9,500	9,400	7,930	8,080	8,430
4	9,850	11,800	14,600	14,600	13,100	12,600	18,100	8,300	19,000	7,730	8,030	8,530
5	10,400	12,200	14,500	15,600	12,900	12,200	17,900	9,180	16,800	7,660	8,080	8,900
6	10,200	12,300	14,200	15,900	12,900	12,100	17,100	10,900	12,800	7,680	7,980	8,900
7	10,000	12,300	14,200	16,300	13,500	12,100	17,100	12,600	9,720	7,930	7,900	9,180
8	9,990	12,300	13,900	16,100	13,200	12,000	17,700	12,400	9,910	8,100	7,880	9,100
9	9,910	12,200	13,900	15,600	13,300	12,200	17,300	10,300	16,200	7,830	7,900	8,820
10	9,940	12,700	14,000	15,600	13,400	12,300	16,800	9,770	16,700	7,830	7,900	8,790
11	10,500	13,400	14,000	15,400	13,400	12,600	16,800	9,530	16,400	7,660	7,980	8,770
12	10,700	12,600	14,200	14,800	13,300	12,500	17,100	8,690	15,200	7,680	7,900	8,790
13	10,600	13,400	14,200	14,700	13,000	12,900	17,100	8,230	12,400	7,630	7,980	8,740
14	10,500	13,400	13,800	14,600	13,500	13,300	16,700	8,740	12,000	7,490	8,030	8,640
15	10,600	14,200	13,400	14,400	13,700	12,400	16,800	9,050	11,800	7,590	7,860	8,820
16	10,600	13,800	13,800	14,200	13,600	12,500	16,700	8,950	11,800	7,610	7,880	8,870
17	10,700	13,500	13,700	14,200	13,700	12,000	14,400	8,200	11,800	7,630	7,900	9,030
18	10,700	14,200	13,800	14,000	13,500	12,200	11,700	7,470	11,800	7,630	7,860	9,210
19	10,700	14,500	12,900	13,300	13,900	12,600	11,600	7,420	10,400	7,660	7,880	9,260
20	10,900	14,800	12,700	13,600	14,100	14,300	12,600	7,300	10,700	7,660	7,900	9,500
21	11,100	14,600	11,800	13,300	13,700	16,400	15,800	7,660	11,800	7,610	7,930	9,580
22	10,900	15,100	13,400	13,400	13,900	16,200	18,400	7,590	14,800	7,540	7,960	9,420
23	11,000	15,600	13,600	13,100	13,900	15,400	16,900	7,630	13,500	7,560	8,000	9,130
24	11,000	15,800	13,400	13,400	13,600	15,400	15,200	7,680	10,300	7,680	8,060	9,080
25	11,000	15,700	13,300	13,800	10,900	15,100	20,700	7,610	9,2[illegible]	7,760	8,100	9,050
26	11,000	15,400	13,400	13,400	10,100	15,100	24,700	7,710	8,[illegible]50	7,590	8,200	9,000
27	12,100	14,600	13,500	12,900	15,700	17,000	26,600	8,130	8,840	7,630	8,260	8,920
28	12,200	14,000	14,300	13,500	16,500	17,900	27,700	8,260	8,820	7,710	8,400	8,920
29	12,000	14,300	15,100	13,400	-	18,400	27,800	8,970	8,580	7,780	8,610	8,950
30	12,200	14,300	14,800	13,000	-	18,500	23,900	9,400	8,510	7,800	8,380	8,950
31	13,000	-	14,200	12,700	-	18,500	-	10,400	-	8,030	8,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	331,970	13,000	9,130	10,710	658,500
November	408,900	15,800	11,400	13,630	811,000
December	430,600	15,100	11,800	13,890	854,100
Calendar year 1945	3,846,210	24,100	6,860	10,540	7,629,000
January	441,400	16,300	12,700	14,240	875,500
February	376,200	16,500	10,100	13,440	746,200
March	444,700	18,500	12,000	14,350	882,000
April	547,000	27,800	11,600	18,230	1,085,000
May	283,870	14,100	7,300	9,157	563,000
June	356,460	19,000	8,510	11,880	707,000
July	239,830	8,130	7,490	7,736	475,700
August	249,180	8,610	7,860	8,038	494,200
September	268,080	9,580	8,400	8,936	531,700
Water year 1945-46	4,378,190	27,800	7,300	12,000	8,684,000

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., 4¼ miles downstream from Swan Falls power plant and 7½ miles northeast of Murphy. Datum of gage is 2,271.3 feet above mean sea level, by stadia levels.

Drainage area.- 41,900 square miles.

Records available.- August to October 1912, August 1913 to September 1946.

Extremes.- Maximum discharge during year, 30,900 second-feet (regulated) Apr. 29 (gage height, 10.75 feet); minimum, 6,630 second-feet (regulated) July 30 (gage height, 3.66 feet); minimum daily, 7,450 second-feet July 27.
1912-46: 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 fluctuation caused by Swan Falls power plant. Several diversions by pumping between this station and station at King Hill.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,520	13,400	14,700	15,100	13,100	17,300	19,900	24,200	11,200	8,560	8,100	8,470
2	9,520	13,000	15,200	14,900	13,300	16,800	19,800	15,400	10,100	8,180	8,180	8,470
3	9,280	11,800	15,000	14,800	13,900	16,800	20,100	13,400	9,610	8,210	8,100	8,470
4	9,490	11,900	14,600	15,100	13,700	16,100	19,500	10,800	10,900	8,070	8,160	8,500
5	10,100	12,300	14,900	15,300	13,300	12,900	19,400	9,610	19,000	8,010	8,100	8,600
6	10,500	12,500	14,900	16,300	13,300	12,700	18,900	10,500	16,600	7,900	7,950	8,980
7	10,400	12,700	14,400	16,500	13,200	12,700	18,400	12,100	13,100	7,810	7,980	8,990
8	10,100	12,700	14,500	16,700	13,900	12,600	18,500	13,700	10,300	8,040	7,930	9,270
9	10,200	12,700	14,200	16,500	13,600	12,500	19,100	13,300	10,800	8,070	7,950	9,200
10	10,100	12,500	14,200	16,200	13,600	12,800	18,900	11,600	16,600	7,930	7,930	8,930
11	10,100	13,000	14,200	16,100	13,700	13,100	18,100	10,900	17,000	8,010	7,980	8,910
12	10,700	13,700	14,300	15,800	13,800	13,500	18,100	10,600	16,800	7,670	7,870	8,900
13	10,900	13,000	14,400	15,300	13,500	13,300	18,500	9,610	15,300	7,790	7,870	8,930
14	10,700	13,700	14,300	15,200	13,200	13,800	18,900	9,190	12,700	7,650	7,950	8,890
15	10,600	13,600	13,900	15,000	13,700	14,300	18,600	9,520	12,200	7,560	8,100	8,800
16	10,700	14,600	13,600	14,900	14,000	13,200	18,800	9,700	11,900	7,560	7,810	8,990
17	10,700	14,100	13,900	14,700	13,900	13,200	18,800	9,580	11,800	7,670	7,790	8,960
18	10,800	13,800	13,900	14,700	14,000	12,700	16,300	8,890	11,900	7,590	7,930	9,220
19	10,700	14,600	13,900	14,600	13,800	12,900	14,000	8,300	11,900	7,590	7,870	9,410
20	10,800	14,800	13,000	13,800	14,200	13,700	14,000	8,210	10,400	7,760	7,950	9,470
21	11,000	15,100	13,000	14,200	14,600	16,500	15,200	8,130	10,500	7,650	7,930	9,730
22	11,300	14,900	12,200	13,900	14,200	18,100	18,100	8,530	11,900	7,700	7,980	9,820
23	10,900	15,300	13,800	13,900	14,500	17,500	20,200	8,420	14,600	7,560	8,070	9,550
24	11,100	16,000	14,000	13,600	14,600	16,800	18,200	8,530	13,300	7,560	8,070	9,400
25	11,200	16,200	13,700	14,000	14,100	16,600	17,500	8,560	10,100	7,730	8,130	9,310
26	11,200	16,100	13,600	14,300	11,700	16,300	22,900	8,590	9,280	7,840	8,210	9,280
27	11,300	15,700	13,800	13,800	11,100	16,100	27,000	8,470	8,980	7,450	8,330	9,190
28	12,200	15,000	14,200	13,400	16,600	18,600	28,500	8,890	8,680	7,620	8,330	9,160
29	12,300	14,400	15,700	14,000	-	19,300	30,300	9,190	8,740	7,810	8,440	9,100
30	12,200	14,700	16,300	13,600	-	20,000	29,500	9,910	8,530	7,900	8,590	9,190
31	12,400	-	15,600	13,400	-	20,000	-	10,200	-	7,900	8,650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	333,010	12,400	9,280	10,740	660,500
November	417,800	16,200	11,800	13,930	828,700
December	441,900	16,300	12,200	14,250	876,500
Calendar year 1945	4,073,950	25,600	7,560	11,160	8,081,000
January	459,600	16,700	13,400	14,830	911,600
February	384,100	16,600	11,100	13,720	761,900
March	472,700	20,000	12,500	15,250	937,600
April	594,000	30,300	14,000	19,800	1,178,000
May	326,530	24,200	8,130	10,530	647,700
June	364,720	19,000	8,530	12,160	723,400
July	242,350	8,560	7,450	7,818	480,700
August	250,230	8,650	7,790	8,072	496,300
September	272,090	9,820	8,470	9,070	539,700
Water year 1945-46	4,559,030	30,300	7,450	12,490	9,043,000

Note.- No gage-height record Sept. 1-22; discharge computed on basis of recorded range in stage and records for station at King Hill.

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 1946. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895.

Extremes.- Maximum discharge during year, 57,300 second-feet Apr. 18 (gage height, 11.23 feet); minimum, 9,170 second-feet July 17 (gage height, 2.85 feet).
1910-46: 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 many reservoirs above station. Some diurnal fluctuation caused by Swan Falls power plant. Some diversions below Murphy for irrigation.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,000	16,100	19,000	25,600	17,000	25,200	41,800	55,700	30,800	14,100	10,000	11,000
2	12,900	17,000	18,700	23,400	17,000	25,200	38,900	49,200	30,400	13,700	10,100	11,100
3	12,700	16,900	19,000	22,500	17,000	24,000	36,800	38,700	29,200	13,100	10,100	11,100
4	12,300	15,700	18,700	22,000	17,400	23,700	39,300	36,400	28,000	12,700	9,940	11,300
5	12,000	15,200	18,200	22,300	17,200	23,400	40,100	34,600	28,600	12,400	9,940	11,700
6	12,500	15,500	18,900	22,500	17,200	21,100	40,200	34,500	36,700	12,400	9,830	11,900
7	13,300	16,000	19,200	22,600	17,500	22,000	41,300	35,500	35,600	11,700	9,550	12,100
8	13,200	16,100	18,800	22,200	17,300	21,300	42,900	37,400	31,200	11,600	9,600	12,200
9	12,700	16,000	18,200	22,000	17,500	21,600	44,600	39,800	26,300	11,400	9,600	12,500
10	12,700	16,100	17,600	21,600	17,000	22,200	45,700	39,900	24,600	11,600	9,940	12,800
11	12,700	15,900	17,500	21,000	17,200	24,600	43,200	37,300	29,000	11,400	9,900	12,400
12	12,900	16,200	17,600	20,600	17,200	28,000	40,800	35,500	29,200	11,000	9,830	12,100
13	13,400	16,900	17,700	19,900	17,200	31,900	41,400	34,700	28,400	10,800	9,570	12,000
14	13,800	16,200	17,600	19,100	17,000	33,500	44,300	33,300	26,700	10,300	9,570	12,000
15	13,800	17,200	17,400	19,200	16,800	30,900	48,200	31,500	23,500	10,300	9,570	12,000
16	13,600	17,300	16,900	19,000	17,200	29,700	50,900	31,000	22,300	9,980	9,830	12,100
17	13,600	18,200	16,400	18,800	17,500	27,400	51,100	31,000	21,500	9,460	9,570	12,300
18	13,500	18,200	16,800	18,700	17,700	26,200	55,900	31,200	21,000	9,570	9,570	12,800
19	13,600	17,400	16,900	18,400	17,700	25,000	54,300	31,100	20,200	9,530	9,770	13,200
20	13,900	18,100	16,800	18,200	18,100	28,800	51,600	30,700	19,800	9,490	9,720	13,500
21	14,000	18,400	16,200	17,400	18,800	32,600	51,800	30,300	17,800	9,490	9,640	13,500
22	14,400	18,400	16,100	18,000	19,000	34,900	48,000	30,300	17,600	9,420	9,730	13,300
23	14,800	18,100	15,900	17,800	18,900	37,000	47,700	29,600	18,900	9,390	9,720	13,500
24	14,300	18,600	17,600	17,800	19,300	35,500	47,600	27,400	22,500	9,420	10,000	13,300
25	14,700	19,500	18,800	17,500	20,000	33,200	45,300	26,700	22,200	9,280	10,400	13,100
26	14,700	20,100	18,900	17,800	20,900	34,700	44,700	27,200	18,300	9,490	10,500	12,800
27	14,600	21,000	19,900	18,100	18,400	33,000	51,300	29,000	16,600	10,300	10,500	12,500
28	14,400	20,800	29,300	17,800	19,600	34,100	54,400	29,500	15,600	9,750	10,600	12,500
29	15,300	19,700	33,200	17,000	-	38,600	55,500	30,600	14,800	9,830	10,700	12,400
30	15,800	19,100	32,300	17,600	-	43,300	57,000	31,000	14,600	9,980	10,800	12,500
31	15,800	-	28,500	17,400	-	43,600	-	31,000	-	9,940	11,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	424,900	15,800	12,000	13,710	842,800
November	525,700	21,000	15,200	17,520	1,043,000
December	604,600	33,200	15,900	19,500	1,199,000
Calendar year 1945	6,466,600	42,900	9,210	17,720	12,830,000
January	613,600	25,600	17,400	19,790	1,217,000
February	500,600	20,900	16,800	17,880	992,900
March	916,200	43,600	21,100	29,550	1,817,000
April	1,396,600	57,000	36,800	46,550	2,770,000
May	1,051,600	55,700	26,700	33,920	2,086,000
June	722,200	36,700	14,800	24,070	1,432,000
July	332,820	14,100	9,280	10,740	660,100
August	309,110	11,000	9,530	9,971	613,100
September	371,300	13,500	11,000	12,380	736,500
Water year 1945-46	7,769,230	57,000	9,280	21,290	15,410,000

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 1946.

Extremes.- Maximum discharge during year, 60,900 second-feet Apr. 19 (gage height, 18.38 feet); minimum, 9,250 second-feet Aug. 14 (gage height, 7.89 feet).
1923-46: Maximum discharge, 74,600 eecond-feet Apr. 21, 1943 (gage height, 20.71 feet); minimum, 4,890 second-feet Aug. 6, 1924 (gage height, 6.30 feet).

Remarks.- Records excellent. Flow regulated by many reservoirs above station.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

7.9	9,280	10.0	16,500	15.0	41,100
8.2	10,200	11.0	20,600	17.0	52,700
8.6	11,400	12.0	25,100	18.2	59,800
9.0	12,800	13.0	30,200		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,200	16,200	19,300	27,000	17,600	23,000	44,500	58,500	32,700	15,100	10,300	11,100
2	13,000	16,800	19,200	24,400	17,500	26,400	41,600	55,300	32,200	14,700	10,300	11,100
3	13,000	17,500	19,100	23,100	17,400	25,400	39,000	45,300	31,900	14,200	10,300	11,200
4	12,800	17,000	19,300	22,600	17,500	24,300	39,000	39,500	30,100	13,800	10,300	11,400
5	12,300	16,000	18,900	22,400	17,700	24,300	41,800	37,700	29,300	13,300	10,100	11,700
6	12,500	15,800	18,700	22,100	17,800	23,200	40,700	37,100	33,000	13,100	10,000	12,000
7	13,200	16,300	19,300	22,400	17,900	22,100	42,600	37,000	37,800	12,800	9,860	12,200
8	13,500	16,500	19,300	22,900	17,900	22,800	43,400	39,300	34,300	12,300	9,770	12,300
9	13,300	16,600	18,800	22,200	17,700	22,400	44,800	40,900	29,900	12,400	9,800	12,400
10	13,000	16,700	18,200	22,200	17,800	22,900	48,900	42,700	25,800	12,200	9,800	12,700
11	13,000	16,600	17,900	21,600	17,400	24,300	45,600	41,100	27,100	12,200	9,980	12,700
12	13,100	16,500	17,700	21,000	17,600	27,400	43,600	38,800	29,800	11,900	9,890	12,300
13	13,300	16,900	17,900	20,600	17,600	32,000	42,700	37,000	29,200	11,500	9,830	12,100
14	13,800	17,300	17,900	19,700	17,500	34,600	44,700	36,400	28,600	11,000	9,540	12,000
15	14,100	17,200	17,700	19,500	17,400	33,600	48,500	34,300	25,400	10,700	9,570	12,100
16	14,000	17,500	17,300	19,400	17,300	31,500	52,200	33,100	23,300	10,500	9,630	12,100
17	13,900	18,000	16,900	19,200	17,700	29,700	53,400	32,800	22,200	10,100	9,770	12,200
18	13,800	18,900	16,800	19,000	18,100	27,800	57,300	33,200	21,600	9,770	9,600	12,700
19	13,900	18,200	16,900	18,800	18,100	26,200	59,800	33,200	21,000	9,950	9,600	13,000
20	14,000	17,900	17,000	18,700	18,500	28,800	55,500	32,900	20,400	9,890	9,740	13,400
21	14,200	18,800	17,100	18,300	18,900	33,200	55,800	32,300	19,500	9,830	9,690	13,600
22	14,500	18,500	16,300	18,100	19,600	35,900	52,600	32,200	18,200	9,800	9,770	13,400
23	14,700	18,700	16,700	18,300	19,800	38,100	50,200	32,200	18,300	9,720	9,800	13,500
24	15,000	18,500	16,500	18,200	20,000	38,100	50,600	30,500	20,700	9,720	9,980	13,500
25	14,800	19,100	18,600	18,100	20,500	34,500	49,800	28,900	22,900	9,570	10,300	13,300
26	15,000	20,000	18,900	17,900	21,700	36,000	47,000	28,800	20,800	9,570	10,500	12,900
27	15,000	20,400	19,400	18,300	20,800	35,700	51,300	30,000	17,900	10,000	10,600	12,700
28	14,900	21,600	24,300	18,300	19,700	35,200	55,800	31,400	16,500	10,300	10,600	12,500
29	15,100	20,600	33,200	17,700	-	38,400	57,000	32,000	15,800	10,000	10,700	12,600
30	15,900	19,800	34,200	17,600	-	43,600	58,800	32,900	15,200	10,100	10,700	12,600
31	16,300	-	30,800	17,900	-	45,100	-	32,700	-	10,300	10,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	432,100	16,300	12,300	13,940	857,100
November	556,400	21,600	15,800	17,880	1,064,000
December	610,100	34,200	16,300	19,680	1,210,000
Calendar year 1945	6,678,270	43,600	9,250	18,300	13,250,000
January	827,500	27,000	17,600	20,240	1,245,000
February	515,000	21,700	17,300	18,390	1,021,000
March	948,500	45,100	22,100	30,530	1,877,000
April	1,455,900	59,800	39,000	48,530	2,888,000
May	1,130,000	58,500	28,800	36,450	2,241,000
June	751,200	37,800	15,200	25,040	1,490,000
July	350,320	15,100	9,570	11,300	694,800
August	311,220	10,900	9,540	10,040	617,300
September	373,500	13,600	11,100	12,440	740,400
Water year 1945-46	8,039,540	59,800	9,540	22,030	15,950,000

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, War Department, bench mark).

Drainage area.- 103,200 square miles.

Records available.- October 1935 to September 1946 in reports of Geological Survey. October 1915 to September 1922 and August 1928 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.

Extremes.- Maximum discharge during year, 169,000 second-feet (regulated) Apr. 20 (gage height, 28.56 feet); minimum, 15,400 second-feet (regulated) Aug. 24 (gage height, 9.73 feet); minimum daily, 17,800 second-feet (regulated) Aug. 20-25.

1909-46: 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, 18, 20, 24-28, 30, 31, Sept. 1, 2, 5, 1931, but may have been less during period of ice effect in January 1937.

Maximum stage known, 24.7 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, Oreg. Large diurnal fluctuation caused by power plant on Clearwater River above Lewiston, Idaho.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

10.0	16,400	15.0	40,100	24.0	116,000
11.0	20,100	16.0	46,300	26.0	138,000
12.0	24,300	18.0	60,400	28.0	162,000
13.0	29,000	20.0	77,000		
14.0	34,300	22.0	95,600		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22,100	26,500	37,200	61,200	28,500	45,100	89,600	145,000	138,000	50,300	24,300	20,900
2	21,700	28,500	33,700	53,000	28,500	47,600	84,200	136,000	140,000	49,000	25,100	20,900
3	21,300	29,500	31,000	49,600	28,500	49,600	78,800	130,000	f137,000	50,300	23,400	20,100
4	21,300	31,600	30,000	47,000	28,500	47,000	73,400	128,000	f130,000	47,600	22,500	21,300
5	20,900	31,000	30,500	49,000	28,000	45,100	74,300	142,000	125,000	45,700	21,700	21,700
6	20,500	32,600	31,000	49,000	28,500	48,300	77,900	154,000	f126,000	43,800	20,900	22,100
7	20,100	30,500	32,100	45,700	28,500	48,300	78,800	155,000	f129,000	41,900	20,900	23,400
8	20,900	29,500	33,200	43,800	28,500	46,300	80,600	154,000	f117,000	41,300	20,500	24,700
9	20,900	28,000	31,600	41,300	28,000	47,000	82,400	162,000	f107,000	43,800	20,100	24,700
10	20,500	27,500	30,000	39,500	28,000	47,600	81,500	160,000	f99,600	50,300	19,700	24,300
11	20,500	27,500	28,500	37,700	28,000	49,600	80,600	150,000	f95,600	45,100	19,700	23,800
12	20,100	27,500	28,000	36,000	27,500	54,400	82,400	140,000	95,600	41,300	19,300	23,000
13	20,500	27,500	27,500	34,300	27,500	68,400	87,800	136,000	f93,600	38,900	19,300	22,100
14	20,900	28,000	27,500	33,200	27,500	69,200	97,600	129,000	91,600	36,600	19,000	21,700
15	20,900	28,000	26,500	31,600	27,000	66,000	106,000	122,000	89,600	34,900	18,600	21,300
16	20,900	29,000	25,600	30,500	27,500	61,200	114,000	f116,000	82,400	32,600	18,600	20,900
17	20,900	30,500	24,700	30,500	27,500	55,800	123,000	f117,000	81,500	31,600	18,600	21,700
18	20,900	30,000	24,700	30,500	28,000	52,300	134,000	f125,000	81,500	30,000	18,600	21,700
19	21,700	30,500	24,300	30,000	28,500	50,300	154,000	131,000	74,300	29,000	18,200	23,400
20	21,700	30,000	23,000	30,000	29,000	51,000	166,000	f131,000	70,800	28,000	17,800	23,800
21	23,000	29,000	23,400	30,000	30,000	60,400	157,000	f128,000	69,200	27,000	17,800	23,800
22	23,000	29,000	25,100	29,500	31,000	69,200	142,000	f127,000	67,600	26,100	17,800	23,800
23	23,000	27,500	26,500	29,500	32,100	73,400	126,000	129,000	66,800	25,600	17,800	24,300
24	23,000	27,000	27,500	30,000	33,700	73,400	119,000	f129,000	65,200	24,700	17,800	24,300
25	23,000	28,000	28,000	30,500	38,300	70,000	125,000	f126,000	66,000	23,800	17,800	23,800
26	23,400	30,000	30,000	30,500	42,600	63,600	144,000	f127,000	64,400	23,000	19,000	23,000
27	24,700	32,600	30,000	29,500	43,800	67,600	152,000	a118,000	58,800	23,000	19,700	22,500
28	24,300	42,600	36,000	30,000	47,600	77,000	152,000	f108,000	55,100	23,400	19,000	21,700
29	23,800	43,200	82,400	29,000	-	85,100	152,000	f108,000	53,000	23,800	19,700	21,700
30	24,300	41,900	86,000	28,500	-	93,600	155,000	120,000	53,700	22,500	19,300	21,700
31	25,100	-	73,400	28,500	-	94,600	-	131,000	-	22,500	19,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	679,800	25,100	20,100	21,930	1,348,000
November	914,500	43,200	26,500	30,480	1,814,000
December	1,048,900	86,000	23,000	33,840	2,080,000
Calendar year 1945	16,302,100	148,000	17,100	44,660	32,330,000
January	1,128,900	61,200	28,500	36,420	2,239,000
February	860,600	47,600	27,000	30,740	1,707,000
March	1,878,000	94,600	45,100	60,580	3,725,000
April	3,370,900	166,000	73,400	112,400	6,686,000
May	4,114,000	162,000	108,000	132,700	8,160,000
June	2,724,900	140,000	53,000	90,830	5,405,000
July	1,077,400	50,300	22,500	34,750	2,137,000
August	611,800	25,100	17,800	19,740	1,213,000
September	678,100	24,700	20,100	22,600	1,345,000
Water year 1945-46	19,087,800	166,000	17,800	52,300	37,860,000

a No gage-height record; discharge interpolated.
f Computed on basis of partly estimated gage-height record.

Pacific Creek near Moran, Wyo.

Location.- Water-stage recorder, lat. 43°51', long. 110°31', in sec. 23, T. 45 N., R. 114 W., 50 feet downstream from bridge on U. S. Highway 287, half a mile above mouth, and 3 miles southeast of Moran.

Drainage area.- 160 square miles.

Records available.- July to November 1906 (gage heights only), July 1917 to September 1918 (no winter record), September 1944 to September 1946.

Extremes.- Maximum discharge during year, 1,710 second-feet June 6 (gage height, 3.36 feet); minimum discharge not determined, occurred during period of ice effect.
1917-18, 1944-46: Maximum discharge observed, 3,030 second-feet June 15, 1918 (gage height, 3.98 feet, former site and datum); minimum not determined.

Remarks.- Records good except those for Nov. 9 to Mar. 19, which are poor. No diversion or regulation.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 28 to May 28)

Oct. 1 to May 28				May 29 to Sept. 30			
1.3	56	2.2	360	0.9	57	1.7	235
1.4	72	2.5	590	1.0	66	1.9	330
1.6	113	2.8	870	1.1	78	2.1	455
1.8	170	3.3	1,450	1.3	112	2.5	780
2.0	250			1.5	163	3.2	1,520

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	100					87	870	890	372	117	64
2	95	89					82	810	870	348	108	63
3	95	100					83	903	1,000	336	103	63
4	93	102					82	1,070	1,270	305	103	66
5	91	102		60			83	1,160	1,420	290	99	83
6	89	106	65				83	1,160	1,480	276	95	76
7	83	98					87	1,210	1,270	258	94	77
8	83	76					98	1,320	1,190	231	89	90
9	82						102	1,270	1,210	223	89	88
10	80					60	100	1,160	1,270	203	86	75
11	78	70					98	1,060	1,200	185	83	69
12	78						109	1,080	1,110	173	83	66
13	80						161	1,120	1,020	166	78	64
14	76			(*)			207	1,000	1,010	157	77	63
15	74			50	55	(*)	255	958	1,010	152	75	62
16	74	*h66	60				330	1,040	1,000	141	74	88
17	76						423	1,120	950	135	70	106
18	129						a475	1,210	810	133	70	86
19	104						h526	1,190	726	119	68	80
20	109					66	a640	1,140	690	117	66	75
21	83	70				67	626	1,160	658	114	66	75
22	95					66	590	1,150	650	110	66	88
23	78					64	662	1,180	634	114	68	76
24	82					64	734	1,160	610	124	71	71
25	85					64	860	1,180	538	114	69	66
26	80		65	55		59	947	1,270	478	119	72	69
27	82					67	*992	1,310	462	114	71	66
28	87	75				80	969	1,350	436	110	70	64
29	82				-	93	1,000	1,220	410	106	78	63
30	89				-	98	1,050	1,050	390	110	72	63
31	98	-			-	91	-	920	-	130	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,703	129	74	87.2	0.545	0.63	5,360
November	2,334	106	-	77.8	.486	.54	4,630
December	1,960	-	-	63.2	.395	.46	3,890
Calendar year 1945	80,463	1,180	-	220	1.38	18.69	159,600
January	1,685	-	-	54.4	.340	.39	3,340
February	1,540	-	-	55.0	.344	.36	3,050
March	2,019	98	-	65.1	.407	.47	4,000
April	12,541	1,050	82	418	2.61	2.91	24,870
May	34,801	1,350	810	1,123	7.02	8.09	69,030
June	26,662	1,480	390	889	5.56	6.20	52,880
July	5,585	372	106	180	1.12	1.30	11,080
August	2,498	117	66	80.6	.504	.58	4,950
September	2,205	106	62	73.5	.459	.51	4,370
Water year 1945-46	96,533	1,480	-	264	1.65	22.44	191,400

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for stations on nearby streams.
h Computed from staff-gage reading.
Note.- Stage-discharge relation affected by ice during periods about Nov. 9-15, Nov. 18 to Mar. 19 (no gage-height record Nov. 9-14, 17-29, Dec. 1-14, 16-28, Jan. 9-11, 13, Jan. 26 to Feb. 10, Feb. 18 to Mar. 1, Mar. 3-9, 11-14; discharge computed on basis of weather records and records for stations on nearby streams.

Buffalo Fork near Moran, Wyo.

Location.- Water-stage recorder, lat. 43°50', long. 110°31', in sec. 26, T. 45 N., R. 114 W., 30 feet below bridge on county road, half a mile above mouth, 2¾ miles downstream from Lava Creek, and 4 miles southeast of Moran.

Drainage area.- 378 square miles.

Records available.- July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1946.

Extremes.- Maximum discharge during year, 3,040 second-feet June 6 (gage height, 4.81 feet); minimum recorded, 104 second-feet Nov. 9, but may have been less during period of ice effect.
1917-18, 1944-46: Maximum discharge observed, 5,840 second-feet June 13, 1918 (gage height, 6.78 feet, datum then in use), from discharge measurement; minimum recorded, that of Nov. 9, 1945.

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

Rating tables, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 6				June 7 to Sept. 30	
1.4	141	2.5	750	1.5	223
1.5	174	3.0	1,130	1.7	296
1.7	259	3.5	1,600	1.9	384
1.9	365	4.0	2,120	2.2	550
2.2	550	4.6	2,790		

Note.- Same as preceding table above 2.2 feet.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	264	250					1,170	1,080	1,910	641	266
2	305	254	200					994	1,030	1,860	538	258
3	305	254	171					1,050	1,180	1,900	490	254
4	305	290					170	1,290	1,680	1,850	462	248
5	295	300						1,470	2,210	1,810	430	300
6	290	305		170				1,440	2,800	1,640	415	317
7	279	284	180		150			1,440	2,380	1,590	420	288
8	274	209					151	1,550	2,200	1,530	404	325
9	274	132					158	1,480	2,470	1,420	375	330
10	274	190					167	1,260	2,750	1,140	361	300
11	269	250				130	161	1,110	2,680	1,180	347	277
12	269	236					158	1,070	2,520	1,200	338	254
13	274	213					186	1,130	2,300	1,210	334	244
14	269	213		(*)			241	1,000	2,440	1,120	338	237
15	264	231					316	930	2,620	1,090	330	230
16	269	*231				(*)	419	930	2,790	1,110	309	258
17	279	218	170				518	994	2,670	1,040	300	292
18	326	209					641	1,260	2,160	962	288	262
19	300	213					750	1,260	1,760	883	285	251
20	310	194			140		841	1,260	1,760	883	285	251
21	274	186		150			970	1,180	1,690	834	277	240
22	290	161					954	1,260	1,740	792	273	237
23	250	190					813	1,200	1,960	771	269	273
24	254	210				140	827	1,210	2,260	757	269	254
25	279	230					978	1,210	2,080	855	277	254
26	269	250	190				1,150	1,190	1,800	757	273	251
27	245	260					1,370	1,430	1,470	708	273	244
28	269	260					*1,360	1,510	1,580	667	292	237
29	245	254			-		1,370	1,820	1,770	615	281	226
30	264	259			-		1,380	1,610	1,830	563	292	220
31	264	-			-	170	1,430	1,360	1,940	563	321	217
							-	1,170	-	736	288	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	8,643	326	245	279	0.738	0.85	17,140
November	6,950	305	132	232	.614	.68	13,790
December	5,631	250	-	182	.481	.55	11,170
Calendar year 1945	200,720	3,220	-	550	1.46	19.74	398,200
January	4,850	-	-	156	.413	.48	9,620
February	4,030	-	-	144	.381	.40	7,990
March	4,240	-	-	137	.362	.42	8,410
April	18,329	1,430	-	611	1.62	1.80	36,360
May	38,978	1,820	930	1,257	3.33	3.83	77,310
June	61,640	2,800	1,030	2,055	5.44	6.06	122,300
July	35,063	1,910	563	1,131	2.99	3.45	69,550
August	10,790	641	269	348	.921	1.06	21,400
September	7,844	330	217	261	.690	.77	15,560
Water year 1945-46	206,988	2,800	-	567	1.50	20.35	410,600

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 23-28, Dec. 2, Dec. 4 to Apr. 6 (no gage-height record Dec. 9-28, Feb. 13-15; discharge computed on basis of weather records and records for Gros Ventre River at Kelly and Hoback River near Jackson).

Gros Ventre River at Kelley, Wyo.

Location.- Wire-weight gage, lat. 43°37', long. 110°38', in NW¼ sec. 11, T. 42 N., R. 115 W., at bridge on private road, 0.3 mile south of Kelly post office and 3 miles downstream from Turpin Creek.

Drainage area.- 622 square miles.

Records available.- October 1944 to September 1946. June to September 1918 at site 1 mile upstream.

Extremes.- Maximum discharge observed during year, 2,780 second-feet June 7 (gage height, 5.56 feet); minimum observed, 130 second-feet Jan. 12 (gage height, 1.68 feet).
1918, 1944-46: Maximum discharge observed, 6,220 second-feet June 16, 1918 (gage height, 9.95 feet, site and datum then in use); minimum observed, 102 second-feet Dec. 16, 1944 (gage height, 1.54 feet).

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

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 8 to Sept. 30)

1.7	134	3.6	883
2.0	206	4.0	1,170
2.4	317	4.5	1,620
2.8	458	5.0	2,140
3.2	644	5.5	2,710

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	209	a200	179	155	152	209	1,750	978	1,120	349	194
2	251	209	191	164	155	136	201	1,120	910	1,050	336	188
3	251	209	169	174	157	152	194	1,040	937	1,030	311	184
4	251	211	169	176	159	150	188	1,070	1,100	1,080	287	179
5	248	219	174	184	162	150	186	1,420	1,630	999	270	196
6	251	204	181	179	157	155	191	1,620	2,250	1,020	259	201
7	254	206	188	167	164	141	184	1,600	2,780	957	248	201
8	235	201	184	176	141	146	184	1,710	2,250	896	246	219
9	235	179	184	155	136	136	184	1,800	2,180	844	246	232
10	232	184	157	146	155	139	186	1,430	2,240	781	237	235
11	229	184	167	146	157	150	176	1,180	2,130	666	222	235
12	229	188	152	130	141	155	188	992	2,070	655	211	216
13	227	194	159	136	141	157	209	916	1,920	655	206	204
14	214	191	150	141	146	164	254	896	1,760	634	206	198
15	246	194	152	136	136	159	327	793	1,870	634	201	194
16	243	194	159	141	139	155	431	756	1,900	629	196	194
17	224	206	164	146	134	159	583	750	2,130	593	194	194
18	229	204	159	143	152	139	781	831	1,740	555	194	194
19	240	204	150	143	136	150	930	978	1,510	509	186	194
20	240	204	150	143	152	155	1,100	1,030	1,200	475	186	188
21	240	198	162	136	139	169	1,190	999	1,160	454	184	188
22	219	179	171	152	155	171	1,100	1,050	1,200	435	181	188
23	219	174	184	150	141	171	950	1,070	1,350	419	181	188
24	209	171	186	159	152	174	978	1,080	1,420	383	184	188
25	209	176	188	162	155	164	1,090	1,070	1,230	376	188	184
26	209	186	186	150	150	155	1,440	992	992	376	188	179
27	209	a200	186	152	143	159	1,720	1,110	950	366	191	201
28	198	a200	191	132	155	167	1,670	1,320	923	a348	191	198
29	196	a200	204	150	-	179	1,670	1,380	1,080	330	196	201
30	198	a200	198	150	-	204	1,880	1,350	1,110	317	201	198
31	204	-	184	152	-	209	-	1,110	-	323	201	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,095	256	196	229	0.368	0.42	14,070
November	5,878	219	171	196	.315	.35	11,660
December	5,399	204	150	174	.280	.32	10,710
Calendar year 1945	155,637	2,930	105	426	.685	9.28	308,700
January	4,750	184	130	153	.246	.28	9,420
February	4,165	164	134	149	.240	.25	8,260
March	4,922	209	136	159	.256	.29	9,760
April	20,574	1,880	176	686	1.10	1.23	40,810
May	36,213	1,800	750	1,168	1.88	2.17	71,830
June	46,900	2,780	910	1,563	2.51	2.80	93,020
July	19,909	1,120	317	642	1.03	1.19	39,490
August	6,877	349	181	222	.357	.41	13,640
September	5,953	235	179	198	.318	.36	11,810
Water year 1945-46	168,635	2,780	130	462	.743	10.07	334,500

a No gage-height record; discharge computed on basis of weather records and records for Hoback River near Jackson and other stations on nearby streams.

Hoback River near Jackson, Wyo.

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

Drainage area.- 564 square miles; 572 square miles at site near Cheney.

Records available.- November 1944 to September 1946. July 1917 to September 1918 at site a quarter of a mile above mouth, published as Hoback River near Cheney.

Extremes.- Maximum discharge observed during year, 2,960 second-feet June 6 (gage height, 5.34 feet); minimum daily, 170 second-feet Jan. 12, 28; minimum gage height observed, 2.16 feet Jan. 15, 20.
1917-18, 1944-46: Maximum discharge observed, 6,160 second-feet June 16, 1918 (gage height, 13.46 feet, former site and datum); minimum daily, 130 second-feet Dec. 16, 18, 1944, Feb. 27, 1945; minimum gage height observed, 2.02 feet Feb. 28, Mar. 19, 1945.

Remarks.- Records fair. No regulation. Small diversions above station for irrigation.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-31)

2.1	159	3.5	1,020
2.2	187	4.0	1,500
2.4	265	4.5	2,020
2.7	426	5.0	2,570
3.0	624	5.4	3,030

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	357	285	265	240	209	201	336	1,920	1,460	1,500	559	325
2	336	285	275	216	201	187	325	1,940	1,480	1,540	535	319
3	325	275	a220	209	209	201	314	2,040	1,500	1,430	522	319
4	314	285	a220	223	209	201	325	2,060	2,040	1,420	515	309
5	304	275	223	231	201	194	336	2,420	2,610	1,460	579	325
6	304	294	231	201	201	176	336	2,390	2,960	1,230	572	336
7	304	285	240	194	194	181	336	2,420	2,500	1,190	515	341
8	325	275	231	216	b185	187	346	2,390	2,460	1,170	529	330
9	357	257	a230	201	b180	216	357	2,350	2,590	1,080	542	330
10	357	257	a210	a195	209	209	336	2,200	2,870	1,100	529	330
11	314	248	a220	a190	209	201	368	2,370	2,420	1,080	335	319
12	357	248	a190	b170	181	216	464	1,730	2,370	898	420	330
13	304	248	201	181	187	223	638	1,710	2,350	866	414	309
14	304	240	209	187	194	216	834	1,880	2,440	882	409	319
15	304	240	201	*176	201	209	1,350	1,900	2,420	866	340	346
16	309	*252	216	181	181	223	1,900	1,600	2,390	882	333	314
17	319	240	223	187	194	*201	2,260	1,640	2,420	794	346	299
18	309	240	194	181	194	216	2,530	1,690	2,370	762	346	299
19	309	240	194	181	201	223	2,750	1,830	2,170	732	346	299
20	309	231	187	176	209	231	2,820	1,790	1,770	695	346	270
21	309	240	201	181	187	209	2,330	1,880	1,900	674	336	275
22	290	240	194	194	201	216	2,280	1,730	1,920	667	330	265
23	299	240	216	194	201	209	2,370	1,810	1,900	645	332	275
24	290	231	231	201	201	216	2,590	1,730	1,690	638	338	275
25	270	248	240	194	209	216	2,870	1,710	1,330	603	346	285
26	261	257	231	b185	201	231	2,760	1,940	1,330	624	332	265
27	261	275	223	187	181	240	2,680	2,040	1,440	603	341	257
28	252	265	231	b170	209	248	2,640	2,120	1,580	583	346	265
29	261	275	248	b185	-	285	2,500	1,900	1,620	569	332	294
30	270	275	248	187	-	314	2,310	1,690	1,520	583	341	285
31	280	-	e240	201	-	325	-	1,500	-	645	330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	9,464	357	252	305	0.541	0.62	18,770
November	7,746	294	231	258	.457	.51	15,360
December	6,883	275	187	222	.394	.45	13,650
Calendar year 1945	206,233	2,390	130	565	1.00	13.58	409,000
January	6,015	240	170	194	.344	.40	11,930
February	5,539	209	180	198	.351	.37	10,990
March	6,821	325	176	220	.390	.45	13,530
April	44,591	2,870	314	1,486	2.63	2.94	88,440
May	60,320	2,420	1,500	1,946	3.45	3.98	119,600
June	61,820	2,960	1,330	2,061	3.65	4.08	122,600
July	28,411	1,540	569	916	1.62	1.87	56,350
August	12,816	569	330	413	.732	.85	25,420
September	9,109	346	257	304	.539	.60	18,070
Water year 1945-46	259,535	2,960	170	711	1.26	17.12	514,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Gros Ventre River at Kelly.
b Stage-discharge relation affected by ice.
e Gage reading not representative of mean for day; discharge computed on basis of weather records and records for Gros Ventre River at Kelly and other stations on nearby streams.

Salt River near Smoot, Wyo.

Location.- Water-stage recorder, lat. 42°36', long. 110°55', in sec. 7, T. 30 N., R. 118 W., 1¼ miles south of Smoot and 1½ miles upstream from Willow Creek.

Drainage area.- 59.4 square miles.

Records available.- June 1932 to September 1946 (no winter records 1933-35, 1936-37).

Average discharge.- 10 years (1935-36, 1937-46), 34.5 second-feet.

Extremes.- Maximum discharge during year, 178 second-feet May 7 (gage height, 2.79 feet); minimum daily recorded, 8.2 second-feet Sept. 28-30, probably less during period of no gage-height record.

1932-46: Maximum discharge, 430 second-feet May 15, 1936, from rating curve extended above 200 second-feet; minimum daily recorded, 1.8 second-feet Sept. 1, 1937.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	11						160	110	55	20	13
2	13	11						160	106	53	19	13
3	12	11						150	108	51	18	12
4	12	11						160	119	52	18	12
5	12	12						167	145	53	18	13
6	11	13						172	164	48	18	13
7	11	13						174	162	45	16	13
8	11	b12						170	153	42	16	14
9	10	b12						164	153	40	16	13
10	10	b13						153	156	38	16	12
11	10	b13						138	153	38	16	12
12	10	12						130	137	37	16	11
13	10	11						129	126	35	16	11
14	8.9	13		(*)				121	124	34	16	10
15	10	b12	11	14	13	15	61	118	124	32	14	10
16	11	13						113	121	28	14	11
17	11	13						116	121	28	14	12
18	11	13				(*)		126	112	27	14	12
19	11	b13						132	99	27	13	11
20	11	*b12						129	92	26	13	11
21	11	10						130	87	26	14	11
22	11	8.4						130	88	25	14	10
23	10	9.8						127	87	25	14	10
24	10	11						121	87	24	14	9.2
25	10	12						115	77	22	14	9.2
26	10	12						118	72	22	14	8.9
27	9.2	12						121	72	21	13	8.9
28	9.2	11						129	66	21	14	8.2
29	9.2	11			-			130	57	21	13	8.2
30	10	12			-			119	56	20	12	8.2
31	11	-			-		-	112	-	21	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	329.5	13	8.9	10.6	654
November	353.2	13	8.4	11.8	701
December	341	-	-	11	676
Calendar year 1945	14,910.6	217	-	40.9	29,580
January	434	-	-	14	861
February	364	-	-	13	722
March	465	-	-	15	922
April	1,830	-	-	61	3,630
May	4,234	174	112	137	8,400
June	3,334	164	56	111	6,610
July	1,037	55	20	33.5	2,060
August	470	20	12	15.2	932
September	330.8	14	8.2	11.0	656
Water year 1945-46	13,522.5	174	-	37.0	26,820

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Nov. 21 to May 4 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 2 discharge measurements and weather records.

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 1946. July 1917 to September 1918 at site 4 miles upstream; records not equivalent.

Average discharge.- 12 years, 680 second-feet.

Extremes.- Maximum discharge during year, 2,880 second-feet Apr. 20 (gage height, 4.32 feet); minimum daily, 434 second-feet Mar. 5, 10.
1934-46: 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 fair. Diversions above station for irrigation.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1, 2)

1.7	410
2.0	550
2.5	920
3.0	1,380
4.3	2,860

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	780	735	622	630	486	442	832	2,460	1,440	888	775	682
2	772	742	596	602	468	438	888	2,310	1,380	880	712	675
3	750	750	582	596	454	438	880	2,240	1,330	864	712	668
4	742	735	b580	608	464	438	888	2,230	1,290	848	698	668
5	742	720	596	602	454	434	1,010	2,220	1,220	856	690	675
6	742	728	596	589	450	446	1,060	2,230	1,180	856	682	675
7	742	728	596	582	454	446	1,100	2,200	1,170	848	682	675
8	742	720	589	589	454	438	1,190	2,190	1,110	848	682	675
9	735	720	b560	576	442	438	1,200	2,220	1,080	832	668	682
10	728	690	b560	570	459	434	1,130	2,220	1,060	810	668	675
11	728	690	b560	b500	450	438	1,100	2,130	1,010	788	668	668
12	728	690	570	b480	*450	438	1,260	2,010	992	788	668	668
13	720	682	556	b470	450	454	1,500	1,940	974	795	668	668
14	712	682	545	b480	454	472	1,830	1,880	938	818	652	645
15	720	668	550	*b480	450	459	2,130	1,810	912	788	652	638
16	735	682	545	b480	446	454	2,270	1,760	872	772	638	660
17	742	682	570	b500	438	454	2,430	1,700	864	758	652	675
18	742	675	596	b500	442	454	2,510	1,640	947	750	622	675
19	742	675	545	b500	468	459	2,640	1,590	1,020	735	622	668
20	750	*668	b520	b490	450	472	2,780	1,540	983	720	608	660
21	765	652	b520	b490	446	495	2,800	1,530	1,000	712	608	675
22	750	608	b540	b490	450	486	2,610	1,500	974	720	615	690
23	750	589	b560	b500	442	486	2,460	1,480	938	728	638	698
24	742	589	589	b520	446	495	2,450	1,400	974	712	668	698
25	735	602	563	b540	446	486	2,520	1,360	1,000	712	675	690
26	728	615	556	511	442	486	2,620	1,350	983	712	675	682
27	720	615	570	490	442	500	2,700	1,360	929	698	682	675
28	712	615	630	486	446	534	2,660	1,410	904	682	698	668
29	712	615	720	490	-	589	2,570	1,530	888	690	712	668
30	720	622	690	482	-	660	2,550	1,590	864	698	698	660
31	728	-	645	482	-	780	-	1,510	-	728	698	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	22,856	780	712	737	45,330
November	20,184	750	589	673	40,030
December	18,017	720	520	581	35,740
Calendar year 1945	296,753	2,180	359	813	588,600
January	16,305	630	470	526	32,340
February	12,643	486	438	452	25,080
March	14,943	780	434	482	29,640
April	56,568	2,800	832	1,886	112,200
May	56,510	2,460	1,350	1,823	112,100
June	31,226	1,440	864	1,041	61,940
July	24,034	888	682	775	47,670
August	20,746	735	608	669	41,150
September	20,179	698	638	673	40,020
Water year 1945-46	314,211	2,800	434	861	623,200

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

Cottonwood Creek near Smoot, Wyo.

Location.- Water-stage recorder, lat. 42°37', long. 110°53', in sec. 4, T. 30 N., R. 118 W., 1¼ miles downstream from Porcupine Creek and 1½ miles southeast of Smoot.

Drainage area.- 26.3 square miles.

Records available.- May 1933 to September 1946.

Average discharge.- 13 years, 40.8 second-feet.

Extremes.- Maximum discharge during year, 249 second-feet June 11 (gage height, 2.60 feet); minimum, 11 second-feet Feb. 12 (gage height, 1.10 feet).
1933-46: 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. No diversion above station. Flow regulated by Cottonwood Lake.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	22	19	19	15	15	22	126	106	126	51	28
2	30	22	18	19	15	15	22	114	102	121	50	28
3	30	22	18	19	15	15	21	108	104	116	49	28
4	30	22	19	19	15	15	21	116	128	114	47	25
5	29	22	19	19	15	14	21	130	162	110	46	26
6	28	22	19	19	15	14	21	144	187	104	45	25
7	28	22	19	19	15	14	21	152	200	102	43	26
8	28	21	19	19	15	15	21	150	215	96	42	28
9	28	21	18	19	15	15	21	142	192	92	42	27
10	27	21	18	19	15	15	21	130	210	89	41	26
11	27	22	19	17	15	15	21	119	244	87	41	26
12	27	22	19	16	15	15	21	112	238	83	40	26
13	26	21	19	16	15	15	24	110	235	80	39	25
14	25	21	19	16	15	15	27	106	228	75	38	20
15	25	21	19	16	15	15	28	104	228	73	37	29
16	24	21	19	16	15	15	34	104	225	72	36	31
17	24	21	19	16	15	15	41	108	222	70	35	30
18	25	21	19	16	15	15	52	126	207	69	34	29
19	24	20	18	16	15	16	60	135	167	68	34	28
20	24	20	17	16	15	17	70	137	144	66	33	26
21	24	19	18	16	15	17	70	142	135	65	33	26
22	24	18	19	16	15	17	66	147	135	63	33	28
23	23	19	19	15	15	16	66	150	130	62	33	26
24	23	19	19	16	15	16	73	140	123	61	33	26
25	23	19	19	16	15	16	96	132	116	60	32	26
26	23	19	19	16	15	16	119	126	114	58	33	26
27	23	19	20	16	15	16	123	135	112	57	31	26
28	22	19	21	16	15	18	128	135	130	56	31	26
29	22	19	21	16	-	19	130	135	130	55	30	25
30	22	19	21	16	-	21	137	123	128	54	28	25
31	23	-	20	16	-	23	-	114	-	55	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	793	32	22	25.6	1,570
November	616	22	18	20.5	1,220
December	589	21	17	19.0	1,170
Calendar year 1945	17,237	235	13	47.2	34,190
January	526	19	15	17.0	1,040
February	420	15	15	15.0	833
March	495	23	14	16.0	982
April	1,598	137	21	53.3	3,170
May	3,952	152	104	127	7,840
June	4,997	244	102	167	9,910
July	2,459	126	54	79.3	4,880
August	1,168	51	28	37.7	2,320
September	797	31	20	26.6	1,580
Water year 1945-46	18,410	44	14	50.4	36,520

Note.- No gage-height record Nov. 21 to Jan. 13; discharge computed on basis of weather records.

Swift Creek near Afton, Wyo.

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

Drainage area.- 27.4 square miles.

Records available.- May 1943 to September 1946.

Extremes.- Maximum discharge during year, 428 second-feet June 9 (gage height, 3.31 feet); minimum daily, 39 second-feet Feb. 26.
1943-46: Maximum discharge, 491 second-feet June 21, 1943 (gage height, 3.38 feet); minimum, 24 second-feet Mar. 24, 1944 (gage height, 1.96 feet).

Remarks.- Records good except those for period of no gage-height record, which are fair. Pipeline (capacity, about 5 second-feet) diverts water above station for town of Afton.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 6 to Feb. 5)

2.0	38	2.4	93
2.1	45	2.5	118
2.2	56	2.8	220
2.3	72	3.2	382

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	50	45	46	45	42	49	147	147	244	173	61
2	50	50	44	47	44	42	49	134	144	202	173	61
3	49	52	43	44	44	42	49	140	160	232	170	62
4	49	50	43	45	44	43	50	150	240	228	96	62
5	49	48	43	46	44	44	52	177	328	228	87	61
6	49	48	42	46	42	44	53	224	336	202	87	59
7	49	49	42	46	42	42	54	224	296	198	87	59
8	49	49	42	47	42	41	54	209	324	195	85	59
9	48	48	42	46	43	42	53	195	369	188	82	59
10	48	48	42	44	42	42	55	177	353	170	82	59
11	48	48	42	44	43	42	55	167	369	160	82	59
12	47	48	42	44	42	42	55	160	357	160	82	64
13	48	48	43	44	40	42	56	160	332	157	80	64
14	49	48	43	44	40	41	62	160	361	157	78	64
15	50	48	44	44	41	41	66	150	357	153	76	62
16	50	47	44	43	41	41	67	150	348	147	74	62
17	50	47	44	43	42	41	69	160	353	147	72	61
18	50	47	44	43	42	41	70	184	336	134	74	61
19	52	47	44	43	42	42	74	236	284	128	72	61
20	52	47	43	43	42	44	78	206	280	128	72	61
21	52	47	42	44	42	44	82	228	272	128	72	61
22	50	46	42	44	42	45	76	260	296	121	72	61
23	50	46	43	44	42	44	78	268	304	116	72	61
24	50	46	42	43	41	43	89	244	284	110	70	62
25	50	46	43	44	40	44	113	228	240	106	66	64
26	50	47	43	44	39	44	128	209	224	100	69	64
27	49	47	44	44	41	45	131	181	248	100	67	64
28	48	46	46	44	42	46	137	220	256	103	66	66
29	48	46	46	45	-	47	150	198	252	103	61	64
30	48	46	46	44	-	48	160	164	252	103	58	64
31	49	-	45	45	-	50	-	153	-	106	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,530	52	47	49.4	3,030
November	1,450	52	46	47.7	2,840
December	1,343	46	42	43.3	2,660
Calendar year 1945	29,507	401	28	80.8	58,520
January	1,377	47	43	44.4	2,730
February	1,176	45	39	42.0	2,330
March	1,341	50	41	43.3	2,660
April	2,314	160	49	77.1	4,590
May	5,863	268	134	189	11,630
June	8,702	369	144	290	17,260
July	4,754	244	100	153	9,430
August	2,408	103	58	77.7	4,780
September	1,852	66	59	61.7	3,670
Water year 1945-46	34,090	369	39	93.4	67,610

Note.- No gage-height record Oct. 1 to Dec. 5; discharge computed on basis of 2 discharge measurements and records for stations on nearby streams.

Crow Creek near Fairview, Wyo.

Location.- Water-stage recorder, lat. 42°40'10", long. 111°01'20", in sec. 17, T. 31 N., R. 119 W., 1¼ miles upstream from Spring Creek, 1½ miles downstream from Idaho-Wyoming State line, and 2½ miles southwest of Fairview. Prior to Aug. 12, staff gage 40 feet upstream from same datum.

Drainage area.- 114 square miles.

Records available.- March to September 1946.

Extremes.- Maximum discharge observed during period, 236 second-feet Apr. 19 (gage height, 3.00 feet); minimum observed, 39 second-feet Mar. 25; minimum gage height observed, 1.42 feet Sept. 14.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read once daily. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	61	208	104	a64	49	44
2						-	62	184	104	a63	48	44
3						-	61	176	98	a62	47	44
4						-	61	177	91	a60	48	44
5						-	74	168	87	a58	a47	47
6						-	74	168	91	57	49	46
7						-	72	166	89	57	47	49
8						-	74	195	87	59	a49	47
9						-	72	176	87	57	46	48
10						-	68	189	87	56	46	45
11						-	71	164	a86	53	47	44
12						-	76	148	86	53	49	43
13						-	98	144	84	54	51	42
14						-	103	140	80	57	49	41
15						-	106	134	80	53	46	42
16						-	a120	130	78	57	45	45
17						-	a140	126	76	53	45	48
18						-	165	122	92	a50	44	46
19						-	236	118	88	48	44	46
20						-	179	109	84	49	43	45
21						-	219	109	a82	49	44	44
22						41	171	112	80	49	44	44
23						40	165	114	76	51	54	44
24						41	170	114	a76	53	52	44
25						39	187	112	76	50	48	44
26						a41	216	109	a72	a49	52	44
27						44	224	123	68	49	48	43
28						52	219	122	68	49	47	43
29						53	203	127	67	53	46	43
30						67	229	a115	65	51	44	44
31						68	-	109	-	a50	44	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 22-31	486	68	39	48.6	964
April	3,976	236	61	133	7,890
May	4,408	208	109	142	8,740
June	2,489	104	65	83.0	4,940
July	1,673	64	48	54.0	3,320
August	1,462	54	43	47.2	2,900
September	1,337	49	41	44.6	2,650
The period	-	-	-	-	31,400

a No gage-height record; discharge computed on basis of records for Stump Creek near Auburn.

Stump Creek near Auburn, Wyo.

Location.- Water-stage recorder, lat. 42°47', long. 111°03', in sec. 26, T. 7 S., R. 46 E., 0.6 mile upstream from Wyoming-Idaho State line, 0.8 mile downstream from Tygee Creek, and 2½ miles west of Auburn. Prior to Aug. 9, staff gage at same site and datum.

Drainage area.- 103 square miles.

Records available.- March to September 1946.

Extremes.- Maximum discharge observed during period, 469 second-feet Apr. 26 (gage height, 3.74 feet); minimum, 24 second-feet Sept. 2 (gage height, 1.07 feet).

Remarks.- Records good except those for periods of doubtful gage-height record, which are fair. Some diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	58	369	174	d64	44	31
2						-	61	343	172	d62	44	28
3						-	68	325	167	d60	44	28
4						-	67	347	165	d58	36	28
5						-	81	347	159	d56	34	32
6						-	86	352	156	d55	37	29
7						-	87	347	149	d55	37	31
8						-	94	334	147	d56	38	31
9						-	91	325	144	d55	34	30
10						-	84	321	144	d53	34	28
11						-	78	304	142	52	33	30
12						-	97	262	140	d50	35	28
13						-	122	258	117	d48	36	27
14						-	188	242	114	d47	35	26
15						-	213	232	114	d46	33	26
16						-	262	230	112	44	32	32
17						-	314	230	109	44	31	32
18						-	334	226	107	42	31	30
19						-	363	220	107	42	30	29
20						-	414	222	103	42	30	29
21						-	396	226	100	41	30	29
22						31	352	222	97	40	31	28
23						30	354	222	94	40	36	28
24						32	383	222	91	38	35	28
25						27	410	215	89	38	32	27
26						28	469	194	87	38	34	27
27						31	460	183	77	38	32	26
28						36	435	185	70	42	32	26
29						45	437	181	67	44	31	26
30						53	396	176	66	44	31	26
31						70	-	174	-	44	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 22-31	383	70	27	38.3	760
April	7,254	469	58	242	14,390
May	8,036	369	174	259	15,940
June	3,580	174	66	119	7,100
July	1,478	64	38	47.7	2,930
August	1,064	44	30	34.3	2,110
September	856	32	26	28.5	1,700
The period	-	-	-	-	44,930

d Doubtful gage-height record; discharge computed on basis of records for Crow Creek near Fairview.

Henrys Fork near Lake, Idaho

Location.- Water-stage recorder, lat. 44°36', long. 111°21', in SW¼ sec. 26, T. 15 N., R. 43 E., a quarter of a mile downstream from Henrys Lake Dam and 4 miles south of former Lake post office. Datum of gage is 6,450.62 feet above mean sea level, levels by Bureau of Reclamation (Corps of Engineers, War Department, bench mark).

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

Records available.- September 1922 to September 1946. 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.- 26 years, 46.3 second-feet.

Extremes.- Maximum discharge recorded during year, 269 second-feet July 17 (gage height, 2.67 feet); minimum daily, 10 second-feet Oct. 15 to Nov. 30 (leakage through reservoir gates)

1920-46: Maximum discharge, 907 second-feet June 13, 1926 (gage height, 5.40 feet); minimum, 0.1 second-foot Oct. 3-31, 1937. Outflow from Henrys Lake entirely ceased late in summer of 1889.

Remarks.- Records good except those for periods of no gage-height record October to June, which are fair. Flow regulated by Henrys Lake (see p. 55), gates of which remained closed Oct. 15 to July 17.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54						-		-	95	189	159
2	54						-		-	96	189	91
3	54						-		79	97	189	43
4	54						-		-	97	188	44
5	54						-		-	109	188	45
6	54						-		-	99	189	45
7	54						-		-	93	189	43
8	54						-		-	93	190	43
9	54						-		-	92	194	43
10	54						-		-	87	194	43
11	54						-		-	86	196	43
12	54						-		-	85	195	43
13	54						-		-	87	194	44
14	54						-		-	90	190	44
15	32						-		-	87	190	44
16	10	10					-		-	86	189	44
17	10						-		-	136	189	44
18	10						-		-	224	188	43
19	10						-		-	213	186	43
20	10			14			-		90	216	184	43
21	10						-		-	218	182	43
22	10						-		-	213	180	43
23	10						2		-	207	177	43
24	10						-		-	204	177	42
25	10					20	-		-	198	177	42
26	10				16		-		-	195	177	41
27	10						-		-	192	177	41
28	10						-		-	189	176	39
29	10						25		-	189	168	39
30	10						-		-	189	165	39
31	10						-		-	191	161	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	948	-	-	30.6	1,880
November	300	-	-	10	595
December	372	-	-	12	738
Calendar year 1945	15,236	355	3	41.7	30,220
January	434	-	-	14	861
February	420	-	-	15	833
March	558	-	-	18	1,110
April	690	-	-	23	1,370
May	1,705	-	-	55	3,380
June	2,610	-	-	87	5,180
July	4,456	224	85	144	8,840
August	5,717	196	161	184	11,340
September	1,446	159	39	48.2	2,870
Water year 1945-46	19,656	224	-	53.8	39,000

Note.- No gage-height record Oct. 1 to July 3; mean discharges Nov. 1 to June 30 computed on basis of 4 discharge measurements and occasional gage readings.

Island Park Reservoir near Island Park, Idaho

Location.- Electric tape gage, lat. 44°25', long. 111°24', in gatehouse 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 post office. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.- 478 square miles.

Records available.- November 1938 to September 1946.

Extremes.- Maximum contents during year, 136,340 acre-feet May 29 (elevation, 6,303.14 feet); minimum, 51,385 acre-feet Sept. 19 (elevation, 6,289.15 feet).
1938-46: Maximum contents, 137,805 acre-feet June 8, 1945 (elevation, 6,303.32 feet); minimum after first filling of reservoir in May 1939, 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 of lands in Fremont-Madison irrigation district between Ashton and Rexburg, Idaho. Gage read daily 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56,775	57,035	71,805	97,740	109,655	109,515	128,675	133,990	135,610	133,590	100,420	60,900
2	56,650	57,250	72,610	98,675	109,655	109,515	129,220	133,430	135,530	133,430	99,075	60,900
3	56,605	57,165	73,315	99,410	109,370	109,515	129,930	133,830	135,285	133,590	97,810	60,170
4	56,650	57,250	74,135	100,220	109,655	109,515	130,405	133,910	135,450	133,030	96,485	58,785
5	56,650	57,205	74,965	101,100	109,440	109,515	130,800	134,075	135,450	132,550	95,040	57,900
6	56,860	57,290	75,800	101,845	109,440	109,515	131,115	134,555	135,610	-	93,675	56,905
7	56,950	57,165	76,695	102,595	109,440	109,515	131,435	134,555	135,285	131,590	92,195	56,055
8	56,990	57,035	-	103,420	109,230	110,230	131,750	134,555	135,285	131,355	91,110	55,385
9	57,075	56,950	78,230	104,110	109,230	111,015	131,830	134,880	135,125	131,035	90,290	54,840
10	57,120	56,950	79,035	104,940	109,300	111,735	131,910	134,555	135,125	130,325	88,590	54,220
11	57,120	57,165	79,845	105,775	109,370	112,455	131,990	134,475	135,045	129,930	87,040	53,690
12	57,075	57,205	80,665	106,405	109,440	113,185	132,150	133,910	135,125	129,380	85,565	53,530
13	57,075	57,335	81,490	107,105	109,330	114,205	132,310	133,750	135,125	128,750	84,295	53,410
14	57,120	57,335	82,255	107,740	109,230	115,300	132,470	134,880	135,045	127,655	82,615	53,490
15	57,250	57,205	83,090	108,660	109,230	116,040	132,630	135,045	134,880	126,875	81,250	52,925
16	57,205	58,340	83,870	109,300	109,300	116,040	132,870	135,450	134,720	126,020	79,790	52,445
17	57,165	-	84,660	109,585	109,230	116,630	133,270	135,530	134,555	124,860	78,250	51,930
18	57,165	-	85,565	109,515	109,230	117,295	133,750	-	134,640	123,780	76,805	51,465
19	57,165	61,405	86,360	109,515	109,230	118,040	133,910	135,530	134,475	122,335	75,295	51,385
20	56,860	62,195	87,040	109,440	109,230	119,160	134,555	135,855	134,475	120,590	73,860	51,425
21	56,860	63,090	87,905	109,440	109,230	120,140	134,640	135,610	134,395	118,710	72,385	51,465
22	56,905	63,950	89,030	109,440	109,300	120,895	134,720	135,770	134,395	116,850	71,115	51,465
23	56,950	64,820	89,910	109,725	109,300	121,650	134,395	135,855	134,155	114,865	69,700	51,500
24	56,950	65,750	90,795	109,940	109,300	122,490	134,960	135,610	134,155	112,965	68,460	51,540
25	57,035	66,440	91,620	109,870	109,300	123,325	135,205	135,610	134,155	111,090	67,080	51,540
26	57,075	67,390	92,515	109,870	109,370	123,935	135,450	135,530	134,075	109,300	65,700	51,500
27	57,120	68,410	93,480	109,940	109,440	124,625	134,800	135,530	133,990	107,740	64,365	51,500
28	57,075	69,230	94,650	109,940	109,585	125,400	134,075	135,770	133,830	106,125	63,615	51,500
29	56,950	70,010	95,435	109,870	-	126,175	133,990	136,340	133,750	104,595	62,955	51,500
30	56,905	70,955	96,225	109,870	-	126,955	133,750	136,175	133,670	103,075	62,055	51,465
31	56,775	-	97,015	110,015	-	127,890	-	136,015	-	102,050	61,360	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	6,290.47	56,775	
Oct. 31	6,290.47	56,775	0
Nov. 30	6,293.44	70,955	+14,180
Dec. 31	6,297.80	97,015	+26,060
Calendar year 1945...	-	-	+8,610
Jan. 31	6,299.69	110,015	+13,000
Feb. 28	6,299.63	109,585	-430
Mar. 31	6,302.08	127,890	+18,305
Apr. 30	6,302.82	133,750	+5,860
May 31	6,303.10	136,015	+2,265
June 30	6,302.81	133,670	-2,345
July 31	6,298.55	102,050	-31,620
Aug. 31	6,291.50	61,360	-40,690
Sept. 30	6,289.17	51,465	-9,895
Water year 1945-46...	-	-	-5,310

Henrys Fork near Island Park, Idaho

Location.- Water-stage recorder, lat. 44°25', long. 111°24', in SW¼ sec. 28, T. 13 N., R. 43 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 post office. Altitude of gage, 6,225 feet (from river-profile map).

Drainage area.- 478 square miles.

Records available.- January 1933 to September 1946.

Average discharge.- 13 years, 497 second-feet.

Extremes.- Maximum discharge during year, 2,770 second-feet Apr. 26 (gage height, 6.15 feet); minimum daily, 7 second-feet Nov. 16-30.
1933-46: Maximum discharge, that of Apr. 26, 1946; minimum daily, 1 second-foot Nov. 16 to Dec. 7, 1938.

Remarks.- Records good. Flow regulated by Henrys Lake (see p. 55) and Island Park Reservoir (see preceding page).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	601	391	8	10	472	409	87	1,430	1,040	581	1,320	718
2	567	409	8	10	472	409	119	1,170	1,010	625	1,320	961
3	524	418	8	10	472	409	144	1,140	885	758	1,320	1,160
4	500	436	8	10	472	409	166	1,160	846	772	1,320	1,120
5	454	450	8	10	472	409	185	1,200	865	758	1,320	1,050
6	458	468	8	10	472	409	219	1,240	880	772	1,320	1,020
7	472	472	8	10	472	182	248	1,260	831	767	1,250	925
8	472	450	8	10	472	19	269	1,300	826	772	1,190	856
9	472	432	8	10	382	19	290	1,300	821	767	1,300	851
10	500	414	8	10	382	19	303	1,260	802	738	1,420	851
11	509	404	8	10	382	19	221	1,240	802	831	1,420	694
12	476	396	8	10	382	19	329	986	811	895	1,410	586
13	463	427	8	11	445	19	355	743	797	885	1,410	548
14	463	481	8	11	404	19	382	738	806	925	1,410	694
15	519	170	8	11	404	205	418	806	787	930	1,410	836
16	538	7	8	142	409	147	454	831	767	1,060	1,410	836
17	538	7	8	382	409	11	495	860	713	1,060	1,400	831
18	538	7	8	382	409	11	552	860	689	1,160	1,400	679
19	486	7	8	382	409	11	630	865	689	1,470	1,400	533
20	463	7	8	382	409	11	1,010	940	674	1,580	1,390	533
21	436	7	8	382	409	11	1,320	1,020	660	1,650	1,390	533
22	422	7	9	382	409	11	1,520	1,050	660	1,650	1,380	533
23	422	7	9	382	409	11	1,400	1,060	645	1,640	1,360	533
24	422	7	9	386	409	11	1,590	1,040	645	1,640	1,360	552
25	422	7	9	463	409	11	1,940	1,030	645	1,610	1,360	557
26	422	7	10	463	409	11	2,400	1,020	640	1,470	1,360	557
27	463	7	10	382	409	11	2,390	1,040	625	1,470	1,210	557
28	476	7	10	382	409	11	1,980	1,100	601	1,470	1,070	557
29	454	7	10	382	-	11	1,740	1,160	591	1,430	1,060	552
30	432	7	10	382	-	11	1,480	1,130	581	1,330	1,000	552
31	396	-	10	436	-	16	-	1,100	-	1,320	846	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,780	601	396	477	29,320
November	6,323	481	7	211	12,540
December	264	10	8	8.5	524
Calendar year 1945	195,174	2,010	7	535	387,100
January	6,245	463	10	201	12,390
February	11,874	472	382	424	23,550
March	3,291	409	11	106	6,530
April	24,736	2,400	87	825	49,060
May	33,079	1,430	738	1,067	65,610
June	22,634	1,040	581	754	44,890
July	34,786	1,650	581	1,122	69,000
August	40,536	1,420	846	1,308	80,400
September	21,765	1,160	533	726	43,170
Water year 1945-46	220,313	2,400	7	604	437,000

Note.- Discharge computed from staff-gage readings Nov. 16 to Jan. 15, Mar. 8-31.

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 1946.

Average discharge.- 32 years, 984 second-feet.

Extremes.- Maximum discharge during year, 3,480 second-feet Apr. 27 (gage height, 7.80 feet); minimum, 282 second-feet Dec. 3 (gage height, 3.35 feet).
1910-15, 1918-46: Maximum discharge, 3,540 second-feet May 18, 1927; maximum gage height, that of Apr. 27, 1946; minimum discharge, 218 second-feet Jan. 19, 1940 (gage height, 3.17 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Henrys Lake (see p. 55) and Island Park Reservoir (see p. 47). Some water diverted above station for irrigation of meadows on headwaters.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1,050	a800	435	453	917	787	453	2,200	1,590	1,020	1,740	1,010
2	a1,000	a810	382	453	943	787	485	2,000	1,540	1,030	1,730	1,100
3	a960	a830	354	453	930	787	535	1,860	1,460	1,110	1,730	1,390
4	a920	a850	412	453	943	775	570	1,900	1,320	1,250	1,720	1,530
5	a880	a870	458	453	924	787	615	1,940	1,310	1,200	1,710	1,430
6	a850	884	440	453	917	793	680	1,980	1,340	1,220	1,690	1,380
7	a860	884	426	435	917	793	727	1,970	1,310	1,200	1,670	1,340
8	a860	878	378	435	910	444	757	1,980	1,280	1,190	1,510	1,200
9	a865	859	366	386	811	404	787	2,030	1,270	1,200	1,530	1,170
10	865	a850	426	417	793	404	787	1,940	1,250	1,160	1,760	1,180
11	898	a845	453	399	799	404	793	1,880	1,260	1,180	1,760	1,140
12	904	a840	408	440	787	408	817	1,760	1,310	1,290	1,760	936
13	a890	a840	422	466	829	435	859	1,450	1,270	1,310	1,760	884
14	a890	a870	412	485	805	440	924	1,270	1,270	1,320	1,760	841
15	a910	917	448	458	499	408	1,010	1,320	1,240	1,320	1,770	1,160
16	a910	480	480	466	811	840	1,100	1,350	1,210	1,400	1,760	1,200
17	a930	430	462	b750	811	444	1,200	1,350	1,190	1,480	1,760	1,200
18	950	426	390	b810	799	399	1,360	1,380	1,140	1,470	1,750	1,190
19	865	404	399	b810	811	399	1,570	1,350	1,140	1,780	1,750	891
20	829	408	435	b817	823	426	1,900	1,370	1,120	1,920	1,730	872
21	829	422	500	b817	811	444	2,410	1,500	1,100	2,040	1,720	878
22	823	382	495	b817	805	422	2,580	1,570	1,100	2,050	1,720	878
23	a820	412	476	*817	793	417	2,530	1,610	1,100	2,080	1,710	872
24	817	435	462	b817	799	426	2,520	1,580	1,110	2,070	1,720	872
25	829	453	466	b860	829	417	2,810	1,570	1,110	2,060	1,700	910
26	847	440	462	b860	805	399	3,060	1,550	1,100	1,940	1,700	904
27	a860	440	*458	b815	*799	399	3,030	1,550	1,080	1,890	1,690	910
28	a855	448	462	b805	787	404	2,820	1,670	1,060	1,870	1,420	910
29	a830	426	495	793	-	422	2,630	1,760	1,050	1,870	1,390	910
30	a800	444	476	799	-	430	2,430	1,730	1,030	1,790	1,390	924
31	a800	-	462	781	-	444	-	1,680	-	1,760	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	27,196	1,050	800	877	53,940
November	19,277	917	382	643	38,240
December	13,600	500	354	439	26,980
Calendar year 1945	359,559	3,050	334	985	713,200
January	19,273	860	386	622	38,230
February	23,507	943	787	840	46,620
March	15,988	840	399	516	31,710
April	44,769	3,060	453	1,492	88,800
May	52,050	2,200	1,270	1,679	103,200
June	36,660	1,590	1,030	1,222	72,710
July	47,470	2,080	1,020	1,531	94,160
August	51,770	1,770	1,260	1,670	102,700
September	32,012	1,530	841	1,067	63,490
Water year 1945-46	383,572	3,060	354	1,051	760,800

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for stations near Ashton and near Island Park.
b Stage-discharge relation affected by ice.

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 1946.

Average discharge.- 27 years (1903-8, 1924-46), 1,275 second-feet.

Extremes.- Maximum discharge during year, 5,060 second-feet Apr. 27 (gage height, 7.90 feet); minimum, 132 second-feet (regulated) Dec. 10 (gage height, 5.03 feet); minimum daily, 646 second-feet Dec. 9, Jan. 11.
1902-9, 1920-46: 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. 55) and Island Park Reservoir (see p. 47). 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,340	1,190	738	760	1,100	1,090	869	3,260	2,100	1,400	2,100	1,320
2	1,340	1,200	676	760	1,230	1,080	916	3,040	2,040	1,390	2,080	1,440
3	1,280	1,230	656	760	1,230	1,090	940	2,840	1,980	1,470	2,060	1,750
4	1,260	1,230	707	749	1,210	1,060	964	2,910	1,810	1,610	2,080	1,940
5	1,210	1,240	792	749	1,210	1,100	1,030	2,990	1,810	1,580	2,080	1,790
6	1,170	1,300	760	760	1,210	1,100	1,140	3,010	1,840	1,600	2,080	1,730
7	1,210	1,280	760	728	1,230	1,090	[illegible]	2,950	1,830	1,580	2,060	1,700
8	1,190	1,280	707	749	1,140	770	1,200	2,990	1,790	1,600	1,920	1,530
9	1,200	1,230	646	[illegible]	1,140	686	1,240	3,010	1,770	1,610	1,840	1,530
10	1,200	1,270	738	696	1,090	707	1,280	2,860	1,770	1,560	2,160	1,530
11	1,230	1,260	760	646	1,100	707	1,200	2,720	1,750	1,580	2,140	1,520
12	1,240	1,240	676	738	1,050	718	1,300	2,610	1,840	1,700	2,140	1,280
13	1,200	1,200	718	665	1,120	760	1,400	2,320	1,790	1,730	2,140	1,210
14	1,260	1,230	707	707	1,100	760	1,580	2,100	1,730	1,730	2,140	1,170
15	1,100	1,300	728	707	1,080	738	1,730	2,140	1,750	1,730	2,200	1,530
16	1,280	825	738	728	1,100	1,060	1,940	2,140	1,660	1,840	2,160	1,630
17	1,280	760	749	847	1,090	836	2,100	2,140	1,650	1,880	2,160	1,630
18	1,320	728	656	1,090	1,120	707	2,380	2,120	1,600	1,880	2,160	1,600
19	1,280	760	676	1,090	1,130	738	2,720	2,100	1,580	2,160	2,140	1,270
20	1,210	696	686	1,080	1,160	803	3,060	2,060	1,580	2,340	2,140	1,200
21	1,200	728	770	1,100	1,120	803	3,720	2,160	1,580	2,490	2,120	1,230
22	1,170	656	803	1,120	1,130	81	3,67	2,260	1,530	2,490	2,120	1,210
23	1,190	686	803	1,010	1,080	770	3,550	2,280	1,580	2,530	2,140	1,210
24	1,140	738	770	1,190	1,120	792	3,580	2,220	1,580	2,490	2,160	1,200
25	1,170	803	803	1,120	1,170	781	4,000	2,180	1,580	2,470	2,180	1,270
26	1,170	38	781	1,140	1,100	696	4,380	2,160	1,550	2,360	2,120	1,260
27	1,170	770	803	1,100	1,100	738	4,660	2,200	1,520	2,260	2,120	1,260
28	1,210	749	803	1,000	1,100	803	4,260	2,300	1,450	2,240	1,840	1,280
29	1,210	760	803	1,040	-	858	3,810	2,400	1,470	2,260	1,770	1,270
30	1,230	792	814	1,050	-	880	3,670	2,300	1,420	2,180	1,770	1,280
31	1,230	-	770	1,060	-	916	-	2,180	-	2,120	1,610	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	37,890	1,340	1,140	1,222	75,150
November	29,869	1,300	656	996	59,240
December	22,997	814	646	742	45,610
Calendar year 1945	512,941	4,100	604	1,405	1,017,000
January	27,604	1,190	646	890	54,750
February	31,760	1,230	1,050	1,134	63,000
March	26,418	1,100	686	852	52,400
April	69,559	4,660	869	2,319	138,000
May	76,950	3,260	2,060	2,482	152,600
June	50,910	2,100	1,420	1,697	101,000
July	59,820	2,530	1,390	1,930	118,700
August	63,930	2,200	1,610	2,062	126,800
September	42,770	1,940	1,170	1,426	84,830
Water year 1945-46	540,477	4,660	646	1,481	1,072,000

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

Between Ashton and St. Anthony gaging stations seven canals divert water from Henrys Fork for irrigation. Records available each irrigation season from 1919 to 1946. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								965	797	875	1,090	730
2								1,020	818	899	1,080	737
3								1,060	875	1,060	1,070	740
4								1,140	902	938	1,080	761
5								1,170	1,000	932	1,090	710
6								1,200	1,120	962	1,060	667
7								1,190	1,110	962	1,040	661
8								1,200	1,120	957	1,050	660
9								1,200	1,130	1,040	1,010	649
10								1,180	1,130	1,080	1,090	642
11								1,190	1,140	996	1,090	643
12								1,200	1,040	1,060	1,140	630
13								1,180	999	1,060	1,110	630
14								1,180	958	1,060	1,090	628
15								1,210	930	1,050	1,020	516
16								1,210	914	1,050	1,010	525
17								1,210	920	1,080	1,030	500
18								1,210	876	1,100	1,030	495
19								1,200	962	1,100	1,040	359
20								1,200	959	1,120	1,030	354
21								1,170	972	1,090	1,000	353
22								1,170	1,020	1,190	1,000	341
23								1,110	1,020	1,230	944	327
24								1,110	978	1,180	965	328
25								1,040	849	1,200	869	330
26								1,060	855	962	791	327
27								1,060	894	926	738	286
28								957	914	915	704	264
29								845	915	1,010	681	264
30								795	898	1,090	652	259
31								779	-	1,090	653	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	34,411	1,210	779	1,110	68,250
June	29,015	1,130	797	967	57,550
July	32,264	1,230	875	1,041	64,000
August	30,247	1,140	652	976	59,990
September	15,296	761	259	510	30,340
The period	-	-	-	-	280,100

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 1946 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 4,500 second-feet May 1 (gage height, 5.20 feet); minimum daily recorded, 659 second-feet July 11.
1919-46: 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. Diversions above station for irrigation. Flow regulated by power plant 17 miles above station and by Henrys Lake (see p.55), Island Park Reservoir (see p.47), and Grassy Lake (see p. 55).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								4,400	2,490	806	1,100	1,130
2								3,780	2,250	684	1,100	972
3								3,660	2,270	767	1,080	1,130
4								3,860	2,120	897	1,070	1,380
5								3,860	2,470	866	1,070	1,430
6								3,800	2,960	846	1,060	1,430
7								3,660	2,890	846	1,050	1,420
8								3,830	2,470	826	1,050	1,290
9								3,930	2,400	739	1,070	1,260
10								3,330	2,580	676	1,190	1,250
11								3,010	2,680	659	1,190	1,220
12								2,800	2,920	806	1,200	1,080
13								2,470	2,400	856	1,190	983
14								2,100	2,320	846	1,220	983
15								1,900	2,290	846	1,280	1,190
16								1,900	2,170	919	1,280	1,340
17								1,980	1,940	972	1,250	1,490
18								2,120	1,610	940	1,240	1,520
19								2,210	1,250	1,100	1,260	1,370
20								2,120	1,070	1,250	1,240	1,240
21								2,190	1,040	1,380	1,250	1,280
22								2,360	1,070	1,380	1,260	1,300
23								2,450	1,140	1,340	1,340	1,310
24								2,430	1,190	1,360	1,380	1,360
25								2,400	1,200	1,330	1,380	1,380
26								2,450	1,010	1,480	1,440	1,370
27								2,720	940	1,440	1,510	1,360
28								3,110	1,010	1,300	1,360	1,330
29								3,700	1,030	1,220	1,330	1,330
30								3,530	866	1,150	1,340	1,330
31								2,960	-	1,120	1,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	91,020	4,400	1,900	2,936	180,500
June	56,046	2,960	866	1,868	111,200
July	31,647	1,480	659	1,021	62,770
August	38,030	1,510	1,050	1,227	75,430
September	38,458	1,520	972	1,282	76,280
The period	-	-	-	-	506,200

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

Between St. Anthony and Rexburg gaging stations four canals divert water from Henrys Fork for irrigation. Records available for part of each irrigation season from 1919 to 1946. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								966	604	677	732	519
2								970	628	719	726	550
3								1,020	695	750	731	550
4								1,090	821	764	741	479
5								1,150	894	750	747	430
6								1,150	865	743	751	400
7								1,160	858	712	762	398
8								1,110	857	690	737	391
9								1,100	809	685	753	374
10								1,080	838	630	797	370
11								1,060	792	615	787	371
12								1,030	767	744	775	353
13								972	747	769	649	347
14								968	727	747	657	341
15								1,010	732	785	679	347
16								1,020	779	850	668	356
17								1,010	748	871	660	358
18								1,020	716	798	685	356
19								1,030	733	820	707	258
20								978	719	897	707	209
21								959	773	887	664	203
22								911	742	848	658	198
23								822	765	817	616	197
24								828	726	772	577	180
25								834	700	721	544	211
26								797	691	755	511	210
27								670	693	702	482	208
28								603	727	702	490	208
29								542	715	709	479	208
30								545	711	715	483	204
31								603	-	716	493	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	29,008	1,160	542	936	57,540
June	22,572	894	604	752	44,770
July	23,360	897	615	754	46,330
August	20,448	797	479	660	40,560
September	9,784	550	180	326	19,410
The period	-	-	-	-	208,600

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 1946.

Average discharge.- 38 years (1908-46), 1,912 second-feet.

Extremes.- Maximum discharge during year, 7,130 second-feet Apr. 28 (gage height, 9.41 feet); minimum, 615 second-feet July 18 (gage height, 2.94 feet).
1909-46: 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 period of ice effect, which are fair. Flow regulated by operation of power plant near Ashton and by Henrys Lake (see following page), Island Park Reservoir (see p. 47), and Grassy Lake (see following page). Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,340	2,070	1,620	1,670	1,850	1,880	2,270	5,880	3,850	1,110	1,020	1,480
2	2,270	2,080	1,570	1,640	1,930	1,880	2,050	5,210	3,270	1,030	1,020	1,230
3	2,210	2,100	1,430	1,620	1,980	1,890	2,040	4,270	2,990	976	996	1,170
4	2,140	2,100	1,410	1,620	1,970	1,870	1,990	3,870	2,750	930	989	1,340
5	2,090	2,120	1,570	1,620	1,970	1,890	1,980	3,850	2,570	976	944	1,590
6	2,020	2,170	1,620	1,620	1,980	1,930	2,000	3,880	2,950	924	892	1,680
7	1,970	2,210	1,570	1,600	1,980	1,900	2,080	3,880	3,430	892	885	1,760
8	1,960	2,090	1,510	1,590	1,920	1,810	2,100	3,760	3,330	898	861	1,760
9	1,930	1,960	1,400	1,500	1,900	1,560	2,100	4,040	2,950	831	832	1,660
10	1,900	1,990	1,360	1,470	1,850	1,540	2,100	4,060	2,910	725	892	1,640
11	1,890	2,140	1,460	1,350	1,850	1,710	2,090	3,650	2,980	670	970	1,620
12	1,900	2,130	1,410	1,250	1,810	1,800	2,040	3,280	3,310	630	982	1,510
13	1,920	*2,070	1,370	1,350	1,820	1,790	2,140	2,990	3,370	670	1,050	1,360
14	1,880	1,990	1,380	1,450	1,870	1,940	2,350	2,660	3,080	660	1,110	1,290
15	1,950	2,040	1,400	1,450	1,850	1,850	2,640	2,360	2,900	660	1,140	1,300
16	a1,850	2,140	1,420	1,500	1,870	1,730	2,950	2,140	2,810	665	1,200	1,530
17	a2,000	1,770	1,430	1,570	1,870	1,900	3,240	2,160	2,670	655	1,180	1,700
18	a2,040	1,670	1,350	1,700	1,880	1,620	3,530	2,080	2,510	630	a1,180	1,840
19	a2,050	1,650	1,400	1,870	1,890	*1,650	4,000	2,200	2,200	665	a1,170	1,990
20	1,940	1,630	1,400	1,870	*1,900	1,850	4,610	2,270	1,780	855	a1,160	1,850
21	2,020	1,570	1,490	*1,870	1,910	2,160	5,430	2,200	1,590	937	1,150	1,810
22	2,030	1,530	1,570	1,880	1,920	2,050	6,200	2,270	1,500	1,070	1,220	1,800
23	2,030	1,480	1,630	1,900	1,880	1,920	6,150	2,470	1,460	1,070	1,290	1,820
24	1,980	1,570	1,620	1,970	1,890	1,900	5,980	2,750	1,600	1,160	1,430	1,830
25	1,960	1,630	1,620	1,900	1,980	1,850	5,910	2,800	1,830	1,160	1,520	1,800
26	1,960	1,670	*1,640	1,900	1,900	1,730	6,330	2,780	1,720	1,170	1,570	1,790
27	1,930	1,640	1,650	1,840	1,880	1,620	6,790	2,990	1,360	1,340	1,660	1,750
28	1,960	1,610	1,700	1,770	1,890	1,740	7,080	3,320	1,270	1,250	1,730	1,770
29	1,990	1,580	2,000	1,750	-	1,970	6,770	3,950	1,310	1,110	1,600	1,760
30	1,990	1,620	1,800	1,820	-	2,200	6,300	4,550	1,200	1,080	1,610	1,760
31	2,000	-	1,700	1,840	-	2,380	-	4,430	-	1,050	1,560	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	62,100	2,340	1,850	2,003	123,200
November	56,020	2,210	1,480	1,867	111,100
December	47,500	1,650	1,360	1,532	94,210
Calendar year 1945	791,570	7,850	786	2,169	1,570,000
January	51,750	1,970	1,250	1,669	102,600
February	53,190	1,980	1,810	1,900	105,500
March	57,510	2,380	1,540	1,855	114,100
April	113,240	7,080	1,980	3,775	224,600
May	103,000	5,880	2,080	3,323	204,300
June	73,450	3,850	1,200	2,448	145,700
July	28,449	1,340	630	918	56,430
August	36,873	1,730	861	1,189	73,140
September	49,190	1,990	1,170	1,640	97,570
Water year 1945-46	732,272	7,080	630	2,006	1,452,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and records for upstream stations.
Note.- Stage-discharge relation affected by ice Dec. 14 to Mar. 5.

Smaller Reservoirs in Henrys Fork Basin

Henrys Lake.- Staff gage, lat. 44°36', long. 111°21', at dam on Henrys Fork in SW¼ 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 1946 (fragmentary). Maximum contents observed during year, 82,542 acre-feet June 20 (gage height, 15.50 feet); minimum, 62,700 acre-feet (estimated) Sept. 30. Maximum contents observed during period 1923-46, 82,927 acre-feet June 28, 1944 (gage height, 15.56 feet); 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). Floodwaters of Dry Creek are diverted into Henrys Lake at times (none diverted during water year 1945-46). Water used for irrigation near St. Anthony. Gage read once or twice a week during period of storage withdrawal and 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°08', long. 110°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 1946. Maximum contents during year, 15,198 acre-feet June 30 to July 1 (elevation, 7,210.05 feet); minimum, 12,114 acre-feet Aug. 22 to Sept. 30 (elevation, 7,199.75 feet). Maximum contents during period 1939-46, 15,446 acre-feet July 2, 1943 (elevation, 7,210.85 feet); no contents Oct. 2-5, 1940.

Reservoir is formed by earth-fill, rock-faced dam; storage began Oct. 18, 1937. 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 1945 to September 1946

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	-	a64,200	-	7,204.15	13,400	-
Oct. 31	-	a66,100	+1,900	7,204.25	13,430	+30
Nov. 30	-	a68,500	+2,400	7,204.90	13,625	+195
Dec. 31	-	a70,200	+1,700	7,205.70	13,865	+240
Calendar year 1945	-	-	+8,500	-	-	+5,906
Jan. 31	-	a71,300	+1,100	7,206.25	14,015	+150
Feb. 28	-	a72,100	+800	7,206.80	14,195	+180
Mar. 31	-	a74,500	+2,400	7,207.05	14,270	+75
Apr. 30	-	a78,500	+4,000	7,207.30	14,345	+75
May 31	-	a81,700	+3,200	7,207.10	14,285	-60
June 30	-	a82,200	+500	7,210.05	15,198	+913
July 31	14.32	75,070	-7,130	7,209.95	15,167	-31
Aug. 31	12.47	63,640	-11,430	7,199.75	12,114	-3,053
Sept. 30	-	a62,700	-940	7,199.75	12,114	0
Water year 1945-46	-	-	-1,500	-	-	-1,286

a No gage-height record; contents interpolated.

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

Above Squirrel gaging station two canals divert water for irrigation. Records available for part of each irrigation season from 1919 to 1946. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	50	225	202	61
2								0	50	242	196	59
3								0	50	220	190	45
4								0	50	211	184	45
5								0	50	213	184	47
6								0	50	209	182	42
7								0	50	210	180	41
8								0	50	210	183	41
9								0	50	196	168	41
10								0	50	194	166	44
11								0	135	192	137	43
12								0	136	195	144	42
13								0	143	189	144	42
14								0	149	198	134	42
15								0	154	198	136	38
16								0	164	205	107	38
17								0	181	203	133	39
18								0	181	202	134	41
19								50	196	197	132	40
20								50	201	196	132	39
21								52	211	197	126	38
22								52	286	195	124	40
23								52	216	196	95	34
24								52	216	204	97	34
25								52	212	205	89	33
26								52	222	207	88	32
27								52	228	206	87	32
28								52	241	202	86	32
29								50	206	200	88	31
30								50	208	202	77	31
31								50	-	208	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	*666*	52	0	21.5	1,320
June	4,386	286	50	146	8,700
July	6,327	242	189	204	12,550
August	4,200	202	75	135	8,330
September	1,207	61	31	40.2	2,390
The period	-	-	-	-	33,290

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 1946. August 1902 to December 1903 at Wilson's sawmill, 3 miles upstream.

Average discharge.- 33 years (1904-8, 1917-46), 740 second-feet.

Extremes.- Maximum daily discharge during year, 2,700 second-feet June 6; minimum daily, 400 second-feet Feb. 4-15.
1904-9, 1918-46: Maximum discharge observed, 6,440 second-feet June 27, 1927; minimum observed, 72 second-feet Feb. 9, 1930.

Remarks.- Records good July to September and fair for other periods. Flow since October 1939 partly regulated by Grassy Lake (see p. 55).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	560	554	525	480	403	410	428	1,780	1,470	805	500	500
2	555	554	525	470	403	410	430	1,620	1,500	780	485	500
3	546	554	525	460	402	410	430	1,900	1,630	748	485	515
4	540	554	510	455	400	410	440	2,200	1,870	710	470	515
5	530	554	505	455	400	410	450	2,140	2,540	673	470	578
6	520	545	500	455	400	410	478	2,100	2,700	637	470	546
7	510	525	495	455	400	410	480	2,050	2,450	655	455	530
8	500	515	490	455	400	410	475	2,080	2,270	637	546	530
9	508	508	480	440	400	410	470	2,080	2,300	619	562	530
10	500	515	470	435	400	412	462	1,900	2,580	619	546	515
11	495	522	470	430	400	413	475	1,650	2,600	619	578	500
12	490	540	470	425	400	414	515	1,570	2,350	619	578	500
13	485	565	470	415	400	415	600	1,530	2,170	602	578	485
14	485	575	470	405	400	416	700	1,500	2,050	594	578	485
15	485	*578	470	405	400	417	800	1,500	2,000	594	578	500
16	485	575	470	405	401	418	937	1,500	1,980	578	594	530
17	515	538	460	405	402	419	1,100	1,650	1,650	562	562	619
18	646	535	460	405	403	420	1,300	1,810	1,350	562	562	578
19	620	535	460	405	403	421	1,500	1,900	1,190	546	554	546
20	590	530	460	410	403	422	1,900	1,880	1,100	546	546	515
21	546	520	480	410	404	422	1,670	1,830	1,100	530	554	515
22	535	510	485	410	405	422	1,670	1,780	1,160	530	570	546
23	520	515	485	415	406	422	1,670	1,760	1,340	530	500	530
24	510	520	485	*427	408	422	2,110	1,740	1,150	546	515	515
25	508	525	485	415	415	422	2,400	1,730	900	515	515	500
26	508	525	485	405	416	422	2,610	1,800	850	515	515	500
27	508	522	485	405	*410	422	2,650	1,900	815	530	500	500
28	508	525	*530	405	410	423	2,400	2,080	840	500	500	485
29	510	525	600	405	-	424	2,150	1,950	895	500	515	490
30	525	530	550	405	-	425	2,000	1,840	805	500	500	495
31	540	-	520	405	-	426	-	1,650	-	515	485	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,283	646	485	525	32,300
November	16,088	578	508	536	31,910
December	15,275	600	480	493	30,300
Calendar year 1945	275,973	2,940	345	756	547,400
January	13,177	480	405	425	26,140
February	11,294	416	400	403	22,400
March	12,929	426	410	417	25,640
April	35,700	2,650	428	1,190	70,810
May	56,400	2,200	1,500	1,810	111,900
June	49,605	2,700	805	1,654	98,390
July	18,416	805	500	594	36,530
August	16,366	594	455	528	32,460
September	15,593	619	485	520	30,930
Water year 1945-46	277,126	2,700	400	759	549,700

* Winter discharge measurement made on this day.

Note.- Gage read once daily July 5 to Sept. 28; discharge for other periods was computed on a basis of once- to thrice-weekly gage readings, 10 discharge measurements, and records for Fall River near Chester and Teton River near St. Anthony (stage-discharge relation affected by ice at times November to February).

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

Between Squirrel and Chester gaging stations eight canals divert water from Fall River for irrigation. Records available for part of each irrigation season from 1919 to 1946. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								384	408	616	519	349
2								395	514	603	516	348
3								406	606	590	507	348
4								394	625	568	487	349
5								385	650	561	474	339
6								379	671	558	469	305
7								372	691	555	463	287
8								365	709	556	499	290
9								408	732	556	496	307
10								463	734	549	490	306
11								476	703	545	490	305
12								491	759	550	485	304
13								509	757	548	484	300
14								529	757	540	489	304
15								545	775	536	491	411
16								559	798	477	494	411
17								574	816	495	489	384
18								590	799	486	485	383
19								605	783	489	458	336
20								616	796	488	459	333
21								607	808	500	451	274
22								599	819	491	461	278
23								598	805	441	443	275
24								598	797	509	446	190
25								585	773	539	454	189
26								500	757	536	447	187
27								420	589	540	425	241
28								416	703	530	421	277
29								410	694	519	421	277
30								401	665	517	420	274
31								396	-	529	379	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					[1]
November					-
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	14,975	616	365	483	29,700
June	21,493	819	408	716	42,630
July	16,517	616	441	533	32,760
August	14,512	519	379	468	28,780
September	9,161	411	187	305	18,170
The period	-	-	-	-	152,000

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 1946 (irrigation seasons only).

Extremes.- Maximum discharge during period May to September, 2,530 second-feet June 6 (gage height, 4.30 feet); minimum, 30 second-feet Aug. 2 (gage height, 1.04 feet). 1920-46: Maximum discharge, 6,380 second-feet June 27, 1927 (gage height, 6.60 feet); minimum, 9 second-feet Aug. 7, 1923.

Remarks.- Records excellent except those for period of no gage-height record, which are fair. Flow since October 1939 partly regulated by Grassy Lake (see p. 55). Station is below all diversions for irrigation from Fall River.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								2,150	1,260	328	35	226
2								1,970	1,160	294	3[illegible]	226
3								2,160	1,200	278	40	223
4								2,240	1,440	245	47	226
5								2,120	1,860	223	59	286
6								2,080	2,360	193	49	307
7								1,990	2,160	197	47	303
8								2,160	1,820	185	110	307
9								2,090	1,840	169	134	298
10								1,750	2,050	169	134	286
11								1,530	2,080	a164	156	282
12								1,450	2,010	a158	166	278
13								1,500	1,660	a150	156	282
14								1,350	1,610	a142	172	245
15								1,200	1,610	a136	169	204
16								1,180	1,510	a131	183	242
17								1,240	1,320	126	166	333
18								1,410	970	117	176	320
19								1,480	674	112	176	307
20								1,400	529	101	169	303
21								1,360	508	99	169	328
22								1,410	607	88	179	365
23								1,420	674	82	139	365
24								1,430	621	59	134	379
25								1,430	434	49	134	370
26								1,550	290	43	143	342
27								1,680	294	66	166	307
28								1,840	467	62	159	290
29								2,120	434	51	179	294
30								1,870	307	36	183	298
31								1,520	-	40	204	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	52,060	2,240	1,180	1,679	103,300
June	35,759	2,360	290	1,192	70,930
July	4,291	326	36	138	8,510
August	4,145	204	33	134	8,220
September	8,822	379	204	294	17,500
The period	105,077	-	-	-	208,500

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

Teton River near Victor, Idaho

Location.- Water-stage recorder, lat. 43°33'50", long. 111°04'00", on line between sections 19 and 30, T. 3 N., R. 46 E., 100 feet downstream from Moose Creek, 200 feet upstream from String Canal, and 3½ miles southeast of Victor.

Drainage area.- 47.6 square miles.

Records available.- May to September 1946.

