Surface Water Supply of the United States 1948

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, Utah, Washington, and Wyoming and other agencies, by personnel of the Water Resources Division under the direction of:

C. G. Paulsen	Chief Hydraulic Engineer
J. V. B. Wells	Chief, Surface Water Branch
B. J. Peterson	Chief, Annual Reports Section

District Engineers (Surface Water)

G. H. Canfield (succeeded by K. N. Phillips)	Portland, Oreg.
Lynn Crandall	Idaho Falls, Idaho
Robert Follansbee (succeeded by F. M. Bell)	Denver, Colo.
T. R. Newell	Boise, Idaho
F. M. Veatch	Tacoma, Wash.
M. T. Wilson	Salt Lake City, Utah

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SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1948

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, 1948. 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 11,370 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1948, 5,960 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 the 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.

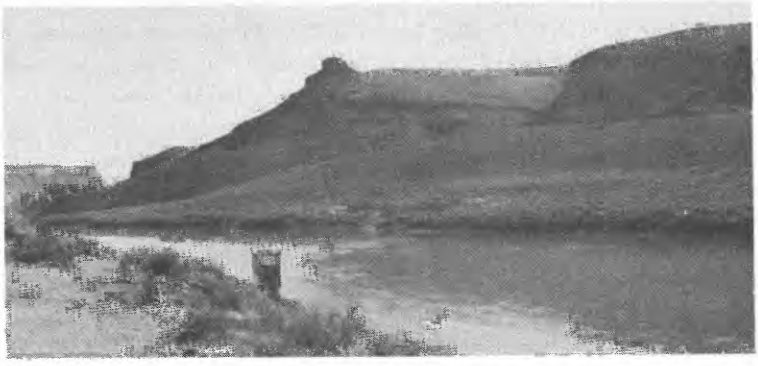
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject 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

A. SNAKE RIVER AT KING HILL, IDAHO.



B. SNAKE RIVER NEAR MURPHY, IDAHO.

C. SNAKE RIVER NEAR CLARKSTON, WASH.

FIGURE 1.—GAGING-STATION STRUCTURES

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

The description of the station gives the type of gage, location, drainage area, records available, average discharge, extremes of discharge, general remarks, and notations of revisions of previously published record. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having less than 10 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). 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. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

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

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

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

In the table of 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.

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

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is usually given in the first report in which data for 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 or 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. Even at those stations where adjustments are made, in some instances large errors in computed yields may occur when relatively large negative adjustments are applied or when evaporation is large in comparison with the observed discharge. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

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

PUBLICATIONS

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

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
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 division of the Geological Survey as follows:

East of the Mississippi River:
Albany, N. Y., 526 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 411 Grand Theater Building.
Augusta, Maine, 420 Statehouse.
Baton Rouge, La., 538 Florida Street.
Boston, Mass., 939 Post Office Building.
Champaign, Ill., 605 South Neil Street.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., Cabell Hall, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., 106 Engineering Building, University of Maryland.
Columbia, S. C., 207 Creason Building.
Columbus, Ohio, 2590 West Hardin St., Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 311 West Washington Street.
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.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
Ocala, Fla., Building 211, Camp Roosevelt.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 908 Capitol Club Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Washington, D. C., General Services Administration Building.

West of the Mississippi River:
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 7 Eltinge Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 476 New Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 510 Rudge-Guenzel Building.
Los Angeles, Calif., 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 203 Council Building.
Pierre, S. Dak., 207 Federal Building.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., 211 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 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 stream 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 covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

Numbers of water-supply papers containing results of stream measurements, 1899-1948 (for basins included see p. 6).

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a	35	b35, 36	36	36	36	c36, 37	37	37	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
1947	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094
1948	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124

a Rating tables and index to WSP 35-39 contained in WSP 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.
g Rating tables and index to WSP 47-52 contained in WSP 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Schuylkill River 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.
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.

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

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 8), contains, 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.

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.....	1848-1915	415
Massachusetts, Hydrology of, Part 1, Summary of stream-flow and precipitation records.	1863-1945	1105
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.....	1894-1928	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.
Do	1904-47	Special Report 20, Water Resources and Hydrology of southeastern Alabama.	Do
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	State Water Commission.
Florida	1898-1946	Bull. 31, Springs of Florida	Florida Geological Survey.
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.
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	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	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.	Department of Conservation and Development.
Do	1889-1936	Bull. 39, Discharge records of North Carolina streams.[2]	Do.
Do	1866-1945	Hydrologic Data on the Neuse River Basin.	Do.
Do	1820-1945	Hydrologic Data on the Cape Fear River Basin.	Do.
Do	1866-1945	Hydrologic Data on the Yadkin-Pee Dee River Basin.	Do.
Do	1872-1945	Hydrologic Data on the Catawba and Broad River Basins	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, Part 1	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.
Do	1936-41	Bull. 10, Water resources of the State of Oregon.	Do.

1 Contains records of yearly discharge only.
2 Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
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.
South Carolina	1884-1946	Bull. 17, Summary of records of surface water supply of South Carolina.	South Carolina Research, Planning and Development Board.
Tennessee.....	1874-1924	Bull. 34, Water resources of Tennessee[3]....	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....	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin.....	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

3 Includes records of discharge for all stations in North Carolina in the Tennessee River Basin.
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 in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports:

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, part 1, New England rivers.
799	The floods of March 1936, part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February, 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.
914	Texas floods of 1938 and 1939.
966	Minor floods of 1938 in North Atlantic States.
967-A	Floods of September 1939 in Colorado River Basin below Boulder (Hoover) 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.
1066	Floods of August 1940 in the southeastern States.
1080	Floods of May-June 1948 in Columbia River Basin.

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 1947 to September 1948 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, 1932-48	Idaho Water District 36.
Lake Milner.....	Near Milner, Idaho.....	1930-48† (gage heights only).	Do.
Malheur River.....	SW¼ sec. 32, T. 20 S., R. 41 E., near Namorf, Oreg.	1931-48†.....	Oregon State engineer.
Do.....	SW¼ sec. 21, T. 18 S., R. 45 E., below Nevada Dam, near Vale, Oreg.	1936-42, 1944-48†	Do.
Snake River tributaries.	Near Irwin, Idaho.....	1940-48‡.....	Idaho Water District 36.
Teton River tributaries and diversions.	Near Driggs, Idaho.....	1934-48‡.....	Do.
Wallowa Lake Reservoir.	Sec. 5, T. 3 S., R. 45 E., at outlet, near Joseph, Oreg.	1925-48† (gage heights only).	Oregon State engineer.
Wallowa River.....	Sec. 5, T. 3 S., R. 45 E., below Wallowa Lake, near Joseph, Oreg.	1926-48†.....	Do.

† Records for some earlier years published in water-supply papers of the Geological Survey.
‡ Fragmentary.
Note.- Of the records for the stations operated by the Oregon State engineer, those for 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 1937-41 in Bulletin 10; those for 1942-48 have not been published. Records for the stations operated by Idaho Water District 36 are published in the annual reports of that organization.

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, succeeded by F. A. Stewart, 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 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, Pacific Power & Light Co., and Warmsprings Irrigation District.

Washington: Bonneville Power Administration, Washington Water Power Co.

The stream-gaging work was conducted by the water resources division of the Geological Survey--Carl G. Paulsen, chief hydraulic engineer, and Joseph V. B. Wells, chief of the surface water branch. 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 Jacirto, T. R. Newell).

Oregon: G. H. Canfield until August 31, 1948, succeeded by K. N. Phillips on October 22, 1948 (except for Snake River at Oxbow, T. R. Newell), the work being done in collaboration with C. E. Stricklin, State engineer.

Utah: M. T. Wilson (Clear Creek near Naf, Idaho).

Washington: F. M. Veatch.

Wyoming: Grassy Lake, Jackson Lake, and Snake River at Moran, Lynr Crandall; Cottonwood Creek near Smoot, Salt River near Smoot and at Wyoming-Idaho State line, and Swift Creek near Afton, Robert Follansbee until July 23, 1948, succeeded by F. M. Bell on July 26, 1948; 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, chief, annual reports section.

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 1948 (1908-10, fragmentary).

Extremes.- Maximum contents during year, 850,820 acre-feet June 22, 23, July 3 (elevation, 6,769.15 feet); minimum, 223,050 acre-feet Sept. 18 (elevation, 6,742.03 feet).
1908-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	465,140	493,160	523,280	549,210	578,650	604,770	631,090	644,560	812,680	850,300	577,700	333,200
2	466,280	494,320	524,440	550,150	579,120	605,480	632,050	644,560	817,480	850,560	566,380	324,540
3	467,660	495,700	525,370	551,550	579,600	606,440	633,010	644,080	822,290	850,820	555,780	316,390
4	468,580	496,860	526,070	552,250	580,070	607,160	633,730	644,080	826,610	850,300	545,470	308,240
5	469,260	498,470	526,770	553,900	580,780	607,870	634,940	643,600	829,160	849,530	536,110	299,720
6	470,410	499,160	527,700	555,550	581,260	608,350	635,900	643,110	831,700	849,020	527,000	289,330
7	471,320	499,630	528,860	556,490	581,970	608,830	636,860	642,630	834,760	844,930	518,170	282,360
8	472,470	501,240	529,790	559,080	582,440	609,550	637,580	643,840	838,320	838,830	508,870	274,820
9	473,390	503,090	530,730	560,490	583,150	610,500	637,580	644,320	840,860	831,190	501,930	267,690
10	474,070	504,010	531,430	561,200	584,100	611,460	637,820	644,320	842,390	824,070	494,320	260,820
11	474,990	505,160	532,360	562,140	585,290	612,170	638,300	644,080	843,410	815,720	489,700	255,440
12	475,680	506,090	533,070	563,320	586,240	612,890	638,540	643,840	844,420	806,370	485,320	250,070
13	476,600	506,780	533,770	564,260	587,190	613,370	638,540	643,600	844,420	796,260	481,860	246,140
14	477,740	507,710	534,700	564,970	588,370	614,320	638,540	643,840	845,440	783,720	477,740	240,180
15	478,200	508,640	535,410	565,680	589,560	615,760	638,540	643,110	846,460	771,440	469,490	233,040
16	479,120	509,800	536,340	566,150	590,510	616,470	638,540	643,600	846,460	760,980	460,550	226,510
17	480,490	510,500	537,040	566,850	591,460	617,190	638,540	645,760	847,230	749,770	452,370	223,450
18	481,180	511,200	537,510	567,560	592,880	618,380	639,750	653,000	847,480	738,870	442,360	223,050
19	482,100	512,130	538,210	568,500	594,060	619,820	639,990	661,720	847,480	727,250	433,760	224,880
20	483,010	513,060	539,380	571,570	594,540	621,010	639,990	672,620	848,510	714,930	424,280	226,720
21	483,700	513,750	540,320	572,270	595,250	621,970	639,990	685,540	849,020	704,860	414,590	227,740
22	484,620	514,680	541,490	573,220	598,570	623,160	640,470	699,460	850,820	693,350	405,870	228,760
23	485,320	515,850	542,430	573,690	599,520	623,880	640,950	713,210	850,820	679,450	397,370	229,370
24	486,240	516,780	543,360	574,390	600,230	624,600	641,190	726,010	850,300	665,360	389,800	230,190
25	487,160	517,470	544,060	574,860	600,950	625,080	643,110	738,870	849,790	658,820	382,490	231,000
26	488,090	518,400	544,770	575,340	601,660	626,280	643,350	754,000	849,790	647,680	375,400	231,200
27	488,780	519,100	545,230	575,810	602,620	626,760	643,350	768,940	850,050	635,900	366,800	231,610
28	489,470	520,030	545,940	576,510	603,100	627,240	643,110	782,220	850,050	624,120	362,420	232,430
29	490,620	520,730	546,870	576,990	604,050	627,960	643,350	793,510	849,790	611,930	354,960	233,450
30	491,550	521,890	547,810	577,460	-	628,920	643,840	802,580	850,300	599,760	347,950	234,260
31	492,470	-	548,510	577,940	-	629,890	-	807,380	-	588,370	340,140	-

Monthly elevation and contents, water year October 1947 to September 1948

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	6,753.15	463,990	-
Oct. 31	6,754.39	492,470	+28,480
Nov. 30	6,755.66	521,890	+29,420
Dec. 31	6,756.80	548,510	+26,620
Calendar year 1947	-	-	+50,040
Jan. 31	6,758.05	577,940	+29,430
Feb. 29	6,759.15	604,050	+26,110
Mar. 31	6,760.23	629,890	+25,840
Apr. 30	6,760.81	643,840	+13,950
May 31	6,767.44	807,380	+163,540
June 30	6,769.13	850,300	+42,920
July 31	6,758.49	588,370	-261,930
Aug. 31	6,747.60	340,140	-248,230
Sept.30	6,742.58	234,260	-105,880
Water year 1947-48	-	-	-229,730

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 1948.