Extremes.- Maximum discharge observed during period, 310 second-feet June 6 (gage height, 1.58 feet); minimum, 45 second-feet Sept. 15.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	a165	167	80	55
2								-	a170	163	80	54
3								-	h178	161	78	51
4								-	h202	155	76	57
5								-	h275	152	74	56
6								-	h310	145	75	54
7								-	h285	141	72	54
8								-	h290	137	71	55
9								-	h295	130	69	54
10								-	h305	125	69	51
11								-	a290	123	69	50
12								-	a270	121	69	48
13								-	a270	118	69	47
14								-	270	116	67	47
15								-	280	111	65	46
16								-	280	108	64	60
17								-	260	103	62	53
18								-	230	101	62	51
19								-	219	98	61	50
20								-	215	93	60	49
21								-	219	93	59	49
22								-	221	96	60	49
23								-	213	90	61	49
24								-	202	88	60	49
25								-	184	87	59	49
26								-	178	90	60	48
27								h219	180	87	59	48
28								a230	178	84	59	48
29								a215	176	82	57	48
30								a200	172	81	56	47
31								a170	-	82	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May 27-31	1,034	230	170	207	4.35	0.81	2,050
June	6,982	310	165	233	4.89	5.46	13,850
July	5,528	167	81	114	2.39	2.76	7,000
August	2,037	80	55	65.7	1.38	1.59	4,040
September	1,526	60	46	50.9	1.07	1.19	3,030
The period	-	-	-	-	-	-	29,970

a No gage-height record; discharge computed on basis of records for stations on nearby streams.
h Computed from staff-gage reading.

Teton River near Tetonia, Idaho

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

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 1946. 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, 896 second-feet June 12 (gage height, 1.91 feet); minimum daily, 200 second-feet Jan. 12-16, Feb. 6-13.
1929-46: Maximum discharge observed, 1,900 second-feet June 28, 1945 (gage height, 2.97 feet); minimum observed, 62 second-feet Jan. 16, 17, 1943.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	431	431	h339	360	204	235	700	657	608	608	476	364
2	425	425	339	330	h204	h235	h671	601	581	629	454	359
3	425	419	339	300	204	238	*541	554	541	622	443	344
4	419	408	330	300	204	240	580	535	516	615	437	354
5	413	392	310	H300	204	240	620	548	554	608	425	419
6	402	375	270	300	200	242	h643	601	693	615	425	402
7	397	370	240	300	200	245	610	638	792	622	417	397
8	397	354	h220	300	200	250	550	643	746	595	408	386
9	392	349	225	245	h200	h250	490	723	716	568	408	380
10	392	350	235	235	200	250	400	746	792	554	408	370
11	392	360	240	225	200	255	h380	708	839	541	402	359
12	397	360	240	h200	200	256	390	588	872	535	402	354
13	402	*359	240	200	200	*258	397	541	784	522	397	339
14	392	355	240	200	210	260	408	528	753	516	392	334
15	386	355	h240	200	215	h250	419	510	769	503	380	329
16	386	365	235	200	h220	h250	425	478	808	491	375	339
17	392	h370	235	204	220	250	460	466	815	472	364	419
18	448	385	235	204	222	250	497	443	792	460	359	419
19	443	355	235	h204	*224	280	510	437	723	454	359	375
20	443	345	230	204	225	310	528	443	678	454	354	354
21	448	325	240	204	225	370	554	437	686	460	354	349
22	448	300	h260	*204	228	350	528	472	708	454	354	354
23	437	320	290	204	h230	h344	510	478	716	448	364	339
24	443	h330	295	204	230	340	503	561	716	454	386	334
25	425	340	295	204	230	340	528	561	716	466	392	334
26	408	340	295	h204	232	340	574	528	650	497	386	329
27	392	340	*298	204	235	390	664	561	595	503	386	324
28	380	340	300	204	235	500	708	588	595	478	380	319
29	375	340	h500	204	-	620	686	761	601	466	386	314
30	386	340	480	204	-	h716	678	723	595	472	380	314
31	419	-	400	204	-	660	-	650	-	484	370	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	12,735	448	375	411	25,260
November	10,777	431	300	359	21,380
December	8,848	500	220	285	17,550
Calendar year 1945	176,544	1,870	130	484	349,800
January	7,255	360	200	234	14,390
February	6,001	235	200	214	11,900
March	10,014	716	235	323	19,860
April	16,152	708	380	538	32,040
May	17,706	781	437	571	35,120
June	20,950	872	516	698	41,550
July	16,166	629	448	521	32,060
August	12,221	478	354	394	24,240
September	10,706	419	314	357	21,240
Water year 1945-46	149,531	872	200	410	296,600

* Winter discharge measurement made on this day.
h Computed from reading of auxiliary staff gage 1¾ miles above station.
Note.- No gage-height record Nov. 11 to Apr. 12 except weekly readings of auxiliary staff gage (stage-discharge relation affected by ice Nov. 10, 24, Dec. 15 to Mar. 8); discharge computed on basis of gage heights, 6 discharge measurements, weather records, and records for station near St. Anthony.

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 1946.

Average discharge.- 19 years (1903-8, 1921-22, 1933-46), 750 second-feet.

Extremes.- Maximum discharge during year, 2,320 second-feet Apr. 27; maximum gage height, 4.87 feet (backwater from ice) Jan. 25; minimum discharge, 320 second-feet Mar. 7 (gage height, 1.87 feet).
1903-9, 1920-46: 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 or no gage-height record, which are fair. Flow affected by diversions from streams in Teton Basin 20 miles upstream, and by flow diverted from Henrys Fork through Cross Cut Canal into Teton River (6,060 acre-feet diverted into river during irrigation season).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a680	672	a530	500	410	426	976	1,930	1,250	1,120	852	623
2	a675	666	a530	490	410	422	998	1,640	1,220	1,180	830	618
3	a670	661	a520	485	410	444	932	1,530	1,230	1,140	810	608
4	a660	661	507	485	410	430	789	1,680	1,350	1,120	796	602
5	a655	661	530	485	410	430	816	1,890	1,600	1,100	782	655
6	a650	628	466	485	410	448	902	2,050	1,880	1,070	758	683
7	a640	628	489	484	400	395	976	2,040	1,850	1,050	743	661
8	a635	597	417	484	400	462	837	2,080	1,710	1,020	737	655
9	a630	516	395	430	400	440	776	2,040	1,670	991	743	650
10	a630	582	a400	410	400	458	694	1,940	1,790	954	756	639
11	a630	592	a405	400	400	494	634	1,740	1,850	924	756	628
12	a625	578	410	390	390	498	694	1,570	1,900	909	756	613
13	623	578	417	390	390	535	750	1,510	1,890	895	750	608
14	618	*568	412	400	400	558	830	1,450	1,810	888	750	592
15	608	573	410	400	400	512	932	1,340	1,620	859	731	587
16	602	597	410	420	402	484	1,010	1,310	1,670	852	719	602
17	608	592	410	440	402	462	1,120	1,320	1,660	823	706	683
18	655	578	410	430	402	471	1,270	1,460	1,530	796	706	683
19	683	568	430	420	*402	*521	1,550	1,530	1,370	789	712	639
20	672	554	450	410	410	689	1,760	1,500	1,290	762	706	608
21	678	530	470	*410	417	737	1,810	1,440	1,280	762	706	587
22	666	484	490	410	426	634	1,560	1,440	1,320	837	694	587
23	655	a500	490	420	412	639	1,440	1,450	1,370	946	700	582
24	650	a520	490	460	426	613	1,470	1,440	1,340	902	683	573
25	650	a530	490	440	453	563	1,710	1,450	1,270	888	644	568
26	628	a530	*490	430	417	549	2,080	1,440	1,140	888	644	554
27	613	530	490	410	417	634	2,270	1,460	1,110	810	644	554
28	602	a530	490	410	435	873	2,220	1,550	1,120	816	639	549
29	592	a530	900	410	-	1,240	2,100	1,690	1,120	868	639	539
30	602	a530	840	410	-	1,480	2,080	1,560	1,110	844	639	535
31	634	-	600	410	-	1,250	-	1,350	-	852	828	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19,819	683	592	639	39,310
November	17,264	672	484	575	34,240
December	15,188	900	395	490	30,120
Calendar year 1945	336,962	3,180	290	923	668,400
January	13,458	500	390	434	26,690
February	11,461	453	390	409	22,730
March	18,791	1,480	395	606	37,270
April	37,986	2,270	634	1,266	75,340
May	49,800	2,080	1,310	1,606	98,780
June	43,920	1,900	1,110	1,464	87,110
July	28,653	1,180	762	924	56,830
August	22,357	852	628	721	44,340
September	18,265	683	535	609	36,230
Water year 1945-46	296,962	2,270	390	814	589,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage when available, weather records, and records for station near Tetonia.
Note.- Stage-discharge relation affected by ice Dec. 12, 15-18, Dec. 20 to Jan. 6, Jan. 10 to Feb. 20.

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 for part of each irrigation season from 1919 to 1946. Discharge of canals computed from daily or biweekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								658	736	843	791	488
2								682	722	851	788	484
3								734	745	850	780	483
4								793	916	848	782	491
5								788	956	890	798	511
6								879	1,090	877	779	528
7								908	1,090	903	738	527
8								1,020	1,100	921	714	505
9								1,090	1,120	911	718	436
10								1,140	1,140	911	745	422
11								1,200	1,160	841	750	422
12								1,150	1,170	845	751	443
13								974	1,130	834	752	450
14								882	1,080	855	730	437
15								865	1,020	789	720	434
16								901	1,050	800	692	436
17								920	1,060	812	665	405
18								999	981	769	668	365
19								1,060	984	793	695	340
20								1,100	968	770	684	265
21								1,100	952	770	672	255
22								1,090	989	800	684	258
23								988	1,000	981	657	274
24								1,060	993	885	639	257
25								1,030	973	870	614	267
26								1,080	944	888	594	265
27								1,060	929	825	559	256
28								1,060	895	765	571	231
29								815	858	835	570	229
30								705	854	834	488	225
31								679	-	782	492	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	29,390	1,200	658	948	58,300
June	29,605	1,170	722	987	58,720
July	26,148	981	765	843	51,860
August	21,134	798	483	682	41,920
September	11,369	528	225	379	22,550
The period	-	-	-	-	233,400

Teton Creek near Driggs, Idaho

Location.- Water-stage recorder, lat. 43°45'30", long. 110°58', 1½ miles upstream from Mill Creek, 1.6 miles west of Boy Scout camp, 4.2 miles east of Wyoming-Idaho State line, and 7½ miles northeast of Driggs.

Drainage area.- 33.8 square miles.

Records available.- June to September 1946.

Extremes.- Maximum discharge recorded during period, 780 second-feet June 16 (gage height, 3.45 feet); minimum, 21 second-feet Sept. 14, 15 (gage height, 0.31 foot).

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

Cooperation.- Fourteen discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									h152	422	78	25
2									a180	413	70	24
3									a230	425	66	23
4									h377	392	61	25
5									a500	362	58	32
6									h548	317	57	27
7									h470	323	52	25
8									a520	329	47	27
9									a580	278	44	28
10									a640	222	43	26
11									h600	235	42	24
12									a598	242	40	23
13									596	238	40	23
14									596	228	38	22
15									640	248	36	22
16									660	225	34	39
17									579	195	33	42
18									467	170	32	36
19									446	157	31	34
20									467	144	30	32
21									526	138	29	31
22									593	138	29	30
23									537	132	30	29
24									450	125	34	29
25									332	112	29	29
26									305	101	30	28
27									398	95	29	27
28									436	88	28	25
29									439	83	31	25
30									436	78	27	23
31									-	100	26	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-
June	14,298	660	152	477	14.1	15.73	28,360
July	6,755	425	78	218	6.45	7.43	13,400
August	1,254	78	26	40.5	1.20	1.38	2,490
September	835	42	22	27.8	.82	.92	1,660
The period	-	-	-	-	-	-	45,910

a No gage-height record; discharge computed on basis of records for stations on nearby streams.
h Computed from staff-gage reading.

Horseshoe Creek near Driggs, Idaho

Location.- Water-stage recorder, lat. 43°44', long. 111°15'30", in sec. 27, T. 5 N., R. 44 E., at mouth of canyon, 90 feet upstream from bridge on old railroad grade, 4 miles upstream from mouth, and 7½ miles west of Driggs.

Drainage area.- 11.7 square miles.

Records available.- May to September 1946.

Extremes.- Maximum daily discharge during period, 37 second-feet June 6; minimum discharge, 3.9 second-feet Aug. 31, Sept. 1; minimum gage height, 1.15 feet Aug. 20.

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

Cooperation.- Fourteen discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	a30	14	6.5	4.0
2								-	a28	14	6.3	4.2
3								-	a26	14	6.0	4.2
4								-	a29	13	6.0	4.9
5								-	h31	14	5.7	5.0
6								-	a37	13	5.5	4.4
7								-	a36	13	5.5	4.4
8								-	a34	12	5.4	4.6
9								-	a32	12	5.4	4.6
10								-	a29	12	5.2	4.6
11								-	h25	11	5.0	4.8
12								-	h25	11	5.2	5.0
13								-	23	10	5.0	5.4
14								-	23	10	4.9	5.5
15								-	22	9.9	4.9	5.7
16								-	22	9.5	4.9	6.8
17								-	21	9.0	4.9	6.9
18								-	21	8.8	4.8	6.6
19								-	20	8.5	4.8	6.5
20								-	19	8.1	4.8	6.1
21								-	19	8.0	4.6	6.0
22								-	18	8.0	4.8	6.3
23								-	18	7.3	4.9	6.1
24								-	18	7.1	4.9	6.0
25								-	17	7.1	4.8	5.8
26								-	17	7.3	4.3	5.5
27								-	16	6.9	4.3	5.4
28								-	15	6.8	4.2	5.4
29								h35	15	6.6	4.4	5.2
30								a34	15	6.6	4.3	5.0
31								a32	-	6.8	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-
June	701	37	15	23.4	2.00	2.23	1,390
July	305.1	14	6.6	9.84	.841	.97	605
August	156.4	6.5	4.2	5.05	.432	.50	310
September	160.9	6.9	4.0	5.36	.458	.51	319
The period	-	-	-	-	-	-	2,620

a No gage-height record; discharge computed on basis of records for stations on nearby streams.
h Computed from staff-gage readings.

Packsaddle Creek near Tetonia, Idaho

Location.- Water-stage recorder, lat. 43°45'30", long. 111°18'30", in sec. 18, T. 5 N., R. 44 E., 0.9 mile upstream from North Fork and 8½ miles southwest of Tetonia.

Drainage area.- 5.7 square miles.

Records available.- June to September 1946.

Extremes.- Maximum daily discharge during period, 25 second-feet June 6; minimum discharge, 0.4 second-foot Aug. 16 (gage height, 0.40 foot).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									a19	5.0	1.2	0.6
2									a18	4.6	1.2	.6
3									a17	4.4	1.0	.6
4									a16	4.2	1.0	.7
5									h23	4.1	1.0	1.2
6									a25	4.1	1.0	.8
7									a23	3.9	.9	.8
8									a22	3.7	.9	.8
9									a21	3.5	.9	.8
10									a20	3.3	.8	.8
11									a18	3.3	.7	.8
12									h16	3.2	.8	.7
13									16	3.0	.7	.7
14									14	2.6	.7	.7
15									13	2.5	.8	.8
16									12	2.4	.6	1.3
17									11	2.4	.7	1.3
18									11	2.2	.7	1.2
19									9.8	2.2	.7	1.0
20									9.0	2.0	.6	.9
21									8.3	1.9	.7	.9
22									7.8	1.8	.7	.9
23									7.4	1.8	1.0	.9
24									7.2	1.6	.9	.8
25									6.5	1.6	.9	.8
26									6.1	1.6	.8	.8
27									5.9	1.6	.7	.8
28									5.6	1.4	.7	.8
29									5.2	1.3	.7	.8
30									5.2	1.4	.6	.8
31									-	1.4	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-
June	399.0	25	5.2	13.3	2.33	2.60	791
July	84.0	5.0	1.3	2.71	.475	.55	167
August	25.2	1.2	.6	.81	.142	.16	50
September	25.4	1.3	.6	.85	.149	.17	50
The period	-	-	-	-	-	-	1,060

a No gage-height record; discharge computed on basis of records for stations on nearby streams.
h Computed from staff-gage reading.

Spring Creek near Tetonia, Idaho

Location.- Water-stage recorder, lat. 43°50'30", long. 111°07', in sec. 14, T. 6 N., R. 45 E., 10 feet downstream from source of creek at spring and 3 miles northeast of Tetonia.

Records available.- June to September 1946.

Extremes.- Maximum discharge during period, 8.7 second-feet June 20 (gage height, 0.75 foot); minimum, 3.6 second-feet Sept. 19-26 (gage height, 0.54 foot).

Remarks.- Records fair. One diversion above station for irrigation. Approximately 131 acre-feet were diverted during period June 1 to Sept. 30 (56 in June, 62 in July, and 13 in August).

Cooperation.- Seventeen discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									a8.2	7.5	6.2	4.7
2									a8.2	7.5	6.2	4.7
3									†8.2	7.8	6.2	4.4
4									a8.2	7.8	5.9	4.4
5									a8.2	8.1	5.9	4.4
6									a8.2	7.8	5.9	4.4
7									a8.1	7.5	5.9	4.4
8									a8.1	7.5	5.9	4.4
9									a8.1	7.5	5.9	4.4
10									a8.1	7.5	5.7	4.4
11									h8.1	7.2	5.4	4.2
12									a8.0	7.2	5.4	4.2
13									a7.9	7.2	5.4	4.0
14									7.8	7.0	5.2	4.0
15									7.8	6.7	5.2	4.0
16									7.8	6.7	5.2	4.0
17									7.5	6.7	4.9	4.0
18									7.8	6.5	4.9	3.8
19									7.8	6.5	5.2	3.6
20									7.8	6.2	4.9	3.6
21									7.8	6.2	5.2	3.6
22									7.8	6.2	4.9	3.6
23									7.8	6.2	4.9	3.6
24									7.8	6.2	4.9	3.6
25									7.8	6.2	4.9	3.6
26									7.8	6.2	4.7	3.8
27									7.8	6.2	4.7	3.8
28									7.8	6.2	4.7	3.8
29									7.8	5.9	4.7	3.8
30									7.5	5.9	4.7	3.8
31									-	5.9	4.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	237.6	8.2	7.5	7.92	471
July	211.7	8.1	5.9	6.83	420
August	164.4	6.2	4.7	5.30	326
September	121.0	4.7	3.6	4.03	240
The period	-	-	-	-	1,457

† Result of discharge measurement.
a No gage-height record; discharge interpolated or extrapolated.
h Computed from staff-gage reading.

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 1946.

Extremes.- Maximum discharge during year, 592 second-feet Apr. 25 (gage height, 5.68 feet); minimum, 8 second-feet Aug. 21 (gage height, 1.15 feet).
1913-46: Maximum discharge, 868 second-feet May 21, 1921; no flow on many days.

Remarks.- Records good except those for Dec. 9 to Mar. 24, 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	417	513	322	350	120	160	381	562	548	26e	51	96
2	391	512	313	330	120	165	378	554	450	212	33	98
3	378	508	285	h308	120	165	414	528	449	149	37	44
4	363	498	228	h244	120	170	572	453	510	140	42	22
5	347	468	220	230	120	175	557	282	360	146	47	39
6	343	476	222	220	h120	175	531	236	129	144	29	152
7	336	470	224	215	h120	175	519	156	70	118	25	191
8	359	449	170	205	120	180	489	169	61	102	19	228
9	364	283	190	195	120	180	495	144	41	75	16	244
10	364	382	200	185	120	180	513	391	25	45	20	262
11	368	421	195	180	120	180	524	476	10	42	24	271
12	392	401	190	180	120	180	526	519	32	41	32	234
13	401	402	185	176	h110	180	526	373	70	42	33	136
14	388	385	h175	176	106	185	484	239	36	43	124	100
15	381	350	170	176	*106	185	562	287	47	53	99	49
16	374	374	165	176	108	186	572	432	81	37	33	21
17	364	395	160	176	115	186	562	402	114	32	29	73
18	373	406	155	*176	120	*186	577	245	170	31	16	104
19	398	406	150	176	125	190	585	242	229	32	17	120
20	404	*407	145	176	130	220	582	298	410	32	12	153
21	418	392	*143	176	135	310	579	266	336	32	9	214
22	426	408	150	176	140	h330	579	269	213	33	14	159
23	434	385	160	176	145	315	582	320	227	28	22	99
24	442	316	180	190	145	290	584	508	364	29	41	92
25	452	373	200	260	150	273	590	522	496	44	120	78
26	459	357	220	245	155	254	587	528	502	45	114	44
27	488	357	240	200	155	243	582	507	506	35	78	34
28	a495	356	270	160	160	263	574	476	452	29	271	24
29	a500	339	300	145	-	309	571	543	418	38	218	26
30	a510	329	340	135	-	371	566	572	328	38	123	36
31	514	-	370	120	-	378	-	580	-	50	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	12,643	514	336	408	25,080
November	12,138	513	283	405	24,080
December	6,637	370	143	214	13,160
Calendar year 1945	75,731	532	1	207	150,200
January	6,233	350	120	201	12,360
February	3,545	160	106	127	7,030
March	6,939	378	160	224	13,760
April	16,143	590	378	538	32,020
May	12,079	580	144	390	23,960
June	7,684	548	10	256	15,240
July	2,185	268	28	70.5	4,330
August	1,860	271	9	60.0	3,690
September	3,445	271	21	115	6,830
Water year 1945-46	91,531	590	9	251	181,500

* Winter discharge measurement made on this day.
a No gage-height record; discharge estimated.
h Computed from reading of auxiliary staff gage 9 miles upstream.
Note.- Discharge for Dec. 12 to Mar. 24 computed on basis of 4 discharge measurements and occasional readings of auxiliary gage (stage-discharge relation affected by ice during much of period).

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, 1¼ miles upstream from diversion dam of Portneuf-March Valley Canal Co., and 6 miles southeast of McCammon.

Records available.- January 1913 to September 1915, July 1919 to September 1946.

Average discharge.- 27 years (1913-14, 1919-22, 1923-46), 192 second-feet.

Extremes.- Maximum discharge observed during year, 661 second-feet Apr. 27-29 (gage height, 3.94 feet); minimum observed, 138 second-feet Sept. 27-30; minimum gage height observed, 1.10 feet Feb. 9, 12.
1913-15, 1919-46: 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 rapidly changing stage, which are fair. Gage read once daily. Flow regulated by Portneuf-Marsh Valley Canal Co.'s reservoir near Chesterfield. Many ranch diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	170	160	206	160	162	468	649	371	229	225	218
2	162	174	160	202	159	162	436	623	368	229	223	214
3	159	174	160	194	160	162	436	607	364	227	223	218
4	159	170	157	190	160	162	346	539	346	227	218	218
5	159	170	157	182	159	159	364	539	309	255	218	223
6	160	168	160	166	157	162	364	539	271	255	214	223
7	160	166	160	166	160	160	364	539	251	253	210	227
8	160	166	157	174	153	155	357	522	251	253	208	227
9	160	162	153	170	149	162	357	522	227	253	208	227
10	160	162	153	162	153	168	364	505	223	251	208	227
11	160	164	153	a160	153	214	324	488	223	247	210	206
12	162	164	149	157	149	239	346	471	223	247	210	196
13	162	164	149	157	157	309	364	418	227	247	210	196
14	162	153	151	157	155	301	373	418	229	249	208	196
15	162	168	151	160	155	267	418	400	229	255	208	196
16	160	168	155	160	155	267	488	382	229	261	208	196
17	164	172	155	157	155	227	488	364	229	257	208	176
18	160	172	153	157	155	227	505	364	227	257	206	164
19	160	172	155	157	159	328	505	346	241	251	192	149
20	160	172	155	153	159	346	607	364	241	249	190	145
21	162	164	155	155	155	353	623	364	223	245	184	147
22	162	153	159	155	159	350	590	a368	202	243	192	147
23	162	153	155	155	160	357	585	371	194	233	200	143
24	164	160	155	162	159	357	583	371	206	212	212	143
25	159	164	153	159	162	407	583	371	218	210	210	140
26	160	157	162	159	166	407	600	355	220	216	210	142
27	160	153	170	155	166	400	661	364	220	218	210	138
28	160	157	307	151	166	436	661	364	225	218	210	138
29	164	164	360	159	-	468	661	375	220	218	204	138
30	168	164	239	157	-	488	655	382	220	223	216	138
31	168	-	223	157	-	471	-	375	-	225	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,006	168	159	161	9,930
November	4,940	174	153	165	9,800
December	5,341	360	149	172	10,590
Calendar year 1945	77,085	454	131	211	152,900
January	5,111	206	151	165	10,140
February	4,415	166	149	158	8,760
March	8,833	488	155	285	17,520
April	14,476	661	324	483	28,710
May	13,659	649	346	441	27,090
June	7,427	371	194	248	14,730
July	7,413	261	210	239	14,700
August	6,471	225	184	209	12,840
September	5,456	227	138	182	10,820
Water year 1945-46	88,548	661	138	243	175,600

a No gage-height record; discharge interpolated.

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 1946. May 1897 to October 1899 at site 1 mile upstream.

Average discharge.- 33 years (1912-16, 1917-46), 253 second-feet.

Extremes.- Maximum discharge during year, 1,040 second-feet Apr. 30 (gage height, 7.66 feet); minimum, 46 second-feet July 26 (gage height, 2.33 feet).
1897-99, 1911-46: 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 for periods 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	279	313	313	671	b300	371	684	1,010	390	116	119	154
2	275	308	299	577	295	356	884	998	383	116	122	148
3	274	291	279	508	295	388	860	957	344	113	118	146
4	270	284	275	462	297	402	836	923	326	116	112	151
5	268	277	286	426	295	386	627	884	277	116	115	158
6	267	279	295	402	293	390	629	854	243	125	109	180
7	267	282	300	389	290	410	838	831	207	119	101	180
8	265	288	299	*380	288	*398	847	828	188	118	101	181
9	270	277	275	354	279	398	849	817	189	111	100	181
10	268	281	224	b320	288	422	845	812	154	108	102	181
11	268	309	279	b270	286	444	645	812	134	108	96	183
12	262	315	297	b250	282	478	642	782	116	105	87	175
13	260	317	293	b250	279	548	656	728	111	109	84	160
14	255	311	b290	b260	279	598	680	671	115	109	89	158
15	258	308	b280	b260	277	586	700	616	102	96	89	156
16	258	327	b270	270	279	596	717	556	96	87	96	151
17	265	*335	b270	295	279	535	737	518	95	79	79	156
18	272	333	b280	300	279	481	812	512	118	75	91	163
19	270	333	b290	297	282	460	838	518	140	78	104	162
20	268	329	b310	295	286	506	874	502	286	77	92	164
21	272	318	b370	302	290	577	891	476	252	84	89	154
22	270	293	b470	300	295	609	888	460	226	82	93	148
23	270	284	b460	288	295	616	943	460	216	82	106	144
24	267	282	450	302	308	607	967	460	228	73	266	144
25	267	284	434	326	354	584	974	444	207	93	279	139
26	265	299	454	b310	400	556	988	432	163	93	207	140
27	265	300	382	b300	398	552	991	388	144	163	163	132
28	272	306	390	b280	394	601	1,010	398	136	123	156	126
29	275	309	535	b280	-	638	1,020	446	132	109	172	126
30	282	311	616	b290	-	662	1,020	446	122	113	163	122
31	299	-	675	b300	-	682	-	428	-	122	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,343	299	255	269	16,550
November	9,083	335	277	303	18,020
December	10,940	675	224	353	21,700
Calendar year 1945	121,896	771	85	334	241,800
January	10,474	671	250	338	20,770
February	8,462	400	277	302	16,780
March	15,835	682	356	511	31,410
April	23,492	1,020	627	783	46,600
May	19,977	1,010	388	644	39,620
June	5,800	390	95	193	11,500
July	3,214	163	73	104	6,370
August	3,858	279	79	124	7,650
September	4,663	183	122	155	9,250
Water year 1945-46	124,141	1,020	73	340	246,200

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

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 1946. October 1911 to August 1914 at site 1¼ miles upstream.

Extremes.- Maximum discharge observed during year, 26 second-feet Apr. 29 (gage height, 1.36 feet); minimum observed, 6.8 second-feet Dec. 2, 3.
1911-14, 1937-46: 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 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.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	7.7	7.7	8.2	7.3	7.3	9.9	22	14	10	9.3	8.5
2	8.5	7.7	6.8	8.2	7.5	7.3	9.9	21	14	10	9.3	8.5
3	8.2	7.7	6.8	8.2	7.5	7.3	9.9	21	14	10	9.3	8.5
4	8.2	7.7	7.3	8.2	7.5	7.3	9.6	21	13	10	9.3	8.5
5	8.2	7.7	7.5	8.5	7.5	7.3	9.9	21	12	10	9.3	8.5
6	8.2	7.7	7.5	8.5	7.5	7.3	9.6	21	12	10	9.3	8.5
7	8.2	7.7	7.5	8.5	7.5	7.3	9.9	20	12	9.9	9.0	8.5
8	8.2	7.7	7.5	8.5	7.5	7.3	9.6	20	11	9.9	8.7	8.5
9	8.2	7.7	7.1	8.2	7.5	7.3	9.6	20	12	9.9	8.7	8.5
10	8.2	7.7	7.1	8.5	7.5	7.3	9.6	20	12	9.9	8.5	8.5
11	8.2	7.7	7.1	8.2	7.5	7.3	9.9	20	12	9.9	8.5	8.5
12	8.2	7.7	7.3	7.9	7.5	7.3	10	19	11	9.9	8.5	8.5
13	8.2	7.3	7.3	7.9	7.5	7.5	10	19	11	9.9	8.5	8.5
14	8.2	7.3	7.3	7.9	7.5	7.5	10	17	11	9.9	8.5	8.5
15	8.2	7.3	7.3	7.9	7.5	7.5	11	17	11	9.6	8.5	8.5
16	8.2	7.3	7.3	8.2	7.5	7.5	14	17	11	9.3	8.5	8.5
17	8.2	7.3	7.3	8.2	7.5	7.5	16	16	11	9.3	8.5	8.5
18	7.9	7.3	7.3	7.9	7.5	7.5	18	16	11	9.3	8.5	8.5
19	7.9	7.3	7.3	7.9	7.3	7.5	19	16	11	9.9	8.5	8.5
20	7.9	7.3	7.7	7.9	7.3	9.6	21	16	10	9.3	8.5	8.5
21	7.9	7.3	7.9	7.9	7.3	8.5	21	16	10	9.3	8.5	8.5
22	7.9	7.5	8.5	7.9	7.3	8.2	21	16	10	9.3	8.5	8.5
23	7.9	7.5	8.5	7.9	7.3	8.2	21	16	11	9.3	8.7	8.5
24	7.9	7.5	7.9	7.9	7.3	8.2	22	15	10	9.3	8.5	8.5
25	7.9	7.5	7.9	7.9	7.3	7.7	23	15	9.6	9.3	8.5	8.5
26	7.9	7.5	7.9	7.9	7.3	8.2	23	16	9.6	9.3	8.5	8.5
27	7.9	7.5	7.9	7.5	7.3	9.0	24	16	10	9.3	8.5	8.5
28	7.9	7.5	9.0	7.5	7.3	9.3	25	16	10	9.3	8.5	8.5
29	7.9	7.7	9.3	7.5	-	9.9	26	16	10	9.3	8.2	8.5
30	7.9	7.7	8.2	7.5	-	10	23	16	10	9.3	8.5	8.5
31	7.9	-	8.2	7.5	-	10	-	14	-	9.3	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	250.6	8.5	7.9	8.08	497
November	226.0	7.7	7.3	7.53	448
December	237.2	9.3	6.8	7.65	470
Calendar year 1945	3,571.1	24	6.6	9.78	7,080
January	248.3	8.5	7.5	8.01	492
February	207.8	7.5	7.3	7.42	412
March	246.9	10	7.3	7.96	490
April	465.4	26	9.6	15.5	923
May	552	22	14	17.8	1,090
June	336.2	14	9.6	11.2	667
July	298.2	10	9.3	9.62	591
August	269.1	9.3	8.2	8.68	534
September	255.0	8.5	8.5	8.50	506
Water year 1945-46	3,592.7	26	6.8	9.84	7,120

Clear Creek near Naf, Idaho

Location.- Water-stage recorder, lat. 41°58'15", long. 113°17'15", in SW¼SW¼ sec. 1, T. 14 N., R. 13 W. Salt Lake meridian, 2 miles south of Utah-Idaho State line, 3 miles south of Naf post office, and 20 miles upstream from Raft River. Prior to Dec. 31, 1912, staff gage at site 600 feet downstream at different datum.

Drainage area.- 19 square miles.

Records available.- January 1910 to June 1911 (fragmentary), June to December 1912 (gage heights only), November 1944 to September 1946.

Extremes.- Maximum discharge during year, 64 second-feet June 5 (gage height, 2.03 feet); minimum, 0.3 second-foot Aug. 5, Sept. 14, caused by irrigation diversion.
1910-11, 1944-46: Maximum discharge observed, 180 second-feet May 13, 1910; minimum observed, 0.3 second-foot July 21, 1910, Aug. 5, Sept. 14, 1946.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	4.1	2.9			b2.4	2.3	38	30	15	2.9	1.2
2	2.9	4.1	b2.7			2.6	2.9	35	26	15	3.2	1.1
3	2.9	4.1	b3.0			2.0	2.3	38	38	14	2.0	1.1
4	2.9	4.1	3.2			b2.2	2.3	41	51	14	1.9	1.5
5	3.2	4.1	3.2	(*)		b2.4	2.6	45	60	14	.6	2.9
6	3.2	4.1	3.2			2.3	2.9	48	58	13	1.7	1.3
7	3.2	3.8	2.9			b2.2	2.9	44	48	11	1.7	1.6
8	3.2	2.9	b2.7			b2.2	2.9	40	45	10	1.7	1.9
9	2.9	3.5	b2.6			2.6	2.6	38	43	9.6	1.5	1.5
10	2.9	3.8				3.2	2.6	33	43	8.6	1.5	1.4
11	2.9	4.1				3.2	2.6	29	40	5.4	1.6	1.1
12	2.9	3.8				2.9	3.2	28	37	5.0	1.6	1.0
13	2.9	3.8				3.5	3.8	27	35	4.7	.7	.9
14	3.2	3.5			a2.5	2.9	5.0	27	34	4.4	1.6	.6
15	2.9	4.1				b2.6	6.2	27	34	4.7	1.5	1.1
16	3.2	4.1		a2.5		b2.4	7.4	28	29	6.6	1.3	1.2
17	3.2	4.1				b2.3	11	28	30	6.2	1.2	1.6
18	3.2	3.5				3.2	13	32	29	5.4	1.2	1.7
19	3.2	4.1				3.5	16	37	25	5.4	1.0	1.6
20	3.2	3.5	a2.5			4.1	17	39	24	4.7	1.0	1.5
21	3.2	b2.8				3.2	17	43	25	4.1	.7	1.3
22	3.5	b3.0				2.6	14	44	23	3.8	2.6	1.4
23	3.2	3.8				2.6	14	41	22	4.4	3.2	1.5
24	3.2	3.5				*2.3	17	38	22	4.7	2.6	1.4
25	3.2	3.8				2.3	21	35	17	5.0	1.6	1.2
26	*3.2	3.5			*b2.5	2.0	27	37	15	5.0	4.1	1.1
27	3.2	3.8			b2.5	2.6	29	41	14	4.4	1.9	1.3
28	3.2	4.1			2.3	2.9	32	43	13	1.3	1.6	1.3
29	3.5	4.1			-	2.9	37	38	15	3.2	.8	1.4
30	4.1	4.1			-	2.6	34	35	15	3.2	1.3	.9
31	4.7	-			-	3.2	-	32	-	3.2	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	99.2	4.7	2.9	3.20	197
November	113.7	4.1	2.8	3.79	226
December	81.4	-	-	2.63	161
Calendar year 1945	5,921.8	124	.8	16.2	11,740
January	77.5	-	-	2.5	154
February	69.8	-	-	2.49	138
March	83.9	4.1	2.0	2.71	166
April	353.5	37	2.3	11.8	701
May	1,129	48	27	36.4	2,240
June	940	60	13	31.3	1,860
July	219.0	15	1.3	7.06	434
August	53.0	4.1	.6	1.71	105
September	40.6	2.9	.6	1.35	81
Water year 1945-46	3,260.6	60	.6	8.93	6,460

* Winter discharge measurement made on this day.
a Nc gage-height record; discharge computed on basis of 1 discharge measurement and weather records.
b Stage-discharge relation affected by ice.

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 1946.

Extremes.- Maximum discharge during year, 1,700 second-feet July 13 (gage height, 9.85 feet); no flow during winter.
1909-46: Maximum discharge, 1,780 second-feet July 11, 1943; maximum gage height, 10.00 feet May 7, 1943; no flow during winters.

Remarks.- Records excellent. Flow controlled by head gates. Canal diverts water from Snake River 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	405						0	1,580	658	1,500	1,350	1,060
2	407						0	1,640	656	1,550	1,320	1,050
3	414						0	1,670	716	1,580	1,350	1,050
4	443						0	1,670	935	1,590	1,370	1,050
5	488						0	1,680	1,240	1,590	1,360	875
6	538						0	1,680	1,450	1,590	1,380	748
7	562						0	1,660	1,500	1,620	1,440	714
8	588						0	1,650	1,500	1,640	1,480	696
9	604						0	1,610	1,500	1,640	1,490	674
10	630						0	1,600	1,550	1,670	1,490	640
11	648						0	1,610	1,590	1,690	1,480	638
12	644						0	1,600	1,520	1,690	1,490	634
13	636						0	1,600	1,490	1,680	1,480	664
14	630						0	1,600	1,490	1,690	1,480	720
15	630						0	1,600	1,450	1,680	1,480	807
16	628						74	1,600	1,430	1,690	1,480	844
17	628						174	1,600	1,410	1,690	1,490	848
18	608						272	1,600	1,290	1,680	1,490	826
19	560						375	1,600	1,230	1,680	1,490	799
20	554						414	1,630	1,230	1,670	1,530	799
21	554						414	1,650	1,230	1,670	1,530	696
22	488						486	1,610	1,230	1,670	1,530	628
23	398						630	1,540	1,220	1,670	1,490	626
24	355						795	1,480	1,230	1,680	1,420	626
25	355						992	1,370	1,190	1,680	1,400	624
26	355						1,250	1,260	1,150	1,650	1,230	620
27	353						1,370	1,080	1,210	1,630	1,180	620
28	353						1,440	840	1,320	1,640	1,030	660
29	353						1,550	730	1,390	1,600	1,030	696
30	353						1,540	662	1,480	1,550	1,030	768
31	147						-	660	-	1,430	1,030	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,309	648	147	494	30,360
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1945	217,662	1,700	0	596	431,700
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	11,776	1,550	0	393	23,360
May	45,362	1,680	660	1,463	89,970
June	38,485	1,590	656	1,283	76,330
July	50,680	1,690	1,430	1,635	100,500
August	42,950	1,550	1,050	1,385	85,190
September	22,700	1,060	620	757	45,020
Water year 1945-46	227,262	1,690	0	623	450,700

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 1946.

Extremes.- Maximum discharge during year, 1,330 second-feet May 5; maximum gage height, 6.05 feet July 23; no flow during winter.
1909-46: Maximum discharge, 1,360 second-feet July 11, 1945; no flow during winters.

Remarks.- Records excellent. Flow controlled by head gates. Canal diverts water from Snake River 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	273						0	818	304	1,290	1,250	970
2	273						0	898	383	1,280	1,250	1,010
3	337						0	1,000	524	1,290	1,250	1,070
4	414						0	1,140	704	1,300	1,220	1,050
5	412						0	1,270	946	1,290	1,210	710
6	403						0	1,200	1,190	1,290	1,250	547
7	401						0	1,300	1,260	1,280	1,260	522
8	399						0	1,260	1,270	1,280	1,240	510
9	395						0	1,250	1,270	1,280	1,230	418
10	359						0	1,250	1,290	1,290	1,240	416
11	333						0	1,260	1,300	1,290	1,240	454
12	350						0	1,220	1,300	1,280	1,240	660
13	363						0	1,200	1,290	1,280	1,240	801
14	365						0	1,200	1,290	1,290	1,250	860
15	361						0	1,210	1,290	1,280	1,250	886
16	361						0	1,210	1,270	1,280	1,240	940
17	367						0	1,210	1,200	1,280	1,250	807
18	401						0	1,250	1,050	1,290	1,240	665
19	424						0	1,260	889	1,280	1,240	610
20	409						0	1,260	835	1,270	1,230	524
21	395						0	1,260	907	1,270	1,220	461
22	371						0	1,240	989	1,280	1,230	403
23	355						113	1,150	992	1,290	1,230	355
24	355						241	989	881	1,300	1,230	373
25	320						281	840	723	1,300	1,230	420
26	299						407	812	746	1,300	1,220	498
27	297						492	776	925	1,300	1,180	526
28	295						489	535	1,060	1,290	1,130	458
29	310						671	452	1,080	1,290	1,090	443
30	326						782	377	1,140	1,290	983	535
31	109						-	292	-	1,240	961	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,832	424	109	349	21,480
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1945	160,627	1,350	0	440	318,600
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	3,476	782	0	116	6,890
May	32,489	1,300	292	1,048	64,440
June	30,298	1,300	304	1,010	60,100
July	39,840	1,300	1,240	1,285	79,020
August	37,524	1,260	961	1,210	74,430
September	18,902	1,070	355	630	37,490
Water year 1945-46	173,361	1,300	0	475	343,800

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 1946.

Average discharge.- 23 years (1911-14, 1926-46), 41.4 second-feet.

Extremes.- Maximum discharge during year, 330 second-feet Apr. 29 (gage height, 3.97 feet); minimum, 6.0 second-feet Aug. 20 (gage height, 1.46 feet).
1911-16, 1919-46: Maximum discharge, 1,670 second-feet Jan. 23 or Feb. 24, 1943 (gage height, 7.6 feet, from high-water mark), from rating curve extended above 600 second-feet by logarithmic plotting; no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	25	29	46	25	141	95	312	103	20	12	8.7
2	15	25	26	47	25	96	94	304	95	19	10	8.4
3	15	25	25	45	25	120	91	282	91	19	9.9	8.1
4	15	25	22	46	25	98	85	254	87	20	9.9	8.7
5	14	24	27	43	25	70	83	234	82	21	9.3	11
6	14	23	27	41	25	85	86	221	77	21	9.0	12
7	14	24	27	40	25	106	88	214	69	20	8.7	13
8	14	24	26	39	25	75	91	216	67	17	8.1	13
9	14	28	24	36	25	87	93	216	63	16	7.5	12
10	15	25	25	35	25	96	99	211	60	16	7.2	12
11	15	26	26	38	25	101	100	203	58	15	7.2	11
12	16	29	27	35	25	80	100	189	56	15	7.5	11
13	17	27	34	30	25	77	103	166	47	15	8.7	10
14	17	29	31	27	25	87	116	154	48	14	8.4	9.9
15	17	31	25	30	25	*70	132	150	41	14	7.5	9.3
16	17	31	25	32	28	64	158	140	42	14	7.5	9.6
17	17	31	27	30	28	61	184	132	37	13	7.2	11
16	17	29	30	27	28	62	203	125	37	12	7.0	12
19	17	30	28	26	28	65	220	120	38	11	6.5	12
20	18	29	26	24	28	78	238	117	38	9.3	6.2	13
21	18	30	29	24	28	75	260	114	37	9.0	6.2	13
22	18	28	33	25	28	70	284	120	35	12	7.0	12
23	19	26	36	26	36	68	295	135	32	13	9.0	12
24	20	29	41	26	45	68	295	135	35	13	9.3	12
25	19	30	38	*26	55	66	286	123	37	12	9.6	12
26	19	32	43	25	166	64	286	116	38	17	10	12
27	19	29	45	25	116	65	295	121	33	22	15	12
28	20	*29	58	25	107	69	312	141	27	17	12	11
29	20	31	75	25	-	76	326	144	25	16	11	12
30	21	31	64	25	-	81	323	126	23	14	10	12
31	22	-	50	25	-	88	-	107	-	13	9.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	528	22	14	17.0	1,050
November	835	32	23	27.8	1,660
December	1,049	75	22	33.8	2,080
Calendar year 1945	18,319.6	260	7.2	50.2	36,340
January	994	47	24	32.1	1,970
February	1,096	166	25	39.1	2,170
March	2,509	141	61	80.9	4,980
April	5,421	326	83	181	10,750
May	5,342	312	107	172	10,600
June	1,558	103	23	51.9	3,090
July	479.3	22	9.0	15.5	951
August	273.4	15	6.2	8.82	542
September	335.7	13	8.1	11.2	666
Water year 1945-46	20,420.4	326	6.2	55.9	40,510

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 21-26, Dec. 2, 3, 8, 9, 18-22, Jan. 7 to Feb. 23.

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 1946.

Extremes.- Maximum contents observed during year, 36,600 acre-feet June 2 (gage height, 96.1 feet); minimum observed, 6,810 acre-feet Oct. 7 (gage height, 41.5 feet).
1912-46: 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 when observations were made.

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

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	8,250	-	-	-	17,500	-	-	-	-	-	14,600
2	-	-	-	-	-	-	-	-	36,600	32,200	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	14,800	-	-	-	-	-	20,400	-
5	-	-	-	-	-	-	-	35,100	-	-	-	-
6	-	8,590	-	13,000	-	-	-	-	-	32,400	-	-
7	6,810	-	-	-	-	-	24,500	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	13,400
9	-	-	10,900	-	-	-	-	-	35,700	31,100	-	-
10	-	-	-	-	15,300	19,300	-	-	-	-	-	-
11	-	8,950	-	-	-	-	-	-	-	-	19,000	-
12	-	-	-	-	-	-	-	35,600	-	-	-	-
13	-	-	-	13,400	-	-	-	-	-	-	-	-
14	7,220	-	11,100	-	-	20,200	-	-	-	28,600	-	-
15	-	9,290	-	-	15,600	20,300	26,400	35,700	34,500	-	18,200	12,200
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	34,100	-	-	-
18	-	-	-	13,800	-	-	27,800	-	-	-	17,600	-
19	-	-	-	-	-	-	-	35,400	-	25,900	-	-
20	-	-	11,500	-	16,000	21,100	-	-	-	-	-	-
21	-	9,720	-	-	-	-	-	-	-	24,700	-	-
22	-	-	-	14,000	-	-	30,000	-	33,600	-	16,200	11,300
23	-	-	-	-	-	21,600	-	-	-	-	-	-
24	7,780	-	11,700	-	-	-	-	-	-	-	16,300	-
25	-	-	-	14,200	16,300	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	35,400	-	-	16,400	-
27	-	-	-	14,300	-	-	-	-	32,900	-	-	-
28	-	10,200	-	-	-	-	33,000	-	-	22,300	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	12,300	-	-	-	33,600	-	-	-	-	9,940
31	8,180	-	-	14,600	-	23,100	-	-	-	-	-	-

Trapper Creek near Oakley, Idaho

Location.- Water-stage recorder and concrete control, 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 1946.
Average discharge.- 22 years (1911-12, 1913-14, 1926-46), 13.7 second-feet.
Extremes.- Maximum daily discharge during year, 57 second-feet Apr. 28, 29, during period of r.. gage-height record; minimum, 3.3 second-feet sometime during period Dec. 14 to Jan. 24, when clock was stopped.
1911-16, 1919-46: Maximum discharge recorded, 270 second-feet (revised) Aug. 17, 1941 (gage height, 6.99 feet), from rating curve extended above 100 second-feet on basis of velocity-area studies and flow over weir (a higher flow may have occurred during cloudburst about 12 p.m. Aug. 15, 1931); minimum not determined, probably occurred during winter.
Revisions.- The maximum discharge for the water year 1941 has been revised to 270 second-feet Aug. 17 (gage height, 6.99 feet), superseding figure published in Water-Supply Paper 933 and subsequent papers. The maximum discharge for the water year 1943 has been revised to 120 second-feet about Jan. 23 or Feb. 24 (gage height, 6.06 feet), superseding figure published in Water-Supply Paper 983.
Remarks.- Records good except those for periods of no gage-height record, which are fair. A few small diversions above station. Flow of artesian well, completed in 19°8, enters above. Practically entire flow passing station is stored in Oakley Reservoir.
Cooperation.- Gage-height record furnished by Oakley Canal Co.
Revisions.- Discharge for Aug. 17, 1941, has been revised to 27 second-feet, superseding figure published in Water-Supply Paper 933. Discharge for periods Jan. 21-25, Feb. 16-25, 1943, has been revised to 60 second-feet (average for each period), superseding figures published in Water-Supply Paper 983.

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
August 1941	287.7	27	7.5	9.28	571
Water year 1941	3,680.6	27	5.3	10.1	7,300
Calendar year 1941	3,770.0	27	6.4	10.3	7,480
January 1943	657	-	-	20.5	1,280
February 1943	855	-	-	30.5	1,700
Water year 1943	7,378.0	-	8.5	20.2	14,630
Calendar year 1943	7,463.8	-	7.1	20.4	14,800

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	11	10	a12	12	15	21	a55	33	17	12	10
2	9.0	11	10	a12	12	14	20	a53	32	17	10	9.5
3	9.0	11	12	a12	12	14	20	50	30	17	10	10
4	9.0	10	12	a12	12	14	20	47	30	17	10	12
5	a9.0	10	12	a12	11	14	21	46	30	16	10	12
6	a9.0	10	12	a11	12	15	22	46	30	16	10	11
7	a9.0	11	12	a11	12	14	22	46	30	15	10	11
8	a9.0	10	12	a11	a11	14	23	46	28	14	10	11
9	a9.0	12	8.3	a11	a11	15	23	45	28	14	10	11
10	a9.5	12	10	a11	a11	15	22	46	27	15	9.5	10
11	10	12	13	a11	a11	16	22	42	27	15	10	10
12	10	12	12	a10	a10	16	26	40	25	15	10	9.5
13	10	12	12	a11	a10	18	29	40	24	14	11	9.5
14	9.5	12	a8.0	a12	a10	17	34	38	22	14	11	9.5
15	10	12	a8.5	a12	a10	16	34	37	22	13	11	10
16	10	12	a9.0	a12	a10	15	38	36	22	13	10	11
17	10	12	a9.5	a12	a10	15	40	36	22	13	10	12
18	10	11	a9.5	a12	a10	15	44	36	22	12	10	12
19	a10	12	a8.5	a12	a10	16	48	35	22	12	10	11
20	a10	11	a8.5	a12	a10	18	53	36	20	12	10	10
21	a10	8.0	a9.5	a12	a11	17	51	35	20	12	10	10
22	a10	11	a12	a12	a11	17	51	37	20	12	a10	11
23	a10	12	a11	a13	a11	17	51	37	19	12	a10	10
24	a10	12	a10	a13	a12	17	47	36	22	12	10	10
25	a10	12	a10	14	15	17	49	34	19	12	10	10
26	a10	12	a11	12	14	17	a54	34	18	12	11	10
27	a10	12	a12	12	16	17	a56	37	18	12	10	10
28	a10	12	a15	12	18	19	a57	39	17	11	10	10
29	a10	12	a22	12	-	20	a57	36	17	11	9.5	10
30	a10	12	a17	11	-	20	a56	35	16	11	9.5	9.5
31	a10	-	a14	12	-	22	-	34	-	12	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	300.5	10	9.0	9.69	596
November	341.0	12	8.0	11.4	676
December	352.3	22	8.0	11.4	699
Calendar year 1945	5,125.7	51	8.0	14.0	10,170
January	366	14	10	11.8	726
February	325	18	10	11.6	645
March	506	22	14	16.3	1,000
April	1,111	57	20	37.0	2,200
May	1,250	55	34	40.3	2,480
June	712	33	16	23.7	1,410
July	420	17	11	13.5	833
August	314.5	12	9.5	10.1	624
September	312.5	12	9.5	10.4	620
Water year 1945-46	6,310.8	57	8.0	17.3	12,510

a No gage-height record; discharge interpolated or computed on basis of weather records and records for Goose Creek near Oakley and Rock Creek near Rock Creek.

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 1946; 1916 to 1918 by North Side Canal Co.

Extremes.- Maximum discharge during year, 62 second-feet on many days; no flow at times.
1919-46: 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 furnished by North Side Canal Co.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0					0	62	62	61	60	60
2		0					0	62	62	61	60	60
3		0					0	62	62	61	60	60
4		0					0	62	62	61	60	60
5		0					0	62	62	61	60	60
6		0					0	62	62	61	60	60
7		0					0	62	62	61	60	60
8		0					0	62	62	61	60	60
9		0					0	62	62	61	60	60
10		0					0	62	62	61	60	60
11		0					0	62	62	61	60	60
12		0					0	62	62	61	60	60
13		0					0	62	62	61	0	60
14		0					0	62	62	61	0	60
15		0					0	62	62	60	55	60
16		17					0	62	62	60	60	59
17		17					0	62	62	60	60	59
18		0					0	62	62	60	60	57
19		0					0	62	62	60	60	57
20		0					0	62	62	60	58	54
21		0					0	62	61	60	59	53
22		0					0	62	61	60	59	52
23		0					0	62	61	60	59	45
24		0					0	62	61	60	59	45
25		0					0	62	61	60	59	45
26		0					0	62	61	60	59	45
27		0					13	62	61	60	59	0
28		0					17	62	61	60	58	0
29		0					33	62	61	60	58	0
30		0					45	62	61	60	58	0
31		-					-	62	-	60	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	34	17	0	1.1	67
December	0	0	0	0	0
Calendar year 1945	8,825	62	0	24.2	17,510
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	108	45	0	3.6	214
May	1,922	62	62	62.0	3,810
June	1,850	62	61	61.7	3,670
July	1,874	61	60	60.5	3,720
August	1,718	60	0	55.4	3,410
September	1,471	60	0	49.0	2,920
Water year 1945-46	8,977	62	0	24.6	17,810

Milner low-lift canal near Milner, Idaho

Location.- Pumping plant, lat. 42°31', long. 114°01', in sec. 32, T. 10 S., R. 21 E., at head of canal and 1½ miles south of Milner.

Records available.- June 1921 to September 1946.

Extremes.- Maximum discharge during year, 200 second-feet May 8-23, June 11-16; no flow on many days.
1921-46: Maximum discharge, 203 second-feet Aug. 26, 27, 1945; no flow or 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.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	125	159	175	196	168
2							0	125	159	175	196	178
3							0	175	159	175	195	178
4							0	175	159	175	195	166
5							0	175	159	175	194	166
6							0	175	159	175	194	153
7							0	175	159	180	195	153
8							0	200	179	196	198	147
9							0	200	179	196	197	141
10							0	200	192	196	198	141
11							0	200	200	196	198	140
12							0	200	200	196	199	138
13							0	200	200	196	199	136
14							0	200	200	196	199	134
15							0	200	200	196	192	134
16							0	200	200	196	192	134
17							0	200	193	196	194	127
18							0	200	179	198	194	127
19							0	200	179	198	194	102
20							0	200	179	198	194	102
21							0	200	179	198	194	102
22							0	200	179	198	194	80
23							0	200	179	198	194	80
24							32	175	169	198	194	80
25							36	175	150	198	194	80
26							52	178	150	198	194	80
27							75	184	150	198	180	80
28							77	184	150	198	180	80
29							112	166	150	197	180	80
30							125	159	150	197	180	80
31							-	159	-	197	180	-

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 1945	24,230	203	0	66.4	48,060
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	509	125	0	17.0	1,010
May	5,707	200	125	184	11,320
June	5,199	200	150	173	10,310
July	5,959	198	175	192	11,820
August	5,975	199	180	193	11,850
September	3,687	178	80	123	7,310
Water year 1945-46	27,036	200	0	74.1	53,820

Gooding Canal at Milner, Idaho

Location (revised).- Water-stage recorder on Milner-Gooding Canal in NW¼ sec. 18, staff gage in diversion canal in sec. 19, T. 10 S., R. 21 E., and differential recorder on control gates of North Side Canal Co. diversion in NE¼ sec. 13, T. 10 S., R. 20 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 1946.

Extremes.- Maximum daily discharge during year, 2,480 second-feet July 31; no flow on many days.

1930-46: 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 60 second-feet to that sum for loss between head gates and division point.

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

Correction.- In Water-Supply Paper 1013 for the water year 1944 the figures shown in the two columns under "Distribution (acre-feet)" are reversed. The figures shown for Milner-Gooding project were for the North Side Canal Co. project and vice versa.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	30					0	1,710	2,040	2,380	2,470	2,130
2	0	0					0	1,710	2,060	2,380	2,440	2,120
3	0	0					90	1,830	2,050	2,380	2,420	2,120
4	0	0					127	1,910	2,060	2,380	2,430	2,150
5	0	0					121	1,920	2,130	2,430	2,410	2,120
6	0	0					121	1,960	2,170	2,440	2,370	2,110
7	0	0					146	2,010	2,180	2,440	2,370	2,110
8	0	0					387	2,050	2,170	2,430	2,370	2,100
9	0	0					513	2,040	2,180	2,430	2,370	2,100
10	0	0					586	2,050	2,180	2,440	2,360	2,080
11	0	0					636	2,040	2,180	2,450	2,350	2,030
12	0	0					678	2,050	2,200	2,450	2,360	1,960
13	0	0					703	2,050	2,210	2,470	2,260	1,940
14	0	0					706	2,070	2,200	2,470	2,190	1,950
15	0	0					706	2,160	2,230	2,470	2,180	1,970
16	0	0					706	2,230	2,270	2,470	2,180	2,010
17	0	0					716	2,250	2,280	2,470	2,170	2,000
18	470	350					716	2,230	2,280	2,450	2,170	1,980
19	760	580					941	2,240	2,280	2,460	2,180	1,960
20	780	530					1,430	2,240	2,280	2,470	2,180	1,940
21	800	610					1,530	2,220	2,260	2,470	2,190	1,900
22	750	330					1,540	2,230	2,270	2,470	2,170	1,920
23	710	0					1,530	2,200	2,270	2,470	2,190	1,870
24	650	0					1,550	2,190	2,390	2,460	2,180	1,820
25	590	0					1,580	2,190	2,460	2,450	2,190	1,790
26	610	0					1,570	2,190	2,450	2,460	2,200	1,750
27	610	0					1,560	2,140	2,420	2,450	2,190	1,740
28	430	0					1,570	2,060	2,400	2,450	2,190	1,730
29	80	0					1,650	2,080	2,390	2,450	2,160	630
30	60	0					1,680	2,070	2,380	2,470	2,120	0
31	50	-					-	2,040	-	2,480	2,130	-

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	7,350	800	0	237	14,580	0	14,580
November	2,430	610	0	81	4,820	4,760	60
December	0	0	0	0	0	0	0
Calendar year 1945	341,160	2,410	0	934	676,680	401,260	275,440
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	25,789	1,680	0	860	51,150	18,630	32,520
May	64,360	2,250	1,710	2,076	127,660	80,490	47,170
June	67,320	2,460	2,040	2,244	133,530	84,520	49,010
July	75,840	2,480	2,380	2,446	150,420	89,750	60,670
August	70,140	2,470	2,120	2,263	139,120	79,280	59,840
September	56,030	2,150	0	1,868	111,130	57,080	54,050
Water year 1945-46	369,259	2,480	0	1,012	732,410	414,510	317,900

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 1946.

Extremes.- Maximum discharge during year, 2,780 second-feet Aug. 8, 12; no flow on several days.
1909-46: 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 April to September and good October to March. Flow controlled by head gates. Water diverted by this canal and by F A.lateral and part of that diverted by Gooding Canal, all at Milner, is used for irrigation of 163,000 acres of land under North Side Canal Co. system. Diversions began in spring of 1909.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	893	108	515	454	478	400	415	2,0e0	2,440	2,450	2,730	2,280
2	860	550	515	460	478	391	26e	2,250	2,400	2,460	2,700	2,280
3	853	767	518	457	475	391	72	2,370	2,390	2,460	2,710	2,280
4	875	665	515	460	472	400	0	2,450	2,390	2,470	2,710	2,210
5	897	611	518	448	47e	400	0	2,520	2,460	2,510	2,700	2,050
6	897	591	518	454	484	388	0	2,540	2,510	2,530	2,700	1,920
7	897	572	518	448	472	406	0	2,510	2,510	2,570	2,710	1,890
8	897	553	518	448	472	403	0	2,520	2,500	2,570	2,750	1,870
9	900	543	525	445	469	424	0	2,510	2,540	2,580	2,730	1,830
10	893	531	534	460	466	442	0	2,520	2,550	2,610	2,720	1,730
11	882	525	534	469	469	451	0	2,540	2,550	2,610	2,710	1,640
12	878	515	525	469	466	469	0	2,540	2,550	2,630	2,750	1,600
13	882	518	525	469	472	478	0	2,550	2,550	2,640	2,720	1,620
14	878	518	528	469	472	475	0	2,570	2,540	2,690	2,710	1,650
15	878	512	528	490	469	472	0	2.600	2,550	2,700	2,710	1,650
16	87e	518	512	503	475	469	0	2,610	2,530	2,690	2,710	1,680
17	882	518	487	4e7	457	497	30	2,580	2,530	2,670	2,700	1,550
18	329	522	484	475	445	503	66	2,580	2,520	2,650	2,680	1,380
19	0	522	481	481	442	503	125	2,610	2,490	2,660	2,660	1,260
20	0	534	472	469	433	503	238	2,580	2,470	2,650	2,650	1,150
21	0	537	481	466	430	503	503	2,600	2,460	2,640	2,660	856
22	0	539	478	463	424	500	738	2,600	2,450	2,650	2,660	537
23	0	551	475	460	415	490	912	2,610	2,520	2,650	2,630	463
24	0	525	457	448	406	472	1,070	2,650	2,560	2,640	2,630	373
25	0	525	448	439	394	475	1,240	2,620	2,560	2,670	2,630	268
26	0	509	448	457	418	481	1,460	2,610	2,500	2,670	2,610	220
27	0	503	448	472	415	478	1,670	2,580	2,490	2,690	2,570	178
28	0	306	448	469	397	475	1,740	2,500	2,400	2,710	2,510	160
29	0	509	442	469	-	472	1,810	2,510	2,410	2,720	2,440	686
30	0	515	451	469	-	469	1,950	2,490	2,420	2,720	2,420	964
31	0	-	454	475	-	469	-	2,470	-	2,730	2,360	

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,349	900	0	495	30,440
November	15,890	767	108	530	31,520
December	15,300	534	442	494	30,350
Calendar year 1945	463,014	2,830	0	1,269	918,400
January	14,402	503	439	485	28,570
Fsbruary	12,643	484	394	452	25,080
March	14,149	503	388	456	28,060
April	14,307	1,950	0	477	28,380
May	78,270	2,650	2,080	2,525	155,200
June	74,740	2,560	2,390	2,491	148,200
July	81,290	2,730	2,450	2,622	161,200
August	82,280	2,750	2,360	2,654	163,200
September	40,225	2,280	160	1,341	79,790
Water year 1945-46	458,845	2,750	0	1,257	910,000

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 1946.

Extremes.- Maximum discharge during year, 3,620 second-feet July 25 (gage height, 10.39 feet); minimum, 60 second-feet (estimated) on several days.
1909-46: 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 no gage-height record, which are fair. Flow controlled by head gates. Canal has diverted water since March 1905 from Snake River at Milner Dam for irrigation of 202,000 acres of land in Twin Falls County.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070	1,170	592	592	577	491	a65	3,360	3,190	3,270	3,540	3,300
2	1,010	1,410	598	595	577	488	a65	3,530	3,180	3,270	3,530	3,280
3	985	800	598	*595	574	486	a65	3,440	3,200	3,290	3,520	3,250
4	1,040	794	598	598	574	491	686	3,250	3,270	3,320	3,520	3,170
5	1,010	797	598	595	577	497	968	3,200	3,330	3,360	3,530	2,950
6	1,020	794	598	598	580	505	848	3,200	3,330	3,360	3,540	2,720
7	1,040	762	595	592	577	500	604	3,240	3,300	3,340	3,560	2,720
8	1,040	701	595	592	583	497	529	3,280	3,290	3,350	3,540	2,770
9	1,050	655	598	592	577	497	571	3,270	3,290	3,480	3,500	2,620
10	1,050	637	598	592	577	497	613	3,270	3,290	3,480	3,510	2,480
11	1,040	637	595	589	568	472	673	3,290	3,280	3,520	3,520	2,430
12	1,040	634	595	586	568	466	730	3,290	3,270	3,500	3,540	2,360
13	1,040	634	b596	583	571	488	790	3,280	3,270	3,480	3,540	2,420
14	1,030	631	b596	586	562	488	848	3,270	3,330	3,480	3,560	2,520
15	1,020	631	b596	583	550	488	882	3,290	3,270	3,460	3,540	2,520
16	1,030	634	b596	589	556	488	988	3,290	3,220	3,480	3,540	2,440
17	1,040	634	b596	586	556	480	1,060	3,280	3,240	3,490	3,560	2,350
18	1,030	634	b596	583	553	474	1,160	3,290	3,260	3,520	3,570	2,070
19	971	634	b596	589	532	474	1,300	3,310	3,250	3,520	3,540	1,780
20	954	628	b596	583	528	463	1,390	3,280	3,260	3,480	3,550	1,740
21	940	628	b596	583	517	460	1,400	3,310	3,250	3,480	3,560	1,650
22	933	625	b596	583	508	452	1,490	3,290	3,240	3,510	3,560	1,600
23	902	622	b596	589	508	466	1,820	3,310	3,200	3,510	3,530	1,470
24	842	616	b596	574	508	474	2,130	3,280	3,240	3,540	3,550	1,400
25	787	577	b596	556	500	472	2,440	3,250	3,200	3,580	3,570	1,400
26	a60	*580	b596	565	508	472	2,970	3,270	3,200	3,580	3,540	1,480
27	a145	580	b596	589	505	472	2,990	3,300	3,200	3,580	3,540	1,530
28	a60	583	598	586	491	421	3,000	3,270	3,200	3,570	3,520	1,570
29	a60	601	598	583	-	a65	3,110	3,290	3,240	3,540	3,500	1,600
30	a60	610	592	583	-	a65	3,030	3,220	3,250	3,540	3,440	1,610
31	a137	-	592	533	-	a65	-	3,170	-	3,550	3,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	25,436	1,070	60	821	50,450
November	20,873	1,410	577	696	41,400
December	18,478	598	592	596	36,650
Calendar year 1945	613,844	3,610	60	1,682	1,217,000
January	18,172	598	556	586	36,040
February	15,360	583	491	549	30,470
March	13,614	505	65	439	27,000
April	39,215	3,110	65	1,307	77,780
May	101,870	3,530	3,170	3,286	202,100
June	97,540	3,330	3,180	3,251	193,500
July	107,410	3,580	3,270	3,465	213,000
August	109,420	3,570	3,360	3,530	217,000
September	67,180	3,300	1,400	2,239	133,200
Water year 1945-46	634,568	3,580	60	1,739	1,259,000

* Winter discharge measurement made on this day.
a No gage-height record, gates closed, leakage estimated by watermaster, Milner Dam.
b Stage-discharge relation affected by ice.

Rock Creek near Rock Creek, Idaho

Location.- Water-stage recorder, lat. 42°22', long. 114°18', in sec. 25, T. 12 S., R. 18 E., 0.1 mile downstream from road bridge, three-quarters of a mile downstream from West Fork Rock Creek, 5 miles south of Rock Creek steelement, and 12 miles south of Hansen.

Records available.- November 1938 to July 1939, November 1943 to September 1946. November 1909 to August 1913 at site 2 miles downstream; records equivalent except for ranch diversions and small inflow from artesian wells developed in recent years.

Extremes.- Maximum discharge during year, 292 second-feet Apr. 26 (gage height, 3.32 feet); minimum, 7.7 second-feet Dec. 10; minimum gage height, 1.03 feet Sept. 14, 15, 25, 26, 30.

1909-13, 1938-39, 1943-46: Maximum discharge observed, 429 second-feet May 21, 1912 (gage height, 10.4 feet, site and datum then in use); minimum observed, 3.6 second-feet Aug. 7-12, 1910 (gage height, 0.3 foot, site and datum then in use).

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

Rating table, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.0	6.5	2.0	86
1.1	9.5	2.3	125
1.3	20	2.6	171
1.5	34	2.9	220
1.7	53	3.3	288

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	13	13	27	17	23	73	222	85	25	13	9.2
2	9.2	12	12	25	16	23	68	190	80	24	12	8.9
3	8.9	12	13	23	16	24	63	177	76	23	11	8.9
4	8.9	12	12	24	15	23	60	177	75	23	11	11
5	9.2	11	12	24	15	23	62	179	72	22	10	13
6	9.5	11	13	21	16	24	66	190	71	21	10	11
7	9.5	11	13	20	16	23	68	190	68	20	10	10
8	9.2	11	13	21	14	22	74	181	61	20	10	10
9	9.2	11	11	19	14	22	75	165	61	19	10	10
10	9.2	12	10	18	15	24	72	152	58	18	9.5	9.5
11	10	13	14	15	14	28	71	138	57	17	10	8.9
12	10	13	13	14	13	31	81	124	54	17	10	8.9
13	10	13	12	17	14	39	101	117	51	16	10	8.9
14	10	13	9.5	18	14	45	125	111	49	16	10	8.6
15	10	13	b10	18	14	43	144	108	45	15	10	8.3
16	10	14	b11	18	14	42	166	104	44	15	9.5	8.9
17	10	a15	13	18	13	41	197	101	42	15	9.5	10
18	10	a15	b13	18	13	42	223	98	40	15	9.2	11
19	10	a14	b12	17	13	49	249	99	38	15	9.2	10
20	10	a14	b12	17	13	60	273	98	36	14	9.2	9.5
21	10	a14	b14	17	14	60	262	94	34	14	9.5	8.9
22	11	a13	17	18	14	58	244	98	33	13	10	8.9
23	10	a12	16	18	14	57	227	94	33	13	10	8.9
24	10	a12	14	*19	16	58	227	87	40	13	10	8.9
25	10	e12	14	20	20	53	251	81	32	14	12	8.6
26	10	a13	16	16	21	51	278	79	30	15	11	8.3
27	10	a13	15	16	22	52	278	93	28	14	11	8.9
28	10	*13	28	16	24	65	259	104	27	13	10	8.9
29	10	14	41	17	-	79	244	94	26	12	10	8.9
30	11	14	35	16	-	80	235	91	25	12	9.5	8.6
31	13	-	30	17	-	79	-	87	-	13	9.5	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	307.3	13	8.9	9.91	610
November	383	15	11	12.8	760
December	481.5	41	9.5	15.5	955
Calendar year 1945	15,606.7	306	8.0	42.8	30,940
January	582	27	14	18.8	1,150
February	434	24	13	15.5	861
March	1,341	80	22	43.3	2,660
April	4,816	278	60	161	9,550
May	3,923	222	79	127	7,780
June	1,471	85	25	49.0	2,920
July	516	25	12	16.6	1,020
August	315.6	13	9.2	10.2	626
September	282.3	13	8.3	9.41	560
Water year 1945-46	14,852.7	278	8.3	40.7	29,450

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and records for Salmon Falls Creek near San Jacinto, Nev.

b Stage-discharge relation affected by ice.

Rock Creek near Twin Falls, Idaho

Location.- Water-stage recorder, lat. 42°36', long. 114°32', in SW¼ 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 1946.

Average discharge.- 24 years, 211 second-feet.

Extremes.- Maximum discharge during year, 363 second-feet Sept. 3 (gage height, 2.86 feet); minimum, 117 second-feet Feb. 12 (gage height, 1.80 feet).
1922-46: Maximum discharge, 984 second-feet Sept. 21, 1927 (gage height, 4.5 feet, datum then in use, from floodmarks); minimum, 90 second-feet Mar. 22, 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 station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	273	183	189	175	147	134	168	288	248	229	253	310
2	264	193	189	175	133	136	a165	285	245	229	253	316
3	267	224	193	175	132	136	164	267	226	221	253	335
4	267	229	202	179	128	138	160	245	216	229	256	349
5	264	237	198	181	126	136	157	234	216	229	250	329
6	262	234	191	169	132	138	164	234	219	226	248	a320
7	259	229	189	162	138	133	177	237	216	229	250	a315
8	256	224	179	160	133	132	183	245	216	226	250	a310
9	259	224	162	155	134	130	185	253	216	221	242	a305
10	264	226	160	157	136	130	193	259	216	224	250	300
11	267	221	168	152	133	133	202	250	226	224	250	297
12	270	195	166	153	141	139	207	239	239	221	253	297
13	276	202	162	169	142	171	214	221	245	224	245	291
14	279	202	168	189	127	159	232	193	242	224	245	300
15	279	207	214	181	127	157	250	191	250	216	242	297
16	279	204	195	162	124	155	259	187	250	211	248	303
17	267	204	191	153	124	155	248	181	248	211	239	306
18	242	198	183	150	127	157	259	181	245	211	245	a303
19	209	207	183	147	126	160	279	179	245	214	245	300
20	a230	189	185	144	127	162	294	181	256	214	242	303
21	a250	179	185	134	127	168	285	181	256	219	a245	310
22	267	183	179	149	126	169	264	187	250	219	248	300
23	259	183	168	149	124	168	248	198	245	224	248	306
24	253	185	166	183	127	202	253	195	248	221	250	297
25	256	262	173	f181	127	198	270	202	248	221	264	294
26	250	329	175	a140	130	195	276	216	242	224	276	294
27	250	a220	177	a140	133	a200	288	250	237	229	282	a292
28	242	a210	191	a130	138	207	285	253	237	234	294	291
29	229	a200	187	132	-	214	285	256	229	239	297	294
30	195	200	185	133	-	221	288	250	226	245	297	297
31	187	-	183	149	-	195	-	250	-	250	306	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,871	279	187	254	15,610
November	6,383	329	179	213	12,660
December	5,636	214	160	182	11,180
Calendar year 1945	77,535	440	116	212	153,800
January	4,908	189	130	158	9,730
February	3,669	147	124	131	7,280
March	5,028	221	130	162	9,970
April	6,902	294	157	230	13,690
May	6,988	288	179	225	13,860
June	7,098	256	216	237	14,080
July	6,958	250	211	224	13,800
August	7,966	306	239	257	15,800
September	9,161	349	291	305	18,170
Water year 1945-46	78,568	349	124	215	155,800

a No gage-height record; discharge interpolated or computed on basis of records for station near Rock Creek.
f Computed from partly estimated gage-height record.

Salmon Falls Creek near San Jacinto, Nev.

Location.- Water-stage recorder, lat. 41°57', long. 114°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 1946.

Average discharge.- 32 years (1910-16, 1919-20, 1921-46), 129 second-feet.

Extremes.- Maximum discharge during year, 896 second-feet Apr. 21 (gage height, 6.24 feet); minimum, 16 second-feet Aug. 16-20, Sept. 15, 21-23.
1909-16, 1918-46: Maximum discharge, between 2,060 and 2,420 second-feet Feb. 24, 1943 (gage height exceeded range of recorder, 10.20 feet, but was not more than 1.2 feet higher), from rating curve extended above 1,400 second-feet; minimum, 5.3 second-feet Aug. 17, 1940 (gage height, 2.16 feet).

Remarks.- Records good except those for period of no gage-height record, which are poor. Many diversions above station for irrigation. Salmon Dam of Salmon River Canal Co., 15 miles below station, forms a reservoir having a capacity of about 180,000 acre-feet.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	58	66	91	65	123	293	725	310	52	30	19
2	37	57	55	90	65	104	293	682	291	52	30	19
3	35	57	51	88	68	109	262	626	272	65	28	19
4	36	55	60	88	69	104	235	568	249	74	27	21
5	37	54	65	88	57	96	237	522	239	70	26	24
6	37	58	63	82	65	99	284	506	237	73	25	24
7	37	57	66	59	72	102	313	506	244	69	23	23
8	37	55	61	78	65	102	338	519	244	66	24	23
9	38	54	50	61	61	116	352	538	230	61	22	22
10	37	a55	51	65	66	139	345	546	214	59	21	22
11	38	a60	63	64	64	152	330	500	210	52	20	21
12	40	a66	65	65	61	114	348	455	203	50	23	19
13	40	a68	63	63	58	128	416	421	203	48	20	18
14	40	a67	53	66	60	137	495	380	188	46	18	17
15	40	a66	50	66	65	134	576	340	176	44	17	16
16	40	a70	53	66	68	126	621	340	162	40	16	17
17	40	a75	58	65	68	123	652	322	150	38	16	17
18	40	a74	57	63	72	121	696	308	143	37	16	18
19	42	a73	48	63	74	132	760	298	130	31	16	18
20	44	a70	48	64	74	162	829	303	121	29	16	17
21	46	a63	53	59	76	150	881	313	107	28	17	16
22	46	a60	59	64	74	150	873	338	99	26	17	16
23	46	a58	66	68	79	156	826	362	93	26	17	16
24	48	a58	68	73	98	174	780	378	99	26	18	17
25	50	a60	69	74	135	158	745	362	91	26	20	18
26	51	a63	72	65	139	182	739	335	84	26	22	19
27	51	a64	73	66	99	186	768	365	72	26	22	20
28	52	a65	90	63	119	195	797	368	66	25	23	21
29	51	66	93	69	-	228	791	372	61	23	24	22
30	63	70	96	66	-	262	751	355	57	23	22	21
31	54	-	90	58	-	322	-	338	-	25	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,321	54	35	42.6	2,620
November	1,876	75	54	62.5	3,720
December	1,975	96	48	63.7	3,920
Calendar year 1945	66,147	938	18	181	131,200
January	2,160	91	58	69.7	4,280
February	2,136	139	57	76.3	4,240
March	4,586	322	96	148	9,100
April	16,626	881	235	554	32,980
May	13,291	725	298	429	26,360
June	5,045	310	57	168	10,010
July	1,336	74	23	43.1	2,650
August	656	30	16	21.2	1,300
September	580	24	16	19.3	1,150
Water year 1945-46	51,588	881	16	141	102,300

a No gage-height record; discharge computed on basis of recorded range in stage and records for stations on nearby streams.

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 1946.

Extremes.- Maximum contents observed during year, 80,490 acre-feet May 10, 12 (gage height, 44.6 feet); minimum observed, 14,250 acre-feet Sept. 4 (gage height, 10.3 feet). 1922-46: 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 storage 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 readings and capacity table furnished by Salmon River Canal Co.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30,000	30,510	31,880	34,480	36,880	39,280	46,000	73,530	72,610	60,020	35,220	15,450
2	30,000	30,510	31,880	34,660	37,060	39,470	46,800	74,910	72,380	60,020	35,220	15,000
3	30,000	30,510	31,880	34,660	37,060	39,660	47,600	75,830	72,380	60,020	35,220	14,550
4	30,000	30,680	31,880	34,660	37,250	39,840	48,400	77,210	72,150	60,020	35,220	14,250
5	30,000	30,680	32,070	34,840	37,250	40,210	48,800	78,130	71,690	60,020	34,290	14,400
6	30,000	30,850	32,260	35,030	37,250	40,400	49,000	78,820	71,230	59,600	33,360	14,400
7	30,000	30,850	32,260	35,030	37,440	40,580	49,400	79,530	70,310	58,740	32,440	14,400
8	30,170	30,850	32,440	35,220	37,440	40,760	49,800	80,250	70,310	57,880	31,530	14,400
9	30,170	30,850	32,440	35,220	37,620	40,950	50,400	80,250	70,540	56,800	30,680	14,400
10	30,170	30,850	32,620	35,400	37,620	40,950	51,000	80,490	70,770	56,000	29,830	14,400
11	30,170	30,680	32,620	35,400	37,620	41,140	51,600	80,250	71,230	55,000	28,810	14,550
12	30,170	30,680	32,620	35,580	37,800	41,500	52,200	80,490	71,460	54,000	27,960	14,550
13	30,170	30,680	32,620	35,580	37,800	41,690	52,800	80,250	71,690	53,000	27,110	14,550
14	30,170	30,850	32,620	35,580	37,800	41,880	53,200	80,010	71,000	52,000	26,260	14,550
15	30,170	30,850	32,810	35,580	37,990	41,880	53,800	79,530	70,310	51,000	25,240	14,550
16	30,170	30,850	32,810	35,770	37,990	42,060	54,400	78,820	69,850	49,800	24,390	14,550
17	30,170	30,850	33,000	35,770	37,990	42,240	55,200	78,130	69,160	48,800	23,540	14,550
18	30,170	31,020	33,000	35,770	38,180	42,430	56,200	77,440	68,460	47,600	22,520	14,550
19	30,170	31,020	33,000	35,960	38,180	42,620	57,230	76,980	67,540	46,600	21,670	14,550
20	30,340	31,190	33,180	35,960	38,360	42,800	58,300	76,290	66,900	45,600	20,700	14,550
21	30,340	31,190	33,180	36,140	38,360	43,200	60,240	75,600	66,250	44,600	19,740	14,550
22	30,340	31,360	33,180	36,140	38,540	43,400	61,740	74,910	65,600	43,600	18,940	14,550
23	30,340	31,360	33,360	36,140	38,540	43,600	63,250	74,450	64,960	42,620	18,000	14,550
24	30,340	31,530	33,360	36,320	38,730	43,800	64,530	74,220	64,320	41,500	17,250	14,550
25	30,340	31,530	33,360	36,320	38,730	44,200	65,820	73,760	63,670	40,580	16,800	14,550
26	30,340	31,700	33,360	36,320	38,920	44,400	67,110	73,530	62,820	39,660	16,800	14,550
27	30,340	31,700	33,740	36,510	38,920	44,800	68,230	73,300	61,960	38,730	16,950	14,550
28	30,340	31,700	34,100	36,510	39,100	45,000	69,620	73,530	61,100	37,800	16,950	14,550
29	30,340	31,880	34,290	36,700	-	45,400	71,000	73,760	60,240	36,880	16,650	14,550
30	30,340	31,880	34,290	36,700	-	45,600	72,380	73,300	60,020	35,770	16,050	14,550
31	30,510	-	34,480	36,880	-	45,800	-	73,070	-	35,220	16,050	-

Monthly gage heights and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	20.0	30,000	-
Oct. 31	20.3	30,510	+510
Nov. 30	21.1	31,880	+1,370
Dec. 31	22.5	34,480	+2,600
Calendar year 1945	-	-	-5,920
Jan. 31	23.8	36,880	+2,400
Feb. 28	25.0	39,100	+2,220
Mar. 31	28.5	45,800	+6,700
Apr. 30	41.1	72,380	+26,580
May 31	41.4	73,070	+690
June 30	35.5	60,020	-13,050
July 31	22.9	35,220	-24,800
Aug. 31	11.5	16,050	-19,170
Sept. 30	10.5	14,550	-1,500
Water year 1945-46	-	-	-15,450

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 1946.

Extremes.- Maximum discharge during year, 577 second-feet May 16-18 (gage height, 7.38 feet); no flow during long periods.
1937-46: Maximum discharge, 660 second-feet July 20-24, 1944; no flow during long periods in each year.

Remarks.- Records good. 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.

Discharge, in second-feet, water yesr October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0					0	0	338	0	0	228
2		0					0	0	354	0	0	229
3		0					0	0	375	0	0	176
4		0					0	0	395	0	277	0
5		0					0	0	433	267	436	0
6		0					0	0	479	431	455	0
7		0					0	0	355	462	475	0
8		0					0	274	0	489	461	0
9		h154					0	380	0	511	431	0
10		h195					0	420	0	523	442	0
11		0					0	468	0	519	437	0
12		0					0	481	0	522	437	0
13		0					0	510	244	528	437	0
14		0					0	528	410	531	438	0
15		0					149	552	433	528	438	0
16		0					199	567	453	530	436	0
17		0					35	577	455	530	429	0
18		0					0	569	457	518	432	0
19		0					0	553	445	493	439	0
20		0					0	554	430	462	432	0
21		0					0	550	430	460	415	0
22		0					0	534	427	461	400	0
23		0					0	521	428	471	395	0
24		0					0	492	433	487	320	0
25		0					0	457	428	505	0	0
26		0					0	453	419	530	0	0
27		0					0	434	427	527	0	0
28		0					0	390	436	517	0	0
29		0					0	345	363	518	151	0
30		0					0	342	0	433	230	0
31		-					-	334	-	0	225	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	349	195	0	11.6	692
December	0	0	0	0	0
Calendar year 1945	53,297	656	0	146	105,700
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	383	199	0	12.8	760
May	11,285	577	0	364	22,380
June	9,847	479	0	328	19,530
July	12,753	531	0	411	25,300
August	9,468	475	0	305	18,780
September	633	229	0	21.1	1,260
Water year 1945-46	44,718	577	0	123	88,700

h Computed from staff-gage reading.

Mud Lake near Terreton, Idaho

Location.- Water-stage recorder, lat. 43°53', long. 112°24', in SW¼ sec. 1, T. 6 N., R. 34 E., 2 miles north of First Owsley pump house, 2½ miles northeast of Terreton, and 14 miles southwest of Hamer; supplemental staff gage at pump house. Datum of each gage is 4,775.33 feet above mean sea level.

Records available.- April 1921 to September 1946.

Extremes.- Maximum contents during year, 45,100 acre-feet May 2, 3; maximum gage height, 8.62 feet (affected by wind); minimum, 7,590 acre-feet Aug. 23, 24 (gage height, 1.81 feet).

1921-46: Maximum contents observed, 61,660 acre-feet May 5, 1923 (gage height, 9.20 feet); practically no contents Oct. 1 to Nov. 15, 1937 (at 4 p.m. Nov. 15 water was diverted from Camas Creek into lake).

Remarks.- Mud Lake is a perched body of water confined by earth dikes and fed by ground water and surface tributaries. For complete description of Mud Lake region see Water-Supply Paper No. 818. Water for irrigation is diverted from lake and tributaries by pumping and gravity. During 1946 season diversion dam in Camas Creek diversion canal was not in place. Area of lake is varied from time to time by changes in dikes. High winds occasionally disturb the recording of lake stages. Figures given herein represent contents above gage height -4.0 feet. Capacity table prepared from surveys made by Geological Survey adjusted for changes in dikes.

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

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20,500	19,600	26,500	-	-	-	43,600	44,800	37,000	23,900	12,700	7,960
2	20,500	19,800	26,700	-	-	-	43,600	45,000	37,200	23,500	12,500	7,960
3	20,600	19,900	26,900	-	-	-	43,500	45,000	37,300	23,100	12,100	7,900
4	20,600	20,100	-	-	-	-	43,400	44,900	37,500	22,600	11,700	7,900
5	20,600	20,100	-	-	-	-	43,200	44,700	37,600	22,300	11,300	8,090
6	20,500	20,300	-	-	-	-	43,100	44,300	37,100	21,900	10,900	-
7	20,500	20,600	-	-	-	-	43,100	44,000	37,000	21,400	10,600	-
8	20,400	20,800	-	-	-	-	43,100	43,700	36,800	20,900	10,200	-
9	20,400	21,000	-	-	-	-	42,700	43,500	36,500	20,500	9,880	-
10	20,400	21,300	-	-	-	42,800	42,600	42,900	36,200	20,000	9,590	h9,590
11	20,200	21,600	-	-	-	42,900	42,600	42,200	35,800	19,500	9,310	-
12	20,200	21,800	-	-	-	43,000	42,600	41,900	35,500	19,000	9,040	-
13	20,100	22,000	-	-	-	43,200	42,600	41,300	34,900	18,600	8,810	-
14	20,000	22,200	-	-	-	43,500	42,600	41,000	34,400	18,200	8,640	h9,560
15	19,900	22,500	h28,500	-	h40,000	43,600	42,400	40,600	33,700	17,700	8,500	9,450
16	19,800	22,700	-	-	-	43,700	42,400	40,300	32,800	17,300	8,500	9,490
17	19,600	23,000	-	h35,400	-	43,700	42,300	39,800	32,000	16,900	8,180	9,380
18	19,600	23,100	-	-	-	43,700	42,400	39,300	31,500	16,600	8,090	9,420
19	19,500	23,400	-	35,900	-	43,600	42,500	38,800	30,700	16,400	7,960	9,310
20	19,400	23,600	-	36,000	-	43,700	42,500	38,200	30,000	16,300	7,810	9,350
21	19,400	23,700	-	36,100	-	43,800	42,600	37,600	29,400	16,300	7,750	9,420
22	19,300	24,000	-	36,200	-	43,800	42,600	37,300	28,700	16,100	7,690	9,450
23	19,300	24,200	-	36,500	-	43,700	43,000	37,000	28,000	15,700	7,620	-
24	19,300	24,600	-	36,500	-	43,700	43,500	36,700	27,300	15,300	7,620	-
25	19,300	25,200	-	36,700	-	43,800	43,800	36,700	26,700	15,000	7,690	-
26	19,200	25,500	-	36,700	-	43,800	43,800	36,500	26,200	14,600	7,810	-
27	19,300	25,700	-	36,800	-	43,800	44,000	36,500	25,600	14,200	7,870	8,870
28	19,300	25,700	-	-	h41,700	43,800	44,300	36,500	25,100	13,800	7,960	8,770
29	19,300	25,800	-	-	-	43,600	44,400	36,600	24,600	13,500	8,020	8,670
30	19,200	25,700	-	-	-	43,600	44,800	36,600	24,300	13,200	8,020	8,540
31	19,400	-	h32,100	h37,700	-	43,600	-	36,800	-	13,000	7,960	-

h Computed from supplemental staff-gage reading.

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4.81	20,300	-
Oct. 31	4.63	19,400	-900
Nov. 30	5.78	25,700	+6,300
Dec. 31	6.82	32,100	+6,400
Calendar year 1945	-	-	+10,000
Jan. 31	7.66	37,700	+5,600
Feb. 28	8.10	41,700	+4,000
Mar. 31	8.35	43,600	+1,900
Apr. 30	8.50	44,800	+1,200
May 31	7.43	36,800	-8,000
June 30	5.52	24,300	-12,500
July 31	3.29	13,000	-11,300
Aug. 31	1.93	7,960	-5,040
Sept. 30	2.11	8,540	+580
Water year 1945-46	-	-	-11,760

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 south of Kilgore, and 18½ miles northeast of Dubois.

Drainage area.- 210 square miles.

Records available.- May 1937 to September 1946 (no winter records).

Extremes.- Maximum discharge during year, 1,340 second-feet Apr. 21 (gage height, 6.08 feet), from rating curve extended above 450 second-feet; minimum recorded, 17 second-feet Aug. 17-19, but may have been less during period of no record in winter.
1937-46: Maximum discharge, that of Apr. 21, 1946; minimum recorded, 0.7 second-foot Aug. 19, 1940.

Remarks.- Records fair except those for periods of ice effect or doubtful or no gage-height record, which are poor. Diversions above and below station for irrigation and stock water.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	35	501	305	47	29	20
2						-	40	382	257	43	27	20
3						-	45	325	219	40	27	19
4						-	50	317	181	40	25	20
5						-	60	343	164	39	25	23
6						-	70	382	156	37	23	25
7						-	80	418	148	37	20	24
8						-	90	409	139	36	20	24
9						-	85	504	124	34	21	25
10		†27				-	80	427	113	34	20	25
11						-	90	322	104	36	19	23
12						-	100	271	106	34	19	21
13						-	130	246	108	34	19	20
14						-	175	238	95	33	18	21
15						-	250	229	84	33	18	20
16						-	340	208	75	30	19	20
17						-	450	176	69	29	18	22
18						-	550	166	67	27	18	25
19						†25	833	164	65	26	18	25
20						1,150	166	63	24	18	25	
21						980	164	59	24	18	24	
22				†22		772	221	57	25	18	23	
23						714	358	55	25	18	25	
24						632	322	57	27	20	25	
25						616	259	65	26	22	24	
26						30	661	268	63	26	22	24
27							638	282	59	27	23	23
28							568	455	54	26	23	24
29							511	629	52	26	24	24
30							498	520	50	26	25	25
31							-	382	-	29	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 19-31	385	-	-	29.6	764
April	11,293	1,150	35	376	22,400
May	10,054	629	164	324	19,940
June	3,213	305	.50	107	6,370
July	980	47	24	31.6	1,940
August	657	29	18	21.2	1,300
September	688	25	19	22.9	1,360
The period	-	-	-	-	54,070

† Discharge measurement or field estimate.

Note.- Stage-discharge relation affected by ice at time of measurement or field estimate Nov. 10, Jan. 22, Mar. 19, and about Mar. 20 to Apr. 18 (doubtful or no gage-height record Mar. 25 to Apr. 18; discharge computed on basis of partial gage-height record and records for station at Camas and stations on nearby streams).

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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 1946.

Average discharge.- 20 years (1926-46), 22.0 second-feet.

Extremes.- Maximum discharge during year, 796 second-feet Apr. 21 (gage height, 5.71 feet), from rating curve extended above 500 second-feet; no flow at times.
1925-46: Maximum discharge, 900 second-feet probably on 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 1930-46.

Remarks.- Records good except those below 10 second-feet, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation and stock water.

Cooperation.- Eight winter field estimates furnished by Water District No. 66.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a17	22					30	318	247	13	0	0.8
2	a16	23					35	300	207	14	.2	.4
3	a16	24					40	247	181	11	.4	0
4	a16	19					45	220	157	12	.3	0
5	a16	8.6					50	216	133	11	.4	.6
6	a14	7.5					60	228	114	10	0	.7
7	12	9.1					65	239	109	9.7	0	.8
8	13	13					70	249	106	9.3	0	1.4
9	12	14					65	241	100	8.1	0	1.2
10	12					12	63	284	90	6.4	0	.8
11	10	(*)					76	243	76	7.6	0	.8
12	7.5						80	207	67	7.6	0	.6
13	7.1						94	185	58	5.6	0	.7
14	6.7						120	167	60	5.3	0	.8
15	6.7		*18	13	*13	(*)	171	150	52	4.8	0	.4
16	a7						204	150	42	2.8	0	.1
17	a7			(*)			267	135	34	1.2	0	.2
18	a8						371	116	27	1.2	a0	.6
19	a8	18					467	111	22	1.4	a0	.5
20	h8.6			(*)		(*)	562	111	23	2.3	a0	.7
21	a10						741	116	26	.6	a0	.9
22	a10						634	125	23	.1	a0	.3
23	a11					15	523	156	22	.5	a0	.8
24	a12						*480	209	22	.4	a0	.8
25	a13						422	191	22	.1	a0	1.0
26	a15						420	167	28	.1	a0	.9
27	a16					16	442	171	30	.1	a0	.8
28	18				(*)	17	407	181	25	.1	a.5	.7
29	18					18	360	289	25	.1	a.5	.7
30	19					*20	323	390	17	.2	a1	1.2
31	19	-	(*)	(*)	-	25	-	315	-	.1	a1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	381.6	19	6.7	12.3	757
November	518.2	24	7.5	17.3	1,030
December	558	-	-	18.0	1,110
Calendar year 1945	17,043.1	585	0	46.7	33,800
January	403	-	-	13.0	799
February	364	-	-	13.0	722
March	432	25	-	13.9	857
April	7,687	741	30	256	15,250
May	6,427	390	111	207	12,750
June	2,145	247	17	71.5	4,250
July	146.7	14	.1	4.73	291
August	4.3	1	0	.14	9
September	20.2	1.4	0	.67	40
Water year 1945-46	19,087.0	741	0	52.3	37,860

* Winter discharge measurement or field estimate made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Kilgore and stations on nearby streams.
h Computed from staff-gage reading.
Note.- Stage-discharge relation affected by ice Nov. 8, Nov. 10 to about Apr. 9 (no gage-height record Nov. 24, 25, Dec. 8 to Mar. 19, Mar. 21-29, Apr. 5-9; discharge computed on basis of 3 discharge measurements, 8 field estimates, weather records, and records for stations on nearby streams).

Beaver Creek at Spencer, Idaho

Location.- Staff gage, lat. 44°21', long. 112°11', in NE¼ sec. 23, T. 12 N., R. 36 E., at highway bridge, 0.4 mile southeast of Spencer post office and 2½ miles upstream from Rattlesnake Creek.

Drainage area.- 120 square miles.

Records available.- October 1940 to September 1946 (no winter records 1942-46).

Extremes.- Maximum discharge observed during year, 270 second-feet Apr. 20, from rating curve extended above 140 second-feet; maximum gage height observed, 5.06 feet Mar. 20 (ice jam); minimum discharge observed, 4.2 second-feet Aug. 23, Sept. 3.
1940-46: Maximum discharge observed, 408 second-feet Apr. 13, 1942, from rating curve extended above 140 second-feet; maximum gage height observed, 5.95 feet Mar. 30, 1943 (ice jam); minimum discharge observed, 0.5 second-foot Jan. 26, 1942, Feb. 22, 1944.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Gage read once daily. Several ranch diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	28					b50	119	76	20	20	7.8
2	26	27					53	110	a77	21	14	5.0
3	26	27					51	104	77	27	12	4.2
4	25	a27					51	96	60	26	14	3.1
5	25	27					53	a93	58	23	11	17
6	28	27					53	90	51	21	9.3	11
7	a26						a51	88	48	21	9.0	9.0
8	25						51	90	45	20	8.7	9.6
9	25	b27					51	92	a44	18	9.0	13
10	25						53	94	44	18	9.3	10
11	25	(*)					53	86	42	17	8.4	7.5
12	25	-					58	a82	58	17	8.7	6.2
13	28	-					72	77	47	14	8.4	6.0
14	a27	-					a100	77	42	14	14	5.2
15	26	-					134	75	36	13	12	4.8
16	24	-					170	70	a35	12	9.6	5.0
17	27	-					196	64	35	10	6.2	16
18	27	-					238	58	32	10	5.2	20
19	26	-					267	a56	32	10	5.2	14
20	26	-				*b12	270	53	29	13	10	11
21	a25	-					a219	74	29	12	8.4	8.4
22	25	-					168	104	29	11	4.8	8.4
23	28	-					139	134	a32	11	4.2	8.7
24	27	-					*127	82	35	12	12	10
25	26	-					132	80	44	12	12	9.0
26	25	-					130	71	38	12	14	7.8
27	25	-					125	86	35	24	9.6	7.8
28	a25	-					a124	102	29	13	9.0	8.1
29	25	-					123	123	23	10	7.2	6.8
30	26	-					119	112	22	21	8.0	4.6
31	30	-					-	94	-	33	19	-

Month	Seoond-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	806	30	24	26.0	1,600
November 1-11	298	-	-	27.1	591
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,481	270	50	116	6,900
May	2,736	134	53	88.3	5,430
June	1,284	77	22	42.8	2,550
July	516	33	10	16.6	1,020
August	310.2	20	4.2	10.0	615
Septsmber	270.9	20	4.2	9.03	537
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of records for station at Dubois.
b Stage-discharge relation affected by ice.

Beaver Creek at Dubois, Idaho

Location.- Water-stage recorder, lat. 44°11', long. 112°14', in NW¼ sec. 24, T. 10 N., R. 36 E., half a mile north of Dubois.

Drainage area.- 220 square miles.

Records available.- April 1921 to September 1946.

Average discharge.- 19 years (1921-24, 1928-29, 1931-46), 15.1 second-feet.

Extremes.- Maximum discharge during year, 225 second-feet Apr. 18; maximum gage height recorded, 3.09 feet Mar. 21 (ice jam); minimum recorded, 0.3 second-foot Aug. 21 (gage height, 0.31 foot).
1921-46: Maximum discharge, 858 second-feet Apr. 7, 1930; maximum gage height, about 6.5 feet Mar. 16, 1926; no flow during long periods.

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

Cooperation.- Six field estimates furnished and water-stage recorder inspected by Water District No. 66.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	19					40	112	69	10	22	7.9
2	18	18					45	101	65	10	a12	4.4
3	16	17					47	90	59	12	a7	2.8
4	16	17					48	84	50	15	a8	a4
5	16	17					50	84	44	13	a5	a10
6	15	18					50	88	42	11	a4.3	a8
7	14	17					49	88	41	10	a4.2	a7
8	14	16			20		50	86	37	11	a4.2	a7
9	14	15					50	103	34	9.4	4.2	a8
10	14	14				18	38	93	29	8.5	4.2	a6
11	14	*13					41	79	28	7.6	4.2	a5.5
12	14						56	71	36	7.3	4.2	a5
13	14						79	65	34	6.8	3.5	a4.8
14	14		(*)				95	62	29	6.2	3.1	4.5
15	14				(*)	(*)	124	62	25	5.7	5.7	4.2
			20	20								
16	14						166	55	21	5.1	4.5	4.0
17	14	15		(*)			185	49	20	4.7	3.0	a8
18	16					20	196	46	21	4.2	1.4	12
19	16					*24	188	43	21	3.8	.9	a9
20	16			(*)		24	188	41	19	4.7	.7	a6
21	16					24	158	41	16	4.9	3.0	a6
22	15				18	26	122	74	14	5.1	1.7	a6
23	18					27	108	112	13	4.7	.9	a6
24	15					27	*103	83	14	4.9	1.1	a7
25	16					28	105	65	31	5.5	a5	a6
26	16	20				28	112	57	23	5.3	a7	a5
27	16					29	118	81	19	9.7	a5	a5
28	16				(*)	30	112	138	16	10	a4	a5
29	16				-	31	106	130	14	7.0	a3	a5
30	15				-	*32	110	88	12	7.6	a2	a4
31	17	-		(*)	-	36	-	76	-	20	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	477	18	14	15.4	946
November	511	-	-	17.0	1,010
December	620	-	-	20	1,230
Calendar year 1945	11,134.8	286	-	30.5	22,080
January	620	-	-	20	1,230
February	534	-	-	19.1	1,060
March	692	36	-	22.3	1,370
April	2,939	196	38	98.0	5,830
May	2,447	138	41	78.9	4,850
June	896	69	12	29.9	1,780
July	250.7	20	3.8	8.09	497
August	142.6	22	.7	4.60	283
September	183.1	12	2.8	6.10	363
Water year 1945-46	10,312.4	196	.7	28.3	20,450

* Winter discharge measurement or field estimate made on this day.
a No gage-height record; discharge computed on basis of records for Beaver Creek at Spencer.
Note.- Stage-discharge relation affected by ice Nov. 8 to Apr. 5 (no gage-height record Nov. 22-27, Dec. 2 to Jan. 19, Jan. 21 to Mar. 18; discharge computed on basis of 1 discharge measurement, 6 field estimates, weather records, and records for Camas Creek at Camas.

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 1946.

Extremes.- Maximum discharge observed during year, 88 second-feet Apr. 18 (gage height, 2.45 feet); no flow most of year.
1921-46: 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 Dubios, about 14 miles above station, and by heavy channel losses below Dubois.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	51	23			
2							0	50	19			
3							0	38	13			
4							a1	30	9			
5							a3	23	4			
6							a7	22	1			
7							a12	26	0			
8							13	21	0			
9							12	27	0			
10							9	33	0			
11							1	27	0			
12							4	19	0			
13							17	15	0			
14							28	13	0			
15							35	13	0			
16							54	11	0			
17							66	6	0			
18							82	3	0			
19							81	0	0			
20							77	0	0			
21							79	0	0			
22							65	0	0			
23							50	32	0			
24							42	27	0			
25							43	17	0			
26							46	12	0			
27							53	21	0			
28							52	39	0			
29							47	69	0			
30							49	46	0			
31							-	32	-			

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 1945	1,965	91	0	5.38	3,895
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,028	82	0	34.3	2,040
May	723	69	0	23.3	1,430
June	69	23	0	2.3	137
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	1,820	82	0	4.99	3,607

a No gage-height record; discharge computed on basis of weather records and records for station at Dubois.

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 of Argora, and 17 miles northwest of Dubois.

Records available.- October 1940 to September 1946.

Extremes.- Maximum discharge during year, 78 second-feet June 24 (gage height, 2.63 feet); minimum, 16 second-feet Jan. 12 (gage height, 1.39 feet).
1940-46: Maximum discharge, 229 second-feet June 9, 1944 (gage height, 4.23 feet), from rating curve extended above 120 second-feet by logarithmic plotting; minimum, 9 second-feet Dec. 12, 1940.

Remarks.- Records good. Several diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	49	43	49	30	44	49	34	58	70	52	46
2	42	48	36	48	36	45	48	34	59	71	52	46
3	38	46	33	48	44	45	47	34	57	71	50	44
4	39	45	41	49	48	35	48	33	54	68	50	44
5	38	45	50	48	34	45	49	32	56	67	50	46
6	37	45	48	48	35	46	54	32	54	65	50	46
7	36	44	50	48	39	42	54	32	53	66	48	45
8	36	37	37	48	32	44	53	34	54	65	48	46
9	36	31	23	35	32	44	57	33	57	64	48	48
10	37	39	21	35	36	44	51	32	56	64	48	46
11	38	44	24	26	40	44	52	33	58	62	48	45
12	37	45	24	19	35	44	54	33	60	62	46	44
13	37	45	23	20	30	44	53	33	60	61	48	44
14	38	45	20	19	35	42	56	34	61	60	47	43
15	38	46	19	19	38	45	56	33	60	60	46	43
16	40	45	19	20	46	43	54	33	60	59	46	46
17	45	45	20	22	50	42	56	32	64	57	45	52
18	46	46	21	25	48	42	54	32	68	57	44	48
19	48	50	20	28	46	42	48	38	68	56	44	46
20	51	50	19	32	45	51	47	46	67	55	44	46
21	50	36	20	35	45	50	41	48	71	54	44	46
22	50	34	24	40	44	46	40	54	71	54	45	46
23	50	32	37	41	44	46	40	54	69	54	46	45
24	50	42	37	48	44	45	40	52	72	54	54	43
25	50	51	55	54	43	44	40	54	71	54	43	43
26	50	50	52	42	45	45	39	54	71	54	51	42
27	50	50	50	42	45	46	39	60	70	55	50	42
28	50	50	50	39	45	50	38	67	69	52	49	42
29	50	49	50	39	-	52	36	61	68	50	48	41
30	50	49	50	32	-	51	34	59	71	52	47	41
31	52	-	49	30	-	51	-	58	-	56	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,355	52	36	43.7	2,690
November	1,333	51	31	44.4	2,640
December	1,078	55	19	34.8	2,140
Calendar year 1945	18,498	85	19	50.7	36,690
January	1,133	54	19	36.5	2,250
February	1,134	50	30	40.5	2,250
March	1,399	52	35	45.1	2,770
April	1,427	57	34	47.6	2,830
May	1,298	67	32	41.9	2,570
June	1,887	72	53	62.9	3,740
July	1,849	71	50	59.6	3,670
August	1,482	54	44	47.8	2,940
September	1,345	52	41	44.8	2,670
Water year 1945-46	16,720	72	19	45.8	33,160

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 1946.

Extremes.- Maximum discharge during year, 125 second-feet May 28; maximum gage height recorded, 4.60 feet Dec. 5 (ice jam); minimum discharge not determined, occurred during period of ice effect or no gage-height record.
1921-23, 1940-46: Maximum discharge recorded, 265 second-feet June 9, 1944, from rating curve extended above 150 second-feet; minimum observed, 8 second-feet Dec. 14, 1940 (discharge measurement).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	69	b60		a35		63	70	100	83	60	50
2	61	68	b46		a35		63	70	100	83	59	51
3	56	65	b42		a45		60	70	97	85	57	50
4	56	64	b50		a45		60	71	91	80	56	50
5	56	64	b60	a55	a45		63	70	90	77	56	52
6	56	64	66				67	70	89	76	56	51
7	56	63	68				73	70	86	76	56	50
8	56	56	b50				69	71	85	73	56	51
9	57	b41		a45			68	72	84	71	55	53
10	57	*b48		a35		a50	65	70	79	71	54	51
11	58	b60			a36		66	70	84	69	53	50
12	60	61					73	69	89	68	52	50
13	60	61					74	71	85	66	53	49
14	59	62					76	71	84	65	53	47
15	59	63		a24			80	70	81	64	53	47
16	60	62	a25				78	69	78	63	52	49
17	66	63					80	67	83	62	52	57
18	67	62			a55	*52	79	68	89	61	52	54
19	70	72				52	74	70	89	60	51	50
20	71	70				65	76	82	87	60	50	50
21	71	b55		*b24		69	68	84	89	60	50	50
22	72	b52		b35		57	67	104	90	60	51	50
23	70	b50	a35	b45		56	67	101	88	59	52	50
24	71	b64		b50		56	68	94	92	60	63	48
25	71	b67		b50	a50	55	70	94	91	59	54	46
26	70	70		a50		56	71	94	90	60	56	45
27	70	70	a55	a45		58	72	103	87	62	57	44
28	71	68				65	73	118	85	59	56	44
29	71	68		a35	-	68	72	110	82	56	54	44
30	69	69			-	66	70	103	85	57	52	44
31	74	-			-	67	-	101	-	65	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,985	74	56	64.0	3,940
November	1,871	72	41	62.4	3,710
December	1,267	68	-	40.9	2,510
Calendar year 1945	23,543	150	-	64.5	46,690
January	1,199	-	-	38.7	2,380
February	1,240	-	-	44.3	2,460
March	1,692	69	-	54.6	3,360
April	2,105	80	60	70.2	4,180
May	2,517	118	67	81.2	4,990
June	2,629	100	78	87.6	5,210
July	2,070	85	56	66.8	4,110
August	1,681	63	50	54.2	3,330
September	1,477	57	44	49.2	2,930
Water year 1945-46	21,733	118	-	59.5	43,110

* Winter discharge measurement made on this day.
a Fragmentary or no gage-height record; discharge computed on basis of weather records and records for stations at Ellis Ranch near Argora.
b Stage-discharge relation affected by ice.

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 1946 (no winter records).

Extremes.- Maximum discharge during year, 157 second-feet June 13; maximum gage height, 6.50 feet (ice jam) sometime during period Feb. 7 to Mar. 17; minimum discharge recorded, 24 second-feet sometime during period Dec. 19 to Jan. 15, but may have been less during periods of ice effect or no record in winter.
1921-46: 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, which are fair. Many diversions above and below station for irrigation.

Cooperation.- Water-stage recorder inspected by Water District No. 9.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	65	b29			-	61	114	145	114	85	81
2	70	64	b31			-	61	110	145	114	80	77
3	69	64	b32			-	61	109	145	121	76	76
4	69	63	b33			-	62	110	146	121	74	77
5	69	64	b33			-	60	113	146	106	75	80
6	66	64	b34			-	61	115	148	115	72	h82
7	66	59	36			-	58	119	150	120	70	h81
8	65	51				-	60	120	150	114	65	82
9	64	b40				-	55	120	152	113	64	83
10	62	b42				-	50	121	152	119	61	82
11	62	43				-	51	122	153	113	60	77
12	62	44				-	53	119	155	110	62	75
13	62	47	b35			-	56	118	152	104	60	73
14	60	48				-	57	115	152	101	61	72
15	59	*44				-	61	115	150	101	64	71
16	61	45				-	61	114	145	98	61	75
17	62	45				-	64	115	138	95	60	91
18	62	47				*50	70	119	144	96	60	94
19	64	44	-			48	80	124	145	91	60	89
20	66	b35	-			51	86	126	138	88	66	86
21	63	b30	-			51	86	126	136	85	70	83
22	64	b31	-			51	86	131	136	82	71	82
23	65	b32	-			50	89	135	132	83	73	81
24	66	b33	-			48	101	135	140	82	86	80
25	69	35	-			48	107	136	142	82	83	80
26	68	38	-			51	110	137	135	80	91	h78
27	66	37	-			55	114	141	130	94	92	h78
28	65	38	-			62	118	144	125	84	90	h80
29	65	38	-			66	116	145	124	82	90	h81
30	h65	38	-			65	115	145	120	81	86	h81
31	68	-	-			66	-	145	-	89	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,015	71	59	65.0	4,000
November	1,368	65	30	45.6	2,710
December 1-18	613	-	-	34.1	1,220
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 18-31	762	66	48	54.4	1,510
April	2,270	118	50	75.7	4,500
May	3,858	145	109	124	7,650
June	4,271	155	120	142	8,470
July	3,078	121	80	99.3	6,110
August	2,251	92	60	72.6	4,460
September	2,408	94	71	80.3	4,780
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

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

Location.- Staff gage and Cippoletti weir, lat. 43°53', long. 113°05' in NW¼NW¼ sec. 11, T. 6 N., R. 28 E., 300 yards downstream from head gates and 7 miles northwest of Howe.

Records available.- April 1924 to September 1946 (prior to 1939, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 55 second-feet June 8, 12, 13 (gage height, 2.05 feet); no flow during long periods.
1924-46: Maximum discharge observed, 87 second-feet May 24, 25, 1928; no flow during long periods each year.

Remarks.- Records good except those for periods of no gage-height record, 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 Blaine County Investment Co.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.9				0	48	30	44	27	12	5.3
2	12	9.9				0	48	30	48	27	11	5.3
3	12	9.9				0	51	15	48	30	11	5.3
4	12	16				0	44	15	44	30	5.6	1.5
5	11	16				0	43	19	48	30	5.6	0
6	11	16				0	41	24	50	31	5.9	0
7	11	16				0	33	28	54	34	5.9	0
8	11	16				0	34	30	55	29	5.9	0
9	12	a16				0	25	30	48	29	5.9	0
10	11	a8.0				0	19	32	48	26	5.9	0
11	12	0				0	15	31	51	24	5.3	0
12	12	0				0	15	31	55	21	5.3	0
13	12	0				0	13	29	55	21	5.3	0
14	12	0				0	a14	28	54	16	5.3	0
15	a12	0				0	14	28	54	15	5.3	0
16	12	0				0	14	25	42	15	5.3	0
17	12	0				0	14	25	41	14	5.3	0
18	12	0				0	13	25	42	14	2.2	8.8
19	12	0				0	13	29	45	13	a.5	25
20	12	0				0	14	33	38	13	a.5	27
21	12	0				0	17	30	38	12	a.5	27
22	10	0				0	17	37	38	8.3	a.5	32
23	9.1	0				0	19	40	35	8.3	a.5	37
24	9.1	0				0	20	40	41	8.3	a.5	36
25	9.1	0				a32	18	40	41	8.3	a.5	36
26	9.1	0				a48	21	34	40	8.3	a.5	34
27	9.1	0				a48	28	34	40	12	a.5	34
28	9.1	0				a48	30	36	34	13	3.9	34
29	9.9	0				a48	30	34	34	12	5.3	34
30	9.9	0				a48	30	41	30	12	5.3	34
31	9.9	-				a48	-	45	-	13	5.3	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	340.3	12	9.1	11.0	675
November	133.7	16	0	4.46	265
December	0	0	0	0	0
Calendar year 1945	3,779.5	59	0	10.4	7,501
January	0	0	0	0	0
February	0	0	0	0	0
March	320	48	0	10.3	635
April	755	51	13	25.2	1,500
May	948	45	15	30.6	1,880
June	1,335	55	30	44.5	2,650
July	574.5	34	8.3	18.5	1,140
August	138.3	12	.5	4.46	274
September	416.2	37	0	13.9	826
Water year 1945-46	4,961.0	55	0	13.6	9,845

a No gage-height record; discharge interpolated or computed on basis of information furnished by watermaster.

Big Lost River at Wild Horse, near Chilly, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 114°07', in sec. 17, T. 7 N., R. 20 E., a quarter of a mile upstream from East Fork Big Lost River, 2 miles downstream from Wild Horse dam site, and 16 miles southwest of Chilly.

Drainage area.- 114 square miles.

Records available.- March 1944 to September 1946.

Extremes.- Maximum discharge during year, 499 second-feet June 5 (gage height, 4.06 feet); minimum not determined; probably occurred during period of no gage-height record.
1944-46: Maximum discharge, 622 second-feet June 27, 1944 (gage-height, 4.37 feet); minimum, 10 second-feet sometime during period Feb. 25 to Mar. 4, 1945 (gage height, 1.13 feet, from recorded range in stage).

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

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	31	20	26			22	263	256	223	67	43
2	36	30	22	25			22	256	268	240	62	41
3	35	30	24	26			21	280	321	236	60	40
4	34	31	25	25			21	321	4[illegible]	230	57	44
5	34	31	26	23			21	386	480	209	54	44
6	34	31	26	25		18	21	401	454	197	52	44
7	33	28	26	22			21	389	389	188	50	41
8	33	25	24	24			22	362	365	182	48	41
9	32	22	23	21			23	321	383	175	46	41
10	32	26	26	22			23	273	407	157	44	39
11	32	25	26	b20			25	247	386	154	43	37
12	32	26	25	b18			29	240	330	148	44	36
13	31	*26	25	b20			36	238	302	150	43	34
14	31	26	24	20			43	240	324	147	41	33
15	31	27	26	20			53	236	321	140	41	33
16	31	26	25	20	18		77	245	315	129	40	36
17	32	26	23	21			123	283	296	117	38	39
18	35	23	22	20			209	327	263	108	36	40
19	32	27	23	20		20	256	335	254	101	36	39
20	32	24	25	22			273	315	276	97	36	38
21	31	21	24	22			227	315	302	95	38	37
22	31	22	25	*h23			193	324	321	94	39	37
23	30	25	25	23			201	296	324	91	44	37
24	30	26	25	25			252	278	293	90	59	36
25	30	28	25	24			324	268	245	85	49	35
26	30	28	25	21			420	299	230	80	49	34
27	29	28	25	22		21	413	330	227	79	47	34
28	29	28	26	22		23	362	256	225	74	57	34
29	29	28	28	21	-	26	350	324	217	72	55	34
30	31	25	26	20	-	25	302	280	217	71	49	34
31	32	-	25	20	-	24	-	261	-	75	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	991	37	29	32.0	0.281	0.32	1,970
November	800	31	21	26.7	.234	.26	1,590
December	765	28	20	24.7	.217	.25	1,520
Calendar year 1945	30,792	535	18	84.4	.740	10.05	61,080
January	683	26	19	22.0	.193	.22	1,350
February	504	-	-	18.0	.158	.16	1,000
March	619	26	-	20.0	.175	.20	1,230
April	4,385	420	21	146	1.28	1.43	8,700
May	9,289	401	236	300	2.63	3.03	18,420
June	9,429	480	217	314	2.75	3.08	18,700
July	4,234	240	71	137	1.20	1.38	8,400
August	1,469	67	36	47.4	.416	.48	2,910
September	1,1	44	33	37.9	.332	.37	2,250
Water year 1945-46	34,304	480	-	94.0	.825	11.18	68,040

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Note.- No gage-height record Jan. 21, Jan. 23 to Apr. 8; discharge computed on basis of weather records and records for Warm Springs Creek near Ketchum.

Big Lost River at Howell Ranch, near Chilly, Idaho

Location.- Water-stage recorder, lat. 44°01', long. 114°00', in sec. 30, T. 5 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 1946 (no winter records).

Extremes.- Maximum discharge during year, 1,660 second-feet June 5 (gage height, 3.59 feet); minimum not determined, probably occurred during period of no record.
1904-14, 1920-46: Maximum discharge, 3,500 second-feet June 12, 1921 (gage height, 5.94 feet); minimum observed, 19 second-feet (discharge measurement) Dec. 12, 1939.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. 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 by employee of Water District No. 27.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	121				-	a80	718	781	697	229	171
2	128	116				-	a75	683	832	724	208	162
3	125	116				-	a70	759	996	677	199	157
4	123	114				-	a65	948	1,370	651	193	160
5	123	114				-	a65	1,130	1,580	625	185	165
6	123	112				-	a65	1,180	1,500	584	179	165
7	125	99				-	69	1,160	1,200	566	173	157
8	125	93				-	76	1,040	1,110	560	168	155
9	123	b85				-	76	900	1,220	532	160	157
10	121	b100				-	76	781	1,330	480	152	152
11	118	b100				-	84	677	1,180	469	147	144
12	118	a100				-	101	632	996	459	147	137
13	118	*b100				-	128	638	878	464	144	132
14	116					-	147	651	972	445	139	128
15	116					-	176	651	996	430	137	123
16	116					-	233	704	972	377	130	137
17	125					-	333	818	900	344	130	160
18	139					-	505	972	781	329	130	157
19	128					-	645	940	711	307	125	152
20	125					-	724	832	788	296	128	149
21	116	a100				-	619	855	932	293	132	152
22	118					-	538	948	996	286	142	152
23	114					-	572	855	996	282	165	149
24	114					-	683	752	940	279	289	147
25	116					-	878	745	745	265	239	142
26	114					-	1,080	878	690	252	223	139
27	112					b80	1,030	980	697	245	217	139
28	112					89	972	1,100	704	236	239	137
29	112					97	1,000	1,000	657	229	229	134
30	116					81	870	855	664	226	229	132
31	125	-				84	-	788	-	265	179	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
Octcber	3,734	139	112	120	7,410
November	3,070	121	-	102	6,090
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 27-31	431	97	80	86.2	855
April	12,035	1,080	65	401	23,870
May	26,570	1,180	632	857	52,700
June	29,114	1,580	657	970	57,750
Jnly	12,874	724	226	415	25,540
August	5,486	289	125	117	10,880
September	4,443	171	123	148	8,810
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station at Wild Horse, near Chilly.
b Stage-discharge relation affected by ice.

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 1946.

Average discharge.- 27 years, 63.1 second-feet.

Extremes.- Maximum discharge during year, 716 second-feet June 6 (gage height, 4.42 feet); minimum, 4 second-feet Feb. 17-21; minimum gage height, 1.14 feet Feb. 18, 19
1919-46: Maximum discharge, 1,320 second-feet June 7, 1938; maximum gage height, 5.02 feet July 1, 1944; no flow during long periods in 1920, 1923-38, 1940.

Remarks.- Records good except those below 10 second-feet and those for periods of no gage-height record, ice effect, or backwater from reservoir, all of 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 Water District No. 27.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	15	11	8	5	5		c254	327	283	50	30
2	18	15	11	8	5	6		c226	334	304	46	27
3	18	14	11	8	6	6		c224	355	307	44	26
4	18	14	11	8	6	5		c268	476	286	41	25
5	17	14	11	8	6	5		c340	600	277	40	24
6	17	14	12	8	5	6		c394	698	263	38	23
7	16	14	12	8	5	6		c402	635	247	36	22
8	16	14	12	8	5	6		c387	537	240	35	22
9	16	13	b10	8	5	6		c341	528	230	33	21
10	16	13	b11	8	5	7	c7	c303	580	216	31	20
11	17	13	b10	8	5	7		c250	575	199	31	20
12	17	13	b10	8	5	7		c218	520	189	30	18
13	17	13	b10	8	5	8		210	436	181	29	18
14	17	*13	b10		5	8		205	416	174	28	18
15	17	13	b10		5	8		201	436	165	27	17
16	18	13	b10		5	8		203	432	158	25	18
17	18	12	a10		4	8		223	408	151	24	18
18	18	12	10	a7	4	8		258	377	132	23	18
19	18	12	10		4	8		292	330	111	22	17
20	18	12	10		4	9		280	311	111	22	16
21	16	12	a9		4	9	37	269	362	107	22	15
22	16	12	a9		5		70	298	400	96	21	14
23	16	11	8	*6	5		89	317	424	89	24	14
24	16	11	8	6	5		116	283	444	86	26	14
25	16	11	8	6	5		167	271	389	83	27	13
26	16	11	8	6	5	c8	235	283	334	78	36	14
27	16	11	8	5	5		304	341	317	72	35	13
28	15	11	8	5	5		c309	420	311	65	37	12
29	15	11	8	5	-		c317	436	292	61	36	12
30	15	11	8	5	-		c306	385	280	59	33	12
31	15	-	8	5	-		-	348	-	55	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	517	18	15	16.7	1,030
November	378	15	11	12.6	750
December	302	12	8	9.7	599
Calendar year 1945	28,652	864	5	78.5	56,830
January	216	-	-	7.0	428
February	138	6	4	4.9	274
March	226	9	5	7.3	448
April	2,090	317	-	69.7	4,150
May	9,130	436	201	295	18,110
June	12,864	698	280	429	25,520
July	5,075	307	55	164	10,070
August	992	50	21	32.0	1,970
September	551	30	12	18.4	1,090
Water year 1945-46	32,479	698	4	89.0	64,440

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
c Stage-discharge relation affected by backwater from Mackay Reservoir; discharge computed on basis of percentage submergence of control and a standard submerged weir formula corrected on basis of discharge measurements.

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 northwest of Mackay.

Records available.- May 1919 to September 1946.

Average discharge.- 27 years, 58.8 second-feet.

Extremes.- Maximum discharge during year, 269 second-feet June 6 (gage height, 3.37 feet); minimum, 39 second-feet Apr. 1-4, 7-10 (gage height, 2.03 feet).
1919-46: 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 periods of no gage-height record or backwater from Mackay Reservoir, 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	55	46	46	a42	40	39	c105	117	107	51	51
2	52	55	46	46	a42	40	39	c100	121	112	50	51
3	52	54	46	43	42	40	39	c95	119	124	50	51
4	52	54	46	43	42	40	40	c100	160	110	48	51
5	52	54	45	42	42	40	40	c120	224	108	47	51
6	52	55	45	42	42	40	40	c160	260	102	47	51
7	52	54	43	42	a42	40	39	c180	243	98	47	51
8	52	52	43	42	a42	40	39	c170	200	92	48	52
9	52	51	43	42	a41	40	39	c150	192	89	47	52
10	51	51	43	42	41	40	39	c130	206	82	48	52
11	50	51	45	42	41	40	40	c110	210	78	48	52
12	50	51	46	42	41	40	40	c95	192	74	47	52
13	50	50	46	42	a41	40	40	89	158	72	47	51
14	50	50	a46	42	a41	40	40	84	150	69	47	51
15	50	50	a46	42	a41	40	40	84	154	68	48	48
16	51	48	46	42	a41	40	40	82	152	65	47	50
17	52	48	46	42	41	40	40	86	148	65	47	51
18	52	48	46	42	41	40	41	95	141	63	46	52
19	55	50	46	42	41	41	41	105	124	61	46	52
20	56	50	a46	42	40	43	40	108	115	59	47	52
21	56	50	a46	42	40	42	40	102	121	56	47	52
22	56	50	a46	42	40	42	41	114	135	56	50	52
23	56	a49	46	42	40	41	43	119	144	56	52	52
24	55	a49	46	42	40	40	46	107	172	55	54	52
25	55	48	46	42	40	40	52	100	143	54	52	52
26	55	48	46	42	40	40	63	102	124	52	52	52
27	55	48	46	42	40	40	84	121	115	51	52	52
28	55	47	46	42	40	40	c95	154	112	50	56	52
29	55	46	46	a42	-	40	c105	158	112	51	54	52
30	55	46	46	a42	-	40	c110	143	105	51	52	52
31	55	-	47	a42	-	40	-	124	-	51	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,643	56	50	53.0	3,260
November	1,512	55	46	50.4	3,000
December	1,412	47	43	45.5	2,800
Calendar year 1945	22,015	317	36	60.3	43,670
January	1,312	46	42	42.3	2,600
February	1,147	42	40	41.0	2,280
March	1,249	43	40	40.3	2,480
April	1,474	110	39	49.1	2,920
May	3,592	180	82	116	7,120
June	4,669	260	105	156	9,260
July	2,281	124	50	73.6	4,520
August	1,525	56	46	49.2	3,020
September	1,544	52	48	51.5	3,060
Water year 1945-46	23,360	260	39	64.0	46,320

a No gage-height record; discharge interpolated.
c Stage-discharge relation affected by backwater from Mackay Reservoir; discharge computed by using water-surface slope as a factor.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	187	187	173	169	155	152	153	496	613	554	204	201
2	187	187	172	169	155	153	153	458	632	586	199	198
3	187	185	172	163	156	153	151	451	648	620	198	197
4	189	187	173	163	156	152	151	504	835	574	189	196
5	186	187	172	162	154	152	151	614	1,070	563	183	195
6	186	186	171	162	155	154	151	730	1,240	536	181	194
7	185	187	169	162	155	154	149	773	1,140	512	179	193
8	185	185	169	162	153	154	148	749	969	492	180	194
9	185	183	165	161	152	154	148	670	947	472	178	193
10	184	184	170	162	155	155	147	601	1,020	447	176	193
11	184	184	172	162	155	157	150	509	1,030	420	176	193
12	183	184	173	161	154	156	150	451	946	401	174	189
13	183	181	173	162	154	157	150	432	798	389	173	188
14	182	182	173	160	153	156	150	417	759	374	172	188
15	182	183	172	160	154	155	150	411	787	363	172	185
16	185	179	175	159	153	155	150	411	785	350	168	193
17	187	178	175	161	152	155	150	436	755	340	165	199
18	190	175	173	160	152	156	149	487	712	317	163	198
19	192	179	171	160	152	159	150	542	634	288	163	198
20	196	177	172	159	151	167	149	546	593	281	165	199
21	195	177	171	159	151	162	179	529	656	273	165	196
22	194	179	171	159	152	160	216	585	723	262	169	196
23	194	176	170	158	150	158	241	609	764	253	183	195
24	192	176	169	157	152	155	273	552	642	247	189	195
25	191	176	169	156	153	153	335	526	730	244	182	194
26	190	176	169	156	152	155	419	545	637	237	196	194
27	188	177	169	153	152	155	524	638	603	229	203	191
28	187	176	169	155	150	156	544	788	592	218	220	191
29	187	174	169	155	-	156	563	800	573	215	216	193
30	187	174	169	153	-	156	555	728	547	214	207	193
31	190	-	170	153	-	156	-	646	-	211	212	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,820	196	182	188	11,540
November	5,421	187	174	181	10,750
December	5,300	175	169	171	10,510
Calendar year 1945	93,497	1,510	115	256	185,400
January	4,953	169	153	160	9,820
February	4,288	156	150	153	8,510
March	4,828	167	152	156	9,580
April	6,849	563	147	228	13,580
May	17,634	800	411	569	34,980
June	23,580	1,240	547	786	46,770
July	11,482	620	211	370	22,770
August	5,700	220	163	184	11,310
September	5,822	201	185	194	11,550
Water year 1945-46	101,677	1,240	147	279	201,700

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 1946.

Extremes.- Maximum contents observed during year, 40,280 acre-feet May 8 (gage height, 63.45 feet); minimum observed, 8,010 acre-feet Aug. 27 (gage height, 28.80 feet).
1919-46: Maximum contents observed, 41,270 acre-feet May 30, 1938 (gage height, 64.20 feet); no available contents during periods in 1919, 1920, 1924, 1926, 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 reservoir and station below reservoir, near Mackay. Figures given herein represent usable contents, computed for 12 p.m. on basis of once-daily readings of staff gage.

Cooperation.- Gage readings and capacity table furnished by Water District No. 27.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,470	19,720	25,860	30,930	34,500	36,830	38,390	40,020	39,430	37,480	21,460	8,930
2	12,720	19,930	26,070	31,070	34,630	36,900	38,390	39,980	39,400	37,230	20,880	9,050
3	13,020	20,130	26,220	31,260	34,770	36,980	38,390	39,910	39,430	37,170	20,470	9,140
4	13,300	20,310	26,440	31,370	34,880	37,040	38,380	39,910	39,710	37,170	19,930	9,150
5	13,530	20,540	26,660	31,500	34,950	37,130	38,380	39,980	39,950	36,990	19,430	9,130
6	13,800	20,760	26,840	31,610	35,070	37,180	38,380	40,160	40,020	36,890	18,320	9,150
7	14,030	20,940	27,030	31,690	35,160	37,240	38,380	40,270	39,840	36,710	18,070	9,200
8	14,270	21,130	27,220	31,750	35,200	37,330	38,320	40,250	39,510	36,400	17,410	9,280
9	14,510	21,320	27,370	31,950	35,310	37,390	38,270	40,140	39,240	36,040	16,750	9,410
10	14,780	21,530	27,530	32,120	35,420	37,430	38,250	39,910	39,160	35,760	16,130	9,500
11	15,040	21,710	27,730	32,260	35,480	37,480	38,190	39,710	39,070	35,360	15,510	9,620
12	15,230	21,880	27,880	32,380	35,600	37,560	38,160	39,380	39,000	34,860	14,890	9,710
13	15,440	22,070	28,010	32,510	35,660	37,630	38,190	39,200	38,920	34,240	14,250	9,840
14	15,650	22,330	28,170	32,620	35,720	37,700	38,200	39,160	38,720	33,580	13,710	10,000
15	15,910	22,490	28,360	32,740	35,830	37,730	38,210	39,070	38,570	32,980	13,380	10,090
16	16,130	22,690	28,530	32,860	35,900	37,770	38,190	38,980	38,570	32,330	12,560	10,270
17	16,320	22,870	28,670	32,980	35,950	37,850	38,180	38,800	38,600	31,200	11,900	10,460
18	16,580	23,020	28,830	33,050	36,000	37,900	38,190	38,690	38,560	31,140	11,310	10,880
19	16,810	23,220	29,030	33,180	36,100	37,940	38,190	38,690	38,300	30,130	10,660	11,270
20	17,030	23,440	29,150	33,280	36,170	38,070	38,200	38,510	38,160	29,420	10,230	11,530
21	17,220	23,690	29,280	33,390	36,220	38,160	38,270	38,400	38,070	28,700	9,760	11,920
22	17,420	23,950	29,480	33,470	36,310	38,200	38,380	38,570	38,010	28,240	9,290	12,240
23	17,700	24,190	29,690	33,600	36,380	38,240	38,550	38,830	38,100	27,950	8,860	12,590
24	17,920	24,390	29,820	33,720	36,460	38,270	38,640	38,910	38,320	26,540	8,610	12,940
25	18,140	24,610	29,940	33,800	36,560	38,290	38,920	38,910	38,400	25,910	8,410	13,280
26	18,420	24,890	30,080	33,920	36,630	38,340	39,210	38,920	38,250	25,200	8,120	13,630
27	18,640	25,060	30,220	34,030	36,670	38,380	39,520	38,920	38,150	24,650	8,050	13,940
28	18,820	25,230	30,390	34,150	36,730	38,400	39,740	38,960	37,990	24,030	8,190	14,240
29	19,020	25,470	30,530	34,260	-	38,400	39,910	39,360	37,770	23,220	8,430	14,540
30	19,290	25,640	30,660	34,360	-	38,390	39,990	39,560	37,660	22,310	8,620	14,850
31	19,510	-	30,800	34,430	-	38,380	-	39,490	-	22,010	8,790	-

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	35.14	12,120	-
Oct. 31	44.52	19,510	+7,390
Nov. 30	50.94	25,640	+6,130
Dec. 31	55.69	30,800	+5,160
Calendar year 1945	-	-	-4,500
Jan. 31	58.79	34,430	+3,630
Feb. 28	60.67	36,730	+2,300
Mar. 31	61.98	38,380	+1,650
Apr. 30	63.23	39,990	+1,610
May 31	62.84	39,490	-500
June 30	61.41	37,660	-1,830
July 31	47.26	22,010	-15,650
Aug. 31	30.10	8,790	-13,220
Sept.30	38.83	14,850	+6,060
Water year 1945-46	-	-	+2,730

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 Oleson 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 1946.

Average discharge.- 30 years (1904-5, 1912-14, 1919-46), 270 second-feet.

Extremes.- Maximum discharge during year, 1,310 second-feet (regulated) June 7 (gage height, 4.10 feet); minimum, 52 second-feet (regulated) Sept. 21-23 (gage height, 1.63 feet).

1903-6, 1912-15, 1919-46: Maximum discharge, 2,990 second-feet June 10, 1921 (gage height, 5.79 feet); minimum, 18 second-feet (regulated) 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 diversions above reservoir. Flow regulated by Mackay Reservoir (see preceding page).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	101	96	112	a130	133	169	505	685	697	510	169
2	70	101	96	112	a131	133	169	496	674	685	515	169
3	70	101	96	115	a132	133	169	491	668	663	476	186
4	70	101	96	115	a132	136	169	535	685	663	471	224
5	70	104	98	115	133	136	169	540	859	663	515	224
6	70	104	98	115	133	133	169	570	1,110	663	550	224
7	70	106	98	115	130	133	169	658	1,190	674	555	201
8	70	106	98	115	130	136	165	757	1,170	685	545	172
9	70	106	98	118	127	136	165	733	1,060	703	545	172
10	70	106	101	118	127	136	165	685	1,020	691	550	172
11	70	106	101	118	127	136	162	636	996	685	530	172
12	70	106	101	118	127	136	162	586	970	680	525	172
13	70	106	101	118	130	136	162	530	938	691	505	156
14	70	106	101	118	130	136	165	500	889	703	500	146
15	72	109	104	118	130	136	165	481	859	721	505	149
16	72	109	104	118	130	139	165	466	787	727	496	139
17	72	109	104	118	130	139	159	535	739	733	481	98
18	72	101	104	121	130	139	156	638	757	739	491	65
19	70	82	104	121	130	139	159	597	781	721	486	65
20	70	82	106	121	130	146	159	636	745	691	461	63
21	70	82	106	121	130	152	165	709	739	668	466	52
22	77	85	106	124	130	152	165	636	763	663	437	52
23	85	87	106	124	130	156	183	530	763	652	432	52
24	87	87	106	127	130	159	216	555	745	668	398	54
25	90	90	109	127	130	159	251	570	727	680	347	54
26	96	90	109	127	130	159	311	575	727	674	324	54
27	96	90	109	127	130	162	389	608	709	636	289	54
28	98	90	109	a127	133	165	452	680	697	608	239	54
29	98	96	112	a128	-	169	496	727	691	602	201	54
30	101	96	112	a128	-	169	510	739	685	636	169	54
31	101	-	112	a129	-	192	-	715	-	560	169	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,407	101	70	77.6	4,770
November	2,945	109	82	98.2	5,840
December	3,201	112	96	103	6,350
Calendar year 1945	103,679	1,700	70	284	205,600
January	3,728	129	112	120	7,390
February	3,642	133	127	130	7,220
March	4,521	192	133	146	8,970
April	6,430	510	156	214	12,750
May	18,619	757	466	601	36,930
June	24,828	1,190	668	828	49,250
July	20,925	739	560	675	41,500
August	13,663	555	169	441	27,100
September	3,672	224	52	122	7,280
Water year 1945-46	108,581	1,190	52	297	215,400

a No gage-height record; discharge interpolated.

Warm Spring Creek (east channel) near Mackay, Idaho

Location.- Water-stage recorder, lat. 43°58', long. 113°45', in NE ¼ 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 1946.

Average discharge.- 27 years, 28.1 second-feet.

Extremes.- Maximum discharge during year, 99 second-feet June 6 (gage height, 2.65 feet); minimum, 14 second-feet Apr. 4-21.
1919-46: Maximum discharge observed, 225 second-feet June 15, 1922 (gage height, 3.24 feet, site and datum then in use); 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 Water District No. 27.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	21	18	17	16	15	15	37	50	50	22	25
2	21	21	17	17	16	15	15	34	53	52	22	25
3	21	21	17	16	16	15	15	34	52	60	22	25
4	21	21	17	16	16	15	14	36	63	54	20	25
5	21	21	17	16	16	15	14	44	84	54	20	25
6	21	21	16	16	16	15	14	54	97	51	20	25
7	21	21	16	16	16	15	14	59	92	49	20	25
8	21	21	16	16	16	15	14	58	79	47	20	25
9	21	21	16	16	16	15	14	54	78	45	20	25
10	21	21	18	16	16	15	14	50	82	42	20	25
11	21	21	18	16	16	15	14	43	85	39	20	25
12	21	21	18	16	16	15	14	38	81	37	20	24
13	21	20	18	16	16	15	14	35	68	37	20	24
14	21	20	17	16	15	15	14	33	63	35	20	24
15	21	21	17	16	15	15	14	32	65	35	20	24
16	21	20	18	16	15	15	14	31	65	33	20	25
17	21	20	18	16	15	15	14	32	65	31	19	28
18	21	19	17	16	15	15	14	35	63	30	19	27
19	21	19	17	16	15	16	14	40	57	28	19	27
20	22	19	17	16	15	17	14	42	51	25	20	27
21	22	19	17	16	15	16	14	42	53	24	20	27
22	22	19	17	16	15	16	16	49	59	24	21	26
23	22	18	17	16	15	16	17	50	62	24	25	25
24	21	18	17	16	15	15	18	46	76	23	27	25
25	21	19	17	16	16	15	21	43	64	23	21	25
26	21	19	17	16	15	15	25	44	56	23	22	24
27	21	19	17	16	15	15	32	51	53	23	24	24
28	21	19	17	16	15	15	35	66	51	21	28	25
29	21	18	17	16	-	15	37	65	52	22	27	25
30	21	18	17	16	-	15	38	58	49	22	26	25
31	22	-	17	16	-	15	-	52	-	23	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	656	22	21	21.2	1,300
November	596	21	18	19.9	1,180
December	530	18	16	17.1	1,050
Calendar year 1945	8,756	114	12	24.0	17,370
January	498	17	16	16.1	988
February	434	16	15	15.5	861
March	471	17	15	15.2	934
April	536	38	14	17.9	1,060
May	1,387	66	31	44.7	2,750
June	1,968	97	49	65.6	3,900
July	1,086	60	21	35.0	2,150
August	669	28	19	21.6	1,330
September	756	28	24	25.2	1,500
Water year 1945-46	9,587	97	14	26.3	19,000

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Warm Spring Creek (west channel) near Mackay, Idaho

Location.- Water-stage recorder, lat. 43°58', long. 113°45', in NE ¼ 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 1946.

Average discharge.- 27 years, 92.3 second-feet.

Extremes.- Maximum discharge during year, 185 second-feet June 6, 7 (gage height, 2.19 feet); minimum, 74 second-feet Aug. 17 (gage height, 1.28 feet).
1919-46: 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 Water District No. 27.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	96	98	98	92	92	92	100	119	114	81	95
2	96	96	98	98	92	92	92	98	124	118	81	95
3	96	96	98	96	92	92	90	98	122	129	82	95
4	98	98	99	96	92	92	90	100	136	124	80	95
5	96	98	99	96	90	92	90	110	166	124	76	95
6	96	96	98	96	92	93	90	122	182	120	76	95
7	96	98	98	96	92	93	89	132	173	118	76	95
8	96	98	98	96	90	93	88	134	153	113	77	95
9	96	98	96	95	90	93	88	125	149	108	78	95
10	96	99	98	96	93	93	87	118	155	107	77	96
11	96	99	99	96	93	95	89	106	160	104	77	96
12	95	99	99	95	92	94	89	100	153	101	77	95
13	95	98	99	96	92	94	89	98	136	99	77	95
14	94	99	99	95	92	93	89	95	130	96	77	95
15	94	99	99	95	93	92	89	94	132	95	77	96
16	95	98	101	94	92	92	89	95	136	94	76	100
17	96	98	101	96	92	92	89	95	134	93	75	102
18	99	96	100	95	92	93	87	99	131	92	75	101
19	98	98	99	95	92	94	88	105	123	88	76	102
20	100	96	99	94	92	98	88	116	116	86	76	104
21	101	96	99	94	92	95	88	116	120	86	76	102
22	100	98	99	94	92	94	89	124	129	86	77	104
23	100	98	99	94	90	93	92	123	134	84	82	104
24	100	98	98	93	92	92	93	116	150	83	82	104
25	99	98	98	92	92	99	95	112	134	84	82	104
26	98	98	98	92	92	92	96	116	123	84	86	104
27	96	99	98	90	92	92	104	125	118	83	92	102
28	96	99	98	92	90	93	105	148	118	82	99	102
29	96	99	98	92	-	93	104	141	117	81	99	104
30	96	99	98	90	-	93	101	142	113	82	96	104
31	98	-	98	90	-	93	-	122	-	82	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,004	101	94	96.9	5,960
November	2,935	99	96	97.8	5,820
December	3,056	101	96	98.6	6,060
Calendar year 1945	34,076	215	59	93.4	67,580
January	2,927	98	90	94.4	5,810
February	2,569	93	90	91.8	5,100
March	2,882	98	90	93.0	5,720
April	2,749	105	87	91.6	5,450
May	3,525	148	94	114	6,990
June	4,086	182	113	136	8,100
July	3,040	129	81	98.1	6,030
August	2,514	99	75	81.1	4,990
September	2,971	104	95	99.0	5,890
Water year 1945-46	36,258	182	75	99.3	71,920

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 3½ miles northwest of Mackay.

Records available.- April 1939 to September 1946. June 1912 to October 1914, March 1919 to April 1939 at site 1,400 feet upstream, above Hintze ditch.

Extremes.- Maximum discharge during year, 35 second-feet May 20 (gage height, 1.15 feet); no flow at times during period Nov. 26 to Apr. 17.
1912-14, 1919-46: Maximum discharge observed, 42 second-feet June 23, 1921 (former site); no flow at times.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Sharp ditch diverts from east side of Big Lost River in SE¼ sec. 12, T. 7 N., R. 23 E., half a mile below Mackay Reservoir and 1 mile above station on Big Lost River below Mackay Reservoir, near Mackay. Water used for irrigation northwest of Mackay and above streeter ditch. Hintze ditch, which diverts from Sharp ditch above station, was reported by watermaster to have carried no flow during year except a negligible amount of leakage.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	7.0						1.3	25	28	17	3.7
2	19	7.2						2.7	25	27	23	3.2
3	19	7.5						8.0	25	27	21	3.5
4	20	7.5						11	25	26	21	3.9
5	20	5.8						16	26	26	21	3.9
6	21	5.5						25	29	26	24	3.9
7	21	5.5						25	28	25	24	3.7
8	21	5.3						26	27	25	23	3.2
9	21	3.7				a0.5	a0.5	26	27	25	22	2.8
10	21	3.2						26	27	23	22	2.8
11	22	3.0						30	26	21	21	2.8
12	22	3.0						31	26	21	20	2.8
13	23	3.0						31	27	21	20	2.8
14	23	2.8						31	28	21	20	2.8
15	23	2.8						31	28	21	20	2.5
16	24	2.8	a0.2					32	27	14	20	2.2
17	24	2.6				†.5	4.7	34	27	18	17	2.2
18	25	2.6					8.0	34	27	20	16	1.9
19	25	2.6					8.0	34	27	20	16	1.9
20	26	2.6					8.0	34	28	19	16	1.9
21	26	2.6					8.0	32	29	19	15	1.9
22	19	2.6					8.0	32	28	18	15	1.4
23	15	2.6					7.7	30	29	18	14	1.2
24	15	2.6					7.2	30	29	17	13	1.2
25	12	1.4				a.5	7.2	30	28	17	11	1.2
26	7.2						.3	30	28	16	11	1.2
27	7.0						.3	30	28	15	9.2	1.2
28	6.5	a.2					.3	30	28	15	8.0	1.2
29	6.5						1.3	29	28	17	7.0	1.2
30	6.7						1.3	26	28	19	5.6	1.2
31	7.3						-	26	-	16	5.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	565.9	26	6.5	18.3	1,120
November	98.8	7.5	-	3.29	196
December	6.2	-	-	.2	12
Calendar year 1945	3,310.6	38	0	9.07	6,560
January	0	0	0	0	0
February	0	0	0	0	0
March	15.5	-	-	.5	31
April	78.3	8.0	-	2.61	155
May	814.0	34	1.3	26.3	1,610
June	818	29	25	27.3	1,620
July	641	28	14	20.7	1,270
August	518.2	24	5.4	16.7	1,030
September	71.3	3.9	1.2	2.38	141
Water year 1945-46	3,627.2	34	0	9.94	7,180

† Field estimate.
a No gage-height record; discharge computed on basis of field estimate on Mar. 17 and data furnished by watermaster.

Big Wood River at Hailey, Idaho

Location.- Water-stage recorder, lat. 43°31', long. 114°20', in SW¼ 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 1946.

Average discharge.- 31 years, 292 second-feet. Average combined discharge of Big Wood River and Big Wood Slough, 31 years, 408 second-feet.

Extremes.- Maximum discharge during year, 2,080 second-feet Apr. 27 (gage height, 5.42 feet); minimum, 26 second-feet Feb. 7 (gage height, 1.19 feet).

1915-46 (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.

1915-46 (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 for periods of ice effect, 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 Water District No. 7 AE.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	71	38	57	39	35	128	1,340	1,310	725	226	109
2	56	65	41	53	40	35	135	1,290	1,300	749	219	107
3	52	64	33	58	40	39	124	1,380	1,380	714	214	105
4	50	62	45	54	38	35	120	1,570	1,650	681	211	115
5	47	62	52	52	35	38	126	1,800	1,830	664	207	132
6	46	64	51	52	38	41	130	1,860	1,790	637	199	128
7	43	58	50	47	38	37	143	1,830	1,540	610	192	122
8	41	52	38	43	35	37	157	1,690	1,390	600	187	126
9	40	42	32	38	37	41	166	1,520	1,410	565	183	139
10	40	50	35	40	37	41	166	1,380	1,500	520	173	146
11	40	52	38	37	35	47	173	1,220	1,400	506	168	139
12	40	57	36	35	32	54	250	1,160	1,220	488	168	130
13	39	57	33	40	35	54	371	1,140	1,120	479	168	124
14	39	59	34	42	37	51	492	1,140	1,170	452	171	122
15	39	68	35	43	37	48	698	1,120	1,180	425	168	126
16	38	66	38	42	36	45	904	1,140	1,160	408	164	148
17	39	*66	39	42	36	41	1,100	1,260	1,080	383	166	159
18	43	58	40	40	37	50	1,390	1,430	968	367	159	157
19	41	71	40	38	38	54	1,590	1,460	930	356	157	155
20	41	61	43	40	38	*72	1,660	1,390	936	337	146	155
21	41	45	45	40	38	72	1,430	1,380	975	315	113	159
22	40	40	47	43	38	66	1,220	1,430	1,010	302	135	168
23	40	45	47	42	34	68	1,230	1,370	1,030	295	105	180
24	39	48	46	46	39	68	1,410	1,270	923	267	130	178
25	40	56	48	*44	41	61	1,690	1,240	815	250	120	175
26	40	58	48	37	35	68	1,960	1,440	791	250	111	173
27	44	58	51	39	39	80	1,940	1,700	767	253	111	173
28	68	58	56	39	40	98	1,790	1,790	767	244	120	173
29	64	62	65	39	-	135	a1,650	1,690	720	239	122	173
30	66	59	66	37	-	143	1,500	1,520	708	237	113	168
31	77	-	57	38	-	139	-	1,380	-	242	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,430	77	38	46.1	2,840
November	1,734	71	40	57.8	3,440
December	1,367	66	32	44.1	2,710
Calendar year 1945	110,364	1,700	32	302	218,900
January	1,337	58	35	43.1	2,650
February	1,042	41	32	37.2	2,070
March	1,893	143	35	61.1	3,750
April	25,843	1,960	120	861	51,260
May	44,330	1,860	1,120	1,430	87,930
June	34,770	1,830	708	1,159	68,970
July	13,560	749	237	437	26,900
August	4,937	226	105	159	9,790
September	4,364	180	105	145	8,660
Water year 1945-46	136,607	1,960	32	374	271,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Bellevue.
Note.- Stage-discharge relation affected by ice Dec. 7-22, Jan. 8-23, Jan. 26 to Feb. 1, Feb. 4-17.

Combined discharge, in second-feet, of Big Wood River and Big Wood Slough at Hailey, Idaho, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	185	140	172	162	150	267	1,400	1,360	787	285	187
2	147	179	143	168	162	150	275	1,350	1,360	813	274	182
3	143	177	131	173	162	154	263	1,430	1,450	777	267	180
4	143	175	154	164	160	150	257	1,630	1,720	741	262	196
5	142	175	166	167	145	153	266	1,860	1,900	723	258	218
6	142	178	165	165	154	156	270	1,930	1,870	692	247	214
7	141	169	164	160	154	152	287	1,890	1,600	663	235	207
8	138	162	139	147	145	152	304	1,750	1,450	652	228	212
9	137	152	117	138	155	156	315	1,580	1,470	615	222	231
10	136	160	125	135	151	152	315	1,430	1,560	567	210	238
11	135	162	133	132	149	170	323	1,270	1,460	551	203	230
12	136	168	126	135	146	180	400	1,210	1,280	530	203	216
13	135	167	123	145	161	181	497	1,190	1,180	518	202	210
14	135	170	124	152	156	173	618	1,190	1,220	490	201	207
15	134	184	127	159	156	170	805	1,170	1,230	460	198	204
16	134	185	136	160	155	163	1,000	1,190	1,210	444	192	220
17	136	184	144	157	152	156	1,200	1,310	1,130	426	194	233
18	144	172	140	153	155	172	1,480	1,490	1,020	407	187	230
19	138	187	145	149	156	180	1,670	1,520	975	396	185	227
20	137	172	154	159	157	204	1,740	1,450	981	377	184	227
21	137	147	163	159	157	204	1,500	1,440	1,030	351	186	232
22	136	140	166	162	157	194	1,290	1,490	1,090	336	187	230
23	135	150	166	161	150	198	1,300	1,420	1,110	338	202	233
24	132	155	161	165	157	198	1,480	1,320	1,000	336	236	231
25	133	171	158	164	161	187	1,770	1,290	886	321	210	227
26	133	174	158	150	151	198	2,040	1,490	860	322	195	225
27	141	176	161	153	154	215	2,010	1,760	835	322	192	224
28	177	176	171	152	155	241	1,860	1,850	833	309	201	223
29	173	181	185	161	-	285	1,720	1,740	783	302	206	222
30	177	175	186	152	-	286	1,570	1,580	770	299	192	216
31	192	-	177	164	-	282	-	1,440	-	305	190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,448	192	132	143	8,820
November	5,108	187	140	170	10,130
December	4,648	186	117	150	9,220
Calendar year 1945	130,016	1,770	117	356	257,900
January	4,833	173	132	156	9,590
February	4,335	162	145	155	8,600
March	5,762	286	150	186	11,430
April	29,092	2,040	257	970	57,700
May	46,060	1,930	1,170	1,486	91,360
June	36,623	1,900	770	1,221	72,640
July	15,170	813	299	489	30,090
August	6,634	285	184	214	13,160
September	6,532	238	180	218	12,960
Water year 1945-46	169,245	2,040	117	464	335,700

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., 1¼ 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 1946 (except winters of 1942 and prior to 1940).

Extremes.- Maximum discharge during year, 1,720 second-feet Apr. 27 (gage height, 4.14 feet); minimum, 46 second-feet Feb. 7 (gage height, 1.69 feet).
1911-46: Maximum discharge recorded, 3,660 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 Dec. 7 to Feb. 17, which are fair. Many diversions above station for irrigation.

Cooperation.- Water-stage recorder inspected and five discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	71	83	110	56	52	237	1,080	958	316	104	66
2	71	69	75	107	56	56	242	958	932	354	96	64
3	71	67	75	107	56	73	232	949	940	380	86	64
4	71	67	91	107	56	83	237	1,060	1,070	409	86	66
5	71	67	113	107	b56	83	248	1,230	1,220	387	84	68
6	73	67	120	107	56	93	242	1,340	1,230	373	77	66
7	73	67	b120	107	54	96	237	1,340	1,080	348	73	62
8	73	64	b104	b96	b54	93	232	1,250	940	335	70	64
9	73	60	b78	b83	b54	98	211	1,120	898	316	70	68
10	73	62	69	b75	b54	101	202	1,010	940	282	75	66
11	73	64	64	b69	54	104	202	864	906	250	79	64
12	73	93	62	b67	b54	120	221	710	796	200	79	62
13	73	104	62	b58	b54	126	281	669	661	180	81	62
14	73	113	b62	b54	b54	126	424	661	804	155	79	62
15	73	123	58	b54	b52	126	552	645	985	152	81	62
16	71	136	56	54	b52	123	752	637	985	172	79	64
17	71	*140	56	b54	b52	120	961	702	958	172	75	66
18	71	136	b54	b54	52	123	1,180	830	812	172	70	66
19	69	140	b54	a54	54	136	1,340	898	581	161	70	66
20	69	140	54	a55	54	170	1,450	880	533	142	73	66
21	69	126	54	a55	54	*179	1,370	864	549	123	75	62
22	69	116	54	a56	52	162	1,200	864	565	112	77	62
23	69	126	54	a57	52	162	1,170	872	605	106	81	62
24	67	129	54	a57	54	166	1,250	804	605	101	96	62
25	64	132	54	a58	54	159	1,380	762	501	94	94	62
26	64	140	54	*b58	52	159	1,590	880	445	94	86	62
27	64	143	54	b58	54	179	1,640	1,120	423	94	81	60
28	67	143	64	b58	54	207	1,460	1,290	387	94	77	62
29	69	136	113	b58	-	232	1,370	1,270	335	96	77	62
30	71	91	110	b56	-	242	1,290	1,130	310	96	73	64
31	71	-	110	b58	-	258	-	1,040	-	106	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,182	73	64	70.4	4,330
November	3,122	143	60	104	6,190
December	2,285	120	54	73.7	4,530
Calendar year 1945	63,934	1,030	49	175	126,800
January	2,208	110	54	71.2	4,380
February	1,510	56	52	53.9	3,000
March	4,207	258	52	136	8,340
April	23,403	1,640	202	780	46,420
May	29,729	1,340	637	959	58,970
June	22,954	1,230	310	765	45,530
July	6,372	409	94	206	12,640
August	2,474	104	70	79.8	4,910
September	1,914	68	60	63.8	3,800
Water year 1945-46	102,360	1,640	52	280	203,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.

Magic Reservoir near Richfield, Idaho

Location.- Staff gage at dam on Big Wood River, lat. 43°15', long. 114°22', in NE¼SE¼ 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 1946.

Extremes.- Maximum observed contents during year, 193,100 acre-feet May 27, 28 (gage height, 135.4 feet); minimum observed, 75,900 acre-feet Mar. 30 (gage height, 94.5 feet).
1909-46: Maximum observed contents, 193,500 acre-feet June 26-28, 1944 (gage height, 135.5 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 readings and yield table furnished by Water District No. 7 AB.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103,800	108,000	111,900	118,200	124,100	116,600	76,730	191,100	192,300	186,400	154,600	124,400
2	104,300	108,000	112,100	118,400	124,100	114,700	76,940	191,100	192,300	186,100	153,300	123,600
3	104,500	108,300	112,400	118,700	124,400	112,900	78,610	191,100	192,300	185,700	152,000	122,700
4	104,500	108,300	112,400	119,000	124,400	111,400	80,730	191,100	192,300	185,300	151,000	122,200
5	104,800	108,500	112,600	119,200	124,700	109,800	83,320	191,100	192,700	184,900	149,700	121,700
6	104,800	108,800	112,600	119,500	124,900	107,800	86,400	191,500	192,700	184,500	148,800	120,900
7	105,000	108,800	113,200	120,000	124,900	106,500	89,990	192,300	192,700	183,800	147,500	120,000
8	105,000	108,800	113,400	120,300	125,200	104,800	93,920	192,300	192,700	183,000	146,200	119,200
9	105,300	109,000	113,700	120,600	125,500	103,300	100,300	192,300	192,300	182,200	145,000	118,700
10	105,300	109,300	113,700	120,600	125,500	101,800	106,800	191,900	192,300	181,500	143,800	118,200
11	105,500	109,300	113,900	120,900	125,800	100,100	113,900	191,100	192,300	180,700	142,800	117,400
12	105,500	109,600	113,900	120,900	125,800	98,170	122,700	191,100	192,300	180,000	141,600	116,600
13	105,800	109,600	114,200	121,100	126,000	96,740	133,300	190,700	192,300	178,900	140,700	115,800
14	105,800	109,800	114,200	121,100	126,300	95,320	143,800	190,300	191,900	177,700	139,800	115,000
15	106,000	110,100	114,500	121,400	126,300	93,680	154,300	190,300	192,300	176,600	138,600	114,200
16	106,000	110,300	114,500	121,400	126,600	92,290	164,100	190,700	192,300	175,500	137,400	113,700
17	106,300	110,300	114,700	121,700	126,600	91,140	172,600	191,100	192,700	174,100	136,500	112,900
18	106,300	110,800	114,700	121,700	126,900	99,770	180,000	191,500	192,700	172,600	135,400	110,900
19	106,500	111,400	115,000	121,900	127,200	88,180	186,100	191,500	192,300	171,900	134,500	111,100
20	106,500	111,900	115,300	121,900	127,200	86,840	192,700	192,300	191,900	170,400	133,600	110,300
21	106,500	112,100	115,300	122,200	126,000	85,510	192,700	192,300	191,500	169,400	132,500	109,600
22	106,800	111,900	115,500	122,200	125,200	84,410	192,300	192,300	190,700	168,300	131,400	109,000
23	106,800	111,400	115,800	122,500	124,100	83,100	191,500	192,300	190,300	166,900	130,800	108,500
24	107,000	110,600	115,800	122,700	123,000	82,020	191,100	192,300	189,900	165,500	130,200	107,800
25	107,000	110,100	116,000	123,000	122,200	80,730	191,100	192,300	189,900	164,100	129,700	107,000
26	107,300	110,600	116,300	123,300	121,100	79,460	191,500	191,900	189,200	162,700	129,100	106,500
27	107,300	110,800	116,300	123,300	119,800	78,190	191,900	192,700	188,800	161,300	128,300	105,800
28	107,500	111,100	116,800	123,600	118,400	77,150	192,300	193,100	188,400	160,000	127,200	105,300
29	107,500	111,400	117,100	123,600	-	76,520	191,900	192,300	188,000	158,600	126,300	104,500
30	107,800	111,600	117,400	123,800	-	75,900	191,500	191,900	187,200	157,300	125,600	104,000
31	107,800	-	117,900	123,800	-	76,730	-	191,900	-	155,900	125,200	-

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	106.8	103,800	-
Oct. 31	108.4	107,800	+4,000
Nov. 30	109.9	111,600	+3,800
Dec. 31	112.3	117,900	+6,300
Calendar year 1945	-	-	-3,000
Jan. 31	114.5	123,800	+5,900
Feb. 28	112.5	118,400	-5,400
Mar. 31	94.9	76,730	-41,670
Apr. 30	135.0	191,500	+114,770
May 31	135.1	191,900	+400
June 30	133.9	187,200	-4,700
July 31	125.2	155,900	-31,300
Aug. 31	115.0	125,200	-30,700
Sept.30	106.9	104,000	-21,200
Water year 1945-46	-	-	+200

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 1946.

Average discharge.- 34 years (1912-46), 405 second-feet.

Extremes.- Maximum discharge during year, 4,050 second-feet (regulated) Apr. 20 (gage height, 9.08 feet); minimum discharge, 10 second-feet (regulated) Dec. 9 to Feb. 18. 1911-46: Maximum discharge, 7,160 second-feet Apr. 13, 1943 (gage height, 13.31 feet); no flow Feb. 3, 1915.

Remarks.- Records good. Many ranch diversions in upper drainage area. Flow regulated by Magic Reservoir (see preceding page).

Cooperation.- Water-stage recorder inspected and seven discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	13	11	10	10	924	1,030	2,070	1,200	650	741	448
2	14	13	11	10	10	924	526	1,700	1,200	650	714	448
3	14	13	11	10	10	930	15	1,650	1,200	650	703	448
4	14	13	11	10	10	942	15	1,650	1,220	655	671	448
5	15	13	11	10	10	936	15	1,690	1,310	676	655	444
6	15	13	11	10	10	930	15	1,700	1,390	676	655	444
7	14	13	11	10	10	924	15	1,780	1,350	687	655	444
8	14	13	11	10	10	918	15	1,900	1,290	698	640	444
9	14	13	10	10	10	918	15	1,930	1,150	698	629	444
10	14	13	10	10	10	942	15	1,840	1,060	703	629	444
11	14	13	10	10	10	965	16	1,530	1,000	708	629	439
12	14	13	10	10	10	960	16	1,480	930	719	629	435
13	14	13	10	10	10	960	16	1,220	876	719	624	430
14	14	13	10	10	10	954	16	985	864	752	614	444
15	14	13	10	10	10	948	16	882	924	752	604	458
16	14	13	10	10	10	942	17	846	985	752	604	458
17	14	13	10	10	10	965	153	858	1,010	746	598	458
18	14	13	10	10	10	975	495	888	1,020	741	583	453
19	14	12	10	10	11	970	495	888	918	741	558	435
20	14	12	10	10	356	975	2,480	1,030	858	768	544	421
21	14	85	10	10	573	970	3,840	1,200	846	780	544	426
22	14	321	10	10	558	990	3,490	1,180	834	774	534	426
23	14	381	10	10	553	1,000	3,160	1,180	796	774	524	426
24	14	408	10	10	553	1,000	2,710	1,170	785	774	524	408
25	14	200	10	10	548	1,000	2,500	1,090	748	774	524	398
26	14	12	10	10	774	1,000	2,580	1,020	708	768	519	398
27	14	11	10	10	936	1,000	2,650	1,280	692	768	510	398
28	14	11	10	10	930	985	2,700	1,980	687	768	486	398
29	14	11	10	10	-	970	2,680	1,910	687	763	467	398
30	14	11	10	10	-	680	2,550	1,490	666	763	453	156
31	13	-	10	10	-	805	-	1,220	-	758	448	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	435	15	13	14.0	863
November	1,709	408	11	57.0	3,390
December	318	11	10	10.3	631
Calendar year 1945	114,378	1,180	10	313	226,900
January	310	10	10	10.0	615
February	5,972	936	10	213	11,850
March	29,302	1,000	680	945	58,120
April	34,256	3,840	15	1,142	67,950
May	43,237	2,070	846	1,395	85,760
June	29,202	1,390	666	973	57,920
July	22,605	780	650	729	44,840
August	18,212	741	448	587	36,120
September	12,719	458	156	424	25,230
Water year 1945-46	198,277	3,840	10	543	393,300

Note.- No gage-height record Dec. 10 to Jan. 11; discharge computed on basis of gate operation at Magic Dam (no changes).

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 1946, except for winters.

Extremes.- Maximum discharge during year, 3,470 second-feet Apr. 22 (gage height, 8.10 feet); no flow for long periods.
1921-46: Maximum discharge recorded, 5,120 second-feet Apr. 13, 1943 (gage height, 10.21 feet); no flow for long periods in each year.

Remarks.- Records good except those computed on basis of staff-gage readings, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Many diversions above and below station for irrigation. Flow regulated by Magic Reservoir (see p. 111) and affected by deliveries from Milner-Gooding canal which diverts from Snake River.

Cooperation.- Water-stage recorder graph and eight discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	-			0	676	588	1,230	484	57	73	47
2	49	-			0	676	694	880	456	50	75	46
3	19	-			0	672	308	632	433	47	68	47
4	a15	-			0	580	64	624	405	42	68	52
5	h9	-			0	588	37	604	398	44	68	67
6	h8	-			0	632	36	632	452	46	61	67
7	h7	-			0	608	34	644	512	45	50	59
8	h8	-			0	608	f48	734	444	53	47	67
9	a8	-			0	600	f45	790	398	50	48	75
10	a9	-			0	608	f27	752	286	48	49	83
11	h7	-			0	698	20	689	224	50	50	85
12	h8	-			0	766	42	512	142	56	53	62
13	a7	-			0	800	52	460	116	53	56	53
14	h6	-			0	743	37	272	92	54	52	45
15	-	-			0	616	27	155	80	50	39	46
16	-	-			0	580	h20	104	73	50	33	47
17	-	-			0	572	h16	72	99	53	27	50
18	-	0			0	568	h12	54	153	53	32	54
19	-	0			0	648	a6	59	157	49	35	52
20	-	0			0	810	a6	64	120	48	30	48
21	-	114			a20	855	2,280	56	81	47	28	49
22	-	204			a40	781	3,170	235	73	47	29	50
23	-	217			b70	720	2,940	253	90	48	37	52
24	-	181			b250	702	2,630	269	85	47	46	64
25	-	188			850	660	2,030	227	95	46	44	64
26	-	a150			694	650	1,700	204	86	49	47	59
27	-	70			h504	694	1,700	169	76	46	52	53
28	-	36			620	712	1,740	438	68	46	49	50
29	-	a13			-	672	1,680	1,060	59	47	49	54
30	-	-			-	632	1,650	890	56	50	50	53
31	-	-			-	388	-	620	-	62	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-14	221	62	6	15.8	438
November 18-29	1,173	217	0	97.8	2,330
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	3,048	850	0	109	6,050
March	20,505	855	388	661	40,670
April	23,639	3,170	6	788	46,890
May	14,393	1,230	54	464	28,550
June	6,293	512	56	210	12,480
July	1,533	62	42	49.5	3,040
August	1,485	75	27	47.9	2,950
September	1,700	85	45	56.7	3,370
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated, or computed on basis of information furnished by Water District No. 7 AB.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.

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 1946 (fragmentary 1922-37, 1941, 1942).

Extremes (regulated).- Maximum discharge during year, 3,400 second-feet Apr. 22 (gage height, 8.47 feet); minimum, 13 second-feet July 6 (gage height, 0.98 foot); minimum daily, 20 second-feet Nov. 2.
1916-46: Maximum discharge, 5,220 second-feet Apr. 14, 1943 (gage height, 9.80 feet); no flow at times in many years.

Remarks.- Records good except those for periods of ice effect, which are poor. Diversions above and below station for irrigation. Flow regulated by Magic Reservoir (see p. 111) and affected by deliveries from canals diverting from Snake River at Milner.

Cooperation.- Four discharge measurements furnished by Water District No. 7 AB.

Rating table, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.1	19	2.5	185	6.0	1,200
1.3	32	3.0	271	7.0	1,900
1.5	48	3.5	365	8.0	2,870
1.7	68	4.0	480	8.4	3,320
2.0	107	5.0	780		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	23	158	187	45	970	742	1,370	698	73	73	88
2	142	20	137	181	50	878	846	998	653	59	92	81
3	83	21	112	156	55	898	594	668	608	51	85	79
4	61	22	126	140	50	710	231	581	558	40	75	81
5	53	137	140	147	50	738	204	570	520	41	75	118
6	55	161	145	137	50	866	179	576	525	23	67	99
7	60	159	156	122	50	*766	179	617	576	21	57	78
8	62	163	130	95	50	752	185	701	528	48	55	80
9	65	142	108	85	50	794	207	776	462	69	60	110
10	64	145	90	75	50	874	248	784	363	60	64	128
11	61	161	75	65	50	990	231	731	287	57	75	131
12	58	167	60	60	50	1,100	147	558	216	44	70	113
13	55	158	50	55	45	1,160	219	480	192	38	66	94
14	53	153	50	50	40	1,140	194	324	174	37	69	62
15	51	172	50	50	45	858	171	192	145	43	49	58
16	79	172	50	50	45	766	155	120	125	39	49	61
17	88	147	50	60	50	756	134	116	137	58	28	85
18	80	155	50	60	50	724	104	90	219	54	24	131
19	85	*156	50	60	50	1,030	76	78	257	48	29	134
20	88	151	50	60	50	1,140	80	88	229	40	32	125
21	92	212	60	60	60	1,350	1,920	93	179	29	32	130
22	80	318	80	60	70	1,060	3,270	199	153	30	28	132
23	79	347	90	60	298	974	3,060	282	153	34	36	120
24	89	296	130	66	776	922	2,700	294	150	31	60	192
25	99	291	150	70	1,100	843	2,170	273	159	30	48	190
26	99	285	169	65	826	850	1,800	264	166	32	60	159
27	94	257	172	*50	766	914	1,690	282	147	42	79	118
28	94	219	303	45	886	962	1,680	469	132	37	94	94
29	100	185	790	45	-	990	1,640	1,130	104	38	107	101
30	74	169	420	45	-	846	1,580	1,120	69	46	125	101
31	32	-	278	45	-	724	-	866	-	61	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,436	161	32	78.6	4,830
November	5,164	347	20	172	10,240
December	4,479	790	50	144	8,880
Calendar year 1945	61,618	1,180	3	169	122,200
January	2,486	187	45	80.2	4,930
February	5,757	1,100	40	206	11,420
March	28,345	1,350	710	914	56,220
April	26,836	3,270	76	888	52,850
May	15,690	1,370	78	506	31,120
June	8,884	698	69	296	17,620
July	1,353	73	21	43.6	2,680
August	1,966	125	24	63.4	3,900
September	3,273	192	58	109	6,490
Water year 1945-46	106,469	3,270	20	292	211,200

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 10-24, Jan. 8-23, Jan. 25 to Feb. 22.

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 1946. 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, 480 second-feet Apr. 26 (gage height, 2.88 feet); minimum recorded, 14 second-feet Feb. 12 (gage height, 0.79 foot).
1940-46: Maximum discharge, 696 second-feet May 30, 1943 (gage height, 3.36 feet); minimum, 6 second-feet Feb. 29, 1944 (gage height, 0.55 foot), ice jam upstream; minimum daily, 20 second-feet Feb. 26, 1941.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	36	24	45	35	28	52	272	281	104	50	38
2	34	35	24	41	a33	30	52	268	272	102	47	37
3	33	35	30	41	a33	32	50	291	281	100	46	37
4	33	35	36	37	a32	27	47	331	307	98	43	41
5	33	35	35	38	a29	31	47	388	320	95	45	44
6	32	35	34	37	a28	32	47	403	314	92	44	42
7	32	31	33	34	a27	27	50	388	278	85	44	40
8	32	31	25	33	26	29	56	359	253	84	44	41
9	32	27	24	28	29	32	58	314	241	84	44	42
10	32	33	29	34	a29	32	57	284	236	79	42	40
11	33	33	31	29	28	35	61	256	224	78	41	39
12	33	34	29	28	24	38	89	2.7	205	73	42	37
13	34	33	25	32	28	37	110	244	195	72	41	37
14	34	34	27	34	31	36	131	241	187	69	41	37
15	34	36	28	35	31	35	171	238	183	66	41	37
16	34	35	31	34	30	33	216	247	178	64	40	38
17	35	35	33	34	28	33	272	272	173	62	40	40
18	38	32	a34	33	30	36	317	304	162	61	39	39
19	36	35	a34	30	29	37	359	319	151	61	39	39
20	35	31	a35	31	30	42	381	300	147	58	39	38
21	33	25	37	31	29	38	307	297	147	56	40	37
22	34	29	38	34	30	38	265	307	147	55	48	37
23	32	35	36	32	28	38	287	294	147	55	57	37
24	33	34	37	35	31	38	342	281	141	53	51	37
25	33	35	36	34	32	36	399	278	129	53	45	37
26	33	35	35	27	28	40	444	342	123	52	42	37
27	32	35	35	31	33	46	418	399	120	52	41	37
28	33	34	37	31	32	53	388	399	116	51	42	37
29	33	34	45	a31	-	65	366	359	112	51	42	38
30	37	30	51	30	-	62	314	320	107	51	40	38
31	38	-	45	33	-	56	-	294	-	52	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,044	38	32	33.7	2,070
November	998	36	25	33.3	1,980
December	1,033	51	24	33.3	2,050
Calendar year 1945	22,914	250	24	62.8	45,460
January	1,035	45	26	33.4	2,050
February	831	33	24	29.7	1,650
March	1,172	65	27	37.8	2,320
April	6,153	444	47	205	12,200
May	9,527	403	238	307	18,900
June	5,877	320	107	196	11,660
July	2,168	104	51	69.9	4,300
August	1,332	51	38	43.0	2,640
September	1,155	44	37	38.5	2,290
Water year 1945-46	32,325	444	24	88.6	64,110

a No gage-height record; discharge computed on basis of weather records and records for combined flow of Big Wood River and Big Wood Slough at Hailey.

Big Wood Slough at Haily, Idaho

Location.- Water-stage recorder, lat. 43°31'00", long. 114°19'30", in sec. 9, T. 2 N., R. 18 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 1946.

Average discharge.- 31 years, 117 second-feet.

Extremes (regulated).- Maximum discharge during year, 170 second-feet Apr. 12; maximum gage height, 3.17 feet Dec. 19 (ice jam); minimum discharge, 14 second-feet Aug. 22 (gage height, 1.48 feet).
1915-46: 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 good except those for periods of ice effect or no gage-height record, which are fair. Flow controlled at inoperative power plant, half a mile upstream, to meet the requirements of irrigation diversion from slough and sewage dilution. Big Wood Slough is a natural channel of Big Wood River and its discharge plus the discharge of Big Wood River at Hailey (see p.108) is total discharge of river at this point.

Cooperation.- Water-stage recorder inspected by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	114	102	a115	123		139	63	53	62	59	78
2	91	114	102	a115	122		140	56	64	64	55	75
3	91	113	98	a115	122		139	54	72	63	53	75
4	93	113	109	a110	122		137	58	69	60	51	81
5	95	113	114	a115	110	a115	140	62	75	59	51	86
6	96	114	114	113	116		140	66	78	55	48	86
7	98	111	114	113	116		144	64	65	53	43	85
8	97	110	101	104	110		147	59	62	52	41	86
9	97	a110	b85	b100	118		149	56	61	50	39	92
10	96	a110	b90	b95	114	111	149	53	62	47	37	92
11	95	a110	b95	b95	114	123	150	48	60	45	35	91
12	96	111	b90	b100	114	126	150	47	59	42	35	86
13	96	110	b90	b105	126	127	126	47	56	39	34	86
14	96	111	b90	b110	119	122	126	46	51	38	30	85
15	95	116	92	116	119	122	107	46	51	35	30	78
16	96	*119	98	118	119	118	100	47	51	36	28	72
17	97	118	b105	115	116	115	101	50	50	43	28	74
18	101	114	b100	113	118	122	93	58	47	40	28	73
19	97	116	b105	111	118	126	81	55	45	40	28	72
20	96	111	111	119	119	132	75	56	45	40	38	72
21	96	102	118	119	119	132	75	58	56	36	73	73
22	96	100	119	119	119	128	70	56	81	34	52	62
23	95	105	119	119	116	130	71	h53	80	43	97	53
24	93	107	a115	119	118	130	72	h51	77	69	106	53
25	93	115	a110	*120	120	126	80	h49	71	71	90	52
26	93	116	a110	113	116	130	81	h51	69	72	84	52
27	97	118	a110	114	a115	135	73	h60	68	69	81	51
28	109	118	a115	113	a115	143	71	h61	66	65	81	50
29	109	119	a120	122	-	150	70	h52	63	63	84	49
30	111	116	a120	115	-	143	68	h65	62	62	79	48
31	115	-	a120	126	-	143	-	h61	-	63	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,018	115	91	97.4	5,990
November	3,374	119	100	112	6,690
December	3,281	120	85	106	6,510
Calendar year 1945	19,634	120	-	53.8	38,950
January	3,496	126	95	113	6,930
February	3,293	126	110	118	6,530
March	3,869	150	-	125	7,670
April	3,264	150	68	109	6,470
May	1,708	66	46	55.1	3,390
June	1,869	81	45	62.3	3,710
July	1,610	72	34	51.9	3,190
August	1,697	106	28	54.7	3,370
September	2,168	92	48	72.3	4,300
Water year 1945-46	32,647	150	28	89.4	64,750

* Winter discharge measurement made on this day.
a No gage-height record except recorded range in stage; discharge computed on basis of weather records and records for Big Wood River at Hailey and Warm Springs Creek at Guyer Hot Springs, near Ketchum.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

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, 2¼ miles upstream from backwater of Magic Reservoir, and 4 miles southeast of Blaine.

Drainage area.- 618 square miles.

Records available.- May 1912 to September 1946 (no winter records prior to 1945). Discharge measurements only for 1922.

Extremes.- Maximum discharge during year, 5,680 second-feet Apr. 12 (gage height, 11.68 feet); minimum recorded, 3.3 second-feet Aug. 19, 20 (gage height, 0.96 foot).
1912-46: Maximum discharge recorded, 9,780 second-feet 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 below 10 second-feet, which are fair, and those for periods of no gage-height record, which are poor. Many small diversions above station; no appreciable regulation.

Cooperation.- Four discharge measurements furnished by Water District No. 7 AB.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

0.9	2.3	1.5	26	4.0	514
1.0	4.0	1.7	43	5.0	845
1.1	6.0	2.0	74	6.0	1,250
1.2	9.0	2.5	148	7.0	1,800
1.3	13.	3.0	248	9.0	3,200
1.4	19.	3.5	373	11.2	5,200

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	11		20			502	817	255	33	5.4	4.0
2	4.0	10		18			584	761	241	32	5.0	4.0
3	3.8	9.8		16	12	20	565	677	228	28	4.8	4.0
4	4.2	9.8		14			744	632	218	25	4.4	4.0
5	4.2	9.0					918	603	205	23	4.4	4.2
			9.0									
6	4.4	9.8				25	1,130	590	197	23	4.4	4.2
7	4.4	10				27	1,480	574	183	21	4.0	4.0
8	4.0	9.8				28	2,170	559	172	17	4.2	4.2
9	4.0	7.8				27	2,810	532	155	17	4.0	4.2
10	4.2	9.8				29	3,310	505	138	15	3.8	4.2
11	4.4	11				35	3,980	476	121	14	3.7	4.2
12	4.4	11				42	5,170	459	115	13	3.7	4.0
13	4.4	11				45	5,110	436	112	13	3.7	3.8
14	4.4	11				45	5,150	408	92	11	3.7	3.8
15	4.4	12			11	44	4,650	386	82	8.1	3.7	3.8
			8.0									
16	5.4	12				41	3,840	368	79	6.9	3.7	3.8
17	6.9	12			12	43	3,020	346	75	6.3	4.0	4.2
18	8.4	11				49	2,580	325	72	6.0	3.7	4.4
19	8.7	12				54	2,320	305	66	6.3	3.5	4.6
20	8.1	11				66	2,200	290	61	5.6	3.5	4.8
21	8.4					70	2,020	278	56	6.6	3.5	5.0
22	8.1					78	1,750	278	51	6.6	3.5	4.8
23	7.8					86	1,480	278	51	5.6	4.4	4.8
24	8.1					89	1,240	271	54	5.6	5.2	5.2
25	8.1		12			87	1,130	262	50	6.3	5.2	5.2
		11										
26	8.1				20	103	1,090	264	50	6.6	4.6	5.0
27	8.4					108	1,050	281	49	6.0	4.4	4.8
28	8.7		24			159	1,050	318	45	5.6	4.2	5.2
29	8.4		38		-	241	982	338	40	4.8	4.2	5.4
30	9.0		33		-	346	890	318	37	5.0	4.2	6.0
31	12	-	25		-	408	-	278	-	6.0	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	195.8	12	3.8	6.32	388
November	320.8	-	7.8	10.7	636
December	374	38	-	12.1	742
Calendar year 1945	41,999.4	1,080	-	115	83,310
January	392	20	-	12.6	778
February	349	-	-	12.5	692
March	2,475	408	-	79.8	4,910
April	64,735	5,170	502	2,158	128,400
May	13,213	817	262	426	26,210
June	3,350	255	37	112	6,640
July	388.9	33	4.8	12.5	771
August	128.9	5.4	3.5	4.16	256
September	133.8	6.0	3.8	4.46	265
Water year 1945-46	86,056.2	5,170	-	236	170,700

Note.- No gage-height record Nov. 21 to Dec. 27, Dec. 31 to Mar. 7; discharge computed on basis of weather records and records for stations on Big Wood River and other stations on nearby streams.

Lincoln Canal near Richfield, Idaho

Location.- Staff gage, lat. 43°10', long. 114°19', in sec. 9, T. 3 S., R. 18 E., at head of canal, 100 yards east of Shoshone-Hailey highway, 5½ miles downstream from Magic Dam, and 12 miles northwest of Richfield. Recording gage at same location not operated during year.

Records available.- April 1925 to September 1946 (prior to 1937, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 271 second-feet May 29; maximum gage height observed, 2.85 feet Sept. 16; no flow for long periods.
1925-46: 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 fair except those for periods of no gage-height record, which are poor. 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 diversion above station.

Cooperation.- Gage readings and six discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a4	-					0	224	a230	142	a174	a140
2	0	-					0	a220	a230	a143	179	142
3	0	-					0	215	233	144	a175	a143
4	0	-					0	a215	a240	a146	a165	145
5	0	-					0	a214	246	144	151	142
6	0	-					0	214	252	a142	161	142
7	0	-					0	a218	252	a140	159	a141
8	0	-					0	221	a250	d157	159	a140
9	0	-					0	a220	a245	a165	159	139
10	0	-					0	219	237	d180	a159	a140
11	0	-					0	a210	a230	177	a155	140
12	0	-					0	a200	223	d172	151	a139
13	0	-					0	199	233	172	a151	138
14	0	-					0	a199	239	a170	150	a138
15	0	-					0	224	a238	d165	151	a138
16	0	-					0	210	a237	172	159	146
17	0	-					0	223	237	174	164	a145
18	0	0					69	a224	a236	177	a158	145
19	0	-					104	a225	235	179	151	145
20	0	-					126	226	a236	a180	a151	145
21	0	-					a130	a236	235	177	157	a140
22	0	-					133	233	233	177	156	a145
23	0	133					a130	233	a233	a177	159	145
24	0	-					126	235	233	177	a157	a144
25	0	-					126	235	a200	174	a155	142
26	0	-					126	a234	179	179	151	124
27	0	-					a126	233	179	176	142	128
28	0	-					a126	a271	151	a176	142	124
29	0	-					224	271	a150	177	146	a124
30	0	-					a235	a250	a148	177	136	e110
31	0	-					-	228	-	174	a136	-

Month	Seoond-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4	4	0	0.1	8
November	-	-	-	-	-
Deoember	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,781	235	0	59.4	3,530
May	6,979	271	199	225	13,840
June	6,699	252	148	223	13,290
July	5,182	180	140	167	10,280
August	4,819	179	136	155	9,560
September	4,159	146	110	139	8,250
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for station near Shoshone.
d Doubtful gage-height record; discharge computed as explained in footnote s.
e Gage reading not representative of average for day; discharge computed as explained in footnote a.

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 1946 (1929-36, irrigation seasons only).

Extremes.- Maximum discharge during year, 250 second-feet May 28 (gage height, 1.45 feet); no flow for long periods.
1925-46: 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 except those for periods of fragmentary or no gage-height record, which are poor. No record of domestic flow in November. 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 five discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13						0	190	219	131	154	123
2	0						0	185	219	136	174	125
3	0						0	185	219	136	162	125
4	0						0	185	219	138	a150	125
5	0						0	185	219	136	f138	127
6	0						0	182	222	134	138	125
7	0						0	182	219	131	140	125
8	0						0	185	219	140	142	123
9	0						0	188	216	145	138	f123
10	0						0	188	210	154	140	f123
11	0						0	182	207	152	140	123
12	0						0	177	204	152	140	121
13	0						0	174	204	152	140	118
14	0						0	174	207	f145	140	118
15	0						0	193	210	f138	140	118
16	0						0	188	216	138	140	f121
17	0						0	190	219	145	143	f123
18	0						h30	190	216	150	140	125
19	0						h89	193	213	150	136	123
20	0						87	196	210	154	136	123
21	0						98	210	213	152	136	118
22	0						116	207	213	152	136	125
23	0						108	207	204	154	136	125
24	0						104	210	188	154	136	121
25	0						104	210	177	157	134	112
26	0						a104	207	160	157	134	112
27	0						f104	213	160	157	151	110
28	0						104	240	154	152	125	112
29	0						136	240	140	154	125	112
30	0						f196	231	138	f154	121	104
31	0						-	222	-	152	121	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13	13	0	0.4	26
November	-	-	-	-	-
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	1,380	196	0	46.0	2,740
May	6,109	240	174	197	12,120
June	6,034	222	138	201	11,970
July	4,552	157	131	147	9,030
August	4,307	174	121	139	8,540
September	3,604	127	104	120	7,150
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated.
f Computed on basis of fragmentary gage-height record.
h Computed from staff-gage reading.

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 1946 (prior to 1937, irrigation seasons only).

Extremes (regulated).- Maximum discharge during year, 380 second-feet Apr.23 (gage height, 2.66 feet); no flow for long periods.
1928-46: Maximum discharge, 447 second-feet Apr. 24, 1938 (gage height, 2.90 feet); usually no flow during nonirrigation seasons.

Remarks.- Records good except those computed from staff-gage readings, which are fair. Spillway diverts from North Gooding Canal and discharges into Thorn Creek in sec. 6, T. 5 S., R. 16 E. Irrigation diversions from Big Wood River below Thorn Creek are served in part by this water carried successively through Lincoln and North Gooding Canals to minimize channel losses in natural bed of river.

Cooperation.- Water-stage recorder graph and seven discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	0					0	106	173	127	156	102
2	1	0					0	86	158	125	164	102
3	h1	0					0	75	140	127	162	104
4	0	0					0	81	121	125	158	109
5	0	0					0	93	108	125	154	118
6	0	0					0	109	106	123	144	111
7	0	0					0	101	109	127	132	106
8	0	0					0	106	108	134	132	114
9	0	0					0	116	114	130	132	120
10	0	0					0	114	121	130	134	132
11	0	0					0	113	120	136	130	129
12	0	0					0	114	120	140	134	111
13	0	0					0	113	130	140	134	96
14	0	0					0	114	134	136	120	96
15	0	0					0	118	138	132	101	94
16	0	0					0	130	138	134	88	98
17	0	0					0	132	146	138	83	101
18	0	0					0	136	148	136	98	99
19	0	0					0	140	146	132	96	93
20	0	h60					0	146	140	132	90	92
21	0	h215					0	142	130	132	94	92
22	0	h276					158	142	136	136	102	104
23	0	h175					331	140	150	136	109	106
24	0	h24					265	138	152	136	104	109
25	0	0					199	118	164	132	104	102
26	0	0					186	127	160	136	106	99
27	0	0					182	136	148	134	108	93
28	0	0					142	132	142	132	109	90
29	0	0					118	132	130	130	111	92
30	0	0					102	136	129	136	104	92
31	0	-					-	156	-	146	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13	11	0	0.4	26
November	750	276	0	25.0	1,490
December	0	0	0	0	0
Calendar year 1945	23,114	315	0	63.3	45,850
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,683	331	0	56.1	3,340
May	3,742	156	75	121	7,420
June	4,059	173	106	135	8,050
July	4,115	146	123	133	8,160
August	3,701	164	88	119	7,340
September	3,106	132	90	104	6,160
Water year 1945-46	21,169	331	0	58.0	41,990

h Computed from staff-gage reading

Little Wood River at Campbell Ranch, near Carey, Idaho

Location.- Water-stage recorder, lat. 43°28', long. 114°03', in SW¼NW¼ sec. 35, T. 2 N., R. 20 E., at Campbell Ranch, above flow line of Little Wood Reservoir, 1½ miles downstream from High Five Creek, 2½ miles downstream from Muldoon Creek, 11 miles east of Bellevue, and 12 miles northwest of Carey.

Drainage area.- 267 square miles.

Records available.- February 1920 to September 1926 (published as Little Wood River near Carey), March 1941 to December 1942, April 1944 to September 1946 (irrigation seasons only except 1921-24, 1926).

Extremes.- Maximum discharge during year, 1,010 second-feet Apr. 15 (gage height, 3.48 feet), from rating curve extended above 480 second-feet; minimum recorded, 35 second-feet Aug. 19-21 (gage height, 1.04 feet).
1920-26, 1941-42, 1944-46: Maximum discharge recorded, 1,420 second-feet Apr. 10, 1942 (gage height, 4.31 feet, former site and datum); minimum, 14 second-feet Aug. 29, 30, 1926.

Remarks.- Records good. Flow may be slightly regulated by Campbell Reservoir (capacity, 2,700 acre-feet) on unnamed tributary. Diversions for irrigation from Muldoon Creek.

Cooperation.- Water-stage recorder inspected by Little Wood Reservoir Co. and Water District No. 11C.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	64				-	198	457	354	169	63	38
2	52	62				-	183	428	350	175	57	37
3	54	62				-	183	428	358	161	52	38
4	51	62				-	195	462	409	156	50	41
5	50	63				-	210	530	452	148	47	52
6	48	62				-	249	524	418	136	47	51
7	51	60				-	276	498	368	126	46	46
8	50	50				-	302	452	329	126	46	47
9	51	48				-	294	418	342	121	43	54
10	51	-				-	306	386	350	112	42	51
11	50	-				-	437	342	317	107	41	47
12	50	-				-	509	329	280	103	42	44
13	48	-				-	708	346	259	101	42	43
14	48	-				-	774	325	269	94	41	43
15	48	h63				-	762	317	269	92	41	42
16	48	-				-	804	317	259	86	41	54
17	51	-				-	822	334	239	80	39	58
18	57	-				-	858	368	216	79	38	60
19	56	-				88	954	354	207	75	36	57
20	57	-				119	816	329	220	73	36	56
21	54	-				126	703	325	226	70	36	54
22	57	-				128	606	342	236	66	41	52
23	56	-				133	584	329	239	64	47	54
24	57	-				123	617	321	232	63	57	52
25	57	-				123	662	302	201	62	52	50
26	57	-				133	726	346	189	60	47	48
27	58	-				150	645	433	183	58	46	47
28	60	-				207	617	551	180	56	47	48
29	60	-				213	606	509	166	57	46	48
30	64	-				204	530	418	166	62	43	50
31	68	-				192	-	376	-	71	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,671	68	48	53.9	3,310
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 19-31	1,939	213	88	149	3,850
April	16,136	954	183	538	32,010
May	12,196	551	302	393	24,190
June	8,283	452	166	276	16,430
July	3,009	175	56	97.1	5,970
August	1,391	63	36	44.9	2,760
September	1,462	60	37	48.7	2,900
Water year	-	-	-	-	-

h Computed from staff-gage reading.

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 1946.

Average discharge.- 17 years (1926-27, 1929-42, 1943-46), 125 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,060 second-feet Apr. 19 (gage height, 5.67 feet); minimum, 3.0 second-feet Nov. 13 (gage height, 1.77 feet); minimum daily, 3.4 second-feet Nov. 13, 15.
1904-5, 1926-46: 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, 1 second-foot Jan. 26, 1945; minimum daily, 3.0 second-feet several days during November, December 1943, January 1944.

Remarks.- Records good except those for periods of ice effect, which are poor. Regulation and diversions above station for irrigation. Storage in Little Wood Reservoir (capacity 10,000 acre-feet) 3 miles above station began Feb. 12, 1941. Flow is also affected by Condie, Cameron, and Howard Reservoirs (combined capacity, 990 acre-feet) on Little Fish Creek. Capacities are as shown in 11th Biennial Report of Department of Reclamation, State of Idaho.

Cooperation.- Water-stage recorder inspected by Little Wood Reservoir Co. and Water District No. 11C.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	60	99	b75		b65	145	512	373	165	186	57
2	70	60	b94	b75		b65	145	460	360	163	165	57
3	69	60	b87	75	b90	68	143	450	353	181	139	57
4	89	60	86	b74		b68	150	475	392	170	103	57
5	87	36	82	b72		b68	156	519	429	163	55	59
6	86	13		b70		69	161	538	426	163	92	59
7	84	13				b69	161	523	389	163	86	59
8	82	13			b65	b69	161	493	350	161	137	59
9	81	19				70	163	453	344	177	135	59
10	80	10				b73	161	429	360	177	133	57
11	80	5.8		b70		b78	179	382	335	179	116	57
12	76	4.0				b81	184	353	305	205	105	56
13	75	3.4	b75			b84	184	341	274	215	76	56
14	74	3.5				b84	194	338	269	240	74	65
15	72	3.4				b84	191	332	272	230	74	75
16	70	*3.8			b60	b82	228	329	264	240	72	76
17	69	3.5				b82	420	338	248	238	64	76
18	68	4.2				b83	985	363	235	232	40	74
19	68	3.8				*b85	1,010	369	230	225	39	64
20	66	57		b95		b91	943	350	230	225	37	78
21	66	130				b108	820	335	251	230	49	91
22	65	128				b114	676	338	238	228	91	92
23	65	124				b116	616	350	228	220	78	92
24	64	120		*b108	b65	b118	612	341	222	203	52	91
25	62	118				b112	652	323	225	203	46	89
26	61	114	b85			112	709	341	222	198	46	80
27	56	112			65	120	705	450	177	203	41	70
28	55	109		b95	68	133	660	565	172	210	37	69
29	60	105			-	143	624	557	179	230	37	61
30	61	103			-	141	584	460	174	222	39	61
31	60	-			-	143	-	405	-	210	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,210	89	55	71.3	4,380
November	1,599.4	130	3.4	53.3	3,170
December	2,508	99	-	80.9	4,970
Calendar year 1945	47,776.4	565	3.4	131	94,750
January	2,604	108	-	84.0	5,160
February	1,898	-	-	67.8	3,760
March	2,878	143	65	92.8	5,710
April	12,712	1,010	143	424	25,210
May	12,812	565	323	413	25,410
June	8,526	429	172	284	16,910
July	6,269	240	161	202	12,430
August	2,501	186	37	80.7	4,960
September	2,053	92	56	68.4	4,070
Water year 1945-46	58,570.4	1,010	3.4	160	116,100

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

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 Byrne's Slough and heading of Dietrich Canal, 1 mile east of railroad station at Richfield, and 14 miles downstream from Silver Creek.

Records available.- January 1911 to September 1946 (irrigation seasons only).

Extremes.- Maximum discharge during year, 363 second-feet Apr. 21 (gage height, 2.43 feet); minimum recorded, 97 second-feet July 23, 24, 30.
1911-46: 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 ice effect, which are fair. Diversions above station for irrigation. Flow partly regulated by Little Wood Reservoir and four small reservoirs on tributaries. River above Silver Creek is dry, except during freshet seasons, because of channel losses and irrigation diversions above Carey.

Cooperation.- Water-stage recorder graph and six discharge measurements furnished by Water District No. 11 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	158	169			-	213	270	276	118	103	140
2	144	156				-	216	244	270	124	106	140
3	144	156				-	213	218	264	127	105	140
4	142	158				-	208	192	238	129	108	140
5	144	160				-	202	178	218	134	108	142
6	146	162				-	195	182	210	134	108	140
7	148	162				-	195	178	188	134	106	142
8	148	162				-	192	178	165	138	112	142
9	150	b162				-	192	171	140	142	115	144
10	148	b165				-	190	171	133	144	113	146
11	144	b165				-	188	173	131	148	113	148
12	144	b170				-	182	162	131	146	118	148
13	142	173				-	182	150	133	144	117	146
14	142	173				-	185	138	127	142	113	144
15	148	171				-	185	138	120	140	117	146
16	148	173				-	182	125	112	134	117	144
17	148	176				-	190	113	108	134	124	146
18	148	*176				-	200	112	106	133	122	150
19	150	176				-	267	108	105	129	118	150
20	152	176				-	334	108	106	115	115	152
21	154	171				-	359	112	103	103	115	152
22	154	b170				*208	353	108	103	101	113	154
23	154	b170				-	331	110	98	98	115	152
24	156	b170				-	306	112	101	98	117	150
25	158	178				-	291	115	103	100	120	150
26	158	173				-	282	118	108	98	127	152
27	160	173				-	279	129	108	98	138	152
28	158	173				-	279	188	112	98	142	152
29	158	173				213	288	235	113	101	144	154
30	158	173				213	279	279	113	98	142	154
31	158	-				216	-	294	-	101	140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,650	160	142	150	9,220
November	5,054	178	156	168	10,020
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	7,158	359	182	239	14,200
May	5,109	294	108	165	10,130
June	4,343	276	98	145	8,610
July	3,783	148	98	122	7,500
August	3,671	144	103	118	7,280
September	4,412	154	140	147	8,750
Water year	-	-	-	-	-

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

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 1946 (irrigation seasons only).

Extremes.- Maximum discharge during year, 629 second-feet May 30 (gage height, 4.46 feet); minimum recorded, 62 second-feet Oct. 5-7.
1922-46: Maximum discharge recorded, 664 second-feet June 18, 1922; maximum gage height recorded, 4.49 feet June 11, 1944; practically no flow July 29, 1931, Oct. 3, 1938.

Remarks.- Records good except those for periods of no gage-height record, 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, by operation of several reservoirs above Carey, and by Big Wood River water deliveries through Byrne's Slough for Dietrich Canal via Little Wood River at Richfield.

Cooperation.- Water-stage recorder graph and six discharge measurements furnished by Water District No. 11 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	67	h125			-	186	487	617	445	448	379
2	73	64				-	193	473	588	445	452	375
3	67	64				-	193	388	573	443	446	372
4	64	106				-	183	434	562	439	437	373
5	62	117				-	162	414	531	436	439	373
6	62	122				-	153	450	524	457	433	362
7	62	125				-	153	461	525	462	423	351
8	64	120				-	150	473	516	463	428	351
9	64	114				-	147	479	497	450	434	a355
10	67	128				-	137	480	476	442	436	360
11	67	a129				-	140	477	465	443	428	355
12	64	a130				-	134	477	457	444	422	351
13	64	a131				-	131	464	458	450	433	307
14	a64	a131				-	131	454	449	457	396	284
15	a67	a132				-	131	458	440	448	384	288
16	a67	a133				-	131	494	456	461	383	320
17	a69	134				-	131	513	478	469	377	342
18	a69	134				131	134	497	490	466	381	372
19	a71	131				183	159	491	494	451	384	364
20	h71	122				235	216	512	489	444	377	355
21	a71	144				a244	288	517	480	439	372	351
22	a70	147				252	364	517	473	443	377	349
23	a69	137				235	379	514	473	440	383	353
24	a69	131				220	381	508	476	438	384	328
25	a68	134				197	353	506	494	437	388	299
26	a67	a133				179	342	516	498	445	398	292
27	h67	a131				166	401	538	492	439	410	288
28	a66	a130				153	416	539	463	433	428	280
29	64	a128				162	410	585	437	430	434	284
30	67	a126				193	436	611	438	431	414	169
31	67	-				201	-	621	-	438	386	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,103	100	62	67.8	4,170
November	3,675	147	64	122	7,290
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 18-31	2,751	252	131	198	5,480
April	8,865	436	131	229	13,620
May	15,348	621	388	495	30,440
June	14,809	617	437	494	29,370
July	13,828	469	430	446	27,430
August	12,715	452	372	410	25,220
September	9,982	379	169	333	19,800
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated.
h Computed from staff-gage reading.

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 1946 (1922-35, irrigation seasons only).

Average discharge.- 13 years (1920-22, 1935-46), 147 second-feet.