Average discharge.- 45 years, 1,415 second-feet.

Extremes.- Maximum discharge during year, 8,770 second-feet July 13 (gage height, 9.44 feet); minimum daily, 4 second-feet on many days.
1903-48: Maximum discharge, 15,000 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 Apr. 7, 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	5	4				5	1,050	7,010	2,980	6,790	4,660
2	8	4	4				5	1,190	7,370	2,990	6,640	5,110
3	8	4	4				5	1,220	7,420	2,990	6,320	4,800
4	8	4	4				5	1,180	7,420	2,940	6,010	4,720
5	8	4	4				5	1,180	7,470	2,460	5,720	4,870
6	8	4	4				5	1,190	7,510	3,100	5,490	4,870
7	5	4	4				5	1,170	7,460	5,160	5,330	4,780
8	4	4	4				291	1,200	7,560	5,600	5,250	4,490
9	4	4	4				495	1,350	7,600	5,670	4,980	4,140
10	4	4	4				495	1,350	7,580	5,690	4,120	3,560
11	4	4	4				495	1,350	7,560	6,720	2,860	2,990
12	4	4	4				495	1,360	7,550	6,930	2,210	2,880
13	4	4	4				495	1,370	6,500	8,180	2,570	2,880
14	5	4	4				490	1,380	5,120	8,430	4,070	3,840
15	5	4	4				485	1,410	5,460	7,120	5,490	4,000
16	5	4	4	4	4	5	485	1,420	4,900	7,050	5,400	2,930
17	5	4	4				485	492	4,400	7,560	5,410	1,690
18	5	4	4				490	24	4,360	7,580	5,480	616
19	5	4	4				562	24	3,890	7,330	5,480	28
20	5	4	4				613	23	3,860	7,150	5,720	28
21	5	4	4				613	26	3,940	7,150	5,360	27
22	4	4	4				613	28	4,680	7,350	5,190	28
23	4	4	4				656	25	4,680	7,420	4,980	28
24	4	4	4				684	27	4,260	7,330	4,610	27
25	4	4	4				710	86	3,780	7,190	4,340	27
26	4	4	4				789	442	3,080	7,170	4,080	27
27	4	4	4				818	1,980	3,080	7,190	3,880	27
28	4	4	4				824	3,270	3,060	7,240	4,370	27
29	4	4	4				836	4,270	2,650	7,200	4,440	27
30	4	4	4		-		879	5,140	2,680	6,860	4,380	27
31	4	-	4		-		-	6,180	-	6,760	4,580	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	157	8	4	5.1	311
November	121	5	4	4.0	240
December	124	4	4	4.0	246
Calendar year 1947	538,349	8,090	3	1,475	1,068,000
January	124	-	-	4	246
February	116	-	-	4	230
March	155	-	-	5	307
April	13,833	879	5	461	27,440
May	42,407	6,180	23	1,368	84,110
June	163,890	7,600	2,650	5,463	325,100
July	192,490	8,430	2,460	6,209	381,800
August	151,550	6,790	2,210	4,889	300,600
September	68,154	5,110	27	2,272	135,200
Water year 1947-48	633,121	8,430	4	1,730	1,256,000

Note.- Stage-discharge relation affected by ice Dec. 24 to Apr. 6, Apr. 8, 9. Gates at dam immediately upstream are closed during winter period and discharge at station consists of leakage at gates and spring flow in vicinity of dam. Staff-gage readings used Oct. 1 to Apr. 7, Sept. 19-30.

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 1948.

Extremes.- Maximum discharge observed during year, 24,200 second-feet June 3 (gage height, 9.66 feet); minimum daily, 1,090 second-feet Feb. 11, during period of ice effect; minimum gage height observed, 2.33 feet Feb. 11.

1944-48: Maximum discharge observed, that of June 3, 1948; minimum daily, that of Feb. 11, 1948; minimum gage height observed, 2.29 feet Mar. 6, Apr. 3, 1945.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Gage read once daily except May 29 to June 20, when it was read twice daily. Diversions from tributaries above station. Some regulation by Jackson Lake (see p. 14).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,330	2,160	1,870	1,600	1,420	1,440	1,600	5,360	21,900	10,500	9,660	6,250
2	2,330	2,220	1,870	1,600	1,420	1,360	1,710	4,950	22,700	10,500	9,560	6,110
3	2,300	2,180	1,870	1,600	1,420	1,410	1,890	4,640	23,900	9,800	9,310	6,250
4	2,320	2,160	1,840	1,600	1,420	*1,420	1,860	4,830	23,200	9,620	8,900	6,390
5	2,300	2,180	1,840	1,600	1,420	1,420	1,830	5,200	22,000	9,700	8,760	6,360
6	2,320	2,160	1,840	1,590	1,420	1,420	1,790	5,440	21,900	9,870	8,760	6,360
7	2,300	2,130	1,840	1,670	1,420	1,420	1,670	6,870	22,500	9,980	8,730	6,360
8	2,280	2,150	1,790	1,710	1,420	1,410	1,640	5,890	22,500	10,300	8,180	6,050
9	2,300	2,130	1,730	1,760	1,420	1,400	1,700	5,890	23,300	10,300	8,080	5,750
10	2,320	2,070	1,650	1,700	1,420	1,380	2,220	5,570	22,600	10,600	7,780	5,440
11	2,300	2,050	1,680	1,640	1,090	1,350	2,180	5,460	22,200	11,000	7,240	4,950
12	a2,260	2,020	1,650	1,620	1,300	1,350	2,110	5,280	21,600	11,200	6,450	4,640
13	a2,230	2,070	1,680	1,470	1,400	1,360	2,100	5,570	20,600	11,300	5,150	4,520
14	a2,230	2,050	1,680	1,440	1,400	1,400	2,270	6,110	18,600	12,600	4,900	4,980
15	a2,230	2,030	*1,670	1,440	1,530	1,400	2,440	6,630	17,500	12,600	6,810	5,440
16	2,230	2,070	1,700	1,430	1,460	1,400	3,510	7,650	15,700	10,900	7,120	5,510
17	2,250	2,080	1,680	1,430	1,500	1,400	3,750	9,280	14,900	10,600	7,490	4,610
18	2,250	2,070	1,650	1,430	1,530	1,400	3,750	9,940	13,900	11,000	7,560	3,770
19	2,230	2,050	1,670	1,430	1,520	1,400	3,750	11,800	13,500	11,200	7,490	3,070
20	2,230	2,020	1,620	1,430	1,520	1,400	3,510	14,000	12,700	10,900	7,690	2,780
21	2,220	1,970	1,620	1,440	1,520	1,400	3,750	15,300	12,400	10,600	7,590	2,470
22	2,200	1,840	1,650	a1,500	1,540	1,450	4,280	15,100	14,400	10,600	7,210	2,280
23	2,270	1,860	1,600	1,620	1,500	1,540	4,280	14,700	13,900	10,700	7,210	2,150
24	2,280	1,840	a1,600	*1,600	1,380	1,620	4,360	14,600	12,000	10,700	6,750	2,100
25	2,220	1,870	a1,600	1,540	1,460	1,560	4,500	15,300	11,800	10,500	6,310	2,050
26	2,150	1,840	a1,600	1,320	1,460	1,560	3,980	16,000	11,400	10,300	6,190	2,030
27	2,160	1,890	a1,600	1,350	1,500	1,540	3,920	17,900	11,300	10,200	5,780	1,990
28	2,160	1,890	a1,600	1,350	1,440	1,560	4,450	19,500	10,300	10,200	6,080	1,990
29	2,160	1,790	a1,600	1,350	1,440	1,600	5,800	21,200	10,000	10,200	a6,100	2,000
30	2,180	1,860	a1,600	1,370	-	1,700	5,490	20,600	10,000	10,100	6,110	1,990
31	2,230	-	a1,600	1,390	-	1,650	-	20,300	-	9,690	6,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	69,770	2,330	2,150	2,251	138,400
November	60,700	2,220	1,790	2,023	120,400
December	52,490	1,870	1,600	1,693	104,100
Calendar year 1947	1,988,720	21,300	1,400	5,449	3,944,000
January	47,020	1,760	1,320	1,517	93,260
February	41,690	1,540	1,090	1,438	82,690
March	45,120	1,700	1,350	1,455	89,490
April	92,090	5,800	1,600	3,070	182,700
May	326,860	21,200	4,640	10,540	648,300
June	515,200	23,900	10,000	17,170	1,022,000
July	328,260	12,600	9,620	10,590	651,100
August	226,950	9,660	4,900	7,321	450,100
September	126,640	6,390	1,990	4,221	251,200
Water year 1947-48	1,932,790	23,900	1,090	5,281	3,834,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Heise.
Note.- Stage-discharge relation affected by ice Jan. 1-3, 16-21, Jan. 26 to Feb. 14, Mar. 5-22.

Snake River near Heise, Idaho

Location.- Water-stage recorder, lat. 43°37', long. 111°40', in sec. 5, T. 3 N., 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 1948, except winters of 1914-24.

Average discharge.- 38 years, 6,739 second-feet.

Extremes.- Maximum discharge during year, 30,500 second-feet June 4 (gage height, 9.04 feet); minimum, 1,960 second-feet Jan. 27 (gage height, 1.68 feet).
1910-48: 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 (4,110 acre-feet diverted during year), which diverts 1 mile upstream from station. About 110,000 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,750	3,120	2,780	b2,450	b2,200	2,120	2,250	9,150	27,000	12,000	10,700	7,410
2	3,750	3,060	2,880	b2,500	b2,200	2,130	2,420	8,170	28,600	12,300	10,700	7,350
3	3,660	3,170	2,870	b2,500	b2,200	2,180	2,660	7,580	30,100	12,200	10,600	7,780
4	3,600	3,170	2,850	2,420	b2,250	2,140	2,740	7,460	30,100	11,800	10,300	7,550
5	3,540	3,210	2,830	2,500	b2,250	2,130	2,640	7,550	28,500	11,300	10,100	7,380
6	3,520	3,150	2,810	2,500	*b2,250	2,120	2,560	7,780	27,400	10,400	9,800	7,520
7	3,500	3,050	2,830	2,530	b2,200	2,130	2,480	9,280	27,700	10,100	9,520	7,520
8	3,480	3,080	2,800	2,740	b2,200	2,180	2,400	11,000	28,200	11,900	9,380	7,490
9	3,460	3,120	2,780	2,940	b2,200	2,160	2,440	9,940	28,700	12,000	9,490	7,350
10	3,400	3,060	2,660	2,730	b2,200	2,130	2,730	8,920	28,100	11,900	9,150	6,990
11	3,360	3,060	2,580	2,600	b2,200	2,120	3,140	8,510	27,100	11,400	8,540	6,680
12	3,300	3,060	2,630	2,530	b2,200	2,080	3,060	8,360	26,100	12,400	7,380	6,040
13	3,230	3,010	2,500	2,480	b2,200	2,090	3,010	8,450	25,000	12,400	6,450	5,910
14	3,230	3,050	2,530	2,360	b2,200	2,140	3,060	9,050	23,000	13,400	6,260	5,680
15	3,230	3,050	2,610	b2,350	b2,300	2,180	3,300	10,100	20,600	13,800	7,210	6,260
16	3,250	3,050	2,600	b2,350	b2,380	2,140	3,970	11,500	19,300	12,400	8,700	6,760
17	3,300	3,030	2,470	b2,350	b2,450	2,130	5,140	14,100	17,900	12,000	8,730	6,320
18	3,340	2,990	2,550	b2,350	b2,450	2,140	6,240	16,800	16,800	12,400	8,670	5,540
19	3,320	3,010	2,550	b2,350	b2,450	2,140	6,240	17,000	15,800	12,400	8,760	5,180
20	3,280	2,970	2,530	b2,330	b2,400	2,140	5,880	19,600	15,500	12,200	8,580	4,300
21	3,270	2,850	2,500	b2,300	2,310	2,080	6,390	20,800	15,200	11,800	8,760	3,790
22	3,230	2,850	2,500	b2,350	2,340	2,080	7,290	22,100	16,900	11,600	8,510	3,580
23	3,230	2,800	*2,560	b2,440	2,360	2,130	7,640	21,500	18,400	11,600	8,360	3,420
24	3,230	2,800	2,500	2,440	*2,250	2,240	7,210	20,100	17,700	11,700	8,270	3,300
25	3,230	2,850	b2,500	2,420	2,160	2,310	7,350	20,200	16,800	11,700	7,870	3,250
26	3,190	2,880	b2,480	2,400	2,200	2,270	6,970	21,000	15,600	11,400	7,610	3,210
27	3,150	2,960	b2,480	2,160	2,220	2,200	6,390	22,000	13,800	11,300	7,320	3,080
28	3,120	2,920	b2,500	2,050	2,180	2,200	6,840	24,200	13,200	11,200	7,020	3,080
29	3,120	2,780	b2,450	b2,100	2,120	2,250	9,380	26,000	12,700	11,200	7,270	3,080
30	3,150	2,680	b2,420	b2,150	-	2,340	10,300	27,100	12,000	11,200	7,410	3,080
31	3,140	-	b2,420	b2,200	-	2,340	-	26,400	-	10,800	7,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	103,560	3,750	3,120	3,341	205,400
November	89,840	3,210	2,680	2,995	178,200
December	80,950	2,880	2,420	2,611	160,600
Calendar year 1947	2,615,280	25,100	-	7,165	5,188,000
January	74,870	2,940	2,050	2,415	148,500
February	65,520	2,450	2,120	2,259	130,000
March	67,160	2,340	2,080	2,166	133,200
April	144,120	10,300	2,250	4,804	285,900
May	461,700	27,100	7,460	14,890	915,800
June	643,800	30,100	12,000	21,460	1,277,000
July	366,200	13,800	10,100	11,810	726,300
August	264,660	10,700	6,260	8,537	524,900
September	165,880	7,780	3,080	5,529	329,000
Water year 1947-48	2,528,260	30,100	2,050	6,908	5,015,000