Extremes.- Maximum discharge during year, 231 second-feet Apr. 1; maximum gage height recorded, 3.69 feet Feb. 5 (ice jam); minimum discharge recorded, 100 second-feet May 21. 1920-46: 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 or no gage-height record, which are poor. 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 one discharge measurement furnished by Water District No. 11 AB.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	170	172	178			228	137	164	156	151	169
2	168	168	166	174			223	135	165	161	156	168
3	168	169	164	176	120	125	217	132	166	163	153	168
4	169	174	165	176			209	128	161	167	152	169
5	172	175	166	174			199	129	154	169	153	171
6	176	177	165	170			200	120	150	171	152	175
7	174	178	167	169			197	115	145	176	155	174
8	173	179	166	169			190	123	145	185	155	177
9	169	180	130	160		130	180	125	142	191	152	181
10	168	190	165		110		171	134	138	194	153	185
11	168	188				167	134	137	194	168	186	
12	164	186				133	160	130	142	189	173	182
13	167	186				136	156	124	142	187	169	179
14	170	185				136	155	118	139	184	164	176
15	170	187				139	155	117	136	180	160	174
16	168	*190				121	155	109	131	178	159	175
17	170	192		130		125	150	110	129	171	158	177
18	170	191	160		115	134	148	109	126	165	150	181
19	171	190				151	145	108	130	154	145	181
20	174	190				189	143	105	127	146	148	180
21	176	187				*205	145	102	128	142	146	178
22	176	191				196	144	106	124	141	148	176
23	177	183				195	142	113	126	141	156	170
24	176	182				197	142	116	131	141	160	167
25	177	181	162		120	185	140	113	133	139	174	165
26	176	182	161	*112		186	137	112	135	135	181	165
27	177	184	161			198	136	120	140	135	182	164
28	178	185	168			210	137	140	143	135	180	163
29	177	184	186	115	-	218	137	157	145	134	177	162
30	176	175	187		-	227	138	170	146	137	171	161
31	173	-	181		-	221	-	170	-	146	171	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,336	178	164	172	10,580
November	5,479	192	168	183	10,870
December	5,072	187	130	164	10,060
Calendar year 1945	58,936	248	106	161	116,900
January	4,313	178	-	139	8,550
February	3,235	-	-	116	6,420
March	4,907	227	-	158	9,730
April	4,946	228	136	165	9,810
May	3,859	170	102	124	7,650
June	4,220	166	124	141	8,370
July	5,007	194	134	162	9,930
August	4,970	182	145	160	9,860
September	5,199	186	161	173	10,310
Water year 1945-46	56,543	228	-	155	112,100

* Winter discharge measurement made on this day.

Note.- Flow in bypass channel, which carries water around gage, measured as 39.7 second-feet Mar. 21; 4.07 second-feet May 1; 20.2 second-feet May 31; 8.0 second-feet (estimated) July 1; 13.5 second-feet July 19; 15.4 second-feet Aug. 27. Stage-discharge relation affected by ice. Dec. 11-24, Jan. 9 to about Mar. 1 (no gage-height record Jan. 18-25, Jan. 27 to Feb. 3, Feb. 6 to Mar. 11; discharge computed on basis of 1 discharge measurement and weather records).

King Hill Canal near Hagerman, Idaho

Location.- Staff gage, lat. 42°52', long. 114°55', in SW¼ 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 3½ miles north of Hagerman.

Records available.- March 1930 to September 1946 (irrigation seasons only except 1939).

Extremes.- Maximum discharge observed during year, 334 second-feet May 22 (gage height, 3.63 feet); practically no flow at times when gates were closed.
1930-46: Maximum discharge observed, 338 second-feet May 23-28, May 30 to June 1, June 3, 4, 1944; maximum gage height observed, 3.80 feet July 19-22, 26, 27, 1944; no flow or small flow from leakage at head gate during nonirrigation seasons.

Remarks.- Records good. Gage usually 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	233		†0.4				-	288	286	315	315	288
2	233						-	286	295	315	315	290
3	233						-	285	300	315	317	285
4	233						-	298	302	315	309	278
5	233						-	307	304	317	312	278
6	233						-	307	302	131	319	276
7	233						-	309	307	0	319	276
8	233						-	309	307	0	319	276
9	233						-	309	307	87	314	276
10	155						-	312	307	305	312	272
11	-						-	312	305	312	312	262
12	-						-	295	307	312	312	262
13	-						-	305	309	312	143	262
14	-						125	310	310	315	176	265
15	-						194	312	309	319	315	260
16	-						196	314	310	317	315	257
17	-						197	320	310	317	315	259
18	-						198	326	310	317	315	257
19	-						260	329	314	315	315	238
20	-						259	326	312	315	314	238
21	-						256	326	300	317	314	227
22	-						254	324	297	317	314	216
23	-						233	319	221	315	314	216
24	-						268	312	0	315	309	216
25	-						275	310	91	315	305	216
26	-			†0.2		†0.2	283	310	309	315	300	a216
27	-						285	307	304	315	302	a216
28	-						285	297	304	315	300	216
29	-						286	298	307	312	300	215
30	-						288	298	307	315	302	228
31	-						-	293	-	315	302	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-10	2,252	233	155	225	4,470
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 14-30	4,142	288	125	244	8,220
May	9,553	329	285	308	18,950
June	8,553	314	0	285	16,960
July	8,717	319	0	281	17,290
August	9,345	319	143	301	18,540
September	7,537	290	215	251	14,950
Water year	-	-	-	-	-

† Discharge measurement or field estimate.
a No gage-height record; discharge interpolated.

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 Caryon Creek and 5 miles north of Mountain Home.

Records available.- April 1924 to September 1929, April 1931 to September 1946.

Extremes.- Maximum discharge during year, 216 second-feet Feb. 25 (gage height, 2.40 feet), from rating curve extended above 120 second-feet; minimum, 1.2 second-feet Oct. 5 (gage height, 0.07 foot).
1924-29, 1931-46: Maximum discharge, 226 second-feet Feb. 21, 1927 (gage 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 periods of ice effect, or no gage-height record, 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.- Water-stage recorder graph furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	5.9	a5.0	69	16	57	8.6	92	73	68	3[illegible]	50
2	1.4	5.4	4.3	58	16	48	15	87	72	67	5[illegible]	50
3	1.4	5.4	4.3	51	16	41	19	85	70	81	4[illegible]	50
4	1.4	5.0	4.3	50	b16	37	23	84	77	82	3[illegible]	50
5	1.4	5.4	5.0	60	b15	30	27	81	85	a81	3[illegible]	52
6	1.4	5.9	5.4	43	*15	20	27	80	86	a80	3[illegible]	50
7	1.4	5.9	5.4	37	16	21	31	77	84	79	5[illegible]	58
8	1.4	5.9	5.0	b33	b15	21	32	73	83	81	5[illegible]	58
9	1.4	4.7	4.3	b30	b14	22	32	72	83	80	54	67
10	1.4	a5.1	a4.0	b26	15	32	31	73	82	79	53	72
11	1.4	5.4	a4.5	b23	14	51	30	69	82	87	61	71
12	2.0	5.4	a4.5	b20	b14	54	32	63	50	78	54	68
13	2.7	5.4	a4.5	b18	b14	45	34	61	42	74	5[illegible]	63
14	2.4	5.4	a4.5	b16	b14	33	35	59	40	74	61	58
15	2.4	5.9	a4.5	b15	b14	13	36	57	52	74	63	43
16	2.4	5.9	a5.0	b16	14	4.0	36	55	55	71	62	a35
17	2.4	5.9	*b5.5	b17	13	3.7	40	53	57	58	67	a30
18	2.7	5.9	b5.5	b18	14	14	40	65	75	58	64	20
19	3.0	6.4	b5.5	18	16	26	40	80	75	58	60	9.0
20	3.0	7.2	b5.5	18	37	36	40	89	74	58	61	7.2
21	3.0	6.4	b7.0	18	56	44	43	86	74	58	53	5.9
22	3.0	b6.0	b7.0	18	83	*24	64	86	74	58	50	5.4
23	3.0	5.9	b7.0	18	86	23	98	84	75	58	6[illegible]	4.0
24	2.7	b6.0	b7.0	17	104	24	132	81	75	56	61	3.4
25	2.7	5.9	6.8	18	140	24	143	79	74	57	61	3.4
26	2.7	a6.0	18	18	80	19	140	79	80	49	60	3.4
27	2.7	a6.0	61	b17	79	12	137	78	81	47	61	3.4
28	2.7	a6.0	112	b16	111	11	131	78	a82	46	6[illegible]	3.0
29	3.0	a6.0	140	b1[illegible]	-	4.3	117	75	a80	45	64	3.0
30	4.3	a6.0	112	b16	-	3.0	116	76	77	40	53	3.0
31	6.9	-	87	b16	-	5.9	-	76	-	37	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	75.0	6.8	1.4	2.42	149
November	173.6	7.2	4.7	5.79	344
December	661.3	140	4.0	21.3	1,310
Calendar year	-	-	-	-	-
January	824	69	15	26.6	1,630
February	1,057	140	13	37.8	2,100
March	802.9	57	3.[illegible]	25.9	1,590
April	1,729.6	143	8.6	57.7	3,430
May	2,333	92	53	75.3	4,630
June	2,169	86	40	72.3	4,300
July	2,019	87	37	65.1	4,000
August	1,701	68	32	54.9	3,370
September	999.1	72	3.0	33.3	1,980
Water year 1945-46	14,544.5	143	1.4	39.8	28,830

* Winter-discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of weather records, records for Mountain Home cooperative canal, and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

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 Lamberton 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 1946.

Extremes.- Maximum discharge during year, 104 second-feet Apr. 24, 25 (gage height, 1.62 feet); no flow at times.
1924-29, 1931-46: 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 and leakage through gates.

Remarks.- Records good. No diversions between station and head of canal. Flow regulated by gates at point of diversion from Mountain Home feeder canal. Water is used for irrigation of about 5,000 acres in Mountain Home Irrigation District.

Cooperation.- Water-stage recorder graph furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.6	82	47	61	35	25
2						0	3.8	81	58	58	47	33
3						0	6.1	78	65	58	40	39
4						0	4.4	76	73	60	32	30
5						0	3.8	72	77	61	30	26
6					0	0	2.6	68	77	72	31	33
7						0	4.1	66	77	73	47	46
8						0	5.4	60	76	73	52	50
9						0	3.5	51	74	73	48	57
10						0	2.0	39	73	72	48	62
11						0	1.9	18	57	78	55	60
12						0	1.7	13	44	71	47	57
13						0	1.3	9.8	38	67	46	53
14						0	.9	12	36	66	54	49
15						0	1.1	20	46	65	56	34
16						0	2.0	34	47	55	56	30
17	0		0			0	2.0	48	47	52	60	21
18						f9.3	1.7	48	60	52	57	9.2
19						22	3.8	71	57	52	55	0
20						26	5.2	79	60	52	54	0
21						26	12	77	62	53	48	0
22						11	34	78	63	a52	46	0
23						11	72	76	61	51	59	0
24						7.1	95	53	56	51	56	0
25						4.4	101	51	60	52	46	0
26						6.8	99	46	67	45	47	0
27						11	97	38	69	43	52	0
28						8.9	95	31	71	43	44	0
29						2.6	94	28	70	10	31	0
30						.8	98	26	69	36	31	0
31						.7	-	36	-	35	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	147.6	26	0	4.76	293
April	854.9	101	.6	28.5	1,700
May	1,565.8	82	9.8	50.5	3,110
June	1,837	77	36	61.2	3,640
July	1,742	78	10	56.2	3,450
August	1,438	60	28	46.4	2,850
September	714.2	62	0	23.8	1,420
The period	-	-	-	-	16,470

a No gage-height record; discharge interpolated.
f Computed on basis of partly estimated gage-height record.
Note.- Stock water runs probably occurred during nonirrigation season; no record available.

Bruneau River near Hot Spring, Idaho

Location.- Water-stage recorder, lat. 42°46', long. 115°43'30", in SE¼ sec. 34, T. 7 S., R. 6 E., at Dunham Ranch, 1 mile downstream from Hot Creek, 1½ miles south of Hot Spring post office, 9 miles southeast of Bruneau, and about 16 miles downstream from East Fork. Datum of gage is 2,598.5 feet above mean sea level, datum of 1929 (from stadia level circuit by Topographic Branch in 1945).

Records available.- July 1909 to March 1915, October 1943 to September 1946.

Extremes.- Maximum discharge during year, 1,980 second-feet Apr. 19 (gage height, 7.54 feet); minimum, 63 second-feet Jan. 14 (gage height, 3.91 feet).
1909-15, 1943-46: Maximum discharge observed, 5,660 second-feet Mar. 1, 1910 (gage height, 10.6 feet, site and datum then in use), from rating curve extended above 1,200 second-feet; minimum observed, 40 second-feet (revised) Jan. 23, Nov. 29, 1911.

Remarks.- Records good except those for period of no gage-height record, which are poor. Small diversions from tributaries above station for irrigation; large diversions below. No regulation.

Revisions.- Revised figures of discharge, in second-feet, for a low-water period in 1913, superseding those published in Water-Supply Paper 362-B, are given herewith:

Jan. 10 144
11 232

Month	Minimum	Mean	Runoff in acre-feet
January.....	54	173	10,700
Water year 1912-13.....	54	396	287,000

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		141	167	260	152	430	610	1,370	856	361	119	75
2		146	146	241	164	306	555	1,220	828	347	114	75
3		149	119	222	167	289	525	1,130	844	333	112	75
4		155	135	219	164	264	500	1,130	922	324	106	75
5		158	176	212	149	226	510	1,190	1,030	315	104	78
6		158	182	189	146	248	570	1,240	1,030	297	99	93
7		152	158	152	152	226	675	1,250	949	277	95	97
8	a120	149	155	130	161	219	751	1,210	878	260	95	91
9		146	132	144	144	222	834	1,140	839	245	95	88
10		141	91	135	144	226	822	1,080	839	230	93	88
11		149	112	122	146	256	740	1,010	822	215	91	88
12		155	138	102	149	356	778	922	784	198	88	84
13		152	152	97	122	366	1,050	839	712	189	88	80
14		149	116	82	124	470	1,240	795	696	182	86	78
15		149	82	99	146	435	1,350	762	696	179	84	78
16	119	146	76	124	155	375	1,480	729	650	167	84	78
17	119	155	104	152	155	333	1,610	712	620	161	82	76
18	122	158	122	161	149	337	1,790	762	600	152	80	80
19	124	161	104	167	155	347	1,880	839	560	144	78	86
20	124	164	91	170	164	415	1,900	894	525	135	78	86
21	127	132	114	170	164	560	1,750	905	510	130	78	86
22	127	97	155	179	167	570	1,570	922	515	124	78	82
23	127	116	192	179	173	575	1,450	996	500	121	82	80
24	130	164	176	192	176	515	1,430	978	510	116	80	78
25	130	170	167	189	212	515	1,510	878	470	116	88	80
26	130	176	170	179	311	440	1,610	806	445	119	86	80
27	132	173	170	149	285	455	1,650	822	425	158	82	78
28	132	170	173	135	285	535	1,590	1,010	420	135	80	78
29	132	170	182	149	-	645	1,530	1,120	400	122	80	78
30	132	173	285	161	-	740	1,480	1,030	380	114	78	78
31	135	-	315	149	-	680	-	916	-	114	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,842	135	-	124	7,620
November.....	4,574	176	97	152	9,070
December.....	4,657	315	76	150	9,240
Calendar year 1945	191,584	2,780	71	525	380,000
January.....	5,011	260	82	162	9,940
February.....	4,781	311	122	171	9,480
March.....	12,576	740	219	406	24,940
April.....	35,740	1,900	500	1,191	70,890
May.....	30,607	1,370	712	987	60,710
June.....	20,255	1,030	380	675	40,180
July.....	6,080	361	114	196	12,060
August.....	2,759	119	76	89.0	5,470
September.....	2,447	97	75	81.6	4,850
Water year 1945-46	133,329	1,900	75	365	264,400

a No gage-height record; discharge computed on basis of records for Bruneau River near Grand View and South Fork Boise River near Featherville.

Bruneau River near Grand View, Idaho

Location.- Water-stage recorder, lat. 42°56', long. 115°57', in SE¼ sec. 35, T. 5 S., R. 4 E., 0.8 mile downstream from diversion dam for Grand View Canal, 1 mile upstream from mouth, and 8½ miles southeast of Grand View. Datum of gage is 2,372.3 feet above mean sea level, datum of 1929 (from stadia level curcuit by Topographic Branch in 1945).

Records available.- January 1895 to December 1903 (gage heights only January 1900 to December 1903), May 1909 to September 1916, December 1944 to September 1946.

Extremes.- Maximum discharge during year, 1,780 second-feet Apr. 20 (gage height, 4.92 feet); minimum, 3.4 second-feet Aug. 13, 15 (gage height, 0.53 foot).
1895-1903, 1909-16, 1944-46: Maximum discharge observed, 5,700 second-feet Mar. 2, 1910 (gage height, 10.1 feet from floodmark, site and datum then in use), from rating curve extended above 1,200 second-feet; minimum, 1 second-foot Aug. 27, Sept. 3-7, 1911 (gage height, 1.7 feet, site and datum then in use).

Remarks.- Records excellent except those for June 29 to Aug. 21 and those below about 10 second-feet, which are fair. Many diversions for irrigation above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	93	203	320	192	464	689	1,220	702	155	4.2	4.3
2	19	142	189	286	189	371	622	1,090	644	126	4.2	4.3
3	20	194	163	270	197	331	586	965	640	114	4.2	4.5
4	19	192	144	267	200	317	550	915	676	119	4.2	4.5
5	18	200	197	264	192	283	545	945	775	112	4.0	4.5
6	18	203	203	251	186	283	586	990	850	88	4.0	4.5
7	18	194	194	221	189	280	694	1,000	815	64	4.2	4.5
8	21	192	192	183	194	273	785	1,000	734	56	4.2	4.5
9	27	189	183	172	186	270	865	955	743	50	4.2	4.5
10	23	183	142	180	183	267	880	950	820	38	4.0	4.7
11	25	189	134	172	180	283	752	890	820	28	4.2	5.4
12	28	197	155	147	180	348	694	738	790	10	4.0	6.0
13	32	194	183	139	174	403	885	702	730	3.6	4.0	6.4
14	36	189	169	121	155	451	1,120	630	684	6.7	3.8	6.4
15	41	186	131	121	169	514	1,220	572	586	5.0	3.8	6.7
16	45	193	114	144	193	427	1,300	532	473	5.0	4.0	6.7
17	52	192	124	174	189	368	1,420	478	419	4.5	4.0	7.0
18	64	192	158	192	194	353	1,560	482	383	4.3	4.0	7.0
19	73	200	149	194	194	349	1,680	545	342	4.5	4.0	7.0
20	75	203	134	200	200	399	1,750	626	300	4.5	4.0	6.7
21	75	194	136	200	206	586	1,730	662	286	4.3	3.8	6.7
22	79	155	174	209	206	648	1,560	676	283	4.3	3.8	6.7
23	79	139	230	218	218	671	1,380	738	273	4.2	4.0	6.7
24	79	177	233	218	221	612	1,290	780	273	4.2	4.3	6.4
25	84	206	221	239	233	563	1,260	725	251	4.0	4.2	6.0
26	84	218	227	224	320	509	1,330	640	224	3.8	4.2	6.0
27	86	215	230	203	334	478	1,420	630	206	4.0	4.3	6.0
28	88	206	254	174	345	532	1,400	689	200	4.0	4.3	6.0
29	84	206	236	177	-	676	1,330	890	166	4.2	4.3	5.7
30	84	206	277	189	-	815	1,280	910	160	4.2	4.3	5.4
31	90	-	375	186	-	775	-	805	-	4.2	4.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,587	90	18	51.2	3,150
November	5,629	218	93	188	11,160
December	5,854	375	114	189	11,610
Calendar year 1945	168,864	2,460	-	463	334,900
January	6,255	320	121	202	12,410
February	5,809	345	155	207	11,520
March	13,900	815	267	448	27,570
April	33,163	1,750	545	1,105	65,780
May	24,370	1,220	478	786	48,340
June	15,248	850	180	508	30,240
July	1,048.5	155	3.8	33.8	2,080
August	127.0	4.3	3.8	4.10	252
September	171.7	7.0	4.3	5.72	341
Water year 1945-46	113,162.2	1,750	3.8	310	224,500

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 1946.

Extremes.- Maximum discharge during year, 469 second-feet Mar. 21 (gage height, 3.56 feet), from rating curve extended above 170 second-feet; no flow during most of year. 1938-46: Maximum discharge, 2,100 second-feet Jan. 22, 1943 (gage height, 12.4 feet, from high-water mark), by slope-area method; no flow during long periods of each year.

Remarks.- Records good except those for Mar. 29-31, Apr. 5-8, which are fair.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	30					
2						0	30					
3						0	26					
4						0	29					
5						0	f31					
6						0	f53					
7						0	30					
8						0	f22					
9						0	29					
10						0	24					
11						0	19					
12						0	19					
13						0	23					
14						0	23					
15						0	19					
16						0	14					
17						0	9.7					
18						0	6.1					
19						0	4.9					
20						0	3.9					
21						16	2.9					
22						39	2.0					
23						47	1.4					
24						34	.8					
25						24	.2					
26						19	0					
27						23	.1					
28						46	0					
29						f49	0					
30						a40	0					
31						h31						

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 1945	173.4	24	0	0.48	344
January	0	0	0	0	0
February	0	0	0	0	0
March	368	49	0	11.9	730
April	453	53	0	15.1	899
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 1945-46	821	53	0	2.25	1,630

a No gage-height record; discharge interpolated.
f Fragmentary gage-height record; discharge computed from partly estimated gage-height record.
h Computed from staff-gage reading.

Jacks Creek near Bruneau, Idaho

Location.- Water-stage recorder, lat. 42°47', long. 115°59', in sec. 27, T. 7 S., R. 4 E., 650 feet upstream from confluence with Wickahoney Creek and 11 miles southwest of Bruneau.

Records available.- November 1938 to September 1946.

Extremes.- Maximum discharge during year, 148 second-feet Feb. 27 (gage height, 3.52 feet); no flow for long periods.
1938-46: Maximum discharge, 908 second-feet Jan. 21, 1943 (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 in each year.

Remarks.- Records fair. No regulation; ranch diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	2.1	6.8	0.2				
2					0	1.8	5.8	.1				
3					0	2.4	5.0	.1				
4					0	.3	6.4	0				
5					0	0	11	.1				
6					0	0	13	.1				
7					0	1.2	12	0				
8					0	.5	8.3	0				
9					0	1.2	5.8	0				
10					0	4.0	3.6	.1				
11					0	5.4	2.0	.1				
12					0	1.8	1.6	.3				
13					0	2.5	2.0	.1				
14					0	2.9	1.7	.1				
15					0	.6	1.3	.1				
16					0	0	.6	0				
17					0	0	.4	0				
18					0	0	.4	0				
19					0	0	.4	0				
20					0	6.0	.4	0				
21					0	14	.5	0				
22					0	8.3	.6	0				
23					0	7.9	.2	0				
24					0	6.8	.1	0				
25					.7	3.2	.1	0				
26					.1	1.8	.1	0				
27					3.0	2.5	.3	1.0				
28					30	7.2	.2	.6				
29					-	12	0	.2				
30					-	12	.3	.1				
31					-	8.7	-	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 1945	40.1	5.3	0	0.11	79.6
January	0	0	0	0	0
February	33.8	30	0	1.21	67
March	117.1	14	0	3.78	232
April	90.9	13	0	3.03	180
May	3.3	1.0	0	.11	6.5
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 1945-46	245.1	30	0	.67	485.5

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, 6,130 feet (from topographic map).

Drainage area.- 209 square miles.

Records available.- March 1916 to September 1925, October 1936 to September 1946.

Average discharge.- 17 years (1917-21, 1922-25, 1936-46), 43.3 second-feet.

Extremes.- Maximum discharge during year, 500 second-feet (regulated) Apr. 20 (gage height, 4.76 feet); minimum discharge observed, 4.6 second-feet Dec. 2.
1916-25 1936-46: 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 good. Small diversions above station for irrigation. Flow regulated by Wild Horse Reservoir (see p.137).

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 3 to May 11, Aug. 6 to Sept. 30)

1.2	4	2.0	33	3.5	200
1.4	8	2.3	54	4.0	303
1.6	14	2.6	80	4.5	423
1.8	22	3.0	125	4.8	498

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	5.4	4.8				15	220	76	132	111	89
2	32	5.4	4.6				15	202	70	141	111	89
3	32	5.2	4.8				41	183	63	162	111	89
4	32	5.2	5.0				80	170	58	162	111	89
5	32	5.2				14	81	161	50	161	111	83
6	32	5.2					79	151	42	160	109	75
7	32	5.2					76	142	38	160	109	75
8	32	5.2				14	76	134	35	160	89	75
9	32	5.2				14	76	138	32	160	65	75
10	32	5.2				14	77	138	26	156	65	62
11	32	5.2				14	75	133	22	156	65	45
12	32	5.2	5.0			14	72	120	22	156	70	45
13	32	5.2				14	123	109	40	155	82	44
14	32	5.2				14	195	102	56	155	82	44
15	32	5.2				14	197	98	60	137	82	44
16	32	5.2		14	14	14	153	90	69	112	82	43
17	32	5.2				14	44	85	81	112	82	43
18	32	5.2				14	244	80	92	111	81	43
19	16	5.2				14	436	74	93	111	81	43
20	5.2	5.2				14	493	71	107	111	81	43
21	5.2	5.2	10			14	473	65	132	111	102	43
22	5.2	5.2				14	426	88	132	111	102	43
23	5.2	5.2				14	388	101	132	111	102	43
24	5.2	5.2				14	362	99	132	111	101	43
25	5.2	5.2				14	345	93	132	112	100	43
26	5.0	5.2	14			14	331	87	132	112	103	43
27	5.0	5.0				14	310	90	132	112	113	42
28	5.0	5.0				14	287	96	132	112	113	43
29	5.0	5.0				15	260	93	132	112	102	43
30	5.0	5.0			-	15	237	88	132	112	90	43
31	5.2	-			-	15	-	82	-	111	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	653.4	32	5.0	21.1	1,300
November	155.6	5.4	5.0	5.19	309
December	249.2	-	-	8.04	494
Calendar year 1945	19,248.6	541	-	52.7	38,180
January	434	-	-	14	861
February	392	-	-	14	778
March	437	-	-	14.1	867
April	6,067	493	15	202	12,030
May	3,581	220	65	116	7,100
June	2,452	132	22	81.7	4,860
July	4,097	162	111	132	8,130
August	2,908	113	65	93.8	5,770
September	1,667	89	42	55.6	3,310
Water year 1945-46	23,093.2	493	-	63.3	45,810

Note.- Records for Dec. 5 to Mar. 7 computed on basis of 2 discharge measurements, 3 staff-gage readings, and records of gate operation at Wild Horse Dam.

Owyhee River at Mountain City, Nev.

Location (revised).- Water-stage recorder, lat. 41°50'10", long. 115°57'50", in SW¼ sec. 35, unsurveyed, 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 1946.

Average discharge.- 20 years (1926-46), 99.5 second-feet.

Extremes.- Maximum discharge during year, 905 second-feet (regulated) Apr. 20 (gage height, 5.78 feet); minimum recorded, 18 second-feet Oct. 21-29, but may have been less during periods of ice effect.
1913, 1927-46: 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. 12, 1934.

Remarks.- Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 137).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	25	22				152	534	219	154	110	88
2	45	25	30				150	486	204	156	109	90
3	45	26	31	50	40		145	458	190	182	107	90
4	45	26	32				234	443	180	196	107	94
5	45	25	30			80	282	443	172	190	107	96
6	41	25	27				326	434	170	184	107	78
7	41	25	28				313	418	160	180	105	75
8	41	24	27	43		*87	319	392	147	176	105	75
9	41	22	24			110	300	383	131	174	67	75
10	41	27	24		36	147	289	374	118	172	62	75
11	41	28	23			162	311	344	114	170	62	51
12	41	26	*21			145	379	315	109	170	62	48
13	41	25	21			217	421	295	105	166	77	44
14	41	22	20			156	518	274	126	164	78	45
15	41	27	20			126	571	257	116	162	78	48
16	42	26	20	35		110	610	242	126	122	77	46
17	42	27	20			101	550	232	131	118	77	48
18	42	25	20		40	114	656	223	156	114	77	46
19	41	23	29			170	828	223	147	114	78	46
20	22	21	23			202	888	223	143	114	78	46
21	19	19				170	858	213	174	114	96	45
22	19	20		(*)		152	794	293	172	114	97	45
23	*18	22	30		45	170	736	311	172	114	99	45
24	18	24				164	712	265	178	116	101	46
25	18	25				130	714	246	170	120	101	45
26	18	26		40		152	736	234	170	120	103	45
27	18	27			55	227	700	274	166	116	116	45
28	18	27	60			276	665	297	162	116	118	45
29	18	26			-	267	633	274	158	112	116	48
30	21	25			-	198	591	250	152	112	90	48
31	24	-			-	174	-	232	-	110	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,033	45	19	33.3	2,050
November	741	28	19	24.7	1,470
December	992	-	19	32.0	1,970
Calendar year 1945	58,727	1,320	-	161	116,500
January	1,255	-	-	40.5	2,490
February	1,150	-	-	41.1	2,280
March	4,487	276	-	145	8,900
April	15,381	888	145	513	30,510
May	9,882	534	213	319	19,600
June	4,638	219	105	155	9,200
July	4,442	196	110	143	8,810
August	2,855	118	62	92.1	5,660
September	1,761	96	44	58.7	3,490
Water year 1945-46	48,617	888	18	133	96,430

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 8, 9, 13, 14, 18-25, 30, Dec. 1, Dec. 9 to Mar. 7 (no gage-height record Jan. 18-22, Feb. 26 to Mar. 7; discharge computed on basis of 1 discharge measurement, weather records, and records for other Owyhee River stations).

Owyhee River above China diversion dam, near Owyhee, Nev.

Location (revised).- Water-stage recorder, lat. 41°55'20", long. 116°04'10", in NW¼ sec. 6, T. 46 N., R. 53 E., 1,000 feet downstream from Skull Creek, 1 mile upstream from China diversion dam, and 2 miles southeast of Owyhee.

Drainage area.- 458 square miles.

Records available.- March 1939 to September 1946.

Extremes (regulated).- Maximum discharge during year, 1,150 second-feet Apr. 20 (gage height, 8.34 feet); minimum recorded, 18 second-feet Nov. 14.
1939-46: Maximum discharge, 1,850 second-feet May 6, 1945 (gage height, 9.18 feet); minimum daily, 2 second-feet Sept. 15-18, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 137).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	34	33			115	219	792	294	166	110	95
2	45	35	37			125	226	727	270	166	108	95
3	44	35	44	65	50	116	215	690	248	186	107	96
4	44	34	44			114	266	670	225	218	106	99
5	45	34	42			109	356	658	212	215	105	105
6	44	34	43			109	432	644	206	209	103	92
7	43	34	40			138	424	616	193	200	103	82
8	43	32	37	55		*121	439	580	175	192	103	81
9	43	29	34			138	415	566	157	189	71	81
10	43	34	34		45	188	378	544	141	189	57	82
11	44	36	32			254	407	502	128	188	56	66
12	44	37	*30			212	512	458	119	184	58	55
13	45	35	29			318	592	428	110	180	67	49
14	45	32	28			248	698	388	129	179	73	50
15	45	38	28	45		205	807	354	123	175	73	52
16	45	36	28			162	860	334	129	136	73	54
17	a45	36	28			157	870	312	129	120	73	55
18	a45	33	28		50	155	874	297	165	116	73	55
19	a45	32	27			223	1,030	287	159	113	73	54
20	a40	30	29			304	1,120	285	149	111	73	52
21	a29	28				266	1,110	272	177	112	90	50
22	a28	28				227	1,060	358	188	111	98	51
23	*27	30	42		60	245	1,010	420	187	113	100	51
24	27	33				250	994	346	201	114	103	51
25	26	35				192	1,000	309	192	121	104	50
26	26	37		50	75	206	1,020	297	186	123	106	49
27	26	37			85	292	1,000	384	183	116	116	50
28	26	37			100	369	958	434	177	113	121	50
29	26	37	80		-	415	928	388	173	113	119	50
30	29	36			-	302	876	346	162	113	102	51
31	32	-			-	264	-	316	-	112	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,184	45	26	38.2	2,350
November	1,018	38	28	33.9	2,020
December	1,365	-	-	44.0	2,710
Calendar year 1945	78,206	1,780	-	214	155,100
January	1,600	-	-	51.6	3,170
February	1,510	-	-	53.9	3,000
March	6,539	415	109	211	12,970
April	21,096	1,120	215	703	41,840
May	14,002	792	272	452	27,770
June	5,287	294	110	176	10,490
July	4,693	218	111	151	9,310
August	2,821	121	56	91.0	5,600
September	1,953	105	49	65.1	3,870
Water year 1945-46	63,068	1,120	-	173	125,100

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station at Mountain City.
Note.- Stage-discharge relation affected by ice Nov. 9-12, 19-25, Dec. 1, 2, Dec. 7 to Mar. 1 (no gage-height record Jan. 10-21).

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 1946 in reports of Geological Survey. April 1929 to September 1936 in reports of Oregon State engineer.
Average discharge.- 17 years, 866 second-feet.
Extremes.- Maximum discharge during year, 8,170 second-feet Mar. 22 (gage height, 10.30 feet); minimum, 154 second-feet Dec. 15 (gage height, 3.72 feet).
1929-46: 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 period of no gage-height record and those for Apr. 2-24, which are fair. 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 and some discharge measurements made by Bureau of Reclamation.

Rating table, water year 1945-46, except period of ice effect (gage height, in feet, and discharge, in second-feet)

3.9	198	6.0	1,320	8.5	4,270
4.2	288	6.5	1,730	9.0	5,200
4.5	440	7.0	2,230	10.0	7,380
5.0	640	7.5	2,810		
5.5	960	8.0	3,480		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	272	376	2,460	540	3,350	4,220	3,240	1,720	353	244	
2	262	272	372	1,780	530	2,670	3,920	3,040	1,510	349	262	
3	266	275	360	1,470	515	2,360	3,970	2,770	1,300	349	259	
4	256	275	356	1,270	500	2,240	3,810	2,490	1,140	323	247	
5	253	278	338	1,200	480	1,930	3,750	2,270	1,030	320	244	210
6	250	295	345	1,140	476	1,600	3,990	2,160	911	345	238	
7	247	302	330	981	476	1,620	4,870	2,070	820	338	229	
8	247	295	338	784	476	2,260	5,700	2,020	754	330	229	
9	241	295	334	664	458	2,270	6,020	1,990	733	320	229	
10	244	298	327	607	440	2,490	5,700	2,000	730	312		
11	250	295	302	535	432	3,310	5,080	1,950	706	312		206
12	250	306	292	540	436	4,720	4,600	1,830	652	309		206
13	250	302	298	462	515	4,490	5,140	1,750	602	312		212
14	247	302	302	420	408	4,790	5,830	1,630	565	292		218
15	247	298	292	424	408	4,170	6,190	1,470	540	285		212
16	250	302	b294	420	408	3,150	6,000	1,290	510	282		209
17	253	309	295	485	412	2,590	5,700	1,150	467	275		209
18	253	316	295	505	412	2,140	5,520	1,060	440	282		212
19	259	316	320	505	412	2,100	5,440	960	412	259		206
20	262	312	316	505	467	3,750	5,480	862	384	259	220	206
21	259	323	298	485	545	6,760	5,580	796	356	256		204
22	262	316	327	500	652	7,080	5,300	748	353	259		195
23	262	295	338	490	834	6,630	4,810	724	353	282		215
24	262	282	327	500	1,220	6,000	4,300	730	364	278		206
25	266	309	338	515	1,640	4,700	4,100	730	376	269		215
26	269	345	360	580	1,980	3,740	3,880	988	364	259		218
27	275	338	412	618	2,410	3,560	3,810	1,180	349	259		212
28	269	345	788	629	2,420	5,040	3,830	1,250	349	253		215
29	269	368	2,280	602	-	5,620	3,720	1,380	349	250		209
30	272	372	3,030	570	-	5,770	3,450	1,630	349	250		215
31	272	-	3,170	580	-	4,770	-	1,780	-	235		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,990	275	241	258	15,850
November	9,208	372	272	307	18,260
December	18,150	3,170	292	585	36,000
Calendar year 1945	478,482	-	203	1,311	949,200
January	23,226	2,460	420	749	46,070
February	20,902	2,420	408	746	41,460
March	117,670	7,080	1,300	3,796	233,400
April	143,770	6,190	3,450	4,792	285,200
May	49,938	3,240	724	1,611	99,050
June	19,491	1,720	349	650	38,660
July	9,036	353	235	291	17,920
August	7,021	282	-	226	13,930
September	6,300	-	-	210	12,500
Water year 1945-46	432,702	7,080	-	1,185	858,300

b Stage-discharge relation affected by ice.
Note.- No gage-height record Aug. 10 to Sept. 10; discharge interpolated. Intakes partly clogged Apr. 2-24; discharge computed on basis of 1 discharge measurement, adjusted gage heights, and computed inflow to Owyhee Reservoir.

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 1946.

Extremes.- Maximum contents observed during year, 34,420 acre-feet Apr. 23 (gage height, 80.93 feet); minimum observed, 11,200 acre-feet Sept. 25.
1938-46: Maximum contents observed, 34,460 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, 32,690 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 Duck Valley project.

Cooperation.- Most of gage-height record and base data for capacity table furnished by Office of Indian Affairs.

Contents, in acre-feet, water year October 1945 to September 1946

Date	Contents	Date	Contents	Date	Contents
Oct. 23	18,320	Apr. 3	23,690	May 28	33,620
24	18,070	10	26,260	June 24	30,540
Nov. 23	18,710	12	28,480	July 3	28,390
Dec. 12	b19,100	15	30,720	24	21,780
21	b18,690	16	31,790	25	21,780
Jan. 24	b19,670	23	34,420	Aug. 24	15,510
Feb. 25	b19,440	May 3	33,990	29	14,620
Mar. 8	b19,730	13	33,430	Sept.25	11,200
22	b20,810	24	33,320		

b Gage readings corrected for ice cover.
Note.- Reservoir full and flow over spillway Apr. 17 to June 14.

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 1946.

Extremes.- Maximum contents observed during year, 1,121,800 acre-feet May 4-15 (elevation, 2,670.00 feet); minimum observed, 800,700 acre-feet Sept. 30 (elevation, 2,641.38 feet).
1932-46: 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, 741,200 acre-feet Oct. 15, 1944 (elevation, 2,635.08 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), 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 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 1945 to September 1946

Date	Gage height elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	2,649.07	878,500	-
Oct. 31	2,648.59	873,500	-5,000
Nov. 30	2,650.18	890,300	+16,800
Dec. 31	2,653.10	921,800	+31,500
Calendar year 1945.	-	-	+141,200
Jan. 31	2,657.15	966,900	+45,100
Feb. 28	2,660.75	1,008,600	+41,700
Mar. 31	2,667.55	1,091,000	+82,400
Apr. 30	2,669.68	1,117,700	+26,700
May 31	2,668.06	1,097,300	-20,400
June 30	2,663.30	1,038,900	-58,400
July 31	2,656.37	958,100	-80,800
Aug. 31	2,647.46	861,700	-96,400
Sept.30	2,641.38	800,700	-61,000
Water year 1945-46.	-	-	-77,800

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 1946.

Average discharge.- 17 years, 449 second-feet.

Extremes.- Maximum discharge during year, 7,350 second-feet Apr. 16 (gage height, 9.14 feet); minimum observed, 4 second-feet Mar. 13 (gage height, -0.33 foot), gates closed at Owyhee Dam.

1924-46: Maximum discharge, 14,600 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.

Remarks.- Records good except those below 10 second-feet, which are poor. Diversions above station for irrigation. Flow regulated by Wild Horse and Owyhee Reservoirs (see p. 137).

Cooperation.- Water-stage recorder inspected by Bureau of Reclamation.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

-0.3	5	0.6	56	2.1	349	5.5	2,510
-.2	8	.8	79	2.5	488	6.5	3,550
-.1	11	1.0	106	3.0	710	7.5	4,770
0	15	1.2	137	3.5	990	8.5	6,250
.2	24	1.5	195	4.0	1,290		
.4	37	1.8	265	4.5	1,650		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28						4,660	1,190	182	163	182	112
2	5						4,050	915	182	163	182	112
3	5						3,180	646	182	163	174	112
4	5						2,240	629	182	163	168	112
5	5						1,790	298	182	163	170	112
6	5						2,150	454	182	163	170	105
7	5					5	2,930	468	182	137	170	89
8	51						3,820	854	182	114	170	80
9	78						5,450	400	182	118	172	80
10	78						5,820	303	182	108	172	80
11	78						4,880	252	182	108	172	80
12	79						3,600	258	184	109	163	80
13	79					2,800	3,680	252	184	109	150	80
14	64					4,180	4,580	226	184	109	146	80
15	23	5	5	5	5	4,040	6,020	95	184	109	146	80
16	5					3,740	5,010	139	184	110	146	80
17	5					3,400	6,840	233	184	131	144	80
18	5					2,340	5,570	235	172	146	146	80
19	5					2,130	2,640	235	163	163	132	80
20	5					2,300	4,810	235	161	182	123	82
21						3,520	4,620	235	161	182	123	71
22						5,210	4,370	235	172	182	137	65
23						5,580	3,860	235	180	182	146	65
24						2,690	3,140	235	180	182	141	65
25						5,440	2,580	235	170	182	132	65
26	5					4,340	2,190	235	163	191	134	65
27						3,560	2,010	210	163	195	132	65
28						3,760	1,620	199	163	193	132	65
29						4,710	1,630	199	163	193	132	66
30					-	5,410	1,510	202	163	184	134	66
31		-			-	5,650	-	193	-	184	121	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	668	79	-	21.5	1,320
November	150	-	-	5.0	298
December	155	-	-	5.0	307
Calendar year 1945	176,949	6,010	-	485	351,000
January	155	-	-	5.0	307
February	140	-	-	5.0	278
March	74,860	5,650	-	2,410	148,500
April	111,250	6,840	1,510	3,710	220,700
May	10,730	1,190	95	346	21,280
June	5,280	184	161	176	10,470
July	4,781	195	108	154	9,480
August	4,662	182	121	150	9,250
September	2,454	112	65	81.8	4,870
Water year 1945-46	215,285	6,840	-	590	427,100

Note.- No gage-height record Oct. 2, Oct. 21 to Mar. 12; discharge (leakage only) computed on basis of information by Bureau of Reclamation.

Jordan Creek above Lone Tree Creek, near Jordan Valley, Oreg.

Location.- Water-stage recorder, lat. 42°53', long. 116°59', in NW¼ sec. 19, T. 6 S., R. 5 W., 2 miles upstream from Lone Tree Creek and 7 miles southeast of Jordar Valley.

Records available.- October 1945 to September 1946.

Extremes.- Maximum discharge during year, 2,100 second-feet Apr. 19 (gage height, 5.44 feet); minimum, 4.4 second-feet Aug. 19, 20 (gage height, 0.35 foot).

Remarks.- Records good except those for periods of ice effect, those for Apr. 12 to May 10, which are fair, and those for Oct. 1-9, which are poor. Diversions atove station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		32	b34	190	93	228	598	1,060	272	49	8.4	5.8
2		31	b38	170	89	230	550	891	259	38	8.1	5.6
3		28	38	163	83	215	508	872	256	38	7.8	5.6
4		26	40	157	65	190	479	899	244	37	7.5	6.0
5	a9.0	26	37	151	74	192	550	1,090	238	38	7.2	7.2
6		29	36	105	79	215	683	1,030	228	34	6.9	7.2
7		28	34	127	69	218	800	904	215	33	6.6	6.9
8		24	32	125	58	218	898	858	188	32	6.0	7.2
9		23	b29	85	70	238	820	768	172	33	6.0	6.9
10	9.0	29	31	115	74	293	716	696	165	32	6.0	6.3
11	9.6	30	36	*99	62	440	709	568	161	29	6.0	6.3
12	9.0	29	35	62	53	430	1,110	514	153	27	5.6	5.8
13	8.7	27	34	78	64	532	1,430	496	141	24	5.4	5.4
14	8.7	27	23	97	72	385	1,780	457	131	26	5.4	5.4
15	8.7	35	27	87	70	332	1,870	430	121	26	4.8	6.0
16	8.7	39	28	93	65	272	1,930	415	113	24	5.0	6.0
17	8.7	37	30	89	62	265	1,990	410	113	22	5.0	6.3
18	10	32	26	83	70	262	2,020	420	107	20	4.8	6.9
19	13	35	24	78	72	354	2,050	425	95	19	4.6	6.9
20	13	26	25	81	78	709	1,940	410	89	17	4.6	7.2
21	13	b23	30	74	83	1,050	1,780	395	83	16	4.8	7.2
22	14	28	44	83	89	910	1,580	372	76	15	5.0	6.9
23	14	34	46	78	111	768	1,530	372	81	14	5.4	6.9
24	14	34	48	121	166	690	1,580	324	101	12	5.6	6.6
25	14	39	45	127	200	550	1,750	312	85	11	5.8	6.9
26	16	40	46	105	172	532	1,820	349	79	10	5.8	6.9
27	16	44	76	109	269	780	1,660	446	76	10	6.0	7.2
28	16	44	215	103	293	930	1,540	425	70	9.6	5.8	7.2
29	16	44	514	101	-	1,150	1,490	376	64	9.0	5.6	7.2
30	19	*38	304	91	-	924	1,340	324	59	8.4	5.8	7.5
31	27	-	222	81	-	722	-	293	-	8.4	5.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	367.1	27	8.7	11.8	728
November	961	44	23	32.0	1,910
December	2,227	514	23	71.8	4,420
Calendar year	-	-	-	-	-
January	3,308	190	62	107	6,560
February	2,805	293	53	100	5,560
March	15,224	1,150	190	491	30,200
April	39,501	2,050	479	1,317	78,350
May	17,690	1,090	293	571	35,090
June	4,235	272	59	141	8,400
July	721.4	49	8.4	23.3	1,430
August	183.1	8.4	4.6	5.91	363
September	197.4	7.5	5.4	6.58	392
Water year 1945-46	87,420	2,050	4.6	240	173,400

* 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.

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 1946.
Average discharge.- 35 years, 1,117 second-feet.
Extremes.- Maximum discharge during year, 7,560 second-feet Apr. 19 (gage height, 7.18 feet); minimum, 230 second-feet Dec. 10 (gage height, 2.00 feet).
1911-46: Maximum discharge, 10,300 second-feet May 17, 1927 (gage height, 8.30 feet), from rating curve extended above 8,000 second-feet; minimum, 109 second feet, Dec. 10, 1944; minimum gage height, 1.56 feet Dec. 15, 16, 1935.
Remarks.- Records excellent except those below 500 second-feet, which are good, and those for periods of ice effect or no gage-height record, which are fair. No diversion or regulation.

Rating table, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.0	230	4.0	1,940
2.3	355	4.5	2,610
2.6	540	5.0	3,370
3.0	870	6.0	5,140
3.5	1,360	7.0	7,160

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	360	410	346	933	b480	572	1,620	4,060	3,370	1,760	628	372
2	350	399	262	798	b530	556	1,560	3,770	3,530	1,820	588	366
3	350	410	372	748	b520	548	1,500	4,020	3,990	1,810	556	366
4	342	404	588	708	484	548	1,420	4,710	4,870	1,720	533	394
5	342	399	477	668	452	580	1,420	5,580	4,990	1,600	526	416
6	337	422	446	588	477	668	1,490	5,960	4,600	1,500	498	399
7	337	394	*434	540	458	668	1,700	5,760	3,900	1,420	491	382
8	337	366	394	564	404	652	1,860	5,410	3,560	1,370	484	399
9	332	319	306	470	434	716	1,800	4,910	3,630	1,330	470	404
10	328	382	b2 0	b470	134	834	1,600	4,560	3,850	1,230	446	388
11	328	410	b370	b430	440	1,120	1,540	4,170	3,620	1,170	434	366
12	332	399	b330	b340	404	1,230	2,000	4,060	3,270	1,120	434	350
13	328	399	290	b390	422	1,260	2,680	4,020	3,470	1,090	422	342
14	328	388	b320	b400	404	1,140	3,560	3,920	3,190	1,050	416	337
15	328	452	b310	b400	434	1,010	3,970	3,800	3,210	1,000	416	337
16	332	458	b340	b500	440	906	4,510	3,870	3,110	951	410	372
17	337	434	b400	b500	428	834	5,560	4,150	2,810	900	399	470
18	346	416	b360	b500	434	834	6,640	4,630	2,610	879	382	446
19	342	440	b360	b500	440	897	6,950	4,760	2,530	834	377	416
20	342	394	b380	b480	464	a1,300	5,780	4,530	2,540	798	372	399
21	337	306	b450	b500	464	a1,600	4,720	4,400	2,640	772	372	388
22	346	306	b550	b500	458	a1,600	3,960	4,650	2,690	748	377	404
23	350	434	644	b550	458	a1,550	3,890	4,400	2,680	732	388	382
24	342	477	580	a550	491	a1,500	4,330	4,060	2,480	708	470	377
25	350	477	548	a530	604	a1,300	5,330	3,990	2,140	684	410	366
26	350	458	512	a520	604	a1,400	6,570	4,470	1,990	668	452	355
27	346	464	458	a520	596	a1,650	6,360	4,840	1,900	676	404	346
28	342	470	b850	a500	604	*1,890	5,640	4,970	1,820	636	394	346
29	342	477	b2,050	a450	-	2,360	5,410	4,540	1,760	620	394	350
30	372	464	1,570	a430	-	2,040	4,870	3,890	1,740	604	394	346
31	452	-	1,110	*b420	-	1,810	-	3,550	-	708	377	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	10,687	452	328	345	0.416	0.48	21,200
November	12,428	477	306	414	.49	.56	24,650
December	16,467	2,050	260	531	.64	.74	32,680
Calendar year 1945	408,934	5,220	260	1,120	1.35	18.33	811,100
January	16,357	933	340	528	.63	.73	32,440
February	13,292	604	404	475	.57	.60	26,360
March	35,573	2,360	548	1,148	1.38	1.59	70,560
April	110,240	6,950	1,420	3,675	4.43	4.94	218,700
May	138,410	5,960	3,550	4,465	5.38	6.20	274,500
June	92,090	4,990	1,740	3,070	3.70	4.13	182,700
July	32,914	1,820	604	1,062	1.28	1.47	65,280
August	13,714	628	372	442	.53	.61	27,200
September	11,381	470	337	379	.45	.51	22,570
Water year 1945-46	503,553	6,950	260	1,380	1.66	22.56	998,800

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage when available, records of nearby streams in Boise and Payette River Basins, records of inflow to Arrowrock and Anderson Ranch Reservoirs, and weather records.
b Stage-discharge relation affected by ice.

Arrowrock Reservoir at Arrowrock, Idaho

Location.- Graduations on upstream face of dam on Boise River, lat. 43°36', long. 115°55', in E½ sec. 13, T. 3 N., R. 4 E., at Arrowrock, 22 miles by road east of Boise. Datum of gage is at mean sea level (surveys of Bureau of Reclamation).

Drainage area.- 2,210 square miles.

Records available.- October 1917 to September 1946.

Extremes.- Maximum contents observed during year, 294,400 acre-feet June 16, 17 (elevation, 3,216.9 feet); minimum observed, 7,890 acre-feet Oct. 14 (elevation, 3,024.0 feet).
1917-46: 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 and natural flow was passing through reservoir.

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 deposition of silt. Water is used for irrigation of lands in Boise Valley. Gage read once daily about 8 a.m.

Cooperation.- Gage readings and yield table furnished by Bureau of Reclamation.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,470	34,580	44,600	71,180	115,900	135,400	267,100	277,100	291,600	291,000	260,700	136,000
2	19,470	36,330	43,800	73,700	117,200	136,000	274,100	275,300	291,000	291,000	257,300	132,800
3	19,670	37,870	42,960	76,220	118,400	136,600	275,300	272,600	291,000	291,300	254,000	129,300
4	19,770	39,360	42,060	78,180	119,700	137,600	268,000	269,400	291,000	291,300	250,000	126,100
5	19,820	40,980	41,790	80,450	121,000	138,000	262,500	268,600	292,200	291,000	246,100	122,400
6	19,820	42,510	41,430	82,400	122,100	138,800	255,600	269,700	292,200	290,400	242,100	119,300
7	19,820	44,000	41,250	83,750	123,400	140,200	246,700	272,600	291,600	289,400	238,200	116,500
8	19,820	45,500	40,800	85,550	124,500	141,400	237,700	275,300	290,400	288,500	233,800	113,600
9	18,090	46,900	40,170	87,200	125,500	142,600	228,900	275,900	290,400	288,200	229,400	111,100
10	16,280	48,200	38,840	88,460	126,400	144,000	223,700	275,900	290,400	287,600	224,700	108,400
11	14,210	49,600	37,950	89,900	127,600	146,600	217,500	274,700	290,400	287,300	220,000	105,700
12	12,060	51,360	37,460	91,020	128,900	150,400	211,800	273,500	290,400	286,400	215,500	102,800
13	9,391	51,800	36,490	91,980	129,900	155,200	208,000	271,200	291,000	285,200	211,000	99,920
14	7,890	51,910	35,450	93,260	131,000	160,200	208,500	268,600	292,200	285,800	206,000	96,860
15	9,887	52,020	36,410	94,380	132,200	163,800	211,000	264,500	293,800	286,100	201,700	93,580
16	11,520	52,020	37,700	95,500	133,000	167,000	215,500	259,600	294,400	287,000	197,100	90,540
17	12,960	51,800	38,840	96,860	133,600	169,500	219,500	255,600	294,400	288,200	193,100	87,500
18	14,440	51,360	40,260	98,220	134,200	171,400	227,800	252,000	293,800	287,900	188,300	84,950
19	15,870	50,920	41,070	99,580	134,600	173,800	238,200	249,800	292,200	287,000	183,900	85,550
20	17,140	50,590	41,790	100,900	134,600	177,700	247,200	247,500	289,700	285,800	179,700	86,450
21	18,460	50,040	42,780	102,000	134,200	184,400	253,400	245,600	287,600	284,600	175,300	87,200
22	19,820	49,050	43,700	103,300	133,800	191,300	257,000	245,800	285,500	283,100	170,700	87,980
23	21,200	48,200	45,200	104,700	133,600	197,900	258,400	254,500	286,100	281,000	166,500	88,780
24	22,660	47,600	46,500	106,400	133,400	203,900	258,400	262,500	287,300	280,400	162,100	89,580
25	24,070	47,200	47,800	107,700	133,000	208,800	261,600	268,900	288,200	279,800	158,100	88,300
26	25,500	46,800	48,940	108,900	133,200	213,200	266,500	272,900	288,500	280,100	153,900	85,550
27	26,960	46,500	50,370	110,100	133,400	219,000	273,200	279,800	289,700	278,000	150,600	82,850
28	28,360	46,000	52,130	111,300	134,400	227,300	278,000	285,200	290,400	275,000	147,800	80,300
29	29,820	45,500	56,160	112,300	-	236,700	278,900	289,100	291,300	271,500	145,000	78,040
30	31,330	45,000	63,640	113,400	-	247,800	278,300	291,000	291,300	268,000	142,000	75,520
31	32,950	-	67,930	114,700	-	258,400	-	291,600	-	264,200	139,000	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	3,057.6	20,480	-
Oct. 31	3,077.4	32,950	+12,470
Nov. 30	3,091.5	45,000	+12,050
Dec. 31	3,111.1	67,930	+22,930
Calendar year 1945...	-	-	+16,020
Jan. 31	3,141.2	114,700	+46,770
Feb. 28	3,151.7	134,400	+19,700
Mar. 31	3,204.8	258,400	+124,000
Apr. 30	3,211.6	278,300	+19,900
May 31	3,216.0	291,600	+13,300
June 30	3,215.9	291,300	-300
July 31	3,206.8	264,200	-27,100
Aug. 31	3,154.0	139,000	-125,200
Sept.30	3,116.8	75,520	-63,480
Water year 1945-46...	-	-	+55,040

† Elevation at about 8 a.m.

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 1946.

Average discharge.- 35 years, 2,240 second-feet.

Extremes (regulated).- Maximum discharge during year, 12,500 second-feet Apr. 29 (gage height, 8.39 feet); minimum, 2 second-feet Jan 12 (gage height, 0.74 foot); minimum daily, 4 second-feet Nov. 9.

1911-46: Maximum discharge, 18,800 second-feet Apr. 20, 1943 (gage height, 9.93 feet); minimum, 1 second-foot Jan. 3, 1945; minimum gage height, 0.62 foot Nov. 21, 22, 1935.

Remarks.- Records excellent except those below 20 second-feet and those for periods of ice effect, which are fair. Flow regulated by Arrowrock Reservoir (see preceding page). No diversion above station.

Cooperation.- Two discharge measurements furnished by Water District No. 12A.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	756	6	1,060	17	(*)	g646	2,010	11,300	7,980	3,830	2,970	2,260
2	692	5	1,080	16		g700	3,370	11,400	7,890	3,750	2,970	2,340
3	676	5	1,070	14		g490	8,380	10,100	7,890	3,730	2,940	2,430
4	676	5	1,070	16		g660	7,890	10,100	7,950	3,750	2,960	2,420
5	692	5	1,070	17		g756	8,700	10,100	8,260	3,790	3,030	2,360
6	700	5	1,070	14		g597	9,230	10,100	8,290	3,750	3,060	2,260
7	700	5	*1,060	13		g597	9,410	10,100	7,390	3,710	3,130	2,220
8	1,140	5	1,060	14	7	g646	9,230	10,600	5,620	3,670	3,190	2,150
9	1,520	4	1,050	13		g653	7,950	10,900	5,010	3,640	3,170	2,090
10	1,570	6	1,040	12		g527	7,220	10,700	4,880	3,650	3,170	2,090
11	1,630	5	1,030	11		g360	7,140	10,300	4,880	3,670	3,170	2,120
12	1,680	276	1,020	9		g163	7,060	10,100	4,880	3,690	3,150	2,120
13	1,380	632	1,010			g55	7,030	10,100	4,700	3,690	3,150	2,150
14	630	724	595			g233	7,030	10,100	4,730	3,670	3,150	2,200
15	79	812	16		130	g324	7,120	10,000	4,730	3,650	3,100	2,200
16	82	946	7		300	g390	7,470	9,950	4,680	3,670	2,990	2,190
17	84	1,020	7		300	g440	8,260	9,860	4,640	3,670	2,990	2,160
18	79	1,020	7		300	g490	8,380	9,770	4,680	3,670	3,010	1,100
19	72	1,020	9		500	g520	9,110	9,740	4,750	3,620	2,970	445
20	74	1,020	12		788	g312	9,680	9,680	4,700	3,560	2,980	395
21	74	1,010	15	7	937	58	9,800	9,200	4,680	3,460	3,010	405
22	77	1,010	14		910	60	9,830	6,220	4,400	3,430	3,030	405
23	9	1,040	10		838	243	9,830	4,900	4,190	3,430	3,030	405
24	5	1,090	8		973	928	9,860	4,990	4,070	3,390	2,920	816
25	5	1,100	7		*1,020	928	9,920	5,040	3,990	2,830	2,870	1,900
26	5	1,090	8		883	937	10,000	5,130	3,970	2,680	2,590	2,080
27	5	1,170	12		g871	955	10,400	5,820	3,870	3,240	2,360	1,940
28	5	1,230	33		g525	964	11,900	6,740	3,890	3,210	2,300	1,950
29	5	1,170	28		-	982	12,500	7,500	3,910	3,190	2,280	1,900
30	6	1,030	23		-	1,000	12,100	7,870	3,870	3,060	2,240	1,880
31	6	-	20		-	1,210	-	8,060	-	3,010	2,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,114	1,680	5	488	29,980
November	18,486	1,230	4	616	36,630
December	14,521	1,080	7	468	28,800
Calendar year 1945	735,812	9,080	3	2,016	1,459,000
January	299	17	-	9.6	593
February	9,173	1,020	-	328	18,190
March	17,824	1,210	55	575	35,350
April	257,810	12,500	2,010	8,594	511,400
May	276,470	11,300	4,900	8,918	548,400
June	159,390	8,290	3,870	5,312	316,100
July	108,490	3,830	2,630	3,500	215,200
August	90,110	3,190	2,240	2,907	178,700
September	53,381	2,430	395	1,779	105,900
Water year 1945-46	1,021,028	12,500	4	2,797	2,025,000

* Winter discharge measurement made on this day.
g Computed from graph based on daily gage readings and gate changes at Arrowrock Dam.
Note.- Stage-discharge relation affected by ice Jan. 10 to Feb. 19.

Boise River at Boise, Idaho

Location.- Water-stage recorder, lat. 43°37', long. 116°13', in SW¼ sec. 10, T. 3 N., R. 2 E., at Capitol Boulevard Bridge at Boise. Datum of gage is 2,675.46 feet above mean sea level (datum of Corps of Engineers, War Department - Boise River Surveys).

Records available.- March 1938 to September 1939 (gage heights only), February 1940 to September 1946.

Extremes (regulated).- Maximum discharge during year, 10,900 second-feet Apr. 29 (gage height, 8.50 feet); minimum, 12 second-feet Dec. 15 (gage height, 2.40 feet); minimum daily, 18 second-feet Dec. 9, 10, 12-14.

1940-46: Maximum discharge, 21,000 second-feet Apr. 20, 1943 (gage height, 10.00 feet, site and datum then in use); minimum, 7 second-feet Dec. 16, 1942 (gage height, 1.79 feet, site and datum then in use); minimum daily, 8 second-feet Mar. 8-15, Dec. 6, 1941.

Remarks.- Records good except those for period of no gage-height record, which are fair. Flow regulated by Arrowrock Reservoir (see p.141). New York, Ridenbaugh, and several smaller canals divert between Moore Creek and this station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	360	123	24	410	160	76	2,360	9,560	a5,150	1,270	798	426
2	296	117	24	384	166	67	2,710	9,500	a5,100	1,200	787	482
3	272	114	24	320	163	61	7,830	8,070	4,950	1,150	787	602
4	266	108	23	308	142	48	8,240	8,070	5,000	1,170	798	665
5	260	108	23	320	138	39	8,860	9,070	5,220	1,200	820	675
6	272	120	24	290	156	44	9,300	8,050	5,300	1,180	820	665
7	272	120	23	206	163	40	9,820	8,020	4,850	1,120	745	656
8	278	114	20	245	135	40	9,740	8,200	2,930	1,100	798	675
9	284	100	18	202	117	42	8,940	8,640	2,210	1,020	787	629
10	266	111	18	154	138	47	7,680	8,450	1,860	1,000	798	611
11	260	61	20	178	146	51	7,600	8,020	1,860	1,020	776	593
12	302	96	18	82	114	132	7,890	7,760	1,840	1,020	776	602
13	336	37	18	108	132	54	7,860	7,660	1,750	1,000	776	593
14	266	30	18	146	135	47	8,050	7,580	1,570	1,000	787	620
15	272	30	26	152	99	54	8,120	7,470	1,670	988	798	611
16	152	29	40	163	259	44	8,280	7,400	1,570	988	787	602
17	146	30	55	178	273	42	9,280	7,290	1,510	1,020	745	550
18	166	30	52	170	32	40	9,590	a7,300	1,510	1,020	765	558
19	146	30	45	156	32	43	10,000	a7,300	1,530	1,020	755	524
20	142	32	48	146	40	186	10,200	a7,100	1,490	988	735	450
21	146	28	63	146	39	61	9,680	a7,100	1,450	950	787	434
22	146	26	123	170	44	85	9,230	a6,400	1,430	938	798	434
23	138	26	152	160	43	231	8,880	a2,500	1,470	950	831	434
24	92	30	170	182	42	2,080	8,740	a2,450	1,490	939	831	442
25	85	29	170	198	51	2,040	8,850	a2,450	1,430	864	809	396
26	85	27	178	178	47	1,890	9,070	a2,500	1,420	964	735	558
27	78	27	202	160	50	2,100	9,120	a2,800	1,400	853	434	541
28	80	26	344	152	63	2,360	10,300	a3,600	1,380	820	389	458
29	78	26	536	166	-	2,810	10,800	a4,300	1,360	842	389	410
30	95	25	620	163	-	2,590	10,500	a4,850	1,340	809	375	382
31	123	-	490	152	-	2,020	-	a5,150	-	820	403	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,160	360	78	199	12,220
November	1,810	123	25	60.3	3,590
December	3,609	620	18	116	7,160
Calendar year 1945	341,022	7,080	18	934	676,300
January	6,145	410	82	198	12,190
February	3,119	273	32	111	6,190
March	19,464	2,810	39	628	38,610
April	257,520	10,800	2,360	8,584	510,800
May	202,610	9,560	2,450	6,536	401,900
June	73,040	5,300	1,340	2,435	144,900
July	31,122	1,270	809	1,004	61,730
August	22,419	831	375	723	44,470
September	16,278	675	382	543	32,290
Water year 1945-46	643,296	10,800	18	1,762	1,276,000

a No gage-height record; discharge computed on basis of records for station at Notus, flow passing diversion dam as computed by Boise Project Board of Control, and recorded range in stage.

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, War Department datum - Boise River Surveys).

Records available.- April 1920 to September 1946.

Average discharge.- 24 years (1920-22, 1924-46), 1,098 second-feet.

Extremes (regulated).- Maximum discharge during year, 11,500 second-feet during period of no gage-height record (gage height, 8.61 feet, from recorded range in stage); minimum, 27 second-feet Aug. 12 (gage height, 0.33 foot); minimum daily, 35 second-feet Aug. 12. 1920-46: Maximum discharge, 20,500 second-feet Apr. 20, 1943 (gage height, 10.43 feet); minimum observed, 10 second-feet Aug. 18, 21, 1920.

Remarks.- Records good except those for period of no gage-height record, which are fair. Station is below all large diversions for irrigation in Boise Valley; many diversions above. Flow regulated by Arrowrock Reservoir (see p. 141).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	362	864	727	1,240	637	746	3,050	8,810	4,230	394	47	57
2	318	879	708	1,070	648	708	3,120	7,570	4,040	253	49	51
3	240	857	796	1,030	654	666	5,530	6,670	3,950	164	48	59
4	208	842	708	942	631	620	9,390	6,240	3,850	147	52	68
5	191	864	708	992	604	599	9,090	6,240	3,950	160	48	65
6	198	887	714	1,000	620	615	a9,610	6,450	4,320	132	48	74
7	203	872	720	864	693	654	a10,000	6,450	4,320	143	47	78
8	177	857	702	799	648	604	a10,400	6,450	3,000	122	46	128
9	169	857	689	799	599	604	a10,300	7,110	1,620	108	39	174
10	160	879	677	739	604	572	a9,350	7,110	1,230	93	37	174
11	180	903	677	720	609	631	a8,280	6,890	966	68	36	146
12	240	864	677	696	589	631	a8,170	6,450	903	62	35	136
13	274	895	666	620	572	828	a8,410	6,240	854	61	38	125
14	355	821	660	631	578	883	a8,360	5,240	730	60	39	133
15	318	821	654	660	583	604	a8,420	6,030	716	62	36	130
16	327	793	648	666	552	594	a8,400	6,030	550	61	106	161
17	331	772	714	677	746	539	a8,350	5,820	632	60	45	248
18	372	759	683	671	677	504	a9,190	5,820	518	53	42	354
19	402	759	654	648	509	491	a9,470	5,820	444	51	45	425
20	405	766	666	648	523	523	a9,690	5,820	332	48	39	382
21	440	752	759	631	542	720	a9,760	5,610	253	48	36	279
22	473	733	806	671	583	588	a9,030	5,010	237	46	38	248
23	850	727	958	739	588	609	a8,490	2,110	285	50	40	215
24	854	727	786	702	583	1,450	a7,930	1,470	545	48	44	199
25	835	746	708	793	631	2,660	a7,800	1,380	534	52	46	195
26	821	746	708	739	666	2,580	a7,900	1,520	458	50	49	205
27	821	733	786	689	609	2,580	a8,000	2,000	487	48	49	273
28	799	727	1,220	648	720	2,900	a8,300	2,760	468	46	58	362
29	766	746	1,480	666	-	3,240	a9,000	3,590	416	42	66	339
30	786	727	1,740	643	-	3,470	a9,200	4,140	394	49	56	321
31	842	-	1,480	631	-	3,220	-	4,230	-	52	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,727	864	160	443	27,230
November	24,175	903	727	806	47,950
December	25,279	1,740	648	815	50,140
Calendar year 1945	315,196	4,870	35	864	625,200
January	23,864	1,240	620	763	46,940
February	17,187	746	509	614	34,090
March	36,432	3,470	491	1,175	72,260
April	252,000	10,400	3,060	8,400	499,800
May	164,080	8,810	1,380	5,293	325,400
June	45,342	4,320	237	1,511	89,930
July	2,823	394	42	91.1	5,600
August	1,466	106	35	47.3	2,910
September	5,804	425	51	193	11,510
Water year 1945-46	611,979	10,400	35	1,677	1,214,000

a No gage-height record; discharge computed on basis of recorded range in stage, inflow studies, and records for station at Boise.

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 1919-46 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 1946

Canal	Diversion
Main canal of Bureau of Reclamation (New York)	*715,500
Penitentiary	2,190
Ridenbaugh	153,200
Bubb (South Boise Mutual Irrigation Co.)	5,130
Consumers Water Corp. (Cruzen)	6,670
Boise City Canal Co. (No. 1)	9,270
Settlers Irrigation District	46,690
Thurman Mill	9,010
Farmers Union Ditch Co. (includes Boise Valley Irrigation Canal Co. diversion)	57,640
New Union Ditch Co. (Little Union)	3,950
New Dry Creek Ditch Co	19,060
Ballantine Ditch Co	4,040
Eagle Island canals (8)	13,660
Middleton Irrigation Association and Middleton Mill Ditch Co	47,320
Phyllis	106,900
Eureka Water Co. (No. 1)	8,260
Pioneer Ditch Co. (Little Pioneer)	10,600
Canyon County Water Co	20,190
Caldwell High Line	18,680
Riverside Irrigation District, Ltd. (No. 2)	43,240
Farmers Cooperative Ditch Co	92,370
Canyon Ditch Co. (Campbell)	5,890
Seibenberg Cooperative Ditch Co	2,640
Pioneer Dixie Ditch Co	13,360
Eureka Ditch Co. (No. 2)	19,510
Upper Center Point	4,400
Lower Center Point	3,760
Miscellaneous	7,760
Total	1,451,000

* Total as furnished by watermaster from a separate computation made for operational purposes and may differ slightly from the quantity computed by Survey at end of year and published as New York Canal near Barber (see p. 154).

Combined monthly discharge of canals diverting from Boise River, Idaho, during irrigation seasons of 1945 and 1946

Month	Discharge in second-feet			Runoff in acre-feet
	Maximum	Minimum	Mean	
April 1945	4,896	0	1,807	107,500
May	5,719	3,256	4,834	297,200
June	5,481	4,372	5,077	302,100
July	4,824	3,879	4,472	275,000
August	3,836	2,915	3,549	218,200
September	2,911	1,167	2,239	133,200
The period	-	-	-	1,333,200
April 1946	5,486	691	2,570	152,900
May	5,769	5,362	5,599	344,300
June	5,619	4,510	5,204	309,700
July	4,635	3,267	4,415	271,500
August	3,964	2,968	3,673	225,900
September	3,213	1,001	2,465	146,700
The period	-	-	-	1,451,000

South Fork Boise River near Featherville, Idaho

Location.- Water-stage recorder, lat. 43°29'40", long. 115°18'20", in lot 6, NE¼ sec. 19, T. 2 N., R. 10 E., 2½ miles upstream from Deer Creek and 8 miles southwest of Featherville.

Drainage area.- 635 square miles.

Records available.- April 1945 to September 1946.

Extremes.- Maximum discharge during year, 4,210 second-feet Apr. 27 (gage height, 6.66 feet); minimum recorded, 126 second-feet Dec. 2 (gage height, 1.40 feet).
1945-46: Maximum discharge, that of Apr. 27, 1946; minimum recorded, that of Dec. 2, 1945.

Remarks.- Records excellent except those for period of ice effect, which are fair, and those for period of no gage-height record, which are poor. Small ranch diversions above station. No regulation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	206	230	170			233	671	2,760	2,450	1,110	410	217
2	203	220	160			220	677	2,620	2,470	1,110	365	212
3	200	217	180	a320		220	653	2,780	2,730	1,070	344	209
4	195	217	236			220	617	3,140	3,120	1,000	327	217
5	192	217	252		a210	212	641	3,550	3,190	954	315	252
6	192	223	239			236	702	3,740	3,050	905	304	242
7	192	203	233			233	824	3,700	2,700	850	296	226
8	190	198	206	a240		214	940	3,510	2,490	818	284	230
9	190	172	187		*206	239	919	3,190	2,480	779	266	239
10	190	206	187		206	266	838	2,970	2,540	734	246	223
11	195	233	195		209	331	838	2,720	2,380	696	239	214
12	195	236	198		212	387	1,150	2,640	2,170	659	242	206
13	200	230	198	a200	200	396	1,500	2,660	2,080	623	236	200
14	206	223	b195		198	361	2,000	2,650	2,120	595	233	198
15	195	239	b185		209	352	2,310	2,620	2,090	573	236	192
16	187	239	b190		217	315	2,730	2,700	2,000	542	230	217
17	192	233	b190		212	300	3,320	3,390	1,870	522	226	242
18	203	220	b195	a210	214	311	3,770	3,160	1,720	502	223	230
19	198	236	b200		214	340	3,900	3,260	1,650	482	220	223
20	192	217	b195		220	462	3,730	3,170	1,640	467	206	217
21	192	170	b220		214	492	3,210	3,130	1,670	452	212	214
22	195	180	b250		209	497	2,840	3,210	1,690	424	230	206
23	190	217	270		206	487	2,810	2,970	1,660	405	259	192
24	192	220	259		212	472	3,090	2,790	1,570	387	281	190
25	195	242	259		230	419	3,520	2,700	1,370	382	263	190
26	198	252	252	a220	217	443	4,000	3,030	1,290	374	288	195
27	203	246	246		217	573	3,920	3,270	1,230	361	249	192
28	200	242	274		230	677	3,600	3,270	1,200	348	252	190
29	200	239	512		-	905	3,490	3,000	1,150	335	246	187
30	217	220	537		-	805	3,150	2,700	1,110	369	236	187
31	252	-	396		-	721	-	2,530	-	492	223	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,147	252	187	198	0.312	0.36	12,190
November	6,637	252	170	221	.348	.39	13,160
December	7,466	537	160	241	.330	.44	14,810
Calendar year	-	-	-	-	-	-	-
January	7,270	-	-	235	.370	.43	14,420
February	5,932	-	-	212	.334	.35	11,770
March	12,339	905	212	398	.627	.72	24,470
April	66,360	4,000	617	2,212	3.43	3.89	131,600
May	93,530	3,740	2,530	3,017	4.73	5.48	185,500
June	60,880	3,190	1,110	2,029	3.23	3.57	120,800
July	19,320	1,110	335	623	.931	1.13	38,320
August	8,187	410	206	264	.416	.48	16,240
September	6,349	252	187	212	.334	.37	12,590
Water year 1945-46	300,417	4,000	160	823	1.30	17.61	595,900

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

Anderson Ranch Reservoir at Anderson Ranch Dam, Idaho

Location.- Staff gage, lat. 43°21'30", long. 115°27'10" in SE¼ sec. 1, T. 1 S., R. 8 E., on inlet structure of outlet works of dam on South Fork Boise River, 1½ miles downstream from Camas Creek and 3 miles northwest of Bennett (Dixie Store). Datum of gage is at mean sea level (surveys by Bureau of Reclamation).
Drainage area.- 980 square miles.
Records available.- December 1945 to September 1946.
Extremes.- Maximum contents observed during period, 81,000 acre-feet June 24 (elevation, 4,070.1 feet); minimum, no usable contents prior to Jan. 27.
Remarks.- Reservoir is formed by earth-fill dam, under construction. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-feet between elevations 3,992 and 4,196 feet (top of spillway gates). Elevation of spillway crest, 4,174 feet, and of top of dam, 4,206 feet. Dead storage below 3,992 feet is 28,980 acre-feet. Figures given herein represent usable contents. Water is used for irrigation of lands in Boise Valley. Gage read once daily about 8 a.m.
Cooperation.- Gage readings and capacity table furnished by Bureau of Reclamation.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Prepared by Bureau of Reclamation from surveys and maps of the Bureau)

3,992	0	4,040	41,460	4,140	246,100
3,995	1,940	4,060	66,100	4,160	314,400
4,000	5,327	4,080	97,410	4,180	392,400
4,010	12,810	4,100	137,500	4,200	483,400
4,020	21,320	4,120	187,700		

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	3,272	20,870	26,550	16,770	34,670	73,110	2,870	-
2				0	4,017	21,500	23,060	15,010	-	72,080	2,803	2,006
3				0	-	-	19,270	14,760	32,190	71,060	2,620	1,940
4				0	5,117	22,780	16,010	16,600	33,630	69,760	-	1,940
5				0	5,607	23,430	12,330	-	35,620	68,620	2,466	2,006
6				0	6,526	24,180	9,844	21,960	37,740	67,350	2,466	2,072
7				0	7,101	24,930	-	23,800	38,940	-	2,420	2,138
8				0	7,682	25,690	8,492	24,460	42,580	64,440	2,336	-
9				0	8,270	26,360	8,492	24,270	-	62,410	2,204	2,072
10				0	-	-	8,418	23,430	51,520	60,290	2,204	2,138
11				0	9,389	28,000	8,122	21,960	56,170	57,950	-	2,138
12				0	9,996	29,180	8,344	-	59,630	55,800	2,136	2,072
13				0	10,610	30,470	9,616	19,710	61,080	53,450	2,072	2,072
14				0	11,070	31,680	-	19,360	62,410	-	2,006	2,006
15				0	11,700	32,910	12,410	20,070	63,760	44,950	2,006	-
16				0	12,250	34,150	14,510	21,140	-	39,480	2,006	1,940
17				0	-	-	17,710	22,420	68,200	34,360	-	2,006
18				0	13,530	36,360	19,890	24,550	70,190	30,670	-	2,006
19				0	14,100	37,320	22,230	-	72,370	27,320	2,006	2,072
20				0	14,840	38,500	24,180	29,180	75,190	23,990	1,940	2,072
21				0	15,420	39,810	-	30,270	77,760	-	1,940	2,072
22				0	16,090	41,130	22,510	30,470	80,540	18,400	1,940	-
23				0	16,770	42,240	20,430	30,780	-	16,010	1,940	2,072
24				0	-	-	20,430	30,270	81,000	11,620	2,072	2,006
25				0	18,050	42,470	19,450	29,970	80,850	8,048	-	2,006
26				0	18,660	41,910	20,160	-	80,220	5,887	2,204	1,940
27				-	19,320	40,360	21,690	34,460	78,680	4,565	2,204	1,940
28				896	19,980	38,280	-	36,040	77,000	-	2,136	1,940
29				1,546	-	35,720	20,160	37,320	75,190	3,205	2,204	-
30				2,072	-	33,010	18,750	37,640	-	2,803	2,136	1,940
31				2,669	-	-	-	35,830	-	2,870	2,136	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	-	0	-
Oct. 31	-	0	0
Nov. 30	-	0	0
Dec. 31	3,955.3	0	0
Calendar year 1945...	-	-	0
Jan. 31	3,996.1	2,669	+2,669
Feb. 28	4,018.5	19,980	+17,311
Mar. 31	4,032.1	33,010	+13,030
Apr. 30	4,017.1	18,750	-14,260
May 31	4,034.8	35,830	+17,080
June 30	-	a74,150	+38,320
July 31	3,996.4	2,870	-71,280
Aug. 31	3,995.3	2,138	-732
Sept.30	3,995.0	1,940	-198
Water year 1945-46...	-	-	+1,940

† Elevation at about 8 a.m.
a No gage reading; contents interpolated.

South Fork Boise River at Anderson Ranch Dam, Idaho

Location.- Water-stage recorder, lat. 43°20', long. 115°29', in SW¼ sec. 11, T. 1 S., R. 8 E., 600 feet upstream from Dixie Creek, 1½ miles downstream from Anderson Ranch Reservoir, and 2¼ miles northwest of Bennett (Dixie store).

Drainage area.- 992 square miles (including that of Dixie Creek).

Records available.- April 1943 to September 1946 (include flow of Dixie Creek).

Extremes.- Maximum discharge during year, 6,170 second-feet Apr. 27 (gage height, 8.28 feet); minimum observed, 4.7 second-feet Dec. 26 (discharge measurement), but may have been less during period of no gage-height record when gates in dam were closed.
1943-46: Maximum discharge, 9,100 second-feet Apr. 17, 1943 (gage height, 10.06 feet); minimum observed, that of Dec. 26, 1945.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are poor. Some water stored in Little Camas Reservoir and diverted for irrigation of about 5,000 acres of land in vicinity of Mountain Home. Flow regulated by Anderson Ranch Reservoir beginning Dec. 15, 1945.

Cooperation.- Water-stage recorder inspected by Bureau of Reclamation.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second feet)
(Shifting-control method used May 30 to June 6, June 12-17, June 23 to July 28)

1.8	90	2.7	320	5.0	1,960
2.0	128	3.0	450	6.0	3,000
2.2	170	3.5	730	7.0	4,300
2.4	220	4.0	1,090	8.3	6,200

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	268	310	244				2,700	5,200	3,650	1,830	535	306
2	260	296	b210		a5		3,120	4,360	3,580	1,820	500	296
3	260	292	b240				2,610	3,500	3,050	1,620	470	282
4	254	292	*b310			a7	3,080	3,450	2,750	1,810	436	279
5	254	286	b330		*5		2,680	3,910	2,900	1,600	414	292
6	250	299	b320				2,260	4,500	2,980	1,780	392	306
7	250	286	313			*7	1,810	4,900	1,910	1,770	378	306
8	250	266	264				1,780	4,960	1,210	1,890	364	306
9	250	250	b250			a7	1,750	4,920	598	2,080	352	310
10	247	264	b250				1,710	4,760	616	2,020	336	313
11	250	302	b260			a8	1,560	4,610	852	1,990	324	310
12	254	313	b260			a10	1,390	4,100	1,520	1,950	313	306
13	257	306	b260		a5	a12	2,570	3,950	1,780	2,620	306	299
14	268	302	b260				2,870	3,390	1,780	2,780	299	286
15	254	316	b250	a5		a10	3,200	3,070	1,460	3,110	292	282
16	250	324	b250				3,250	3,010	1,180	3,250	292	282
17	254	316	b250				4,060	2,990	1,070	2,680	288	292
18	264	302	54			61	5,020	3,060	912	2,300	282	302
19	264	320				104	5,360	3,160	600	2,160	282	310
20	257	299				145	5,620	3,450	480	2,040	278	310
21	257	247	a5			215	5,620	3,820	490	1,890	274	306
22	264	b250				292	5,420	4,060	1,160	1,750	274	302
23	260	b290			a6	561	4,450	4,030	1,900	2,280	285	299
24	260	b310				800	5,520	3,820	1,900	2,390	316	292
25	260	b360				*854	5,450	2,400	1,910	1,870	332	285
26	260	340	*5			1,470	5,580	3,410	2,170	1,310	340	282
27	271	328	a5		a7	1,870	5,900	3,480	2,340	968	336	278
28	268	320	a7			2,210	6,040	3,540	2,320	751	328	278
29	268	316	a12		-	2,510	5,880	3,530	2,040	610	328	278
30	285	302	a7		-	2,790	5,600	3,910	1,880	525	320	274
31	332	-	a5		-	2,840	-	3,890	-	530	313	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,100	332	247	261	16,070
November	9,010	360	247	300	17,870
December	4,651	330	-	150	9,230
Calendar year 1945	273,165	3,850	-	748	541,800
January	155	-	-	5	307
February	151	-	-	5.4	300
March	16,862	2,840	-	544	33,450
April	113,860	6,040	1,390	3,795	225,800
May	119,160	5,200	2,400	3,844	236,400
June	52,948	3,650	480	1,765	105,000
July	58,334	3,250	525	1,882	115,700
August	10,579	535	274	341	20,980
September	9,850	313	274	295	17,550
Water year 1945-46	402,660	6,040	-	1,103	798,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of 3 discharge measurements, weather records, and records for station near Lenox.
b Stage-discharge relation affected by ice.

South Fork Boise River near Lenox, Idaho

Location.- Water-stage recorder, 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 1946.

Average discharge.- 35 years, 966 second-feet.

Extremes.- Maximum discharge during year, 6,370 second-feet Apr. 27 (gage height, 8.22 feet); minimum, 26 second-feet (regulated) Feb. 6 (gage height, 1.02 feet).
1911-46: Maximum discharge, 9,550 second-feet Apr. 17, 1943 (gage height, 10.05 feet); minimum, that of Feb. 6, 1946.

Remarks.- Records excellent except those for periods of ice effect 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. Storage in Anderson Ranch Reservoir began Dec. 15, 1945.

Rating table, water year 1945-46, except period of ice effect
(gage height, in feet, and discharge in second-feet)
(Shifting-control method used Aug. 22 to Sept. 30)

1.1	32	2.3	298	4.5	1,520
1.3	54	2.5	415	5.0	1,980
1.5	84	3.0	588	6.0	3,060
1.7	120	3.5	845	7.0	4,430
2.0	196	4.0	1,140	8.2	6,340

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	294	356	a290	86	41	64	a2,610	5,460	3,770	1,810	583	348
2	291	328	a250	74	41	64	3,340	a4,700	3,700	1,790	556	340
3	287	321	a290	74	41	64	a2,800	a3,700	3,300	1,780	524	321
4	280	321	a340	68	41	64	a3,300	a3,600	2,800	1,780	498	317
5	276	317	a360	71	41	70	3,130	a4,000	2,980	1,770	469	325
6	273	325	a360	60	40	79	2,730	4,440	3,040	1,760	444	332
7	273	321	a350	44	40	86	a2,200	4,800	2,390	1,750	423	344
8	269	298		b54	39	*87	a2,200	4,980	1,490	1,790	411	344
9	269	280		b50	39	92	a2,100	a5,000	680	2,050	399	344
10	269	280		b45	40	103	a2,100	a4,900	670	2,030	387	344
11	269	340		b45	40	144	a2,000	a4,700	746	2,000	375	348
12	273	348	a290	b43	39	167	a1,800	a4,200	1,400	1,970	363	344
13	273	348		b43	38	190	2,960	a4,000	1,800	2,520	356	336
14	284	336			39	184	3,130	a3,500	1,810	2,830	344	325
15	280	348			39	170	3,410	a3,200	1,630	3,040	336	321
16	273	367			38	150	a3,500	a3,100	1,200	3,340	328	313
17	269	356			38	135	4,140	3,090	1,140	2,840	328	317
18	273	344	a120	a43	38	142	5,230	3,160	990	2,350	321	332
19	294	359	a80		38	238	5,620	3,280	735	2,240	321	340
20	291	340	a50		42	344	5,940	3,490	542	2,110	321	345
21	284	284			47	502	6,030	3,860	538	1,960	313	340
22	287	291		42	47	560	5,840	4,160	874	1,800	309	336
23	291	a340		42	47	705	a4,800	4,130	1,870	2,120	313	332
24	287	a360	a40	42	49	1,040	a5,500	3,960	1,860	2,520	336	325
25	287	a410		42	73	947	5,600	2,540	1,860	2,000	371	317
26	287	a380		42	70	1,470	5,700	3,410	2,020	1,420	375	309
27	291	a370	*52	42	71	1,810	5,950	3,500	2,310	1,060	375	302
28	298	a360	91	42	67	a2,400	6,270	3,570	2,300	828	379	302
29	294	a350	164	41	-	a2,700	6,080	3,610	2,120	685	379	298
30	309	a330	124	41	-	a3,100	5,840	3,910	1,830	593	367	298
31	352	-	91	41	-	a3,000	-	4,030	-	565	359	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,827	352	269	285	17,510
November	10,108	410	280	337	20,050
December	6,152	360	-	198	12,200
Calendar year 1945	292,452	3,710	-	801	580,100
January	1,518	86	-	49.0	3,010
February	1,263	73	38	45.1	2,510
March	20,871	3,100	64	673	41,400
April	121,850	6,270	1,800	4,062	241,700
May	121,980	5,460	2,540	3,935	241,900
June	54,395	3,770	538	1,813	107,900
July	59,101	3,340	565	1,906	117,200
August	11,963	583	309	386	23,730
September	9,839	348	298	328	19,520
Water year 1945-46	427,867	6,270	-	1,172	848,600

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station at Anderson Ranch Dam.
b Stage-discharge relation affected by ice.

Lime Creek near Bennett, Idaho

Location.- Water-stage recorder, lat. 43°25', long. 115°16', in SW¼NE¼ sec. 16, T. 1 N., R. 10 E., 0.4 mile above flow line of Anderson Ranch Reservoir, 2 miles upstream from mouth, and 12 miles northeast of Bennett.

Drainage area.- 131 square miles.

Records available.- June 1945 to September 1946.

Extremes.- Maximum discharge during year, 1,180 second-feet Apr. 19 (gage height, 6.11 feet), from rating curve extended above 680 second-feet; minimum, 10 second-feet Jan. 22 (gage height, 2.06 feet), ice jam upstream.
1945-46: Maximum discharge, that of Apr. 19, 1946; minimum, 9 second-feet Aug. 25, 1945.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	25	20	55		30	139	439	159	48	26	22
2	18	23	b19	53		32	150	412	150	46	25	22
3	18	24	b22	52		34	146	409	144	45	24	24
4	18	24	b29	39		32	150	422	139	44	24	26
5	18	24	*31	42	a30	34	166	446	137	43	24	30
6	a18	25	29	32		36	192	442	135	42	24	27
7	a18	20	28	32		32	228	415	125	41	24	26
8	a18	20	24	37		35	248	390	115	39	23	27
9	a18	17		33		36	243	366	108	40	23	29
10	a18	28				41	221	372	102	38	22	26
11	a20	28			*30	51	236	328	99	37	21	25
12	a20	26		b29	28	62	337	209	94	36	22	24
13	a22	26			31	62	474	295	89	35	21	24
14	a24	25	b23		31	54	600	284	83	34	21	24
15	a23	27			32	52	640	276	78	33	22	24
16	a22	27			31	44	728	269	75	32	21	26
17	a23	25			30	45	768	266	74	32	21	28
18	24	22		b30	30	50	822	266	74	31	21	28
19	20	28			30	60	886	258	70	30	21	27
20	20	19			30	95	804	246	66	30	21	26
21	20	b15	b26		30	95	684	238	64	28	21	26
22	22	b16	b30		30	91	616	250	63	28	22	26
23	19	b19	33		29	89	596	233	62	28	27	26
24	21	b25	32	b32	31	86	604	216	66	26	29	26
25	21	b30	31		32	78	624	202	59	26	24	26
26	21	32	29		30	80	628	228	57	26	24	26
27	20	32	29		32	102	586	240	54	26	23	26
28	20	31	36		32	129	558	218	53	26	24	26
29	20	31	144	a30	-	162	548	194	52	25	24	26
30	25	24	125		-	139	512	180	50	26	24	26
31	29	-	74		-	133	-	166	-	33	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	636	29	18	20.5	0.156	0.18	1,260
November	738	32	15	24.6	.188	.21	1,460
December	1,067	144	-	34.4	.263	.30	2,120
Calendar year	-	-	-	-	-	-	-
January	1,043	55	-	33.6	.256	.30	2,070
February	849	-	-	30.3	.231	.24	1,680
March	2,101	162	30	67.8	.518	.60	4,170
April	14,137	886	139	471	3.60	4.01	28,040
May	9,275	446	166	299	2.28	2.53	18,400
June	2,696	159	50	89.9	.686	.77	5,350
July	1,054	48	25	34.0	.260	.30	2,090
August	719	29	21	23.2	.177	.20	1,430
September	775	30	22	25.8	.197	.22	1,540
Water year 1945-46	35,090	886	15	96.1	.734	9.96	69,610

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for South Fork Boise River near Featherville.
b Stage-discharge relation affected by ice.

Fall Creek near Anderson Ranch Dam, Idaho

Location.- Water-stage recorder, lat. 43°26'00", long. 115°23'10", in SE¼ sec. 9, T. 1 N., R. 9 E., 1½ miles below Mill Creek and 6 miles northeast of Anderson Ranch Dam.

Drainage area.- 55.3 square miles.

Records available.- April 1945 to September 1946.

Extremes.- Maximum discharge during year, 793 second-feet Apr. 17 (gage height, 5.84 feet) minimum, 14 second-feet Oct. 9, 10, Nov. 21, but may have been less during period of ice effect; minimum gage height recorded, 2.51 feet Oct. 10.
1945-46: Maximum discharge, that of Apr. 17, 1946; minimum recorded, 13 second-feet Sept. 15, 1945 (gage height, 2.45 feet), 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 poor. No diversion or regulation.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.5	14	3.2	56	4.5	275
2.7	20	3.5	89	5.0	440
2.9	30	4.0	160	5.6	685

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	19	b17	52		20	74	386	183	58	f26	
2	15	18	b16	45		20	77	378	185	55	23	
3	15	18	a17	39		20	78	425	192	54	a22	
4	15	18	a18	36		20	77	488	200	53	a22	
5	15	18	a19	33	a22	20	84	552	194	52	a22	
6	15	18	a18	29		21	96	532	183	f51	a22	
7	15	17	*b17	b30		20	118	476	170	48	a22	
8	15	16		b28		21	131	425	160	46	h21	
9	14	b15		b24		22	118	378	153	45		a18
10	14	17			*22	25	108	352	148	43		
11	15	17			22	33	118	335	140	40		
12	15	17			b21	36	173	326	132	39		
13	15	17		b21	b23	36	259	320	128	36		
14	a17	17	b17		b23	32	358	295	122	36	a18	
15	a16	b18			b23	31	410	284	117	f35		
16	a15	18			b21	30	484	281	111	f34		
17	a16	b18			b20	29	592	292	106	32		19
18	16	18		a22	20	28	644	310	102	f32		18
19	16	18			20	30	632	301	96	f30		18
20	16	b16			20	45	544	284	91	28		18
21	16	b14			20	47	456	275	88	28		17
22	16	b15			20	48	414	278	85	27		17
23	16	b16			20	50	429	248	84	26		17
24	16	b17	b19		20	50	500	233	82	25		17
25	16	18		a23	20	*47	596	233	76	25	h19	17
26	16	19			20	49	680	262	72	25		17
27	16	19	20		20	62	616	262	68	24		16
28	16	19	21		20	75	548	246	66	24		16
29	16	19	74	a22	-	95	520	218	61	23		17
30	19	19	93		-	82	444	202	60	f36		17
31	20	-	67		-	76	-	190	-	f33		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	488	20	14	15.7	0.284	0.33	968
November	523	19	14	17.4	.315	.35	1,040
December	732	93	-	23.6	.427	.49	1,450
Calendar year	-	-	-	-	-	-	-
January	800	52	-	25.8	.467	.54	1,590
February	593	-	-	21.2	.383	.40	1,180
March	1,220	95	20	39.4	.712	.82	2,420
April	10,378	680	74	346	6.26	6.98	20,580
May	10,067	552	190	325	5.88	6.77	19,970
June	3,655	200	60	122	2.21	2.46	7,250
July	1,143	58	23	36.9	.667	.77	2,270
August	605	26	-	19.5	.353	.41	1,200
September	529	-	-	17.6	.318	.36	1,050
Water year 1945-46	30,733	680	14	84.2	1.52	20.98	60,970

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.
f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.

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 Fennett, and 22 miles northeast of Mountain Home.

Records available.- June to November 1917, April 1924 to September 1946.

Extremes.- Maximum discharge observed during year, 51 second-feet Aug. 3 (gage height, 2.32 feet); no flow during long periods.
1917, 1924-46: Maximum discharge observed, 77 second-feet Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.- Records fair. Gage read once daily. Canal diverts from Little Camas Reservoir (South Fork Boise River drainage) in sec. 9, T. 1 S., R. 9 E., and discharges into Long Tom Creek Basin, where water is stored in Long Tom Reservoir for irrigation of 5,000 acres of land near Mountain Home. No diversion above station. Flow regulated by head gates at Little Camas Reservoir.

Cooperation.- Gage readings furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	12	47	50	38
2								0	12	47	50	38
3								0	14	48	51	38
4								0	16	48	50	38
5								0	16	47	49	38
6								0	20	47	48	38
7								0	20	46	47	38
8								0	20	46	46	13
9								0	23	46	46	0
10								0	23	46	45	0
11								0	25	46	44	0
12								0	25	47	43	0
13								0	27	46	42	0
14								0	29	46	42	0
15								0	28	46	42	0
16								0	28	47	46	0
17								0	32	47	43	0
18								0	35	47	42	0
19								0	35	45	42	0
20								0	37	47	42	0
21								0	38	46	42	0
22								0	41	46	40	0
23								4	41	47	38	0
24								7	40	46	42	0
25								7	44	46	39	0
26								8	45	47	39	0
27								8	48	47	39	0
28								8	48	48	38	0
29								10	48	49	38	0
30								10	48	50	38	0
31								10	-	50	38	-

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 1945	4,919	53	0	13.5	9,757
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	72	10	0	2.3	143
June	918	48	12	30.6	1,820
July	1,455	50	46	46.9	2,890
August	1,341	51	38	43.3	2,660
September	279	38	0	9.3	553
Water year 1945-46	4,065	51	0	11.1	8,066

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 1946.

Average discharge.- 30 years (1916-46), 295 second-feet.

Extremes.- Maximum discharge observed during year, 3,990 second-feet Apr. 19 (gage height, 5.90 feet); minimum observed, 25 second-feet Aug. 22 (gage height, 0.46 foot). 1915-46: Maximum discharge, 6,610 second-feet Apr. 8, 1943 (gage height, 7.1 feet, from high-water mark); minimum observed, 7.9 second-feet Aug. 13-15, 17, 18, 1924.

Remarks.- Records good except those for Apr. 16 to May 31 and those for periods of ice effect, which are fair. Gage read once daily except Mar. 1 to July 6 when it was usually read twice daily. No large diversion above station.

Cooperation.- Gage readings and one discharge measurement furnished by Water District No. 12A.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	87	102	397	*139	288	1,080	1,450	586	176	48	34
2	53	87	86	348	147	293	1,090	1,340	574	158	49	30
3	50	83	64	311	147	288	1,080	1,350	569	154	48	32
4	50	80	110	282	126	296	1,010	1,400	558	147	45	34
5	50	80	110	305	122	320	1,120	1,540	564	141	45	36
6	50	91	*110	244	134	416	1,200	1,550	552	137	43	38
7	53	87	110	208	130	405	1,420	1,480	570	128	38	38
8	50	83	91	212	118	409	1,590	1,450	462	122	40	43
9	50	76	60	178	95	445	1,380	1,320	436	128	41	38
10	48	83	44	145	110	525	1,150	1,260	420	130	39	49
11	50	80	70	130	110	822	1,190	1,230	401	124	35	38
12	53	87	75	95	100	944	1,610	1,210	393	145	38	40
13	53	87	65	100	100	993	2,000	1,200	372	108	50	40
14	53	87	55	110	100	852	2,610	1,070	358	96	38	36
15	53	98	45	120	100	798	2,710	1,050	339	85	36	36
16	53	122	40	130	110	613	2,940	1,040	332	82	36	38
17	54	118	55	140	126	536	3,340	1,060	320	82	35	45
18	54	102	50	130	147	552	3,600	1,030	305	80	33	54
19	58	114	50	118	156	630	3,920	1,000	285	75	33	53
20	60	114	58	126	172	1,000	3,380	972	254	65	34	53
21	58	76	65	118	172	1,070	2,610	906	254	68	28	50
22	64	52	90	147	183	1,140	2,240	888	249	65	25	50
23	60	58	120	122	176	1,080	2,010	846	249	62	27	50
24	60	83	139	139	188	1,020	2,070	804	257	60	36	48
25	54	110	139	160	*263	864	2,330	786	238	59	36	43
26	60	106	143	143	257	834	2,680	870	236	60	36	46
27	60	134	139	134	274	1,080	2,410	882	218	62	36	48
28	64	126	245	126	302	1,320	2,080	822	205	59	34	48
29	60	122	550	134	-	1,620	1,990	750	195	104	34	50
30	66	134	550	134	-	1,340	1,750	668	178	43	45	43
31	102	-	450	139	-	1,140	-	630	-	43	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,756	102	48	56.6	0.133	0.15	3,480
November	2,847	134	52	94.9	.223	.25	5,650
December	4,060	550	40	131	.308	.35	8,050
Calendar year 1945	106,968	1,440	30	293	.688	9.34	212,200
January	5,325	397	95	172	.404	.46	10,560
February	4,304	302	95	154	.362	.38	8,540
March	23,933	1,620	288	772	1.81	2.09	47,470
April	61,590	3,920	1,010	2,053	4.82	5.38	122,200
May	33,854	1,550	630	1,092	2.56	2.96	67,150
June	10,929	586	178	364	.854	.95	21,680
July	3,048	176	43	98.3	.231	.27	6,050
August	1,194	53	25	38.5	.090	.10	2,370
September	1,281	54	30	42.7	.100	.11	2,540
Water year 1945-46	154,121	3,920	25	422	.991	13.45	305,700

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11-23, 28-31, Jan. 10-17, Feb. 9-16.

New York Canal near Barber, Idaho

Location.- Water-stage recorder in trapezoidal concrete-lined canal section, lat. 43°33', long. 116°07', in SE¼ NE¼ sec. 32, T. 3 N., R. 3 E., 1 mile south of Barber and 1¾ miles downstream from head gates at Boise River diversion dam and power plant.

Records available.- February 1939 to September 1946.

Extremes.- Maximum discharge during year, 2,940 second-feet May 28; maximum gage height, 9.29 feet June 14, 16; no flow for long periods during year.
1939-46: Maximum discharge, 2,980 second-feet May 10, 1945; maximum gage height, 9.34 feet June 10, 1945; no flow for long periods each year.

Remarks.- Records excellent. 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 Lake Lowell near Caldwell (see p. 155). Flow regulated by head gates.

Cooperation.- Eight discharge measurements furnished by Board of Control for Boise project.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	1,150		0	964	1,050	2,820	2,850	2,120	1,720	1,410
2	0	0	1,150		0	1,080	1,050	2,820	2,860	2,100	1,720	1,390
3	0	0	1,130		0	925	1,040	2,840	2,860	2,070	1,710	1,370
4	0	0	1,160		0	936	900	2,820	2,880	2,040	1,710	1,330
5	0	0	1,190		0	1,130	862	2,840	2,880	2,060	1,740	1,270
6	0	0	1,190		0	1,150	872	2,830	2,880	2,080	1,820	1,180
7	0	0	1,190		0	1,030	1,040	2,840	2,860	2,070	1,910	1,140
8	270	0	1,160		0	1,120	1,140	2,870	2,850	2,080	1,940	1,080
9	780	0	1,120		0	1,150	946	2,850	2,840	2,090	1,920	1,040
10	862	0	1,110		0	1,120	862	2,850	2,850	2,110	1,930	1,060
11	904	0	1,100		0	1,120	795	2,830	2,860	2,100	1,930	1,110
12	900	113	1,110		0	1,110	801	2,830	2,880	2,130	1,920	1,110
13	897	699	1,080		0	1,080	978	2,840	2,880	2,120	1,930	1,120
14	539	825	932		0	1,050	1,340	2,850	2,880	2,100	1,930	1,180
15	0	914	0		0	1,120	1,530	2,840	2,860	2,120	1,890	1,210
16	0	1,050	0		0	1,060	1,700	2,830	2,880	2,120	1,850	1,260
17	0	1,140	0		254	1,070	1,870	2,840	2,880	2,140	1,850	1,270
18	0	1,130	0		526	1,060	1,940	2,820	2,880	2,130	1,850	618
19	0	1,140	0		613	1,130	2,190	2,820	2,850	2,120	1,820	0
20	0	1,140	0		960	1,120	2,440	2,840	2,840	2,080	1,820	0
21	0	1,110	0		1,320	1,140	2,530	2,800	2,840	2,060	1,830	0
22	0	1,080	0		1,410	1,150	2,580	2,790	2,620	2,050	1,830	0
23	0	1,090	0		1,090	758	2,720	2,800	2,350	2,050	1,820	0
24	0	1,190	0		1,170	0	2,800	2,870	2,290	2,030	1,740	102
25	0	1,200	0		1,440	0	2,830	2,840	2,200	1,600	1,680	995
26	0	1,190	0		1,240	0	2,850	2,800	2,190	1,450	1,640	1,110
27	0	1,280	0		1,130	0	2,830	2,850	2,100	1,950	1,560	1,020
28	0	1,360	0		886	0	2,840	2,900	2,110	1,920	1,510	1,090
29	0	1,360	0		-	0	2,830	2,860	2,140	1,860	1,490	1,090
30	0	1,190	0		-	0	2,830	2,890	2,140	1,800	1,440	1,090
31	0	-	0		-	0	-	2,880	-	1,750	1,420	-

Month	Second-foot-days	Maxisum	Minimum	Mean	Runoff in acre-feet
October	5,152	904	0	166	10,220
November	20,201	1,360	0	673	40,070
Decomber	15,772	1,190	0	509	31,280
Calendar year 1945	427,143	2,890	0	1,170	847,200
January	0	0	0	0	0
February	12,039	1,440	0	430	23,880
March	24,573	1,150	0	793	48,740
April	52,986	2,850	795	1,766	105,100
May	88,000	2,900	2,790	2,839	174,500
June	80,280	2,880	2,100	2,676	159,200
July	62,500	2,140	1,450	2,016	124,000
August	54,880	1,940	1,420	1,770	108,900
September	27,645	1,410	0	922	54,830
Water year 1945-46	444,028	2,900	0	1,217	880,700

Lake Lowell near Caldwell, Idaho
(Formerly published as 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 SE¼ 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 NW¼ 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 1946.

Extremes.- Maximum contents observed during year, 175,600 acre-feet Apr. 19 (gage height, 29.84 feet); minimum observed, 12,470 acre-feet Oct. 20.
1917-46: 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; dam 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 drainage, reservoir receives water from Boise River through New York Canal of Boise project. Water is used for irrigation of lower project lands. Figures given herein represent usable contents. Gages read once daily.

Cooperation.- Gage readings and capacity table furnished by Board of Control for Boise project.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,980	16,380	60,080	91,600	91,960	111,500	154,700	166,800	144,300	126,800	82,430	41,620
2	16,650	16,650	62,510	91,600	91,960	113,500	155,400	165,600	145,200	125,400	81,070	40,910
3	16,420	16,950	64,670	91,670	91,960	115,100	157,100	164,500	146,000	123,900	79,780	40,400
4	15,780	17,240	66,610	91,740	91,960	116,600	158,900	163,400	146,600	122,300	78,370	39,890
5	15,560	17,530	69,020	91,820	91,960	118,400	160,700	162,200	146,600	121,000	76,960	39,210
6	15,810	17,820	71,200	91,820	91,960	120,300	162,200	161,100	146,200	119,600	75,510	38,440
7	15,390	18,170	73,470	91,820	91,960	122,200	163,500	160,000	145,900	118,000	74,080	38,030
8	15,070	18,390	76,100	91,820	92,170	124,000	164,900	158,700	145,800	116,500	72,750	37,400
9	14,760	18,690	78,170	91,820	92,240	126,100	166,800	157,400	145,600	114,800	71,330	36,910
10	14,270	18,880	80,320	91,820	92,240	128,000	168,000	156,200	145,300	113,300	69,140	36,420
11	13,970	19,130	82,780	91,820	92,320	130,000	169,200	154,900	145,700	111,600	67,620	35,700
12	13,840	19,370	84,500	91,820	92,390	132,100	169,800	154,000	145,800	110,100	66,110	34,980
13	13,650	19,730	86,580	91,820	92,390	134,100	170,200	153,100	145,900	108,700	64,550	34,270
14	13,490	20,410	89,040	91,740	92,390	136,000	171,000	152,300	145,800	107,100	62,880	33,560
15	13,350	22,330	90,600	91,740	92,390	138,000	172,300	151,400	145,700	105,400	61,350	32,750
16	13,260	24,480	90,890	91,740	92,390	140,200	173,800	150,400	145,400	103,900	59,780	31,940
17	12,940	26,970	90,890	91,740	92,390	142,100	174,500	149,300	145,100	102,100	58,040	31,210
18	12,700	29,160	90,820	91,740	92,390	143,900	175,400	148,200	144,400	100,300	56,860	30,680
19	13,230	31,590	90,820	91,670	92,390	145,900	175,600	147,200	144,000	98,790	55,450	30,230
20	12,470	34,100	90,740	91,670	93,680	147,500	175,400	146,200	143,500	97,470	53,950	29,600
21	13,100	36,500	90,740	91,670	95,280	149,600	175,200	145,100	142,800	96,150	52,690	28,960
22	13,430	38,830	90,740	91,670	97,540	151,600	174,900	144,000	141,900	94,920	51,100	28,130
23	13,690	40,880	90,740	91,740	99,610	153,700	174,400	143,200	140,500	93,680	49,590	27,560
24	13,980	43,500	90,740	91,820	101,800	155,300	174,000	142,200	138,800	92,240	48,320	26,780
25	14,260	45,940	90,740	91,890	103,600	155,500	173,200	141,500	137,100	90,820	47,500	26,120
26	14,510	48,320	90,740	91,960	105,900	155,600	172,000	141,300	135,400	89,390	46,370	25,460
27	14,810	50,880	91,600	91,960	107,900	155,200	170,900	141,200	133,700	88,480	45,450	25,140
28	15,070	53,030	91,600	91,960	110,000	154,900	169,900	141,500	132,100	87,420	44,780	24,510
29	15,330	55,630	91,600	91,960	-	154,900	168,900	141,800	130,300	86,510	43,780	23,890
30	15,610	57,980	91,600	91,960	-	154,700	167,800	142,600	128,600	85,050	43,080	23,350
31	16,070	-	91,600	91,960	-	154,500	-	143,400	-	83,810	42,200	-

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30 (upper)	6.15	17,110	-
Sept. 30 (lower)	6.10	-	-
Oct. 31 (upper)	5.86	16,070	-1,040
Oct. 31 (lower)	5.81	-	-
Nov. 30	14.67	57,980	+41,910
Dec. 31	19.80	91,600	+33,620
Calendar year 1945	-	-	+5,510
Jan. 31	19.85	91,960	+360
Feb. 28	22.27	110,000	+18,040
Mar. 31	27.59	154,500	+44,500
Apr. 30	29.03	167,800	+13,300
May 31	26.34	143,400	-24,400
June 30	24.59	128,600	-14,800
July 31	18.69	83,810	-44,790
Aug. 31 (upper)	11.90	42,200	-41,610
Aug. 31 (lower)	11.75	-	-
Sept. 30 (upper)	7.88	23,350	-18,850
Sept. 30 (lower)	7.60	-	+6,240
Water year 1945-46	-	-	+6,240

Malheur River near Drewsey, Oreg.

Location.- Water-stage recorder, lat. 43°47', long. 118°20', in SE¼ sec. 31, T. 20 S., R. 36 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 1946. April to September 1923, June 1926 to June 1939 at site 7 miles downstream. Records practically equivalent.

Average discharge.- 20 years (1926-46), 159 second-feet.

Extremes.- Maximum discharge during year, 2,960 second-feet Feb. 27 (gage height, 9.85 feet), from rating curve extended above 2,100 second-feet; minimum, 6.8 second-feet Aug. 21 (gage height, 2.45 feet).

1920-21, 1923, 1926-46: 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 fair except those for periods of ice effect, which are poor. Several small diversions above station for irrigation.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 20 to Nov. 18)

Oct. 1 to Dec. 28

2.6	17	3.6	157
2.7	25	4.0	243
2.9	45	4.5	363
3.1	72	5.4	602
3.3	103		

Dec. 29 to Sept. 30

2.4	5.0	3.2	76	5.5	655
2.5	8.5	3.4	110	6.0	820
2.6	14	3.7	168	7.0	1,225
2.7	20	4.1	260	7.7	1,570
2.8	28	4.5	365		
3.0	48	5.0	506		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	44	53	207	86	640	652	685	212	36	9.0	13
2	25	44	b50	181	93	527	568	574	196	29	9.0	14
3	25	45	52	178	b86	338	529	512	189	28	8.5	14
4	26	50	66	170	b65	333	500	474	178	28	8.5	16
5	28	46	80	191	b70	412	532	468	185	28	8.5	16
6	29	46	80	136	74	834	592	483	181	27	8.5	18
7	29	45	74	121	b66	705	625	474	172	25	8.2	20
8	30	42	62	121	*b62	535	664	442	160	24	8.2	19
9	30	42	*b56	107	b65	782	718	486	148	23	7.8	19
10	29	36	58	110	b65	872	619	503	138	25	7.8	19
11	28	54	b56	b100	b65	890	538	442	124	26	7.8	20
12	28	57	b52	*b86	b62	810	580	392	117	24	8.2	19
13	27	57	b47	b84	b63	1,410	722	365	114	24	8.5	18
14	25	54	b43	b81	b66	897	838	338	102	23	10	18
15	25	57	b45	b78	b70	568	1,000	306	96	22	12	16
16	25	61	b47	b74	b72	420	1,130	285	93	22	10	19
17	23	61	49	b79	b74	362	1,260	270	102	21	8.5	23
18	23	68	b46	b86	76	346	1,460	265	95	21	8.2	24
19	25	65	b43	b83	b90	603	1,540	268	78	20	8.2	26
20	30	71	b42	b84	b120	1,100	1,500	272	66	18	7.4	27
21	34	46	b50	b84	214	1,460	1,300	288	47	16	7.1	22
22	35	b41	b60	83	114	1,070	1,080	280	38	14	7.4	20
23	35	42	b70	90	117	802	941	335	41	15	7.4	22
24	37	68	b76	93	134	661	876	322	56	15	8.2	21
25	36	74	b80	b126	*142	532	876	288	54	13	7.4	25
26	37	76	b75	b100	203	515	911	282	45	12	10	25
27	36	74	*b78	b96	961	722	949	357	38	12	10	21
28	36	76	b590	b88	1,240	792	855	343	37	14	8.5	20
29	37	82	837	b83	-	788	764	308	36	12	9.0	18
30	41	87	639	b79	-	764	736	260	36	10	14	19
31	43	-	306	b83	-	640	-	231	-	10	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	941	43	23	30.4	1,870
November	1,711	87	36	57.0	3,390
December	3,962	837	42	128	7,860
Calendar year 1945	76,368.0	2,280	7.0	209	151,500
January	3,362	207	74	108	6,670
February	4,615	1,240	62	165	9,150
March	22,130	1,460	333	714	43,890
April	25,855	1,540	500	862	51,280
May	11,598	685	231	374	23,000
June	3,174	212	36	106	6,300
July	637	36	10	20.5	1,260
August	275.8	14	7.1	8.90	547
September	591	27	13	19.7	1,170
Water year 1945-46	78,851.8	1,540	7.1	216	156,400

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

Malheur River below Warmsprings 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 Warmsprings 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 1946. 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.- 34 years (1909-16, 1919-46), 173 second-feet.

Extremes.- Maximum discharge observed during year, 862 second-feet May 17-21 (gage height, 5.65 feet); no flow Mar. 10 to Apr. 19.
1906-7, 1908-17, 1919-46: Maximum discharge observed, 5,490 second-feet Mar. 2, 1910; no flow at times.
Revisions.- The maximum discharge for the water years 1944 and 1945 have been revised to 755 second-feet July 15-20, 1944 (gage height, 5.44 feet) and 745 second-feet July 10-17, 1945 (gage height, 5.42 feet), superseding figures published in Water-Supply Papers 1013 and 1043, respectively.

Remarks.- Records good except those for Apr. 21 to May 6, which are fair, and those for Oct. 18, 19, Apr. 19, 20, May 30, and below 50 second-feet, which are poor. Gage read once daily. Flow completely regulated since November 1919 by Warmsprings Reservoir (see p. 162). Several small diversions above station for irrigation.

Revisions.- Revised figures of discharge for the water years 1942-45, superseding those published in Water-Supply Papers 963, 983, 1013, 1043, are given herewith.

Discharge, in second-feet, 1941-46

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	194	7.0	7.0			0	30	515	63	138	348	386
2	198	7.0	7.0			0	30	485	13	141	348	338
3	198	7.0	7.0			0	30	460	5	171	333	315
4	198	7.0	7.0			0	384	475	8	228	329	315
5	198	7.0	7.0			0	425	435	10	236	329	333
6	180	7.0	0			0	1,100	435	10	252	460	362
7	162	7.0	0			0	1,390	214	14	306	525	362
8	140	7.0	0			0	1,570	49	12	338	525	376
9	132	7.0	0			0	1,540	76	12	367	525	381
10	120	7.0	0			0	1,550	110	34	425	510	381
11	111	7.0	0			0	1,550	259	52	435	500	310
12	100	7.0	0			0	1,580	292	52	435	525	274
13	94	7.0	0			0	1,590	317	65	410	535	257
14	94	7.0	0			0	1,600	595	96	406	545	252
15	94	7.0	0			0	1,630	595	105	425	535	228
16	81	7.0	0			0	1,590	595	105	415	535	240
17	74	7.0	0			0	1,570	376	105	415	535	270
18	74	7.0	0			4.0	1,590	584	105	415	535	283
19	74	7.0	0			4.0	1,470	795	105	415	535	283
20	74	7.0	0			8.0	1,170	745	105	415	535	283
21	33	7.0	0			8.0	1,260	765	108	415	570	292
22	8.5	7.0	0			8.5	1,230	765	127	415	580	301
23	7.0	7.0	0			13	510	765	158	415	595	301
24	7.0	7.0	0			13	435	745	182	415	600	301
25	7.0	7.0	0			14	440	735	197	401	600	288
26	7.0	7.0	0			14	470	675	212	391	585	279
27	7.0	7.0	0			16	495	585	201	391	580	266
28	7.0	7.0	0			16	510	510	178	391	555	252
29	7.0	7.0	0			18	545	352	171	391	495	252
30	7.0	7.0	0			22	515	110	151	391	485	240
31	7.0	-	0			30	-	110	-	362	410	-

Discharge, in second-feet, of Malheur River below Warmsprings Reservoir near Riverside, Oreg., 1941-46--Continued

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	2	2	2	2	87	1,550	248	406	410	445	495
2	232	2	2	2	2	87	1,550	248	406	410	445	460
3	232	2	2	2	2	87	1,550	248	406	410	445	450
4	216	2	2	2	2	87	1,550	248	406	410	445	450
5	197	2	2	2	2	87	1,550	537	367	410	445	450
6	182	2	2	2	2	87	1,550	846	224	410	445	450
7	182	2	2	2	2	87	1,860	934	208	410	445	450
8	182	2	2	2	2	87	1,860	934	208	420	445	440
9	182	2	2	2	2	87	1,860	874	208	445	445	391
10	182	2	2	2	2	87	1,860	790	208	445	445	362
11	134	2	2	2	52	138	1,850	555	208	445	445	362
12	39	2	2	2	87	138	1,850	376	216	445	445	362
13	39	2	2	2	87	138	1,850	376	224	445	445	362
14	39	2	2	2	87	472	1,850	406	224	445	455	362
15	39	2	2	2	87	775	1,850	406	208	445	490	362
16	39	2	2	2	87	835	1,850	410	208	445	490	362
17	39	2	2	2	87	835	1,850	410	208	445	495	362
18	39	2	2	2	87	630	1,850	410	208	445	515	362
19	39	2	2	2	87	540	1,850	406	208	445	515	352
20	26	2	2	2	87	540	1,850	352	208	445	515	343
21	5	2	2	2	87	376	1,850	310	208	445	515	343
22	5	2	2	2	87	376	1,850	333	208	445	515	343
23	5	2	2	2	87	376	1,850	406	240	445	515	329
24	5	2	2	2	87	376	1,850	406	324	445	515	315
25	4	2	2	2	87	570	1,540	406	324	445	515	315
26	2	2	2	2	87	710	794	406	310	445	515	297
27	2	2	2	2	87	874	306	406	292	445	515	274
28	2	2	2	2	87	1,370	248	406	292	445	515	274
29	2	2	2	2	-	1,550	248	406	292	445	515	244
30	2	2	2	2	-	1,550	248	406	315	445	485	232
31	2	-	2	2	-	1,550	-	406	-	445	510	-

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	3	3	3	3	3	3	168	490	470	560	490
2	232	3	3	3	3	3	3	367	352	495	525	490
3	232	3	3	3	3	3	3	391	232	575	510	490
4	232	3	3	3	3	3	3	435	232	610	490	490
5	232	3	3	3	3	3	3	435	232	610	475	465
6	232	3	3	3	3	3	3	460	232	610	455	450
7	220	3	3	3	3	3	3	535	232	625	435	430
8	212	3	3	3	3	3	3	535	240	655	435	410
9	212	3	3	3	3	3	3	545	257	690	435	406
10	212	3	3	3	3	3	3	560	288	690	435	410
11	190	3	3	3	3	3	3	600	288	690	435	425
12	175	3	3	3	3	3	3	610	252	695	435	430
13	67	3	3	3	3	3	3	625	137	720	435	430
14	d3	3	3	3	3	3	3	605	42	735	450	288
15	3	3	3	3	3	3	3	605	134	755	470	201
16	3	3	3	3	3	3	3	605	270	755	470	190
17	3	3	3	3	3	3	3	605	288	755	465	190
18	3	3	3	3	3	3	3	605	288	755	470	182
19	3	3	3	3	3	3	3	605	288	755	485	161
20	3	3	3	3	3	3	3	605	288	740	490	132
21	3	3	3	3	3	3	3	605	171	715	490	108
22	3	3	3	3	3	3	3	605	52	730	490	101
23	3	3	3	3	3	3	3	605	98	700	490	57
24	3	3	3	3	3	3	3	595	132	670	490	35
25	3	3	3	3	3	3	3	585	124	635	490	12
26	3	3	3	3	3	3	3	570	145	600	490	1
27	3	3	3	3	3	3	0	555	154	590	490	1
28	3	3	3	3	3	3	0	535	220	590	490	1
29	3	3	3	3	3	3	0	535	324	580	490	1
30	3	3	3	3	-	3	0	535	440	575	490	1
31	3	-	3	3	-	3	-	535	-	580	490	-

d Doubtful gage-height record; discharge interpolated.

Discharge, in second-feet, of Malheur River below Warmsprings Reservoir near Riverside, Oreg., 1941-46--Continued

1944-45

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	1	1	1	1	1	1	376	5	565	615	158
2	1	1	1	1	1	1	1	420	5	540	600	158
3	1	1	1	1	1	1	1	425	5	635	600	171
4	1	1	1	1	1	1	1	420	5	655	600	186
5	1	1	1	1	1	1	1	410	5	665	600	190
6	1	1	1	1	1	1	1	391	5	665	575	190
7	1	1	1	1	1	1	1	391	5	680	580	175
8	1	1	1	1	1	1	1	406	31	710	550	164
9	1	1	1	1	1	1	1	410	110	710	505	164
10	1	1	1	1	1	1	1	406	110	715	485	158
11	1	1	1	1	1	1	1	445	110	745	381	141
12	1	1	1	1	1	1	1	485	161	745	338	103
13	1	1	1	1	1	1	1	396	274	745	338	87
14	1	1	1	1	1	1	1	283	333	745	310	87
15	1	1	1	1	1	1	1	158	376	745	292	87
16	1	1	1	1	1	1	1	186	415	745	292	63
17	1	1	1	1	1	1	1	111	455	740	292	49
18	1	1	1	1	1	1	1	9	490	720	292	49
19	1	1	1	1	1	1	1	5	525	720	292	49
20	1	1	1	1	1	1	1	5	560	675	292	38
21	1	1	1	1	1	1	1	5	575	650	292	14
22	1	1	1	1	1	1	1	5	600	650	292	8
23	1	1	1	1	1	1	1	5	635	650	292	8
24	1	1	1	1	1	1	1	5	645	650	279	8
25	1	1	1	1	1	1	1	5	645	650	228	8
26	1	1	1	1	1	1	1	5	645	650	228	8
27	1	1	1	1	1	1	1	5	645	650	228	8
28	1	1	1	1	1	1	1	5	645	650	228	8
29	1	1	1	1	-	1	145	5	645	650	224	8
30	1	1	1	1	-	1	288	5	645	650	197	8
31	1	-	1	1	-	1	-	5	-	635	175	-

1945-46

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	1	1	1	1	1	0	530	94	196	515	480
2	8	1	1	1	1	1	0	560	65	204	560	480
3	8	1	1	1	1	1	0	570	49	292	615	470
4	8	1	1	1	1	1	0	530	49	292	535	450
5	8	1	1	1	1	1	0	495	62	279	535	425
6	8	1	1	1	1	1	0	475	81	270	535	406
7	8	1	1	1	1	1	0	625	110	288	535	396
8	8	1	1	1	1	1	0	730	175	306	535	381
9	8	1	1	1	1	1	0	730	193	306	535	357
10	8	1	1	1	1	0	0	735	204	306	545	343
11	8	1	1	1	1	0	0	730	232	306	550	343
12	8	1	1	1	1	0	0	730	257	306	565	343
13	8	1	1	1	1	0	0	730	266	292	570	329
14	8	1	1	1	1	0	0	795	288	306	590	329
15	8	1	1	1	1	0	0	830	301	333	615	333
16	8	1	1	1	1	0	0	830	315	338	630	333
17	8	1	1	1	1	0	0	852	324	338	620	333
18	8	1	1	1	1	0	0	862	338	338	615	333
19	1	1	1	1	1	0	0	862	357	338	615	333
20	1	1	1	1	1	0	21	862	381	338	615	333
21	1	1	1	1	1	0	26	840	406	348	615	297
22	1	1	1	1	1	0	29	820	420	362	615	240
23	1	1	1	1	1	0	68	780	420	367	615	208
24	1	1	1	1	1	0	68	690	420	367	615	232
25	1	1	1	1	1	0	68	620	406	367	615	220
26	1	1	1	1	1	0	68	555	372	396	615	208
27	1	1	1	1	1	0	87	367	367	435	615	197
28	1	1	1	1	1	0	21	224	343	455	600	178
29	1	1	1	1	-	0	240	123	329	495	520	178
30	1	1	1	1	-	0	391	d96	320	515	485	178
31	1	-	1	1	-	0	-	94	-	515	480	-

d Doubtful gage-height record; discharge interpolated.

Monthly discharge, in second-feet, of Malheur River below Warmsprings Reservoir near Riverside, Oreg., 1941-46

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1941	2,694.5	198	7.0	86.9	5,340
November	210.0	7.0	7.0	7.00	417
December	35.0	7.0	0	1.13	69
Calendar year 1941	86,486.5	1,500	0	237	171,500
January 1942	0	0	0	0	0
February	0	0	0	0	0
March	188.5	30	0	6.08	374
April	29,799	1,630	30	993	59,110
May	14,524	795	49	469	28,810
June	2,761	212	5	92.0	5,480
July	11,166	435	138	360	22,150
August	15,722	600	329	507	31,180
September	9,001	386	228	300	17,850
Water year 1941-42	86,101.0	1,630	0	236	170,800
October 1942	2,527	232	2	81.5	5,010
November	60	2	2	2.0	119
December	62	2	2	2.0	123
Calendar year 1942	85,810.5	1,630	0	235	170,200
January 1943	62	2	2	2.0	123
February	1,551	87	2	55.4	3,080
March	15,589	1,550	87	503	30,920
April	46,024	1,860	248	1,534	91,290
May	14,311	934	248	462	28,390
June	7,972	406	208	266	15,810
July	13,525	445	410	436	26,830
August	14,890	515	445	480	29,530
September	10,955	495	232	365	21,730
Water year 1942-43	127,528	1,860	2	349	253,000
October 1943	2,734	232	3	88.2	5,420
November	90	3	3	3.0	179
December	93	3	3	3.0	184
Calendar year 1943	127,796	1,860	2	350	253,500
January 1944	93	3	3	3.0	184
February	87	3	3	3.0	173
March	93	3	3	3.0	184
April	78	3	0	2.6	155
May	16,761	625	168	541	33,240
June	6,922	490	42	231	13,730
July	20,350	755	470	656	40,360
August	14,750	560	435	476	29,260
September	7,478	490	1	249	14,830
Water year 1943-44	69,529	755	0	190	137,900
October 1944	31	1	1	1.0	61
November	30	1	1	1.0	60
December	31	1	1	1.0	61
Calendar year 1944	66,704	755	0	182	132,300
January 1945	31	1	1	1.0	61
February	28	1	1	1.0	56
March	31	1	1	1.0	61
April	461	288	1	15.4	914
May	6,193	485	5	200	12,280
June	10,310	645	5	344	20,450
July	21,000	745	540	677	41,650
August	11,512	615	175	371	22,830
September	2,553	190	8	85.1	5,060
Water year 1944-45	52,211	745	1	143	103,500
October 1945	157	8	1	5.1	311
November	30	1	1	1.0	60
December	31	1	1	1.0	61
Calendar year 1945	53,987.9	755	1.0	148	107,100
January 1946	31	1	1	1.0	61
February	28	1	1	1.0	56
March	9	1	0	.3	18
April	1,087	391	0	36.2	2,160
May	19,272	862	94	622	38,230
June	7,944	420	49	265	15,760
July	10,594	515	196	342	21,010
August	17,820	630	480	575	35,350
September	9,666	480	178	322	19,170
Water year 1945-46	66,669	862	0	183	132,200

Malheur River near Hope, Oreg.

Location.- Water-stage recorder, lat. 43°57', long. 117°29', in SW¼ sec. 5, T. 19 S., R. 43 E., half a mile upstream from intake of Vines Canal and 6½ miles west of Hope.
Drainage area.- 3,030 square miles.
Records available.- May 1919 to September 1946 (incomplete prior to October 1922).
Average discharge.- 23 years (1922-25, 1926-46), 223 second-feet.
Extremes.- Maximum discharge during year, 2,440 second-feet Dec. 29; maximum gage height, 5.78 feet Dec. 28 (ice jam); minimum discharge determined, 30 second-feet Dec. 13 (may have been less at other times during period of ice effect Dec. 9-26).
1919-46: Maximum discharge, 8,100 second-feet Feb. 5, 1925 (gage height, 8.1 feet), from rating curve extended above 3,000 second-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 periods of ice effect, which are poor. Vale-Oregon Canal diverts at Namorf; no other large diversions above station, but many small ones. Flow regulated by Warmsprings and Agency Valley Reservoirs. (see following page).

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-14, July 21 to Sept. 30)

0.8	40	1.6	202	3.0	990
.9	51	1.8	274	3.5	1,450
1.0	64	2.0	356	4.0	1,950
1.2	96	2.3	510		
1.4	142	2.6	690		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	70	59	290		1,020	697	540	115	209	142	162
2	66	74	58	223		718	a670	528	127	189	137	162
3	67	68	55	199		528	a645	540	137	117	142	170
4	64	67	56	192		352	a630	429	145	173	21[illegible]	176
5	66	67	58	212		301	a590	384	137	176	164	164
6	66	66	58	212		484	a565	380	140	176	153	180
7	64	64	58	206		582	a560	419	113	186	148	170
8	63	63	55	159		429	a550	482	117	180	137	183
9	60	63	b45			466	a515	455	159	189	157	164
10	63	66	b50		b68	482	482	455	183	186	140	148
11	63	67	b51	(*)		516	466	445	192	196	142	142
12	67	67	b49			477	455	398	206	189	142	132
13	67	67	b45			600	445	394	241	186	140	127
14	66	67	b45			522	450	384	226	183	156	122
15	64	67	b45			394	504	380	223	170	160	137
16	64	66	b40			301	558	352	216	186	183	150
17	67	66	b45			259	558	343	220	234	206	140
18	72	64	b46		72	223	612	334	230	244	192	145
19	67	66	b44		79	241	588	330	216	212	167	148
20	70	63	b41	b78	98	516	642	339	212	206	170	148
21	63	61	b41		148	746	642	343	199	202	176	140
22	54	60	b45		170	838	642	317	209	220	183	140
23	49	56	b60		173	795	618	339	248	252	173	111
24	58	58	b65		196	767	528	305	286	252	159	100
25	66	63	b75		294	725	408	248	286	244	192	94
26	64	64	b90		322	666	313	317	278	256	189	100
27	66	64	137		504	606	230	322	252	259	186	98
28	64	64	b304		1,820	612	162	244	241	216	189	89
29	64	63	1,940		-	672	156	196	223	192	192	88
30	67	61	878		-	704	309	153	212	183	142	84
31	67	-	439		-	718	-	124	-	164	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,006	78	49	64.7	3,980
November	1,942	74	56	64.7	3,850
December	5,077	1,940	40	164	10,070
Calendar year 1945	66,322	1,940	31	182	131,600
January	3,487	290	-	112	6,920
February	5,032	1,820	-	180	9,980
March	17,260	1,020	223	557	34,230
April	15,190	697	156	506	30,130
May	11,219	540	124	362	22,250
June	5,989	286	113	200	11,880
July	6,227	259	117	201	12,350
August	5,124	212	130	165	10,160
September	4,114	183	84	137	8,160
Water year 1945-46	82,667	1,940	40	226	164,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of unpublished records for stations near Namorf and below Nevada Dam, near Vale.
b Stage-discharge relation affected by ice.

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 1946. Maximum contents observed during year, 193,800 acre-feet May 2, 3 (elevation, 3,406.60 feet); minimum observed, 57,900 acre-feet Oct. 1-4 (elevation, 3,363.18 feet). Maximum contents observed during period 1920-46, 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, not included in records presented. 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 1946. Maximum contents observed during year, 60,200 acre-feet May 27 (elevation, 3,340.15); minimum, 22,250 acre-feet (interpolated) Sept. 30. Maximum contents during period 1935-46, 62,770 acre-feet May 3, 1941 (elevation, 3,341.50 feet); minimum observed since full capacity was attained on Apr. 9, 1938, 18,060 acre-feet Feb. 19, 20, 1943 (elevation, 3,311.11 feet).

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 1945 to September 1946

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	3,369.10	57,680	-	3,321.71	30,480	-
Oct. 31	3,369.71	59,390	+1,710	3,319.07	27,080	-3,400
Nov. 30	3,371.13	63,380	+3,990	3,321.78	30,570	+3,490
Dec. 31	3,374.30	72,700	+9,320	3,325.12	35,200	+4,630
Calendar year 1945	-	-	+49,040	-	-	-3,060
Jan. 31	-	a81,240	+8,540	3,327.88	39,280	+4,080
Feb. 28	3,380.10	90,820	+9,580	3,330.52	43,350	+4,070
Mar. 31	3,394.40	141,100	+50,280	3,337.10	54,550	+11,200
Apr. 30	3,406.41	192,900	+51,800	3,337.45	55,190	+640
May 31	3,402.95	177,300	-15,600	3,340.00	59,920	+4,730
June 30	3,400.40	166,100	-11,200	3,330.45	43,240	-16,680
July 31	3,395.01	143,500	-22,600	3,316.57	24,060	-19,180
Aug. 31	3,384.35	104,800	-38,700	3,315.70	23,030	-1,030
Sept.30	-	a82,600	-22,200	-	a22,250	-780
Water year 1945-46	-	-	+24,920	-	-	-8,230

† Gage reading observed about 10 a.m.
‡ Gage reading observed about 7 a.m.
a No gage-height record; contents interpolated.

North Fork Malheur River above Agency Valley Reservoir, near Beulah, Oreg.

Location.- Water-stage recorder, lat. 43°58', long. 118°11', in sec. 33, T. 18 S., R. 37 E., at M. W. Scott's ranch, 3 miles upstream from Warm Springs Creek and 4 miles northwest of Agency Valley Dam and Beulah.

Records available.- January to September 1914, June 1936 to September 1946.

Average discharge.- 10 years, 126 second-feet.

Extremes.- Maximum discharge during year, 868 second-feet Apr. 19 (gage height, 3.85 feet), from rating curve extended above 420 second-feet; minimum recorded, 18 second-feet Nov. 20 (gage height, 0.10 foot), but may have been less during periods of ice effect.

1914, 1936-46: Maximum discharge recorded, 975 second-feet Mar. 26, 1940 (gage height, 4.60 feet); minimum recorded, 15 second-feet Jan. 15, 1944, but may have been less at times during periods of ice effect.

Remarks.- Records good except those for period of shifting-control, which are fair, and those for Dec. 9 to Feb. 19 and Aug. 23 to Sept. 2, which are poor. A few diversions above station for irrigation.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 13-31)

Oct. 1 to Apr. 19						Apr. 20 to Sept. 30					
0.3	30	1.0	122	2.1	350	0.5	38	1.2	137	2.5	440
.4	39	1.2	157	2.5	450	.6	47	1.5	195	3.0	590
.6	62	1.5	217	3.0	590	.8	71	1.8	265	3.6	780
.8	89	1.8	282	3.8	850	1.0	102	2.1	340		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	55	35	86		105	320	473	222	78	49	a56
2	43	56	44	81		102	297	430	208	82	48	a54
3	43	60	58	75		92	284	412	204	78	46	55
4	43	54	75	71		88	291	432	199	74	46	56
5	43	54	70	72		112	320	476	197	70	45	58
6	43	54	66	61		178	343	476	197	68	45	58
7	43	44	61	65		134	358	455	187	68	43	58
8	44	49	52	66		169	398	476	170	71	44	57
9	44	36		43		214	352	497	157	88	43	57
10	44	57		b45		228	318	446	151	78	41	55
11	44	60		b42	b37	225	320	412	146	74	41	52
12	46	57		*b37		357	400	390	144	71	42	50
13	46	55		36		390	465	370	137	67	42	50
14	46	52				217	533	352	128	66	42	49
15	46	55				186	569	332	128	63	41	49
16	46	52				141	623	315	119	59	42	56
17	47	51	ab50			141	710	302	133	59	41	57
18	48	47				174	798	302	124	57	41	57
19	50	58				286	822	302	116	57	39	56
20	52	33			95	566	780	300	109	55	41	54
21	51	34			82	459	671	292	102	54	41	52
22	55	41		b38	62	345	596	305	102	52	41	55
23	52	71			61	293	575	300	112	51	44	50
24	52	71			63	251	587	280	110	50	44	48
25	51	68			68	211	644	258	102	49	48	48
26	51	66			61	242	707	290	94	52	46	48
27	50	72	a100		102	336	662	298	89	61	44	48
28	50	71	a200		124	350	602	290	88	55	45	49
29	50	70	a300		-	414	605	275	91	51	49	49
30	55	44	a200		-	336	580	248	83	49	52	49
31	60	-	103		-	400	-	229	-	50	a56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,481	60	43	47.8	2,940
November	1,647	72	33	54.9	3,270
December	2,264	300	-	73.0	4,490
Calendar year 1945	42,524	533	-	117	84,360
January	1,464	86	-	47.2	2,900
February	1,421	124	-	50.8	2,820
March	7,742	566	88	250	15,360
April	15,510	822	284	517	30,760
May	11,015	497	229	355	21,850
June	4,149	222	83	138	8,230
July	1,957	88	49	63.1	3,880
August	1,372	56	39	44.3	2,720
September	1,590	58	48	53.0	3,150
Water year 1945-46	51,612	822	-	141	102,400

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Malheur River near Drewsey and Silvies River near Burns.
b Stage-discharge relation affected by ice.

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. Datum of gage is 3,262.47 feet above mean sea level, datum of 1929.
Drainage area.- 420 square miles.
Records available.- January 1936 to September 1946. March 1909 to June 1912 and 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.
Average discharge.- 11 years (1935-46), 129 second-feet.
Extremes.- Maximum discharge observed during year, 885 second-feet Apr. 29, 30 (gage height, 3.80 feet); minimum, about 1 second-foot during most of winter period.
1909-12, 1913-14, 1926-46: 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 prior to construction of dam, 5 second-feet Dec. 28, 1910, Jan. 26, 27, 1911.
Remarks.- Records good except those for September, which are fair, and those for Oct. 20 to Mar. 17, which are poor. Gage read once daily, twice daily at times. Flow regulated by Agency Valley Reservoir (see p. 162). Small diversions above station for irrigation; practically entire summer flow is diverted below station and above Juntura.
Cooperation.- Gage-height record furnished by Bureau of Reclamation.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

0.7	40	1.3	121	2.2	355
.9	63	1.6	184	2.6	475
1.1	90	1.9	267	3.6	815

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135						448	675	337	397	51	49
2	135						445	591	376	397	51	49
3	135						445	490	397	397	55	49
4	135						412	511	397	397	57	49
5	135						382	542	397	397	57	53
6	135						376	552	397	397	57	57
7	150						376	406	397	397	57	57
8	160						361	308	397	397	57	57
9	165					1	340	308	397	397	57	57
10	189						322	290	397	397	57	57
11	189						316	232	397	397	57	57
12	189						319	232	397	397	57	57
13	202						337	232	397	397	57	57
14	207						418	156	397	397	57	57
15	207						478	121	397	397	57	57
16	207	2	1	1	1		563	107	397	397	57	57
17	140						650	80	400	388	52	57
18	189					107	745	76	397	367	49	57
19	64					192	787	76	397	367	49	57
20						347	790	76	397	367	49	57
21						418	790	76	397	367	50	57
22						442	790	76	397	367	49	57
23						454	759	76	397	367	49	57
24						448	717	114	397	367	49	57
25	2					394	678	197	397	367	49	57
26						328	661	210	397	331	49	57
27						210	668	293	397	252	49	57
28						355	742	337	397	189	49	57
29					-	424	812	337	397	135	49	57
30					-	445	780	337	397	88	49	57
31		-			-	445	-	337	-	56	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,092	207	-	99.7	6,130
November	60	-	-	2	119
December	31	-	-	1	61
Calendar year 1945	45,732	503	-	125	90,710
January	31	-	-	1	61
February	28	-	-	1	56
March	5,126	454	-	165	10,170
April	16,707	812	316	557	33,140
May	8,451	675	76	273	16,760
June	11,832	400	337	394	23,470
July	10,727	397	56	346	21,280
August	1,637	57	49	52.8	3,250
September	1,674	57	49	55.8	3,320
Water year 1945-46	59,396	812	-	163	117,800

Note.- No gage-height record Oct. 20 to Mar. 17; discharge computed on basis of estimates of flow Oct. 19, Jan. 12. No gage-height record Sept. 1-10, 12-30; discharge computed on basis of gage readings Aug. 31, Sept. 11, Oct. 1, and observer's statement that flow was changed Sept. 5.

Bully Creek near Vale, Oreg.

Location.- Water-stage recorder and concrete control, lat. 43°58', long. 117°21', in SW¼ sec. 33, T. 18S., R. 44 E., 5 miles southwest of Vale.

Records available.- October 1945 to September 1946 in reports of Geological Survey; March 1937 to September 1945 in files of State engineer. August 1903 to March 1907, February 1910 to May 1917, March 1922 to June 1923 at site 9 miles upstream, in reports of Geological Survey; February to June 1919 in reports of State engineer. April 1904 to December 1905 at site at Vale, 6 miles downstream, in reports of Geological Survey; May to September 1938 in files of State engineer. April 1933 to May 1936 (fragmentary) at site 3 miles upstream, in files of State engineer. Records at various sites not equivalent because of diversions and increasing return flow from Vale-Oregon Canal since 1931.

Extremes.- Maximum discharge during year, 675 second-feet Feb. 28 (gage height, 3.98 feet), from rating curve extended above 250 second-feet; minimum not determined, probably occurred during period of ice effect or no gage-height record Dec. 12-21.

1903-7, 1910-17, 1919, 1922-23, 1933-46: Maximum discharge, 6,240 second-feet Mar. 1, 1910 (gage height, 8.6 feet, site and datum then in use), from rating curve extended above 1,200 second-feet; no flow at times.

Remarks.- Records good except those for March and July to September, which are fair, and those for October to February, which are poor. No regulation. Small diversions above station for irrigation; considerable return flow at times from Vale-Oregon Canal of Bureau of Reclamation.

Cooperation.- Water-stage recorder inspected by employees of Bureau of Reclamation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	a12	d9	63	19	220	206	18	21	40	17	20
2	12	a11	d11	48	d22	198	190	16	13	32	18	20
3	12	10	d12	48	d21	145	178	14	15	32	17	21
4	13	10	d13	45	19	112	158	12	15	22	16	21
5	12	10	d13	47	19	122	154	11	16	22	16	33
6	12	10	12	45	18	280	147	12	17	20	16	47
7	12	10	12	38	19	258	131	12	18	20	14	28
8	13	a10	11	36	18	184	124	14	18	19	14	22
9	13	b9	10	26	18	241	122	14	18	19	14	24
10	13	10	10	28	18	258	112	14	18	18	15	23
11	13	10	d10	*26	18	245	110	15	18	18	16	22
12	13	10	b9	21	16	233	103	16	18	19	16	21
13	12	10	b8	b20	18	410	99	17	17	19	17	22
14	12	10	a8	b19	17	313	96	17	18	19	16	22
15	12	11	a9	b18	18	222	96	18	16	19	17	22
16	12	11	b10	19	18	180	96	16	18	19	18	24
17	12	11	a9	21	17	154	96	16	18	19	17	23
18	12	d11	b9	20	18	143	96	15	20	18	18	23
19	12	d11	b7	b20	21	166	99	16	30	19	18	23
20	12	d10	b8	b20	48	293	166	14	19	18	18	24
21	12	b8	b9	a20	52	408	160	14	18	18	19	22
22	12	b9	10	a21	29	328	139	15	20	18	19	21
23	12	12	12	a22	30	275	81	18	24	19	20	20
24	12	12	a15	a23	44	241	57	17	41	18	20	20
25	13	12	a16	d28	54	208	51	15	43	19	20	20
26	12	12	a16	d23	73	186	44	35	39	19	20	20
27	12	12	24	21	156	198	35	53	26	19	20	18
28	a12	12	123	19	347	206	28	53	22	18	20	18
29	a12	12	a350	b18	-	216	29	54	21	19	22	18
30	a12	d10	166	b17	-	208	20	52	27	17	47	18
31	a13	-	87	17	-	196	-	38	-	17	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	381	13	12	12.3	756
November	318	12	8	10.6	631
December	1,028	350	7	33.2	2,040
Calendar year	-	-	-	-	-
January	857	63	17	27.6	1,700
February	1,185	347	16	42.3	2,350
March	7,047	410	112	227	13,980
April	3,223	206	20	107	6,390
May	661	54	11	21.3	1,310
June	642	43	13	21.4	1,270
July	632	40	17	20.4	1,250
August	583	47	14	18.8	1,160
September	680	47	18	22.7	1,350
Water year 1945-46	17,237	410	7	47.2	34,190

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for North Fork Malheur River above Agency Valley Reservoir, near Beulah.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of records for North Fork Malheur River above Agency Valley Reservoir, near Beulah.

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., 1,200 feet upstream from Rock Creek, half a mile northwest of Lowman post office, and 4,100 feet downstream from Clear Creek.

Drainage area.- 456 square miles.

Records available.- May 1941 to September 1946.

Extremes.- Maximum discharge during year, 3,690 second-feet June 5 (gage height, 5.89 feet); minimum, 179 second-feet Dec. 9 (gage height, 2.52 feet)
1941-46: Maximum discharge, 4,860 second-feet May 29, 1943 (gage height, 6.53 feet); minimum, 148 second-feet Dec. 9, 1944 (gage height, 2.40 feet)

Remarks.- Records excellent except those for periods of ice effect, which are good. No regulation. Several small diversions for irrigation and placer mining, the return flow from which enters river above station.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.5	173	3.2	488	4.5	1,710
2.7	238	3.5	705	5.0	2,340
2.9	323	4.0	1,160	5.9	3,710

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	323	328	242	440	b320	310	689	2,050	2,510	1,540	649	406
2	318	323	224	406	b325	310	665	1,950	2,650	1,560	611	406
3	314	323	274	395	b320	310	657	2,080	3,000	1,560	582	412
4	314	323	358	384	b300	305	625	2,380	3,540	1,530	567	417
5	314	333	333	368	b290	310	618	2,720	3,640	1,450	553	458
6	314	328	323	343	b340	328	649	2,880	3,390	1,370	540	417
7	310	314	314	348	b310	323	705	2,880	2,960	1,310	527	406
8	310	305	300	358	b290	323	773	2,860	2,740	1,310	520	412
9	310	296	220	292	b280	338	730	2,720	2,780	1,330	508	412
10	305	323	270	323	b290	378	665	2,570	2,900	1,220	488	395
11	305	314	300	278	b300	482	665	2,430	2,820	1,140	482	384
12	305	314	238	254	b280	488	826	2,400	2,580	1,120	476	373
13	305	314	242	282	b280	488	1,030	2,390	2,480	1,080	470	363
14	305	310	250	305	b285	*452	1,280	2,350	2,540	1,060	464	358
15	300	343	242	305	b285	428	1,510	2,320	2,530	1,020	458	363
16	305	*343	b270	b315	b280	412	1,760	2,390	2,480	970	446	400
17	310	333	338	333	b280	390	2,140	2,580	2,300	925	440	440
18	314	328	296	318	b290	395	2,550	2,880	2,140	880	434	428
19	310	333	282	314	b290	452	2,720	2,940	2,100	844	428	412
20	310	318	310	310	296	596	2,380	2,870	2,130	817	428	395
21	305	254	358	314	287	611	2,020	2,870	2,190	790	422	395
22	310	270	390	363	287	611	1,780	3,040	2,240	773	417	406
23	305	338	378	333	287	582	1,750	2,920	2,240	756	458	390
24	305	338	358	373	300	540	1,910	2,880	2,130	748	476	378
25	305	333	343	b400	328	501	2,280	2,880	1,870	730	470	368
26	305	328	328	b345	314	514	2,750	3,080	1,760	722	514	363
27	300	333	305	b340	323	689	2,750	3,270	1,690	748	446	353
28	300	333	422	b350	318	808	2,540	3,370	1,620	681	428	353
29	296	333	1,120	b340	-	961	2,500	3,150	1,560	657	428	348
30	338	314	657	b320	-	835	2,320	2,780	1,510	649	422	343
31	348	-	501	b310	-	748	-	2,580	-	681	412	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	9,618	348	296	310	0.680	0.78	19,080
November	9,620	343	254	321	.704	.78	19,080
December	10,786	1,120	220	348	.763	.88	21,390
Calendar year 1945	258,600	2,880	197	708	1.55	21.07	512,900
January	10,459	440	254	337	.739	.85	20,750
February	8,375	340	280	299	.656	.68	16,610
March	15,218	961	305	491	1.08	1.24	30,180
April	46,237	2,750	618	1,541	3.38	3.77	91,710
May	83,460	3,370	1,950	2,692	5.90	6.81	165,500
June	73,020	3,640	1,510	2,434	5.34	5.96	144,800
July	31,971	1,560	649	1,031	2.26	2.61	63,410
August	14,964	649	412	483	1.06	1.22	29,680
September	11,754	458	343	392	.860	.96	23,310
Water year 1945-46	325,482	3,640	220	892	1.96	26.54	645,500

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

South Fork Payette River near Garden Valley, Idaho

Location.- Water-stage recorder, lat. 44°04', long. 115°56', in sec. 1, T. 8 N., R. 4 E., at Garden Valley ranger station, 300 feet upstream from Station Creek, 2.7 miles southeast of Garden Valley, and 5.9 miles upstream from Middle Fork.

Drainage area.- 779 square miles.

Records available.- May 1921 to September 1946.

Average discharge.- 22 years (1924-46), 1,202 second-feet.

Extremes.- Maximum discharge during year, 5,820 second-feet May 28 (gage height, 5.46 feet); minimum, 233 second-feet Dec. 10 (gage height, 1.32 feet); minimum daily, 269 second-feet Dec. 2.

1921-46: 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, 196 second-feet Dec. 10, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Practically no diversions above station. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 173).

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.3	223	2.7	1,370	4.5	4,000
1.6	385	3.1	1,860	5.0	4,920
1.9	592	3.5	2,400	5.5	5,900
2.3	953	4.0	3,170		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	531	461	345	701	a450	454	1,060	3,060	4,360	2,300	1,140	1,510
2	531	454	269	625	a450	447	1,020	3,040	4,450	2,320	1,080	1,540
3	531	454	339	592	a440	447	1,000	3,660	4,810	2,300	1,080	1,530
4	531	454	482	562	a430	441	953	4,200	5,280	2,250	1,160	1,480
5	531	454	482	546	a400	447	953	4,770	5,460	2,130	1,180	1,480
6	531	475	454	488	a460	482	992	5,050	5,190	2,030	1,240	1,330
7	524	441	447	461	a420	482	1,050	4,920	4,450	1,940	1,280	1,230
8	524	422	422	482	a390	482	1,130	5,050	4,290	1,900	1,350	1,160
9	524	397	328	435	a360	495	1,120	4,980	4,230	1,980	1,290	1,160
10	524	435	b300	*422	a390	548	1,030	4,730	4,360	1,820	1,170	1,130
11	562	447	b370	b430	a400	719	992	4,450	4,290	1,710	1,220	1,110
12	454	435	b320	b370	a370	791	1,170	4,340	4,000	1,630	1,260	1,110
13	404	441	b300	b380	b380	828	1,440	4,340	3,830	1,590	1,300	1,110
14	397	428	b310	b410	b390	*763	1,810	4,310	3,830	1,540	1,330	1,080
15	397	*475	b320	b410	b400	701	2,150	4,250	3,830	1,470	1,390	1,120
16	404	482	b360	b420	b400	642	2,540	4,340	3,710	1,410	1,440	1,190
17	410	461	b440	b450	397	609	3,070	4,600	3,470	1,330	1,480	1,220
18	422	454	b400	b440	410	600	3,640	5,020	3,310	1,280	1,440	1,080
19	416	468	b370	b430	416	658	4,110	5,170	3,190	1,230	1,410	1,030
20	416	435	b400	b430	422	895	3,640	5,050	3,110	1,190	1,390	982
21	410	356	b440	b460	422	963	3,040	4,980	3,140	1,260	1,380	963
22	416	312	b460	502	410	982	2,620	5,110	3,230	1,240	1,380	982
23	416	428	b480	454	404	934	2,610	5,020	3,270	1,240	1,380	972
24	404	475	b480	468	416	875	2,900	4,920	3,120	1,220	1,420	963
25	410	468	468	524	482	791	3,430	4,940	2,840	1,190	1,320	943
26	410	461	441	468	461	772	4,140	5,280	2,680	1,240	1,340	953
27	404	468	435	435	468	982	4,130	5,500	2,600	1,300	1,270	992
28	404	468	592	a460	475	1,140	3,800	5,680	2,460	1,240	1,280	1,000
29	397	468	1,770	a440	-	1,420	3,710	5,360	2,370	1,200	1,470	1,040
30	435	447	1,130	a410	-	1,280	3,470	4,840	2,300	1,150	1,530	1,040
31	509	-	828	a400	-	1,150	-	4,560	-	1,190	1,510	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,179	562	397	457	28,120
November	13,324	482	312	444	26,430
December	14,982	1,770	269	483	29,720
Calendar year 1945	414,545	3,790	236	1,136	822,100
January	14,505	701	380	468	28,770
February	11,713	482	380	418	23,230
March	23,218	1,420	441	749	46,050
April	68,720	4,140	953	2,291	136,300
May	145,520	5,680	3,040	4,694	288,600
June	111,460	5,460	2,300	3,715	221,100
July	48,820	2,320	1,150	1,575	96,830
August	40,850	1,530	1,050	1,318	81,020
September	34,430	1,540	943	1,148	68,290
Water year 1945-46	541,721	5,680	269	1,484	1,074,000

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

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 1946.

Average discharge.- 25 years, 1,609 second-feet.

Extremes.- Maximum discharge during year, 8,600 second-feet Apr. 20 (gage height, 8.24 feet); minimum, 337 second-feet Dec. 10 (gage height, 0.16 foot).
1921-46: 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. 26, 1936, Dec. 26, 1939.

Remarks.- Records excellent except those for periods of ice effect, which are good. Small diversions above station for irrigation. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 173).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	673	651	545	1,200	668	762	2,090	5,380	5,870	2,670	1,320	1,600
2	673	634	426	1,040	673	756	2,000	5,120	5,900	2,690	1,210	1,630
3	668	634	515	972	662	762	1,980	5,930	6,270	2,650	1,180	1,630
4	668	634	684	918	629	756	1,900	6,870	6,800	2,570	1,290	1,580
5	668	640	712	900	596	768	1,940	7,800	6,990	2,470	1,310	1,610
6	662	678	673	798	712	834	2,070	8,160	6,650	2,360	1,360	1,460
7	662	618	673	722	640	864	2,220	8,090	5,720	2,250	1,390	1,360
8	656	585	612	774	602	864	2,400	8,180	5,460	2,200	1,450	1,280
9	662	540	485	690	570	924	2,340	7,920	5,320	2,300	1,420	1,290
10	656	607	422	*651	607	1,010	2,100	7,410	5,440	2,130	1,280	1,250
11	690	634	607	662	612	1,320	1,990	6,940	5,320	2,010	1,310	1,230
12	618	618	520	555	565	1,640	2,410	6,750	4,970	1,930	1,360	1,200
13	540	612	440	580	575	1,780	2,920	6,660	4,730	1,860	1,400	1,210
14	535	602	490	b620	585	1,610	3,790	6,520	4,710	1,800	1,430	1,180
15	535	*690	460	b620	590	*1,440	4,390	6,350	4,640	1,730	1,480	1,210
16	545	706	520	b640	585	1,280	5,010	6,400	4,550	1,670	1,540	1,310
17	555	690	662	b680	580	1,170	6,060	6,660	4,270	1,600	1,560	1,390
18	575	651	b600	b670	602	1,140	7,190	7,240	4,020	1,540	1,520	1,230
19	565	717	b550	b660	607	1,280	8,150	7,380	3,860	1,470	1,510	1,180
20	565	640	b600	b640	634	1,850	7,730	7,150	3,730	1,420	1,500	1,120
21	560	535	662	b660	634	2,030	6,090	6,990	3,720	1,480	1,480	1,110
22	565	435	690	734	624	2,020	5,090	7,160	3,810	1,450	1,480	1,120
23	570	570	700	695	624	1,910	4,880	7,060	3,840	1,450	1,480	1,110
24	555	706	700	690	651	1,820	5,220	6,840	3,700	1,420	1,550	1,090
25	560	684	668	786	762	1,610	6,340	6,820	3,550	1,400	1,440	1,080
26	560	684	656	734	756	1,560	7,780	7,200	3,170	1,400	1,460	1,070
27	560	717	668	b700	768	1,940	7,760	7,470	3,040	1,470	1,400	1,110
28	555	695	984	b700	774	2,280	6,920	7,820	2,900	1,400	1,380	1,110
29	550	712	3,000	b680	-	2,880	6,730	7,340	2,800	1,360	1,550	1,180
30	602	706	2,100	668	-	2,580	6,300	6,560	2,720	1,290	1,630	1,160
31	722	-	1,450	651	-	2,290	-	6,160	-	1,360	1,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,730	722	535	604	37,150
November	19,225	717	435	641	38,130
December	23,474	3,000	422	757	46,560
Calendar year 1945	561,264	5,800	368	1,538	1,113,000
January	22,690	1,200	555	732	45,000
February	17,887	774	565	639	35,480
March	45,730	2,880	756	1,475	90,700
April	133,790	8,150	1,900	4,460	265,400
May	216,330	8,180	5,120	6,978	429,100
June	138,270	6,990	2,720	4,709	274,300
July	56,800	2,690	1,290	1,832	112,700
August	44,290	1,630	1,190	1,429	87,850
September	38,090	1,630	1,070	1,270	75,550
Water year 1945-46	775,306	8,180	422	2,124	1,538,000

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

Payette River near Horseshoe Bend, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 116°11'30", in SW¼SW¼ 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, War Department).

Drainage area.- 2,230 square miles.

Records available.- November 1912 to September 1916, July 1919 to September 1946. February 1906 to November 1912 at site 2 miles upstream.

Average discharge.- 35 years (1907-15, 1919-46), 2,998 second-feet.

Extremes.- Maximum discharge during year, 15,600 second-feet Apr. 20 (gage height, 7.76 feet); minimum, 650 second-feet Nov. 22 (gage height, 0.76 foot).
1906-16, 1919-46: 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 backwater from wing dam, which are good. Flow regulated by Deadwood Reservoir (see p.173), Payette Lake (see p. 176), and Lake Fork Reservoir (see p.182). Several diversions from tributaries above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	997	1,030	1,130	2,380	1,190	1,330	4,200	10,800	11,500	3,880	2,030	2,000
2	988	1,020	916	2,170	1,190	1,320	4,070	10,000	10,900	3,880	1,940	2,020
3	979	1,020	925	2,040	1,150	1,320	4,200	10,500	10,900	3,800	1,860	2,000
4	979	1,020	1,140	1,950	1,100	1,290	4,000	11,500	11,300	3,700	1,940	1,940
5	970	1,060	1,230	1,900	1,110	1,330	3,970	12,700	11,600	3,600	1,930	1,970
6	970	1,150	1,170	1,690	1,170	1,490	4,200	13,400	11,500	3,430	1,980	1,850
7	961	1,100	1,110	1,550	1,100	1,500	4,660	13,600	10,800	3,270	2,000	1,790
8	952	1,020	1,010	1,550	1,080	1,500	5,120	14,000	10,400	3,170	2,080	1,710
9	952	856	872	1,430	988	1,580	5,160	14,100	10,200	3,300	2,060	1,730
10	952	907	784	1,360	1,050	1,740	4,620	13,800	9,670	3,270	1,900	1,700
11	961	961	979	1,340	1,080	2,140	4,200	13,100	8,940	3,120	1,930	1,650
12	916	1,030	916	1,180	1,050	2,640	4,940	12,800	8,340	2,980	1,970	1,590
13	816	1,030	832	1,170	1,030	2,790	5,920	12,500	7,870	2,780	1,990	1,560
14	800	1,090	848	1,220	1,060	2,600	7,790	12,100	7,760	2,640	1,950	1,490
15	792	1,170	776	1,220	1,070	2,410	9,260	11,700	7,500	2,500	1,990	1,530
16	808	1,210	800	1,240	1,100	2,210	10,500	11,700	7,160	2,410	2,080	1,630
17	824	1,190	979	1,250	1,060	2,060	12,100	11,900	6,820	2,310	2,130	1,770
18	856	1,100	907	1,220	1,050	2,000	13,700	12,500	6,350	2,320	2,080	1,710
19	848	1,160	824	1,190	1,070	2,200	15,000	12,800	5,920	2,240	2,080	1,690
20	856	988	889	1,170	1,100	2,940	14,600	12,800	5,640	2,140	2,070	1,580
21	864	800	1,030	1,140	1,100	3,310	12,200	12,800	5,550	2,200	2,080	1,500
22	880	713	1,140	1,230	1,100	3,360	10,400	13,000	5,770	2,180	2,040	1,490
23	880	872	1,210	1,160	1,100	3,310	9,690	13,000	5,900	2,150	2,030	1,470
24	864	1,100	1,190	1,200	1,130	3,310	9,800	12,900	5,960	2,080	2,130	1,450
25	856	1,130	1,150	1,300	1,330	3,000	11,000	12,800	5,720	2,030	2,030	1,420
26	840	1,120	1,160	1,230	1,300	2,940	12,900	13,300	5,320	2,060	2,030	1,400
27	840	1,150	1,260	1,200	1,360	3,480	13,300	13,800	4,880	2,140	1,970	1,430
28	832	1,150	1,700	1,190	1,380	4,090	12,500	14,300	4,400	2,100	1,860	1,430
29	816	1,230	3,720	1,180	-	5,260	12,100	14,000	4,150	2,080	2,020	1,470
30	898	1,280	3,480	1,130	-	5,100	11,800	13,200	3,970	2,020	2,070	1,470
31	1,070	-	2,700	1,130	-	4,620	-	12,400	-	2,040	2,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	27,817	1,070	792	897	55,170
November	31,667	1,280	713	1,056	62,810
December	38,777	3,720	776	1,251	76,910
Calendar year 1945	1,009,877	11,200	671	2,767	2,003,000
January	43,310	2,380	1,130	1,397	85,900
February	31,598	1,380	988	1,128	62,670
March	80,170	5,260	1,290	2,586	159,000
April	257,900	15,000	3,970	8,597	511,500
May	393,800	14,300	10,000	12,700	781,100
June	232,690	11,600	3,970	7,756	461,500
July	83,800	3,880	2,020	2,703	166,200
August	62,290	2,130	1,860	2,009	123,600
September	49,440	2,020	1,400	1,648	98,060
Water year 1945-46	1,333,259	15,000	713	3,653	2,644,000

Note.- Stage-discharge relation affected by backwater from temporary wing dam Jan. 29 to Mar. 10; discharge computed on basis of recorded range in stage, 1 discharge measurement, and recorded drop in stage when wing dam was removed.

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 northeast of Emmett.

Records available.- June 1925 to September 1946.

Average discharge.- 21 years, 2,836 second-feet.

Extremes.- Maximum discharge during year, 18,600 second-feet (regulated) Apr. 18 (gage height, 11.21 feet); minimum, 300 second-feet (regulated) Nov. 10, 11 (gage height, 1.90 feet); minimum daily, 508 second-feet (regulated) Oct. 14.
1925-46: 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. 173), Payette Lake (see p. 176), and Lake Fork Reservoir (see p. 182).

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

2.1	470	5.0	4,170	9.0	12,200
2.5	860	6.0	5,880	10.0	15,000
3.0	1,420	7.0	7,780	10.7	17,100
4.0	2,690	8.0	9,860		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	810	1,280	1,620	3,190	1,400	2,360	5,200	11,000	11,300	2,950	1,200	1,170
2	830	1,330	1,280	2,860	1,420	2,220	a4,500	10,100	10,700	2,930	1,120	1,150
3	800	1,340	1,240	2,650	1,490	2,080	a4,400	10,300	10,500	2,960	1,090	1,150
4	740	1,130	1,380	2,520	1,320	2,120	4,410	11,300	11,000	2,700	1,090	1,200
5	740	1,150	1,420	2,630	1,290	2,070	4,280	12,600	11,100	2,650	1,080	1,200
6	730	1,330	1,600	2,410	1,400	2,150	5,120	13,600	11,100	2,410	1,090	1,190
7	730	1,330	1,600	2,070	1,600	2,150	5,430	13,800	10,300	2,290	1,070	1,140
8	720	1,290	1,470	1,980	1,360	2,250	6,010	14,000	9,820	2,150	1,060	1,140
9	720	1,180	1,100	1,880	1,160	2,360	6,150	14,300	9,530	2,250	1,120	1,080
10	720	1,150	984	1,730	1,320	2,480	5,480	13,800	9,270	2,290	1,070	1,100
11	690	994	1,010	1,660	1,280	3,010	5,190	13,100	8,220	2,200	1,040	1,080
12	641	1,010	1,190	1,480	1,280	3,840	a5,300	12,800	7,540	1,960	1,020	1,010
13	594	1,070	1,140	1,340	1,230	4,110	a6,800	12,800	7,150	1,720	1,060	981
14	508	1,120	994	1,520	1,270	3,740	8,810	12,000	6,900	1,580	1,080	981
15	546	1,170	912	1,520	1,310	3,480	10,300	11,600	6,750	1,550	1,100	959
16	594	1,660	627	1,490	1,320	3,170	11,500	11,500	6,510	1,420	1,090	981
17	584	1,590	716	1,470	1,350	2,960	13,500	11,600	6,220	1,290	1,090	1,260
18	584	1,430	a730	1,480	1,320	2,280	15,200	12,100	5,740	1,210	1,090	1,340
19	680	1,370	1,100	1,400	1,400	2,930	16,900	12,500	5,220	1,220	1,090	1,220
20	840	1,260	770	1,350	1,620	3,980	16,200	12,600	4,900	1,150	1,080	1,210
21	937	1,160	856	1,400	1,600	4,660	a14,300	12,300	4,740	1,090	1,080	1,120
22	970	1,130	1,230	1,460	1,650	4,520	a12,300	12,800	4,690	1,110	1,100	1,060
23	970	1,060	1,240	1,460	1,650	4,360	a10,900	12,800	5,020	1,130	1,160	1,050
24	1,000	1,210	1,490	1,440	1,650	4,380	10,400	12,600	5,120	1,110	1,200	1,050
25	1,010	1,350	1,560	1,400	2,370	3,900	11,500	12,600	5,000	1,090	1,220	1,020
26	959	1,480	1,610	1,530	2,120	3,610	13,500	13,100	4,580	1,080	1,150	1,000
27	902	1,610	1,650	1,380	2,190	4,270	14,300	13,800	4,120	1,150	1,170	1,000
28	907	1,620	4,270	1,410	2,760	5,050	13,200	14,100	3,540	1,230	1,190	1,000
29	923	1,600	5,270	1,460	-	6,390	12,500	13,800	3,240	1,220	1,200	1,010
30	926	1,540	5,310	1,460	-	8,490	12,100	12,900	3,150	1,170	1,200	1,060
31	1,140	-	3,820	1,370	-	5,840	-	12,100	-	1,100	1,180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24,435	1,140	508	788	48,470
November	38,944	1,660	994	1,298	77,240
December	51,189	5,310	627	1,651	101,500
Calendar year 1945	993,466	11,900	508	2,722	1,971,000
January	54,400	3,190	1,340	1,755	107,900
February	43,130	2,760	1,160	1,540	85,550
March	109,210	6,490	2,070	3,523	216,600
April	285,680	16,900	4,280	9,523	566,600
May	390,700	14,300	10,100	12,600	774,900
June	213,070	11,300	3,150	7,102	422,600
July	53,490	2,960	1,080	1,725	106,100
August	34,580	1,220	1,020	1,115	68,590
September	32,912	1,340	959	1,097	65,280
Water year 1945-46	1,331,740	16,900	508	3,649	2,641,000

a No gage-height record; discharge computed on basis of records for stations near Payette and near Horseshoe Bend.

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, 1¾ miles south of Payette.

Records available.- August 1935 to September 1946. January 1895 to July 1897 (incomplete) at site 2 miles downstream.

Average discharge.- 11 years (1935-46), 2,982 second-feet.

Extremes.- Maximum discharge during year, 16,300 second-feet Apr. 19 (gage height, 10.26 feet); minimum, 472 second-feet Aug. 13; minimum gage height, 3.50 feet Oct. 15; minimum daily discharge, 493 second-feet Aug. 13.
1935-46: 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 excellent. Many diversions above station for irrigation. Flow regulated by Black Canyon Dam and reservoirs on tributary streams.

Rating tables, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 8				June 9 to Sept. 30			
3.5	490	7.0	5,890	3.7	422	6.0	3,710
4.0	990	8.0	8,500	4.0	747	7.0	5,760
4.5	1,590	9.0	11,600	4.5	1,380	8.3	9,390
5.0	2,270	10.2	16,100	5.0	2,090		
6.0	3,830						

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	725	1,460	1,800	3,680	1,560	3,170	5,940	10,800	11,300	2,620	712	866
2	755	1,510	1,680	3,250	1,660	2,740	4,640	9,820	10,600	2,480	689	866
3	765	1,510	1,350	3,000	1,690	2,550	4,420	9,580	10,200	2,440	631	866
4	725	1,500	1,470	2,890	1,660	2,530	4,440	10,300	10,400	2,270	609	928
5	685	1,160	1,540	3,080	1,510	2,430	4,380	11,200	10,600	2,260	599	1,020
6	675	1,410	1,800	2,970	1,620	2,620	5,390	12,300	10,600	2,100	566	1,070
7	666	1,420	1,860	2,550	1,990	2,560	5,450	12,800	10,300	1,830	555	1,030
8	675	1,460	1,800	2,310	1,790	2,580	6,080	12,800	9,610	1,630	534	1,000
9	618	1,320	1,470	2,210	1,580	2,700	6,710	13,300	9,300	1,620	534	953
10	637	1,360	1,230	2,060	1,400	2,820	6,010	13,200	9,080	1,730	577	903
11	637	1,200	1,120	1,980	1,490	3,230	5,410	12,80[illegible]	8,300	1,660	555	928
12	637	1,200	1,360	1,870	1,490	4,060	5,300	12,200	7,690	1,490	513	891
13	599	1,220	1,410	1,590	1,440	5,210	8,660	12,700	7,150	1,370	495	842
14	590	1,300	1,280	1,710	1,450	4,540	8,620	12,200	6,670	1,180	534	818
15	526	1,370	1,100	1,810	1,510	3,920	10,500	11,500	6,510	1,120	545	795
16	526	1,640	1,040	1,710	1,500	3,690	11,300	11,000	6,150	1,060	588	878
17	526	1,800	979	1,670	1,510	3,380	12,300	11,000	5,830	903	620	916
18	544	1,730	1,030	1,690	1,520	2,920	14,000	11,300	5,350	806	631	1,250
19	544	1,490	1,380	1,680	1,560	2,880	15,000	11,800	4,840	830	666	1,220
20	665	1,520	1,310	1,620	1,790	3,810	15,900	12,000	4,490	771	666	1,180
21	968	1,350	1,030	1,540	2,160	4,840	14,000	11,900	4,270	666	666	1,150
22	1,090	1,350	1,190	1,630	2,000	4,910	11,800	12,100	4,250	620	712	1,040
23	1,130	1,200	1,540	1,730	1,980	4,720	10,400	12,300	4,530	643	735	1,020
24	1,100	1,350	1,670	1,640	2,030	4,620	9,920	12,100	4,670	643	818	1,000
25	1,190	1,410	2,000	1,660	2,710	4,340	10,400	12,000	4,630	620	878	990
26	1,180	1,720	2,210	1,770	2,720	3,900	11,700	12,200	4,310	631	891	953
27	1,110	1,860	2,520	1,660	2,590	4,080	13,400	13,000	3,950	654	878	916
28	1,080	1,870	5,500	1,620	3,460	4,970	12,800	13,400	3,410	735	878	916
29	1,090	1,830	5,660	1,670	-	6,010	11,900	13,600	3,000	771	878	916
30	1,120	1,750	6,180	1,670	-	7,120	11,600	12,900	2,880	747	891	928
31	1,170	-	4,560	1,660	-	6,560	-	12,200	-	677	866	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24,968	1,190	526	805	49,520
November	44,270	1,870	1,160	1,476	87,810
December	62,169	6,180	979	2,005	123,300
Calendar year 1945	989,605	12,400	526	2,711	1,963,000
January	63,580	3,680	1,540	2,051	126,100
February	51,370	3,460	1,400	1,835	101,900
March	120,410	7,120	2,430	3,884	238,800
April	276,370	15,900	4,380	9,212	548,200
May	372,300	13,600	9,580	12,010	738,400
June	204,870	11,300	2,880	6,829	406,400
July	39,577	2,620	620	1,277	78,500
August	20,908	891	493	674	41,470
September	29,049	1,250	795	968	57,620
Water year 1945-46	1,309,841	15,900	493	3,589	2,598,000

Clear Creek at Lowman, Idaho

Location.- Staff gage, lat. 44°05', long. 115°37', in SW¼SE¼ sec. 27, T. 9 N., R. 7 E., at highway bridge at Lowman, 550 feet upstream from mouth. Prior to Jan. 9, 1946, staff gage at site 350 feet downstream.

Drainage area.- 59.6 square miles.

Records available.- May 1941 to September 1946.

Extremes.- Maximum discharge observed during year, 501 second-feet May 28; maximum gage height observed, 5.40 feet Dec. 15 (ice jam), site and datum then in use; minimum discharge observed, 24 second-feet Feb. 19, 23, Mar. 7.
1941-46: Maximum discharge observed, 754 second-feet May 31, 1943; maximum gage height observed, 6.10 feet Jan. 9, 10, 1942 (ice jam), site and datum then in use; minimum daily discharge, 16 second-feet Dec. 10, 1944.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	33				27	93	a330	a390	137	52	37
2	34	35				27	93	323	a400	129	52	37
3	34	35				27	93	367	a437	118	49	a39
4	a34	35		40		27	86	347	a450	a115	49	a42
5	33	a34			27	a28	93	360	437	111	a49	44
6	33	33				29	97	373	408	a109	49	44
7	33	32				24	111	a400	380	a108	a48	44
8	33	34				a28	118	a400	394	107	a46	47
9	32	36		(*)		a30	104	401	387	100	44	42
10	31	38				37	93	401	360	93	46	39
			30									
11	30	34				55	107	380	a350	86	42	a38
12	30	35				55	129	360	329	80	42	37
13	31	35				*56	173	367	317	80	39	37
14	31	a35				55	198	a365	306	77	39	37
15	31	*36			25	47	223	380	284	77	a39	35
16	a31					39	279	401	279	a75	39	a37
17	31					47	329	415	269	73	39	a40
18	32					42	380	408	255	73	39	39
19	32			32	24	61	394	401	248	70	37	39
20	32				25	70	335	394	241	67	39	37
21	28	35			a25	80	289	408	241	67	39	35
22	27				25	77	264	430	a235	64	39	35
23	27				24	73	a270	401	232	61	a42	a35
24	30				25	61	317	408	194	64	44	35
25	31		35		25	67	367	a410	181	58	42	35
26	30				25	67	422	437	a175	58	47	33
27	30	35			27	90	401	468	173	55	a44	35
28	30	36			25	118	394	501	149	55	a42	35
29	30	35			-	129	354	a460	149	a54	39	35
30	a31	35	70		-	111	335	415	145	58	39	35
31	32	-			-	97	-	401	-	52	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	969	35	27	31.3	0.525	0.60	1,920
November	1,046	-	-	34.9	.586	.65	2,070
December	1,090	-	-	35.2	.591	.68	2,160
Calendar year 1945	29,928	386	18	82.0	1.38	18.65	59,340
January	1,040	-	-	33.5	.562	.65	2,060
February	720	-	-	25.7	.431	.45	1,430
March	1,781	129	24	57.5	.965	1.11	3,530
April	6,941	422	86	231	3.88	4.33	13,770
May	12,312	501	323	397	6.66	7.68	24,420
June	8,793	450	145	293	4.92	5.49	17,440
July	2,531	137	52	81.6	1.37	1.58	5,020
August	1,332	52	37	43.0	.721	.83	2,640
September	1,139	47	33	38.0	.638	.71	2,260
Water year 1945-46	39,694	501	-	109	1.83	24.76	78,720

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for South Fork Payette River at Lowman.

Note.- Stage-discharge relation affected by ice during most of periods Nov. 16-26, Nov. 29 to Feb. 18 (no gage-height record Nov. 16-21, 26, Dec. 6, 7, 10, 12-14, 16, Dec. 18 to Jan. 8, Jan. 16, 21, 31, Feb. 4-7, 11, 13, 15; discharge computed on basis of weather records and records for South Fork Payette River at Lowman).

Deadwood Reservoir near Lowman, Idaho

Location.- Staff gage, lat. 44°18', long. 115°39', in SE¼ sec. 8, T. 11 N., R. 7 E., at dam on Deadwood River, 15 miles north of Lowman. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.- 108 square miles.

Records available.- October 1935 to September 1946.

Extremes.- Maximum elevation observed during year, 5,335.2 feet June 26, 27; minimum observed, 5,303.1 feet Oct. 11, 12.
1935-46: Maximum elevation observed, 5,337.1 feet 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 to Johnson Creek in Salmon River Basin to Deadwood River Basin for supplemental storage in Deadwood Reservoir. Discharge measurement of June 10 indicated flow in this canal of 34.6 second-feet. Gage read once daily.

Cooperation.- Gage readings furnished by Bureau of Reclamation.

Elevation, in feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	303.7	304.3	306.65	309.2	311.5	313.1	315.5	324.5	330.7	335.05	333.15	320.2
2	303.85	304.5	306.7	309.3	311.7	313.2	315.4	325.0	330.8	335.0	333.0	319.5
3	303.8	304.55	306.75	309.4	311.8	313.25	315.5	325.1	331.0	335.0	332.9	318.85
4	303.55	304.6	306.8	309.5	311.85	313.3	315.6	325.2	331.3	335.0	332.7	318.2
5	303.5	304.65	306.9	309.6	311.9	313.35	315.65	325.3	331.7	334.95	332.5	317.6
6	303.45	304.8	306.95	309.7	311.95	313.4	315.7	325.5	332.1	334.9	332.2	317.1
7	303.4	304.85	307.0	309.8	312.0	313.45	315.75	325.7	332.5	334.9	331.9	316.6
8	303.35	304.9	307.05	309.9	312.05	313.5	315.8	326.0	332.8	334.85	331.5	316.2
9	303.3	304.95	307.1	309.9	312.1	313.55	315.9	326.3	333.1	334.85	331.1	315.8
10	303.25	305.2	307.15	310.0	312.15	313.6	316.0	326.6	333.3	334.85	330.85	315.4
11	303.1	305.25	307.2	310.05	312.2	313.7	316.1	326.8	333.5	334.8	330.55	315.0
12	303.1	305.3	307.2	310.1	312.25	313.8	316.2	326.9	333.7	334.8	330.2	314.6
13	303.15	305.35	307.25	310.15	312.3	313.9	316.3	327.0	333.9	334.75	329.8	314.1
14	303.2	305.4	307.25	310.2	312.35	313.95	316.5	327.1	334.0	334.7	329.4	313.7
15	303.25	305.5	307.3	310.25	312.4	314.0	316.7	327.15	334.05	334.7	328.9	313.25
16	303.4	305.55	307.35	310.3	312.45	314.1	316.9	327.2	334.2	334.65	328.4	312.7
17	303.45	305.6	307.4	310.35	312.5	314.15	317.1	327.3	334.35	334.6	327.9	312.4
18	303.5	305.65	307.45	310.4	312.55	314.2	317.4	327.5	334.45	334.6	327.4	312.1
19	303.55	305.7	307.5	310.45	312.6	314.3	317.9	327.8	334.5	334.6	326.9	311.7
20	303.6	305.8	307.55	310.5	312.65	314.4	318.6	328.0	334.6	334.6	326.35	311.4
21	303.65	305.85	307.6	310.55	312.7	314.5	319.1	328.2	334.75	334.5	325.85	311.0
22	303.75	305.9	307.8	310.6	312.75	314.55	319.5	328.4	334.9	334.4	325.3	310.8
23	303.85	305.95	308.0	310.65	312.8	314.6	319.9	328.7	335.0	334.3	324.8	310.5
24	303.9	306.0	308.2	310.75	312.85	314.65	320.3	328.9	335.1	334.2	324.4	310.2
25	303.95	308.1	308.3	310.9	312.9	314.7	320.7	329.1	335.15	334.1	323.9	309.8
26	303.95	308.2	308.4	311.0	312.95	314.75	321.3	329.4	335.2	333.95	323.5	309.5
27	304.0	308.3	308.5	311.1	313.0	314.8	322.0	329.7	335.2	333.8	323.1	309.1
28	304.0	308.4	308.6	311.2	313.05	314.9	322.7	330.0	335.15	333.65	322.65	308.7
29	304.05	308.5	308.9	311.3	-	315.0	323.3	330.4	335.1	333.5	322.1	308.3
30	304.1	308.6	309.0	311.35	-	315.1	323.9	330.6	335.1	333.4	321.5	307.8
31	304.2	-	309.1	311.4	-	315.2	-	330.7	-	333.3	320.9	-

Note.- Add 5,000 feet to obtain elevation above mean sea level.

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 1946.

Average discharge.- 19 years (1927-46), 193 second-feet.

Extremes.- Maximum discharge observed during year, 1,090 second-feet (regulated) May 8-11 (gage height, 4.20 feet); minimum not determined, occurred when gates in dam were closed.

1926-46: 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 1930-46 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, Bureau of Reclamation cut a transmountain 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 measurement of June 10 indicated flow in this canal of 34.6 second-feet.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102							3	h980	398	283	940
2	106							h290	h940	392	264	955
3	108							h652	h871	377	348	925
4	113							h790	h736	362	419	876
5	117							h915	h673	345	477	795
6	117							h970	h477	328	533	722
7	119							h970	h377	317	602	639
8	121							h1,040	h497	306	643	594
9	124							h1,090	h578	315	551	590
10	150							h1,090	578	298	526	590
11	99							h1,090	582	280	574	590
12								h1,060	582	264	639	610
13								h1,040	586	247	682	590
14								h1,040	590	235	726	618
15								h1,010	574	220	772	631
16		3	3	3	3	3	3	h990	578	209	842	631
17								h990	569	200	842	540
18								h990	555	193	828	494
19								h990	480	184	823	473
20								h990	383	242	818	460
21	3							h980	395	293	814	460
22								h970	451	298	800	467
23								h970	422	315	777	467
24								h970	419	309	736	467
25								h970	438	331	669	467
26								h975	448	345	652	501
27								h975	448	348	647	511
28								h980	438	351	749	559
29					-			h980	429	328	895	570
30					-			h980	413	315	930	570
31		-			-		-	h980	-	315	930	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,336	150	-	43.1	2,650
November	90	-	-	3	179
December	93	-	-	3	184
Calendar year 1945	55,672	1,150	-	153	110,400
January	93	-	-	3	184
February	84	-	-	3	167
March	93	-	-	3	184
April	90	-	-	3	179
May	28,730	1,090	3	927	56,990
June	16,487	980	377	550	32,700
July	9,260	398	184	299	18,370
August	20,791	930	264	671	41,240
September	18,302	955	460	610	36,300
Water year 1945-46	95,449	1,090	-	262	189,300

h Computed from staff-gage reading.

Note.- No gage-height record 2 p.m. Oct. 11 to noon May 2 when gates in Deadwood Dam were closed and reservoir was not spilling; discharge of 3 second-feet for this period computed on basis of information furnished by observer and comparable records of previous years.

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 1946.

Average discharge.- 25 years, 368 second-feet.

Extremes.- Maximum discharge during year, 2,110 second-feet (regulated) May 8; maximum gage height, 5.03 feet Dec. 29 (ice jam); minimum discharge, not determined, probably occurred during period of ice effect; minimum daily, 50 second-feet (regulated) Dec. 2, 9.

1921-46: Maximum discharge, 4,230 second-feet May 9, 1928 (gage height, 5.17 feet), from rating curve extended above 3,200 second-feet; minimum recorded, 28 second-feet (regulated) Nov. 4, 1935 (gage height, 0.83 foot); minimum daily, 34 second-feet (regulated) Nov. 4, 1935.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated since Nov. 2, 1930, by Deadwood Reservoir (see p.173). Small amount of water diverted from tributary of Johnson Creek in Salmon River Basin to Deadwood River Basin during year.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	78	60	147		71	192	765	1,650	626	399	977
2	169	76	50	127		70	186	899	1,600	613	368	995
3	169	76	60	116		70	186	1,390	1,570	594	420	951
4	172	76	75	101		68	174	1,670	1,480	568	512	907
5	177	78	72	105		73	174	1,860	1,450	549	555	858
6	177	78	70	91	70	76	189	1,910	1,300	525	613	750
7	180	71	65	85		75	208	1,910	1,120	506	660	680
8	180	65	59	80		78	225	2,020	1,190	500	694	626
9	183	60	50	75		82	218	2,020	1,180	512	653	620
10	196	73	60	(*)		93	196	1,930	1,170	488	620	626
11	228	71	65			123	189	1,870	1,150	480	653	646
12	80	70	55			134	248	1,830	1,110	442	694	646
13	68	68	55			144	307	1,800	1,110	410	722	646
14	66	68	55			*127	420	1,780	1,100	389	765	640
15	65	76	55			114	512	1,730	1,040	378	810	667
16	68	*78	60		65	105	613	1,760	1,010	363	874	673
17	70	73	70			101	743	1,830	989	354	882	648
18	70	71	65			105	874	1,900	942	334	866	562
19	68	73	60			120	986	1,900	866	325	850	549
20	69	66	65		65	160	916	1,860	758	339	850	525
21	66	56	75		65	174	750	1,840	736	415	841	531
22	68	60	80		65	177	667	1,870	765	410	833	531
23	66	75	80		64	169	667	1,830	758	426	858	531
24	65	75	75		65	155	736	1,810	722	426	795	531
25	66	75	75	75	70	137	899	1,810	715	437	743	531
26	66	73	70		65	142	1,090	1,870	715	465	715	549
27	66	75	80		70	186	1,070	1,930	701	477	708	575
28	65	75	200		71	222	977	1,960	687	465	802	594
29	65	78	450		-	269	969	1,840	667	442	933	633
30	78	70	232		-	242	882	1,740	646	426	960	633
31	87	-	177		-	214	-	1,690	-	426	960	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,375	228	65	109	6,690
November	2,157	78	56	71.9	4,280
December	2,820	450	50	91.0	5,590
Calendar year 1945	117,630	1,230	45	322	233,300
January	2,542	147	-	82.0	5,040
February	1,885	-	-	67.3	3,740
March	4,076	269	68	131	8,080
April	16,461	1,090	174	549	32,650
May	54,804	2,020	765	1,768	108,700
June	30,877	1,650	646	1,029	61,240
July	14,090	626	325	455	27,950
August	22,575	960	368	728	44,780
September	19,829	995	525	661	39,330
Water year 1945-46	175,491	2,020	50	481	348,100

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 21-25, Dec. 1-5, 9-29, Jan. 7 to Feb. 19 (no gage-height record Jan. 19 to Feb. 2; discharge computed on basis of weather records and records for other stations in South Fork Payette River Basin).

Payette Lake at McCall, Idaho

Location.- Water-stage recorder, 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 4,982.24 feet above mean sea level, adjustment of 1912.

Drainage area.- 144 square miles.

Records available.- August 1921 to September 1946 (fragmentary prior to Nov. 23, 1943).

Extremes.- Maximum gage height during year, 8.19 feet June 21, 22; minimum, 1.67 feet Oct. 27, 29.
1921-46: Maximum gage height observed, 8.75 feet July 13, 1935; minimum observed, 0.95 foot Oct. 3, 1931.

Remarks.- Flow from Payette Lake is regulated within natural range by taintor gates and removable stop logs of a buttress- and slab-type dam completed in November 1943. During period 1923 to 1943 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been effected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres. No capacity table has been developed. Water is used for irrigation of lands in vicinity of Emmett. No diversion above station.

Cooperation.- Water-stage recorder inspected by U. S. Forest Service.

Gage height, in feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.82	1.74	2.10	2.29	2.19	2.12	2.24	4.77	5.75	8.09	6.18	2.31
2	1.81	1.79	2.09	2.31	2.19	2.11	2.23	4.65	5.97	8.13	6.06	2.27
3	1.80	1.80	2.07	2.33	2.19	2.10	2.24	4.66	6.42	8.14	5.93	2.23
4	1.78	1.81	2.07	2.34	2.18	2.09	2.24	4.88	6.86	8.15	5.80	2.20
5	1.77	1.85	2.07	2.35	2.18	2.08	2.24	5.18	7.05	8.13	5.65	2.19
6	1.76	1.88	2.08	-	2.23	2.08	2.25	5.54	7.09	8.09	5.51	2.20
7	1.75	1.90	2.10	-	2.25	2.07	2.25	5.66	6.90	8.05	5.37	2.20
8	1.75	1.91	2.09	-	2.23	2.06	2.26	5.74	6.73	8.03	5.22	2.19
9	1.76	1.92	2.07	-	2.21	2.05	2.29	5.76	6.84	8.10	5.08	2.16
10	1.75	1.93	2.06	-	2.20	2.05	2.29	5.76	7.01	8.13	4.93	2.14
11	1.75	1.97	2.05	-	2.19	2.06	2.29	5.67	7.15	8.12	4.78	2.11
12	1.74	1.98	2.05	-	2.18	2.08	2.30	5.61	7.22	8.08	4.63	2.09
13	1.73	1.98	2.03	-	2.16	2.13	2.32	5.60	7.28	8.03	4.48	2.05
14	1.72	1.98	2.02	-	2.15	2.13	2.38	5.53	7.42	7.97	4.34	2.02
15	1.71	2.00	2.01	2.21	2.14	2.13	2.47	5.45	7.57	7.90	4.21	2.03
16	1.70	2.03	2.01	2.20	2.13	2.13	2.58	5.44	7.72	7.79	4.07	2.06
17	1.72	2.04	2.01	2.18	2.12	2.11	2.74	5.54	7.89	7.67	3.92	2.06
18	1.73	2.04	2.00	2.18	2.11	2.09	2.98	5.75	7.95	7.56	3.77	2.03
19	1.72	2.09	2.00	2.16	2.09	2.08	3.29	5.87	8.07	7.43	3.63	2.02
20	1.74	2.09	2.00	2.15	2.12	2.07	3.53	5.88	8.17	7.30	3.48	1.99
21	1.72	2.07	2.02	2.15	2.13	2.07	3.64	5.87	8.19	7.17	3.33	1.98
22	1.71	2.05	2.07	2.20	2.13	2.09	3.67	5.89	8.17	7.05	3.18	1.97
23	1.70	2.04	2.08	2.19	2.12	2.09	3.70	5.92	8.11	6.93	3.04	1.95
24	1.70	2.03	2.09	2.23	2.11	2.12	3.78	5.89	8.06	6.84	2.93	1.93
25	1.70	2.03	2.08	2.24	2.14	2.12	3.98	5.88	7.98	6.75	2.83	1.92
26	1.69	2.07	2.09	2.23	2.12	2.12	4.33	6.00	7.99	6.67	2.72	1.91
27	1.68	2.12	2.10	2.21	2.13	2.13	4.60	6.19	8.02	6.64	2.63	1.90
28	1.68	2.11	2.16	2.20	2.13	2.14	4.70	6.24	8.05	6.58	2.55	1.89
29	1.67	2.13	2.22	2.18	-	2.17	4.81	6.05	8.08	6.47	2.48	1.87
30	1.68	2.12	2.26	2.17	-	2.21	4.86	5.79	8.09	6.37	2.41	1.85
31	1.72	-	2.28	2.18	-	2.23	-	5.70	-	6.29	2.36	-

North Fork Payette River at McCall, 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 1946.

Average discharge.- 35 years (1908-16, 1919-46), 344 second-feet.

Extremes.- Maximum discharge during year, 2,440 second-feet May 28 (gage height, 6.00 feet); minimum, 2.1 second-feet Oct. 26-30; minimum gage height, 1.62 feet Oct. 27-29. 1908-17, 1919-46: 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, 1933, Nov. 14-17, 1935, Oct. 22 to Nov. 11, 1938.

Remarks.- Records good. Flow partly regulated by Payette Lake. Since water year 1939 some water bypassed station through fish hatchery (see p. 180).

Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 15 to Sept. 30)

1.6	19	2.5	134	4.5	1,100
1.7	26	2.8	212	5.0	1,490
1.9	42	3.1	312	6.0	2,440
2.1	65	3.5	486		
2.3	95	4.0	770		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	28	84	115	106	92	113	1,170	1,350	372	380	126
2	37	33	81	121	106	90	113	1,100	1,020	376	385	115
3	36	34	79	126	106	89	115	1,110	1,050	380	385	108
4	35	34	78	130	104	87	115	1,250	1,360	376	380	104
5	34	34	78	132	104	84	117	1,470	1,170	368	385	100
6	33	35	81	130	113	85	119	1,720	1,060	376	389	100
7	32	36	85	130	117	84	119	1,870	1,040	335	389	100
8	31	39	84	130	113	82	126	1,940	1,240	332	393	97
9	31	46	81	126	109	81	132	1,960	1,020	339	402	92
10	30	58	79	121	106	79	134	1,930	1,090	347	398	87
11	29	61	78	119	104	81	134	1,860	1,150	343	393	81
12	29	63	75	115	102	84	136	1,800	1,140	339	389	76
13	28	61	72	111	99	92	141	1,800	981	332	389	69
14	27	61	71	109	97	93	158	1,730	788	312	389	66
15	26	65	69	108	93	93	181	1,660	666	359	380	66
16	25	69	66	106	92	93	212	1,650	548	424	385	71
17	26	71	68	102	90	92	256	1,730	398	406	389	69
18	28	72	66	102	87	90	301	1,900	402	393	389	66
19	27	79	64	99	85	89	398	2,040	467	434	389	63
20	27	79	64	97	92	90	542	2,060	690	424	385	60
21	23	76	68	95	92	90	586	2,050	758	406	380	60
22	23	75	75	104	92	92	602	2,080	842	389	380	58
23	23	72	78	104	90	93	620	2,100	967	380	347	55
24	22	71	78	111	88	97	654	2,070	911	389	308	52
25	22	72	78	113	95	95	758	2,050	637	380	273	52
26	21	76	78	111	92	95	911	2,150	372	385	240	50
27	21	85	81	109	95	95	1,070	2,320	339	380	215	47
28	21	85	92	106	95	97	1,160	2,410	343	380	192	45
29	21	89	102	104	-	102	1,210	2,230	347	385	168	42
30	21	97	108	102	-	108	1,230	1,920	359	380	151	40
31	24	-	113	104	-	111	-	1,530	-	376	139	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	851	38	21	27.5	1,690
November	1,845	89	28	61.5	3,660
December	2,452	113	64	79.1	4,860
Calendar year 1945	126,477.4	2,390	9.0	347	250,900
January	3,492	132	95	113	6,930
February	2,765	117	85	98.8	5,480
March	2,025	111	79	91.1	5,600
April	12,463	1,230	113	415	24,720
May	56,660	2,410	1,100	1,828	112,400
June	24,505	1,360	339	817	48,600
July	11,597	434	312	374	23,000
August	10,556	402	139	341	20,940
September	2,217	126	40	73.9	4,400
Water year 1945-46	132,229	2,410	21	362	262,300

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, 285 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 1946.

Extremes.- Maximum discharge observed during year, 5,000 second-feet May 29 (gage height, 4.94 feet); minimum observed, 175 second-feet Nov. 19 (gage height, 0.78 foot), minimum daily, 180 second-feet Nov. 20.

1941-46: Maximum discharge observed, 7,000 second-feet June 3, 1943 (gage height, 6.33 feet); minimum observed, 53 second-feet (gates in mill dam closed) Sept. 18, 1944 (gage height, 0.40 foot); minimum daily, 68 second-feet Sept. 18, 1944.

Remarks.- Records fair. Gage read twice daily except Sundays. Flow regulated by Payette Lake (see p. 176), Lake Fork Reservoir (see p. 182), and occasionally by Halleck and Howard mill dam. Several diversions from tributaries above station for irrigation.

Cooperation.- Gage readings furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	221	297	479	a1,000		b350	1,080	3,380	3,710	936	634	a309
2	221	310	a419	946		b350	1,100	2,770	a3,380	967	607	a293
3	221	324	359	841	b330	b340	1,220	2,600	3,060	862	580	278
4	215	a330	410	830		b330	1,130	2,670	2,800	a860	a554	278
5	215	366	410	740		b350	1,140	a2,960	3,050	a860	527	290
6	209	418	373	a690		b400	1,250	3,260	3,590	800	495	352
7	a200	388	324	644		b390	a1,370	3,500	3,710	a720	503	359
8	191	*227	b320	589		b390	1,490	3,780	3,630	710	503	a365
9	209	209	b315	b550		b400	1,470	4,110	a3,000	830	503	380
10	197	197	b320	b510		a440	1,300	4,180	2,370	914	519	359
11	191	a257	b320	b480		479	1,210	4,090	2,230	872	a507	324
12	203	317	b330	b440		511	1,390	a3,900	2,060	730	495	297
13	191	410	b340			589	1,590	3,700	1,940	663	410	278
14	a194	410	b290			625	a1,980	3,610	1,900	a612	425	264
15	197	395	b250		b300	625	2,360	3,540	1,710	562	455	a277
16	197	410	b240	b400		b600	2,600	3,490	a1,600	553	471	290
17	197	345	*b270			a560	3,010	3,370	1,490	654	479	402
18	203	a265	b250			544	3,260	3,550	1,400	644	a483	425
19	227	185	b230			571	3,670	a3,810	1,270	607	487	388
20	227	180	b240			634	3,580	4,070	1,230	598	495	345
21	a227	b200	b280			710	a3,230	4,200	1,330	a589	487	317
22	227	b250	b340			780	2,880	4,280	1,490	580	479	a304
23	252	b300	b400			780	2,590	4,340	a1,680	562	487	290
24	215	373	b400			a821	2,620	4,350	1,870	511	487	278
25	203	a370	b400	b330	b340	862	2,790	4,320	1,690	511	a495	271
26	191	366	b410		*b320	800	3,180	a4,460	1,560	511	463	264
27	203	345	418		b360	914	3,440	4,590	1,170	527	455	258
28	a203	440	511		b370	1,030	a3,400	4,740	1,120	a590	388	252
29	203	511	883		-	1,290	3,280	4,950	967	625	366	a246
30	215	511	a1,150		-	1,220	3,580	4,790	a952	562	338	239
31	290	-	1,080		-	a1,150	-	4,230	-	589	324	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,555	290	191	211	13,000
November	9,906	511	180	330	19,650
December	12,761	1,150	230	412	25,310
Calendar year 1945	326,041	5,280	110	893	646,700
January	15,020	1,000	-	485	29,790
February	8,740	-	-	312	17,340
March	19,835	1,290	330	640	39,340
April	68,190	3,670	1,080	2,273	135,300
May	119,590	4,950	2,600	3,858	237,200
June	62,959	3,710	952	2,099	124,900
July	21,111	967	511	681	41,870
August	14,901	634	324	481	29,560
September	9,272	425	239	309	18,390
Water year 1945-46	368,840	4,950	180	1,011	731,600

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of records for station near Smiths Ferry and other stations in Payette River Basin.

b Stage-discharge relation affected by ice.

North Fork Payette River near Smiths Ferry, Idaho

Location.- Water-stage recorder. lat. 44°16', long. 116°04', in SW¼ sec. 23, T. 11 N., R. 3 E., 450 feet downstream from Beaver Creek, 2½ 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 1946.