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

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 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								64	7,460	4,960	9,010	6,800
2								64	7,370	5,330	8,850	6,800
3								144	7,640	5,040	8,800	6,940
4								172	7,540	5,120	8,670	7,050
5								295	7,620	5,550	8,590	7,010
6								394	7,670	6,370	8,420	7,090
7								413	8,190	7,370	8,140	7,020
8								496	8,950	8,360	7,920	7,010
9								515	9,410	8,710	7,380	7,020
10								602	9,690	9,260	7,230	6,540
11								925	8,590	8,930	6,800	6,140
12								1,060	9,740	9,690	6,700	5,680
13								1,330	9,630	9,480	6,670	5,920
14								1,280	9,570	9,360	6,620	5,830
15								1,830	9,460	9,670	6,770	6,230
16								1,940	9,560	9,570	7,130	6,320
17								2,790	9,550	9,220	7,330	6,030
18								3,190	9,260	9,460	7,310	4,990
19								3,660	9,090	9,440	7,550	3,330
20								4,230	7,590	9,510	7,370	2,960
21								4,450	5,670	9,400	7,440	2,870
22								4,730	4,140	9,530	7,280	2,880
23								5,220	3,310	9,500	7,190	2,810
24								5,880	2,840	9,420	7,100	2,740
25								6,620	2,630	9,220	6,860	2,730
26								7,390	2,730	9,330	6,970	2,660
27								7,830	2,680	9,220	6,770	2,580
28								7,900	3,120	9,350	6,600	2,530
29								7,960	3,910	9,240	6,720	2,510
30								7,800	4,400	9,240	6,870	2,510
31								7,410	-	9,210	6,750	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	98,584	7,960	64	3,180	195,500
June	209,010	9,740	2,630	6,937	414,600
July	263,060	9,690	4,960	8,496	521,800
August	229,810	9,010	6,600	7,413	455,800
September	149,530	7,090	2,510	4,934	296,600
The period	-	-	-	-	1,884,000

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 1948 (summer months only during some years).

Extremes.- Maximum discharge during year, 27,600 second-feet June 5 (gage height, 12.33 feet); minimum, 1,780 second-feet Sept. 15 (gage height, 4.98 feet).

1915-48: 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.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 17 to July 7, July 22 to Sept. 30)

5.0	1,810	7.0	6,370	11.0	21,600
5.4	2,370	8.0	9,790	12.0	26,000
6.0	3,500	9.0	13,500	12.9	30,000
6.5	4,780	10.0	17,500		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,710	3,480	3,520	3,050	b2,500	b3,600	3,570	12,400	24,200	12,000	4,100	2,760
2	3,730	3,350	3,780	2,310	*b2,700	b3,500	3,400	11,400	23,800	11,200	4,140	2,740
3	3,730	3,460	*3,780	2,610	b2,800	*b3,450	3,710	10,400	24,900	11,000	4,250	2,720
4	3,680	3,710	3,640	3,520	b2,800	b3,400	4,360	9,830	26,600	10,800	4,300	2,860
5	3,500	3,850	3,640	3,350	b2,900	b3,450	4,020	9,750	27,400	10,000	4,270	2,770
6	3,420	3,920	3,640	*3,480	b3,000	b3,400	4,020	9,680	26,800	8,310	4,220	2,670
7	3,330	3,870	3,590	3,660	b2,950	3,330	3,800	9,650	25,000	6,080	3,800	2,740
8	3,230	3,920	3,640	3,830	b2,950	3,570	3,640	11,600	23,900	4,900	3,830	2,830
9	3,310	4,100	3,550	4,100	b3,100	b3,550	3,480	13,400	23,700	5,090	4,270	2,880
10	3,330	4,070	3,400	4,410	b3,050	3,480	3,480	21,900	23,600	4,490	4,840	2,900
11	3,420	4,040	b3,300	4,380	b2,600	3,480	3,800	11,700	24,300	4,020	5,150	2,740
12	3,480	4,120	b3,150	4,100	b2,500	3,290	4,270	11,000	22,300	3,440	4,970	2,670
13	3,480	4,270	b3,050	3,680	b2,600	3,420	4,020	10,400	20,700	3,780	3,830	2,490
14	3,370	4,120	b3,150	2,860	b2,600	3,250	3,900	10,200	19,600	4,250	2,920	2,180
15	3,310	4,200	b3,200	2,510	b2,800	b3,500	3,950	10,600	17,300	5,120	2,460	1,980
16	3,230	4,250	b3,150	b2,400	b3,200	3,400	4,360	11,400	14,600	5,570	2,650	2,160
17	3,210	4,170	b3,500	b2,500	3,400	3,330	5,380	12,700	12,800	4,810	3,370	2,830
18	3,150	3,900	3,660	b2,550	3,580	3,230	6,630	14,900	11,600	4,720	3,400	3,130
19	a3,150	3,780	b3,700	b2,550	b3,800	3,250	8,070	17,400	10,800	5,060	3,030	3,420
20	3,130	3,680	b3,750	b2,500	b3,900	3,230	8,010	17,700	11,200	5,000	3,130	4,220
21	3,030	3,520	b3,750	b2,450	b3,900	3,210	7,730	21,000	12,300	4,780	3,150	4,020
22	3,070	3,370	3,710	b2,400	3,680	3,150	8,240	22,500	14,400	4,300	3,500	3,590
23	3,090	3,460	3,660	b2,800	b3,900	3,190	9,430	23,700	17,500	4,070	3,710	3,640
24	3,090	3,620	b3,650	b3,200	b3,900	3,370	9,610	23,600	19,500	4,070	3,640	3,370
25	3,070	3,520	3,660	b3,100	b3,900	3,750	9,320	21,300	20,300	4,330	3,680	3,420
26	3,190	3,520	3,250	b2,900	3,620	3,830	9,400	20,000	20,200	4,550	3,550	3,500
27	3,230	3,570	b3,000	b2,900	3,800	3,660	8,840	19,600	19,100	4,220	3,270	3,480
28	3,250	3,640	b3,050	b2,800	b3,750	3,290	8,240	20,000	17,000	4,120	2,980	3,350
29	3,350	3,640	b3,000	b2,400	b3,700	*3,330	8,730	21,700	15,200	4,120	2,740	3,190
30	3,400	3,480	b3,050	b2,400	-	3,420	11,400	23,400	13,500	4,250	2,860	3,090
31	3,480	-	b3,000	b2,450	-	3,550	-	24,600	-	4,270	2,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	103,150	3,730	3,030	3,327	204,600
November	113,600	4,270	3,350	3,787	225,300
December	106,570	3,780	3,000	3,438	211,400
Calendar year 1947	2,125,760	25,600	1,600	5,824	4,216,000
January	94,150	4,410	2,310	3,037	186,700
February	93,780	3,900	2,500	3,234	186,000
March	105,860	3,830	3,150	3,415	210,000
April	180,810	11,400	3,400	6,027	358,600
May	481,410	24,600	9,650	15,530	954,900
June	584,100	27,400	10,800	19,470	1,159,000
July	176,720	12,000	3,440	5,701	350,500
August	112,860	5,150	2,460	3,641	223,900
September	90,340	4,220	1,980	3,011	179,200
Water year 1947-48	2,243,350	27,400	1,980	6,129	4,450,000

* 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.

b Stage-discharge relation affected by ice.

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 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								427	3,000	2,730	3,460	2,480
2								482	3,090	2,620	3,320	2,540
3								597	3,190	2,590	3,180	2,520
4								595	3,050	2,570	3,210	2,540
5								589	2,960	2,810	3,080	2,480
6								634	2,890	3,200	3,080	2,440
7								628	2,750	3,270	3,100	2,390
8								482	3,030	3,450	3,060	2,490
9								485	3,690	3,670	2,870	2,470
10								610	3,800	3,760	2,910	2,420
11								723	3,860	3,720	2,910	2,270
12								1,010	3,860	3,300	2,850	2,270
13								1,100	3,820	3,280	2,860	2,130
14								1,090	3,810	3,630	2,730	2,060
15								1,460	3,760	3,950	2,240	1,770
16								1,630	3,760	4,040	2,160	1,800
17								2,010	3,810	3,940	2,300	2,300
18								2,200	3,690	3,930	2,740	2,000
19								2,370	3,460	3,960	2,670	1,360
20								2,400	3,350	3,960	2,720	1,320
21								2,450	2,980	3,860	2,680	1,330
22								2,550	2,070	3,880	2,660	1,570
23								2,600	1,710	3,710	2,550	1,620
24								2,800	1,460	3,650	2,730	1,600
25								3,010	1,450	3,680	2,970	1,580
26								3,100	1,500	3,850	2,940	1,340
27								3,190	1,560	3,770	2,700	1,170
28								3,210	1,830	3,720	2,540	1,140
29								3,040	2,110	3,660	2,410	1,130
30								2,830	2,480	3,520	2,380	1,120
31								3,000	-	3,600	2,490	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	53,302	3,210	427	1,719	105,700
June	87,780	3,860	1,450	2,926	174,100
July	109,280	4,040	2,570	3,525	216,800
August	86,500	3,460	2,160	2,790	171,600
September	57,650	2,540	1,120	1,922	114,300
The period	-	-	-	-	782,500

Snake River 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 1948.

Extremes.- Maximum discharge during year, 23,900 second-feet June 6 (gage height, 10.52 feet); minimum, 294 second-feet July 14; minimum gage height, 0.82 foot Sept. 4.