Extremes.- Maximum discharge during year, 6,070 second-feet May 29 (gage height, 9.12 feet); minimum, 161 second-feet Nov. 21 (gage height, 2.44 feet).
1941-46: Maximum discharge, 9,110 second-feet June 3, 1943 (gage height, 10.70 feet); minimum, 99 second-feet (regulated) Sept. 19, 1944 (gage height, 2.05 feet), from rating curve extended below 150 second-feet; minimum daily, 115 second-feet Dec. 11, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Payette Lake (see p.176), Lake Fork Reservoir (see p.182), and occasionally by mill dam at Cascade. Several diversions from tributaries above station for irrigation.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.6	196	5.0	1,280
2.8	246	6.0	2,070
3.1	330	7.0	3,150
3.5	462	8.0	4,450
4.0	682	9.1	6,040

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	265	350	533	1,100		*450	1,700	4,700	5,080	1,050	632	330
2	260	360	444	1,050		440	1,600	4,340	4,550	1,020	642	316
3	257	370	406	1,000	430	430	1,750	4,100	4,280	988	613	301
4	254	370	466	960		430	1,590	4,170	4,100	982	618	290
5	255	400	473	940		450	1,580	4,390	4,090	982	533	290
6	260	*451	433	840		510	1,660	4,660	4,380	921	559	360
7	250	433	379	760		500	1,930	4,880	4,560	867	550	376
8	245	370	360	720		510	*2,160	5,160	4,510	861	550	376
9	240	300	348	680		520	2,220	5,460	4,370	861	541	392
10	245	298	350	660		560	1,950	5,650	3,700	1,010	550	386
11	230	327	350	*620		660	1,790	5,470	3,140	964	545	363
12	245	363	360	580		780	2,120	5,290	2,900	885	533	330
13	240	382	370	540		800	2,540	5,150	2,760	785	512	307
14	230	448	340	520		800	3,260	4,910	2,660	714	437	290
15	225	433	290	520	400	780	3,810	4,840	2,440	667	473	281
16	230	430	270	510		730	4,200	4,770	2,260	632	508	304
17	235	426	300	500		719	4,690	4,740	2,120	623	508	351
18	240	399	280	480		724	5,040	4,810	1,920	693	512	437
19	250	342	260	470		769	5,220	4,950	1,700	667	516	448
20	260	243	270	450		900	5,500	5,150	1,600	632	516	386
21	270	213	330			1,000	4,930	5,320	1,600	642	525	354
22	275	260	410			1,050	4,490	5,360	1,690	627	508	333
23	275	300	460			1,100	4,100	5,460	1,750	608	508	321
24	260	380	450			1,200	3,990	5,540	1,950	581	520	313
25	250	420	440			1,150	4,140	5,480	2,020	572	520	304
26	240	423	460	430	450	1,100	4,520	5,560	1,840	581	512	293
27	240	412	512			1,300	4,770	5,740	1,500	585	470	290
28	240	437	627			1,500	4,740	5,880	1,230	637	433	281
29	235	529	950		-	1,900	4,630	6,000	1,160	657	399	279
30	250	559	1,250		-	2,000	4,760	5,980	1,090	623	370	273
31	325	-	1,150		-	1,800	-	5,620	-	627	348	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,776	325	225	251	15,420
November	11,428	559	213	381	22,670
December	14,321	1,250	260	462	28,410
Calendar year 1945	403,577	6,260	166	1,106	800,500
January	18,630	1,100	-	601	38,950
February	11,550	-	-	412	22,910
March	27,562	2,000	430	889	54,670
April	101,380	5,500	1,580	3,379	201,100
May	159,530	6,000	4,100	5,146	316,400
June	82,950	5,080	1,090	2,765	164,500
July	23,544	1,050	572	759	46,700
August	15,961	642	348	515	31,660
September	9,955	448	273	332	19,750
Water year 1945-46	484,587	6,000	213	1,328	961,100

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 22-25, Dec. 10-26, Dec. 29 to about Mar. 10. No gage-height record Oct. 5 to Nov. 5, Nov. 8, 9, Feb. 17-28, Mar. 6-15; discharge computed on basis of recorded range in stage and records for North Fork Payette River at Cascade, Payette River near Horseshoe Bend, and South Fork Payette River at Banks.

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 1946.

Extremes.- Maximum discharge observed during year, 4.1 second-feet July 21, 23, 26, 27; maximum gage height observed, 1.03 feet July 21; minimum discharge observed, 0.9 second-foot Oct. 17, 21-23 (gage height, 0.40 foot).
1942-46: Maximum discharge observed, 4.8 second-feet Apr. 18-24, 26-28, May 1, 2, 4, 5, 7-11, July 2, 4, 1943; maximum gage height observed, 1.12 feet June 2, 1943 (backwater from North Fork Payette River); no flow Sept. 22 to Nov. 7, 1943.

Remarks.- Records fair. Gage read once daily. Flow regulated by 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.0	2.0	2.0	2.1	2.1	2.1	2.3	2.3	2.1	4.0	3.7
2	1.6	1.0	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.1	4.0	3.7
3	1.4	1.0	2.0	2.0	2.1	2.1	2.1	2.3	2.3	2.1	4.0	3.6
4	1.4	1.3	2.0	2.0	2.1	2.1	2.1	2.3	2.3	2.1	4.0	3.6
5	1.3	1.3	2.0	2.0	2.1	2.1	2.1	2.4	2.4	2.1	4.0	3.6
6	1.1	1.3	2.0	2.0	2.1	2.1	2.1	2.4	2.4	2.1	4.0	3.5
7	1.1	1.3	2.0	2.1	2.1	2.1	2.1	2.8	2.3	2.1	3.9	3.5
8	1.1	1.3	2.0	2.1	2.1	2.1	2.1	2.8	2.3	2.2	3.9	3.5
9	1.0	1.3	2.0	2.1	2.1	2.1	2.1	2.8	2.3	2.2	4.0	3.5
10	1.2	1.4	2.0	2.1	2.1	2.1	2.1	2.8	2.3	2.1	4.0	3.4
11	1.2	1.4	2.0	2.0	2.1	2.1	2.1	2.8	2.3	2.1	4.0	3.3
12	1.2	1.4	2.0	2.0	2.1	2.1	2.1	2.4	2.2	2.2	4.0	3.3
13	1.2	1.8	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.2	3.9	3.3
14	1.0	1.8	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.8	3.9	3.3
15	1.0	1.8	2.0	2.0	2.1	2.1	2.2	2.3	2.2	3.4	3.9	3.3
16	1.0	1.8	2.0	2.0	2.1	2.1	2.2	2.3	2.1	3.4	3.9	3.3
17	.9	1.8	2.0	2.0	2.0	2.1	2.2	2.3	2.1	3.8	3.9	3.3
18	1.0	1.9	2.0	2.0	2.0	2.1	2.2	2.3	2.1	3.9	4.0	3.3
19	1.0	1.9	2.0	2.0	2.0	2.1	2.3	2.3	2.1	4.0	4.0	3.3
20	1.0	1.9	2.0	2.1	2.0	2.1	2.3	2.3	2.2	4.0	4.0	3.3
21	.9	1.9	2.0	2.0	2.0	2.1	2.3	2.3	2.2	4.1	4.0	3.3
22	.9	1.9	2.0	2.0	2.0	2.1	2.4	2.3	2.2	4.0	3.9	3.3
23	.9	1.9	2.0	2.1	2.0	2.1	2.4	2.3	2.2	4.1	3.9	3.3
24	1.0	1.9	2.0	2.1	2.0	2.1	2.4	2.3	2.2	4.0	3.9	3.3
25	1.0	1.9	2.0	2.0	2.0	2.1	2.4	2.3	2.2	4.0	3.9	3.3
26	1.0	1.9	2.0	2.0	2.1	2.1	2.4	2.3	2.1	4.1	3.9	3.3
27	1.1	1.9	2.0	2.1	2.1	2.1	2.4	2.3	2.1	4.1	3.8	3.2
28	1.1	1.9	2.0	2.1	2.1	2.1	2.4	2.4	2.1	4.0	3.8	3.3
29	1.1	1.9	2.0	2.1	-	2.1	2.3	2.4	2.1	4.0	3.8	3.3
30	1.1	2.0	2.0	2.1	-	2.1	2.3	2.4	2.1	4.0	3.8	3.3
31	1.0	-	2.0	2.1	-	2.1	-	2.3	-	4.0	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	34.2	1.6	0.9	1.10	68
November	48.8	2.0	1.0	1.63	97
December	62.0	2.0	2.0	2.00	123
Calendar year 1945	811.2	-	-	2.22	1,610
January	63.2	2.1	2.0	2.04	125
February	57.9	2.1	2.0	2.07	115
March	65.1	2.1	2.1	2.10	129
April	66.5	2.4	2.1	2.22	132
May	74.4	2.8	2.3	2.40	148
June	66.3	2.4	2.1	2.21	132
July	97.4	4.1	2.1	3.14	193
August	121.8	4.0	3.8	3.93	242
September	101.5	3.7	3.2	3.38	201
Water year 1945-46	859.1	4.1	.9	2.35	1,700

Lake Fork Payette River above Jumbo Creek, near McCall, Idaho

Location.- Water-stage recorder, lat. 44°55', long. 115°59', in NE¼ sec. 8, T. 18 N., R. 4 E., 200 feet upstream from bridge at abandoned power plant, a quarter of a mile upstream from Jumbo Creek, 3½ miles upstream from Lake Fork Reservoir dam, and 5½ miles east of McCall. Prior to Nov. 10, 1945, staff gage 200 feet downstream at different datum.

Drainage area.- 48.9 square miles.

Records available.- October 1945 to September 1946.

Extremes.- Maximum discharge during year, 925 second-feet June 3 (gage height, 7.30 feet); minimum observed, 14 second-feet Oct. 15, 16.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	32	23			30	55	360	563	207	66	17
2	21	31	26			29	55	378	665	130	79	18
3	20	35	29	45		29	54	526	764	213	46	19
4	18	37	33			29	54	678	746	191	38	21
5	18	55	31			30	54	774	694	170	36	32
5	18	46	29			31	56	756	637	154	34	30
7	17	36	27			30	58	699	475	141	32	34
8	17	33	26			29	62	712	491	155	31	34
9	18	30	23			30	60	637	544	219	30	31
10	16	32	25			31	56	613	574	149	28	26
11	16	31	26	35		33	58	570	540	130	27	22
12	15	31	26			35	72	593	491	119	26	32
13	15	29	25			35	92	593	498	110	25	18
14	15	29	23			33	120	537	498	99	24	17
15	14	31	24			33	161	526	440	89	24	31
16	14	31	25		30	32	225	593	400	83	22	42
17	31	31	26			31	346	682	346	77	21	38
18	26	31	22			33	482	738	358	71	21	33
19	20	30	*22			38	555	703	397	66	21	29
20	21	27	23			44	408	670	411	62	20	26
21	18	23	25			45	313	686	408	61	20	25
22	20	27	25			42	263	716	389	58	19	28
23	18	30	25			40	283	645	346	54	20	25
24	18	30	25	33		39	381	649	313	52	23	23
25	18	30	25			38	578	670	252	48	22	21
26	18	29	25			40	699	806	232	47	23	20
27	18	32	25			51	590	783	208	55	21	19
28	18	32			*31	58	540	703	194	46	19	19
29	18	35			-	68	566	540	219	42	19	19
30	22	25	45		-	60	459	505	194	41	19	18
31	36	-			-	58	-	526	-	64	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	593	36	14	19.1	0.391	0.45	1,180
November	961	55	23	32.0	.654	.73	1,910
December	869	-	22	28.0	.573	.66	1,720
Calendar year	-	-	-	-	-	-	-
January	1,103	-	-	35.6	.728	.84	2,190
February	841	-	-	30.0	.613	.64	1,670
March	1,184	68	29	38.2	.781	.90	2,350
April	7,755	699	54	258	5.28	5.90	15,380
May	19,567	806	360	631	12.9	14.88	38,810
June	13,287	764	194	443	9.06	10.11	26,350
July	3,203	219	41	103	2.11	2.44	6,350
August	874	79	18	28.2	.577	.66	1,730
September	767	42	17	25.6	.524	.58	1,520
Water year 1945-46	51,004	806	14	140	2.86	38.79	101,200

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 8, 9, 20-24, Nov. 30 to Dec. 3, Dec. 8-11, 24-25, Dec. 28 to about Feb. 20, Mar. 2, 4, 9, 10, 16, 17. No gage-height record Jan. 18 to Feb. 27; discharge computed on basis of weather records and records for station below Lake Irrigation District Canal and Johnson Creek at Yellowpine.

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 NW¼NW¼ 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 1946.

Extremes.- Maximum contents observed during year, 19,170 acre-feet June 22, 23 (elevation, 5,118.40 feet); probably no storage during fall and winter.
1926-46: 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 year.

Remarks.- Reservoir is formed by earth- and rock-fill dam completed in 1926. Capacity, 16,940 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-		-	18,770	13,750	6,594
2							-		-	18,770	13,600	6,302
3							-		-	18,720	13,390	6,151
4							-		-	18,720	13,160	5,954
5							-		-	18,720	12,960	5,838
6							-		-	18,680	12,730	5,722
7							-		-	18,600	12,420	5,664
8							-		-	18,520	12,170	5,606
9		77					-		-	18,620	11,930	5,606
10							-		16,970	18,620	11,570	5,558
11							-		17,730	18,560	11,360	5,558
12							-		18,280	18,440	11,070	-
13							-		18,600	18,350	10,820	-
14							-		18,880	18,140	10,530	5,394
15							-		18,930	17,980	10,170	-
16							-		18,930	17,810	9,954	-
17							1,391		18,880	17,620	9,695	-
18							-		18,720	17,410	9,379	-
19							-	16,190	18,880	17,180	9,176	-
20							-		19,010	16,940	8,906	-
21							-		19,100	16,690	8,703	-
22							-		19,170	16,440	8,528	-
23							-		19,170	16,160	8,271	-
24							-		19,150	15,870	8,068	5,606
25							-		19,090	15,540	7,916	-
26							-		18,880	15,260	7,727	-
27							-		18,800	15,020	7,525	-
28							7,752		18,800	14,590	7,399	-
29							-		18,800	14,370	7,273	-
30							-		18,780	14,180	7,084	-
31							-		-	13,950	6,794	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
June 30	5,118.16	18,780	-
July 31	5,115.07	13,950	-4,830
Aug. 31	5,110.02	6,794	-7,156

Lake Fork Payette River below Lake Irrigation District Canal, near McCall, Idaho

Location.- Water-stage recorder, lat. 44°54', long. 116°03', in SW¼ 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 1946.

Extremes.- Maximum discharge during year, 862 second-feet May 27, 28 (gage height, 5.29 feet); minimum, 9.3 second-feet (regulated) Sept. 13, 14 (gage height, 2.33 feet).
1940-46: Maximum discharge, 1,380 second-feet June 1, 1943 (gage height, 6.13 feet); minimum, 0.4 second-foot (regulated) Mar. 27, 28, 1944; minimum gage height, 1.76 feet Mar. 28, 1944.

Remarks.- Records good. Flow regulated by Lake Fork Reservoir (see preceding page). Lake Irrigation District Canal diverts above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	a65	44	70	49	39	66	372	496	86	59	45
2	34	a65	43	71	48	b39	67	372	536	88	58	44
3	34	a65	42	71	49	b39	69	376	640	80	54	43
4	33	a65	42	71	b48	b38	69	384	730	87	54	42
5	33	a81	43	71		38	69	388	740	82	55	41
6	33	a81	44	70	a47	38	71	392	710	76	55	35
7	33	a70	44	69		b38	73	396	599	73	55	28
8	33	61	44	67		38	74	484	385	69	55	24
9	33	*59	42	66		b38	76	594	308	86	54	17
10	33	59	41	64		b38	76	650	166	69	54	12
11	32	57	41	b64	a45	38	76	532	113	66	54	10
12	33	54	40	b61		40	78	420	181	65	54	10
13	42	53	40	b59		42	82	550	254	59	54	10
14	42	51	b38	58		b41	88	586	330	73	54	20
15	41	51	38	b58		42	98	486	352	60	53	31
16	41	51	37	57		b41	117	608	336	61	51	32
17	41	50	37	55		b40	145	665	316	66	50	32
18	41	49	b37	b54	a43	42	198	760	237	64	51	31
19	40	49	b37	b54		42	267	800	237	62	50	30
20	40	49	*b37	b53		44	298	705	215	59	52	30
21	40	48	37	b52		47	305	700	250	60	52	30
22	40	46	37	b53		49	308	750	267	61	54	30
23	40	45	37	b52		51	312	750	270	62	50	30
24	39	44	38	53	a40	52	316	690	263	62	45	29
25	38	45	38	53		b52	330	695	215	61	48	29
26	38	45	38	b52		53	340	765	175	62	51	29
27	38	46	38	b51	*40	55	356	852	106	61	50	29
28	38	46	38	b50	40	58	364	835	84	59	49	30
29	a38	46	44	b49	-	62	364	700	86	55	45	30
30	a40	46	60	b49	-	64	368	581	86	59	44	30
31	a50	-	66	49	-	66	-	527	-	59	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,165	50	32	37.6	2,310
November	1,642	81	44	54.7	3,260
December	1,282	66	37	41.4	2,540
Calendar year 1945	44,615	956	15	122	88,500
January	1,826	71	49	58.9	3,620
February	1,230	49	-	43.9	2,440
March	1,404	66	38	45.3	2,780
April	5,520	368	66	184	10,950
May	18,365	852	372	592	36,430
June	9,683	740	84	323	19,210
July	2,092	88	55	67.5	4,150
August	1,608	59	44	51.9	3,190
September	863	45	10	28.8	1,710
Water year 1945-46	46,680	852	10	128	92,590

* 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 Lake Fork Payette River above Jumbo Creek, near McCall, and Johnson Creek at Yellow Pine.
b Stage-discharge relation affected by ice.

Lake Irrigation District Canal near McCall, Idaho

Location.- Staff gage, lat. 44°54', long. 116°03', in SW¼ sec. 13, T. 18 N., R. 3 E., 600 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 1946.
Extremes.- Maximum discharge observed during year, 140 second-feet June 21, 22 (gage height, 4.74 feet); practically no flow during nonirrigation season.
1926-46: 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 Sept. 12, 13, which are fair. Staff gage read once or twice a day. No diversion between head and station. Canal diverts from right bank of Lake Fork Payette River in SW¼ sec. 13, T. 18 N., R. 3 E., for irrigation of 6,800 acres of land near McCall and Norwood, in the Lake Irrigation District project.
Cooperation.- Gage readings furnished by Lake Irrigation District.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	136	102	65
2									-	134	99	74
3									-	126	91	75
4									-	123	86	71
5									-	123	89	67
6									-	119	93	63
7									-	117	95	49
8									-	121	96	42
9		†0							-	121	96	33
10									77	118	96	28
11									134	118	96	30
12									135	118	96	a30
13									135	119	96	a31
14									137	121	94	12
15									137	121	93	0
16									137	118	90	0
17							†1.5		137	116	87	0
18									137	116	87	0
19								†1.2	137	121	87	0
20			†0						137	123	86	0
21									139	123	77	0
22									139	124	77	0
23									139	126	75	†0
24									139	131	70	0
25									139	132	63	0
26									139	132	59	0
27									139	131	59	0
28					†0				139	123	59	0
29							.1		139	122	63	0
30									139	115	65	0
31									-	112	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June 10-30	2,830	139	77	135	5,610
July	3,800	136	112	123	7,540
August	2,587	102	59	83.5	5,130
September	670	75	0	22.3	1,330
The period	-	-	-	-	19,610

† Field estimate.
a No gage-height record; discharge interpolated.
Note.- Records available only during irrigation season June 10 to Sept. 14; at other times the only flow is leakage through head gates.

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 1946 (fragmentary).
Remarks.- Records good. Staff gage read once or twice daily. Flow regulated at head gate of canal. No diversion 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. Discharge measurement of 22.9 second-feet made on May 20.
Cooperation.- Gage readings furnished by Lake Irrigation District.

Monthly discharge, 1945-46

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
June 10-30	1,225	61	46	58.3	2,430
July	1,437	56	28	46.4	2,850
August	1,278	43	35	41.2	2,530
September	329.5	35	-	11.0	654
The period	-	-	-	-	8,460

Note.- No gage-height record Sept. 12, 13, 15-27, 29, 30; discharge interpolated or extrapolated.

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 1946.

Average discharge.- 10 years, 39.8 second-feet.

Extremes.- Maximum discharge observed during year, 580 second-feet Apr. 19 (gage height, 5.11 feet); minimum observed, 1.1 second-feet Oct. 8 (gage height, 0.57 foot).
1936-46: Maximum discharge observed, 775 second-feet Mar. 27, 1940 (gage height, 6.00 feet); minimum observed, that of Oct. 8, 1945.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Gage read once daily. No diversion above station; diurnal fluctuations caused by mill pond at Tamarack. 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	7.1	9.8	26	a13	10	150	248	28	12	7.1	5.5
2	4.8	4.8	a9.5	27	13	9.5	147	208	28	12	7.1	a5.5
3	4.8	7.1	9.2	28	12	a9.5	140	198	27	12	6.5	5.5
4	3.8	a6.8	8.6	26	a12	9.5	126	219	25	11	6.5	a5.0
5	3.2	6.5	8.6	24	12	9.8	135	226	22	10	a6.6	4.5
6	2.8	6.0	a8.9	a22		11	152	250	22	9.5	6.8	6.8
7	1.2	6.0	9.2	*21		9.8	180	250	19	9.5	7.1	13
8	1.1	6.0	8.6	19	a12	11	197	250	18	a9.8	7.7	16
9	2.0	6.0	8.0	18		11	208	221	18	10	a7.4	a14
10	2.0	6.0	a8.0	17		11	160	191	17	a9.8	7.1	12
11	2.4	a6.0	8.0	17	12	15	145	152	17	9.5	a7.1	all
12	3.2	a6.1	b7	17	12	20	208	141	18	9.5	7.1	all
13	3.2	a6.2	a6	16	12	a40	313	123	17	9.5	a6.8	10
14	a3.3	*6.2	b5	16	12	29	438	98	17	9.5	6.5	8.3
15	3.4	6.5	b5	16	12	29	447	90	16	9.5	6.0	9.5
16	5.0	a6.8	b5	15	12	30	464	78	15	8.9	5.5	a8.0
17	5.0	7.1	b5	15	a12	a30	518	71	12	8.3	5.5	6.5
18	5.0	a7.1	b5	15	11	30	549	63	12	8.3	5.5	a6.0
19	5.0	7.1	b7	a15	11	30	580	63	12	8.3	a5.8	5.5
20	5.0	a5.6	a8	15	10	46	486	56	a12	7.7	6.0	a5.5
21	a5.2	4.0	8.0	15	10	77	408	52	11	7.1	5.5	5.5
22	5.5	3.6	8.6	15	10	86	346	50	11	a7.1	a5.5	5.5
23	5.5	a3.6	8.6	15	10	93	308	54	a11	7.1	5.5	a5.5
24	5.5	3.6	8.6	15	a10	91	311	46	11	6.5	5.5	5.5
25	5.5	a3.8	a8.6	a15	10	78	359	40	12	a6.5		a5.5
26	5.0	4.0	8.6	15	10	71	421	40	12	6.5		5.5
27	4.5	a15	14	14	10	107	408	41	12	6.5		a6.0
28	a4.8	7.4	21	a14	10	160	368	39	a12	6.5	a6.0	6.5
29	5.0	11	26	13	-	242	306	34	12	6.5		7.7
30	6.0	22	27	13	-	184	306	30	12	a6.5		a7.1
31	7.1	-	28	13	-	155	-	29	-	6.5		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	130.3	7.1	1.1	4.20	258
November	205.0	22	3.6	6.83	407
December	316.4	28	5	10.2	628
Calendar year 1945	15,041.9	361	1.1	41.2	29,830
January	542	28	13	17.5	1,080
February	318	13	10	11.4	631
March	1,745.1	242	9.5	56.3	3,460
April	9,284	580	126	309	18,410
May	3,651	250	29	118	7,240
June	488	28	11	16.3	968
July	267.9	12	6.5	8.64	531
August	195.7	7.7	5.5	6.31	388
September	229.4	16	4.5	7.65	455
Water year 1945-46	17,372.8	580	1.1	47.6	34,460

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of weather records and records for other stations on Weiser River.
b Stage-discharge relation affected by ice.

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 Setpember 1920, March 1939 to September 1946.

Extremes.- Maximum discharge during year, 1,420 second-feet Apr. 19 (gage height, 5.22 feet); minimum, 12 second-feet Aug. 22; minimum gage height, 1.40 feet Oct. 1, Nov. 22. 1920, 1939-46: 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 excellent except those for periods of ice effect or no gage-height record, which are fair. Diurnal fluctuation at low flow caused by mill pond at Tamarack. Several small diversions from river and tributaries above station.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 15-21)

Oct. 1 to Apr. 18						Apr. 19 to Sept. 30			
1.4	16	2.3	90	4.0	665	1.5	13	3.0	238
1.6	24	2.6	147	4.5	950	1.7	22	3.5	417
1.8	36	3.0	250	5.1	1,340	2.0	43	4.0	631
2.0	52	3.5	430			2.3	79	4.5	892
						2.6	133	5.1	1,290

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	36	45	120	44	41	329	617	160	45	18	17
2	19	37	49	111	44	41	312	537	160	47	19	15
3	19	36	48	104	44	41	298	550	162	46	18	20
4	19	33	47	98	40	a43	287	636	155	42	17	22
5	19	40	46	92	40	a46	304	724	140	40	18	21
6	19	39	44	76	40	a50	346	719	133	36	17	23
7	20	36	44	74	42	*55	418	660	115	34	17	23
8	21	30	38	73	40	56	493	689	111	37	17	24
9	23	25	a32	62	40	63	457	631	108	51	19	23
10	25	37	a33	70	41	73	370	563	108	41	16	18
11	25	35	a34	62	40	105	354	486	109	35	16	20
12	25	34	a33	44	36	139	493	441	102	34	15	20
13	25	32	a32	b48	39	170	692	405	100	31	14	18
14	25	*31	a31	*b51	39	152	992	370	99	29	14	19
15	26	38	a30	45	38	141	1,040	340	95	28	15	23
16	27	38	b32	b47	38	122	1,100	318	95	26	15	31
17	31	37	b35	b50	38	115	1,240	315	90	26	15	29
18	33	35	b32	b48	39	118	1,290	311	69	24	13	26
19	30	36	b31	b47	39	172	1,290	287	68	22	13	22
20	31	33	b30	b48	40	268	1,050	267	65	20	13	21
21	30	24	b32	b47	39	328	852	257	63	20	14	22
22	28	24	b34	b45	40	304	755	267	63	22	13	20
23	28	35	b36	b45	38	301	709	264	69	19	16	20
24	28	37	b38	b45	37	294	729	229	66	18	18	20
25	28	35	b40	b45	39	250	858	229	58	18	20	21
26	28	37	b43	44	38	253	1,030	238	54	18	17	20
27	28	56	45	46	42	336	957	232	52	20	18	18
28	28	56	75	43	41	470	819	217	51	18	19	20
29	28	71	208	44	-	625	792	194	51	18	16	20
30	33	63	212	40	-	493	739	172	47	18	18	19
31	38	-	143	44	-	390	-	168	-	19	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	806	38	19	26.0	1,600
November	1,136	71	24	37.9	2,250
December	1,652	212	30	53.3	3,280
Calendar year 1945	47,109	780	15	129	93,430
January	1,858	120	40	59.9	3,690
February	1,115	44	36	39.8	2,210
March	6,053	625	41	195	12,010
April	21,395	1,290	287	713	42,440
May	12,333	724	168	398	24,460
June	2,818	162	47	93.9	5,590
July	902	51	18	29.1	1,790
August	506	20	13	16.3	1,000
September	635	31	15	21.2	1,260
Water year 1945-46	51,209	1,290	13	140	101,600

* 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.

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 1946.

Extremes.- Maximum discharge during year, 3,110 second-feet Apr. 19 (gage height, 7.19 feet); minimum, 33 second-feet July 21 (gage height, 0.65 foot).
1937-46: 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.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.190) and other reservoirs. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	78	251	564	147	209	1,410	1,530	510	155	69	80
2	50	75	209	492	142	214	1,240	1,350	518	153	66	64
3	49	72	184	499	138	211	1,160	1,330	499	147	69	55
4	47	73	178	459	b135	237	1,060	1,500	477	136	68	60
5	46	75	176	466	b135	279	1,060	1,720	434	124	68	69
6	48	93	192	369	135	379	1,120	1,780	402	110	64	71
7	48	77	321	332	155	420	1,220	1,680	350	105	64	73
8	47	68	198	306	145	423	1,370	1,720	326	111	68	78
9	47	59	144	256	b140	*510	1,330	1,660	306	155	76	76
10	47	70	157	259	b140	579	1,130	1,540	293	131	82	70
11	47	86	157	237	b140	970	1,020	1,380	274	116	81	68
12	47	86	138	176	b125	1,490	1,270	1,270	269	104	81	66
13	47	78	112	194	b130	1,710	1,640	1,180	266	93	81	64
14	47	77	b90	*209	b140	1,260	2,200	1,080	261	84	80	64
15	48	122	b75	174	b130	1,000	2,330	1,000	259	77	78	63
16	50	*131	b75	188	b130	773	2,400	935	249	70	80	71
17	53	147	b85	b190	b130	694	2,700	920	254	59	78	70
18	62	119	b80	b180	131	746	2,930	930	232	48	78	64
19	60	198	b75	b180	128	1,360	3,010	890	211	40	76	60
20	61	122	b75	b190	135	2,180	2,750	854	198	37	73	56
21	58	91	b100	b180	128	2,300	2,280	818	190	44	74	56
22	61	81	b110	174	128	1,690	1,920	845	184	65	71	56
23	58	93	b140	b180	133	1,530	1,730	863	209	65	81	55
24	56	102	164	168	138	1,410	1,710	782	223	66	92	54
25	57	110	166	164	157	1,120	1,960	773	196	69	86	53
26	57	288	194	153	162	1,080	2,320	786	172	70	85	52
27	58	648	322	b160	186	1,450	2,300	773	158	72	84	50
28	59	382	1,550	164	198	1,750	2,040	733	164	69	82	48
29	58	533	1,760	157	-	2,450	1,920	656	178	68	84	50
30	66	369	1,040	140	-	2,070	1,830	603	166	66	82	49
31	81	-	729	b145	-	1,760	-	544	-	70	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,671	81	46	53.9	3,310
November	4,603	648	59	153	9,130
December	9,247	1,760	75	298	18,340
Calendar year 1945	146,336	2,120	42	401	290,300
January	7,705	564	140	249	15,280
February	3,961	198	125	141	7,860
March	34,254	2,450	209	1,105	67,940
April	54,360	3,010	1,020	1,812	107,800
May	34,425	1,780	544	1,110	68,280
June	8,428	518	158	281	16,720
July	2,779	155	37	89.6	5,510
August	2,386	92	64	77.0	4,730
September	1,865	80	48	62.2	3,700
Water year 1945-46	165,684	3,010	37	454	328,600

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

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., 2¼ miles northeast of Cambridge and 2½ miles upstream from Rush Creek.

Drainage area.- 605 square miles.

Records available.- March 1939 to September 1946.

Extremes.- Maximum discharge during year, 4,440 second-feet Mar. 21 (gage height, 7.29 feet); minimum, 67 second-feet July 21 (gage height, 1.06 feet).
1939-46: Maximum discharge, 6,670 second-feet Mar. 31, 1940 (gage height, 8.30 feet); minimum, 23 second-feet (regulated) Oct. 1, 1943 (gage height, 0.78 foot); minimum daily, 27 second-feet Sept. 2, 3, 1940.

Remarks.- Records excellent except those for periods of ice effect, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.190) and other reservoirs. Diversions above station for irrigation.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 15, Dec. 19-23)

Oct. 1 to Dec. 28				Dec. 29 to Sept. 30					
1.3	69	3.5	772	1.1	71	2.5	372	5.0	1,910
1.6	112	4.5	1,390	1.3	95	3.0	577	6.0	2,820
2.0	186	5.5	2,180	1.6	144	3.5	855	7.1	4,150
2.5	318	6.3	3,020	2.0	227	4.0	1,170		
3.0	517								

Discharge, in second-fset, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	149	433	1,070	210	466	2,100	2,300	1,140	299	91	91
2	74	138	342	921	210	495	1,810	2,090	1,160	288	87	86
3	73	133	293	939	210	466	1,670	2,140	1,180	285	86	72
4	69	131	281	861	190	558	1,530	2,420	1,140	274	83	74
5	69	131	275	879	200	686	1,490	2,800	1,060	252	85	85
6	70	153	293	742	200	963	1,560	2,900	988	227	81	87
7	73	127	569	632	210	1,040	1,640	2,780	867	209	79	94
8	74	106	332	572	200	982	1,810	2,820	801	202	80	104
9	77	95	232	470	190	1,120	1,820	2,700	766	279	81	102
10	77	104	237	466	190	1,270	1,570	2,550	736	232	90	96
11	78	131	245	437	190	1,850	1,390	2,330	686	202	88	91
12	79	136	208	350	170	*2,880	1,630	2,200	632	181	87	88
13	79	127	149	317	180	3,220	2,040	2,080	572	165	87	86
14	78	122	142	311	190	2,360	2,700	1,960	554	150	85	83
15	79	160	114	*257	180	1,850	2,920	1,820	530	139	85	87
16	82	204	120	271	180	1,420	3,110	1,770	495	124	87	108
17	85	*232	140	291	180	1,250	3,470	1,790	486	112	85	112
18	95	182	130	255	190	1,260	3,360	1,850	437	96	83	98
19	104	306	119	252	190	2,200	4,050	1,790	404	86	82	91
20	102	201	117	271	200	3,560	3,750	1,720	386	76	80	86
21	104	155	147	250	210	3,880	3,110	1,650	379	69	80	82
22	104	124	166	230	210	2,640	2,620	1,710	369	90	78	85
23	106	143	213	240	230	2,310	2,380	1,740	396	91	88	83
24	104	153	235	230	263	2,100	2,380	1,580	422	87	108	80
25	101	170	253	220	327	1,720	2,720	1,560	369	90	100	78
26	101	424	309	210	362	1,580	3,290	1,650	342	87	95	78
27	102	1,130	569	220	407	1,990	3,320	1,650	320	115	95	75
28	102	712	2,910	220	422	2,300	2,990	1,570	302	106	91	73
29	102	920	3,500	210	-	3,220	2,830	1,420	311	94	92	73
30	104	680	2,040	200	-	2,950	2,730	1,300	311	88	90	74
31	142	-	1,370	210	-	2,590	-	1,210	-	90	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,768	142	69	89.3	5,490
November	7,679	1,130	95	256	15,230
December	16,483	3,500	114	532	32,690
Calendar year 1945	241,040	3,600	51	660	478,100
January	13,004	1,070	200	419	25,790
February	6,291	422	170	225	12,480
March	57,176	3,880	466	1,844	113,400
April	74,290	4,050	1,390	2,476	147,400
May	61,850	2,900	1,210	1,995	122,700
June	18,541	1,180	302	618	36,780
July	4,885	299	69	158	9,690
August	2,700	108	78	87.1	5,360
September	2,602	112	72	86.7	5,160
Water year 1945-46	268,269	4,050	69	735	532,200

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 16-18, Jan. 22 to Feb. 23 (no gage-height record Jan. 23-28, Jan. 30 to Feb. 4; discharge computed on basis of weather records and records for other stations on Weiser River).

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 1946.

Average discharge.- 25 years (1921-46), 851 second-feet.

Extremes.- Maximum discharge during year, 8,770 second-feet Mar. 13 (gage height, 7.42 feet); minimum, 60 second-feet Aug. 23 (gage height, 0.97 foot).
1920-46: 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 excellent except those for periods of ice effect, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.190) and other reservoirs. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	182	702	1,790	300	1,000	3,980	3,320	1,620	404	97	100
2	155	178	535	1,440	300	1,110	3,230	2,980	1,620	382	100	95
3	149	189	470	1,490	300	977	2,830	2,960	1,680	382	93	95
4	143	189	431	1,350	270	1,170	2,580	3,310	1,650	365	84	95
5	134	192	431	1,410	280	1,460	2,410	3,800	1,550	320	86	97
6	131	203	420	1,300	280	2,020	2,540	4,000	1,420	279	84	115
7	131	225	716	1,020	290	2,780	2,530	3,910	1,270	245	84	120
8	131	196	565	896	270	2,470	2,680	3,870	1,140	233	81	134
9	131	182	442	752	260	2,710	2,830	3,800	1,060	292	77	146
10	128	178	370	745	260	3,120	2,500	3,590	1,020	330	71	137
11	125	196	392	681	260	4,440	2,180	3,290	960	266	75	131
12	128	233	355	523	250	6,600	2,290	3,130	904	233	73	123
13	128	233	262	431	260	8,290	2,780	3,010	835	203	73	115
14	125	214	240	420	270	*5,880	3,500	2,840	790	178	79	110
15	120	229	170	370	250	4,270	4,000	2,650	752	165	79	110
16	120	320	190	380	250	3,130	4,170	2,580	716	152	75	128
17	125	370	230	400	250	2,780	4,490	2,590	702	134	71	172
18	134	*335	200	360	270	2,600	4,830	2,720	660	120	71	168
19	149	335	180	350	290	4,000	5,050	2,650	608	105	66	158
20	158	370	170	380	310	6,110	5,010	2,540	571	90	66	146
21	155	279	250	360	330	6,820	4,390	2,410	541	79	66	140
22	155	225	280	340	350	4,830	3,750	2,440	523	68	64	131
23	158	210	330	350	390	4,170	3,420	2,540	541	77	64	131
24	155	233	360	340	500	3,670	3,290	2,280	614	81	79	128
25	152	258	450	320	620	3,100	3,640	2,250	553	79	123	120
26	149	335	900	310	700	2,760	4,240	2,350	511	84	102	118
27	149	1,370	1,600	320	800	3,190	4,520	2,530	453	86	100	118
28	149	1,080	6,180	320	900	3,630	4,170	2,380	436	128	97	115
29	149	1,040	6,660	310	-	4,760	3,910	2,150	464	115	95	115
30	158	1,000	3,980	290	-	5,140	3,870	1,870	442	102	100	118
31	175	-	2,560	300	-	4,730	-	1,760	-	90	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,407	175	120	142	8,740
November	10,779	1,370	178	359	21,380
December	31,021	6,660	170	1,001	61,530
Calendar year 1945	374,236	6,940	50	1,025	742,300
January	20,048	1,790	290	647	39,760
February	10,060	900	250	359	19,950
March	113,717	8,290	977	3,668	225,600
April	105,610	5,050	2,180	3,520	209,500
May	88,500	4,000	1,760	2,855	175,500
June	26,606	1,680	436	887	52,770
July	5,867	404	68	189	11,640
August	2,575	123	64	83.1	5,110
September	3,729	172	95	124	7,400
Water year 1945-46	422,919	8,290	64	1,159	838,900

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 14-27, Jan. 14 to Mar. 1, (no gage-height record Jan. 14-16, 28-31, Feb. 4-6, 13, 14; discharge computed on basis of weather records and records for other Weiser River stations).

West Fork Weiser River near Fruitvale, Idaho

Location.- Staff gage, lat. 44°50', long. 116°28', in NW¼ sec. 9, T. 17 N., R. 1 W., at bridge, 1¼ miles northwest of Fruitvale and 1½ 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 1946.
Average discharge.- 14 years (1911-12, 1919-22, 1924-25, 1937-46), 92.7 second-feet.
Extremes.- Maximum discharge observed during year, 896 second-feet Apr. 19 (gage height, 4.51 feet); minimum observed, 2.2 second-feet Sept. 26, 30; minimum gage height observed, 0.89 foot Nov. 9.
1910-13, 1919-25, 1937-46: Maximum discharge observed, 1,170 second-feet Mar. 31, 1940; minimum observed, 0.5 second-foot July 23-27, 1911.
Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Gage usually read once daily. Several diversions above and below station for irrigation. Flow regulated by Lost Valley Reservoir (see following page).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	16	37	74	b19	a34	269	464	60	a50	51	64
2	14	18	31	58	a19	34	218	422	60	58	51	a50
3	14	13	31	58	b18	a33	196	422	38	38	51	a30
4	14	a14	29	56	b18	35	176	464	35	35	51	30
5	13	16	26	a55	b18	39	188	580	34	34	a51	31
6	a14	a15	29	47	b19	46	196	605	34	35	51	32
7	14	14	28	a45	a20	*43	228	556	34	35	55	32
8	a14	12	a28	41	b19	50	269	605	28	31	55	31
9	a14	9.2	27	b35	b19	62	243	605	22	31	a70	35
10	a14	16	26	b35	b19	67	218	556	16	28	71	35
11	a14	14	a25	b33	b19	176	196	509	16	25	71	a33
12	a14	14	a22	b29	a19	176	196	464	16	22	71	30
13	14	12	b18	b26	b19	192	196	422	16	20	71	28
14	a14	*12	b16	*b27	b18	150	508	382	16	20	71	28
15	14	a16	b15	b26	b18	122	590	345	16	20	71	6.1
16	a15	15	b15	b25	b18	106	680	310	16	4.9	71	6.1
17	16	14	b14	b25	b18	106	730	291	16	4.0	71	4.0
18	15	13	b14	b25	b18	106	760	278	16	4.0	71	3.4
19	14	12	b14	b25	b18	297	836	278	16	4.0	71	3.0
20	14	13	b15	b25	b18	327	730	249	16	4.0	71	3.0
21	14	a10	b16	b25	b18	359	605	249	16	a51	71	3.0
22	14	a10	b18	b25	b18	a340	509	249	16	51	71	3.4
23	14	a11	b23	b25	b20	a320	486	222	a18	51	71	3.4
24	14	a13	a30	b23	b22	a250	478	222	20	51	71	3.0
25	14	a15	b30	a21	b25	196	464	222	20	51	67	3.0
26	14	a25	b35	b20	b28	315	605	108	20	53	67	2.2
27	14	55	b45	b20	b32	327	a620	112	21	53	67	3.0
28	14	46	a150	b20	33	468	605	112	58	51	67	a2.8
29	14	81	122	b20	-	508	658	116	51	51	64	2.6
30	a15	50	76	b20	-	376	a550	112	48	51	64	2.2
31	a16	-	78	b19	-	343	-	58	-	51	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	440	16	13	14.2	873
November	594.2	81	9.2	19.8	1,180
December	1,083	150	14	34.9	2,150
Calendar year 1945	30,496.2	550	9.2	83.6	60,480
January	1,008	74	19	32.5	2,000
February	567	33	18	20.2	1,120
March	6,003	508	33	194	11,910
April	13,203	836	176	440	26,190
May	10,589	605	58	342	21,000
June	809	60	16	27.0	1,600
July	1,067.9	58	4.0	34.4	2,120
August	2,011	71	51	64.9	3,990
September	543.2	64	2.2	18.1	1,080
Water year 1945-46	37,918.3	836	2.2	104	75,220

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Lost Creek near Tamarack and inflow between stations on Weiser River at Starkey and near Council.
b Stage-discharge relation affected by ice.

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 1946.
Extremes.- Maximum gage height observed during year, 25.78 feet June 13; minimum observed, 17.33 feet Oct. 21, 23, Sept. 6.
1924, 1926-46: Maximum gage height observed, 26.90 feet May 14, 1940; no storage at times during several years prior to 1938.
Remarks.- Reservoir is formed by earth dam completed in 1910 and raised 6 feet in 1929. Permanent spillway crest is at gage height 22.26 feet; during 1938 temporary flashboard 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 1945 to September 1946

Date	Gage height	Date	Gage height	Date	Gage height
Oct. 21	17.33	May 25	24.08	July 4	25.77
23	17.33	30	24.56	Aug. 6	22.87
Nov. 15	17.80	June 2	24.80	8	22.50
Mar. 29	21.63	8	25.44	Sept. 1	17.58
May 21	24.20	13	25.78	6	17.33

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 1946.
Average discharge.- 16 years (1930-46), 34.9 second-feet.
Extremes (regulated).- Maximum discharge during year, 354 second-feet Apr. 27 (gage height, 3.08 feet); minimum, 1 second-foot Sept. 14-30; minimum gage height, 0.88 foot Sept. 14, 15, 21.
1910-14, 1920-21, 1924-46: Maximum discharge, about 688 second-feet May 17, 18, 1921 (gage height, 4.29 feet); practically no flow at times when gates in dam were closed.
Remarks.- Records good except those below 10 second-feet, which are fair. No diversion between reservoir and station; practically entire flow diverted below station during irrigation season. Flow regulated by Lost Valley Reservoir (see p. 190).
Cooperation.- Water-stage recorder inspected by Lost Valley Reservoir Co.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	6	7				7	284	32	40	61	52
2	6	6	7				7	250	24	33	61	30
3	6	6	7				7	244	13	33	61	30
4	6	6	6				8	247	12	29	61	30
5	6	6	6				11	277	12	27	60	30
6	6	6	6				13	308	12	26	60	29
7	6	6	6				16	315	12	26	60	29
8	6	6	6		7		23	326	10	25	66	29
9	6	6	5				30	332	7	25	83	29
10	6	6	5				33	326	7	24	81	28
11	6	6	5				36	301	6	24	80	28
12	6	6	5				40	280	5	23	80	28
13	6	6	5				48	264	5	22	80	28
14	7	6	5				74	244	5	22	78	16
15	7	6	6	7		6	111	225	5	16	78	1
16	7	6	6				143	204	6	4	78	1
17	7	6	6				184	187	8	4	78	1
18	7	6	6				232	182	8	4	77	1
19	7	6	6				273	174	9	3	76	1
20	7	6	6				290	168	8	25	74	1
21	6	6	6				284	158	8	61	74	1
22	6	6	6		6		264	153	9	61	74	1
23	6	6	6				247	155	11	61	74	1
24	6	6	6				250	150	12	61	73	1
25	6	6	6				270	108	12	61	71	1
26	6	6	6				322	54	12	61	71	1
27	6	6	6				350	66	31	60	71	1
28	6	6	7				346	78	51	60	71	1
29	6	6	7		-	6	332	84	46	61	70	1
30	6	7			-	6	315	68	43	60	69	1
31	6	-			-	7	-	26	-	61	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	193	7	6	6.2	383
November	181	7	6	6.0	359
December	187	-	5	6.0	371
Calendar year 1945	13,732	382	5	37.6	27,240
January	217	-	-	7	430
February	183	-	-	6.5	363
March	187	-	-	6.0	371
April	4,566	350	7	152	9,060
May	6,238	332	26	201	12,370
June	441	51	5	14.7	875
July	1,103	61	3	35.6	2,190
August	2,219	83	60	71.6	4,400
September	432	52	1	14.4	857
Water year 1945-46	16,147	350	1	44.2	32,030

Note.- No gage-height record Dec. 29 to Mar. 28 when gates in dam were nearly closed ard well was frozen. Gates were not changed during period and discharge was interpolated.

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, 1¾ 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 1946. October 1910 to August 1913 at site three-quarters of a mile upstream.

Extremes.- Maximum discharge observed during year, 762 second-feet May 5 (gage height, 3.22 feet); minimum observed, 0.2 second-foot Aug. 14 (gage height, 0.20 foot).
1919-21, 1937-46: Maximum discharge observed, 1,380 second-feet May 1, 1938, from rating curve extended above 1,000 second-feet; no flow at times in 1937, 1939-41.

Remarks.- Records fair except those for periods of ice effect and those for July 24 to Aug. 4, which are poor. Gage read twice daily. Mesa Orchards Canal diverts about 6½ miles above station.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 19 to Sept. 15, Sept. 20-30)

0.1	0.2	0.5	3.6	1.1	39	2.0	219
.2	.4	.6	6.2	1.3	65	2.4	351
.3	.8	.7	10	1.5	99	2.8	530
.4	1.8	.9	21	1.7	141	3.2	750

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	24	37	83	34	68	173	394	340	85	5.7	1.1
2	13	25	39	88	33	67	165	480	351	76	8.5	1.8
3	13	49	40	95	33	71	155	535	378	75	2.9	1.8
4	14	49	36	90	32	78	143	586	355	75	3.2	3.6
5	14	52	38	117	32	85	143	690	329	78	.7	2.2
6	14	33	46	111	32	92	141	696	315	76	.6	2.7
7	15	30	45	94	31	86	143	646	305	67	a.6	17
8	15	27	34	88	30	*97	143	624	291	65	.7	17
9	16	24	32	81	29	128	146	580	262	92	.6	16
10	16	26	30	72	28	146	146	540	240	58	.5	13
11	14	25	30	63	27	191	165	515	225	51	.5	12
12	14	26	29	55	25	268	237	505	219	47	.3	14
13	14	25	27	48	26	219	252	505	202	45	.4	13
14	16	29	23	*46	27	155	288	485	194	39	.2	12
15	19	41	21	43	27	128	322	475	181	30	.4	14
16	27	*34	23	43	27	105	363	485	173	26	.5	31
17	19	27	25	45	28	107	438	515	163	21	.4	25
18	17	27	23	43	30	132	555	500	158	20	.4	23
19	16	27	22	41	31	173	555	515	158	17	.4	19
20	15	27	21	40	32	243	433	515	153	13	.3	16
21	14	25	24	40	35	222	382	490	165	11	.3	16
22	14	23	30	39	38	213	337	520	155	10	.4	17
23	14	20	34	38	43	158	359	480	160	8.1	.7	19
24	12	21	35	38	50	132	394	475	155	e9.0	5.2	17
25	12	34	50	38	57	128	520	490	141	2.2	2.7	16
26	12	52	70	37	68	134	575	515	105	3.6	1.6	16
27	12	79	355	37	64	151	525	515	99	e50	1.7	13
28	10	61	225	36	68	160	471	452	95	7.7	.8	17
29	10	39	178	35	-	178	480	412	95	7.0	1.1	16
30	20	38	81	34	-	158	424	382	97	2.9	1.2	14
31	26	-	81	35	-	160	-	351	-	5.9	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	469	27	10	15.1	930
November	1,019	79	20	34.0	2,020
December	1,784	355	21	57.5	3,540
Calendar year 1945	42,881.7	754	.2	117	85,050
January	1,793	117	34	57.8	3,560
February	1,017	68	25	36.3	2,020
March	4,433	268	67	143	8,790
April	9,573	575	141	319	18,990
May	15,868	696	351	512	31,470
June	6,259	378	95	209	12,410
July	1,173.4	92	2.2	37.9	2,330
August	44.6	8.5	.2	1.44	88
September	416.2	31	1.1	13.9	826
Water year 1945-46	43,849.2	696	.2	120	86,970

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
e Gage readings not representative of mean for day; discharge computed on basis of weather records, inflow to Weiser River between stations near Council and near Cambridge, and records for stations on nearby streams.
Note.- Stage-discharge relation affected by ice Dec. 11-26, Jan. 10 to Feb. 23.

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, 1930-46 (irrigation seasons only).

Extremes.- Maximum discharge observed during year, 37 second-feet July 17-20, 22, 24-26; maximum gage height observed, 2.28 feet July 25; no flow at times.
1924, 1928, 1930-46: Maximum discharge observed, 39 second-feet July 17, 1945; maximum gage height observed, 2.46 feet Aug. 3-7, 1943; no flow during nonirrigation seasons.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Gage usually read twice daily and gate changes noted. Canal diverts from Middle Fork Weiser River in SE¼ NW¼ sec. 9, T. 15 N., R. 1 E., for irrigation of Mesa orchards and for domestic supply of Mesa. Flow regulated by gates in diversion dam and waste gates in flume above gage.

Cooperation.- Gage readings furnished by The Mesa Co.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a6						a7	8	32	27	31	21
2	a6						a11	8	33	28	29	21
3	a6						a11	8	33	27	30	17
4	a6						a11	6	31	24	29	22
5	a6						a11	4	29	24	30	25
6	a6						a11	3	30	24	31	20
7	a6						11	a3	30	26	32	9
8	6						9	a3	30	26	32	12
9	a6						7	7	30	28	31	11
10	a6						7	6	30	28	30	12
11	a6						7	11	30	28	29	10
12	a6						7	12	30	28	28	8
13	a6						8	12	31	29	27	6
14	a6						11	10	31	30	27	6
15	a6						11	14	32	34	27	9
16	a6						10	17	33	35	26	8
17	a6						9	18	32	35	25	5
18	a6						10	22	31	36	24	5
19	a2						10	22	31	36	23	5
20	0						11	22	31	35	23	6
21	0						12	22	31	35	23	6
22	0						12	24	28	35	22	5
23	0						12	25	30	35	25	5
24	0						12	25	31	36	27	5
25	0						12	26	32	37	25	5
26	0						6	26	33	37	25	5
27	0						6	26	33	35	23	5
28	0						7	27	32	34	22	4
29	0						8	27	31	32	22	4
30	0						8	27	28	29	22	4
31	0						-	30	-	34	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	110	6	0	3.5	218
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	285	12	6	9.5	565
May	501	30	3	16.2	994
June	929	33	28	31.0	1,840
July	967	37	24	31.2	1,920
August	823	32	22	26.5	1,630
September	286	25	4	9.5	567
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated or computed on basis of reported gate changes.

Johnson Creek below Johnson Park, near Council, Idaho

Location.- Water-stage recorder, lat. 44°46', long. 116°38', in SE¼ 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 1946 (no winter records).

Extremes.- Maximum discharge during year, 115 second-feet May 22 (gage height, 2.19 feet); minimum recorded, 0.6 second-foot Oct. 21.
1941-46: Maximum discharge, 241 second-feet May 30, 1945 (gage height, 3.00 feet), from rating curve extended above 75 second-feet; minimum recorded, 0.5 second-foot Sept. 18, 1941.

Remarks.- Records good except those for Apr. 1-16, which are poor. No diversion or regulation.

Rating tables, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

Oct. 8 to Nov. 5		Apr. 1 to Sept. 30			
0.3	0.8	0.4	0.7	0.9	11
.4	1.7	.5	1.6	1.1	21
.5	3.2	.6	2.8	1.3	34
.6	5.0	.7	4.7	1.6	57
		.8	7.2	1.9	84

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1.7	2.8					a2.0	33	48	12	2.4	1.2
2	a1.7	2.6					a2.0	41	49	16	2.1	1.1
3	a1.7	2.4					a2.0	53	50	12	2.1	1.2
4	a1.7	2.3					a2.0	67	49	11	2.0	1.7
5	a1.7	2.9					a2.1	76	47	9.9	2.0	1.7
6	a1.7	-					a2.2	76	45	9.1	1.8	1.5
7	a1.7	-					a2.3	72	40	8.7	1.8	1.5
8	a1.7	-					a2.5	74	38	12	1.7	1.4
9	1.7	-					a3.0	74	37	12	1.6	1.3
10	1.7	-					a3.5	70	34	9.1	1.6	1.2
11	1.7	-					a4.5	66	32	8.0	1.6	1.2
12	1.7	-					a5.5	66	30	7.0	1.5	1.2
13	1.7	-					a7.0	64	28	6.2	1.4	1.1
14	1.7	-					a10	58	28	6.0	1.5	1.1
15	1.7	-					a15	60	26	5.7	1.3	1.6
16	1.7	-					a22	62	25	5.2	1.2	2.3
17	2.2	-					29	68	24	5.0	1.2	1.6
18	1.8	-					33	70	23	4.5	1.2	1.4
19	1.8	-					35	68	21	4.3	1.2	1.4
20	2.0	-					31	65	20	4.1	1.2	1.3
21	1.6	-					25	65	19	3.8	1.2	1.3
22	1.8	-					25	76	20	3.6	1.2	1.3
23	2.0	-					26	70	24	3.2	1.6	1.3
24	2.2	-					32	68	20	3.0	1.6	1.3
25	2.0	-					46	66	17	2.8	1.3	1.2
26	2.0	-					57	78	16	3.0	1.2	1.2
27	1.8	-					48	71	15	3.2	1.2	1.2
28	1.8	-					48	70	15	2.7	1.2	1.2
29	2.0	-					46	59	14	2.6	1.2	1.2
30	4.6	-					35	52	13	2.6	1.2	1.2
31	3.9	-					-	48	-	2.7	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	60.7	4.6	1.6	1.96	120
November 1-5	13.0	2.9	2.3	2.60	26
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	603.6	57	2.0	20.1	1,200
May	2,006	78	33	64.7	3,980
June	867	50	13	28.9	1,720
July	201.0	16	2.6	6.48	399
August	46.5	2.4	1.2	1.50	92
September	40.4	2.3	1.1	1.35	80
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for Little Weiser River near Indian Valley and other nearby streams having similar drainage areas.

Bacon Creek near Mesa, Idaho

Location.- Water-stage recorder, lat. 44°37'30", long. 116°28'40", in NE¼ sec. 20, T. 15 N., R. 1 W., 1¾ miles west of Mesa and 5½ miles upstream from mouth.

Records available.- June 1944 to September 1946.

Extremes.- Maximum discharge during year, 50 second-feet Mar. 20 (gage height, 2.78 feet), from rating curve extended above 18 second-feet; minimum not determined, occurred during period of no gage-height record.
1944-46: Maximum discharge recorded, that of Mar. 20, 1946; minimum observed, 0.6 second-foot (discharge measurement) Dec. 11, 1944.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Bacon Creek is the natural wasteway for irrigation water on Mesa orchards tract, and natural flow is augmented by surface and sub-surface runoff from this source.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	4.5	2.0	3.8			9.8	9.6	14		18	11
2	4.8	3.6	2.0	3.6			8.2	8.4	16		15	11
3	5.1	3.6	2.0	4.2			7.5	8.0	17	13	14	11
4	4.0	7.4	1.9	3.3			6.8	7.1	17		20	13
5	3.5	8.1	1.9	3.4		3	8.4	4.6	14		16	16
6	3.3	5.4	2.0	3.2			16	4.5	15	12	17	15
7	3.6	3.5	2.7	2.6			12	4.6	15	14	15	11
8	4.0	2.5	2.1	2.4		*5.9	13	5.4	16	19	14	12
9	3.8	2.1	2.0	2.4		7.4	11	5.5	18	18	14	11
10	3.5	2.1	1.9		1	8.4	9.3	5.1	16	14	13	11
11	3.4	2.1	1.9			15	9.7	7.4	17	13	12	9.8
12	3.2	2.1	1.8			27	8.6	7.6	18	14	12	7.2
13	3.2	2.1	1.7			31	8.6	6.4	17	13	12	6.3
14	4.0	2.1	1.7			25	10	5.5		14	13	6.0
15	4.5	3.4	1.7	*2		20	12	5.8		15	13	7.4
16	4.6	*2.5	1.7			16	13	11		14	13	11
17	4.7	2.5	1.7			15	10	8.4		14	12	6.0
18	4.6	2.1	1.7			16	8.7	11		16	12	5.6
19	4.0	2.1	1.7			32	11	11		16	11	5.4
20	4.3	2.0	1.7			40	12	13		16	9.8	5.2
21	3.6	2.0	1.7			36	12	10		17	9.5	5.1
22	3.7	1.9	1.7			26	12	11	15	17	9.0	4.8
23	3.5	1.7	1.7			23	12	12		17	14	4.6
24	3.4	1.7	1.7		2	20	12	11		17	16	4.4
25	4.8	1.8	1.7			14	12	9.5		20	13	4.3
26	5.3	2.4	1.4	1		13	7.6	13		21	12	4.2
27	5.1	3.6	1.3			12	8.4	13		22	12	4.2
28	6.3	2.3	20			10	9.2	15		20	11	4.0
29	7.4	2.7	14		-	17	10	13		18	12	4.0
30	8.9	2.1	8.7		-	11	9.2	12		17	12	4.0
31	5.1	-	4.9		-	13	-	12	-	20	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	138.3	8.9	3.2	4.46	274
November	88.0	8.1	1.7	2.93	175
December	96.6	20	1.3	3.12	192
Calendar year	-	-	-	-	-
January	61.9	4.2	-	2.0	123
February	37	-	-	1.3	73
March	474.7	40	-	15.3	942
April	310.0	16	6.8	10.3	615
May	280.4	15	4.5	9.05	556
June	465	-	-	15.5	922
July	493	22	-	15.9	978
August	408.3	20	9.0	13.2	810
September	235.5	16	4.0	7.85	467
Water year 1945-46	3,088.7	40	-	8.46	6,127

* Winter discharge measurement made on this day.

Note.- No gage-height record Jan. 10-14, Jan. 22 to Mar. 7, June 14 to July 5; discharge computed on basis of weather records and records for Mesa Orchards Canal near Mesa and Monroe Creek near Weiser. Stage-discharge relation affected by ice about Jan. 10 to Feb. 20.

Pine Creek near Cambridge, Idaho

Location.- Staff gage, lat. 44°35', long. 116°44', in SW¼ 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 1946.

Extremes.- Maximum discharge observed during year, 259 second-feet Mar. 20, 21 (gage height, 2.70 feet); minimum observed, 2.1 second-feet Aug. 12 (gage height, 0.50 foot). 1938-46: 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, July and August 1940.

Remarks.- Records good except those below 10 second-feet, which are fair, and those for periods of ice effect, which are poor. Gage read twice daily. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10	22	41	b14	25	157	99	98	19	4.3	3.5
2	9.5	10	19	38	b14	27	151	106	92	22	4.3	3.3
3	10	12	16	36	13	30	146	112	96	20	3.8	3.5
4	8.6	10	16	41	b13	32	130	128	98	18	3.3	4.6
5	8.6	11	15	39	b13	35	124	152	83	16	3.8	6.2
6	9.5	11	16	33	b14	58	118	157	79	14	4.3	6.2
7	9.5	10	16	33	b14	55	114	152	77	14	4.3	6.2
8	9.5	9.5	14	28	14	63	121	156	71	17	3.8	6.2
9	9.5	11	16	24	b14	75	116	154	70	19	3.3	7.0
10	9.5	11	16	25	b14	87	109	142	68	17	2.7	6.2
11	9.5	10	15	22	14	151	101	136	64	16	2.5	5.5
12	9.5	17	b12	b22	14	*174	115	126	59	15	2.3	4.9
13	10	19	b11	b22	b14	204	122	124	56	14	2.5	5.2
14	10	19	b10	b22	b13	138	134	115	58	14	3.1	5.2
15	9.0	21	b9.0	*b22	b13	127	133	109	54	10	3.1	7.0
16	9.0	21	b9.5	b22	b13	103	134	115	46	8.2	2.9	9.0
17	9.5	*18	b10	b22	b13	87	152	126	41	8.6	2.5	7.8
18	10	17	b9.5	b21	b13	102	162	152	39	9.5	2.7	8.2
19	10	15	b9.0	b20	13	138	160	142	36	7.0	2.9	7.8
20	10	14	b10	b19	14	235	154	132	36	6.2	3.3	9.5
21	9.5	10	b11	b19	15	251	140	134	34	5.8	3.5	10
22	10	10	b12	b18	14	230	116	121	32	5.2	3.5	9.5
23	10	10	b15	b17	14	198	110	115	39	5.2	4.9	9.0
24	9.5	9.0	b16	b16	14	162	121	105	36	4.6	7.0	9.0
25	10	9.5	17	16	20	148	121	112	31	4.3	5.8	8.6
26	9.5	22	19	15	22	139	154	132	27	5.8	5.5	8.2
27	9.0	27	31	b15	22	168	134	127	25	5.8	5.2	7.8
28	10	26	90	b15	24	191	126	121	23	5.2	5.8	7.8
29	9.5	24	86	b15	-	246	118	103	23	4.6	5.5	7.8
30	10	20	65	b14	-	214	108	99	21	4.3	4.0	7.8
31	12	-	49	b14	-	185	-	102	-	4.0	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	299.7	12	8.6	9.67	594
November	444.0	27	9.0	14.8	881
December	682.0	90	9.0	22.0	1,350
Calendar year 1945	15,001.3	292	3.4	41.1	29,760
January	726	41	14	23.4	1,440
February	416	24	13	14.9	825
March	4,078	251	25	132	8,090
April	3,901	162	101	130	7,740
May	3,906	157	99	126	7,750
June	1,612	98	21	53.7	3,200
July	339.3	22	4.0	10.9	673
August	121.3	7.0	2.3	3.91	241
September	208.5	10	3.3	6.95	414
Water year 1945-46	16,733.8	251	2.3	45.8	33,200

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

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 4¾ miles southeast of Indian Valley.

Drainage area.- 81.9 square miles.

Records available.- April 1938 to September 1946. June 1920 to February 1921, March to September 1923, and February 1924 to October 1927 at nearby sites.

Extremes.- Maximum discharge observed during year, 617 second-feet Apr. 18 (gage height, 3.95 feet); minimum observed, 9.0 second-feet Sept. 14 (gage height, 0.44 foot).
1920-21, 1923-27, 1938-46: 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 or no gage-height record, which are fair. Gage read once or twice daily. One small ranch diversion above station. Many diversions below station for irrigation including feeder canal to C. Ben Ross Reservoir.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	20	30	90	29	74	164	346	295	70	22	10
2	13	20	30	80	28	66	157	364	320	71	18	10
3	12	20	32	73	28	64	132	361	334	70	18	9.8
4	12	a20	32	75	b27	63	127	454	315	64	a18	10
5	12	20	31	77	b28	67	128	484	288	61	a18	13
6	12	21	33	a75	b28	85	134	502	285	54	18	11
7	12	20	30	a64	b29	76	a140	499	261	51	a16	11
8	12	18	28	59	b28	*82	150	469	251	53	14	12
9	12	18	26	52	a27	93	147	460	225	62	13	13
10	12	18	25	45	a27	107	132	451	208	53	15	11
11	12	a18	25	41	a26	223	182	430	210	50	12	10
12	12	18	22	35	b23	214	256	415	190	44	12	10
13	12	18	20	36	b25	206	292	391	160	41	12	9.5
14	12	21	19	38	b26	132	346	385	164	a40	12	9.0
15	12	30	b19	*35	b26	132	406	376	149	39	12	13
16	11	25	21	36	26	97	478	418	144	39	12	17
17	14	*26	b22	37	a27	97	484	463	141	38	12	17
18	13	24	b20	36	28	112	564	460	128	35	11	17
19	14	22	b19	35	30	150	505	427	121	33	10	16
20	14	21	20	34	31	214	442	418	107	33	10	15
21	14	b18	21	34	33	196	352	385	104	32	9.8	15
22	14	a21	26	33	35	154	322	376	106	33	10	15
23	13	a21	29	33	38	138	325	349	127	23	12	15
24	12	b22	29	33	a52	124	481	373	102	22	13	15
25	12	28	30	33	79	120	499	361	102	22	12	14
26	12	49	47	32	94	167	526	379	90	21	11	14
27	12	63	106	a32	112	182	451	373	a90	20	10	13
28	13	62	512	32	97	229	445	364	93	30	11	13
29	15	63	240	31	-	268	466	320	80	28	10	14
30	19	43	149	28	-	229	400	285	71	23	10	14
31	21	-	116	30	-	a190	-	295	-	28	9.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	405	21	11	13.1	0.160	0.18	803
November	808	63	18	26.9	.328	.37	1,600
December	1,809	512	19	58.4	.713	.82	3,590
Calendar year 1945	38,753.5	752	9.0	106	1.29	17.59	76,860
January	1,404	90	28	45.3	.553	.64	2,780
February	1,087	112	23	38.8	.474	.49	2,160
March	4,351	268	63	140	1.71	1.98	8,630
April	9,633	564	127	321	3.92	4.37	19,110
May	12,433	502	285	401	4.90	5.65	24,660
June	5,261	334	71	175	2.14	2.39	10,440
July	1,283	71	20	41.4	.505	.58	2,540
August	403.6	22	9.8	13.0	.159	.18	801
September	386.3	17	9.0	12.9	.158	.18	766
Water year 1945-46	39,263.9	564	9.0	108	1.32	17.83	77,880

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of weather records and records for other stations in Weiser River Basin.
b Stage-discharge relation affected by ice.

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 1946.

Extremes.- Maximum gage height observed during year, 52.7 feet Mar. 16; minimum observed, 31.0 feet Sept. 28.
1923-46: Maximum gage height observed, 56.3 feet Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, and 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 readings furnished by Crane Creek Reservoir Administration Board.

Gage height, in feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	-	-	-	-	-	-	-	-
2				-	-	-	-	-	-	-	-	-
3				-	45.6	48.0	46.0	-	-	-	41.7	-
4				-	-	-	-	46.6	-	-	-	35.2
5				-	-	-	-	-	46.1	45.2	-	-
6				-	-	-	46.4	-	-	-	-	-
7				-	-	-	-	-	-	-	-	34.6
8				-	-	-	-	-	-	45.1	-	-
9				44.6	-	-	-	-	-	-	40.5	-
10				-	-	51.1	-	46.6	-	-	-	34.1
11				-	45.0	-	-	-	45.8	-	-	-
12				-	-	-	46.7	-	-	-	-	-
13				-	-	-	-	-	-	-	39.6	33.4
14				45.0	44.6	-	-	-	-	-	-	33.1
15				-	-	-	-	-	-	45.0	-	-
16				45.1	-	52.7	-	-	-	44.9	-	-
17				-	-	-	-	46.5	-	-	38.8	-
18				-	44.0	-	46.8	-	-	-	-	32.0
19		35.6		-	-	50.7	-	-	-	-	-	-
20				45.0	-	-	-	-	45.6	44.4	-	-
21				-	-	-	-	-	-	-	38.0	-
22				-	-	-	-	-	-	-	-	-
23				-	-	-	-	-	-	-	-	-
24				-	46.2	-	-	-	-	-	-	-
25				-	-	-	46.8	46.4	-	-	-	-
26				-	-	47.2	46.7	-	-	-	37.0	-
27				46.0	-	-	-	46.3	-	43.3	-	-
28				-	-	-	46.6	-	-	-	-	31.0
29				-	-	-	-	-	45.3	-	-	-
30				-	-	46.3	-	-	-	-	-	-
31		-		-	-	-	-	-	-	-	-	-

Crane Creek near Midvale, Idaho

Location.- Water-stage recorder and concrete control, lat. 44°22', long. 116°57'30", in SE¼ 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 1946.

Average discharge.- 25 years (1912-15, 1924-46), 71.1 second-feet.

Extremes (regulated since 1911).- Maximum discharge during year, 895 second-feet Mar. 12 (gage height, 3.35 feet); minimum not determined, probably occurred during period of no gage-height record in winter.
1910-16, 1924-46: 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 many years when gates in dam were closed.

Remarks.- Records good except those for Oct. 4 to Nov. 18, which are fair, and those for Nov. 20 to Jan. 15, which are poor. Flow regulated by Crane Creek Reservoir (see preceding page). No large diversion above station.

Cooperation.- Water-stage recorder inspected by Crane Creek Reservoir Administration Board.

Discharge, in second-feet, water year October 1945 to Septesber 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	a8			46	130	482	12	15	16	170	140
2	41	a8			46	131	482	12	15	16	170	140
3	30	a8			63	131	258	12	15	15	170	138
4	12	a8			99	132	81	12	15	15	170	138
5	11	a8			100	172	81	12	15	15	168	137
6	11	a8			99	249	65	12	15	16	168	137
7	10	a8			99	246	54	12	15	16	168	117
8	10	a8		a20	97	300	52	12	15	16	166	106
9	10	a8			97	362	52	12	15	15	166	a106
10	10	a8			97	580	50	12	15	15	166	106
11	10	a8			109	806	50	12	15	15	166	105
12	10	a8			125	856	50	12	15	15	166	105
13	10	a8			125	888	50	12	15	15	166	104
14	9	a8	a9		124	a885	50	12	16	15	166	97
15	9	a8			124	a882	50	12	16	40	164	84
16	9	a8		21	124	a878	50	12	16	62	163	84
17	9	a8		21	124	a875	48	12	16	110	163	87
18	9	a8		21	124	a872	48	12	16	110	164	68
19	8	h8		22	125	869	48	12	16	110	164	43
20	8			22	125	869	48	14	15	110	164	43
21	8			22	125	869	50	18	15	120	161	42
22	8			21	125	862	50	18	16	173	161	41
23	8			22	125	862	48	18	16	173	159	41
24	8			22	127	862	48	17	16	173	159	40
25	8	a8		22	128	856	48	17	16	173	161	40
26	8			27	127	812	48	17	16	184	159	39
27	8			45	127	672	48	16	16	186	142	39
28	8			46	128	672	34	16	16	186	143	40
29	8		a15	46	-	666	12	16	15	188	142	40
30	a8			46	-	575	12	15	16	177	140	40
31	a8	-		46	-	482	-	15	-	172	140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	366	42	8	11.8	726
November	240	-	-	8.0	476
December	315	-	-	10.2	625
Calendar year 1945	26,321	525	0	72.1	52,210
January	772	46	-	24.9	1,530
February	3,084	128	46	110	6,120
March	19,303	888	130	623	38,290
April	2,547	482	12	84.9	5,050
May	425	18	12	13.7	843
June	464	16	15	15.5	920
July	2,662	188	15	85.9	5,280
August	4,995	170	140	161	9,910
September	2,487	140	39	82.9	4,930
Water year 1945-46	37,660	888	-	103	74,700

a No gage-height record; discharge interpolated or computed on basis of records for station near Weiser.
h Computed from staff-gage reading.

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 1946.

Average discharge.- 25 years (1921-46), 78.7 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,650 second-feet Mar. 12 (gage height, 6.18 feet); minimum, 4.8 second-feet May 17, 20 (gage height, 1.83 feet); minimum daily, 5.2 second-feet May 19.

1920-46: 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 May 26, 1931; minimum daily, 1 second-foot or less at times during many years; minimum gage height, 1.30 feet Jar. 21, 1922.

Remarks.- Records good. Flow regulated by Crane Creek Reservoir (see p.198). Several small ditches divert above station for irrigation.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 5 to Dec. 27)

1.8	4.0	2.3	26	3.2	126	4.6	503
1.9	6.5	2.5	40	3.6	204	5.0	716
2.0	10	2.7	57	4.0	298	5.4	1,000
2.1	14	2.9	79	4.3	386	5.8	1,320

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	16	17	34	50	238	522	13	12	14	173	133
2	42	16	16	30	49	215	508	13	13	14	171	133
3	42	15	16	34	49	189	346	14	14	14	171	133
4	16	14	16	51	93	204	98	14	14	14	169	131
5	14	15	16	66	95	261	96	13	14	16	163	130
6	13	14	17	51	101	460	89	12	14	16	161	130
7	14	14	24	40	106	448	66	11	14	14	159	118
8	14	15	18	36	98	473	65	12	14	16	159	104
9	13	15	14	34	96	596	66	14	14	17	157	104
10	13	16	16	33	95	716	63	14	14	16	155	103
11	13	16	15	33	96	1,150	61	13	14	17	157	101
12	14	16	15	36	121	1,310	60	14	16	16	157	101
13	13	16	14	34	121	1,200	59	14	16	15	157	99
14	13	16	14	31	121	1,040	58	14	16	14	157	98
15	13	18	13	31	123	1,010	57	14	16	21	155	85
16	14	16	14	30	123	985	56	11	14	51	154	85
17	14	16	16	30	123	985	56	9.0	14	96	154	82
18	14	16	12	30	123	985	56	6.0	14	109	155	80
19	14	16	15	33	124	1,010	55	5.2	15	111	155	47
20	14	16	16	33	142	1,010	55	5.5	15	111	155	46
21	14	16	16	32	140	977	54	6.2	15	112	154	44
22	14	15	17	32	140	947	54	9.0	15	169	152	43
23	14	16	18	29	146	939	53	12	14	173	155	42
24	14	16	21	30	154	939	53	14	14	175	154	43
25	14	16	25	29	183	924	53	13	14	175	154	42
26	14	21	35	29	177	902	52	12	14	185	152	42
27	14	34	210	52	200	698	50	15	14	194	133	42
28	14	20	762	54	235	698	49	15	14	194	135	42
29	14	30	245	55	-	781	20	14	14	194	135	42
30	17	20	66	52	-	704	16	13	14	185	135	42
31	17	-	43	52	-	606	-	12	-	175	135	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	519	42	13	16.7	1,030
November	516	34	14	17.2	1,020
December	1,772	762	12	57.2	3,510
Calendar year 1945	31,960.3	762	5.2	87.6	63,390
January	1,176	66	29	37.9	2,330
February	3,424	235	49	122	6,790
March	23,600	1,310	189	761	46,810
April	2,946	522	16	98.2	5,840
May	370.9	15	5.2	12.0	736
June	429	16	12	14.3	851
July	2,643	194	14	85.3	5,240
August	4,788	173	133	154.	9,500
September	2,467	133	42	82.2	4,890
Water year 1945-46	44,650.9	1,310	5.2	122	88,550

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., 3¼ miles downstream from headworks of canal and 7 miles east of Weiser.

Records available.- April 1920 to September 1946 (winter records fragmentary).

Extremes.- Maximum discharge during year, 211 second-feet July 29 (gage height, 3.00 feet); practically no flow Mar. 21 and probably at other times during non-irrigation season when gates were closed.
1920-46: 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 below 2.0 second-feet, which are poor. Canal diverts water from Weiser River in sec. 35, T. 11 N., R. 4 W., 3¼ miles above station for irrigation of about 9,000 acres included in projects of Weiser and Weiser Bench Irrigation Destricts. One farm lateral diverts a quarter of a mile above station.

Cooperation.- Water-stage recorder graph furnished by Weiser Irrigation District.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	-		-		-	0.2	182	186	205	203	179
2	124	-		-		-	.2	177	187	203	204	179
3	124	-		-		-	.2	176	189	201	202	176
4	123	-		-		-	.2	182	189	202	200	177
5	122	-		-		-	.1	187	190	200	200	177
6	122	-		-		-	.1	186	189	199	204	180
7	122	-		-		0.6		190	190	194	206	180
8	122	-		-		.6		189	190	154	206	180
9	121	-		-		.6		190	195	197	205	182
10	122	-		-		.6		189	200	202	198	182
11	122	-		-		.6	a.1	189	200	200	200	180
12	116	-		-		.6		188	197	197	198	179
13	107	-		-		.6		190	197	187	199	177
14	105	-		-		.6		191	197	174	200	176
15	104	-		-		.6	58	191	198	163	200	174
16	105	-		-		.6	132	190	200	168	199	177
17	106	-		0.4		.5	162	195	199	181	194	177
18	104	63		.4		.4	166	196	197	187	199	186
19	98	63		.4		.1	178	194	201	180	193	172
20	99	64		.4		.1	177	195	199	164	189	166
21	-	63		.4		0	176	195	197	160	187	165
22	-	61		1.2		-	179	196	201	182	183	161
23	-	60		1.0		-	184	196	207	196	185	157
24	-	60		.6		-	182	194	205	199	187	153
25	-	61		-		-	188	194	203	199	199	148
26	-	-		-		-	191	194	202	200	197	147
27	-	-		-		-	191	195	208	201	178	146
28	-	-		-		-	194	193	205	206	181	147
29	-	-		-		-	192	192	204	210	181	147
30	-	-		-		.2	189	188	205	205	179	149
31	-	-		-		.2	-	187	-	202	178	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-20	2,293	125	98	115	4,550
November 18-25	495	64	60	61.9	982
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January 17-24	4.8	1.2	.4	.60	9.5
February	-	-	-	-	-
March	-	-	-	-	-
April	2,740.8	194	-	91.4	5,440
May	5,891	196	176	190	11,680
June	5,927	208	186	198	11,760
July	5,918	210	154	191	11,740
August	6,034	206	178	195	11,970
September	5,076	186	146	169	10,070
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated between gate changes.

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, 11 miles northeast of Weiser and 12 miles upstream from mouth.

Drainage area.- 56 square miles.

Records available.- March 1911 to September 1913, July to November 1920, April 1937 to September 1946.

Average discharge.- 11 years (1911-13, 1937-46), 44.8 second-feet.

Extremes.- Maximum discharge during year, 393 second-feet Apr. 18 (gage height, 2.60 feet); minimum daily, 1.6 second-feet Aug. 18, 19.

1911-13, 1920, 1937-46: 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 below 10 second-feet, which are fair, and those for periods of ice effect, which are poor. Gage read twice daily. One diversion above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	9	5	30	9	46	169	143	29	12	4.0	2.2
2	3	9	9	26	9	39	158	138	27	11	3.8	2.1
3	3	9	7	26	9	41	154	147	26	10	3.2	2.6
4	3	9	7	26	9	46	149	163	25	10	2.6	3.2
5	3	9	7	26	9	61	149	172	24	9.9	2.5	5.8
6	3	9	5	26	7	63	169	163	24	9.4	2.5	4.9
7	3	9	7	21		70	178	147	22	9.0	2.6	4.6
8	3	9	3	19		79	192	138	20	9.9	2.6	4.3
9	4	9	3	18		85	178	122	18	13	2.5	4.0
10	4	11	3	17		105	154	111	18	10	2.2	3.5
11	4	9	3	15		143	158	100	16	9.4	a2.2	2.9
12	4	9	3	14		182	194	93	16	8.3	a2.1	2.6
13	4	9	3	13	7	*160	287	82	16	8.0	a2.0	2.5
14	4	9	3	14		110	307	79	16	7.6	a1.9	2.2
15	4	11	3	15		96	307	78	16	7.2	a1.9	2.6
16	4	11	3	*17		83	304	68	15	6.9	a1.8	4.3
17	4	11	3	16		74	354	66	15	6.6	a1.7	4.0
18	5	11	3	15		77	378	66	15	6.2	a1.6	3.8
19	5	*7	3	14	13	123	381	61	15	5.5	1.6	3.5
20	5	7	3	13	15	215	310	54	15	5.2	1.7	3.2
21	5	2	3	11	17	208	225	50	15	4.9	1.7	3.2
22	5	5	4	10	17	147	208	50	15	4.9	1.7	4.6
23	5	7	4	10	17	136	185	50	16	4.6	2.2	4.0
24	5	7	4	10	23	121	198	46	16	4.6	2.9	3.5
25	5	7	7	10	41	101	255	44	15	3.8	2.5	3.2
26	5	13	7	9	39	149	277	44	14	4.0	2.3	2.9
27	5	17	35	9	44	180	250	45	14	5.2	2.3	2.6
28	5	21	129	9	48	213	190	41	14	4.6	2.2	2.6
29	5	23	88	9	-	234	208	39	14	3.8	2.5	2.9
30	7	9	52	9	-	180	170	34	12	3.5	2.2	2.9
31	9	-	37	9	-	171	-	32	-	4.6	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	136	9	3	4.4	270
November	297	23	2	9.9	589
December	456	129	3	14.7	904
Calendar year 1945	17,697.2	750	2	48.5	35,100
January	486	30	9	15.7	964
February	410	48	-	14.6	813
March	3,738	234	39	121	7,410
April	6,796	381	149	227	13,480
May	2,666	172	32	86.0	5,290
June	533	29	12	17.8	1,060
July	223.6	13	3.5	7.21	444
August	71.7	4.0	1.6	2.31	142
September	101.2	5.8	2.1	3.37	201
Water year 1945-46	15,914.5	381	1.6	43.6	31,570

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 10-23, Jan. 9-12, 14-25, 27-31, Feb. 4, 7-18.

Monroe Creek above Sheep Creek, near Weiser, Idaho

Location.- Staff gage, lat. 44°20', long. 116°56', in SW¼ sec. 34, T. 12 N., R. 5 W., on farm road bridge adjacent to U.S. Highway 95, 0.5 mile above Sheep Creek and 6 miles north of Weiser.

Records available.- October 1945 to September 1946.

Extremes.- Maximum discharge observed during year, 170 second-feet Mar. 18, 19 (gage height, 2.40 feet); minimum observed, 0.1 second-foot Oct. 15-19 (gage height, 0.78 foot).

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

Rating table, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 27, Mar. 1 to Apr. 16)

0.8	0	1.3	13	1.8	60
.9	.5	1.4	19	2.0	95
1.0	1.9	1.5	27	2.2	142
1.1	4.3	1.6	36		
1.2	8.0	1.7	47		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	2.3	4.7	6.5	1.9	32	57	10	2.3	0.2	0.3	0.4
2	1.0	2.1	3.5	6.9	1.9	32	57	9.0	1.9	.2	.3	.4
3	1.0	1.9	2.6	7.0	1.9	32	57	9.0	1.6	.2	.3	.4
4	1.0	1.3	2.6	7.3	b1.9	31	55	8.5	1.6	.2	.3	.4
5	1.0	.9	2.6	7.3	1.9	31	54	7.6	1.6	.2	.4	.4
6	1.0	.6	2.6	7.3	1.6	32	52	6.9	1.3	.2	.4	.5
7	.9	.6	2.6	6.9	1.6	33	50	4.3	1.3	.2	.4	.5
8	.9	.6	2.6	b6.8	1.9	39	48	4.3	1.3	.2	.4	a.5
9	.9	.6	2.6	b6.7	b1.9	51	47	4.3	1.3	.3	.3	a.5
10	.9	.6	2.6	b6.6	b1.9	68	47	4.3	1.3	.3	.4	a.5
11	1.1	.7	2.6	b6.5	b1.9	87	46	4.3	.7	.3	.4	a.5
12	1.1	.9	2.6	6.5	b1.9	70	46	4.3	.7	.3	.3	.5
13	1.1	.9	b2.5	6.5	b2.2	70	47	4.3	.7	.3	.3	a.5
14	1.1	.9	b2.4	6.5	b2.3	68	45	4.3	.7	.3	.3	a.5
15	.2	1.6	b2.2	b7.2	b2.3	65	43	4.3	.7	.3	.3	a.5
16	.1	2.8	b2.3	*b8.1	a2.3	62	43	4.0	.7	.3	.3	
17	.1	3.5	b2.4	b6.4	2.3	70	52	3.8	.2	.3	.3	
18	.1	2.3	b2.3	b5.0	2.3	117	48	3.3	.2	.3	.3	
19	.1	*1.9	b2.2	4.3	2.8	130	45	3.3	.2	.3	.3	
20	1.1	1.4	b2.5	3.5	4.3	84	45	3.3	.2	.3	.2	
21	1.1	1.1	b3.0	2.3	5.0	68	24	3.3	.2	.3	.2	
22	1.3	1.1	5.4	2.3	6.2	65	23	3.3	.2	.3	.2	a1.9
23	1.3	1.4	5.8	2.3	6.9	65	21	3.3	.2	.3	.2	
24	1.3	1.6	8.5	2.3	9.0	63	20	3.3	.2	.3	.2	
25	1.4	8.5	8.5	2.1	20	65	17	3.3	.2	.3	a.7	
26	1.6	11	20	1.9	25	63	15	3.0	.2	.3	a.6	
27	1.6	8.5	82	1.9	32	62	15	2.8	.2	.3	a.5	
28	1.6	10	59	1.9	*32	62	14	2.8	.2	.2	a.4	
29	1.9	5.4	47	1.9	-	63	12	2.8	.2	.2	a.4	1.9
30	2.6	5.0	a15	1.9	-	65	12	2.8	.2	.2	a.4	1.9
31	2.8	-	7.3	1.9	-	60	-	2.6	-	.3	a.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	34.2	2.8	0.1	1.10	68
November	82.0	11	.6	2.73	163
December	294.5	62	2.2	9.50	584
Calendar year	-	-	-	-	-
January	152.8	8.1	1.9	4.93	303
February	179.1	32	1.3	6.40	355
March	1,905	130	31	61.5	3,780
April	1,157	57	12	38.6	2,290
May	140.7	10	2.6	4.54	279
June	22.5	2.3	.2	.75	45
July	8.2	.3	.2	.26	16
August	10.7	.7	.2	.35	21
September	35.5	-	.4	1.18	70
Water year 1945-46	4,022.2	130	0.1	11.0	7,970

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

Unity Reservoir near Unity, Oreg.

Location.- Staff gage and low-water reference mark, lat. 44°30' long. 118°11', in SW¼ 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 4½ miles north of Unity. Datum of gage is at mean sea level, datum of Bureau of Reclamation. (To correct elevations to datum of 1929, add 0.12 feet).

Drainage area.- 309 square miles.

Records available.- March 1938 to September 1946.

Extremes.- Maximum contents observed during year, 25,220 acre-feet May 10-14 (elevation, 3,820.0 feet); minimum observed, 3,928 acre-feet Oct. 21-30 (elevation, 3,789.8 feet). 1938-46: Maximum contents observed, 25,770 acre-feet Apr. 13, 1942 (elevation, 3,820.6 feet); minimum observed, 1,050 acre-feet Oct. 10, 1944 (elevation, 3,782.0 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 feet (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. Contents computed from capacity table based on surveys by Bureau of Reclamation.

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	3,791.2	4,600	-
Oct. 31	3,789.9	3,974	-626
Nov. 30	3,793.8	5,952	+1,978
Dec. 31	3,798.6	8,722	+2,770
Calendar year 1945..	-	-	+186
Jan. 31	3,802.5	11,230	+2,508
Feb. 28	3,803.1	11,630	+400
Mar. 31	3,807.5	14,780	+3,150
Apr. 30	3,816.8	22,350	+7,570
May 31	3,818.4	23,770	+1,420
June 30	3,812.5	18,670	-5,100
July 31	3,806.4	13,970	-4,700
Aug. 31	3,797.5	8,050	-5,920
Sept.30	3,790.9	4,452	-3,598
Water year 1945-46..	-	-	-148

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. Datum of gage is 3,756.75 feet above mean sea level, datum of 1929, supplementary adjustment of 1947.

Drainage area.- 309 square miles.

Records available.- March 1915 to September 1916, October 1928 to September 1946.

Average discharge.- 17 years (1929-46), 70.9 second-feet.

Extremes.- Maximum discharge during year, 667 second-feet (regulated) Apr. 20, 21 (gage height, 4.63 feet); minimum daily, 6 second-feet (regulated) Nov. 30 to Dec. 30; minimum gage height, 1.33 feet June 14.

1915-16, 1928-46: Maximum discharge, 2,220 second-feet Apr. 17, 1943 (gage height, 4.06 feet), caused by opening of automatic spillway gates), from rating curve extended above 1,300 second-feet by logarithmic plotting; no flow at times; minimum discharge before construction of Unity Reservoir Dam, 1.6 second-feet Aug. 31, 1935.

Remarks.- Records good except those for Oct. 1-30, July 20 to Sept. 30, which are fair, and those below 10 second-feet, which are poor. Many small diversions above station for irrigation. Flow regulated by Unity Reservoir (see preceding page) and partly regulated by reservoir (capacity, about 700 acre-feet) on South Fork Burnt River, 3 miles above mouth.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 28, June 1 to Aug. 6, Aug. 13 to Sept. 27)

Oct. 1 to Apr. 20

1.3	4
1.4	7
1.5	10

Note.- Same as following table above 1.5 feet.

Apr. 21 to Sept. 30

1.5	10	2.0	46	3.3	253
1.6	15	2.2	67	3.6	329
1.7	20	2.4	92	4.0	445
1.8	27	2.7	134	4.5	615
1.9	36	3.0	187		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	8	6	9	10	105	351	166	155	91	108	97
2	46	8	6	9	10	105	351	174	154	91	109	98
3	46	8	6	9	21	105	357	174	152	91	108	96
4	46	8	6	9	44	105	363	176	152	91	108	95
5	46	8	6	9	44	105	385	176	148	91	106	95
6	46	8	6	9	44	105	403	176	136	91	105	95
7	46	8	6	9	44	105	409	179	134	88	105	92
8	45	8	6	9	44	105	427	193	132	84	119	92
9	45	8	6	9	44	105	448	248	131	83	150	92
10	45	8	6	9	44	129	439	272	130	91	150	92
11	45	8	6	9	44	157	430	226	128	89	150	92
12	45	9	6	9	44	157	445	204	126	88	148	92
13	44	9	6	9	44	159	481	204	126	87	145	92
14	44	9	6	9	44	159	530	202	98	91	144	92
15	44	9	6	9	44	99	564	191	134	89	140	92
16	44	9	6	9	44	97	583	172	125	88	140	92
17	44	9	6	9	44	161	611	159	122	92	137	91
18	44	9	6	9	44	176	639	154	122	89	137	91
19	44	9	6	9	61	183	655	152	122	88	134	91
20	44	9	6	9	89	193	663	157	120	92	132	89
21	39	9	6	9	65	132	659	157	119	112	131	89
22	28	9	6	9	50	131	647	157	118	137	130	89
23	27	9	6	9	50	185	627	157	115	131	128	89
24	27	9	6	9	50	221	505	157	113	126	107	89
25	27	9	6	9	87	223	140	157	124	124	98	89
26	27	9	6	9	105	226	148	155	131	116	104	88
27	27	9	6	9	105	270	157	155	136	111	102	88
28	27	9	6	9	105	318	163	154	137	106	102	88
29	27	8	6	9	-	346	170	155	112	106	102	88
30	16	6	6	9	-	351	166	159	91	116	101	88
31	8	-	8	9	-	343	-	157	-	112	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,179	46	8	38.0	2,340
November	255	9	6	8.5	506
December	188	8	6	6.1	373
Calendar year 1945	24,532.6	282	1.1	67.2	48,640
January	279	9	9	9.0	553
February	1,468	105	10	52.4	2,910
March	5,361	351	97	173	10,630
April	12,916	663	140	431	25,620
May	5,475	272	152	177	10,860
June	3,843	155	91	128	7,620
July	3,082	137	83	99.4	6,110
August	3,778	150	98	122	7,490
September	2,743	98	88	91.4	5,440
Water year 1945-46	40,567	663	6	111	80,450

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 3,632.31 feet above mean sea level, datum of 1929, supplementary adjustment of 1947.
Drainage area.- 230 square miles.
Records available.- December 1903 to August 1914 and October 1928 to September 1946 in reports of Geological Survey. January 1904 to July 1914 and June 1926 to September 1936 in reports of State engineer.
Average discharge.- 28 years (1904-13, 1926-28, 1929-46), 109 second-feet.
Extremes.- Maximum discharge during year, 845 second-feet Apr. 19 (gage height, 5.16 feet); minimum recorded, 7.5 second-feet Nov. 9 (gage height, 1.20 feet), probably less Nov. 21 when stage-discharge relation was affected by ice.
1903-14, 1926-46: Maximum discharge, 1,820 second-feet Mar. 20, 1910 (gage height, 7.05 feet, site and datum then in use); no flow Aug. 31, 1909, Sept. 7, 1931.
Remarks.- Records good March to September, fair October to February except those during periods of ice effect, which are poor. Diversions above station for irrigation.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 19-26)

Oct. 1 to Apr. 26

1.3	13	1.9	79	3.3	356
1.4	20	2.1	112	3.9	502
1.5	29	2.4	167	4.5	664
1.7	51	2.8	246	5.0	809

Apr. 27 to Sept. 30

1.3	13	1.9	89	3.4	397
1.4	21	2.1	125	4.0	547
1.5	31	2.4	183	4.7	743
1.7	57	2.8	264		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	17	b29	76	40	59	263	460	331	109	26	11
2	14	17	27	67	37	60	263	407	322	140	22	11
3	12	18	25	64		60	278	421	342	121	25	11
4	15	19	28	61		61	285	488	344	100	20	11
5	18	23	27	61		70	315	593	340	87	23	11
6	16	23	28			76	349	657	333	74	20	15
7	16	24	b30			78	340	604	298	72	19	15
8	16	17	b28			87	368	694	264	74	19	14
9	15	14	b22	(*)		105	342	637	241	96	19	14
10	13	23	b24			135	311	585	217	91	18	14
11	12	20	24		b30	148	296	542	207	75	17	14
12	12	22	b23			196	368	505	207	68	15	12
13	12	23	b21			225	497	475	193	62	9.7	12
14	12	24	b19			186	549	438	189	58	11	12
15	14	25	20			176	592	404	181	56	13	11
16	14	24	b21			141	636	392	171	53	12	12
17	14	21	22			134	751	411	171	50	11	12
18	14	25	b15	b35		135	836	460	154	47	10	12
19	14	b20	b17			165	833	485	140	44	11	12
20	14	b11	b22			225	751	480	136	43	11	12
21	13	b9.2	25		39	307	608	423	127	42	11	9.7
22	18	b15	27		37	320	472	409	133	37	11	8.6
23	18	22	30		37	293	425	421	136	41	11	9.7
24	14	24	29		43	265	454	395	148	37	13	10
25	14	24	35		45	217	576	369	140	35	12	11
26	16	24	31		b44	240	736	411	125	32	11	11
27	16	32	31		66	329	749	508	120	32	11	11
28	19	38	75		68	365	637	524	121	32	10	11
29	19	41	161		-	403	582	440	134	29	11	11
30	22	33	89		-	342	550	381	123	27	12	11
31	19	-	85		-	300	-	349	-	25	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	474	22	12	15	940
November	672.2	41	9.2	22.4	1,330
December	1,090	161	15	35.2	2,160
Calendar year 1945	34,029.8	650	6.4	93.2	67,480
January	1,239	76	-	40.0	2,480
February	996	68	-	35.6	1,980
March	5,903	403	59	190	11,710
April	15,012	836	263	500	29,780
May	14,748	694	349	476	29,250
June	6,086	344	120	203	12,070
July	1,889	140	25	60.9	3,750
August	456.7	26	9.7	14.7	906
September	352.0	15	8.6	11.7	698
Water year 1945-46	48,917.9	836	8.6	134	97,030

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

Powder River near Robinette, Oreg.

Location.- Staff gage, lat. 44°46', long. 117°04', in SE¼ sec. 22, T. 9 S., R. 46 E., downstream from all tributaries, 2 miles northwest of Robinette and 2½ miles upstream from mouth.
Drainage area.- 1,710 square miles.
Records available.- September 1928 to September 1946.
Average discharge.- 18 years, 474 second-feet.
Extremes.- Maximum discharge observed during year, 2,870 second-feet Apr. 26 (gage height, 4.90 feet); minimum observed, 101 second-feet Aug. 21.
1928-46: 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 Dec. 11 to Apr. 15, 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.

Rating tables, water year 1945-46, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 22

0.8	91	1.8	410
1.0	133	2.2	600
1.2	185	2.6	820
1.5	287		

Dec. 23 to Sept. 30

0.8	108	1.7	390	3.5	1,520
1.0	150	2.0	525	4.0	1,970
1.2	205	2.5	790	5.0	2,970
1.4	270	3.0	1,120		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	129	174	179	545	184	844	1,260	2,070	1,920	675	242	172
2	129	179	201	426	196	826	1,300	1,950	2,150	959	235	187
3	129	198	198	378	178	796	1,350	1,990	2,220	868	214	223
4	124	185	185	366	205	772	1,380	2,190	2,140	796	197	246
5	124	174	168	322	214	754	1,320	2,450	2,100	730	162	256
6	120	165	157	274	229	820	1,500	2,320	1,920	719	150	263
7	120	155	168	290	217	826	1,660	2,430	1,880	620	145	260
8	115	152	138	252	181	820	1,570	2,560	1,860	545	143	249
9	113	157	111	256	223	880	1,650	2,570	1,740	489	141	242
10	115	157	122	*229	199	952	1,720	2,610	1,660	448	137	235
11	120	163	b130	249	196	1,060	1,720	2,450	1,580	435	135	229
12	124	168	b170	266	160	1,150	1,840	2,480	1,540	404	141	214
13	129	174	b140	263	162	1,230	1,860	2,450	1,490	386	143	205
14	126	174	b120	266	184	1,380	1,920	2,250	1,410	358	141	196
15	126	174	b110	286	205	1,220	2,020	2,070	1,280	358	137	184
16	129	168	b120	294	252	1,230	2,150	1,940	1,110	350	132	181
17	135	163	b150	286	d220	1,270	2,310	1,930	966	334	123	170
18	138	157	b300	270	d250	1,280	2,570	1,920	814	350	132	165
19	145	163	b350	235	d300	1,300	2,610	1,940	892	346	123	162
20	152	140	b300	256	d350	1,360	2,550	2,010	880	342	116	152
21	157	124	b500	246	d300	1,380	2,400	2,080	892	342	103	158
22	163	113	b800	232	d300	1,300	2,250	2,150	924	330	110	155
23	155	115	b910	187	d350	1,230	2,190	2,320	966	294	118	155
24	147	115	931	211	d400	1,160	2,350	2,370	966	235	124	155
25	135	129	874	214	d450	1,300	2,550	2,540	742	242	124	150
26	129	138	868	184	d550	1,300	2,800	2,550	697	252	123	155
27	126	150	898	187	d800	1,420	2,530	2,320	670	266	130	135
28	124	163	910	190	868	1,390	2,370	2,290	686	256	137	122
29	138	157	868	178	-	1,360	2,390	2,200	719	246	137	126
30	168	163	675	199	-	1,340	2,240	2,230	697	238	150	130
31	182	-	625	193	-	1,260	-	2,060	-	246	162	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,166	182	113	134	8,260
November	4,707	198	113	157	9,340
December	12,376	931	110	399	24,550
Calendar year 1945	193,534	2,140	71	530	383,900
January	8,230	545	178	265	16,320
February	8,323	868	160	297	16,510
March	35,210	1,420	754	1,136	69,840
April	60,330	2,800	1,260	2,011	119,700
May	69,690	2,610	1,920	2,248	138,200
June	39,511	2,220	670	1,317	78,370
July	13,459	959	235	434	26,700
August	4,524	242	108	146	8,970
September	5,632	263	122	188	11,170
Water year 1945-46	266,158	2,800	108	729	527,900

* 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 Powder River at Salisbury and Imnaha River at Imnaha.