1910-48: 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. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,620	3,490	3,700	2,170	2,270	3,320	3,440	11,300	21,200	10,100	928	498
2	2,690	3,490	3,850	2,160	2,450	3,250	3,220	a10,600	20,500	9,380	987	440
3	2,680	3,540	3,880	3,270	2,620	3,200	3,410	10,100	21,200	9,130	1,220	425
4	2,700	3,870	3,790	3,360	2,520	3,080	4,050	9,550	22,700	9,100	1,320	405
5	2,500	4,060	3,790	3,540	2,780	3,160	3,870	9,190	23,600	8,550	1,370	552
6	2,420	4,060	3,810	3,880	2,820	2,930	3,940	9,330	23,600	6,200	1,480	528
7	2,310	4,030	3,780	3,810	2,740	2,900	3,690	9,330	22,400	3,880	1,100	504
8	2,280	3,990	3,830	3,870	2,640	3,160	3,490	10,300	20,500	1,810	695	528
9	2,340	4,140	3,740	3,810	2,900	3,290	3,320	12,300	19,500	1,630	1,580	576
10	2,320	4,170	3,650	a4,100	2,750	3,040	3,300	12,700	19,400	1,090	2,090	654
11	2,440	4,140	3,250	a4,000	2,030	2,930	a3,560	11,700	19,800	744	2,520	758
12	2,960	4,140	a3,000	3,740	2,350	2,870	a4,040	10,800	18,800	498	2,520	a720
13	3,080	4,190	2,810	3,200	2,410	2,860	3,880	9,980	17,200	318	1,670	681
14	3,060	4,330	3,060	2,560	2,310	3,090	3,760	9,630	16,100	380	840	654
15	3,120	4,240	3,080	1,980	2,380	3,160	3,720	9,610	14,000	654	594	415
16	3,090	a4,200	3,030	1,920	2,820	3,200	3,990	10,100	11,500	1,410	470	a420
17	3,040	a4,100	3,240	2,200	3,270	3,220	4,540	10,900	9,660	1,170	880	a700
18	3,040	4,010	3,690	2,340	3,420	3,140	5,690	12,200	8,440	864	1,040	1,000
19	3,060	3,880	3,560	2,170	3,480	3,110	6,960	14,400	8,040	1,030	800	1,860
20	3,040	3,740	3,720	2,310	3,700	3,030	7,720	15,900	8,180	1,140	600	2,630
21	2,900	3,650	3,740	2,170	3,720	3,030	7,380	17,800	9,190	1,130	660	3,090
22	3,000	3,480	3,740	2,100	3,780	3,010	7,740	19,000	12,300	848	904	2,690
23	2,930	3,370	3,600	2,450	3,720	3,010	8,770	20,200	15,300	540	1,420	2,300
24	2,950	3,600	3,530	3,040	3,700	3,250	9,380	20,600	17,700	594	1,270	2,200
25	2,930	3,760	3,390	2,820	3,780	3,580	9,210	18,500	18,600	730	996	2,090
26	3,000	3,650	2,950	2,630	3,700	3,700	9,100	16,400	19,000	1,010	832	2,510
27	3,090	3,850	2,740	2,740	3,600	3,480	8,880	15,500	18,300	800	702	2,580
28	3,110	3,830	2,840	2,560	3,460	3,240	8,150	15,700	16,400	624	667	2,500
29	3,250	3,810	2,810	2,090	3,490	3,140	7,960	17,200	14,000	612	546	2,370
30	3,340	3,670	2,860	1,990	-	3,270	9,550	19,300	12,000	832	450	2,300
31	3,410	-	2,900	2,120	-	3,540	-	21,000	-	786	540	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88,700	3,410	2,280	2,861	175,900
November	116,480	4,330	3,370	3,883	231,000
December	105,360	3,880	2,740	3,399	209,000
Calendar year 1947	1,629,987	24,300	218	4,465	3,233,000
January	87,100	4,100	1,920	2,810	172,800
February	87,610	3,780	2,030	3,021	173,800
March	98,190	3,700	2,860	3,167	194,800
April	169,710	9,550	3,220	5,657	336,600
May	421,120	21,000	9,190	13,580	835,300
June	499,110	23,600	8,040	16,640	990,000
July	77,584	10,100	318	2,503	153,900
August	33,691	2,520	450	1,087	66,830
September	39,578	3,090	405	1,319	78,500
Water year 1947-48	1,824,233	23,600	318	4,984	3,618,000

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

American Falls Reservoir at American Falls, Idaho

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

Records available.- March 1926 to September 1948.

Extremes.- Maximum contents during year, 1,724,870 acre-feet June 23 (elevation, 4,354.94 feet); minimum, 630,080 acre-feet Sept. 19 (elevation, 4,330.43 feet).
1926-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	690,530	841,940	1,068,710	1,203,570	1,311,350	1,477,180
2	691,900	846,900	1,075,430	1,211,630	1,317,780	1,482,940
3	693,610	856,420	1,079,940	1,213,070	1,321,350	1,490,270
4	697,710	865,670	1,084,000	1,220,740	1,325,700	1,496,550
5	699,750	873,910	1,087,150	1,228,410	1,329,170	1,502,310
6	702,490	879,790	1,087,600	1,232,730	1,332,140	1,507,550
7	704,540	883,710	1,093,920	1,236,570	1,335,110	1,513,380
8	705,220	889,590	1,103,390	1,239,920	1,341,050	1,522,430
9	710,690	904,600	1,106,990	1,245,200	1,348,470	1,531,480
10	712,050	912,280	1,110,150	1,250,000	1,351,940	1,537,340
11	714,790	921,580	1,112,850	1,255,750	1,354,910	1,541,600
12	718,970	929,670	1,117,400	1,266,940	1,356,420	1,547,450
13	723,180	938,160	1,120,630	1,270,830	1,358,940	1,552,780
14	727,050	944,720	1,120,630	1,273,750	1,361,470	1,558,100
15	730,560	954,320	1,130,310	1,275,210	1,365,000	1,566,160
16	735,120	964,330	1,134,460	1,275,700	1,371,550	1,573,770
17	741,090	975,180	1,137,230	1,275,210	1,376,090	1,580,290
18	748,810	984,390	1,139,530	1,277,650	1,380,630	1,585,180
19	755,600	995,120	1,142,760	1,283,490	1,385,670	1,591,160
20	761,370	1,001,990	1,145,990	1,284,470	1,391,720	1,596,050
21	765,330	1,009,710	1,151,980	1,283,980	1,398,280	1,604,200
22	768,580	1,015,720	1,161,200	1,283,980	1,407,910	1,612,900
23	777,230	1,024,300	1,165,430	1,283,980	1,421,280	1,620,560
24	782,280	1,033,930	1,168,720	1,285,440	1,428,990	1,626,090
25	788,080	1,038,780	1,175,320	1,289,830	1,437,730	1,624,990
26	793,640	1,040,540	1,182,850	1,295,180	1,445,450	1,636,600
27	800,310	1,046,700	1,184,260	1,296,640	1,450,590	1,645,990
28	806,610	1,050,220	1,188,030	1,300,050	1,459,380	1,653,730
29	814,390	1,053,300	1,195,560	1,302,970	1,467,230	1,658,160
30	822,180	1,059,020	1,196,980	1,305,410	-	1,665,890
31	833,560	-	1,199,330	1,307,390	-	1,671,420

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 1948.

Extremes.- Maximum discharge during year, 26,100 second-feet June 23 (gage height, 9.25 feet); minimum, 101 second-feet Apr. 4 (gage height, 1.25 feet).
1906-48: 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 preceding page) 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,280	2,260	4,920	737	464	2,920	4,580	11,800	23,300	12,200	12,100	10,900
2	4,340	2,230	4,920	4,890	3,800	2,950	4,610	11,800	24,700	11,600	12,100	10,800
3	4,440	2,840	4,950	4,900	3,820	2,940	4,570	13,300	25,300	11,900	12,000	10,600
4	4,440	2,940	4,870	788	3,820	2,900	3,240	14,400	25,300	11,600	11,900	10,400
5	4,440	3,340	4,860	4,880	3,820	2,810	4,850	14,300	25,400	11,300	11,600	10,400
6	4,440	3,700	4,870	4,930	3,850	2,840	5,610	13,700	25,500	11,300	11,300	10,100
7	4,190	3,120	721	4,960	3,850	442	6,320	12,500	25,600	11,500	11,200	9,980
8	3,970	2,090	4,870	4,910	488	2,840	8,100	11,000	24,600	11,300	11,000	9,940
9	3,970	1,070	4,880	4,890	3,860	2,860	7,110	9,890	24,000	11,600	11,000	9,890
10	3,970	3,350	4,900	4,920	3,860	2,860	5,050	15,200	22,200	11,800	11,000	9,650
11	3,970	2,550	4,920	689	3,860	2,850	6,030	18,700	19,200	11,700	11,000	9,320
12	3,970	3,600	4,880	4,780	3,880	2,800	5,910	16,400	20,600	11,600	10,900	9,230
13	4,000	2,930	4,870	4,800	3,840	2,810	5,620	13,400	22,400	11,600	11,100	8,950
14	4,000	3,010	729	4,780	3,860	454	5,960	12,500	19,200	11,600	11,300	8,640
15	3,700	3,240	4,950	4,860	518	2,840	6,830	12,500	15,000	11,600	11,400	8,360
16	3,230	1,360	4,930	4,800	3,890	2,840	6,800	12,600	12,200	11,700	11,400	8,000
17	2,530	3,040	4,930	4,830	3,900	2,830	7,040	12,200	11,400	11,700	11,400	7,690
18	2,160	2,760	4,940	1,850	3,910	2,960	7,040	13,400	11,700	11,800	11,400	7,040
19	2,380	2,820	4,940	4,860	3,910	2,920	8,680	16,000	11,500	11,900	11,400	5,390
20	2,820	2,780	4,930	4,860	3,960	2,840	10,000	17,200	10,800	12,000	11,400	5,290
21	3,340	2,700	673	4,850	3,950	216	10,900	19,100	10,300	12,000	11,300	5,690
22	3,850	2,590	4,850	4,860	550	2,830	10,200	20,500	10,300	11,800	11,400	5,650
23	3,850	651	4,860	4,870	2,840	2,830	9,980	21,900	16,100	12,000	11,600	5,290
24	3,390	5,020	4,860	4,870	2,930	2,840	12,000	24,800	24,200	12,000	11,600	4,720
25	3,180	4,880	721	1,860	2,900	3,230	13,700	25,100	21,400	12,100	11,400	3,790
26	3,180	4,760	4,890	4,890	2,920	3,290	13,600	22,600	21,400	12,200	10,900	147
27	2,890	4,760	4,920	3,850	2,970	3,290	13,600	20,800	21,400	12,100	10,700	2,880
28	2,380	4,890	745	3,690	2,900	175	13,500	18,500	20,500	12,100	10,600	3,930
29	2,160	4,740	4,860	3,750	524	3,300	12,500	17,100	18,700	12,200	10,600	2,430
30	2,030	713	4,860	3,810	-	3,320	11,800	19,600	15,000	12,200	10,600	2,430
31	1,930	-	4,860	3,800	-	4,330	-	22,200	-	12,100	10,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	107,420	4,440	1,930	3,465	213,100
November	90,734	5,020	651	3,024	180,000
December	130,879	4,950	673	4,222	259,600
Calendar year 1947	2,679,608	27,400	86	7,341	5,315,000
January	127,014	4,960	689	4,097	251,900
February	89,644	3,960	464	3,091	177,800
March	82,157	4,330	175	2,650	162,000
April	245,730	13,700	3,240	8,191	487,400
May	504,990	25,100	9,890	16,290	1,002,000
June	579,200	25,600	10,300	19,310	1,149,000
July	366,100	12,200	11,300	11,810	726,100
August	349,400	12,100	10,600	11,270	693,000
September	218,527	10,900	147	7,284	433,400
Water year 1947-48	2,891,795	25,600	147	7,901	5,736,000

Contents, in acre-feet, of American Falls Reservoir at American Falls, Idaho, water year October 1947 to September 1948--Continued

Day	Apr.	May	June	July	Aug.	Sept.
1	1,677,580	1,697,200	1,705,040	1,710,080	1,289,830	839,270
2	1,681,500	1,702,240	1,705,040	1,713,470	1,273,750	824,410
3	1,683,750	1,705,600	1,700,560	1,712,900	1,258,660	808,460
4	1,691,030	1,697,200	1,698,880	1,709,520	1,240,400	791,420
5	1,696,640	1,701,120	1,698,880	1,706,720	1,223,140	778,320
6	1,697,200	1,698,320	1,700,560	1,704,480	1,211,150	765,690
7	1,701,680	1,695,520	1,701,680	1,696,080	1,196,510	752,350
8	1,700,560	1,691,030	1,701,680	1,687,670	1,182,850	740,040
9	1,694,400	1,705,600	1,700,560	1,673,660	1,168,720	727,400
10	1,693,270	1,716,320	1,698,320	1,658,710	1,155,670	714,440
11	1,694,400	1,708,960	1,698,320	1,639,910	1,143,220	701,120
12	1,696,640	1,703,920	1,704,480	1,624,430	1,133,080	690,870
13	1,700,000	1,700,000	1,700,000	1,605,830	1,122,940	680,320
14	1,701,120	1,697,200	1,697,200	1,587,900	1,108,350	669,370
15	1,701,680	1,701,120	1,697,760	1,571,660	1,092,110	658,740
16	1,702,240	1,702,800	1,700,560	1,555,970	1,076,330	648,450
17	1,700,560	1,701,680	1,703,360	1,541,060	1,060,790	640,070
18	1,699,440	1,707,280	1,706,720	1,525,090	1,044,940	634,270
19	1,706,160	1,708,400	1,702,240	1,504,930	1,024,300	630,080
20	1,708,400	1,709,520	1,700,000	1,488,700	1,013,570	631,700
21	1,708,400	1,710,640	1,700,560	1,475,610	998,980	633,310
22	1,706,720	1,710,640	1,710,640	1,459,900	981,440	633,310
23	1,710,080	1,714,040	1,724,870	1,443,900	965,170	632,980
24	1,712,330	1,717,460	1,717,460	1,423,850	950,150	634,270
25	1,705,040	1,709,520	1,715,750	1,409,450	936,140	636,850
26	1,709,520	1,701,680	1,716,320	1,394,250	923,600	642,970
27	1,708,960	1,697,760	1,715,750	1,373,570	909,040	650,770
28	1,704,480	1,691,030	1,714,040	1,354,410	896,650	654,760
29	1,695,520	1,695,520	1,712,330	1,339,560	882,530	658,740
30	1,696,640	1,702,240	1,710,080	1,324,710	868,420	664,720
31	-	1,703,920	-	1,307,880	852,990	-

Monthly elevation and contents, water year October 1947 to September 1948

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	4,332.15	686,770	-
Oct. 31.....	4,336.25	833,560	+146,790
Nov. 30.....	4,341.74	1,059,020	+225,460
Dec. 31.....	4,344.80	1,199,330	+140,310
Calendar year 1947...	-	-	-86,110
Jan. 31.....	4,347.04	1,307,390	+108,060
Feb. 29.....	4,350.20	1,467,230	+159,840
Mar. 31.....	4,353.99	1,671,420	+204,190
Apr. 30.....	4,354.44	1,696,640	+25,220
May 31.....	4,354.57	1,703,920	+7,280
June 30.....	4,354.68	1,710,080	+6,160
July 31.....	4,347.05	1,307,880	-402,200
Aug. 31.....	4,336.76	852,990	-454,890
Sept.30.....	4,331.49	664,720	-188,270
Water year 1947-48...	-	-	-22,050

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 1948. August 1895 to December 1899 and May 1901 to December 1910 at site at Montgomery Ferry, 6 miles downstream.

Extremes.- Maximum discharge during year, 24,800 second-feet June 24 (gage height, 12.00 feet); minimum, 1,440 second-feet Mar. 22 (gage height, 4.04 feet).
1910-48: 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; many diversions above station for irrigation.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,860	2,400	4,540	b4,450	3,490	2,640	4,520	11,200	20,200	9,860	8,690	8,480
2	2,900	2,480	4,560	b4,450	3,530	2,720	4,520	10,800	21,200	8,990	8,660	8,480
3	2,960	2,420	4,520	4,450	3,600	2,620	4,780	11,000	21,900	9,480	8,690	8,450
4	2,960	2,430	4,500	4,480	3,510	2,640	4,980	12,600	22,100	9,420	8,810	8,480
5	2,990	2,820	4,520	4,430	3,510	2,630	4,960	12,800	22,400	8,780	8,930	8,510
6	3,030	2,880	4,590	*4,430	3,510	2,660	5,050	12,400	22,500	8,630	8,750	8,270
7	3,070	2,900	4,560	4,450	3,530	2,680	6,460	11,000	22,500	8,720	8,600	7,970
8	3,110	2,780	4,560	4,480	3,560	2,640	7,940	9,270	21,900	8,600	8,510	7,820
9	3,010	2,740	4,590	4,450	3,600	2,620	8,120	7,970	20,600	8,570	8,450	7,470
10	3,030	2,780	4,520	4,450	3,560	2,650	7,020	11,300	19,500	8,630	8,450	7,300
11	3,030	2,740	4,590	4,560	3,530	2,590	5,920	16,400	16,600	8,600	8,510	7,270
12	2,990	2,750	4,520	4,480	3,600	2,600	5,710	14,900	17,100	8,480	8,540	7,330
13	3,300	2,280	4,520	4,370	3,560	2,610	5,330	12,000	19,400	8,510	8,630	7,160
14	2,380	2,950	4,540	4,410	3,560	2,610	5,440	10,600	17,400	8,510	8,720	7,040
15	2,410	3,180	*4,520	4,450	3,600	2,610	6,230	10,400	13,100	8,450	8,780	7,020
16	2,480	3,030	4,500	4,430	3,400	2,610	6,960	10,200	10,200	8,450	8,720	6,900
17	2,470	3,010	4,480	4,480	3,200	2,820	6,820	9,610	8,690	8,390	8,570	6,760
18	2,400	3,040	4,450	4,430	3,410	2,820	6,990	10,200	8,750	8,420	8,630	6,380
19	2,340	3,030	4,480	4,430	3,420	2,610	7,910	12,500	8,510	8,630	8,780	5,490
20	2,380	2,950	4,480	4,410	3,480	2,610	9,050	13,700	8,480	8,960	8,690	5,010
21	2,410	2,840	4,540	4,480	3,500	2,580	10,100	15,300	8,570	8,780	8,660	4,920
22	2,350	3,040	4,540	4,500	3,580	2,380	9,480	17,100	9,050	8,600	8,660	4,650
23	2,280	3,040	4,500	4,480	3,470	2,480	9,180	18,300	14,500	8,540	8,750	4,080
24	2,340	3,240	4,430	4,560	2,740	2,430	10,500	20,200	22,400	8,780	8,690	3,490
25	2,450	4,500	4,450	4,370	2,250	2,790	13,200	21,600	20,300	8,870	8,630	2,840
26	2,470	4,540	4,450	4,430	2,800	2,580	12,700	20,400	20,200	8,900	8,330	2,650
27	2,550	4,540	4,450	4,480	2,670	2,460	12,600	17,500	20,000	8,960	8,420	2,650
28	2,380	4,590	4,500	3,890	2,690	2,320	12,600	15,800	18,800	9,080	8,330	2,560
29	2,440	4,590	4,500	3,450	2,700	2,370	11,800	14,300	16,700	8,960	8,330	1,730
30	2,370	4,540	4,450	3,470	-	2,990	11,000	15,800	13,000	8,810	8,390	1,730
31	2,370	-	b4,450	3,470	-	4,540	-	17,900	-	8,750	8,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	82,510	3,300	2,280	2,662	163,700
November	95,050	4,590	2,280	3,168	188,500
December	139,800	4,590	4,430	4,510	277,300
Calendar year 1947	2,287,630	26,800	1,610	6,267	4,538,000
January	134,550	4,560	3,450	4,340	266,900
February	96,560	3,600	2,250	3,330	191,500
March	82,490	4,540	2,320	2,661	163,600
April	237,870	13,200	4,520	7,929	471,800
May	425,050	21,600	7,970	13,710	843,100
June	506,550	22,500	8,480	16,890	1,005,000
July	272,110	9,860	8,390	8,778	539,700
August	266,780	8,930	8,330	8,606	529,200
September	178,890	8,510	1,730	5,963	354,800
Water year 1947-48	2,518,210	22,500	1,730	6,880	4,995,000

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

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 1948.

Extremes.- Maximum contents during year, 99,280 acre-feet Nov. 8 (gage height, 45.34 feet); minimum, 72,720 acre-feet Jan. 5 (gage height, 43.04 feet).
1909-48: 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 heights 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95,430	94,720	88,310	80,610	82,300	87,030	96,870	92,860	97,350	95,670	94,490	95,180
2	95,430	92,970	89,600	75,650	78,130	87,730	98,080	92,390	96,870	97,110	95,670	94,950
3	95,430	93,790	91,110	77,680	79,260	88,900	99,160	93,090	96,390	96,510	97,110	94,950
4	95,910	95,670	92,160	77,560	80,490	90,180	97,110	92,620	96,630	96,390	97,960	94,250
5	95,670	96,030	92,620	72,720	81,510	90,990	95,670	95,180	96,870	95,550	97,590	94,490
6	96,150	97,840	93,550	74,070	82,520	91,570	96,270	94,950	96,870	95,180	97,350	93,320
7	96,150	98,320	93,200	75,420	83,770	90,990	97,350	94,259	96,750	94,020	97,590	93,550
8	95,310	99,280	87,730	77,790	83,200	88,200	97,840	92,390	96,270	94,720	97,590	93,550
9	94,490	96,630	88,660	79,480	79,030	89,360	97,720	95,180	96,390	94,370	97,230	93,900
10	94,140	93,550	89,360	80,830	80,160	90,290	90,760	95,670	96,270	94,720	97,110	94,490
11	93,550	95,180	90,530	80,040	81,170	91,110	91,570	96,390	95,430	95,180	96,390	94,020
12	94,020	95,180	92,040	74,740	82,410	91,920	93,090	97,230	96,150	95,430	96,030	94,370
13	94,020	96,150	93,090	75,870	83,430	92,510	94,490	96,390	96,390	94,720	95,670	94,020
14	94,950	96,150	91,230	77,340	84,470	91,690	94,840	95,430	96,390	95,670	94,840	93,090
15	96,390	97,590	86,920	78,350	84,010	89,130	97,350	95,670	95,430	95,910	94,490	92,390
16	96,990	98,560	87,960	79,480	80,380	90,290	97,590	95,180	94,600	96,390	94,490	91,460
17	96,270	95,670	89,130	80,720	82,750	90,880	96,630	94,840	94,250	96,510	94,600	90,060
18	94,020	95,670	90,530	80,830	84,350	91,920	96,390	94,720	94,020	95,910	94,720	89,830
19	92,390	94,950	91,690	77,110	86,100	93,090	97,960	95,070	95,070	95,430	92,860	89,010
20	91,110	94,370	92,740	78,130	87,500	94,020	97,590	95,180	96,150	95,430	94,140	86,570
21	89,830	94,840	91,230	79,260	88,900	94,020	96,870	94,950	94,950	95,430	94,370	86,100
22	91,920	94,020	86,570	80,490	89,130	90,530	96,030	95,430	97,110	95,430	93,790	96,220
23	93,440	92,390	87,960	81,740	85,980	91,920	95,910	95,910	96,510	95,430	93,320	86,570
24	95,550	89,830	89,010	82,860	85,980	93,320	95,180	96,390	96,630	93,790	94,020	87,960
25	96,750	90,990	88,900	83,090	87,270	91,690	93,320	97,110	96,510	94,250	94,840	89,600
26	97,960	91,690	83,310	79,140	88,430	95,180	96,390	97,110	96,390	94,490	96,270	89,480
27	99,040	93,090	84,350	80,160	88,900	98,080	96,630	96,630	96,390	94,020	95,670	85,170
28	99,040	93,550	83,770	79,930	90,060	98,560	96,510	95,790	96,390	92,620	95,910	86,450
29	97,840	94,600	78,580	80,720	90,060	94,950	95,070	96,630	96,630	92,620	95,910	88,430
30	97,110	93,550	80,160	81,740	-	96,870	94,720	96,510	96,150	93,440	95,070	88,550
31	95,910	-	81,400	83,090	-	96,390	-	97,230	-	94,250	95,180	-

Monthly gage height and contents, water year October 1947 to September 1948

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	44.98	94,950	-
Oct. 31	45.06	95,910	+960
Nov. 30	44.86	93,550	-2,360
Dec. 31	43.81	81,400	-12,150
Calendar year 1947	-	-	+15,730
Jan. 31	43.96	83,090	+1,690
Feb. 29	44.56	90,060	+6,970
Mar. 31	45.10	96,390	+6,330
Apr. 30	44.96	94,720	-1,670
May 31	45.17	97,230	+2,510
June 30	45.08	96,150	-1,080
July 31	44.92	94,250	-1,900
Aug. 31	45.00	95,180	+930
Sept. 30	44.43	88,550	-6,630
Water year 1947-48	-	-	-6,400

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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 1948.