Imnaha River above Gumboot Creek, Oreg.

Location.- Water-stage recorder, lat. 45°11', long. 116°53', in sec. 30 or 31, T. 4 S., R. 48 E., 0.1 mile upstream from Gumboot Creek and 5 miles northeast of Coverdale forest guard station.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge during year, 1,540 second-feet May 8 (gage height, 3.97 feet), from rating curve extended above 920 second-feet; minimum recorded, 16 second-feet Feb. 6 (gage height, 0.35 foot), but may have been less during periods of ice effect or no gage-height record.
1944-46: Maximum discharge, that of May 8, 1946; minimum recorded, 14 second-feet Dec. 10, 1944.

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

Rating table, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.6	35	1.8	248
.8	56	2.2	378
1.0	82	2.6	550
1.2	115	3.1	820
1.5	175	3.7	1,280

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	68	60	93	60	48	153	600	878	625	225	106
2	64	66	61	87	58	49	143	590	1,050	760	215	103
3	63	64	75	81	54	48	133	688	1,240	732	208	119
4	62	63	75	79	a40	48	131	885	1,270	683	196	108
5	62	63	66	76	47	48	141	1,090	1,240	640	189	108
6	61	61	66	63	46	49	153	1,050	1,090	615	184	128
7	60	60	62	72	54	47	175	1,020	906	580	177	129
8	60	58	54	71	49	48	191	1,360	878	615	173	117
9	58	57	42	63	54	52	173	1,270	899	635	166	106
10	57	68	b56	68	58	60	157	1,180	878	536	162	100
11	57	62	62	57	56	67	162	962	859	512	157	96
12	56	60	54	54	a45	79	217	920	808	512	153	93
13	56	60	33	b71	58	79	314	852	878	508	149	90
14	56	60	32	56	58	74	386	796	955	481	147	88
15	55	66	a33	60	55	74	425	778	840	442	143	92
16	55	64	40	69	50	67	481	820	778	413	139	96
17	61	63	63	66	50	66	590	920	700	390	135	95
18	60	62	a66	56	53	64	678	1,040	700	367	131	92
19	57	53	a50	54	54	68	760	1,010	772	348	128	87
20	57	54	a56	58	55	88	710	1,000	808	341	126	84
21	55	50	68	58	53	101	580	992	899	334	122	85
22	58	a50	79	62	49	105	503	1,020	899	331	122	87
23	56	a60	81	54	49	103	490	970	760	314	133	84
24	56	69	81	64	49	101	531	941	666	298	128	81
25	56	64	76	64	49	93	716	962	595	279	124	79
26	56	62	75	49	48	96	941	1,240	565	268	119	78
27	55	75	71	55	54	135	808	1,280	550	276	113	78
28	56	79	85	50	49	184	738	1,150	545	256	113	78
29	57	88	160	54	-	240	784	934	555	243	112	76
30	72	69	126	50	-	198	705	840	541	240	115	75
31	81	-	103	55	-	171	-	846	-	245	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,841	81	55	59.4	3,650
November	1,898	88	50	63.3	3,760
December	2,111	160	32	68.1	4,190
Calendar year 1945	84,299	1,230	32	231	167,200
January	1,969	93	49	63.5	3,910
February	1,454	60	40	51.9	2,880
March	2,750	240	47	88.7	5,450
April	13,069	941	131	436	25,920
May	30,006	1,360	590	968	59,520
June	25,002	1,270	541	833	49,590
July	13,819	760	240	446	27,410
August	4,616	225	112	149	9,160
September	2,838	129	75	94.6	5,630
Water year 1945-46	101,373	1,360	32	278	201,100

a No gage-height record; discharge computed on basis of records for station at Imnaha.
b Stage-discharge relation affected by ice.

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 1946.

Average discharge.- 18 years, 442 second-feet.

Extremes.- Maximum discharge during year, 2,830 second-feet May 8 (gage height, 5.62 feet); minimum, 67 second-feet Dec. 15 (gage height, 1.65 feet).
1928-46: Maximum discharge, 5,400 second-feet May 23, 1942 (gage height, 6.70 feet), from rating curve extended above 1,800 second-feet; minimum observed, 16 second-feet Nov. 22, 1931.

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

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.8	98	3.2	665
2.0	150	3.7	1,000
2.2	210	4.2	1,420
2.5	320	4.8	1,990
2.8	450	5.4	2,590

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	167	185	300	170	217	647	1,450	1,490	816	304	176
2	128	167	188	284	179	214	588	1,360	1,600	978	284	170
3	126	159	201	276	170	210	550	1,530	1,750	962	273	185
4	126	156	210	262	131	204	520	1,910	1,800	911	262	191
5	126	162	198	259	145	201	530	2,130	1,790	855	256	191
6	131	159	188	242	170	204	583	2,120	1,700	829	248	207
7	131	150	191	217	156	204	635	2,040	1,460	790	238	266
8	131	142	170	228	136	204	707	2,520	1,390	770	231	262
9	128	108	108	201	147	210	683	2,600	1,400	904	228	224
10	128	150	134	201	156	252	617	2,370	1,350	732	220	204
11	128	170	176	191	156	328	561	2,050	1,310	683	214	188
12	128	156	159	123	120	360	701	1,930	1,190	677	207	179
13	126	153	120	142	131	387	1,060	1,780	1,230	665	204	173
14	128	147	89	b164	156	360	1,300	1,640	1,360	641	201	167
15	128	162	87	150	153	336	1,420	1,520	1,220	583	198	173
16	128	170	89	164	142	312	1,530	1,540	1,160	545	188	194
17	136	162	b136	188	150	292	1,820	1,610	1,080	515	185	217
18	147	156	153	191	153	284	2,020	1,740	992	490	176	204
19	136	156	123	150	156	288	2,190	1,710	1,090	470	173	188
20	136	150	b145	167	164	374	2,080	1,660	1,100	450	170	182
21	131	110	238	162	170	436	1,720	1,620	1,180	436	167	179
22	134	110	231	b179	173	475	1,430	1,670	1,240	428	167	191
23	139	156	220	145	173	475	1,330	1,720	1,100	410	182	182
24	136	173	204	170	188	465	1,420	1,620	992	392	191	173
25	136	170	201	173	214	436	1,890	1,610	890	364	191	167
26	134	170	194	142	210	423	2,250	1,790	829	352	188	164
27	134	188	188	139	224	578	1,990	2,000	810	387	173	162
28	131	210	207	139	228	758	1,820	1,940	784	356	170	162
29	134	256	382	139	-	978	1,910	1,740	822	332	176	159
30	145	238	405	150	-	876	1,700	1,570	758	316	182	156
31	182	-	344	153	-	744	-	1,550	-	336	188	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,143	182	126	134	8,220
November	4,883	256	108	163	9,690
December	5,864	405	87	189	11,630
Calendar year 1945	180,399	2,600	87	494	357,800
January	5,791	300	123	187	11,490
February	4,621	228	120	165	9,170
March	12,085	978	201	390	23,970
April	38,202	2,250	520	1,273	75,770
May	56,040	2,600	1,360	1,808	111,200
June	36,867	1,800	758	1,229	73,120
July	18,375	978	316	593	36,450
August	6,435	304	167	208	12,760
September	5,636	266	156	188	11,180
Water year 1945-46	198,942	2,600	87	545	394,600

b Stage-discharge relation affected by ice.

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 1946.

Extremes.- Maximum discharge during year, 477 second-feet June 6; maximum gage height, 4.57 feet Jan. 31 (ice jam); minimum discharge recorded, 8 second-feet Aug. 5 to Sept. 6.

1940-46: Maximum discharge, 664 second-feet May 30, 1943; maximum gage height recorded, 4.74 feet sometime between Dec. 5, 1940, and Jan. 23, 1941 (ice jam); minimum discharge, 2 second-feet Sept. 7-11, 1942, Apr. 1, 1945.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	33	27				28	188	271	160	16	8
2	28	33	22				28	192	282	166	16	8
3	28	32	20				28	220	323	160	16	8
4	28	31					27	260	390	149	14	8
5	28	32		30			*27	312	439	129	9	8
6	28	30				23	26	335	430	119	8	12
7	28	30					28	339	356	110	8	17
8	28	*28					27	323	327	105	8	17
9	28	28					26	289	331	104	8	16
10	27	33					26	260	348	88	8	16
11	27	28					26	238	335	78	8	15
12	27	26					28	241	296	72	8	15
13	27	29	25				30	247	285	66	8	14
14	27	29		23			31	250	292	55	8	14
15	27	30			23		33	250	296	53	8	14
16	27	30					40	271	282	48	8	17
17	28	30					54	308	247	40	8	21
18	28	30				25	85	343	228	34	8	32
19	27	30					112	343	225	30	8	30
20	29	30					128	327	228	26	8	31
21	28	26					117	331	241	23	8	34
22	28	31					102	335	250	20	8	34
23	29	28					115	323	260	18	9	34
24	29	27					137	304	238	18	8	34
25	30	28					166	308	206	18	8	34
26	31	31	30	26		26	214	343	190	18	8	34
27	30	31				28	222	356	175	17	8	33
28	30	30				30	228	381	168	17	8	33
29	30	30			-	32	238	348	155	17	8	33
30	32	30			-	30	211	312	153	17	8	33
31	33	-			-	29	-	289	-	19	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	883	33	27	28.5	1,750
November	894	33	26	29.8	1,770
December	819	-	-	26.4	1,620
Calendar year 1945	19,740	327	-	54.1	39,150
January	802	-	-	25.9	1,590
February	644	-	-	23	1,280
March	780	32	-	25.2	1,550
April	2,588	238	26	86.3	5,130
May	9,166	381	188	296	18,180
June	8,247	439	153	275	16,360
July	1,994	166	17	643	3,960
August	280	16	8	9.0	555
September	657	34	8	21.9	1,300
Water year 1945-46	27,754	439	8	76.0	55,040

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 3 to about Feb. 15. No gage-height record Dec. 4 to Jan. 29, Feb. 2 to Apr. 4; discharge computed on basis of weather records and records for stations on nearby streams.

Salmon River below Valley Creek, at Stanley, Idaho

Location.- Water-stage recorder, lat. 44°14', long. 114°55', in SE¼SE¼ sec. 34, T. 11 N., R. 13 E., three-quarters of a mile downstream from Valley Creek and 1¼ miles northeast 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 1946.

Average discharge.- 21 years, 595 second-feet.

Extremes.- Maximum discharge during year, 2,830 second-feet June 6 (gage height, 3.85 feet); minimum daily discharge, 240 second-feet Dec. 19.
1925-46: 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	307	377	297	440	340	315	370	1,530	1,880	1,390	646	390
2	307	358	292	435	330	300	360	1,540	1,880	1,430	613	383
3	307	353	292	440	330	310	h353	1,620	2,000	1,450	589	383
4	302	353	329	430	320	290	350	1,720	2,320	1,440	557	390
5	297	358	324	420	320	305	340	1,890	2,610	1,410	541	423
6	297	353	324	390	320	315	340	2,020	2,780	1,370	517	410
7	297	335	318	370	315	285	335	2,060	2,510	1,320	502	410
8	297	324	312	390	310	300	330	2,160	2,270	1,300	487	410
9	297	*302	282	350	320	300	340	2,110	2,220	1,330	480	410
10	292	341	297	360	330	300	h329	1,920	2,270	1,230	458	396
11	292	341	307	360	325	315	330	1,750	2,270	1,160	451	383
12	297	347	297	310	300	320	390	1,720	2,190	1,120	436	377
13	297	353	287	310	315	324	440	1,690	2,040	1,090	416	364
14	292	358	270	330	320	325	500	1,670	2,010	1,060	403	358
15	292	370	250	320	310	*329	590	1,650	2,010	1,020	396	353
16	292	364	260	340	300	324	680	1,680	2,010	960	390	410
17	302	358	300	350	295	324	e810	1,770	1,920	921	383	436
18	312	353	265	*347	310	330	1,010	1,930	1,820	921	377	436
19	307	353	240	325	310	340	1,300	2,010	1,740	827	364	416
20	335	364	260	315	315	h347	1,280	2,040	1,730	791	364	410
21	324	329	295	310	300	345	1,140	2,080	1,800	764	370	410
22	347	341	350	340	310	335	1,040	2,160	1,880	746	370	423
23	335	364	350	365	300	325	1,120	2,290	1,960	730	429	423
24	335	383	345	390	310	315	1,230	2,220	1,970	704	451	423
25	347	370	345	360	315	290	1,440	2,150	1,780	687	429	423
26	341	364	340	330	290	h312	1,770	2,290	1,650	687	436	416
27	341	370	330	340	315	h347	1,770	2,340	1,550	687	416	403
28	335	364	396	330	315	380	1,820	2,460	1,470	662	416	403
29	335	364	509	335	-	400	1,850	2,330	1,410	646	403	396
30	358	335	480	345	-	390	1,710	2,110	1,380	654	410	396
31	383	-	465	350	-	380	-	1,970	-	696	396	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	9,799	383	292	316	0.591	0.68	19,440
November	10,599	383	302	353	.660	.74	21,020
December	10,008	509	240	323	.604	.70	19,850
Calendar year 1945	202,501	2,160	-	555	1.04	14.08	401,600
January	11,127	440	310	359	.671	.77	22,070
February	8,790	340	290	314	.587	.61	17,430
March	10,117	400	285	326	.609	.70	20,070
April	25,667	1,850	329	856	1.60	1.78	50,910
May	60,880	2,460	1,530	1,964	3.67	4.23	120,800
June	59,330	2,780	1,380	1,978	3.70	4.12	117,700
July	31,293	1,450	646	1,007	1.88	2.17	61,890
August	13,898	646	364	448	.837	.97	27,560
September	12,064	436	353	402	.751	.84	23,930
Water year 1945-46	263,480	2,780	240	722	1.35	18.31	522,700

* Winter discharge measurement made on this day.
e Gage reading not representative of mean for day; discharge computed as for no gage-height record.
h Computed from staff-gage reading.

Note.- Stage-discharge relating affected by ice Jan. 1-17, Jan. 19 to about Feb. 20. No gage-height record Dec. 14-27, Jan. 21 to Mar. 12, Mar. 14, 18, 19, 21-25, Mar. 28 to Apr. 2, Apr. 4-9, 11-16, 18-22; discharge computed on basis of weather records and records for station below Yankee Fork, near Clayton, and other stations on nearby streams.

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 1946.

Average discharge.- 23 years (1922-24, 1925-46), 872 second-feet.

Extremes.- Maximum discharge during year, 4,430 second-feet June 6 (gage height, 7.22 feet); minimum, 248 second-feet Feb. 7 (gage height, 1.94 feet).
1921-46: Maximum discharge, 8,000 second-feet (estimated) June 27, 1927; minimum, 160 second-feet (estimated) Nov. 25-30, 1929.

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

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.0	275	3.0	780	5.0	2,200
2.2	365	3.5	1,090	6.0	3,090
2.4	465	4.0	1,440	7.2	4,410
2.6	565	4.5	1,800		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	425	475	360	555	420	395	505	2,380	3,020	1,850	822	510
2	415	460	360	545	410	375	495	2,360	3,070	1,900	780	510
3	415	455	370	555	410	385	490	2,580	3,350	1,900	747	505
4	410	450	420	530	395	365	475	2,930	3,890	1,880	703	515
5	405	460	425	525	400	380	475	3,310	4,220	1,820	681	550
6	400	460	435	500	400	390	480	3,470	4,370	1,760	654	545
7	400	420	425	460	395	356	470	3,490	3,890	1,690	632	535
8	400	405	420	480	390	375	490	3,580	3,470	1,660	615	525
9	395	*365	375	435	400	370	500	3,420	3,370	1,710	610	525
10	390	420	385	450	410	375	490	3,120	3,430	1,580	590	515
11	390	430	420	445	405	410	490	2,840	3,400	1,480	580	495
12	395	440	410	b380	375	420	590	2,780	3,220	1,410	575	480
13	395	445	b360	b380	390	425	708	2,760	3,020	1,370	565	470
14	390	450	b350	b410	395	*420	846	2,730	2,980	1,340	550	465
15	390	465	b310	*b400	385	400	1,010	2,670	2,950	1,290	540	455
16	390	465	b320	b420	370	400	1,240	2,740	2,930	1,220	525	520
17	400	455	b400	b440	365	385	1,530	2,930	2,760	1,150	515	585
18	420	445	b350	b430	385	415	1,850	3,270	2,600	1,100	510	585
19	405	440	b310	b400	380	445	2,130	3,380	2,490	1,030	500	555
20	435	445	b330	b390	390	475	2,120	3,300	2,480	990	495	535
21	420	385	b390	b380	370	460	1,950	3,310	2,550	960	495	540
22	435	390	b430	b410	385	455	1,710	3,460	2,630	942	495	555
23	420	440	430	450	375	450	1,770	3,590	2,680	912	560	550
24	425	450	425	490	385	440	2,020	3,470	2,680	900	626	550
25	435	465	420	445	395	400	2,450	3,390	2,420	876	565	540
26	435	465	415	420	360	455	2,970	3,590	2,260	870	585	535
27	430	470	410	425	390	510	3,000	3,850	2,130	876	565	525
28	430	460	480	420	395	555	2,920	4,150	2,010	834	555	520
29	425	460	637	430	-	600	2,980	3,860	1,900	810	540	520
30	455	420	600	440	-	575	2,760	3,420	1,850	822	555	510
31	490	-	570	440	-	545	-	3,160	-	900	530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	12,885	490	390	415	0.493	0.57	25,520
November	13,255	475	365	442	.526	.59	26,290
December	12,742	637	310	411	.489	.56	25,270
Calendar year 1945	288,003	3,140	310	789	.938	12.73	571,300
January	13,880	555	380	448	.533	.61	27,530
February	10,925	420	360	390	.464	.48	21,670
March	13,406	600	356	432	.514	.59	26,590
April	41,914	3,000	470	1,397	1.66	1.85	83,140
May	99,290	4,150	2,360	3,203	3.81	4.39	196,900
June	88,020	4,370	1,850	2,934	3.49	3.89	174,600
July	39,832	1,900	810	1,285	1.53	1.76	79,010
August	18,260	822	495	589	.700	.81	36,220
September	15,725	585	455	524	.623	.70	31,190
Water year 1945-46	380,114	4,370	310	1,041	1.24	16.80	753,900

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

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.- 1,800 square miles.

Records available.- October 1928 to September 1946.

Average discharge.- 18 years, 1,284 second-feet.

Extremes.- Maximum discharge during year, 6,540 second-feet June 6 (gage height, 6.49 feet); minimum, 306 second-feet Dec. 9, ice jam upstream (gage height, 1.41 feet). 1928-46: Maximum discharge, 10,800 second-feet May 30, 1943 (gage height, 8.07 feet); minimum, 160 second-feet Dec. 14, 1940.

Remarks.- Records excellent except those for periods of ice effect, which are good. Some diversion above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	657	721	507	809	662	615	748	3,220	4,190	2,790	1,290	855
2	657	694	458	785	673	605	726	3,080	4,220	2,950	1,220	837
3	652	689	507	803	662	595	715	3,270	4,560	2,940	1,170	820
4	636	689	615	775	647	575	694	3,710	5,560	2,860	1,130	832
5	631	684	689	770	605	585	689	4,370	6,170	2,810	1,090	866
6	626	699	657	742	631	610	699	4,720	6,360	2,740	1,060	872
7	626	641	662	668	652	575	689	4,840	5,690	2,310	1,030	798
8	621	605	605	732	570	575	699	4,840	5,090	2,550	1,000	843
9	621	536	494	600	560	595	721	4,580	4,950	2,600	981	849
10	615	*605	526	580	b620	605	705	4,240	5,110	2,420	950	837
11	610	657	510	b600	b640	689	694	3,830	5,030	2,310	920	809
12	615	662	610	b520	600	668	786	3,690	4,700	2,220	908	786
13	615	673	536	b520	590	673	926	3,680	4,370	2,180	896	770
14	610	668	517	b540	b630	*662	1,060	3,660	4,370	2,120	876	759
15	605	684	440	*b520	b630	621	1,260	3,560	4,340	2,040	872	748
16	605	694	453	b540	b580	610	1,530	3,610	4,300	1,940	855	781
17	610	684	595	b590	585	580	1,870	3,900	4,240	1,840	837	908
18	636	657	507	b600	610	605	2,300	4,430	3,810	1,740	820	926
19	631	678	b420	580	590	636	2,740	4,700	3,620	1,680	809	896
20	647	652	b440	555	600	694	2,880	4,600	3,590	1,600	803	866
21	647	555	b540	521	560	684	2,650	4,600	3,740	1,560	798	861
22	647	531	b650	b600	595	662	2,330	4,760	3,900	1,520	792	884
23	652	621	b660	b640	580	652	2,300	4,880	4,020	1,490	832	872
24	647	678	b660	b680	615	636	2,520	4,700	3,970	1,440	1,050	866
25	657	715	b640	b700	636	590	3,080	4,540	3,830	1,400	944	855
26	668	705	b640	b640	580	626	3,850	4,760	3,270	1,370	975	849
27	662	699	b640	b610	590	715	4,080	5,160	3,100	1,400	932	832
28	662	684	710	b620	615	786	3,900	5,670	2,940	1,330	896	814
29	662	678	950	b640	-	861	3,950	5,420	2,850	1,280	890	809
30	673	652	896	b550	-	855	3,780	4,800	2,780	1,260	908	798
31	737	-	820	605	-	809	-	4,390	-	1,370	884	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	19,840	737	605	640	0.356	0.41	39,350
November	19,790	721	531	660	.367	.41	39,250
December	18,654	950	420	602	.334	.39	37,000
Calendar year 1945	423,192	5,090	415	1,159	.644	8.78	839,400
January	19,736	809	520	637	.354	.41	39,150
February	17,088	673	560	610	.339	.35	33,890
March	25,249	861	575	653	.363	.42	40,160
April	55,571	4,080	689	1,852	1.03	1.15	110,200
May	134,210	5,670	3,080	4,329	2.40	2.77	266,200
June	128,360	6,360	2,780	4,279	2.38	2.65	254,600
July	62,360	2,950	1,260	2,012	1.12	1.29	123,700
August	29,420	1,290	792	949	.527	.61	58,350
September	25,098	926	748	837	.465	.52	49,780
Water year 1945-46	550,376	6,360	420	1,508	.838	11.38	1,092,000

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

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.- 3,760 square miles.

Records available.- April 1912 to September 1916, July 1919 to September 1946.

Average discharge.- 29 years (1913-16, 1920-46), 1,781 second-feet.

Extremes.- Maximum discharge during year, 6,710 second-feet June 6 (gage height, 5.87 feet); minimum, 712 second-feet Dec. 16 (gage height, 2.58 feet).
1912-16, 1919-46: 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. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070	1,270	1,160	1,310	1,020	1,100	1,300	3,890	4,800	3,120	1,560	1,270
2	1,070	1,260	b950	1,300	1,110	1,120	1,220	3,500	4,690	3,220	1,460	1,250
3	1,080	1,250	b850	1,280	1,110	1,110	1,190	3,420	4,840	3,320	1,370	1,230
4	1,060	1,250	1,010	1,310	1,070	1,060	1,160	3,720	5,370	3,280	1,310	1,220
5	1,050	1,230	1,130	1,260	1,040	1,070	1,140	4,250	6,120	3,200	1,270	1,260
6	1,030	1,230	1,210	1,260	1,020	1,070	1,140	4,710	6,510	3,220	1,230	1,310
7	1,020	1,230	1,200	1,200	1,050	1,060	1,140	4,940	6,430	3,180	1,190	1,350
8	1,010	1,190	1,170	1,120	1,040	1,020	1,110	5,030	5,700	3,080	1,170	1,360
9	1,000	1,170	1,100	1,160	931	1,030	1,130	4,980	5,370	3,060	1,150	1,340
10	1,000	1,140	922	1,020	970	1,050	1,140	4,710	5,390	3,020	1,120	1,350
11	1,000	*1,210	1,030	980	1,050	1,080	1,130	4,330	5,440	2,830	1,100	1,320
12	1,000	1,250	1,110	1,010	1,000	1,140	1,130	4,020	5,300	2,700	1,100	1,280
13	1,010	1,270	1,070	922	950	1,140	1,230	3,910	4,910	2,610	1,070	1,250
14	1,010	1,260	960	913	950	1,130	1,400	3,890	4,690	2,520	1,050	1,220
15	1,010	1,260	814	970	1,040	1,120	1,570	3,850	4,660	2,410	1,030	1,220
16	1,020	1,270	805	950	1,040	1,080	1,820	3,760	4,660	2,300	1,020	1,250
17	1,040	1,280	913	960	1,040	1,050	2,100	3,890	4,580	2,220	1,000	1,500
18	1,050	1,270	1,040	1,000	1,010	1,030	2,500	4,210	4,330	2,100	980	1,580
19	1,110	1,260	904	*950	1,030	1,060	2,970	4,620	4,120	2,010	970	1,530
20	1,130	1,260	805	960	1,020	1,160	3,360	4,780	3,980	1,900	950	1,570
21	1,140	1,210	868	886	1,040	1,230	3,340	4,800	4,000	1,860	950	1,460
22	1,190	1,110	1,100	886	1,020	1,170	3,040	4,860	4,140	1,750	940	1,460
23	1,210	1,080	1,220	990	1,060	1,150	2,700	5,080	4,250	1,680	980	1,500
24	1,210	1,170	1,250	1,030	1,040	1,140	2,740	5,030	4,360	1,560	1,140	1,480
25	1,210	1,230	1,210	1,170	1,080	1,110	3,040	4,910	4,140	1,530	1,250	1,470
26	1,220	1,270	1,170	1,220	1,100	1,050	3,680	4,960	3,810	1,500	1,200	1,460
27	1,220	1,260	1,160	1,080	1,050	1,110	4,250	5,320	3,600	1,500	1,230	1,410
28	1,210	1,260	1,190	1,040	1,060	1,210	4,230	5,830	3,440	1,480	1,230	1,390
29	1,210	1,230	1,270	980	-	1,300	4,210	6,040	3,320	1,460	1,220	1,390
30	1,200	1,230	1,480	1,020	-	1,360	4,230	5,570	3,180	1,440	1,310	1,390
31	1,230	-	1,390	1,030	-	1,370	-	5,080	-	1,470	1,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	34,020	1,230	1,003	1,097	67,480
November	36,860	1,280	1,083	1,229	73,110
December	33,461	1,480	803	1,079	66,370
Calendar year 1945	590,556	5,750	803	1,618	1,171,000
January	33,167	1,310	883	1,070	65,790
February	28,941	1,110	951	1,034	57,400
March	34,880	1,370	1,020	1,125	69,180
April	66,340	4,250	1,110	2,211	131,600
May	141,890	6,040	3,420	4,577	281,400
June	140,130	6,510	3,180	4,671	277,900
July	72,530	3,320	1,440	2,340	143,900
August	35,850	1,580	940	1,156	71,110
September	41,070	1,580	1,220	1,369	81,460
Water year 1945-46	699,139	6,510	803	1,915	1,387,000

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

Salmon River near Shoup, Idaho

Location.- Wire-weight gage, lat. 45°19'30", long. 114°25', in sec. 13, T. 23 N., R. 17 E., at highway bridge 1 mile downstream from Panther Creek and 8 miles southwest of Shoup.

Drainage area.- 6,270 square miles.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 9,460 second-feet June 7 (gage height, 7.08 feet); minimum daily discharge, 1,100 second-feet Dec. 15, 16, 20. 1944-46: Maximum discharge observed, that of June 7, 1946; minimum observed, 1,040 second-feet Sept. 12, 13, 1945 (gage height, 1.93 feet), but may have been less during winter periods.

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

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.0	1,100	4.0	3,720
2.2	1,290	5.0	5,440
2.5	1,610	6.0	7,310
3.0	2,240	7.1	9,500

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,560	1,740	1,670	2,210	1,550	1,650	2,040	5,150	6,320	3,910	2,100	1,630
2	1,510	1,790	1,420	1,900	1,650	1,650	1,930	4,970	6,090	3,830	1,980	1,690
3	1,560	1,780	1,170	2,040	1,650	1,650	1,830	4,810	6,850	4,060	1,790	1,800
4	1,500	1,790	1,390	1,940	1,650	1,550	1,780	4,810	7,010	4,280	1,770	1,780
5	1,530	1,800	1,680	1,920	1,600	1,570	1,770	5,260	7,820	4,190	1,690	1,840
6	1,500	1,830	1,800	1,950	1,550	1,570	1,780	5,750	9,240	4,110	1,600	1,900
7	1,520	1,780	1,860	1,730	1,600	1,540	1,800	6,360	9,460	4,040	1,560	1,970
8	1,390	1,730	1,900	1,710	1,600	1,500	1,780	6,970	9,140	4,020	1,510	2,110
9	1,410	1,660	1,360	1,610	1,450	1,520	1,770	6,700	8,340	4,180	1,420	2,030
10	1,400	1,620	1,210	1,530	1,500	1,560	1,680	6,360	7,500	4,240	1,390	2,030
11	1,400	1,660	e1,300	1,390	1,600	1,580	1,630	5,490	7,400	4,120	1,350	1,890
12	1,370	*1,810	e1,500	1,350	1,550	1,590	1,680	5,330	7,060	4,040	1,270	1,850
13	1,370	1,800	1,400	1,300	1,450	*1,740	1,860	4,650	6,420	3,880	1,240	1,750
14	1,360	1,810	1,300	1,300	1,450	1,600	2,120	e4,600	6,130	3,720	1,310	1,730
15	1,300	1,770	1,100	1,400	1,600	1,560	2,300	e4,600	6,020	3,460	1,360	1,730
16	1,290	1,800	1,100	1,400	1,600	1,570	2,650	e4,700	5,910	3,140	1,270	1,740
17	1,370	1,860	1,200	1,450	1,550	1,390	3,120	e5,000	5,760	2,800	1,230	2,080
18	1,390	1,810	1,300	e1,450	1,550	1,490	3,850	5,480	5,620	2,760	1,210	2,580
19	1,420	1,780	1,200	1,400	1,550	1,500	4,570	5,660	5,480	2,650	1,190	2,230
20	1,500	1,770	1,100	1,400	1,550	1,610	4,690	5,820	5,260	2,490	1,140	2,210
21	1,520	1,660	1,200	*1,400	1,600	1,680	4,740	5,930	5,310	2,380	1,210	2,110
22	1,480	1,580	1,700	1,400	1,600	1,750	4,410	6,080	5,390	2,240	1,170	2,160
23	1,480	1,550	1,860	1,500	1,600	1,810	e3,800	6,090	5,440	2,100	1,140	2,100
24	1,670	1,690	1,860	1,600	1,600	1,750	e3,800	6,320	5,400	2,070	1,410	2,060
25	1,660	1,880	1,900	1,800	1,600	1,710	3,980	6,340	5,080	1,970	1,560	2,080
26	1,630	1,890	1,800	1,800	1,600	1,650	5,040	6,550	4,700	1,850	1,560	2,040
27	1,620	1,930	1,690	1,600	1,550	1,730	5,400	7,180	4,430	1,840	1,590	2,020
28	1,710	1,900	1,810	1,550	1,600	1,860	5,480	8,520	4,110	1,750	1,670	2,010
29	1,840	1,850	2,200	1,500	-	2,040	5,300	9,200	3,960	1,720	1,710	1,950
30	1,660	1,730	2,310	1,550	-	2,120	5,120	8,380	3,880	1,690	1,680	1,880
31	1,720	-	2,390	1,550	-	2,120	-	7,460	-	1,920	1,630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	46,640	1,840	1,290	1,505	92,510
November	53,050	1,930	1,550	1,768	105,200
December	48,680	2,390	1,100	1,570	96,560
Calendar year 1945	852,420	7,440	1,040	2,335	1,691,000
January	49,630	2,210	1,300	1,601	98,440
February	44,000	1,650	1,450	1,571	87,270
March	51,610	2,120	1,390	1,665	102,400
April	93,700	5,480	1,630	3,123	185,900
May	186,520	9,200	4,600	6,017	370,000
June	186,530	9,460	3,880	6,218	370,000
July	95,450	4,280	1,690	3,079	189,300
August	45,710	2,100	1,140	1,475	90,660
September	58,980	2,580	1,630	1,966	117,000
Water year 1945-46	960,500	9,460	1,100	2,632	1,905,000

* Winter discharge measurement made on this day.
e Gage reading inaccurate or not representative of mean for day; discharge computed on basis of records for other Salmon River stations.

Note.- Stage-discharge relation affected by ice Nov. 23, Dec. 13-22, Jan. 13 to Mar. 4.

Salmon River near French Creek, Idaho

Location.- Staff gage, lat. 45°26', long. 115°59', in sec. 8, T. 24 N., R. 4 E., 100 feet downstream from Fall Creek, 2½ miles northeast of French Creek post office, and 16 miles east of Riggins.

Drainage area.- 12,270 square miles.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 40,600 second-feet May 28 (gage height, 20.52 feet); minimum daily discharge, 2,500 second-feet Dec. 15, 16, 20; minimum gage height observed, 2.10 feet Dec. 3.
1944-46: Maximum discharge observed, that of May 28, 1946; minimum observed, 1,890 second-feet Dec. 12, 1944 (gage height, 1.44 feet).

Remarks.- Records excellent except those for periods of ice effect, which are good. Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.9	2,400	6.0	7,900	14.0	25,000
3.0	3,710	8.0	11,800	16.0	29,700
4.0	4,940	10.0	16,000	18.0	34,500
5.0	6,250	12.0	20,400	20.4	40,300

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,870	4,170	3,760	5,230	3,340	3,670	6,330	23,500	30,700	12,700	6,210	4,490
2	3,810	4,230	3,110	4,120	3,580	3,770	5,920	21,900	30,600	12,700	5,750	4,300
3	3,770	4,300	2,690	4,490	3,640	3,840	5,580	21,600	32,700	12,800	5,400	4,450
4	3,700	4,500	2,930	4,440	3,590	3,750	5,370	24,900	35,600	12,700	5,120	4,430
5	3,650	4,620	3,890	4,330	3,390	3,600	5,230	30,400	36,900	12,000	4,880	4,620
6	3,650	4,860	4,150	4,260	3,240	3,590	5,290	33,400	37,500	11,600	4,740	4,950
7	3,550	4,440	4,170	3,990	3,240	3,650	5,410	35,200	34,500	11,400	4,560	5,490
8	3,510	4,180	4,010	*3,910	3,480	3,580	5,580	35,700	31,400	11,200	4,420	5,450
9	3,470	*3,830	3,370	3,850	3,220	3,530	5,760	36,300	29,800	12,500	4,360	5,400
10	3,390	3,760	3,000	3,660	3,050	3,530	5,890	33,800	27,900	12,000	4,260	5,080
11	3,350	4,150	2,750	3,420	3,070	3,760	5,520	30,900	29,200	11,000	4,190	4,800
12	3,330	4,120	2,900	3,280	3,130	4,220	5,780	29,800	27,900	10,100	4,070	4,560
13	3,340	4,150	3,010	3,060	3,110	4,860	6,480	29,100	26,300	9,520	4,070	4,340
14	3,270	4,150	2,700	2,820	3,100	4,830	7,660	28,200	25,000	9,040	4,010	4,180
15	3,230	4,180	2,500	2,830	3,220	4,480	8,960	26,700	24,100	8,760	3,910	4,130
16	3,270	4,300	2,500	2,770	3,160	4,180	10,500	26,700	23,300	8,380	3,870	4,340
17	3,400	4,320	2,600	2,790	3,270	4,030	13,200	27,800	22,800	8,000	3,760	4,780
18	3,700	4,170	2,800	2,860	3,240	3,600	16,300	30,900	21,300	7,620	3,690	5,460
19	3,770	4,130	2,800	2,950	3,290	3,940	20,400	32,900	20,300	7,280	3,600	5,670
20	3,720	4,150	2,500	2,860	3,390	4,260	22,700	32,700	19,500	7,010	3,550	5,330
21	3,760	3,870	2,700	2,930	3,460	5,020	20,000	32,300	19,000	6,710	3,490	5,170
22	3,690	3,400	2,900	2,980	3,290	5,450	17,500	33,000	18,900	6,480	3,520	5,260
23	3,790	3,300	3,190	3,070	3,510	5,380	15,900	34,300	19,000	6,240	3,470	5,230
24	3,760	3,550	3,650	3,280	3,580	5,160	15,700	33,500	18,900	6,040	3,660	5,060
25	3,790	4,090	4,010	3,470	3,700	4,900	20,500	33,800	17,600	5,850	4,190	4,920
26	3,880	4,200	3,940	3,640	3,850	4,590	24,400	34,900	16,200	5,820	4,240	4,820
27	3,870	4,230	3,820	3,650	3,820	4,740	27,800	38,700	15,400	5,840	4,290	4,690
28	3,820	4,250	3,770	3,180	3,750	4,550	27,600	40,300	14,500	5,880	4,220	4,560
29	3,770	4,230	4,550	3,220	-	6,720	27,200	39,300	14,000	5,620	4,220	4,460
30	3,770	4,110	5,770	3,190	-	7,230	26,800	35,100	13,100	5,420	4,490	4,420
31	3,990	-	5,850	3,150	-	6,710	-	32,500	-	6,150	4,630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	112,640	3,990	3,230	3,634	0.296	0.34	223,400
November	123,940	4,860	3,300	4,131	.337	.38	245,800
December	105,890	5,850	2,500	3,416	.278	.32	210,000
Calendar year 1945	2,815,400	37,200	2,300	7,713	.629	8.53	5,584,000
January	107,680	5,230	2,770	3,474	.283	.33	213,600
February	94,710	3,850	3,050	3,382	.276	.29	187,900
March	139,120	7,230	3,530	4,488	.366	.42	275,900
April	397,060	27,800	5,230	13,240	1.08	1.20	787,600
May	979,900	40,300	21,600	31,610	2.58	2.97	1,944,000
June	733,900	37,500	13,100	24,460	1.99	2.22	1,456,000
July	274,360	12,800	5,420	8,850	.721	.83	544,200
August	132,840	6,210	3,470	4,285	.349	.40	263,500
September	144,840	5,670	4,130	4,828	.393	.44	287,300
Water year 1945-46	3,346,880	40,300	2,500	9,170	.747	10.14	6,639,000

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 23, Dec. 12, 14-22.

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.- 13,550 square miles, including that of Whitebird Creek.

Records available.- August 1910 to September 1917, October 1919 to September 1946.

Average discharge.- 34 years, 10,300 second-feet.

Extremes.- Maximum discharge during year, 46,600 second-feet May 28 (gage height, 24.47 feet); minimum, 2,780 second-feet Dec. 20 (gage height, 11.58 feet).

1910-17, 1919-46: 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, 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. Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Apr. 17 to June 26, July 15 to Sept. 30)

11.6	2,800	14.5	8,120	20.0	26,000
12.0	3,360	16.0	11,900	22.0	35,400
13.0	5,060	18.0	18,100	24.1	46,500

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,360	4,560	4,630	6,360	3,700	4,340	8,330	27,800	34,500	14,600	7,100	5,140
2	4,290	4,680	4,100	5,690	3,830	4,340	7,770	25,100	34,500	14,900	6,640	4,880
3	4,240	4,810	3,540	5,360	4,020	4,390	7,360	24,600	36,300	14,700	6,200	5,060
4	4,170	4,930	3,420	5,170	3,950	4,360	7,000	27,800	39,300	14,600	5,820	5,080
5	4,100	5,040	3,930	5,080	3,900	4,240	6,870	33,700	41,400	13,900	5,570	5,020
6	4,030	5,270	4,610	4,990	3,930	4,140	6,940	39,100	42,000	13,200	5,380	5,360
7	3,980	5,100	4,720	4,840	3,690	4,200	7,140	40,300	39,400	12,800	5,190	5,980
8	3,920	4,750	4,660	4,650	3,830	4,220	7,420	41,100	35,300	12,500	5,020	6,100
9	3,880	4,450	4,340	4,520	3,780	4,140	7,680	42,000	32,800	13,800	4,950	6,000
10	3,850	4,220	3,850	4,430	3,540	4,150	7,590	39,300	32,000	14,300	4,860	5,780
11	3,800	4,310	3,440	4,190	3,400	4,410	7,140	36,000	31,900	12,800	4,770	5,440
12	3,770	4,610	3,440	3,930	3,530	4,810	7,360	34,100	30,500	11,700	4,650	5,160
13	3,750	4,590	3,650	3,730	3,620	5,480	8,280	33,100	29,000	11,100	4,590	4,920
14	3,730	4,590	3,440	3,540	3,500	5,720	9,730	32,000	27,600	10,400	4,560	4,740
15	3,690	4,610	3,080	3,500	3,510	5,540	11,400	30,500	26,500	10,000	4,470	4,610
16	3,670	4,770	2,930	3,380	3,730	5,210	13,200	30,100	25,300	9,560	4,390	4,750
17	3,750	4,860	3,060	3,440	3,730	5,010	15,800	31,200	25,100	9,150	4,310	5,160
18	4,030	4,750	3,100	3,440	3,640	4,810	19,400	34,400	23,700	8,810	4,220	5,740
19	4,200	4,720	3,060	3,530	3,650	4,790	23,700	36,800	22,500	8,460	4,140	6,240
20	4,150	4,680	2,890	3,540	3,780	5,120	26,800	37,200	21,600	8,050	4,070	6,000
21	4,170	4,540	3,130	3,510	3,860	5,960	24,600	36,600	21,100	7,700	4,020	5,780
22	4,140	4,140	3,400	3,570	3,850	6,700	21,200	36,700	20,900	7,400	3,980	5,800
23	4,140	3,690	3,900	3,650	3,900	6,750	18,800	38,800	20,900	7,140	3,870	5,840
24	4,170	3,720	4,430	3,700	3,970	6,540	18,100	38,000	20,800	6,870	4,000	5,690
25	4,170	4,360	4,610	3,930	4,190	6,260	20,500	38,000	20,100	6,640	4,430	5,540
26	4,240	4,650	4,540	4,020	4,390	5,880	27,000	39,500	18,800	6,440	4,740	5,440
27	4,260	4,830	4,360	4,120	4,410	6,120	31,200	44,000	17,500	6,440	4,790	5,290
28	4,240	5,060	4,360	3,830	4,380	7,290	31,500	46,100	16,600	6,560	4,750	5,140
29	4,200	5,060	5,160	3,650	-	8,880	30,800	44,800	16,100	6,440	4,650	5,010
30	4,170	5,010	6,600	3,670	-	9,680	30,400	40,300	15,400	6,120	4,860	4,930
31	4,320	-	6,940	3,670	-	9,120	-	36,700	-	6,320	5,120	-

Month.	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	125,580	4,360	3,670	4,051	0.299	0.34	249,100
November	139,360	5,270	3,690	4,645	.343	.38	276,400
December	125,320	6,940	2,890	4,043	.298	.34	248,600
Calendar year 1945	3,358,130	47,200	2,540	9,200	.679	9.20	6,661,000
January	128,630	6,360	3,380	4,149	.306	.35	255,100
February	107,210	4,410	3,400	3,829	.283	.29	212,600
March	172,600	9,680	4,140	5,568	.411	.47	342,300
April	471,010	31,500	6,870	15,700	1.16	1.29	934,200
May	1,115,700	46,100	24,600	35,990	2.66	3.06	2,213,000
June	819,400	42,000	15,400	27,310	2.02	2.25	1,625,000
July	313,400	14,900	6,120	10,110	.746	.86	621,600
August	150,210	7,100	3,970	4,845	.358	.41	297,900
September	161,620	6,240	4,610	5,387	.398	.44	320,600
Water year 1945-46	3,830,040	46,100	2,890	10,490	.774	10.48	7,596,000

Alturas Lake Creek near Obsidian, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 114°50', in SW¼ sec. 9, T. 7 N., R. 14 E., 1 mile downstream from outlet of Perkins Lake, 1½ 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 1946.

Extremes.- Maximum discharge during year, 445 second-feet June 5, 6 (gage height, 4.74 feet); minimum recorded, 13 second-feet Oct. 28, 29 (gage height, 1.96 feet).
1940-46: Maximum discharge, 612 second-feet May 31, 1943 (gage height, 5.30 feet); minimum recorded, 10 second-feet Apr. 3, 1945.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	17					24	196	273	174	44	23
2	16	16					24	187	276	177	42	23
3	16	17					24	185	301	177	40	23
4	15	16					a23	196	371	173	36	23
5	16	17		18			*22	220	432	166	35	23
6	16	17				16	23	260	440	156	33	23
7	16	*17					23	280	403	148	31	22
8	16						23	294	358	139	30	21
9	16						23	282	338	132	29	21
10	16						23	262	348	123	28	21
11	16		16				22	234	351	117	27	20
12	16						23	218	336	110	26	19
13	16						23	213	306	104	25	19
14	15						26	209	299	97	24	19
15	16				16		28	209	301	92	23	17
16	15						31	213	304	87	22	21
17	16						39	224	289	82	21	23
18	17					18	52	225	264	77	21	23
19	16	17					73	282	253	74	21	22
20	16			16			95	304	253	69	21	22
21	15						110	314	262	65	21	22
22	16						115	321	271	62	21	20
23	16						118	331	285	60	23	19
24	16						128	318	278	57	26	19
25	14					19	145	309	249	54	26	19
26	14		18			21	170	321	222	51	29	19
27	14					23	192	338	206	49	28	18
28	14					25	204	348	194	47	27	17
29	14				-	26	209	338	184	46	26	17
30	15				-	25	211	311	176	44	26	17
31	17	-			-	24	-	289	-	47	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	483	17	14	15.6	0.437	0.50	958
November	508	-	-	16.9	.473	.53	1,010
December	516	-	-	16.6	.465	.54	1,020
Calendar year 1945	20,727	382	-	56.8	1.59	21.60	41,100
January	512	-	-	16.5	.462	.53	1,020
February	448	-	-	16	.448	.47	889
March	573	26	-	18.5	.518	.60	1,140
April	2,246	211	22	74.9	2.10	2.34	4,450
May	8,261	348	185	266	7.45	8.61	16,390
June	8,823	440	176	294	8.24	9.19	17,500
July	3,056	177	44	98.6	2.76	3.18	6,060
August	857	44	21	27.6	.773	.89	1,700
September	615	23	17	20.5	.574	.64	1,220
Water year 1945-46	26,898	440	-	73.7	2.06	28.02	53,360

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
Note.- Stage-discharge relation affected by ice Nov. 8 to Mar. 26, Mar. 28, 30, 31, Apr. 1, 3, 7, 8.

Valley Creek at Stanley, Idaho

Location.- Staff gage, lat. 44°13', long. 114°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 1946.

Average discharge.- 26 years (1911-13, 1922-46), 182 second-feet.

Extremes.- Maximum discharge observed during year, 891 second-feet June 6 (gage height, 2.93 feet); minimum observed, 63 second-feet Mar. 2 (gage height, 1.03 feet).
1910-13, 1921-46: 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. Gage read three times weekly except for period Apr. 15 to July 20, when daily readings were made. Diversions above station for irrigation.

Rating table, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-20)

1.0	58	1.8	193	2.2	435
1.2	94	1.8	260	2.5	610
1.4	138	2.0	340	3.0	940

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	86	75	130	96	66	100	568	604	354	154	96
2	83	88	75	126	90	63	96	556	652	372	146	92
3	83	84	75	124	85	64	92	568	737	380	143	96
4	81	81	83	123	81	66	92	616	758	380	139	100
5	79	81	84	122	85	66	92	652	821	372	136	110
6	77	82	83	122	88	66	92	737	891	362	129	109
7	76	84	82	122	85	66	92	807	793	344	122	109
8	75	76	75	110	81	66	92	751	688	327	118	109
9	74	72	72	95	79	70	94	688	712	362	113	104
10	72	*81	80	100	78	74	96	628	688	344	110	102
11	72	82	82	100	77	77	96	604	688	327	107	100
12	72	84	80	80	75	80	100	604	640	287	104	94
13	72	86	76	80	73	84	117	604	580	279	100	88
14	72	88	72	84	73	89	155	568	604	271	96	88
15	72	90	70	86	73	*94	196	544	604	256	96	88
16	76	84	72	88	73	77	236	568	604	242	96	88
17	79	83	78	90	73	80	311	628	568	236	92	100
18	79	82	72	*86	73	84	354	664	544	222	88	100
19	79	81	66	84	75	86	400	664	520	203	84	98
20	80	84	76	80	77	88	400	712	508	173	86	96
21	80	81	90	77	77	88	390	688	544	178	88	96
22	81	80	90	75	77	88	390	751	568	184	110	96
23	82	81	90	73	74	88	420	751	568	181	146	96
24	84	86	90	90	72	94	508	737	604	178	136	94
25	80	90	90	88	70	100	538	737	508	172	128	92
26	77	88	90	84	72	105	751	765	452	167	122	90
27	77	90	100	80	73	109	821	821	430	165	110	88
28	77	92	141	81	70	110	751	849	400	163	104	88
29	77	90	150	80	-	112	688	807	372	161	104	88
30	80	88	145	81	-	113	664	724	354	161	104	88
31	84	-	136	86	-	105	-	628	-	161	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,415	84	72	77.9	0.443	0.51	4,790
November	2,525	92	72	84.2	.478	.53	5,010
December	2,740	150	66	88.4	.502	.58	5,430
Calendar year 1945	57,246	592	54	157	.892	12.08	113,600
January	2,927	130	73	94.4	.536	.62	5,810
February	2,175	96	70	77.7	.441	.46	4,310
March	2,618	113	63	84.5	.480	.55	5,190
April	9,224	821	92	307	1.74	1.95	18,300
May	20,989	849	544	677	3.85	4.44	41,630
June	18,004	891	354	600	3.41	3.80	35,710
July	7,964	380	161	257	1.46	1.68	15,800
August	3,511	154	84	113	.642	.74	6,960
September	2,883	110	88	96.1	.546	.61	5,720
Water year 1945-46	77,975	891	63	214	1.22	16.47	154,700

* Winter discharge measurement made on this day.

Note.- Gage read three times weekly except for period Apr. 15 to July 20, when daily readings were made. Discharge for days of no gage-height record interpolated or computed on basis of weather records and records for stations on nearby streams. Stage-discharge relation affected by ice Dec. 3, 10-26, Jan. 9, 18, 19.

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 1946.

Average discharge.- 23 years (1922-24, 1925-46), 188 second-feet.

Extremes.- Maximum discharge during year, 1,320 second-feet May 28 (gage height, 4.78 feet); minimum discharge not determined (probably occurred during period of ice effect).
1921-46: 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 or no gage-height record, which are poor. No diversion or regulation above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	60						553	810	332	120	76
2	65	58						532	840	332	116	76
3	64	58						606	956	321	112	75
4	64	58						795	1,140	308	109	75
5	64	59		65				962	1,180	296	107	81
6	63	59				50	80	1,030	1,110	283	104	80
7	63	51			55			986	915	266	98	80
8	62	49						974	825	259	99	76
9	60	*40						870	820	271	98	78
10	59	47						795	840	238	96	77
11	58	54	50					728	825	224	93	74
12	58	57					120	723	741	213	92	71
13	58	55					120	728	710	205	92	69
14	58	56				(*)	150	728	725	199	89	67
15	58	57		(*)			200	705	696	191	87	67
16	58	57					250	728	669	183	85	74
17	58	56					350	820	610	166	83	99
18	65	53				60	400	968	557	168	82	90
19	61	53		55			550	998	542	162	80	85
20	60	56			50		564	925	535	153	78	80
21	59	52					468	895	538	152	78	83
22	59						387	962	535	152	78	87
23	58						381	945	532	134	84	82
24	57						452	905	504	136	108	78
25	57						635	885	448	134	90	77
26	57	55	65				810	940	420	133	92	75
27	57						790	1,150	387	131	89	73
28	57					80	714	1,250	366	126	85	72
29	57				-		723	1,090	349	122	83	71
30	57				-		656	930	341	124	91	70
31	62	-			-		-	850	-	140	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,856	65	57	59.9	0.307	0.35	3,680
November	1,640	-	-	54.7	.281	.31	3,250
December	1,700	-	-	54.8	.281	.32	3,370
Calendar year 1945	55,973	775	-	153	795	10.67	111,000
January	1,785	-	-	57.6	.295	.34	3,540
February	1,455	-	-	52.0	.267	.28	2,890
March	1,880	-	-	60.6	.311	.36	3,730
April	9,580	810	-	319	1.64	1.83	19,000
May	26,956	1,250	532	870	4.46	5.14	53,470
June	20,436	1,180	341	681	3.49	3.90	40,530
July	6,254	332	122	202	1.04	1.19	12,400
August	2,881	120	78	92.9	.476	.55	5,710
September	2,318	99	67	77.3	.396	.44	4,600
Water year 1945-46	78,741	1,250	-	216	1.11	15.01	156,200

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 9, Nov. 22 to about Mar. 20. No gage-height record Oct. 14-23, Dec. 16-20, 24-27, Jan. 1-14, Jan. 19 to Apr. 19; discharge computed on basis of 1 discharge measurement, weather records, inflow between stations on Salmon River below Yankee Fork and below Valley Creek, and records for other stations on nearby streams.

Challis Creek near Challis, Idaho

Location.- Water-stage recorder, lat. 44°34', long. 114°19' in sec. 2, T. 14 N., R. 18 E., an eighth of a mile downstream from Eddy Creek, 6 miles northwest of Challis, and 6¾ miles upstream from mouth.

Drainage area.- 85 square miles.

Records available.- October 1943 to September 1946.

Extremes.- Maximum discharge during year, 147 second-feet June 6; maximum gage height, 1.75 feet (ice jam) sometime between Nov. 13 and Jan. 18; minimum discharge, 8 second-feet Mar. 17 (gage height, -0.20 foot).
1943-46: Maximum discharge observed, 201 second-feet June 14, 15, 1944 (gage height, 1.78 feet); minimum, that of Mar. 17, 1946.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21				12		15	77	130	61	36	22
2	21				12		15	74	129	61	32	22
3	20				13		14	74	130	61	31	21
4	17				13		14	81	135	59	30	21
5	20	19		17	13		14	94	140	58	29	22
6	20				13	12	15	103	142	62	27	23
7	19				13		14	110	138	58	28	24
8	19				13		15	114	132	56	29	23
9	19				13		15	108	129	58	28	22
10	13	*18			13		15	98	124	52	27	22
11	19		15		13		15	94	121	48	26	21
12	19				13	*13	16	91	115	46	25	19
13	20				12	13	18	91	108	43	26	19
14	20			14	12	12	19	94	103	43	25	19
15	19				12	12	23	94	97	42	24	18
16	19				12	13	28	94	94	40	24	24
17	19				12	12	34	98	91	39	22	26
18	20				12	12	43	108	87	38	22	25
19	19			(*)	12	13	53	115	86	38	22	25
20	23	18			12	14	56	116	84	37	20	24
21	18			13	12	14	53	114	81	36	20	23
22	20				12	14	48	121	83	35	20	25
23	19					14	46	118	81	32	22	24
24	19					13	50	115	84	34	30	24
25				13		13	61	116	77	32	23	23
26			17	13	12	14	74	126	72	36	27	22
27		19		13		16	79	138	70	36	26	22
28				13		17	80	143	68	36	25	22
29				13	-	17	81	142	65	33	24	22
30				12	-	16	83	138	61	36	26	22
31		-		12	-	16	-	132	-	44	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	598	-	-	19.3	0.227	0.26	1,190
November	549	-	-	18 3	.215	.24	1,090
December	485	-	-	15 6	.184	.21	962
Calendar year 1945	11 596	130	-	32.0	.376	5.09	23,180
January	485	-	-	14 3	.168	.19	879
February	346	-	-	12.4	.146	.15	686
March	410	17	-	13 2	.155	.18	813
April	1,105	83	14	36 9	.434	.48	2,190
May	3 333	143	74	108	1.27	1.46	6,610
June	3,057	142	81	102	1.20	1.34	6,060
July	1,390	62	32	44.8	.527	.61	2,760
August	801	36	20	25.8	.304	.35	1,590
September	671	26	18	22 4	.264	.29	1,330
Water year 1945-46	13,189	143		36 1	425	5.76	26,160

* Winter discharge measurement made on this day.
Note.- Stage discharge relation affected by ice during part of period Nov. 11 to Jan. 24. No gage-height record Oct. 25 to Nov. 9, Nov. 14 to Jan. 18, Feb. 23 to Mar. 11, July 17-22, Sept. 8; discharge computed on basis of recorded range in stage, weather records and records for stations on nearby streams.

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-Salmor River highway, a quarter of a mile upstream from mouth, and 10 miles northwest of May. Datum of gage is 4,636.95 feet above mean sea level, adjustment of 1912.

Records available.- October 1929 to September 1946.

Average discharge.- 16 years (1930-46), 196 second-feet.

Extremes.- Maximum discharge observed during year, 356 second-feet Sept. 17 (gage height, 2.52 feet); minimum observed, 103 second-feet May 18.
1929-46: Maximum discharge observed, 454 second-feet May 30, 1943 (gage height, 2.81 feet); minimum observed, 75 second-feet Apr. 28, 1934.

Remarks.- Records good. Gage read once daily. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	247	333	303	295	244	291	295	155	141	158	150	207
2	251	333	299	299	244	299	295	153	143	163	150	204
3	254	333	291	299	240	299	287	141	a149	163	148	a206
4	258	329	291	295	240	299	287	128	155	168	148	207
5	258	329	291	287	240	291	284	113	153	171	148	207
6	254	325	295	287		287	284	111	153	176	148	220
7	251	322	303	284		295	284	115	150	192	150	237
8	254	322	295	284		291	284	109	150	188	150	247
9	254	314	299	284		299	284	109	153	188	150	251
10	254	310	291	284		303	280	107	150	182	153	247
11	254	310	284	276	a240	306	272	107	150	179	155	247
12	254	310	280	272		299	272	107	148	173	155	247
13	254	322	276	262		299	269	109	148	171	155	247
14	251	325	276	254		291	269	106	150	166	160	247
15	254	329	272	251		291	262	104	150	168	160	247
16	258	329	272	251		287	262	104	150	166	158	272
17	269	333	272	247		287	254	104	148	163	160	356
18	272	325	272	251		284	254	103	146	160	163	314
19	280	319	269	247		295	227	104	143	160	158	299
20	284	314	269	251		344	227	106	143	160	158	295
21	291	322	276	251	a270	333	233	109	143	160	158	295
22	299	310	272	247		318	233	113	148	158	158	295
23	318	295	276	247		314	230	115	150	158	207	295
24	344	299	265	247		299	230	113	163	158	188	287
25	333	325	265	251		299	224	118	163	160	176	284
26	333	318	269	247		295	214	122	166	155	185	272
27	329	322	269	247		299	195	124	166	155	173	272
28	333	314	276	244	295	299	198	137	168	155	192	269
29	333	306	287	247	-	299	195	137	163	158	220	276
30	341	303	291	251	-	306	163	139	153	153	214	276
31	337	-	291	247	-	303	-	a140	-	153	214	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,756	344	247	282	17,370
November	9,579	333	295	319	19,000
December	8,737	303	265	282	17,330
Calendar year 1945	85,023	344	117	233	168,600
January	8,186	299	244	264	16,240
February	7,143	-	-	255	14,170
March	9,309	344	284	300	18,460
April	7,547	295	163	252	14,970
May	3,662	155	103	118	7,260
June	4,556	168	141	152	9,040
July	5,138	192	153	166	10,190
August	5,162	220	148	167	10,240
September	7,825	356	204	261	15,520
Water year 1945-46	85,600	356	103	235	169,800

a No gage-height record; discharge interpolated or computed on basis of inflow between Salmon River near Challis and Salmon River at Salmon.

Panther Creek near Shoup, Idaho

Location.- Staff gage, lat. 45°19', long. 114°23', in sec. 19, T. 23 N., R. 18 E., 25 feet downstream from bridge on private road, 1 mile upstream from mouth, and 7 miles southwest of Shoup.

Drainage area.- 529 square miles.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 834 second-feet May 28; maximum gage height observed, 3.90 feet Dec. 21, 22 (backwater from ice); minimum discharge observed, 61 second-feet Dec. 1, Aug. 19-23; minimum gage height observed, 0.12 foot Dec. 1.
1944-46: Maximum discharge observed, 2,010 second-feet (revised) June 8, 1945; maximum gage height observed, 4.10 feet Dec. 18, 1944 (backwater from ice); minimum discharge observed, 46 second-feet Nov. 18, 1944 (gage height, 0.00 foot).
Revisions.- The maximum discharge for the water year 1944-45 has been revised to 2,010 second-feet June 8, 1945, superseding figure published in Water-Supply Paper 1043.

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

Revisions.- Revised figures of discharge for high-water periods in the water year 1945, superseding those published in Water-Supply Paper 1043, are given herein.

Discharge, in second-feet, 1944-46

1944-45

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		100				72	73	231	750	536	176	100
2		100	90			72	64	257	750	470	163	96
3		96	-	80		73	61	304	884	450	163	96
4		105	88			70	67	376	1,030	470	158	92
5		109	94			66	77	414	1,130	430	137	96
6		107	92			70	81	454	1,330	410	142	96
7		100	92			73	81	470	1,830	372	153	96
8		96	88		75	70	81	470	2,010	372	196	96
9		92	72			70	88	496	1,960	361	183	92
10		105				73	92	522	1,360	354	163	92
11		96				73	81	559	1,170	347	158	92
12	100	92		88		84	73	504	1,030	347	150	92
13		100				92	73	487	1,000	332	147	92
14		100				88	73	454	923	325	147	92
15		96	70		77	73	70	446	859	318	142	92
16		84			77	64	84	462	773	318	132	92
17		56			77	84	84	470	738	276	132	92
18		46			73	73	92	492	773	270	123	96
19		48		*88	72	77	96	492	773	270	118	96
20		61			73	*86	109	470	797	263	127	102
21		67			73	88	176	470	834	263	137	105
22		77			72	88	163	454	996	270	127	113
23		92			73	84	153	470	996	263	118	113
24		105			73	84	153	513	976	250	118	113
25	94	105		70	73	81	137	522	897	231	113	113
26	94	105	80		73	84	127	559	847	231	113	118
27	92	105			73	92	123	559	773	231	105	113
28	92	92			73	84	123	579	688	219	100	113
29	90	*86			-	81	132	608	608	213	102	118
30	88	90			-	84	158	715	569	202	102	113
31	90	-			-	105	-	773	-	185	100	-

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 29 to Dec. 3, Dec. 10 to Jan. 16, Jan. 20 to Feb. 14, Mar. 4-6. No gage-height record Oct. 1-24, Jan. 22, 24; discharge computed on basis of weather records and records for other stations in Salmon River Basin.

Discharge in second-feet, of Panther Creek near Shoup, Idaho, 1944-46--Continued

1945-46

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	100	61	110		73	127	450	559	244	166	140
2	96	100	75	100		73	118	492	559	280	153	127
3	96	105		88	90	77	113	492	588	257	105	109
4	96	105		88		77	109	513	660	257	105	115
5	92	105	90	88		81	118	559	634	266	96	105
6	92	96		88		73	118	634	634	286	94	115
7	92	77				70	118	688	584	257	94	137
8	92	77				70	123	688	559	286	88	166
9	88	92				70	118	660	541	273	84	147
10	92	100				77	109	608	513	273	81	137
11	88	100		85		94	127	536	470	309	77	118
12	88	*100				81	142	492	438	210	73	109
13	88	100				*88	163	470	426	193	73	100
14	88	100	75			84	179	479	407	166	70	94
15	84	105			75	67	207	450	407	153	70	94
16	84	105				91	276	462	395	147	67	94
17	84	100				91	283	450	387	140	87	166
18	81	100				88	354	536	350	127	64	166
19	92	100				92	410	536	338	127	61	153
20	109	98				92	407	536	314	118	61	140
21	105	70				100	391	536	314	115	61	147
22	105	85				100	283	559	314	115	61	166
23	100	95				100	304	584	311	109	61	166
24	100	95			80	92	311	584	311	105	105	137
25	100	95				88	422	634	294	105	94	140
			85									
26	100	95			78	100	518	688	294	105	94	132
27	100	95			75	132	531	744	270	105	94	132
28	96	94			73	153	492	834	244	105	94	123
29	96	88			-	163	492	744	238	105	166	113
30	96	81	130		-	147	513	634	244	94	158	109
31	100	-	120		-	137	-	608	-	166	132	-

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 21-27, Dec. 2 to Jan. 2, Jan. 7 to Feb. 25.

Monthly discharge, in second-feet, 1944-46

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1944	3,040	-	88	98.1	0.185	0.21	6,030
November	2,718	109	46	90.4	.171	.19	5,380
December	2,446	-	-	78.9	.149	.17	4,850
Calendar year 1944	-	-	-	-	-	-	-
January 1945	2,472	-	-	79.7	.151	.17	4,900
February	2,082	-	-	74.4	.141	.15	4,130
March	2,458	105	64	79.3	.150	.17	4,880
April	3,045	176	61	102	.193	.21	6,040
May	15,052	773	231	486	.919	1.06	29,860
June	30,054	2,010	569	1,002	1.89	2.11	59,610
July	9,849	536	185	318	.601	.69	19,540
August	4,225	196	100	136	.257	.30	8,380
September	3,022	118	92	101	.191	.21	5,990
Water year 1944-45	80,454	2,010	46	220	.416	5.84	159,800
October 1945	2,933	113	61	94.6	.179	.21	5,820
November	2,852	105	70	95.2	.180	.20	5,660
December	2,576	-	61	83.1	.157	.18	5,110
Calendar year 1945	80,624	2,010	61	221	.418	5.66	153,920
January 1946	2,807	110	-	84.1	.159	.18	5,170
February	2,114	-	-	75.5	.143	.15	4,190
March	2,891	163	67	93.3	176	.20	5,730
April	7,976	531	109	266	.503	.56	15,820
May	17,880	834	456	577	1.09	1.26	35,460
June	12,538	660	238	420	.794	.89	24,980
July	5 537	308	94	179	.338	.39	10,980
August	2,869	166	61	92.5	.175	.20	5,690
September	3,897	166	94	130	246	.27	7,730
Water year 1945-46	66,731	834	61	183	.346	4.69	132,300

Middle Fork Salmon River near Cape Horn, Idaho

Location.- Water-stage recorder, lat. 44°25', long. 115°11', 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 2 miles northwest of Cape Horn.

Drainage area.- 138 square miles.

Records available.- September 1928 to September 1946 (no winter records 1941-45).

Average discharge.- 14 years (1928-41, 1946), 202 second-feet.

Extremes.- Maximum discharge during year, 1,530 second-feet May 28 (gage height, 5.42 feet); minimum not determined (probably occurred during period of ice effect).
1928-46: 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, 31 second-feet Apr. 14, 1945 (gage height, 2.12 feet), but may have been less during some winters.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	94						556	974	385	159	109
2	89	92						575	1,010	393	152	109
3	89	96						681	1,120	374	145	115
4	87	94					90	846	1,280	351	141	119
5	85	96		100				1,030	1,310	333	138	132
6	85	89						1,100	1,270	323	134	117
7	85	80					*87	1,120	1,070	309	132	117
8	85	*80					83	1,160	967	312	130	117
9	85	80					83	1,080	954	341	127	115
10	83	85					82	1,030	981	288	125	107
11	83	92					83	1,010	948	269	123	103
12	83	92					85	1,020	876	253	123	99
13	82	90				75	94	1,010	834	241	125	98
14	83	90	75				107	948	816	232	119	94
15	82	92			80		130	942	786	226	115	99
16	85	92					169	981	764	220	113	113
17	94	89					229	1,080	714	215	111	123
18	94	90					305	1,190	670	206	109	115
19	87	84					355	1,190	642	201	107	109
20	92	80		85			259	1,160	620	195	109	105
21	85	65					333	1,160	632	187	107	107
22	89	80					309	1,240	654	182	105	105
23	85	85					330	1,210	620	177	123	101
24	83	90					374	1,190	585	172	127	98
25	85	90					458	1,170	524	169	130	98
26	85	90					570	1,330	501	179	134	94
27	82	90					615	1,360	467	187	117	92
28	83	90				90	642	1,470	433	167	113	92
29	82	87			-		664	1,240	409	159	115	92
30	96	80	100		-		610	1,090	389	164	121	90
31	98	-			-		-	1,020	-	177	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,681	98	82	86.5	0.627	0.72	5,320
November	2,624	96	65	87.5	.634	.71	5,200
December	2,425	-	-	78.2	.567	.65	4,810
Calendar year	-	-	-	-	-	-	-
January	2,785	-	-	89.8	.651	.75	5,520
February	2,240	-	-	80	.580	.60	4,440
March	2,415	-	-	77.9	.564	.65	4,790
April	7,696	664	82	257	1.86	2.07	15,260
May	33,189	1,470	556	1,071	7.76	8.94	65,830
June	23,820	1,310	389	794	5.75	6.42	47,250
July	7,587	393	159	245	1.78	2.04	15,050
August	3,842	159	105	124	.899	1.04	7,620
September	3,184	132	90	106	.768	.86	6,320
Water year 1945-46	94,488	1,470	-	259	1.88	25.45	187,400

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 8-11, 19-27, Nov. 30 to about Mar. 20. No gage-height record Jan. 14 to Apr. 6; discharge computed on basis of weather records and records for stations on nearby streams.

Bear Valley Creek near Cape Horn, Idaho

Location.- Water-stage recorder, lat. 44°26', long. 115°17', in sec. 29, T. 13 N., R. 10 E., 250 feet downstream from Fir Creek, 3 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 1946 (no winter records 1941-45).

Average discharge.- 14 years (1928-41, 1946), 246 second-feet.

Extremes.- Maximum discharge during year, 2,000 second-feet May 27 (gage height, 4.38 feet); minimum recorded, 72 second-feet Nov. 21 (gage height, 1.27 feet).
1921-46: 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 about Apr. 10 to May 10, which are fair, and those for periods of ice effect or no gage-height record, which are poor. No regulation or diversion above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	126						740	1,340	445	176	124
2	106	119						753	1,360	440	164	128
3	104	126						903	1,430	415	158	128
4	104	140					140	1,100	1,540	395	153	135
5	102	138		130				1,310	1,600	372	148	158
6	102	124						1,470	1,570	357	145	145
7	100	110					*135	1,530	1,410	339	143	135
8	98	98					128	1,600	1,270	326	143	138
9	98	90					124	1,530	1,230	405	140	140
10	96	108					124	1,510	1,230	348	135	133
11	96	110					126	1,450	1,190	313	133	126
12	96	110					138	1,480	1,120	292	133	121
13	96	110				100	145	1,490	1,060	271	130	119
14	96	105					167	1,440	1,030	255	128	117
15	96	108	95		110		194	1,390	975	244	128	119
16	98	100					233	1,450	924	236	128	151
17	106	98					284	1,550	882	229	126	164
18	114	98					344	1,720	819	225	124	158
19	108	98					435	1,720	779	218	124	140
20	108	96					456	1,620	760	208	124	130
21	102	80		110			425	1,590	734	205	124	124
22	104	90					381	1,760	720	194	121	126
23	100	110					405	1,720	701	191	128	121
24	100	110					467	1,750	720	185	156	119
25	104	110					609	1,710	633	179	145	114
26	106	110					788	1,830	603	179	158	112
27	102	110				140	868	1,920	591	215	143	110
28	100	110					875	1,920	533	191	133	110
29	102	112			-		924	1,710	506	176	140	110
30	112	100	130		-		854	1,450	472	170	153	110
31	135	-			-		-	1,400	-	188	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,199	135	96	103	0.572	0.66	6,350
November	3,254	140	80	108	.600	.67	6,450
December	3,085	-	-	99.5	.553	.64	6,120
Calendar year	-	-	-	-	-	-	-
January	3,610	-	-	116	.644	.75	7,160
February	3,080	-	-	110	.611	.64	6,110
March	3,380	-	-	109	.606	.70	6,700
April	10,467	924	124	349	1.94	2.16	20,760
May	46,516	1,920	740	1,501	8.34	9.61	92,260
June	29,732	1,600	472	991	5.51	6.14	58,970
July	8,406	445	170	271	1.51	1.74	16,670
August	4,292	176	121	138	.767	.89	8,510
September	3,865	164	110	129	.717	.80	7,670
Water year 1945-46	122,886	1,920	-	337	1.87	25.40	243,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 9, 11-14, 16, 18, 20-28, Nov. 30 to about Mar. 20. No gage-height record Dec. 12 to Apr. 6; discharge computed on basis of weather records and records for stations on nearby streams.

Big Creek near Big Creek, Idaho

Location.- Staff gage, lat. 45°07', long. 114°55', in sec. 31, T. 21 N., R. 13 E., 1¼ miles downstream from Cabin Creek, 2 miles southeast of Wallace Ranch, and 19½ miles east of Big Creek post office.

Drainage area.- 470 square miles.

Records available.- September 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 2,000 second-feet May 28 (gage height, 4.10 feet); minimum not determined (occurred during winter period).
1944-46: Maximum discharge observed, that of May 28, 1946; minimum not determined (occurred during winter period).

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. No regulation; small diversions for irrigation.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.6	105	2.0	665
.8	164	2.5	950
1.0	232	3.0	1,260
1.3	343	3.5	1,580
1.6	469	4.1	2,000

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a160	133					a180	a1,100	1,570	a615	254	225
2	158	142		b170			a180	1,130	1,660	608	a246	a225
3	155	145					177	a1,200	a1,750	a585	239	225
4	158	152					177	1,260	1,790	563	239	a230
5	152	145		158			190	1,320	a1,690	a563	a232	239
6	148	139		152		b110	204	a1,500	1,590	563	225	261
7	155	142		158			211	1,540	1,410	593	a225	a258
8	158			a155			a212	a1,600	a1,410	a660	a225	254
9	164			152			204	a1,600	1,420	544	225	239
10	158		b120	a145			184	1,610	a1,400	a515	211	225
11	155			145		111	a190	a1,590	1,380	487	a218	a218
12	152					a115	204	1,570	1,370	a460	225	211
13	148					122	261	a1,380	1,330	434	a222	a200
14	145					a118	335	1,220	a1,300	a417	218	190
15	145					a115	469	a1,200	1,260	400	a210	197
16	142				b120	116	553	1,220	1,220	a390	204	a200
17	139					a116	a710	a1,250	a1,160	379	a200	218
18	133		(*)			122	*868	1,280	1,130	a369	a195	a260
19	136	a130				a124	a1,000	1,480	1,030	359	190	a250
20	164					127	a1,020	1,420	998	359	a187	a240
21	152			b130		a150	833	1,230	a950	313	184	a225
22	148					a150	a750	1,610	903	305	a190	a225
23	145		b130			145	a750	1,570	845	a300	204	a220
24	139					152	903	a1,600	a840	290	232	218
25	136					a140	950	a1,600	833	298	a225	218
26	133					158	a1,100	1,750	a800	a270	218	214
27	139					a170	1,130	a1,850	a780	283	a222	a216
28	133					a200	1,260	2,000	753	275	225	a220
29	136		b200		-	a210	a1,220	a1,800	655	a250	a215	225
30	139				-	a200	1,180	1,650	623	a240	204	a222
31	139	-			-	a190	-	1,610	-	261	218	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,564	164	133	147	0.313	0.36	9,050
November	3,988	152	-	133	.283	.32	7,910
December	4,140	-	-	134	.285	.33	8,210
Calendar year 1945	130,400	1,940	-	357	.760	10.32	258,600
January	4,345	-	-	140	.298	.34	8,620
February	3,360	-	-	120	.255	.27	6,660
March	4,151	210	-	134	.285	.33	8,230
April	17,605	1,260	177	587	1.25	1.39	34,920
May	45,740	2,000	1,100	1,475	3.14	3.62	90,720
June	35,850	1,790	623	1,195	2.54	2.84	71,110
July	12,948	660	240	418	.889	1.02	25,680
August	6,727	254	184	217	.462	.53	13,340
September	6,768	261	190	226	.481	.54	13,420
Water year 1945-46	150,186	2,000	-	411	.874	11.69	297,900

* Winter discharge measurement made on this day.
a No gage-height record, or gage readings in error or not representative of average for day; discharge interpolated or computed on basis of weather records and records for Johnson Creek at Yellowpine and Panther Creek near Shoup.
b Stage-discharge relation affected by ice.

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. 6 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.

Drainage area.- 92 square miles.

Records available.- September 1928 to September 1946.

Average discharge.- 18 years, 128 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet May 28 (gage height, 5.60 feet); minimum recorded, 29 second-feet Oct. 21.
1928-46: 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 or recorded, 16 second-feet Feb. 17, Aug. 19, 20, 1931, Nov. 16, 1944.

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

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.4	25	2.8	76	4.0	395
2.5	34	3.0	116	4.8	705
2.6	46	3.4	214	5.5	1,010

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	52					70	459	680	214	74	47
2	42	49					70	455	713	211	70	52
3	40	53					70	504	789	204	65	46
4	40	54					*70	603	845	193	63	46
5	39	59					70	705	819	180	62	49
6	39	53		70			73	743	772	170	59	53
7	38	45					73	743	664	166	59	54
8	38	*40					78	798	639	173	57	56
9	36	35					78	760	635	198	56	53
10	36	47				50	74	722	639	161	54	47
11	36	46	40				76	676	607	149	53	45
12	36	45					93	672	559	137	53	44
13	35	45					121	660	547	130	50	42
14	35	45					166	639	531	123	50	41
15	35	45			50		228	619	500	118	49	45
16	35	45					290	644	481	114	47	60
17	42	45		(*)			382	693	448	110	46	63
18	49	44					474	739	420	106	46	57
19	41	44					603	743	406	99	45	53
20	44	40		55			535	730	392	93	44	50
21	39	32					420	734	382	89	44	47
22	41	40				55	365	802	375	87	42	47
23	40	48					365	764	362	84	46	46
24	39	48	45				412	785	346	82	57	45
25	39	46					524	781	305	80	50	44
26	40	44					668	862	284	80	53	42
27	39	46					631	911	263	86	53	41
28	39	47					587	970	249	76	49	40
29	38	49	80		-	80	603	802	241	73	52	41
30	46	40			-		547	713	222	74	52	40
31	56	-			-		-	684	-	87	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,234	56	35	39.8	0.433	0.50	2,450
November	1,371	59	32	45.7	.497	.55	2,720
December	1,435	-	-	46.3	.503	.58	2,850
Calendar year 1945	44,495	722	-	122	1.33	17.98	88,270
January	1,855	-	-	59.8	.650	.75	3,680
February	1,400	-	-	50	.543	.57	2,780
March	1,745	-	-	56.3	.612	.71	3,460
April	8,816	668	70	294	3.20	3.56	17,490
May	22,115	970	455	713	7.75	8.94	43,860
June	15,115	845	222	504	5.48	6.11	29,980
July	3,947	214	73	127	1.38	1.60	7,830
August	1,649	74	42	53.2	.578	.67	3,270
September	1,436	63	40	47.9	.521	.58	2,850
Water year 1945-46	62,118	970	-	170	1.85	25.12	123,200

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 8-10, 20-25, Nov. 30 to about Mar. 20. No gage-height record Dec. 15-26, Feb. 4-9, Feb. 12 to Apr. 3; discharge computed on basis of weather records and records for Johnson Creek at Yellow Pine and other stations on nearby streams.

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 1946.

Extremes.- Maximum discharge during year, 715 second-feet May 18 (gage height, 4.50 feet); minimum not determined (probably occurred during period of ice effect); minimum gage height recorded, 1.86 feet Oct. 10-16.

1942-46: Maximum discharge, 1,060 second-feet (revised) May 28, 1943 (gage height, 5.09 feet); minimum observed, 7.8 second-feet Feb. 6, 1943, discharge measurement; minimum gage height recorded, 1.79 feet Nov. 25, 1943, Nov. 16, 1944.

Revisions.- The figures of maximum discharge for water years 1943 and 1945 have been revised to 1,060 second-feet May 28, 1943, and 883 second-feet May 10, 1945, superseding figures published in Water-Supply Papers 983 and 1043.

Remarks.- Records good except 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 measurement of June 10 indicated flow in this canal of 34.6 second-feet.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1943, superseding those published in Water-Supply Paper 983 are given herewith:

May 21	487	May 26	871	May 31	984	June 13	529
22	583	27	865	June 1	895	14	510
23	695	28	920	2	705	18	533
24	796	29	902	3	533	19	592
25	824	30	877	12	510	20	537

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
May.....	14,540	984	-	469	8.57	9.89	28,840
June.....	14,137	895	-	471	8.61	9.61	28,040
Period Nov. 1 to Sept. 30, 1943			-	-	-	-	86,390

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	20						304	421	114	29	17
2	15	19						317	432	118	26	18
3	14	21						396	479	109	24	18
4	14	25					(*)	487	510	100	23	18
5	14	26				16	21	562	494	91	22	21
6	14	23						614	479	85	21	22
7	13	*20						605	390	78	20	22
8	13							642	362	80	20	22
9	13							614	359	105	20	21
10	13							587	366	80	19	18
11	13						23	554	346	69	18	17
12	13						30	574	317	63	18	16
13	13						38	566	304	57	18	15
14	13		16				46	533	295	52	18	14
15	13			18	17	17	53	517	280	49	18	16
16	13						60	549	269	47	17	25
17	18				(*)		85	600	252	44	16	27
18	20						119	646	228	44	16	24
19	17	18					157	609	223	40	15	21
20	17						181	558	216	38	15	18
21	17						176	566	213	37	15	19
22	17						176	627	210	36	15	21
23	15					20	187	574	206	34	18	18
24	14						216	566	194	33	24	18
25	15						272	558	167	30	19	16
26	15						376	609	155	31	19	15
27	14						396	627	142	33	21	14
28	14						393	660	132	30	18	14
29	14				-	27	404	517	131	28	19	14
30	17		25		-		355	443	118	27	18	14
31	21	-			-		-	428	-	33	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October.....	462	21	13	14.9	0.272	0.31	916
November.....	568	26	-	18.9	.346	.39	1,130
December.....	532	-	-	17.2	.314	.36	1,060
Calendar year 1945	26,073	587	-	71.4	1.31	17.73	51,730
January.....	558	-	-	18	.329	.38	1,110
February.....	476	-	-	17	.311	.32	944
March.....	591	-	-	19.1	.349	.40	1,170
April.....	3,953	404	-	132	2.41	2.69	7,840
May.....	17,009	660	304	549	10.04	11.56	33,740
June.....	8,690	510	118	290	5.30	5.91	17,240
July.....	1,815	118	27	58.5	1.07	1.23	3,600
August.....	597	29	15	19.3	.353	.41	1,180
September.....	553	27	14	18.4	.336	.38	1,100
Water year 1945-46	35,804	660	-	98.1	1.79	24.34	71,030

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 6 to Apr. 14 (no gage-height record Jan. 11-16; discharge computed on basis of weather records and records for station at Yellow Pine and other stations on nearby streams).

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 1946.

Average discharge.- 18 years, 300 second-feet.

Extremes.- Maximum discharge during year, 2,470 second-feet May 28 (gage height, 5.10 feet); minimum, 38 second-feet Dec. 1 (gage height, 0.90 foot).
1928-46: Maximum discharge, 5,150 second-feet June 9, 1933 (gage height, 7.62 feet), from rating curve extended above 2,800 second-feet; minimum, 22 second-feet Nov. 30, 1933, minimum gage 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).

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-26)

1.0	50	2.0	296	3.5	1,100
1.2	80	2.3	418	4.0	1,470
1.4	118	2.6	560	4.5	1,890
1.7	196	3.0	780	5.0	2,370

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	89	54	130	89	78	a125	1,120	1,590	515	167	91
2	84	85	61	127	89	77	a120	1,130	1,690	525	149	96
3	82	89	78	120	89	78	a120	1,380	1,950	501	144	102
4	80	100	91	116	84	77	123	1,630	2,060	463	136	100
5	77	108	87	116	82	78	123	1,860	1,970	427	132	110
6	75	96	84	106	84	77	127	1,980	1,870	401	125	112
7	74	91	78	108	84	75	125	1,950	1,540	394	123	118
8	70	80	70	106	75	77	134	2,030	1,480	375	120	116
9	69	70	56	91	78	75	134	1,930	1,510	496	118	114
10	67	89	75	106	84	78	130	1,780	1,520	394	114	104
11	66	87	77	94	82	82	132	1,770	1,430	346	112	94
12	67	84	66	87	77	84	157	1,760	1,330	319	110	91
13	66	32	64	96	82	84	179	1,760	1,300	236	108	87
14	64	82	66	a95	84	80	208	1,730	1,260	274	106	84
15	63	93	67	a90	82	80	264	1,620	1,190	260	104	85
16	63	84	74	a88	78	80	346	1,760	1,130	250	102	110
17	74	82	75	a88	78	77	491	1,880	1,080	240	100	123
18	87	82	70	87	80	82	665	2,100	996	230	98	120
19	80	77	70	85	78	87	918	2,010	970	221	96	112
20	82	74	74	87	80	93	950	1,920	957	212	94	106
21	75	55	77	84	75	93	798	1,960	950	199	96	106
22	80	64	78	89	77	93	709	2,080	931	190	94	112
23	78	85	78	82	77	91	720	1,960	892	187	102	106
24	75	87	78	96	80	91	840	2,000	828	176	127	100
25	77	87	78	91	82	85	1,110	2,010	726	173	112	94
26	77	85	78	82	75	a85	1,490	2,180	682	157	110	93
27	75	89	78	87	82	a110	1,470	2,210	621	182	106	89
28	74	85	96	87	80	a130	1,410	2,270	585	154	98	87
29	74	89	157	89	-	a140	1,450	1,840	575	137	100	85
30	78	69	149	85	-	a135	1,330	1,620	530	149	100	84
31	91	-	136	87	-	a130	-	1,610	-	179	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,329	91	63	75.1	0.353	0.41	4,620
November	2,519	108	55	84.0	.394	.44	5,000
December	2,520	157	54	81.3	.382	.44	5,000
Calendar year 1945	97,221	1,800	46	266	1.25	16.99	192,800
January	2,982	130	82	96.2	.452	.52	5,910
February	2,267	89	75	81.0	.380	.40	4,500
March	2,782	140	75	89.7	.421	.49	5,520
April	16,898	1,490	120	563	2.64	2.95	33,520
May	56,840	2,270	1,120	1,834	8.61	9.92	112,700
June	36,143	2,060	530	1,205	5.66	6.31	71,690
July	9,032	525	149	291	1.37	1.58	17,910
August	3,496	137	93	113	.531	.61	6,930
September	3,031	123	84	101	.474	.53	6,010
Water year 1945-46	140,839	2,270	54	386	1.81	24.60	279,300

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for nearby streams.

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, 1¼ miles upstream from Long Gulch Creek and 5½ miles southeast of Burgdorf.

Drainage area.- 102 square miles.

Records available.- April 1943 to September 1946.

Extremes.- Maximum discharge during year, 1,040 second-feet May 27 (gage height, 6.28 feet); minimum not determined (probably occurred during winter period).
1943-46: Maximum discharge observed, 1,460 second-feet May 31, 1943 (gage height, 6.92 feet), from rating curve extended above 1,000 second-feet; minimum observed, 29 second-feet (discharge measurement) Jan. 30, 1945.

Remarks.- Records good except those for period of ice effect, which are poor.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	58					80	416	662	230	88	54
2	54	59					*75	448	698	245	79	56
3	53	63					*75	538	761	227	75	65
4	51	84					75	642	777	214	71	69
5	50	90					75	788	766	200	69	79
6	48	71		50			75	815	766	191	67	88
7	47	64					78	793	632	181	66	86
8	46	58					80	832	594	205	65	84
9	46	50					74	772	584	296	64	75
10	45	70				40	71	703	584	210	61	65
11	44	63					72	667	566	183	60	58
12	44	62					91	682	534	168	59	54
13	44	60					104	672	512	156	58	52
14	43	60					122	632	499	144	58	50
15	43	58	45		40		152	603	469	138	56	62
16	43	55		(*)			189	642	457	131	56	76
17	59	57					248	703	452	131	53	79
18	66	55					321	766	401	122	53	79
19	53	50					368	750	379	116	51	71
20	52	50					331	750	364	111	50	66
21	48	45		40			284	761	357	104	52	69
22	50					55	261	815	347	102	53	75
23	48						278	810	354	97	53	70
24	48						334	821	350	94	59	64
25	52						457	843	305	90	58	59
26	53	50					561	912	281	88	64	56
27	50						516	971	264	108	55	54
28	50						525	906	267	94	52	53
29	51		65		-	90	552	745	281	85	56	53
30	55				-		469	672	245	82	59	52
31	63	-			-		-	652	-	109	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,554	66	43	50.1	0.491	0.57	3,080
November	1,732	90	-	57.7	.566	.63	3,440
December	1,475	-	-	47.6	.467	.54	2,930
Calendar year 1945	57,491	1,080	-	158	1.55	20.96	114,000
January	1,340	-	-	43.2	.424	.49	2,660
February	1,120	-	-	40	.392	.41	2,220
March	1,625	-	-	52.4	.514	.59	3,220
April	6,993	561	71	233	2.28	2.55	13,870
May	22,522	971	416	727	7.13	8.21	44,670
June	14,508	777	245	484	4.74	5.29	28,780
July	4,652	296	82	150	1.47	1.70	9,230
August	1,878	88	50	60.6	.594	.68	3,720
September	1,973	88	50	65.8	.645	.72	3,910
Water year 1945-46	61,372	971	-	168	1.65	22.36	121,700

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 9, Nov. 18 to Apr. 7.

Warren Creek near Warren, Idaho

Location.- Water-stage recorder, lat. 45°17', long. 115°42', in sec. 3, T. 22 N., R. 6 E., 30 feet downstream from bridge on Warren-McCall road, a tenth of a mile downstream from Steamboat Creek, and 1.3 miles northwest of Warren.

Drainage area.- 37 square miles.

Records available.- February 1943 to September 1946.

Extremes.- Maximum discharge during year, 264 second-feet May 27 (gage height, 4.78 feet); minimum, 5.5 second-feet Mar. 9 (gage height, 2.43 feet).
1943-46: Maximum discharge observed, 790 second-feet May 27, 1943 (gage height, 5.37 feet, site then in use), from rating curve extended above 350 second-feet; minimum, 4.2 second-feet Dec. 27, 1943 (gage height, 2.31 feet).

Remarks.- Records good. No diversion or regulation above station. Small amount of flow bypasses station through debris from dredging operations.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 23 to Sept. 30)

2.5	6.5	3.2	34	4.2	146
2.6	8.2	3.4	47	4.5	204
2.7	10	3.6	62	4.8	268
2.8	14	3.8	81		
3.0	22	4.0	111		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	8.6	12	8.4	8.4	16	148	174	46	22	11
2	13	13	9.9	11	8.6	8.4	16	148	178	48	19	13
3	12	17	11	9.9	8.6	8.6	15	159	188	48	16	13
4	12	18	12	9.9	8.4	8.4	14	182	192	45	15	14
5	11	18	11	11	8.4	8.6	14	221	188	41	14	18
6	11	16	11	9.2	8.4	8.6	14	238	188	38	13	37
7	11	13	10	9.5	8.4	8.2	14	238	156	35	13	31
8	11	11	9.9	10	8.2	8.4	16	244	144	41	13	28
9	10	10	8.8	9.2	8.6	8.0	16	227	139	56	12	21
10	10	14	9.9	9.2	8.8	9.0	18	206	135	41	11	17
11	10	13	10	9.0	8.4	10	17	198	126	35	11	14
12	9.9	13	10	8.6	8.2	9.9	23	196	114	33	11	13
13	9.9	12	9.5	9.2	8.2	9.5	29	190	109	31	11	12
14	9.9	12	9.2	9.0	8.2	9.0	35	182	105	29	11	11
15	9.7	12	8.8	8.8	8.0	8.6	45	178	97	27	10	16
16	9.9	12	9.0	8.8	8.0	9.0	56	180	95	26	9.9	22
17	13	12	9.5	8.8	8.2	8.8	72	192	87	25	9.9	23
18	15	11	9.0	8.6	8.4	9.7	91	204	79	24	9.7	24
19	12	10	8.8	8.4	8.2	11	113	206	75	22	9.5	21
20	13	10	8.8	8.6	8.4	12	101	206	72	21	9.2	21
21	10	8.8	9.0	8.2	8.0	12	87	210	70	20	9.7	21
22	11	11	9.2	8.6	8.2	12	73	219	68	19	10	20
23	12	12	9.5	8.8	8.2	11	73	212	69	19	10	18
24	11	12	9.5	8.8	8.6	11	88	208	67	17	12	16
25	12	12	9.5	8.8	8.8	10	121	208	60	17	10	15
26	12	11	9.2	8.4	8.2	12	163	223	56	18	11	14
27	11	11	9.2	8.6	9.0	18	167	250	53	22	9.9	14
28	11	11	10	8.4	8.6	20	167	238	54	18	9.7	13
29	11	11	16	8.4	-	24	173	208	54	16	9.9	13
30	12	7.9	15	8.2	-	21	159	188	49	18	10	13
31	13	-	12	8.4	-	18	-	176	-	38	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	352.3	15	9.7	11.4	0.303	0.35	699
November	367.7	18	7.9	12.3	.332	.37	729
December	312.8	16	8.6	10.1	.273	.31	620
Calendar year 1945	15,132.4	281	7.2	41.5	1.12	15.21	30,020
January	282.1	12	8.2	9.10	.246	.28	560
February	234.4	9.0	8.0	8.37	.226	.24	465
March	351.1	24	8.0	11.3	.305	.35	696
April	2,010	173	14	67.0	1.81	2.02	3,990
May	6,283	250	148	203	5.49	6.32	12,480
June	3,241	192	49	108	2.92	3.26	6,430
July	934	56	16	30.1	.814	.94	1,850
August	362.4	22	9.2	11.7	.316	.36	719
September	537	37	11	17.9	.484	.54	1,060
Water year 1945-46	15,267.8	250	7.9	41.9	1.13	15.34	30,280

Mud Creek near Tamarack, Idaho

Location.- Water-stage recorder, lat. 45°00', long 116°21', in sec. 9, T. 19 N., R. 1 E., 0.5 mile upstream from Little Mud Creek, 3½ miles northeast of Tamarack, and 5 miles upstream from mouth. Formerly, staff gage at site 40 feet downstream at datum 1.21 feet higher.

Drainage area.- 15.8 square miles.

Records available.- April 1937 to September 1940 (incomplete), September 1945 to September 1946.

Extremes.- Maximum discharge during period September 1945 to September 1946, 287 second-feet Apr. 18 (gage height, 4.29 feet); minimum, 1.5 second-feet Oct. 21 (gage height, 2.08 feet).

1937-38, 1945-46: Maximum discharge observed about 300 second-feet probably on May 1, 1938 (gage height, 3.34 feet, from floodmark, site and datum then in use); minimum, probably less than half a second-foot during late summer of 1937.

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

Rating table, Sept. 18, 1945, to Sept. 30, 1946, except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Nov. 10-18)

2.1	1.7	2.5	11	3.2	75
2.2	3.0	2.6	16	3.5	125
2.3	5.2	2.8	30	3.8	184
2.4	7.8	3.0	50	4.2	267

Discharge, in second-feet, 1945-46

1945

Day	Discharge	Day	Discharge	Day	Discharge
Sept. 18	2.0	Sept. 23	2.5	Sept. 28	2.0
19	1.8	24	2.2	29	2.0
20	2.0	25	2.1	30	1.8
21	3.7	26	2.0		
22	3.0	27	2.0		

1945-46

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.6					28	118	12	4.3	2.2	2.0
2	1.8	2.7					26	107	11	8.1	2.0	1.8
3	1.8	2.9					23	112	11	5.2	2.0	2.2
4	1.8	2.6				a3	23	123	9.7	4.8	1.8	2.2
5	1.8	2.7					26	131	9.4	4.3	1.8	2.2
6	1.8	2.6					31	127	9.1	4.1	1.8	2.5
7	1.8	2.5		a7		*b3	41	112	8.4	3.9	1.8	2.6
8	1.8	2.5				b3	49	121	7.8	5.0	1.8	2.5
9	1.8	2.9				b3	43	107	7.5	7.8	1.8	2.1
10	1.8	4.8				a3	35	95	7.3	5.2	1.7	2.1
11	1.8	3.9				a5	36	81	7.0	4.5	1.7	2.0
12	1.8	4.1				a8	54	71	6.5	3.9	1.7	1.8
13	1.8	3.7		*b6		a11	109	65	6.5	3.4	1.7	1.8
14	1.8	*2.7	a4	b6		a11	162	57	6.5	3.2	1.7	1.7
15	1.8	2.7			a4	a11	176	49	6.2	3.0	1.7	2.1
16	1.8	2.7				a11	200	46	6.5	2.9	1.7	2.9
17	2.1	2.9				*b11	233	43	6.2	2.9	1.6	2.6
18	2.2	2.7				b11	*250	40	5.7	2.7	1.6	2.2
19	2.0	b2				b11	256	35	5.5	2.6	1.6	2.0
20	2.0	b2				b12	214	31	5.2	2.6	1.6	2.0
21	2.0	b2				b14	176	28	5.0	2.5	1.6	2.0
22	2.0					16	150	29	5.2	2.5	1.7	2.0
23	2.0			a5		17	142	29	6.2	2.4	2.2	1.8
24	2.0					16	154	22	6.0	2.4	2.7	1.8
25	2.0	a2				14	184	20	5.5	2.2	2.2	1.8
26	2.0					16	219	22	5.0	2.2	2.1	1.8
27	2.0					25	196	22	4.8	2.4	2.0	1.7
28	2.0					42	164	18	5.0	2.4	1.8	1.7
29	2.0	a6	a7		-	58	160	16	5.2	2.1	2.0	1.7
30	2.2				-	44	142	14	4.5	2.1	2.0	1.7
31	2.6	-			-	33	-	13	-	2.4	2.0	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Weiser River at Tamarack.

b Stage-discharge relation affected by ice.

Monthly discharge, in second-feet, 1945-46

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
September 18-30, 1945	29.1	3.7	1.8	2.24	0.142	0.07	58
October 1945	59.9	2.6	1.8	1.93	.122	.14	119
November	90.2	4.8	-	3.01	.191	.21	179
December	139	-	-	4.5	.285	.33	276
Calendar year	-	-	-	-	-	-	-
January 1946	181	-	-	5.8	.367	.43	359
February	112	-	-	4.0	.253	.26	222
March	427	58	-	13.8	.873	1.01	847
April	3,702	256	23	123	7.78	8.71	7,340
May	1,904	131	13	61.4	3.89	4.48	3,780
June	207.4	12	4.5	6.91	.437	.49	411
July	110.0	8.1	2.1	3.55	.225	.26	218
August	57.6	2.7	1.6	1.86	.118	.14	114
September	61.3	2.9	1.7	2.04	.129	.14	122
Water year 1945-46	7,051.4	256	1.6	19.3	1.22	16.60	13,990

Grande Ronde River near Hilgard, Oreg.

Location.- Water-stage recorder, lat. 45°19', long. 118°16', near center sec. 11, T. 3 S., R. 36 E., half a mile upstream from lower reservoir site of Bureau of Reclamation, three-quarters of a mile upstream from Spring Creek, and 3 miles southwest of Hilgard.

Records available.- October 1945 to September 1946 in reports of Geological Survey. March 1937 to September 1945 in files of State engineer.

Extremes.- Maximum discharge during year, 1,730 second-feet Dec. 28; maximum gage height, 4.97 feet Dec. 28 (momentary ice jam); minimum discharge, 14 second-feet Nov. 22 (gage height, 1.94 feet).

1937-46: Maximum discharge, 2,720 second-feet Mar. 24, 1939 (gage height, 5.73 feet), from rating curve extended above 760 second-feet; minimum, 6 second-feet Aug. 10, 12-29, Sept. 1-4, 1940.