Extremes.- Maximum discharge during year, 17,000 second-feet June 24 (gage height, 17.72 feet); minimum, 10 second-feet July 15-18, minimum gage height, 156 feet July 10, 15-18. 1909-48: 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. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,400	3,820	3,650	3,120	1,840	3,810	3,830	11,200	2,250	239	223
2	1,890	1,100	3,980	3,760	3,020	1,580	3,800	4,180	12,500	107	237	223
3	1,860	1,730	3,800	4,600	2,820	1,490	3,840	3,770	13,700	674	234	223
4	1,720	2,150	3,620	4,190	2,890	2,100	4,380	4,670	14,200	493	234	223
5	1,470	2,260	3,230	4,060	2,890	2,010	4,660	5,390	14,400	153	234	223
6	1,460	2,520	3,620	3,820	2,870	1,540	4,190	5,450	14,700	127	298	272
7	1,400	2,670	3,730	3,780	2,870	1,560	4,710	3,670	14,500	29	232	359
8	1,080	2,370	3,850	4,000	2,830	1,580	6,830	618	14,400	233	218	232
9	1,600	2,210	3,860	4,040	2,790	1,630	6,800	786	12,500	11	212	230
10	1,720	2,160	3,850	3,910	2,810	1,760	6,430	2,390	11,700	11	212	228
11	1,710	2,020	3,790	3,630	2,660	1,830	4,560	8,020	8,510	294	207	221
12	1,900	2,100	3,830	3,900	2,630	1,820	4,070	8,090	8,730	131	203	223
13	2,040	2,060	3,820	3,960	2,660	1,760	4,240	4,950	11,800	11	203	228
14	1,990	1,850	3,750	3,750	2,760	1,500	3,730	2,540	10,300	11	201	228
15	1,970	1,580	3,810	3,740	2,760	1,720	3,690	3,010	5,290	10	201	228
16	1,900	1,290	3,810	3,890	2,790	1,760	4,730	2,360	2,270	10	203	228
17	1,780	1,930	3,820	3,870	2,510	1,740	4,670	1,590	143	10	245	228
18	1,280	2,010	3,830	3,920	2,420	1,930	3,490	1,030	301	10	205	228
19	1,560	2,070	3,830	3,920	2,490	2,050	3,280	3,800	120	11	221	523
20	1,850	2,230	3,820	3,920	2,540	2,070	4,010	4,910	530	60	229	275
21	1,680	2,230	3,780	3,870	2,840	2,110	5,460	5,700	179	362	390	223
22	992	1,910	3,760	3,520	2,730	1,900	5,560	8,190	1,640	264	223	262
23	979	1,780	3,800	3,670	2,700	1,880	4,600	9,360	3,860	212	223	225
24	1,510	2,200	3,800	4,200	2,530	1,390	5,080	11,500	14,000	205	223	377
25	1,370	3,590	3,610	4,630	1,930	856	6,420	13,600	13,300	205	223	218
26	1,320	4,110	3,510	3,200	1,470	1,240	8,090	13,400	12,400	218	312	221
27	1,010	4,200	3,780	3,280	1,460	1,780	6,960	9,280	11,900	237	221	221
28	1,250	4,060	3,740	3,990	1,580	1,980	6,530	7,670	10,900	242	223	223
29	1,770	3,880	3,670	3,380	1,760	1,510	5,860	5,760	8,550	242	223	225
30	1,650	3,530	3,630	2,820	-	1,100	4,560	6,490	5,080	313	223	228
31	1,600	-	3,620	2,870	-	2,850	-	8,950	-	244	223	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	48,991	2,040	979	1,580	97,170
November	71,200	4,200	1,100	2,373	141,200
December	116,170	3,980	3,230	3,747	230,400
Calendar year 1947	892,238	21,200	10	2,444	1,770,000
January	117,740	4,630	2,820	3,798	233,500
February	74,130	3,120	1,460	2,556	147,000
March	53,866	2,850	856	1,738	106,800
April	149,040	8,090	3,280	4,968	295,600
May	175,054	13,600	618	5,647	347,200
June	263,603	14,700	120	8,787	522,800
July	7,390	2,250	10	238	14,660
August	7,175	390	201	231	14,230
September	7,469	523	218	249	14,810
Water year 1947-48	1,091,828	14,700	10	2,983	2,165,000

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 1948.

Extremes.- Maximum discharge during year, 16,500 second-feet June 25 (gage height, 17.70 feet), supersedes figure published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin"; minimum, 22 second-feet July 25 (gage height, 1.45 feet); minimum daily, 316 second-feet July 18.

1923-48: 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 May 17, 1944 (gage height, 1.15 feet); minimum daily recorded, 139 second-feet July 4, 1941.

Remarks.- Records good. 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 1947-48 (gage height, in feet, and discharge, in second-feet)

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	17.0	14,900
5.5	735	10.0	3,400		
6.0	910	12.0	5,750		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,710	1,980	4,150	3,730	3,350	2,110	3,950	4,400	10,600	3,460	652	657
2	2,260	1,690	4,360	3,820	3,320	2,050	4,060	4,550	12,100	1,520	645	655
3	2,230	1,920	4,220	4,800	3,100	1,810	4,040	4,240	13,300	809	645	692
4	2,190	2,350	4,030	4,520	3,130	2,040	4,560	4,740	13,600	1,090	650	657
5	1,920	2,850	3,500	4,320	3,140	2,710	4,980	5,780	13,800	925	676	605
6	1,920	2,750	3,960	4,170	3,110	1,930	4,570	5,790	14,200	744	690	660
7	1,910	3,240	4,010	3,970	3,100	1,910	4,580	4,550	14,100	579	706	835
8	1,660	2,940	4,160	4,230	3,080	1,910	7,040	1,920	13,900	544	625	818
9	1,820	2,700	4,150	4,260	3,060	1,940	7,200	998	12,400	619	665	700
10	2,140	2,640	4,150	4,330	3,060	1,990	6,960	1,290	11,600	487	665	710
11	2,140	2,430	4,100	3,850	2,990	2,110	5,360	7,670	9,260	444	665	671
12	2,200	2,500	4,120	4,130	2,810	2,110	4,240	8,800	8,840	540	665	693
13	2,460	2,500	4,130	4,300	2,840	2,080	4,670	5,650	11,400	605	665	696
14	2,410	2,240	4,060	4,070	2,920	2,040	4,220	3,030	11,400	496	645	727
15	2,320	2,170	4,130	3,980	3,000	1,930	3,930	3,190	6,780	389	625	717
16	2,230	1,800	4,120	4,160	2,980	2,050	4,760	2,750	3,180	483	692	711
17	2,190	2,060	4,170	4,170	2,930	2,060	5,130	2,220	1,530	450	690	743
18	1,820	2,330	4,160	4,190	2,570	2,100	4,020	1,560	896	316	730	750
19	1,840	2,350	4,150	4,200	2,650	2,360	3,540	3,030	722	572	626	729
20	2,270	2,560	4,180	4,180	2,680	2,440	4,040	4,860	505	481	665	1,040
21	2,080	2,620	4,120	4,150	2,970	2,500	5,520	5,720	917	536	699	875
22	1,940	2,460	4,080	3,790	3,000	2,410	6,060	8,230	869	661	841	748
23	1,360	2,100	4,120	3,850	2,930	2,120	5,000	9,440	2,750	711	716	724
24	1,780	2,420	4,130	4,380	2,800	2,040	5,180	11,200	12,700	632	699	785
25	1,820	3,420	4,010	4,910	2,500	1,580	6,440	13,100	13,600	469	660	748
26	1,760	4,560	3,820	3,750	1,890	1,340	8,530	13,300	12,300	576	609	808
27	1,760	4,600	4,060	3,330	1,810	1,960	7,440	10,000	11,900	608	762	747
28	1,430	4,550	4,040	4,200	1,870	2,270	7,020	8,450	11,400	606	666	658
29	2,120	4,380	3,970	3,960	1,930	2,100	6,220	6,230	9,350	690	641	759
30	2,090	3,940	3,900	3,040	-	1,620	5,260	6,270	6,510	665	636	694
31	2,020	-	3,850	3,100	-	2,200	-	9,060	-	729	668	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	61,800	2,460	1,430	1,994	122,600
November	83,050	4,600	1,690	2,768	164,700
December	126,110	4,360	3,500	4,068	250,100
Calendar year 1947	1,028,564	21,200	247	2,818	2,040,000
January	125,840	4,910	3,040	4,059	249,600
February	81,520	3,350	1,810	2,811	161,700
March	63,820	2,710	1,340	2,059	126,600
April	158,520	8,530	3,540	5,284	314,400
May	182,018	13,300	998	5,872	361,000
June	266,609	14,200	505	8,887	528,800
July	22,436	3,460	316	724	44,500
August	20,884	841	609	674	41,420
September	22,012	1,040	605	734	43,660
Water year 1947-48	1,214,619	14,200	316	3,319	2,409,000

Snake River near Buhl, Idaho

Location.- Water-stage recorder, lat. 42°40', long. 114°43', in NW¼ sec. 9. T. 9 S., R. 15 E., 2 miles downstream from Niagara Springs, 3¾ miles upstream from outlet of Clear Lakes, and 6 miles northeast of Buhl. Datum of gage is 2,952.9 feet above mean sea level, by stadia levels.

Records available.- December 1946 to September 1948.

Extremes.- Maximum discharge during year, 17,800 second-feet June 25 (gage height, 8.49 feet); minimum, 2,010 second-feet July 19 (gage height, 0.53 foot).
1946-48: Maximum discharge, 23,100 second-feet June 13, 1947 (gage height, 10.34 feet); minimum observed, 1,900 second-feet May 5, 1947 (gage height, 0.38 foot).

Remarks.- Records good. 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 1947-48 (gage height, in feet, and discharge in second-feet)

0.7	2,150	3.0	4,750	6.0	10,900
1.2	2,580	4.0	6,450	7.0	13,400
2.0	3,450	5.0	8,550	8.0	16,100

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,000	3,890	5,760	5,390	4,780	3,590	5,170	6,100	11,800	5,830	2,560	2,610
2	4,140	3,730	6,080	5,470	4,860	3,650	5,570	6,120	13,800	3,830	2,490	2,620
3	4,240	3,640	6,010	6,300	4,720	3,430	5,520	6,080	14,800	2,820	2,410	2,650
4	4,200	4,100	5,810	6,340	4,640	3,430	5,810	6,060	15,300	2,740	2,440	2,670
5	4,040	4,540	5,570	6,040	4,680	4,100	6,370	7,150	15,400	2,930	2,460	2,700
6	3,940	4,460	5,370	5,920	4,680	3,650	6,210	7,340	15,700	2,630	2,480	2,730
7	3,880	4,940	5,690	5,620	a4,670	3,430	5,720	6,990	15,600	2,530	2,510	2,750
8	3,820	4,770	5,880	5,790	a4,660	3,450	7,910	4,450	15,500	2,430	2,530	2,890
9	3,690	4,500	5,830	5,860	a4,650	3,470	8,710	3,210	14,500	2,320	2,530	2,890
10	4,110	4,410	5,810	5,900	4,640	3,490	8,640	3,040	13,600	2,230	2,550	2,770
11	4,170	4,320	5,790	5,490	4,570	3,580	7,310	7,280	11,600	2,230	2,540	2,710
12	4,120	4,260	5,740	5,570	4,340	3,620	5,580	10,800	10,300	2,130	2,510	2,690
13	4,370	4,300	5,790	5,760	4,420	3,630	6,100	8,050	12,600	2,230	2,540	2,700
14	4,430	4,200	5,790	5,650	4,490	3,610	5,860	6,360	13,700	2,330	2,500	2,720
15	4,370	4,070	5,760	5,490	4,640	3,420	5,390	4,500	9,610	2,270	2,470	2,720
16	4,260	3,790	5,790	5,600	4,630	3,580	5,850	4,540	5,770	2,130	2,440	2,700
17	4,190	3,730	5,850	5,690	4,640	3,630	6,700	4,080	4,000	2,230	2,530	2,750
18	4,000	4,120	5,830	5,700	4,280	3,610	6,010	3,450	3,100	2,160	2,520	2,860
19	3,690	4,190	5,830	5,720	4,280	3,860	5,040	3,930	2,770	2,070	2,490	3,220
20	4,040	4,300	5,830	5,650	4,290	3,880	5,310	6,100	2,680	2,230	2,500	3,200
21	4,100	4,400	5,770	5,690	4,430	4,020	6,660	7,310	2,610	2,250	2,510	3,280
22	3,940	4,360	5,740	5,500	4,640	3,970	7,720	9,060	2,990	2,260	2,640	3,120
23	3,430	3,940	5,720	5,410	4,520	4,690	6,910	10,800	3,890	2,390	2,590	2,980
24	3,360	4,060	5,740	5,720	4,380	3,580	6,700	12,600	12,100	2,480	2,600	3,020
25	3,820	4,690	5,670	6,260	4,190	3,230	7,650	14,400	15,900	2,410	2,620	3,020
26	3,750	6,040	5,420	5,880	3,670	2,840	9,950	14,900	14,400	2,340	2,600	2,980
27	3,740	6,240	5,600	4,590	3,400	3,120	9,380	12,400	13,800	2,340	2,580	2,850
28	3,550	6,300	5,690	5,370	3,400	3,650	8,900	10,800	13,400	2,440	2,670	2,790
29	3,760	6,080	5,650	5,740	3,430	3,750	8,050	8,200	11,500	2,440	2,620	2,750
30	4,040	5,760	5,530	4,740	-	3,350	7,360	7,630	8,990	2,490	2,540	2,730
31	3,940	-	5,420	4,620	-	3,280	-	10,400	-	2,470	2,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	122,130	4,430	3,000	3,940	242,200
November	136,130	6,300	3,640	4,538	270,000
December	177,760	6,080	5,370	5,734	352,600
Calendar year 1947	1,666,740	22,900	1,900	4,566	3,306,000
January	174,470	6,340	4,590	5,628	346,100
February	127,620	4,860	3,400	4,401	253,100
March	110,590	4,100	2,840	3,567	219,400
April	204,060	9,950	5,040	6,802	404,700
May	234,130	14,900	3,040	7,553	464,400
June	321,710	15,900	2,610	10,720	638,100
July	78,830	5,880	2,090	2,543	156,400
August	78,600	2,670	2,410	2,535	155,900
September	85,070	3,280	2,610	2,836	168,700
Water year 1947-48	1,851,100	15,900	2,090	5,058	3,672,000

a No gage-height record, discharge computed on basis of records for stations near Kinberly and below Lower Salmon Falls, near Hagerman.