Remarks.- Records good except those for periods of ice effect, which are poor. No regulation. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	28	51	350	88	497	574	700	496	148	34	22
2	22	32	38	310	88	473	554	650	444	152	32	22
3	21	40	69	315	80	428	522	685	406	138	30	22
4	21	44	88	290		362	522	824	379	116	29	23
5	20	44	80	290		406	600	928	359	103	26	23
6	20	44	74	224		680	775	848	417	97	26	24
7	20	40	71	b190		*548	768	808	333	94	26	35
8	19	39	71	b150		619	870	1,030	289	94	23	63
9	19	27	47	(*)		701	798	988	265	138	23	66
10	19	32	42		b65	854	708	912	247	127	23	54
11	19	42	64			814	715	784	225	100	22	46
12	19	49	49			951	960	700	212	94	22	38
13	19	45	34			933	1,280	643	195	94	21	35
14	19	45	28			680	1,370	563	199	87	19	32
15	19	47	42			580	1,330	520	191	79	18	29
16	19	51	b45			455	1,290	484	179	76	16	29
17	21	51	b50			450	1,320	473	208	71	18	36
18	24	44	b25		74	491	1,380	479	183	68	16	36
19	26	47	b30		80	497	1,440	456	168	66	16	33
20	27	45	b40	b75	85	479	1,270	428	148	58	16	29
21	28	23	b45		96	461	1,030	390	138	56	18	26
22	29	17	b50		90	534	816	374	148	50	15	26
23	29	30	b60		96	509	715	406	168	48	15	26
24	29	45	b56		128	485	730	395	204	46	15	25
25	29	51	60		154	428	954	379	183	42	16	24
26	28	53	58		173	493	1,300	395	164	40	20	23
27	28	58	58		329	879	1,080	671	152	38	21	23
28	28	80	b440		612	846	920	864	156	36	20	23
29	28	93	1,270		-	822	912	708	195	36	19	23
30	28	82	680		-	715	808	602	172	35	19	23
31	28	-	450		-	619	-	544	-	34	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	728	29	19	23.5	1,440
November	1,368	93	17	45.6	2,710
December	4,265	1,270	25	138	8,460
Calendar year 1945	81,076	1,300	11	222	160,800
January	3,844	350	-	124	7,620
February	3,083	612	-	110	6,120
March	18,689	951	362	603	37,070
April	28,311	1,440	522	944	56,150
May	19,631	1,030	374	633	38,940
June	7,223	496	138	241	14,330
July	2,461	152	34	79.4	4,880
August	654	34	15	21.1	1,300
September	959	66	22	31.3	1,860
Water year 1945-46	91,196	1,440	15	250	180,900

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

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 Rivepoint 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 1946. November 1903 to September 1915 at Hilgard, 4 miles upstream.
Average discharge.- 32 years (1905-9, 1910-11, 1912-15, 1918-20, 1921-22, 1925-46), 346 second-feet.
Extremes.- Maximum discharge during year, 2,450 second-feet Dec. 29; maximum gage height, 5.48 feet Dec. 28 (ice jam); minimum discharge recorded, 18 second-feet Nov. 10, Aug. 21, 22, but may have been less during periods of ice effect Nov. 21-24, Dec. 14-27.
1903-15, 1918-23, 1925-46: 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 period of no gage-height record, which are fair, and those for periods of ice effect, which are poor. Some discharge measurements made at cable 3 miles above station. Small diversions above station for irrigation.

Rating tables, water year 1945-46, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13						Apr. 14 to Sept. 30					
1.7	32	2.3	158	3.5	725	1.7	26	2.3	150	3.5	710
1.8	45	2.5	225	4.0	1,070	1.8	38	2.5	210	4.0	1,080
1.9	61	2.8	350	4.5	1,500	1.9	55	2.8	330	4.6	1,820
2.1	103	3.1	495	5.1	2,090	2.1	98	3.1	475	5.2	2,220

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	45	b70	495		738	a840	1,070	698	183	38	31
2	26	53	b50	435		707	a820	992	626	183	33	28
3	26	58	b90	445		635	a780	1,040	566	168	34	27
4	25	63	108	405		544	a780	1,270	530	153	32	26
5	25	55	85	420		600	a900	1,450	524	139	3[illegible]	28
6	26	56	78	336		988	a1,150	1,320	632	120	30	34
7	27	48	82	310		*790	1,180	1,250	519	118	3[illegible]	55
8	26	42	76	273		869	1,330	1,720	460	120	30	91
9	26	31	58	*187		1,050	1,210	1,600	415	189	27	63
10	26	45	51			1,290	1,060	1,450	370	165	25	48
11	26	56	94			1,230	1,120	1,230	330	136	24	38
12	25	55	78			1,340	1,520	1,090	302	126	22	34
13	26	53	59		b95	1,480	2,100	976	278	110	22	31
14	27	51				1,020	2,220	868	282	103	22	28
15	27	55				869	2,130	775	262	98	22	28
16	27	59				695	2,050	710	250	93	22	33
17	30	56				659	2,140	692	270	91	22	37
18	35	51				a730	2,240	704	222	84	22	40
19	35	58				a740	2,320	680	198	69	21	38
20	36	53	b55	b105		a710	2,100	638	180	65	20	34
21	40	b35				a680	1,730	578	171	61	19	32
22	40	b25				a790	1,390	554	192	55	19	30
23	40	b35				a760	1,260	614	222	53	21	31
24	37	b60				a720	1,290	602	266	50	22	30
25	36	59			368	a640	1,650	572	238	48	25	28
26	35	59			336	a730	2,010	614	207	45	36	27
27	35	80			527	a1,300	1,710	1,120	189	46	27	27
28	35	126	b600		862	a1,270	1,440	1,450	189	46	24	27
29	36	138	1,820		-	a1,220	1,410	1,140	238	43	23	27
30	37	106	1,000		-	a1,050	1,270	936	204	38	25	27
31	40	-	653		-	a920	-	796	-	37	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	965	40	25	31.1	1,910
November	1,766	138	25	58.9	3,500
December	5,822	1,820	-	188	11,550
Calendar year 1945	116,119	1,820	16	318	230,300
January	5,616	495	-	181	11,140
February	4,373	862	-	156	8,670
March	27,764	1,480	544	896	55,070
April	45,150	2,320	780	1,505	89,550
May	30,481	1,720	554	983	60,460
June	10,030	698	171	334	19,890
July	3,035	189	37	97.9	6,020
August	804	38	19	25.9	1,590
September	1,058	91	26	35.3	2,100
Water year 1945-46	136,864	2,320	19	375	271,400

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Hilgard.
b Stage-discharge relation affected by ice.

Grande Ronde River at Rondowa, Oreg.

Location.- Water-stage recorder, lat. 45°44', long. 117°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 1946.

Average discharge.- 20 years, 1,898 second-feet.

Extremes.- Maximum discharge during year, 9,740 second-feet Apr. 26 (gage height, 6.24 feet); minimum, 389 second-feet during period Dec. 20 to Jan. 1 (gage height, 1.08 feet).

1926-46: 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 poor. Many diversions above station for irrigation. Flow slightly regulated by Wallowa Lake Reservoir.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.2	460	2.6	1,810	5.0	6,150
1.4	595	3.0	2,370	5.5	7,410
1.6	750	3.5	3,180	6.0	8,910
1.9	1,020	4.0	4,080		
2.2	1,330	4.5	5,060		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	518	581	1,090	3,000	992	3,250	3,780	6,370	5,920	2,890	880	618
2	512	618	916	2,600	982	3,160	3,490	6,010	5,800	3,350	826	595
3	506	648	871	2,480	982	2,990	3,300	6,220	6,000	3,350	810	694
4	499	655	871	2,430	862	2,760	3,230	7,090	6,200	3,110	801	726
5	492	686	853	2,490	871	2,760	3,320	8,130	6,400	2,870	784	767
6	492	670	826	2,300	916	3,890	3,600	7,950	6,200	2,730	776	853
7	492	648	1,090	2,090	898	3,550	3,660	7,860	5,800	2,650	758	871
8	480	625	944	1,890	862	3,800	3,910	9,080	5,600	2,580	718	1,040
9	473	595	835	1,660	871	4,310	3,910	9,250	5,200	3,840	686	934
10	466	632	750	1,540	907	4,380	3,800	8,940	5,100	3,150	648	853
11	460	632	742	1,420	862	4,500	3,780	8,220	5,000	2,820	625	792
12	460	648	734	1,220	862	5,970	4,190	7,920	4,750	2,780	632	742
13	460	662	686	1,100	818	5,680	5,700	7,360	4,600	2,650	640	702
14	460	662	602	1,100	835	4,660	6,100	6,880	4,900	2,520	640	670
15	454	710	560	1,070	826	4,120	6,290	6,490	4,500	2,260	640	678
16	454	726	588	1,110	801	3,670	6,530	6,370	4,100	2,050	618	710
17	466	694	b655	1,090	835	3,230	7,170	6,530	3,800	1,890	588	734
18	473	678	574	1,020	835	2,960	8,010	6,980	3,300	1,690	574	726
19	480	702	525	1,020	853	2,990	8,880	6,910	3,550	1,550	553	702
20	506	678	560	1,000	907	3,300	8,880	6,630	3,660	1,460	539	678
21	492	602	580	992	992	3,490	7,810	6,150	3,950	1,360	525	662
22	499	539	600	1,050	1,050	3,550	6,830	5,970	4,360	1,280	525	710
23	499	595	630	992	1,180	3,440	6,270	6,150	3,930	1,210	546	686
24	499	632	660	1,080	1,440	3,260	6,320	6,150	3,440	1,130	567	678
25	499	670	700	1,170	2,080	2,980	7,360	6,040	3,010	1,080	574	662
26	499	734	900	1,100	2,190	2,910	9,180	6,170	2,730	992	618	640
27	499	1,630	1,500	1,080	3,010	3,670	8,250	7,520	2,630	972	574	618
28	506	1,670	3,500	972	3,640	4,190	7,750	8,720	2,550	972	560	618
29	512	1,730	6,500	1,010	-	4,520	7,840	7,810	2,910	816	567	618
30	525	1,370	4,500	972	-	4,330	7,110	6,760	2,710	871	640	610
31	595	-	3,800	992	-	4,060	-	6,270	-	907	648	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,227	595	454	491	30,200
November	23,322	1,730	539	777	46,260
December	39,142	6,500	525	1,263	77,640
Calendar year 1945	699,350	7,860	418	1,916	1,387,000
January	45,020	3,000	972	1,452	89,300
February	33,159	3,640	801	1,184	65,770
March	116,330	5,970	2,760	3,753	230,700
April	176,250	9,180	3,230	5,875	349,600
May	220,900	9,250	5,970	7,126	438,100
June	132,600	6,400	2,550	4,420	263,000
July	63,840	3,840	871	2,059	126,600
August	20,080	880	525	648	39,830
September	21,587	1,040	595	720	42,820
Water year 1945-46	907,457	9,250	454	2,486	1,800,000

b Stage-discharge relation affected by ice.

Note.- No gage-height record Dec. 20 to Jan. 1, June 2-17; discharge computed on basis of recorded range in stage and records for station at Troy.

Grande Ronde River at Troy, Oreg.

Location.- Wire-weight gage, lat. 45°57', long. 117°27', in NW¼ sec. 4, T. 5 N., R. 43 E., at bridge at Troy, 100 feet downstream from Wenaha River.

Records available.- August 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 15,200 second-feet Dec. 29 (gage height, 20.68 feet); minimum observed, 622 second-feet Oct. 12 (gage height, 14.18 feet).

1944-46: Maximum discharge observed, that of Dec. 29, 1945; minimum observed, 470 second-feet Sept. 11, 1944 (gage height, 14.36 feet).

Remarks.- Records good. Flow slightly regulated by Wallowa Lake and Minam Lake reservoirs. Many diversions for irrigation near La Grande, Enterprise, and Wallowa; no diversion around station.

Rating tables, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 28				Dec. 29 to Sept. 30			
14.2	635	15.8	2,510	14.6	675	17.2	4,550
14.4	780	16.3	3,420	14.9	920	18.0	6,560
14.8	1,160	16.8	4,500	15.3	1,320	19.2	9,990
15.3	1,770	17.4	6,000	15.8	1,930	20.2	13,380
				16.5	3,050		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	705	780	2,380	5,180	1,280	4,440	5,880	8,670	7,820	3,200	1,050	798
2	691	844	1,560	4,550	1,230	4,230	5,530	8,270	7,710	3,830	938	750
3	684	860	1,370	3,780	1,250	3,870	5,080	8,730	7,930	4,090	920	798
4	677	844	1,340	3,280	1,250	a3,700	5,130	9,870	8,150	3,690	938	866
5	663	878	1,340	3,400	1,210	3,650	5,480	11,300	8,330	3,440	929	920
6	663	878	1,650	3,690	1,230	5,030	6,040	11,000	7,930	3,200	884	1,110
7	663	852	1,940	a3,300	1,150	5,130	6,040	10,500	7,210	3,090	848	1,030
8	663	844	1,670	2,890	1,170	5,030	6,460	11,100	6,350	3,010	857	992
9	649	828	1,410	2,700	1,130	6,090	6,350	11,300	6,140	4,460	866	1,070
10	642	828	1,290	2,220	1,130	6,300	5,940	11,100	5,730	3,870	750	1,010
11	649	836	1,200	1,990	1,120	6,830	5,680	10,600	5,700	3,360	a760	884
12	622	828	1,140	1,720	1,090	6,670	6,990	10,200	5,330	3,240	766	884
13	635	836	932	1,570	1,090	8,620	8,730	9,500	5,280	3,160	782	866
14	635	844	914	1,500	1,110	7,150	9,870	8,790	5,780	3,000	758	902
15	649	896	844	1,430	1,090	5,730	10,200	8,380	5,280	2,670	766	902
16	635	914	780	1,410	1,090	5,480	10,300	8,790	4,890	2,430	766	920
17	642	914	765	1,430	1,090	4,790	11,200	8,330	4,690	2,100	735	938
18	649	932	735	1,450	1,110	4,270	11,900	8,790	4,230	1,900	735	866
19	677	960	765	1,450	1,170	4,140	12,800	8,440	4,320	1,800	720	848
20	691	941	780	1,390	1,210	4,930	12,800	8,620	4,270	1,700	690	830
21	684	828	844	1,340	1,480	5,430	11,200	8,270	4,650	1,550	690	848
22	670	780	896	1,360	1,530	5,990	9,600	8,040	5,530	1,450	675	902
23	656	828	932	1,360	1,670	5,730	8,990	8,100	4,980	1,360	690	848
24	663	860	950	1,390	3,140	5,330	8,850	7,990	4,500	1,300	720	830
25	670	1,270	1,010	1,600	3,240	4,790	10,600	7,870	3,870	1,250	866	830
26	677	1,770	1,410	1,390	3,360	4,460	13,100	8,100	3,400	1,220	790	814
27	684	2,510	2,680	1,340	3,400	5,680	11,200	9,080	3,240	1,150	750	798
28	677	2,850	6,110	1,360	5,160	6,990	9,990	10,600	3,010	1,110	742	798
29	691	3,220	13,600	1,430	-	7,100	10,800	9,470	3,130	1,090	720	766
30	705	2,170	9,140	1,390	-	7,150	10,300	8,210	3,320	1,080	735	766
31	750	-	6,610	1,340	-	6,460	-	8,100	-	1,070	830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	20,711	750	622	668	41,080
November	34,423	3,220	780	1,147	68,280
December	68,987	13,600	735	2,225	136,800
Calendar year 1945	955,861	13,600	609	2,619	1,896,000
January	65,630	5,180	1,340	2,117	130,200
February	46,180	5,160	1,090	1,649	91,600
March	171,190	8,620	3,650	5,522	339,600
April	263,230	13,100	5,080	8,774	522,100
May	286,110	11,300	7,870	9,229	567,500
June	162,700	8,330	3,010	5,423	322,700
July	74,870	4,460	1,070	2,415	148,500
August	24,666	1,050	675	796	48,920
September	26,384	1,110	750	879	52,330
Water year 1945-46	1,245,081	13,600	622	3,411	2,470,000

a No gage-height record; discharge computed on basis of weather records and records for station at Rondowa.

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 1946.

Average discharge.- 22 years (1911-12, 1918-19, 1925-44, 1945-46), 117 second-feet.

Extremes.- Maximum discharge during year, 868 second-feet Apr. 25 (gage height, 3.48 feet); minimum not determined (occurred during period of ice effect).
1906-7, 1911-12, 1915, 1918-19, 1925-46: Maximum discharge observed, 1,240 second-feet May 21, 1912, June 3 or 4, 1933; minimum recorded, 4 second-feet Nov. 26, 27, 1930.

Remarks.- Records good October and March to September, fair November to February except those for periods of ice effect, 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 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 21-30)

Oct. 1 to Apr. 25				Apr. 26 to Sept. 30			
0.6	14	1.0	45	0.8	28	1.9	200
.7	19	1.2	70	1.0	47	2.2	284
.8	26	1.4	100	1.2	71	2.6	424
Note.- Same as following table above 1.4 feet.				1.4	100	3.0	600
				1.6	135	3.4	820

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	35	b34	66		57	128	382	326	126	49	32
2	28	47	b30	61		56	121	386	347	131	48	32
3	27	52	b33	56		56	119	460	375	126	46	33
4	26	43	39	55		52	117	595	386	117	45	35
5	27	42	38	55		53	122	688	372	112	44	34
6	26	35	37	50		58	137	650	343	107	44	34
7	26	32	37			60	149	635	287	107	44	35
8	26	30	33			60	170	796	272	115	42	36
9	25	b22		(*)		66	153	760	269	178	41	33
10	25	b26				86	137	705	260	128	40	32
11	25	32			b30	100	133	630	254	114	39	30
12	25	32				107	193	590	243	105	38	29
13	25	33				103	300	550	240	97	38	29
14	25	34				94	330	515	257	91	38	28
15	25	38				87	357	485	226	88	37	29
16	25	35				78	405	477	216	82	36	32
17	27	33				73	510	506	198	79	35	32
18	26	33	b25			70	570	546	188	74	35	32
19	27	34				74	600	537	190	71	34	30
20	30	30		b30		100	537	506	193	67	34	28
21	26	b17				117	432	477	205	64	33	32
22	29	b13			32	117	368	464	205	62	33	33
23	27	b22			35	114	361	440	195	59	33	30
24	27	b35			42	110	420	413	172	57	34	28
25	28	37			49	97	610	416	155	55	34	27
26	28	40			50	95	722	428	143	55	33	26
27	27	50			58	131	605	464	137	56	32	26
28	27	51	b70		61	157	560	448	141	55	32	26
29	26	55	110		+	190	550	394	143	52	32	25
30	35	47	89		+	168	452	361	130	51	45	24
31	38	-	77		+	143	-	347	-	52	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	843	38	25	27.2	1,670
November	1,065	55	13	35.5	2,110
December	1,102	110	-	35.5	2,190
Calendar year	-	-	-	-	-
January	1,093	66	-	35.3	2,170
February	957	61	-	34.2	1,900
March	2,929	190	52	94.5	5,810
April	10,368	722	117	346	20,560
May	16,051	796	347	518	31,840
June	7,068	386	130	236	14,020
July	2,733	178	51	88.2	5,420
August	1,182	49	32	38.1	2,340
September	912	36	24	30.4	1,810
Water year 1945-46	46,303	796	-	127	91,840

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

Indian Creek near Imbler, Oreg.

Location.- Water-stage recorder, lat. 45°26', long. 117°49', in S½ sec. 33, T. 1 S., R. 40 E., 200 yards upstream from North Fork and 7 miles southeast of Imbler.

Drainage area.- 22 square miles.

Records available.- October 1945 to September 1946 in reports of Geological Survey. March 1938 to September 1945 in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 730 second-feet May 28 (gage height, 3.14 feet), from rating curve extended above 220 second-feet; minimum not determined (occurred during period of ice effect).

1938-46: Maximum discharge, that of May 28, 1946; maximum gage height, 3.92 feet (backwater from ice) sometime during period Dec. 7, 1941 to Apr. 19, 1942; minimum discharge, 0.1 second-foot Nov. 15, 1939 (gage height, 0.05 foot).

Remarks.- Records fair June to September, poor October to May. No diversion or regulation above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	4.8	4.5	29	8.5	11	25	135	204	50	13	6.4
2	3.5	5.3	4.0	26	9.0	10	23	127	207	48	12	6.6
3	3.5	6.9	4.3	24	6.0	9.7	21	140	226	44	12	7.3
4	3.2	4.6	5.0	21	7.0	9.0	21	185	226	41	11	7.1
5	3.1	5.3	4.8	19	8.0	9.0	23	243	210	37	10	8.3
6	3.1	3.8	*5.1	17	8.2	11	24	243	192	34	10	8.9
7	3.1	3.5	4.6	19	8.2	10	25	256	150	34	10	7.8
8	3.1	3.3	4.0	18	7.8	10	27	477	134	41	10	7.1
9	3.0	2.6	3.0		7.4	11	25	471	127	71	9.7	6.6
10	3.0	3.0	3.5		7.4	13	23	430	123	55	9.4	6.1
11	3.0	4.0	3.5		7.4	15	24	396	115	49	9.2	5.6
12	3.0	4.8	3.5		7.4	20	33	350	109	45	9.2	5.4
13	3.0	4.5	3.0		7.4	20	71	316	105	41	9.2	5.4
14	3.0	4.0	2.2		7.4	16	74	277	121	37	9.2	5.2
15	3.0	4.3	2.0		7.4	14	76	260	104	34	8.9	5.6
16	3.1	4.2	2.2		7.5	12	81	260	95	32	8.3	6.1
17	4.0	4.0	2.5		7.5	11	98	294	85	29	8.1	6.1
18	3.1	3.8	3.0		7.5	11	124	340	79	26	7.8	5.4
19	3.2	4.0	2.5		8.0	11	153	345	78	25	7.6	4.8
20	4.3	3.7	3.0	7.5	8.0	12	149	340	76	24	7.3	4.4
21	3.1	2.5	4.0		7.5	13	124	312	75	22	7.3	5.0
22	3.2	2.1	4.5		7.5	14	105	285	73	21	7.1	5.0
23	3.2	3.2	4.5		8.0	14	98	298	73	20	7.1	4.4
24	3.2	4.5	4.5		8.5	14	108	294	66	18	7.1	4.2
25	3.4	5.0	4.5		8.5	13	160	303	60	17	6.8	4.0
26	3.2	5.3	4.5		8.2	14	232	345	54	16	6.8	4.0
27	3.2	13	5.6		11	25	211	555	51	17	6.6	4.0
28	3.4	15	198		12	30	182	646	54	16	6.4	4.0
29	3.4	9.4	100		-	33	182	382	60	14	6.6	4.0
30	4.0	7.0	51		-	30	155	274	52	14	8.3	3.6
31	4.6	-	35		-	26	-	230	-	14	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff: Inches	Runoff: Acre-feet
October	102.7	4.6	3.0	3.31	0.150	0.17	204
November	151.4	15	2.1	5.05	.230	.26	300
December	486.3	198	2.0	15.7	.714	.82	965
Calendar year	-	-	-	-	-	-	-
January	345.5	29	-	11.1	.505	.58	685
February	224.2	12	6.0	8.01	.364	.38	445
March	471.7	33	9.0	15.2	.691	.80	936
April	2,677	232	21	89.2	4.05	4.53	5,310
May	9,809	646	127	316	14.4	16.58	19,460
June	3,384	226	51	113	5.14	5.72	6,710
July	986	71	14	31.8	1.45	1.67	1,960
August	268.6	13	6.4	8.66	.394	.45	533
September	168.4	8.9	3.6	5.61	.255	.28	334
Water year 1945-46	19,074.8	646	2.0	52.3	2.38	32.24	37,840

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 8-11, 20-25, 30, Dec. 1-4, 8-23, Jan. 9-21. No gage-height record Jan. 22 to Feb. 5, Feb. 14-25; discharge computed on basis of records for Catherine Creek near Union.

East Fork Wallowa River near Joseph, Oreg.

Location.- Staff gage, lat. 45°16', long. 117°13', in SW¼ 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 1946.

Average discharge.- 22 years, 12.1 second-feet.

Extremes.- Maximum discharge observed during year, 91 second-feet June 4; maximum gage height observed, 3.00 feet Dec. 19 (ice jam); minimum discharge observed, 1.1 second-feet Feb. 11, Mar. 23 (gage height, 0.58 foot).

1924-46: Maximum discharge, 300 second-feet July 25, 1937 (gage height, 3.63 feet, from floodmark), computed on basis of rating curve extended above 80 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.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.6	1.4	1.0	11	1.6	44
.7	3.1	1.1	16	1.8	64
.8	5.3	1.2	20	1.9	77
.9	7.9	1.4	31		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	3.1	a4.0	4.8	a3.0	2.9	1.9	10	51	44	21	13
2	4.6	3.7	a3.0	4.1	3.5	3.1	1.7	12	56	52	20	9.0
3	4.6	3.9	2.0	3.9	4.6	2.4	1.7	16	68	54	20	7.4
4	4.8	5.3	2.2	3.5	b4.0	2.7	1.7	20	68	67	20	8.2
5	4.4	3.5	2.4	3.5	b3.3	2.7	1.7	22	81	58	15	7.4
6	5.6	3.3	2.4	2.5	3.7	1.7	1.6	22	76	57	14	10
7	8.7	4.8	2.9	4.4	2.7	2.4	1.9	24	67	63	14	16
8	4.4	b4.5	b2.7	4.4	3.1	2.4	2.0	34	64	62	14	22
9	4.6	a4.0	a2.5	a4.0	3.3	5.8	1.7	33	64	64	15	13
10	4.4	a4.0	a2.5	a3.5	3.1	2.4	2.4	32	62	48	13	15
11	4.8	a3.5	a2.5	a3.0	1.7	2.0	2.0	29	57	44	17	11
12	4.4	3.5	a2.5	a3.0	b1.7	1.4	3.5	31	57	44	14	8.4
13	5.6	3.1	a9.0	a2.5	1.4	1.7	5.1	29	60	47	14	8.4
14	7.9	2.9	a4.0	a2.5	2.0	1.4	5.6	30	85	53	14	9.0
15	5.3	3.1	a2.5	a2.0	1.7	1.4	5.8	29	78	40	13	13
16	4.8	2.7	a2.5	a2.0	2.0	2.9	7.9	29	72	43	13	11
17	6.0	3.1	a2.5	*2.0	2.2	2.4	7.9	33	61	38	11	10
18	2.5	3.9	a2.5	2.0	1.4	2.5	10	36	51	35	15	8.4
19	3.9	3.1	b2.5	b2.4	1.7	3.1	11	40	48	35	8.4	8.7
20	4.1	3.3	a2.5	2.7	2.0	2.0	9.7	38	51	34	7.4	7.6
21	6.8	a3.0	a2.5	b1.6	1.9	2.7	10	37	56	35	32	11
22	3.9	b3.0	a2.5	2.4	1.7	2.2	7.4	40	69	33	11	11
23	4.4	2.7	b2.5	2.0	2.5	1.4	8.2	45	77	32	12	7.9
24	4.4	3.5	2.0	1.7	2.7	1.4	10	43	68	28	9.7	7.4
25	4.4	3.9	3.1	2.0	2.0	2.4	18	46	60	29	18	9.7
26	4.4	2.0	2.2	a2.0	2.0	3.1	18	64	48	24	9.7	7.9
27	4.8	2.7	2.4	a1.5	3.1	3.5	16	62	43	26	9.0	7.9
28	6.6	2.7	7.1	a1.5	3.1	2.7	16	57	48	27	9.0	9.4
29	4.1	3.9	7.9	a2.0	-	2.0	14	57	40	22	9.0	9.0
30	5.3	4.4	7.6	a2.0	-	2.4	12	54	43	22	10	8.2
31	5.8	-	4.8	a2.5	-	2.4	-	54	-	22	9.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	154.4	8.7	2.5	4.98	306
November	104.1	5.3	2.0	3.47	206
December	104.2	9.0	2.0	3.36	207
Calendar year 1945	4,444.4	80	.9	12.2	8,820
January	83.9	4.8	1.5	2.71	166
February	71.1	4.6	1.4	2.54	141
March	75.5	5.8	1.4	2.44	150
April	216.4	18	1.6	7.21	429
May	1,108	64	10	35.7	2,200
June	1,829	85	40	61.0	3,630
July	1,282	67	22	41.4	2,540
August	431.9	32	7.4	13.9	857
September	305.9	22	7.4	10.2	607
Water year 1945-46	5,766.4	85	1.4	15.8	11,440

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of weather records.
b Stage-discharge relation affected by ice.

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 1946.

Average discharge.- 22 years, 7.61 second-feet.

Extremes.- Maximum discharge observed during year, 16 second-feet Apr. 17, 20 (gage height, 0.86 foot); no flow at times.
1924-46: Maximum discharge, 17 second-feet Dec. 1, 8, 1930, Jan. 9, 10, 1931, Nov. 27 to Dec. 1, Dec. 4 8, 1944; no flow at times.

Remarks.- Records excellent except those for Oct. 1 to Mar. 15, which are good. 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 below station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	11	10	9.0	8.5	8.1	8.8	10	5 8	9.2	8.3	6.3
2	10	11	9.0	9.5	7.8	7.4	8.5	11	4 7	9.2	8.5	7.4
3	10	9.7	9.5	9.5	8.1	8.1	8.5	10	7.4	8.5	8.1	9.2
4	10	8.8	9.0	9.2	8.8	7.8	8.5	9.2	6.7	5.6	5.6	9.2
5	9.0	11	9.2	9.7	8.5	7.6	8.8	9.0	6.7	7.8	8.8	9.2
6	8.8	10	9.2	9.2	8.1	8.5	8.3	9.5	7.1	8.3	9.5	9.5
7	6.9	9.5	9.7	7.8	8.3	8.1	8.3	8.5	8.3	7.6	9.0	9.0
8	9.2	10	9.2	9.2	7.8	8.3	8.8	8.1	7.6	10	8.8	5.6
9	9.0	9.7	8.8	9.2	7.6	8.1	8.3	7.4	7.4	9.2	8.8	9.5
10	9.2	10	9.5	9.2	8.3	8.3	8.1	7.4	9.2	9.0	8.3	8.8
11	9.2	9.0	9.2	9.2	8.1	8.3	8.5	6.7	9.5	5.5	5.4	8.3
12	8.8	9.5	9.5	9.0	8.3	8.3	8.5	5.4	8.5	8.8	8.3	8.8
13	8.8	10	3.5	8.8	8.5	8.5	8.8	6.7	9.5	8.3	9.0	9.0
14	6.5	10	8.3	9.0	8.5	8.1	8.5	7.1	9.5	5.1	8.5	8.1
15	9.0	10	9.2	9.0	8.5	8.5	9.0	6.7	7.8	7.6	8.8	6.7
16	9 2	10	9.0	9 2	8.1	8.1	9.0	6.7	6.9	7.8	8.5	9.2
17	9.0	10	9.5	9.0	8.3	8.5	10	7.8	8.1	7.8	8.1	9.2
18	8.8	9.2	9.2	9.0	8.5	8.1	10	6.5	9.2	8.1	6.0	9.0
19	9.0	11	9.2	9.0	8.3	8.1	10	5.2	9.0	8.5	8.8	9.0
20	8 8	11	9.5	8.5	8.5	8.3	9.7	7.6	9.0	7.8	8.8	9.5
21	6.7	11	9.0	8.8	8.5	8.5	9.7	7.6	9.2	5.8	9.0	8.5
22	8.8	9.7	9.0	8.5	8.3	8.5	11	8.5	9.0	8.5	9.5	7.6
23	9.0	10	8.5	8.3	7.8	8.5	11	8.3	7.4	8.8	10	10
24	9.2	10	8.5	8.3	8.3	8.3	10	8.1	9.5	8.8	9.7	9.7
25	8.8	9.7	9.0	7.8	8.1	8.1	10	6.5	9.5	8.8	6.0	9.5
26	8.8	9.5	9.2	8.3	8.5	8.3	10	5.6	9.7	9.5	9.7	9.7
27	8.8	10	9.5	8.1	8.1	8.5	10	7.8	10	7.6	9.0	9.5
28	6 9	9.7	9.7	8.8	7.6	8.5	9.5	8.3	10	5.8	9.0	8.8
29	9.0	10	10	8.5	-	9.5	10	7.4	9.5	9.0	9.2	8.8
30	8.5	10	8.5	8.5	-	9.0	11	6.0	6.9	8.5	9.0	10
31	9 5	-	9.7	8.3	-	8.5	-	7.1	-	8.1	8.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	273.2	10	6.5	8.81	542
November	300.0	11	8.8	10.0	595
December	279.8	10	3.5	9.03	555
Calendar year 1945	3,224.0	11	3.5	8.83	6,400
January	273.4	9 7	7 8	8.82	542
February	230.6	8.8	7.6	8.24	457
March	257.3	9.5	7.4	8 30	510
April	279.1	11	8.1	9.30	554
May	237.7	11	5.2	7.67	471
June	248.6	10	4.7	8.29	493
July	248.9	10	5.1	8.03	494
August	262.3	10	5 4	8.46	520
September	262.6	10	5.6	8.75	521
Water year 1945-46	3,153.5	11	3.5	8.64	6,250

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 3½ miles southwest of Joseph.

Drainage area.- 31 square miles.

Records available.- April to September 1915, April 1924 to September 1946.

Average discharge.- 19 years (1927-46), 65.9 second-feet.

Extremes.- Maximum discharge during year, 551 second-feet June 4 (gage height, 2.83 feet); minimum recorded, 3.4 second-feet Feb. 6, probably caused by ice jam upstream.
1915, 1924-46: Maximum discharge, 774 second-feet July 7, 1943 (gage height, 3.13 feet); minimum recorded, 3.4 second-feet Feb. 10, 1938, Feb. 6, 1946, probably caused by ice jam upstream.

Remarks.- Records good except those for Dec. 19 to Jan. 22, June 5 to Aug. 8, 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, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	24	19	25	14		25	113	268	239	111	45
2	27	25	19	23	13		25	122	340	310	106	45
3	26	26	20	21	13		25	151	406	295	100	55
4	26	26	22	19	13		25	191	454	272	98	50
5	26	26	22	18	13		25	216	418	259	92	55
6	26	24	22	18	12		25	216	387	246	87	55
7	26	23	22	18	12		25	216	290	242	81	75
8	26	21	20	18	12		25	250	277	259	78	70
9	26	21	17	17	12		25	239	300	272	75	55
10	26	24	18	18	12		25	223	315	223	70	50
11	26	23	20	17	12		25	216	325	227	70	45
12	26	24	19	16	12		25	212	310	242	70	40
13	25	23	17	17	12		35	205	330	239	65	35
14	25	22	15	18	12		35	202	345	216	65	35
15	24	22	15	18	12		45	206	268	194	60	35
16	24	22	16	19	12	22	57	227	242	174	60	40
17	25	21	18	18	12		73	254	205	165	55	40
18	23	21	19	18	12		94	277	205	154	55	40
19	23	21	18	17	12		113	268	242	157	50	35
20	23	20	18	17	12		104	272	277	154	50	35
21	22	15	18	17	12		87	272	325	165	50	40
22	21	16	18	18	13		80	277	350	165	60	40
23	22	18	18	18	13		81	282	282	160	60	40
24	22	22	17	18	13		100	272	212	148	60	40
25	22	24	17	17	14		141	290	180	143	60	35
26	21	24	17	16	14		171	325	171	129	55	35
27	21	23	17	15	15		146	362	162	131	50	35
28	21	22	45	15	16		143	315	160	129	50	35
29	21	23	47	15	+		146	264	168	131	50	30
30	26	21	31	15	+		122	254	171	126	60	30
31	26	-	27	14	+		-	259	-	117	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	751	27	21	24.2	0.781	0.90	1,490
November	667	26	15	22.2	.716	.80	1,320
December	648	47	15	20.9	.674	.78	1,290
Calendar year 1945	24,218.5	509	6.0	66.4	2.14	29.07	48,040
January	548	25	14	17.7	.571	.66	1,090
February	356	16	12	12.7	.410	.43	706
March	682	-	-	22	.710	.82	1,350
April	2,073	171	25	69.1	2.23	2.49	4,110
May	7,450	362	113	240	7.74	8.94	14,780
June	8,385	454	160	279	9.00	10.04	16,590
July	6,082	310	117	196	6.32	7.30	12,070
August	2,101	111	50	67.8	2.19	2.52	4,170
September	1,295	75	30	43.2	1.39	1.55	2,570
Water year 1945-46	31,019	454	12	85.0	2.74	37.23	61,540

Note.- No gage-height record Nov. 30 to Dec. 18, Feb. 17-19, Feb. 25 to Apr. 14, Aug. 9 to Sept. 10, Sept. 12-30; discharge computed on basis of records for Catherine Creek near Union, Lostine River near Lostine, and Bear Creek near Wallowa.

Lostine River near Lostine, Oreg.

Location.- Water-stage recorder, lat. 45°26', long. 117°26', in NW¼ sec. 34, T. 1 S., R. 43 E., 3½ 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 1946.

Average discharge.- 19 years (1912-13, 1928-46), 178 second-feet.

Extremes.- Maximum discharge during year, 1,480 second-feet June 4 (gage height, 6.09 feet); minimum not determined, probably occurred during period of no gage-height record Dec. 9-31.

1912-14, 1915, 1925-46: Maximum discharge, 2,540 second-feet May 27, 1913; minimum recorded, 10 second-feet Nov. 28-30, 1936.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No large diversions above station. Flow slightly regulated by Minam Lake Reservoir.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	46	36	94		36	a72	426	730	660	187	57
2	44	46	a33	86		36	a68	407	926	846	176	60
3	43	60	a36	82		36	a66	491	1,170	814	161	68
4	43	57	43	79		36	a66	564	1,300	730	147	66
5	42	a56	42	77		38	69	811	1,240	a660	140	69
6	42	a50	42	67			70	790	1,030	a620	132	69
7	42	a45	42	a60			69	797	786	a620	120	106
8	42	a41	40	a55			74	948	738	a640	113	104
9	41	a41	a29	a50			72	867	790	752	106	a80
10	41	a50	a31	a45			72	811	846	611	103	70
11	40	a47	a34	a40			76	706	878	581	99	63
12	40	a49	a32	a35			89	692	842	599	98	57
13	40	a47	a25	a40			132	635	923	596	94	53
14	39	47	a20	a45			151	629	1,020	551	90	50
15	39	49	a19	a45	a29		181	611	818	470	85	53
16	39	48	a20	a50			230	674	734	409	83	56
17	39	46	a25	a55			291	783	608	364	79	56
18	40	43	a27	a55			389	926	605	333	76	55
19	39	44	a24	a45		a58	491	930	766	318	72	52
20	40	38	a26	a45			446	906	860	310	71	48
21	37	a30	a34	a45			358	856	1,010	312	71	57
22	38	a31	h34	*h47			303	860	1,050	318	76	59
23	36	a35	a33	a45			286	a1,000	804	295	82	a54
24	36	40	a32	a45			342	a1,050	605	272	76	a54
25	36	41	a32	a45			545	923	509	249	82	a50
26	36	50	a31	a40			696	1,020	476	234	71	a48
27	36	69	a31	a35			593	1,140	455	223	65	a48
28	36	59	171	a35	40		569	1,010	455	217	62	a47
29	36	54	244	a35	-		578	797	500	210	64	a45
30	43	43	132	a35	-		494	688	503	205	80	a45
31	54	-	107	a35	-		-	682	-	210	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,245	54	36	40.2	2,470
November	1,402	69	30	46.7	2,780
December	1,507	244	19	48.6	2,990
Calendar year 1945	71,327	1,520	19	195	141,500
January	1,592	94	35	51.4	3,160
February	823	-	-	29.4	1,630
March	1,690	-	36	54.5	3,350
April	7,938	596	66	265	15,740
May	24,530	1,140	407	791	48,650
June	25,977	1,300	455	799	47,560
July	14,229	846	205	459	28,220
August	5,025	187	82	97.6	6,000
September	1,799	106	45	60.0	3,570
Water year 1945-46	83,757	1,300	19	229	166,100

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Imnaha River at Imnaha, Hurricane Creek near Joseph, and Bear Creek near Wallowa. There undoubtedly was ice effect at times during periods of no gage-height record in winter.

h Computed from staff-gage reading.

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 3 miles (revised) southwest of Wallowa.

Records available.- April to September 1915, April 1931 to September 1946. 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.- 17 years (1929-46), 102 second-feet.

Extremes.- Maximum discharge during year, 902 second-feet May 23 (gage height, 2.73 feet), from rating curve extended above 490 second-feet; minimum recorded, 11 second-feet Oct. 21 (but may have been less during period of ice effect Dec. 9-28).
1915, 1924-46: 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 June 16 to Sept. 30, fair Oct. 1 to Dec. 8, Apr. 5 to June 15, poor Dec. 9 to Apr. 4. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	19	45	85			90	328	385	314	39	17
2	14	21	37	72			85	338	445	337	35	18
3	14	32	39	62			80	422	510	325	33	25
4	14	34	36	56			80	529	604	281	30	20
5	14	43	33	47			88	550	552	261	28	27
6	14	34	33	40			86	522	497	244	27	28
7	14	31	32	38			86	501	403	244	26	35
8	13	28	29	33			96	676	391	266	25	44
9	13	24	21	30			94	596	403	403	23	35
10	13	28	23	29			90	559	427	314	22	31
11	12	27	25	24			90	471	433	281	21	27
12	12	26	23				121	439	427	257	20	25
13	12	25	18				192	421	439	236	20	23
14	12	25	15				243	403	458	208	19	22
15	12	29	14		21		251	415	391	183	19	22
16	12	26	15			59	300	433	361	161	18	22
17	13	25	18				373	464	331	147	17	23
18	12	25	20				448	524	325	128	17	22
19	13	26	18				501	559	373	112	16	22
20	15	23	19				434	531	391	103	15	21
21	12	18	24	28			355	490	421	96	15	24
22	13	19	24				295	484	403	87	15	28
23	12	22	23				285	676	349	77	17	25
24	12	27	23				338	740	303	70	17	25
25	12	29	22				501	620	268	82	20	23
26	12	29	22				550	588	253	58	17	22
27	13	54	22				474	628	248	54	15	22
28	13	80	150				434	552	248	50	15	21
29	13	65	202		-		434	458	286	45	17	20
30	15	57	141		-		367	397	270	44	21	20
31	18	-	107		-		-	373	-	47	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	407	18	12	13.1	807
November	931	65	18	31.0	1,850
December	1,273	202	14	41.1	2,520
Calendar year 1945	39,284.6	657	8.8	108	77,920
January	1,076	85	-	34.7	2,130
February	588	-	-	21	1,170
March	1,829	-	-	59	3,630
April	7,871	550	80	262	15,619
May	15,687	740	328	506	31,110
June	11,593	604	248	386	22,990
July	5,495	403	44	177	10,900
August	657	39	15	21.2	1,300
September	739	44	17	24.6	1,470
Water year 1945-46	48,146	740	12	132	95,490

Note.- No gage-height record Jan. 23 to Apr. 4; discharge computed on basis of records for Imnaha River at Imnaha, Hurricane Creek near Joseph, and Lostine River near Lostine. Stage-discharge relation affected by ice Nov. 9, 19, 21-24, Dec. 2, 9-28, Jan. 12-22, and probably during part of period of no gage-height record.

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 1946. March 1904 to November 1906, August 1910 to October 1911 at practically same site.

Average discharge.- 18 years (1928-46), 57.8 second-feet.

Extremes.- Maximum discharge observed during year, 303 second-feet Dec. 29; maximum gage height, 2.20 feet May 27; minimum discharge observed, 27 second-feet Sept. 28.
1904-6, 1910-11, 1928-46: 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. 5, 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.

Cooperation.- Gage-height record furnished by Washington Water Power Co.

Rating tables, water year 1945-46, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 29				Dec. 30 to Sept. 30			
0.8	31	1.4	117	0.9	34	1.7	161
.9	40	1.7	183	1.0	42	2.0	229
1.0	52	2.0	270	1.2	69	2.3	302
1.2	82			1.4	102		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	32	65	115	39	87	95	161	150	57	33	30
2	29	34	56	99	39	85	90	150	150	54	31	30
3	29	35	52	95	39	79	87	150	150	51	31	31
4	29	34	50	92	*36	72	82	194	140	51	31	31
5	29	34	49	95	36	69	79	229	140	49	31	33
6	29	32	*47	79	40	68	82	* 218	150	49	31	34
7	29	34	56	74	40	66	82	206	138	46	31	34
8	29	34	55	69	36	83	92	206	115	43	31	33
9	29	31	50	62	37	83	87	218	111	53	31	30
10	29	34	47	60	37	64	82	206	106	49	31	30
11	29	32	47	56	36	75	82	194	106	44	30	29
12	30	32	45	49	37	79	95	195	95	44	30	29
13	29	34	43	49	36	82	109	183	92	42	31	29
14	30	34	45	49	37	79	115	172	102	42	31	29
15	29	36	40	46	37	77	138	150	88	40	31	33
16	29	37	b42	44	36	72	140	140	88	41	31	36
17	29	36	b39	44	36	64	161	150	82	40	30	33
18	30	35	b36	44	39	63	183	183	79	40	30	30
19	31	37	b36	44	39	63	218	172	72	39	30	30
20	35	35	b37	42	40	63	218	172	72	39	30	30
21	31	31	b38	42	40	69	183	172	72	37	30	30
22	32	32	38	43	42	77	150	172	82	36	29	30
23	31	35	38	41	43	79	150	183	77	36	30	30
24	31	34	37	44	49	83	140	183	75	36	30	30
25	31	35	36	42	63	79	172	172	72	35	30	30
26	31	37	36	41	68	75	253	183	69	34	30	29
27	31	68	35	40	92	88	206	265	66	35	30	28
28	30	85	51	39	97	104	183	253	63	34	30	28
29	31	94	287	40	-	115	183	218	66	34	30	29
30	31	79	183	37	-	116	183	172	58	33	30	28
31	32	-	140	37	-	106	-	161	-	33	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	933	35	29	30.1	1,850
November	1,212	94	31	40.4	2,400
December	1,856	287	35	59.9	3,680
Calendar year 1945	18,240	287	23	50.0	36,170
January	1,753	115	37	56.5	3,480
February	1,246	97	36	44.5	2,470
March	2,422	116	60	78.1	4,800
April	4,120	253	79	137	8,170
May	5,771	265	140	186	11,450
June	2,920	150	58	97.3	5,790
July	1,302	57	33	42.0	2,580
August	946	33	29	30.5	1,880
September	916	36	28	30.5	1,820
Water year 1945-46	25,397	287	28	69.6	50,370

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Shifting-control method used Aug. 22 to Sept. 30

Selway River above Meadow Creek, near Lowell, Idaho

Location.- Water-stage recorder, lat. 46°03', long. 115°18', in sec. 11, T. 31 N., R. 9 E., a quarter of a mile upstream from Meadow Creek, 1½ miles upstream from Selway Falls, 13 miles upstream from gaging station on Selway River near Lowell, and 16.5 miles southeast of Lowell post office.

Drainage area.- 1,550 square miles.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge during year, 15,900 second-feet May 27 (gage height, 12.01 feet); minimum, 444 second-feet Oct. 16 (gage height, 2.22 feet).
1944-46: Maximum discharge, 17,900 second-feet May 6, 1945 (gage height, 12.78 feet); minimum daily, 175 second-feet Dec. 12, 1944.

Remarks.- Records excellent except those for periods of ice effect, which are good. Small diversions to Bitterroot River Basin from headwaters reported and shown on maps in T. 32 N., R. 16 E.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.2	435	4.0	1,640	7.0	5,650
2.5	575	4.5	2,160	8.0	7,390
3.0	855	5.0	2,750	10.0	11,300
3.5	1,200	6.0	4,100	11.6	14,900

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	605	1,310	1,010	1,780	771	1,250	3,790	8,980	8,880	3,650	1,580	555
2	600	1,240	718	1,580	783	1,220	3,500	8,500	9,420	3,900	1,180	530
3	605	1,570	789	1,450	789	1,220	3,300	9,340	11,100	3,610	1,040	680
4	605	1,770	1,070	1,360	759	*1,180	3,040	11,400	12,700	3,370	966	686
5	590	2,100	1,110	1,360	713	1,170	3,000	14,300	12,500	3,080	914	686
6	565	1,810	1,010	1,310	730	1,250	3,230	14,400	12,400	2,820	849	813
7	545	1,530	992	1,210	753	1,220	3,140	13,900	9,720	2,690	813	1,130
8	525	1,330	900	1,200	713	1,200	3,200	14,600	8,630	3,080	789	1,220
9	516	*1,180	807	1,130	680	1,260	3,100	14,600	8,860	4,580	765	1,030
10	502	1,260	765	*1,080	702	1,330	2,880	13,100	8,940	3,790	730	881
11	494	1,240	831	1,040	696	1,660	2,870	11,900	8,600	3,050	702	771
12	480	1,160	849	933	669	2,050	3,580	11,700	8,010	2,750	680	702
13	471	1,130	789	894	669	2,250	4,580	11,600	7,820	2,560	686	647
14	462	1,100	741	890	674	2,020	5,650	10,400	7,730	2,340	664	615
15	453	1,170	660	840	691	1,790	6,280	10,000	7,370	2,150	647	600
16	448	1,200	650	800	696	1,610	7,070	10,200	6,760	2,000	620	636
17	494	1,140	820	850	686	1,480	8,370	11,300	7,140	1,860	595	702
18	625	1,080	780	880	747	1,410	9,680	13,000	6,180	1,740	575	801
19	600	1,060	650	900	735	1,470	12,100	12,800	5,960	1,620	555	783
20	664	1,030	680	900	765	1,820	12,200	12,200	5,820	1,530	535	753
21	610	940	920	868	771	2,430	10,200	11,800	5,820	1,450	520	777
22	570	696	920	837	771	2,870	8,520	12,200	5,750	1,360	507	959
23	590	765	933	862	819	2,920	7,590	11,900	5,600	1,300	498	907
24	555	1,080	825	880	914	2,800	7,790	11,700	5,150	1,220	540	843
25	753	999	753	910	1,190	2,500	10,100	12,300	4,580	1,150	565	801
26	978	972	724	820	1,220	2,370	13,100	12,900	4,130	1,100	535	759
27	795	1,200	708	810	1,220	3,280	11,700	14,900	4,070	1,070	540	718
28	741	1,310	1,240	790	1,270	4,740	10,900	14,900	3,760	1,030	516	686
29	724	1,250	3,780	790	-	5,250	11,000	12,500	4,140	978	575	664
30	795	1,190	2,870	780	-	4,800	10,300	10,200	3,880	946	658	642
31	1,180	-	2,100	771	-	4,280	-	9,280	-	1,580	625	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	19,140	1,180	448	617	0.398	0.46	37,960
November	36,812	2,100	696	1,227	.792	.88	73,020
December	32,394	3,780	650	1,045	.674	.78	64,250
Calendar year 1945	939,367	16,400	337	2,574	1.66	22.55	1,863,000
January	31,465	1,780	771	1,015	.655	.75	62,410
February	22,596	1,270	669	807	.521	.54	44,820
March	68,100	5,250	1,170	2,197	1.42	1.63	135,100
April	205,760	13,100	2,870	6,859	4.43	4.94	408,100
May	372,800	14,900	8,500	12,030	7.76	8.94	739,400
June	221,420	12,700	3,760	7,381	4.76	5.31	439,200
July	69,354	4,580	946	2,237	1.44	1.66	137,600
August	21,964	1,580	498	709	.457	.53	43,560
September	22,977	1,220	530	766	.494	.55	45,570
Water year 1945-46	1,124,782	14,900	448	3,082	1.99	26.97	2,231,000

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 15-21, Jan. 14-19, 24-30.

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.- 1,910 square miles.

Records available.- April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to September 1946.

Average discharge.- 17 years, 3,226 second-feet.

Extremes.- Maximum discharge during year, 18,100 second-feet May 27 (gage height, 9.82 feet); minimum, 604 second-feet Oct. 16 (gage height, 2.77 feet).
1929-46: 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. No diversion.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	825	1,690	1,340	2,340	1,070	1,770	4,540	10,500	10,400	4,370	2,090	740
2	825	1,660	1,030	2,050	1,080	1,720	4,160	9,880	10,900	4,650	1,570	707
3	817	2,240	1,020	1,900	1,090	1,720	3,900	10,900	12,700	4,330	1,410	898
4	808	2,360	1,340	1,780	1,050	1,640	3,600	13,500	14,800	4,080	1,310	916
5	791	2,760	1,410	1,820	1,000	1,620	3,540	16,700	14,600	3,710	1,230	907
6	765	2,370	1,320	1,730	1,010	1,710	3,820	17,000	14,500	3,410	1,180	1,050
7	732	2,000	1,290	1,620	1,050	1,690	3,710	16,500	11,300	3,290	1,140	1,340
8	715	1,740	1,180	1,600	1,010	1,660	3,820	17,100	9,950	3,670	1,110	1,480
9	691	1,560	1,050	1,490	963	1,710	3,690	17,100	10,300	5,610	1,080	1,320
10	674	1,600	898	1,400	982	1,820	3,430	15,700	10,400	4,720	1,030	1,130
11	674	1,580	1,030	1,360	992	2,300	3,340	14,300	10,100	3,770	992	1,000
12	651	1,490	1,110	1,240	963	2,730	4,160	14,200	9,320	3,410	954	907
13	643	1,460	1,050	1,200	944	2,940	5,260	14,000	9,190	3,160	954	834
14	635	1,410	992	1,200	954	2,680	6,500	12,500	9,220	2,920	925	791
15	620	1,490	834	1,100	1,000	2,380	7,170	12,000	8,840	2,710	898	774
16	612	1,550	808	1,010	1,000	2,180	8,110	12,200	8,140	2,540	870	825
17	699	1,460	1,070	1,130	1,000	2,000	9,720	13,400	8,810	2,380	817	925
18	852	1,400	1,020	1,180	1,050	1,890	11,700	15,400	7,440	2,240	791	1,040
19	817	1,360	843	1,210	1,060	1,950	14,300	15,300	7,110	2,090	765	1,020
20	916	1,340	880	1,210	1,080	2,340	14,400	14,600	6,920	1,980	732	963
21	834	1,230	1,170	1,140	1,100	3,030	12,100	14,100	6,900	1,880	723	1,020
22	791	1,000	1,170	1,140	1,100	3,580	9,850	14,500	6,790	1,780	699	1,300
23	808	1,010	1,130	1,160	1,140	3,640	8,540	14,200	6,580	1,710	674	1,200
24	765	1,350	1,050	1,220	1,260	3,520	8,810	13,900	6,070	1,620	732	1,090
25	1,000	1,300	992	1,290	1,630	3,130	11,600	14,400	5,460	1,540	765	1,030
26	1,290	1,280	972	1,140	1,710	2,960	15,400	15,100	4,960	1,480	723	982
27	1,080	1,580	963	1,140	1,710	4,040	13,900	17,200	4,870	1,440	723	916
28	1,020	1,720	1,770	1,070	1,820	5,730	12,900	17,300	4,610	1,400	699	880
29	982	1,640	4,830	1,100	-	6,320	13,100	14,700	4,980	1,340	732	852
30	1,050	1,560	3,690	1,100	-	5,780	12,300	12,000	4,690	1,300	854	825
31	1,490	-	2,760	1,070	-	5,100	-	10,900	-	2,010	843	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	25,872	1,490	612	835	0.437	0.50	51,320
November	48,190	2,760	1,000	1,608	.841	.94	95,580
December	42,012	4,830	808	1,355	.709	.82	83,330
Calendar year 1945	1,158,132	18,800	463	3,173	1.66	22.55	2,297,000
January	42,140	2,340	1,010	1,359	.712	.82	83,580
February	31,818	1,820	944	1,136	.595	.62	63,110
March	87,280	6,320	1,620	2,815	1.47	1.70	173,100
April	241,370	15,400	3,340	8,046	4.21	4.70	478,800
May	441,080	17,300	9,880	14,230	7.45	8.59	874,900
June	260,850	14,800	4,810	8,695	4.55	5.08	517,400
July	86,540	5,610	1,300	2,792	1.46	1.68	171,600
August	29,995	2,090	674	968	.507	.58	59,490
September	29,662	1,480	707	989	.518	.58	58,830
Water year 1945-46	1,366,809	17,300	612	3,745	1.96	26.62	2,711,000

Clearwater River at Kamiah, Idaho

Location.- Water-stage recorder, lat. 46°14', long. 116°01', in sec. 1, T. 33 N., R. 3 E., a quarter of a mile downstream from highway bridge at Kamiah, three-quarters of a mile downstream from Lawyer Creek, and 6 miles downstream from South Fork.

Drainage area.- 4,850 square miles.

Records available.- August 1910 to September 1946.

Average discharge.- 36 years, 7,828 second-feet.

Extremes.- Maximum discharge during year, 36,600 second-feet May 6 (gage height, 12.19 feet); minimum, 968 second-feet Dec. 20 (gage height, 3.05 feet).
1910-46: Maximum discharge observed, 81,400 second-feet June 10, 1933 (gage height, 16.53 feet, former site); minimum, probably less than 200 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent above 4,000 second-feet and good below. Some diurnal fluctuation at low stages caused by power plant on South Fork.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,730	3,470	3,290	6,050	2,300	4,300	10,800	22,500	20,400	8,570	4,320	1,660
2	1,700	3,610	2,570	5,280	2,330	4,150	10,100	21,200	20,600	8,830	3,190	1,480
3	1,670	4,670	2,210	4,780	2,420	4,230	9,420	22,600	22,800	8,540	2,710	1,840
4	1,660	5,280	2,540	4,390	2,290	4,010	8,700	26,900	26,300	7,950	2,500	1,970
5	1,610	5,970	2,910	4,460	2,210	3,860	8,510	34,000	26,200	7,260	2,370	1,900
6	1,550	5,760	2,820	4,480	2,220	4,040	9,290	35,200	26,900	6,790	2,190	2,090
7	1,500	4,510	2,780	4,040	2,300	4,120	9,090	34,100	22,400	6,460	2,130	2,440
8	1,460	3,880	2,570	3,900	2,250	3,930	9,250	34,200	18,900	6,710	2,060	2,780
9	1,420	3,290	2,320	3,650	2,170	4,010	9,090	34,300	18,600	10,100	1,980	2,640
10	1,400	3,140	1,960	3,410	2,170	4,150	8,480	31,900	18,400	10,300	1,960	2,220
11	1,370	3,250	2,030	3,250	2,170	4,880	8,070	28,600	17,900	7,880	1,840	1,920
12	1,320	3,060	2,270	2,980	2,150	5,990	10,000	28,000	16,800	7,000	1,800	1,740
13	1,290	2,960	2,190	2,820	2,060	7,200	12,100	27,900	16,200	6,430	1,780	1,630
14	1,270	2,850	2,030	2,740	2,060	6,650	15,000	24,900	16,000	5,940	1,750	1,550
15	1,260	2,850	1,680	2,570	2,140	5,890	16,600	23,400	15,700	5,500	1,700	1,510
16	1,230	3,230	1,480	2,300	2,190	5,420	18,100	23,200	14,400	5,120	1,660	1,600
17	1,330	3,080	1,870	2,380	2,190	4,930	21,000	24,900	16,300	4,810	1,600	1,800
18	1,770	2,890	1,900	2,450	2,210	4,620	24,300	28,700	14,500	4,510	1,510	1,970
19	1,750	2,800	1,300	2,500	2,250	4,600	30,300	28,900	13,100	4,230	1,500	2,000
20	1,920	2,740	1,140	2,640	2,300	5,350	31,500	27,600	12,500	3,970	1,460	1,870
21	1,960	2,540	1,770	2,540	2,400	6,910	27,100	26,600	12,200	3,710	1,430	1,820
22	1,710	2,130	2,130	2,470	2,450	8,160	22,600	27,400	12,000	3,550	1,400	2,220
23	1,710	1,920	2,290	2,550	2,550	8,480	19,800	27,200	11,800	3,350	1,390	2,290
24	1,640	2,370	2,220	2,820	2,820	8,230	19,800	26,700	11,100	3,170	1,390	2,060
25	1,670	2,590	2,110	2,930	3,840	7,430	23,600	27,000	10,300	3,000	1,540	1,910
26	2,500	2,660	2,030	2,570	4,210	6,790	32,100	28,300	9,490	2,850	1,560	1,810
27	2,400	3,160	2,030	2,490	4,170	8,640	29,600	32,400	9,190	2,800	1,470	1,730
28	2,110	4,190	2,780	2,380	4,580	11,900	27,300	34,700	9,060	2,760	1,430	1,660
29	2,080	4,120	10,300	2,370	-	13,900	27,400	30,300	9,460	2,640	1,390	1,610
30	1,980	3,900	10,100	2,380	-	13,500	26,200	24,100	9,690	2,470	1,460	1,570
31	2,550	-	7,490	2,320	-	12,100	-	21,800	-	2,890	1,670	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	52,520	2,550	1,230	1,694	0.349	0.40	104,200
November	102,870	5,970	1,920	3,429	.707	.79	204,000
December	89,110	10,300	1,140	2,875	.593	.68	176,700
Calendar year 1945	2,505,897	40,600	979	6,865	1.42	19.21	4,971,000
January	98,690	6,050	2,300	3,184	.656	.76	195,700
February	71,380	4,580	2,060	2,549	.526	.55	141,600
March	202,370	13,900	3,860	6,528	1.35	1.55	401,400
April	535,200	32,100	8,070	17,840	3.68	4.10	1,062,000
May	869,500	35,200	21,200	28,050	5.78	6.67	1,725,000
June	479,190	26,900	9,060	15,970	3.29	3.67	950,500
July	170,090	10,300	2,470	5,487	1.13	1.30	337,400
August	58,140	4,320	1,390	1,875	.387	.45	115,300
September	57,290	2,780	1,480	1,910	.394	.44	113,600
Water year 1945-46	2,786,350	35,200	1,140	7,634	1.57	21.36	5,527,000

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 1946.

Average discharge.- 20 years, 13,780 second-feet.

Extremes.- Maximum discharge during year, 65,600 second-feet May 6 (gage height, 14.14 feet); minimum, 2,300 second-feet Oct. 16 (gage height, 2.66 feet).
1926-46: 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. Small diversions from lower tributaries; slight diurnal fluctuation at times caused by power plant on South Fork.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

2.7	2,360	7.0	15,600
3.3	3,470	8.0	20,500
4.0	5,040	10.0	32,200
5.0	7,870	12.0	47,000
6.0	11,400	14.0	64,300

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,150	5,930	9,260	18,000	5,340	14,400	25,800	46,300	34,600	15,100	6,380	3,410
2	3,050	6,640	7,230	15,400	5,340	13,700	23,200	38,200	34,100	14,900	6,240	3,190
3	2,980	6,840	5,770	14,800	5,520	13,400	21,500	39,400	36,300	15,400	5,060	3,010
4	2,900	8,780	5,580	13,700	5,390	12,300	20,200	46,100	40,700	13,800	4,630	4,380
5	2,840	8,880	6,240	16,500	5,090	11,700	20,000	55,100	41,200	12,800	4,420	3,850
6	2,790	10,700	6,300	16,500	5,040	14,600	21,500	63,300	42,800	11,900	4,240	3,910
7	2,720	8,390	6,700	13,600	5,120	14,200	21,600	61,700	39,600	11,500	4,070	4,130
8	2,670	7,110	6,700	11,900	5,190	13,000	20,900	59,600	32,100	11,600	3,980	4,750
9	2,620	6,040	5,630	10,600	4,990	13,200	20,900	61,100	30,300	14,300	3,890	4,780
10	2,560	5,370	4,940	9,680	4,920	13,200	19,400	57,600	29,800	18,200	3,780	4,200
11	2,510	5,710	4,610	8,750	4,920	13,900	18,500	51,600	29,000	14,100	3,640	3,680
12	2,480	5,660	4,870	7,840	4,820	16,800	22,000	49,400	27,400	12,300	3,530	3,350
13	2,460	5,390	4,870	7,110	4,700	22,400	25,700	49,000	25,900	11,400	3,450	3,130
14	2,430	5,290	4,560	6,730	4,630	19,600	31,200	45,000	25,600	10,500	3,430	2,990
15	2,390	5,260	4,040	6,270	4,750	16,700	34,300	41,100	25,400	9,860	3,370	2,900
16	2,380	6,380	3,510	5,740	4,940	14,800	36,500	39,400	23,300	9,160	3,290	2,940
17	2,390	6,820	3,580	5,680	4,990	13,100	40,000	41,000	26,600	8,680	3,190	3,150
18	2,630	6,130	4,180	5,770	4,990	12,200	46,100	46,900	27,200	8,220	3,110	3,370
19	3,250	5,790	3,250	5,680	5,060	12,000	55,600	49,200	22,600	7,780	3,030	3,530
20	3,270	5,630	2,650	5,960	5,190	14,000	f61,900	47,400	21,300	7,350	2,980	3,410
21	3,870	5,220	3,310	6,020	5,710	17,800	f55,500	46,500	20,500	6,960	2,880	3,230
22	3,530	4,560	5,240	5,900	5,960	20,600	45,600	46,300	20,400	6,640	2,810	3,410
23	3,250	3,890	5,630	5,960	6,440	20,800	f38,000	46,200	20,200	6,300	2,770	4,070
24	3,230	4,020	5,470	6,040	7,780	19,800	36,200	46,300	19,000	6,020	2,740	3,740
25	3,030	4,920	5,040	6,990	11,500	18,100	41,100	46,000	17,800	5,710	2,840	3,470
26	3,870	5,340	4,850	6,670	12,700	16,500	55,800	47,800	16,500	5,450	3,230	3,250
27	4,660	6,930	4,920	5,900	13,300	18,800	56,000	51,800	15,600	5,320	3,210	3,110
28	4,020	13,600	11,700	5,880	16,100	25,100	50,300	55,900	15,800	5,260	2,980	2,990
29	3,740	13,000	34,600	5,550	-	29,800	49,200	52,600	15,800	5,220	2,830	2,900
30	3,680	12,100	32,200	5,450	-	31,800	50,100	42,500	17,000	4,900	2,770	2,860
31	3,980	-	22,800	5,390	-	28,800	-	37,200	-	4,780	2,940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	95,330	4,660	2,380	3,075	0.321	0.37	189,100
November	206,320	13,600	3,890	6,877	.719	.80	409,200
December	240,230	34,600	2,650	7,749	.810	.93	476,500
Calendar year 1945	4,777,220	74,300	1,950	13,090	1.37	18.55	9,475,000
January	271,960	18,000	5,390	8,773	.917	1.06	539,400
February	180,420	16,100	4,630	6,444	.673	.70	357,900
March	537,100	31,800	11,700	17,330	1.81	2.09	1,065,000
April	1,064,600	61,900	18,500	35,490	3.71	4.14	2,112,000
May	1,507,500	63,300	37,200	48,630	5.08	5.86	2,990,000
June	794,400	42,800	15,600	26,480	2.77	3.09	1,576,000
July	301,410	18,200	4,780	9,723	1.02	1.17	597,800
August	111,710	6,380	2,740	3,604	.377	.43	221,600
September	105,090	4,780	2,860	3,503	.366	.41	208,400
Water year 1945-46	5,416,070	63,300	2,380	14,840	1.55	21.05	10,740,000

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

Lochsa River near Lowell, Idaho

Location.- Water-stage recorder, lat. 46°09', long. 115°35', in SW¼SE¼ 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 1¼ 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 1946.

Average discharge.- 17 years, 2,437 second-feet.

Extremes.- Maximum discharge during year, 13,800 second-feet May 5 (gage height, 8.21 feet); minimum, 411 second-feet Oct. 16, 17 (gage height, 1.48 feet).
1929-46: 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. No diversion.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

1.4	361	3.0	1,950	6.0	7,700
1.7	587	3.5	2,660	7.0	10,200
2.0	820	4.0	3,470	8.1	13,400
2.5	1,340	5.0	5,420		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	552	1,420	1,260	2,160	858	1,240	3,600	7,960	7,410	2,910	1,340	493
2	552	1,380	1,010	1,900	868	1,250	3,380	7,680	7,530	3,030	1,040	465
3	552	1,820	935	1,770	868	1,320	3,150	8,680	8,380	2,830	915	680
4	545	1,740	1,020	1,650	839	1,240	2,940	10,500	9,180	2,580	848	583
5	530	2,380	1,090	1,730	811	1,230	2,890	13,000	9,000	2,390	802	606
6	508	1,900	1,070	1,640	820	1,370	3,220	13,200	9,470	2,260	757	766
7	493	1,530	1,110	1,510	830	1,360	3,050	12,700	7,750	2,230	739	848
8	479	1,340	975	1,430	793	1,340	3,110	12,500	6,590	2,400	713	868
9	472	1,140	877	1,340	775	1,380	2,950	12,100	6,500	3,780	696	766
10	458	1,140	802	1,260	784	1,440	2,720	11,200	6,340	3,150	671	654
11	452	1,130	858	1,210	766	1,650	2,780	10,300	6,050	2,570	646	591
12	438	1,090	877	1,070	757	2,000	3,630	10,300	5,610	2,300	621	545
13	431	1,060	839	1,050	739	2,230	4,480	10,100	5,380	2,140	621	508
14	424	1,020	784	1,020	748	2,000	5,340	8,960	5,400	1,990	614	486
15	418	1,100	680	945	784	1,810	5,980	9,360	5,210	1,860	591	472
16	411	1,210	696	925	775	1,650	6,590	9,370	4,820	1,760	575	515
17	508	1,120	757	935	775	1,530	7,720	9,180	5,810	1,650	552	583
18	580	1,050	696	925	793	1,450	9,000	10,500	4,800	1,550	545	591
19	552	1,040	575	975	784	1,510	10,500	10,400	4,340	1,460	523	614
20	748	985	646	1,070	830	1,940	11,000	9,910	4,130	1,370	515	560
21	622	906	802	935	830	2,500	9,440	9,700	3,980	1,310	515	591
22	583	766	906	945	868	2,780	7,840	10,100	3,940	1,240	486	663
23	575	766	915	925	915	2,720	6,980	10,100	3,830	1,160	465	630
24	545	839	868	1,040	995	2,600	7,290	9,880	3,560	1,100	508	583
25	705	965	802	1,060	1,430	2,290	9,180	10,000	3,350	1,050	583	545
26	868	995	766	896	1,330	2,190	11,600	10,400	3,130	1,000	545	523
27	784	1,580	784	915	1,310	2,890	10,400	11,800	3,080	995	500	500
28	757	1,760	1,780	858	1,280	3,870	9,800	12,700	3,000	995	479	486
29	730	1,740	4,540	877	-	4,540	9,880	10,600	3,380	945	458	472
30	748	1,520	3,370	848	-	4,400	9,210	8,580	3,280	896	458	472
31	1,200	-	2,580	858	-	3,960	-	7,820	-	1,200	545	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	18,200	1,200	411	587	0.497	0.57	36,100
November	38,412	2,360	766	1,280	1.08	1.21	76,190
December	35,670	4,540	575	1,151	.975	1.12	70,750
Calendar year 1945	894,020	15,000	328	2,449	2.08	28.18	1,773,000
January	36,672	2,160	848	1,183	1.00	1.16	72,740
February	24,955	1,430	739	891	.755	.79	49,500
March	65,680	4,540	1,230	2,119	1.80	2.07	130,300
April	189,650	11,600	2,720	6,322	5.36	5.98	376,200
May	319,580	13,200	7,820	10,310	8.74	10.07	633,900
June	164,230	9,470	3,000	5,474	4.64	5.18	325,700
July	58,101	3,780	896	1,874	1.59	1.83	115,200
August	19,866	1,340	458	641	.543	.63	39,400
September	17,659	868	465	589	.499	.56	35,030
Water year 1945-46	988,675	13,200	411	2,709	2.30	13.17	1,961,000

South Fork Clearwater River near Elk City, Idaho

Location.- Wire-weight gage, lat. 45°49', long. 115°32', in NE¼ sec. 25, T. 29 N., R. 7 E., at bridge on road to Orogrande, 0.2 mile upstream from Crooked River and 4½ miles west of Elk City.

Drainage area.- 261 square miles.

Records available.- September 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 1,230 second-feet Apr. 19 (gage height, 10.64 feet); minimum observed, 31 second-feet Aug. 19 (gage height, 7.62 feet).
1944-46: Maximum discharge observed, 1,470 second-feet May 4, 1945 (gage height, 11.02 feet); minimum daily, 17 second-feet Dec. 11, 1944; minimum gage height observed, 7.53 feet Nov. 17, 1944, Sept. 3, 1945.

Remarks.- Records fair except those for periods of ice effect, which are poor. No diversion or regulation above station except for mining operations.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

7.6	29	8.6	219
7.7	38	9.0	376
7.8	50	9.5	620
8.0	78	10.0	870
8.3	135	10.6	1,210

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	116	101	130	71	105	510	820	470	108	99	a58
2	56	137	a75	120	70	100	500	770	a450	106	60	56
3	51	312	93	115	74	100	490	770	432	120	60	60
4	45	a290	100	83	70	95	432	820	422	122	a56	66
5	48	304	100	100	66	*95	470	a890	399	106	53	64
6	47	233	90	92	71	98	500	898	422	101	53	66
7	a42	133	86	95	70	94	a540	876	394	a110	51	69
8	36	*104	78	95	66	94	550	820	354	118	48	a75
9	49	70	60	*90	66	90	500	1,140	a338	367	41	62
10	48	137	65	88	66	100	470	964	321	173	45	55
11	40	a120	74	86	68	140	451	942	258	108	a43	51
12	42	116	75	78	66	230	470	a880	226	99	41	47
13	41	118	68	81	66	240	570	785	222	97	38	43
14	a45	101	63	80	66	200	a700	715	219	a100	38	37
15	48	112	62	72	66	180	770	700	213	103	38	a48
16	38	131	68	74	66	170	845	695	a210	90	38	56
17	43	112	72	76	66	a160	980	690	346	80	35	59
18	131	a115	60	74	70	145	1,080	695	244	85	a34	76
19	74	122	62	72	68	200	1,190	a660	203	69	32	63
20	76	76	72	78	72	240	*1,200	620	176	68	33	59
21	a73	69	80	72	72	300	a1,080	590	137	a67	36	56
22	70	70	89	78	70	350	845	565	114	66	34	a70
23	69	90	83	74	75	340	745	545	a140	63	33	62
24	70	100	80	78	78	330	810	575	190	63	35	59
25	74	95	78	78	94	300	969	550	157	63	a34	58
26	120	98	74	67	94	340	1,170	a620	112	60	33	49
27	75	100	70	70	96	500	1,130	685	165	62	34	47
28	a76	127	80	67	105	650	a1,050	640	190	a59	33	42
29	76	133	220	70	-	690	980	600	203	56	35	a41
30	72	142	215	67	-	690	898	555	a160	54	50	40
31	112	-	150	72	-	a600	-	495	-	147	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,947	131	36	62.8	0.241	0.28	3,860
November	3,983	312	69	133	.510	.57	7,900
December	2,743	220	60	88.5	.339	.39	5,440
Calendar year 1945	80,094	1,310	24	219	.839	11.43	158,900
January	2,572	130	67	83.0	.318	.37	5,100
February	2,048	105	66	73.1	.280	.29	4,060
March	7,966	690	90	257	.985	1.14	15,800
April	22,895	1,200	432	763	2.92	3.26	45,410
May	22,570	1,140	495	728	2.79	3.22	44,770
June	7,887	470	112	263	1.01	1.12	15,640
July	3,090	367	54	99.7	.382	.44	6,130
August	1,352	99	32	43.6	.167	.19	2,680
September	1,694	76	37	56.5	.216	.24	3,360
Water year 1945-46	80,747	1,200	32	221	.847	11.51	160,200

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of records for station near Grangeville.
Note.- Stage-discharge relation affected by ice Nov. 23-27, Dec. 4 to Jan. 3, Jan. 5 to Mar. 16, Mar. 20-27.

South Fork Clearwater River near Grangeville, Idaho

Location.- Water-stage recorder, 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. and 6 miles southeast of Grangeville.

Drainage area.- 865 square miles.

Records available.- November 1910 to September 1916, April 1923 to September 1946.

Average discharge.- 27 years (1912-16, 1923-46), 801 second-feet.

Extremes.- Maximum discharge during year, 3,750 second-feet Apr. 20 (gage height, 7.04 feet); minimum, 2 second-feet (regulated) Aug. 25 (gage height, 1.84 feet); minimum daily, 127 second-feet (regulated) Aug. 29.
1910-16, 1923-46: Maximum discharge observed, 9,830 second-feet May 30, 1912 (gage height, 9.7 feet), from rating ucrve extended above 6,500 second-feet; minimum recorded, that of Aug. 25, 1946; minimum daily, 41 second-feet Nov. 22, 1931.

Remarks.- Records excellent except those for periods of ice effect, which are fair. Diurnal fluctuation caused by power plant just above station. No diversion for irrigation.

Cooperation.- Water-stage recorder inspected by Washington Water Power Co. in connection with a Federal Power Commission project.

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.7	123	4.0	690	6.0	2,430
3.0	207	4.5	1,020	6.5	3,020
3.3	317	5.0	1,430	7.0	3,690
3.6	465	5.5	1,900		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	224	317	251	444	233	335	1,240	2,620	1,880	720	348	210
2	207	392	214	h407	230	330	1,160	2,540	1,880	824	285	183
3	204	756	251	h387	244	335	1,050	2,650	1,910	738	247	358
4	182	714	330	h348	227	313	964	2,980	1,890	684	237	277
5	186	786	330	h358	224	313	1,010	3,240	1,820	624	220	277
6	179	684	301	h305	233	322	1,160	3,270	1,890	580	204	293
7	172	526	293	h313	233	309	1,130	3,160	1,640	553	201	311
8	169	*433	266	317	214	313	1,190	3,200	1,460	558	196	382
9	162	344	198	*301	220	309	1,140	3,410	1,410	1,080	217	322
10	162	402	217	297	217	340	1,040	3,120	1,380	880	183	244
11	162	375	251	289	224	509	1,020	2,920	1,320	684	183	214
12	155	344	255	251	214	636	1,320	2,820	1,240	608	183	189
13	160	348	230	270	217	684	1,620	2,680	1,190	558	186	180
14	159	329	205	262	220	608	1,920	2,460	1,160	526	180	166
15	153	342	b205	227	220	542	2,110	2,320	1,100	482	171	171
16	158	367	b225	244	217	509	2,340	2,250	1,050	465	171	224
17	215	348	b240	258	217	460	2,700	2,290	1,330	449	156	277
18	348	313	199	240	233	454	3,060	2,340	1,150	417	160	322
19	273	317	b205	233	224	487	3,420	2,250	1,010	402	155	258
20	297	325	b240	251	237	602	3,560	2,160	950	358	152	214
21	301	213	b270	230	237	708	3,220	2,120	915	362	141	210
22	251	201	304	262	237	824	2,880	2,190	887	344	144	330
23	255	260	280	244	240	804	2,680	2,280	880	330	144	301
24	237	321	263	255	251	792	2,710	2,170	922	317	131	258
25	273	305	250	255	309	690	3,070	2,110	831	297	161	220
26	382	305	243	220	301	702	3,470	2,140	780	285	171	195
27	305	313	236	237	330	1,180	3,240	2,800	824	281	149	195
28	277	392	270	217	344	1,500	3,100	2,910	798	285	144	189
29	285	425	726	240	-	1,680	2,970	2,470	936	273	127	180
30	273	377	714	224	-	1,560	2,950	1,110	824	258	144	183
31	301	-	509	237	-	1,410	-	1,960	-	340	199	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,067	382	153	228	0.264	0.30	14,020
November	11,874	786	201	396	.458	.51	23,550
December	8,971	726	198	289	.334	.39	17,790
Calendar year 1945	296,940	4,910	108	814	.941	12.77	589,000
January	8,623	444	217	278	.321	.37	17,100
February	6,747	344	214	241	.279	.29	13,380
March	20,560	1,680	309	663	.766	.88	40,780
April	64,444	3,560	964	2,148	2.48	2.77	127,800
May	79,940	3,410	1,960	2,579	2.98	3.44	158,600
June	37,257	1,910	780	1,242	1.44	1.60	73,900
July	15,532	1,080	258	502	.580	.67	30,870
August	5,690	348	127	184	.213	.24	11,290
September	7,333	382	166	244	.282	.32	14,540
Water year 1945-46	274,068	3,560	127	751	.868	11.78	543,600

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.

North Fork Clearwater River at Bungalow ranger station, Idaho

Location.- Water-stage recorder, lat. 46°38', long. 115°30', in sec. 18, T. 38 N., R. 8 E., at Bungalow ranger station, 300 feet downstream from Orogrande Creek, 1,000 feet downstream from steel highway bridge, and 17 miles northeast of Pierce.

Drainage area.- 996 square miles.

Records available.- September 1944 to September 1946.

Extremes.- Maximum discharge during year, 13,000 second-feet May 6 (gage height, 7.23 feet); minimum, 490 second-feet Oct. 16 (gage height, 2.50 feet).
1944-46: Maximum discharge, 15,000 second-feet May 5, 1945 (gage height, 7.74 feet); minimum daily, 350 second-feet Dec. 12, 1944.

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

Cooperation.- Water-stage recorder inspected by U. S. Forest Service ranger at Bungalow ranger station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	597	1,140	1,130	1,940	800	992	3,410	7,480	6,870	2,780	1,290	730
2	588	1,030	936	1,710	800	1,000	3,120	7,320	6,930	3,250	1,160	720
3	570	1,200	1,000	1,600	800	1,060	2,950	8,120	7,350	2,780	1,100	1,030
4	554	1,150	1,100	1,520	800	992	2,800	9,510	7,550	2,570	1,080	848
5	546	1,940	1,160	1,570	780	992	2,780	11,800	7,520	2,430	1,030	826
6	546	1,380	1,040	1,460	780	1,090	3,250	12,300	7,950	2,320	1,000	892
7	538	1,200	1,060	1,340	780	1,040	3,010	11,900	6,550	2,470	992	1,110
8	530	1,040	925	1,310	760	1,030	3,100	11,800	5,840	2,470	968	925
9	522	914	848	1,190	740	1,050	2,880	11,900	5,630	3,460	947	804
10	522	1,060	826	1,130	740	1,130	2,590	10,900	5,420	2,740	925	750
11	514	*980	914	1,090	720	1,420	2,740	10,100	5,130	2,450	903	720
12	506	936	870	936	720	1,680	3,820	9,980	4,840	2,300	892	690
13	506	925	815	969	700	1,830	4,470	9,760	4,640	2,160	892	680
14	506	892	760	892	700	1,580	5,540	8,770	4,640	2,030	870	660
15	498	1,040	680	880	720	1,420	6,050	8,250	4,420	1,940	870	680
16	490	1,200	700	880	740	1,270	6,520	8,250	4,230	1,850	837	720
17	579	1,050	740	880	730	1,190	7,220	9,020	6,050	1,760	815	740
18	615	958	700	880	771	1,200	8,250	9,940	4,560	1,680	804	730
19	588	958	600	880	720	1,290	9,330	9,940	4,130	1,620	793	690
20	750	892	650	960	782	1,850	9,800	9,620	3,900	1,550	771	670
21	624	720	750	880	782	2,670	8,630	9,510	3,700	1,490	750	760
22	615	680	900	880	782	2,950	7,220	9,580	3,820	1,430	740	848
23	597	800	880	880	815	2,740	6,490	9,690	3,550	1,370	740	730
24	570	850	840	950	826	2,430	6,800	9,760	3,390	1,330	826	690
25	826	940	780	980	1,080	2,110	8,360	9,620	3,230	1,290	782	670
26	892	947	750	850	992	2,090	10,400	9,980	3,050	1,260	804	651
27	690	1,850	760	880	992	3,100	9,480	10,200	3,070	1,270	760	642
28	700	2,050	1,800	800	1,030	4,180	9,050	10,200	2,990	1,270	730	642
29	670	1,940	5,200	800	-	4,580	9,190	8,980	3,360	1,200	730	642
30	700	1,520	3,100	800	-	4,230	8,390	7,780	2,970	1,180	710	633
31	1,160	-	2,320	800	-	3,770	-	7,220	-	1,520	815	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	19,109	1,160	490	616	0.618	0.71	37,900
November	34,182	2,050	680	1,139	1.14	1.28	67,800
December	35,534	5,200	600	1,146	1.15	1.33	70,480
Calendar year 1945	814,269	13,500	490	2,231	2.24	30.41	1,615,000
January	33,517	1,940	800	1,081	1.09	1.25	66,480
February	22,382	1,080	700	799	.802	.84	44,390
March	59,956	4,580	992	1,934	1.94	2.24	118,900
April	177,640	10,400	2,590	5,921	5.94	6.63	352,300
May	298,780	12,300	7,220	9,638	9.68	11.16	592,600
June	147,280	7,950	2,970	4,909	4.93	5.50	292,100
July	61,220	3,460	1,180	1,975	1.98	2.29	121,400
August	27,307	1,290	710	881	.885	1.02	54,160
September	22,523	1,110	633	751	.754	.84	44,670
Water year 1945-46	939,430	12,300	490	2,574	2.58	35.09	1,863,000

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 21-25, Dec. 3, 4, 15-29, Jan. 15 to Feb. 15.

North Fork Clearwater River near Ahsahka, Idaho

Location.- Water-stage recorder, lat. 46°31', long. 116°18', in SE¼ sec. 26, T. 37 N., R. 1 E., at Bruce's Eddy, 1½ miles northeast of Ahsahka and 2 miles upstream from mouth.

Drainage area.- 2,440 square miles.

Records available.- August 1926 to September 1946.

Average discharge.- 20 years, 5,167 second-feet.

Extremes.- Maximum discharge during year, 25,500 second-feet May 6 (gage height, 16.84 feet); minimum, 1,060 second-feet Oct. 16 (gage height, 2.65 feet).
1926-46: 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 ice effect or no gage-height record, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	2,630	4,030	6,520	2,230	4,010	9,590	15,000	12,500	5,640	2,620	a1,600
2	1,240	2,640	3,110	5,710	2,220	3,970	8,700	14,200	12,400	6,120	2,240	h1,330
3	1,240	2,570	2,600	5,640	2,280	3,980	8,040	15,400	13,100	5,860	2,070	1,560
4	1,210	2,870	2,610	5,400	2,190	3,830	7,680	18,200	13,700	5,320	2,020	1,970
5	1,180	3,330	2,770	6,770	2,070	3,670	7,780	22,900	13,600	5,000	1,970	1,650
6	1,160	3,610	2,690	6,300	2,010	4,270	8,730	24,300	14,600	4,720	1,900	1,790
7	1,150	2,760	3,100	5,300	2,080	4,450	8,360	23,500	13,000	4,730	1,860	1,690
8	1,140	2,400	2,820	4,650	2,080	4,150	8,260	22,700	11,200	4,860	1,850	1,850
9	1,130	1,990	2,390	4,100	1,990	4,190	7,900	23,600	10,600	6,130	1,810	1,590
10	1,110	*2,000	2,150	3,760	1,970	4,270	7,240	21,400	10,300	5,840	1,770	a1,450
11	1,100	2,190	2,140	*3,460	1,970	4,550	7,250	19,200	9,760	4,940	1,720	a1,380
12	1,100	2,100	2,210	3,110	1,910	5,850	9,610	18,600	9,260	4,600	1,670	a1,320
13	1,080	2,040	2,090	2,890	1,880	7,880	10,700	18,400	8,920	4,290	1,650	a1,280
14	1,080	2,040	1,960	2,740	1,890	6,750	12,600	16,500	9,040	4,070	a1,620	h1,250
15	1,070	2,260	b1,700	2,520	1,960	5,800	13,800	15,100	8,760	3,870	a1,600	a1,220
16	1,070	3,030	b1,550	2,340	1,990	5,140	14,400	14,600	8,000	3,680	a1,560	a1,200
17	1,090	2,850	b1,700	2,450	1,940	4,630	15,400	15,500	10,500	3,490	h1,530	a1,220
18	1,240	2,500	b1,700	2,500	1,950	4,370	17,400	17,700	9,660	3,330	a1,500	a1,300
19	1,280	2,430	b1,300	2,490	1,980	4,450	21,000	18,000	8,300	3,200	a1,480	a1,400
20	1,420	2,260	b1,100	2,680	2,050	5,430	23,800	17,400	7,850	3,080	a1,450	a1,380
21	1,530	2,050	b1,800	2,480	2,160	7,210	20,600	17,000	7,580	2,930	a1,420	h1,250
22	1,390	1,730	b2,000	2,530	2,190	8,200	16,500	17,200	7,910	2,800	a1,380	a1,500
23	1,440	1,560	b2,200	2,480	2,300	8,000	14,100	16,900	7,480	2,690	a1,360	a1,600
24	1,360	1,770	b2,200	2,500	2,530	7,400	14,000	17,300	6,970	2,600	h1,350	a1,450
25	1,390	2,090	b2,100	2,860	3,310	6,540	16,500	17,100	6,630	2,500	a1,450	a1,320
26	1,980	2,310	2,020	2,470	3,750	6,140	22,400	17,300	6,260	2,410	a1,500	a1,250
27	1,790	4,050	2,070	2,300	3,680	7,440	20,500	18,400	5,980	2,380	a1,450	a1,200
28	1,520	6,940	4,450	2,340	4,150	9,810	18,400	18,700	5,960	2,400	a1,400	h1,170
29	1,480	6,550	15,100	2,210	-	11,400	18,600	17,400	6,470	2,330	a1,300	a1,160
30	1,470	5,430	11,400	2,230	-	11,800	17,800	14,500	6,210	2,230	a1,250	a1,150
31	2,020	-	8,040	2,130	-	10,700	-	13,300	-	2,240	h1,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	40,740	2,020	1,070	1,314	0.539	0.62	80,810
November	84,980	6,940	1,560	2,833	1.16	1.30	168,600
December	99,100	15,100	1,100	3,197	1 31	1.51	196,600
Calendar year 1945	1,738,302	26,900	970	4,762	1.95	26.49	3,448,000
January	107,860	6,770	2,130	3,479	1.43	1.64	213,900
February	64,670	4,150	1,880	2,310	.947	.99	128,300
March	190,280	11,800	3,670	6,138	2.52	2.90	377,400
April	407,640	23,800	7,240	13,590	5.57	6.21	808,500
May	557,300	24,300	13,300	17,980	7.37	8.49	1,105,000
June	282,500	14,600	5,960	9,417	3.86	4.31	560,300
July	120,280	6,130	2,230	3,880	1.59	1.83	238,600
August	51,080	2,620	1,250	1,648	.675	.78	101,300
September	42,480	1,970	1,150	1,416	.580	.65	84,260
Water year 1945-46	2,048,910	24,300	1,070	5,613	2.30	31.23	4,064,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Clearwater River at Kamiah and at Spalding.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.

Potlatch Creek at Kendrick, Idaho

Location.- Wire-weight gage, lat. 46°37', long. 116°39', in NW¼ sec. 25, T. 38 N., R. 3 W., at Mill Street Bridge in Kendrick, 0.9 mile downstream from Bear Creek and 3.2 miles upstream from Middle Potlatch Creek.

Drainage area.- 460 square miles.

Records available.- October 1945 to September 1946.

Extremes.- Maximum discharge observed during year, 6,820 second-feet Dec. 28 (gage height, 10.35 feet); minimum observed, 4.3 second-feet Aug. 25; minimum gage height observed, 3.28 feet Oct. 12-16.

Remarks.- Records fair. Gage read once or twice daily. No diversion or regulation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	21	277	1,310	213	1,980	1,480	515	80	56	7.5	5.2
2	15	28	159	1,090	217	1,820	1,320	408	82	45	7.2	5.2
3	14	31	159	1,750	217	1,950	1,180	377	64	34	7.0	5.5
4	14	29	145	1,300	199	1,560	1,050	372	58	a30	6.0	5.4
5	13	35	131	2,920	175	1,370	1,180	377	54	26	6.2	7.0
6	13	37	121	1,750	195	3,100	1,270	342	79	22	6.0	7.2
7	12	37	632	1,230	188	2,260	1,020	327	78	22	5.8	18
8	12	30	855	827	169	2,160	1,110	304	76	22	5.5	21
9	12	20	195	515	185	1,980	1,150	273	73	25	5.4	13
10	11	26	148	508	188	1,920	990	256	63	43	5.4	12
11	11	28	142	299	199	1,930	1,400	217	54	37	5.2	9.8
12	11	*28	128	*308	172	2,720	1,610	202	43	30	5.2	7.5
13	11	30	76	282	175	2,720	1,450	185	38	25	5.0	7.0
14	11	32	49	220	169	1,940	1,420	169	40	21	5.0	6.8
15	11	39	23	210	175	1,590	1,340	153	39	19	4.9	8.6
16	11	93	b23	195	172	1,390	1,260	142	40	16	4.9	8.3
17	13	109	b24	210	224	1,180	1,220	136	43	15	4.8	8.6
18	12	73	b27	172	220	1,160	1,210	123	40	14	4.8	15
19	14	79	31	169	224	1,280	1,280	111	39	13	4.6	10
20	15	52	42	166	290	1,850	1,350	104	35	12	4.4	10
21	16	49	49	166	327	2,050	1,050	98	30	11	4.4	d11
22	20	46	50	188	436	1,850	749	96	51	9.8	4.4	8.9
23	19	44	91	175	477	1,570	617	93	55	9.2	4.4	7.8
24	19	41	98	268	1,350	1,490	541	91	48	8.9	4.4	7.5
25	19	46	248	425	1,100	1,210	521	82	46	8.3	4.3	8.9
26	18	65	318	361	1,800	1,240	625	78	43	8.0	5.4	8.9
27	17	810	610	342	2,030	1,710	610	156	43	8.3	5.2	8.6
28	17	1,400	4,260	290	2,480	1,680	521	182	44	7.8	5.0	8.0
29	16	1,230	4,760	282	-	2,040	515	128	72	7.8	4.9	7.5
30	19	709	2,940	188	-	2,150	749	111	64	7.8	5.8	7.5
31	20	-	1,790	220	-	1,790	-	89	-	7.5	5.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	452	20	11	14.6	0.032	0.04	897
November	5,297	1,400	20	177	.385	.43	10,510
December	18,611	4,760	23	600	1.30	1.50	36,910
Calendar year 1945	-	-	-	-	-	-	-
January	18,336	2,920	166	591	1.28	1.48	36,370
February	13,966	2,480	169	499	1.08	1.13	27,700
March	56,640	3,100	1,160	1,827	3.97	4.58	112,300
April	31,788	1,610	515	1,060	2.30	2.57	63,050
May	6,297	515	78	203	.441	.51	12,490
June	1,614	82	30	53.8	.117	.13	3,200
July	621.4	56	7.5	20.0	.043	.05	1,230
August	164.8	7.5	4.3	5.32	.012	.01	327
September	275.7	21	5.2	9.19	.020	.02	547
Water year 1945-46	154,062.9	4,760	4.3	422	.917	12.45	305,500

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of gage height 1 foot lower.

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 1945 to September 1946

Snake River main stem, Idaho

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Aug. 7	Snake River.....	Columbia River...	SW¼ sec. 5, T. 3 S., R. 35 E., 1 mile southwest of Blackfoot, Idaho, and below all diversions near Blackfoot.	210
20	....do.....	....do.....	....do.....	187
Oct. 8	....do.....	....do.....	At highway bridge in SE¼ sec. 35, T. 9 N., R. 30 E., 2½ miles east of Pasco, Wash.	19,700
Feb. 6	....do.....	....do.....	....do.....	32,000
Aug. 20	....do.....	....do.....	....do.....	17,300

Henrys Fork Basin, Idaho

July 5	Big Springs Creek...	Henrys Fork.....	Sec. 32, T. 14 N., R. 44 E., at site of former station half a mile southeast of Big Springs railroad station and ¼ mile below road bridge.	178

Big Lost River Basin, Idaho

Apr. 28	Zollinger ditch....	Big Lost River...	Sec. 32, T. 8 N., R. 23 E., 500 feet east of gaging station on Big Lost River (east channel) above Mackay Reservoir, 3 miles above Mackay Dam, and 7½ miles northwest of Mackay.	8.31
June 2	....do.....	....do.....	....do.....	8.99

Portneuf River Basin, Idaho

May 27	Portneuf River.....	Snake River.....	SE¼ sec. 1, T. 7 S., R. 34 E., at bridge in golf course, ⅝ mile upstream from Cusick Creek and 2.9 miles above gaging station on Portneuf River at Pocatello.	358

Tributaries between Portneuf River and Salmon Falls Creek, Idaho

May 2	Blue Lakes Outlet (2 channels).	Snake River.....	SW¼SW¼ sec. 28, T. 9 S., R. 17 E., at mouth, 4 miles north of Twin Falls.	205
June 20	....do.....	....do.....	....do.....	205
Aug. 6	....do.....	....do.....	....do.....	225
Sept.19	....do.....	....do.....	....do.....	231

Salmon Falls Creek Basin, Idaho

Aug. 15	Salmon Falls Creek..	Snake River.....	SW¼ sec. 6, T. 14 S., R. 15 E., 150 feet above trail into canyon, about ¾ mile northwest of lower end of second tunnel of Salmon River Canal Co. canal, about 2 miles below Salmon River Canal Co. dam, and 8 miles west of Rogerson.	17.2
15	....do.....	....do.....	NE¼ sec. 7, T. 13 S., R. 15 E., at trail into canyon, about 8 miles below Salmon River Canal Co. dam, and 9 miles southwest of Hollister.	20.0

Big Wood River Basin, Idaho

July 8	Big Wood (Malad) River.	Snake River.....	NW¼NW¼ sec. 36, T. 6 S., R. 13 E., 5,600 feet above King Hill Diversion dam and 4 miles northeast of Hagerman.	694
Aug. 5	....do.....	....do.....	....do.....	766
July 8	....do.....	....do.....	SE¼SE¼ sec. 26, T. 6 S., R. 13 E., 4,450 feet above King Hill Diversion dam and 4 miles northeast of Hagerman.	934
8	....do.....	....do.....	NE¼NE¼ sec. 35, T. 6 S., R. 13 E., 3,500 feet above King Hill Diversion dam and 3½ miles northeast of Hagerman.	940
Aug. 5	King Hill Canal and Malad River power-plant diversion.	Big Wood (Malad) River.	NW¼NE¼ sec. 34, T. 6 S., R. 13 E., just above dividing structure, below spillway and U. S. Highway 30 crossing, and 3½ miles north of Hagerman.	840

Tributaries and diversions between Big Wood River and Owyhee River, Idaho

July 24	Canyon Creek.....	Snake River.....	Sec. 36, T. 2 S., R. 6 E., immediately below head gates of Mountain Home feeder canal and 5 miles north of Mountain Home.	1.09
Mar. 22	Mountain Home feeder canal.	Canyon Creek.....	Sec. 36, T. 2 S., R. 6 E., 150 feet below head of Mountain Home cooperative canal and 4½ miles north of Mountain Home.	13.0
June 18	....do.....	....do.....	....do.....	3.91

Miscellaneous discharge measurements in Snake River Basin during water year October 1945 to September 1946--Continued

Tributaries and diversions between Big Wood River and Owyhee River, Idaho--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 17	Ake lateral No. 2...	Mountain Home feeder canal.	Sec. 36, T. 2 S., R. 6 E., at head, 5 miles north of Mountain Home.	2.86
Dec. 17	....do.....	....do.....	....do.....	.22
Feb. 6	....do.....	....do.....	....do.....	0
Mar. 22	....do.....	....do.....	....do.....	0
Apr. 16	....do.....	....do.....	....do.....	5.16
May 22	....do.....	....do.....	....do.....	5.97
June 18	....do.....	....do.....	....do.....	6.48
July 24	....do.....	....do.....	....do.....	2.72
Sept.18	....do.....	....do.....	....do.....	1.96
Aug. 8	Bruneau River.....	Snake River.....	NE¼ sec. 9, T. 10 S., R. 7 E., 200 yards below East Fork, 7 miles northwest of Winter Camp Ranch, and 22 miles southeast of Bruneau.	58.9
21	....do.....	....do.....	Sec. 13, T. 9 S., R. 6 E., at Roberson trail crossing, 6 miles below East Fork, 11 miles northwest of Winter Camp Ranch, and 17 miles southeast of Bruneau.	42.2
8	East Fork Bruneau River.	Bruneau River....	NE¼ sec. 9, T. 10 S., R. 7 E., at mouth, 7 miles northwest of Winter Camp Ranch and 22 miles southeast of Bruneau.	1.36
			Malheur River Basin, Oreg.	
Mar. 25	Cottonwood Creek....	Malheur River....	Sec. 32, T. 19 S., R. 36 E., near Drewsey	49.4
Apr. 2	....do.....	....do.....	....do.....	61.6
12	....do.....	....do.....	....do.....	67.5
22	....do.....	....do.....	....do.....	80.5
25	....do.....	....do.....	....do.....	67.2
Oct. 16	Warmsprings Creek...	North Fork Malheur River.	Near line between secs. 1 and 2, T. 19 S., R. 37 E., near Beulah.	4.7
Mar. 21	....do.....	....do.....	....do.....	115
Aug. 21	....do.....	....do.....	....do.....	†2
			Payette River Basin, Idaho	
Sept. 4	Stratton Creek.....	Deadwood River...	SW¼ 4 sec. 11, T. 13 N., R. 7 E., below power plant, ½ mile northwest of Deadwood Mine, and 13 miles south of Landmark ranger station.	3.15
			Weiser River Basin, Idaho	
May 25	Johnson Creek.....	Weiser River.....	SE¼ sec. 36, T. 17 N., R. 3 W., above Johnson Park Creek and 10 miles northwest of Council.	38.8
Oct. 9	Johnson Park Creek..	Johnson Creek....	SE¼ sec. 36, T. 17 N., R. 3 W., at mouth and 10 miles northwest of Council.	†.3
May 25	....do.....	....do.....	....do.....	19.2
July 7	....do.....	....do.....	....do.....	1.41
Aug. 7	....do.....	....do.....	....do.....	.30
Sept. 8	....do.....	....do.....	....do.....	.44
			Salmon River Basin, Idaho	
Jan. 16	Salmon River.....	Snake River.....	Near section line between secs. 21 and 28, T. 8 N., R. 14 E., at highway bridge, above Alturas Lake Creek and ½ mile west of Obsidian.	23.7

† Estimated.

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