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 1948.

Extremes.- Maximum discharge during year, 22,500 second-feet June 25 (gage height, 13.46 feet); minimum 2,480 second-feet July 11; minimum gage height, 4.65 feet Oct. 19; minimum daily discharge, 5,940 second-feet July 20.

1937-48: 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 11, 1948; minimum daily, 5,110 second-feet May 17, 1940.

Remarks.- Records excellent except those for period of no gage-height record, which are good. 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.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,530	9,210	10,700	9,700	9,210	7,860	8,970	10,000	15,400	10,200	6,490	6,970
2	8,470	8,700	11,000	10,100	9,410	7,920	9,950	9,980	17,900	8,510	6,610	6,890
3	9,190	8,610	11,100	10,700	9,300	7,790	9,650	10,300	18,600	7,130	6,450	6,910
4	9,300	8,910	10,900	11,500	9,120	7,690	9,850	9,760	19,500	6,740	6,380	6,970
5	9,100	9,150	10,600	11,100	9,150	8,150	10,400	11,000	19,800	6,910	6,420	6,970
6	8,990	9,340	10,200	10,700	9,100	8,190	10,300	11,200	20,000	6,890	6,470	7,070
7	8,800	9,700	10,600	10,300	9,040	7,730	9,780	11,200	20,100	6,550	6,470	7,170
8	8,760	9,760	10,800	10,400	9,080	7,730	11,900	9,280	19,900	6,530	6,530	7,250
9	8,630	9,500	10,900	10,500	9,080	7,730	12,700	7,650	19,400	6,550	6,700	7,350
10	8,990	9,260	10,800	10,500	9,100	7,750	12,700	7,090	17,900	6,240	6,660	7,250
11	9,210	9,320	10,600	10,300	9,010	7,770	11,800	9,080	16,500	6,110	6,620	7,150
12	9,300	9,230	10,700	10,100	8,700	7,900	9,850	14,500	14,600	6,040	6,640	7,130
13	9,430	9,320	10,700	10,300	8,760	7,920	10,200	13,200	16,000	6,090	6,640	7,150
14	9,150	9,320	10,800	10,300	8,860	7,840	10,100	9,880	18,200	6,060	6,640	7,230
15	9,480	9,150	10,700	10,200	9,040	7,730	9,590	8,190	14,900	6,190	6,640	7,190
16	9,390	9,100	10,700	10,200	9,170	7,770	9,650	8,820	10,900	6,090	6,550	7,210
17	9,230	8,680	10,700	10,300	9,080	7,840	10,800	8,300	8,550	5,980	6,510	7,250
18	9,430	8,890	10,700	10,300	8,780	7,840	10,300	7,450	7,710	6,040	6,660	7,370
19	8,210	9,170	10,700	10,200	8,660	7,940	9,080	7,390	7,250	5,960	6,590	8,050
20	8,780	9,210	10,700	10,200	8,700	8,070	9,230	9,720	7,110	5,940	6,510	7,960
21	8,930	9,370	10,700	10,200	8,820	8,170	10,200	11,000	7,170	6,130	6,620	8,150
22	8,720	9,370	10,700	10,200	9,150	8,240	11,700	12,700	7,430	6,150	6,700	8,020
23	8,320	9,120	10,500	10,000	8,970	8,020	11,100	14,500	8,110	6,210	6,740	7,790
24	7,960	8,860	10,500	10,100	8,860	7,770	10,400	16,300	14,100	6,300	6,740	7,790
25	8,570	9,230	10,500	10,600	8,700	7,490	11,200	18,000	20,600	6,340	6,780	7,920
26	9,680	10,900	10,400	10,600	8,000	7,150	13,800	19,000	18,900	6,400	6,830	7,820
27	8,720	11,200	10,000	8,700	7,730	6,890	13,700	17,000	18,200	6,240	6,830	7,670
28	8,610	11,300	10,400	9,540	7,690	7,470	12,900	14,800	17,800	6,110	6,930	7,530
29	8,510	11,100	10,400	10,300	7,730	7,960	12,000	12,700	16,100	6,400	6,970	7,490
30	9,040	10,900	10,200	9,410	-	7,630	11,500	11,600	13,800	6,440	6,850	7,410
31	8,950	-	10,000	9,080	-	7,370	-	13,700	-	6,490	6,830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	274,380	9,480	7,530	8,851	544,200
November	284,880	11,300	8,610	9,496	565,100
December	328,900	11,100	10,000	10,610	652,400
Calendar year 1947	3,315,770	27,400	5,400	9,084	6,577,000
January	316,630	11,500	8,700	10,210	628,000
February	256,000	9,410	7,690	8,828	507,800
March	241,320	8,240	6,890	7,785	478,700
April	325,300	13,800	8,970	10,840	645,200
May	355,290	19,000	7,090	11,460	704,700
June	452,430	20,600	7,110	15,080	897,400
July	201,960	10,200	5,940	6,515	400,600
August	206,000	6,970	6,380	6,645	408,600
September	222,080	8,150	6,890	7,403	440,500
Water year 1947-48	3,465,170	20,600	5,940	9,468	6,873,000

Note.- No gage-height record Dec. 13-26, Dec. 28 to Jan. 6; discharge computed on basis of records for stations near Buhl and at King Hill.

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 1948.

Extremes.- Maximum discharge during year, 23,400 second-feet June 25 (gage height, 11.07 feet); minimum, 5,240 second-feet July 18 (gage height, 4.95 feet); minimum daily, 7,180 second-feet July 20.

1909-48: 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 Lower Salmon Falls power plant and many reservoirs above station. Practically entire flow at Milner diverted during irrigation season; flow at King Hill is then derived largely from springs and seepage entering below Milner.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,220	10,700	12,600	11,400	10,600	9,520	10,100	11,600	16,500	12,400	7,740	8,540
2	9,340	10,700	12,800	11,500	10,900	h9,800	11,600	11,400	19,200	10,200	7,940	8,330
3	10,500	10,300	12,900	12,300	10,900	a10,000	11,500	11,700	20,100	8,760	7,780	8,380
4	10,600	10,500	12,800	13,100	10,500	a9,900	11,500	11,200	21,200	8,180	7,710	8,400
5	10,500	10,900	12,500	12,600	10,500	a9,900	11,900	12,000	21,500	8,230	7,710	8,400
6	10,300	11,100	12,100	12,400	10,600	a10,400	11,900	12,500	21,700	8,350	7,800	8,450
7	10,200	11,300	12,300	12,200	10,500	a10,000	11,300	12,800	21,700	7,970	7,800	8,520
8	9,920	11,500	12,500	12,200	10,500	a9,800	11,900	10,700	21,300	7,870	7,900	8,620
9	10,000	11,200	12,600	12,300	10,500	h9,440	14,200	9,170	20,800	7,780	7,920	8,760
10	10,200	10,900	12,500	12,300	10,600	a9,850	14,200	8,660	18,900	7,510	7,920	8,690
11	10,600	11,000	12,500	12,100	10,500	a9,800	13,600	9,740	18,100	7,440	7,970	8,540
12	10,600	10,900	12,400	11,700	10,200	a9,780	11,800	15,800	15,600	7,440	7,970	8,570
13	10,700	11,100	12,400	11,900	10,200	a9,900	11,400	15,300	16,300	7,410	7,920	8,470
14	11,000	11,100	12,600	12,000	10,300	a9,900	11,500	11,800	19,000	7,410	7,970	8,590
15	10,800	10,900	12,400	11,700	10,500	a9,800	10,900	9,540	16,700	7,580	7,900	8,540
16	10,700	10,900	12,400	11,600	10,700	h9,470	10,800	10,100	12,700	7,280	7,850	8,620
17	10,700	10,300	12,400	11,800	10,800	a9,950	12,000	9,670	9,900	7,390	7,800	8,640
18	10,800	10,500	12,400	11,700	10,700	a9,950	11,700	8,880	9,050	7,370	7,970	8,760
19	10,100	10,800	12,400	11,700	10,400	a9,950	10,500	8,540	8,500	7,340	7,970	9,340
20	10,400	10,900	12,400	11,600	10,400	a10,000	10,400	10,300	8,280	7,180	7,870	9,600
21	10,700	11,000	12,400	11,600	10,400	a10,100	11,000	12,300	8,520	7,340	7,900	9,770
22	10,400	11,100	12,400	11,700	11,900	10,100	12,900	13,800	8,500	7,390	8,020	9,720
23	10,100	10,900	12,100	11,700	11,800	9,900	13,000	16,000	9,050	7,370	8,180	9,520
24	9,600	10,600	12,200	11,800	10,900	9,570	11,900	17,400	13,100	7,640	8,140	9,440
25	10,000	10,800	12,200	12,200	10,500	9,500	12,500	19,200	21,400	7,640	8,180	9,600
26	10,300	12,600	12,000	12,400	10,100	9,050	14,500	20,800	19,800	7,600	8,300	9,600
27	10,400	13,100	11,800	10,500	9,520	8,760	15,600	19,800	19,300	7,620	8,280	9,500
28	10,400	13,200	12,100	10,700	9,440	9,100	14,400	16,300	18,700	7,510	8,330	9,320
29	10,000	13,000	12,100	11,800	9,440	9,820	13,600	14,500	17,600	7,620	8,380	9,320
30	10,600	12,800	11,800	11,200	-	9,820	13,000	13,000	15,400	7,600	8,540	9,200
31	10,600	-	11,600	10,500	-	9,370	-	14,300	-	7,710	8,540	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	320,280	11,000	9,220	10,330	635,300
November	336,600	13,200	10,300	11,220	667,600
December	382,600	12,900	11,600	12,340	758,900
Calendar year 1947	3,878,720	29,400	6,710	10,630	7,693,000
January	366,200	13,100	10,500	11,810	726,300
February	304,800	11,900	9,440	10,510	604,600
March	302,200	10,400	8,760	9,748	599,400
April	367,100	15,600	10,100	12,240	728,100
May	398,800	20,800	8,540	12,860	791,000
June	488,400	21,700	8,280	16,280	968,700
July	244,130	12,400	7,180	7,875	484,200
August	248,200	8,540	7,710	8,006	492,300
September	267,750	9,770	8,330	8,925	531,100
Water year 1947-48	4,027,060	21,700	7,180	11,000	7,988,000

a No gage-height record; discharge computed on basis of records for station near Murphy.
h Computed from staff-gage reading.

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 1948.

Extremes.- Maximum discharge during year, 24,100 second-feet June 6 (gage height, 9.00 feet); minimum, 5,850 second-feet July 20 (gage height, 3.46 feet); minimum daily, 7,250 second-feet July 22.

1912-48: 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. 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.

Rating table, water year 1947-48 (gage height, in feet. and discharge, in second-feet) (Shifting-control method used Oct. 1-28, June 5 to Aug. 23)

4.0	7,450	7.0	16,800
5.0	10,400	8.0	20,400
6.0	13,500	9.0	24,200

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,370	10,600	12,900	11,900	10,900	9,880	10,100	13,500	15,500	15,600	7,840	8,680
2	9,400	10,900	12,700	11,700	11,100	10,000	10,500	12,100	17,700	12,400	7,900	8,500
3	9,670	11,000	12,900	11,900	11,300	10,200	12,200	11,900	20,700	10,400	7,930	8,330
4	10,600	10,400	13,000	12,600	11,400	10,100	12,200	12,100	21,400	8,680	7,870	8,390
5	10,600	10,700	13,000	13,300	11,000	10,000	12,200	11,800	22,700	8,420	7,840	8,420
6	10,500	11,100	12,600	12,300	10,900	10,100	12,600	12,200	23,100	8,390	7,870	8,440
7	10,400	11,100	12,200	12,600	11,100	10,600	12,600	12,900	23,300	8,530	7,810	8,500
8	10,400	11,400	12,400	12,600	10,900	10,100	12,000	13,100	23,400	8,270	7,840	8,680
9	9,970	11,600	12,700	12,600	10,900	9,880	12,700	11,600	22,900	7,980	7,930	8,710
10	10,200	11,500	12,700	12,700	10,800	10,000	14,600	10,100	22,200	8,010	8,010	8,890
11	10,200	11,100	12,500	12,700	11,300	10,000	14,700	9,250	20,400	7,790	8,040	8,800
12	10,800	11,200	12,600	12,600	10,900	9,880	14,200	10,400	19,300	7,650	8,010	8,710
13	10,800	11,100	12,500	12,100	10,600	9,850	12,400	15,900	17,000	7,590	8,010	8,740
14	10,700	11,400	12,400	12,200	10,600	10,100	12,200	15,200	18,100	7,420	8,010	8,680
15	11,000	11,300	12,700	12,300	10,800	10,100	12,100	12,200	20,600	7,620	8,010	8,680
16	11,000	11,200	12,700	12,000	11,000	10,100	11,600	10,300	17,700	7,530	8,010	8,770
17	11,000	11,000	12,400	12,000	11,100	9,880	11,600	10,800	13,600	7,560	7,930	8,770
18	10,900	10,600	12,600	12,200	11,200	10,100	12,900	10,400	11,000	7,340	7,870	8,890
19	11,100	10,800	12,700	12,200	11,300	10,100	12,900	10,300	9,910	7,620	7,900	9,010
20	10,200	11,200	12,600	12,100	11,000	10,100	11,900	9,610	9,460	7,530	7,930	9,580
21	10,500	11,000	12,600	11,900	11,000	10,300	11,400	11,400	9,160	7,340	7,950	9,880
22	10,800	11,300	12,600	12,000	11,000	10,300	12,000	13,000	9,370	7,250	7,950	9,850
23	10,500	11,200	12,600	12,100	12,900	10,400	13,700	14,400	9,400	7,650	8,040	9,910
24	10,400	11,200	12,300	12,100	12,500	10,300	13,500	16,300	9,910	7,390	8,330	9,700
25	9,670	10,800	12,500	12,200	11,500	10,000	12,700	18,200	14,600	7,620	8,240	9,670
26	10,300	10,900	12,300	12,600	11,000	10,100	13,100	20,200	22,700	7,810	8,270	9,880
27	10,300	12,600	12,200	12,700	10,800	9,550	15,000	21,700	21,000	7,620	8,360	9,880
28	10,500	13,200	12,100	11,100	10,100	9,310	15,900	20,200	20,600	7,730	8,360	9,730
29	10,500	13,200	12,400	11,000	10,100	9,550	14,600	17,500	19,900	7,560	8,330	9,640
30	10,100	13,000	12,300	12,100	-	10,200	13,800	15,600	18,400	7,650	8,440	9,610
31	10,900	-	12,200	11,600	-	10,500	-	14,100	-	7,670	8,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	323,280	11,100	9,370	10,430	641,200
November	339,600	13,200	10,400	11,320	673,600
December	388,900	13,000	12,100	12,550	771,400
Calendar year 1947	3,978,490	31,100	7,370	10,900	7,891,000
January	378,000	13,300	11,000	12,190	749,800
February	321,000	12,900	10,100	11,070	636,700
March	311,580	10,600	9,310	10,050	618,000
April	383,900	15,900	10,100	12,800	761,500
May	418,260	21,700	9,250	13,490	829,600
June	525,010	23,400	9,160	17,500	1,041,300
July	255,620	15,600	7,250	8,246	507,000
August	249,390	8,560	7,810	8,045	494,700
September	271,920	9,910	8,330	9,064	539,300
Water year 1947-48	4,166,460	23,400	7,250	11,380	8,264,000

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 1948. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895.

Extremes.- Maximum discharge during year, 48,300 second-feet June 4 (gage height, 10.51 feet); minimum, 9,160 second-feet July 23 (gage height, 2.82 feet).

1910-48: 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 in 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,400	14,900	16,600	15,100	16,500	14,400	15,600	26,500	35,500	22,700	10,400	11,200
2	12,300	14,600	16,500	14,900	15,700	13,700	15,200	25,000	35,800	21,000	10,400	11,200
3	12,300	14,300	16,500	14,900	15,700	13,500	15,900	23,200	40,100	17,900	10,500	11,100
4	12,200	15,100	16,500	15,400	15,700	13,500	19,000	24,000	47,400	15,500	10,500	11,000
5	13,600	14,400	16,500	16,100	15,600	13,600	18,800	24,600	46,900	14,000	10,400	10,900
6	13,600	14,300	16,400	17,300	15,300	13,500	18,000	23,800	46,400	13,300	10,100	11,100
7	13,600	14,900	16,200	19,000	15,000	13,500	18,000	24,000	46,500	12,700	10,200	11,300
8	13,600	14,800	15,800	21,000	14,800	14,100	17,900	26,600	46,600	12,500	10,300	11,300
9	13,600	14,700	15,700	21,200	14,900	13,900	17,100	26,900	46,600	12,100	10,300	11,600
10	13,600	15,200	15,900	19,700	14,400	13,300	18,700	25,300	45,800	11,500	10,500	11,700
11	14,200	14,900	16,000	18,600	13,900	13,100	21,800	22,300	44,400	11,200	10,600	11,900
12	14,300	14,500	15,700	17,900	14,000	13,300	21,500	21,000	41,400	10,600	10,700	11,900
13	14,900	14,500	15,700	17,400	13,900	13,100	20,400	20,400	38,000	10,600	10,600	11,700
14	14,800	15,400	15,600	16,300	13,700	13,000	18,700	25,200	34,000	10,500	10,700	11,600
15	14,500	15,400	15,500	15,700	13,700	13,400	18,500	24,500	32,400	9,990	10,600	11,600
16	15,100	15,400	15,800	15,500	13,900	13,500	19,900	23,700	34,400	10,000	10,600	11,600
17	16,300	15,200	15,900	15,300	14,000	13,500	21,800	23,800	32,800	9,960	10,400	11,700
18	17,300	15,000	15,600	15,200	14,200	13,200	26,500	25,600	28,200	10,200	10,400	12,000
19	16,600	14,400	15,700	15,300	14,800	13,500	27,800	28,300	24,700	10,100	10,300	12,500
20	16,500	14,300	15,800	15,900	15,000	13,300	26,000	30,700	22,500	9,860	10,200	12,800
21	15,900	14,400	15,900	16,200	14,800	12,800	25,200	30,100	21,900	9,960	10,300	13,000
22	15,500	14,400	15,800	16,500	16,700	13,100	24,600	31,000	22,400	9,930	10,200	13,300
23	15,900	14,500	15,700	17,000	19,400	13,300	26,000	33,000	22,300	9,640	10,400	13,500
24	15,600	14,600	15,700	17,100	17,900	14,200	27,200	33,000	21,000	9,720	10,800	13,700
25	15,400	14,600	15,400	17,200	17,900	16,100	25,700	34,200	20,500	9,750	10,900	13,800
26	14,700	14,300	15,300	17,100	16,900	17,100	23,800	36,800	22,500	10,100	11,000	14,000
27	14,600	14,600	15,100	16,900	17,700	16,100	25,200	41,200	30,000	10,300	11,000	14,100
28	15,000	15,600	15,200	16,900	16,200	15,300	26,000	44,500	27,100	10,100	11,000	14,300
29	15,100	16,700	15,000	16,000	14,800	14,900	25,700	44,600	24,900	10,500	11,100	14,100
30	15,300	16,700	15,200	14,900	-	15,300	26,600	42,200	23,600	10,200	11,000	14,000
31	15,000	-	15,300	16,300	-	15,900	-	39,200	-	10,100	11,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	453,300	17,300	12,200	14,620	899,100
November	446,600	16,700	14,300	14,890	885,800
December	489,500	16,600	15,000	15,790	970,900
Calendar year 1947	6,264,580	44,100	9,210	17,160	12,430,000
January	519,800	21,200	14,900	16,770	1,031,000
February	447,000	19,400	13,700	15,410	886,600
March	434,000	17,100	12,800	14,000	860,800
April	653,100	27,800	15,200	21,770	1,295,000
May	905,200	44,600	20,400	29,200	1,795,000
June	1,006,600	47,400	20,500	33,550	1,997,000
July	366,510	22,700	9,640	11,820	727,000
August	327,400	11,100	10,100	10,560	649,400
September	369,500	14,300	10,900	12,320	732,900
Water year 1947-48	6,418,510	47,400	9,640	17,540	12,730,000

Note.- No gage-height record Sept. 18-30; discharge computed on basis of weather records and records for stations at Oxbow and near Murphy.

Snake River at Oxbow, Oreg.

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 1948.

Extremes.- Maximum discharge during year, 55,100 second-feet June 5 (gage height, 17.55 feet); minimum, 9,140 second-feet July 24 (gage height, 7.95 feet).
1923-48: Maximum discharge, 74,600 second-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 except those for period of no gage-height record, which are good. Flow regulated by many reservoirs above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,200	14,900	17,100	15,100	17,000	15,300	16,800	28,800	41,800	25,000	10,200	11,100
2	12,300	14,800	16,600	15,200	16,400	14,800	16,800	27,400	40,400	23,100	10,300	11,300
3	12,200	14,200	16,600	14,700	15,700	13,900	17,000	25,900	43,800	20,900	10,500	11,100
4	12,300	14,700	16,600	15,200	15,900	14,100	20,500	25,000	51,000	17,600	10,500	10,900
5	12,700	14,700	16,700	15,700	15,800	14,000	19,800	26,600	54,200	15,600	10,300	10,700
6	13,500	14,200	16,500	17,100	15,700	14,000	19,000	26,000	52,900	14,300	10,100	10,800
7	13,500	14,600	16,500	19,100	15,200	13,900	19,000	25,600	52,500	13,500	10,200	11,100
8	13,700	14,900	16,100	21,800	15,200	14,200	18,800	28,000	53,000	13,100	10,200	11,200
9	13,600	14,700	15,700	22,000	15,200	14,500	18,500	29,200	52,800	12,900	10,300	11,300
10	13,800	14,800	15,800	21,300	15,000	13,800	20,600	28,800	52,200	12,100	10,400	11,400
11	13,900	15,200	16,000	19,300	14,400	13,300	23,000	25,500	51,000	11,600	10,600	11,500
12	14,200	14,700	15,900	18,500	14,200	13,400	22,600	23,400	47,800	11,300	10,700	11,600
13	14,600	14,500	15,600	17,900	14,300	13,600	22,000	22,200	44,000	10,700	10,700	11,600
14	15,000	14,700	15,800	17,100	14,300	13,400	20,500	24,300	39,400	10,700	10,500	11,700
15	14,800	15,500	15,600	16,000	14,000	13,500	20,000	27,400	36,500	10,400	10,700	11,700
16	15,500	15,500	15,700	15,700	14,200	14,000	21,400	25,600	37,100	10,200	10,500	11,700
17	15,800	15,300	16,000	15,800	14,500	14,000	24,000	26,000	37,500	10,200	10,400	11,800
18	17,700	15,200	16,000	15,500	14,700	14,000	29,000	26,700	33,100	10,300	10,400	12,300
19	17,000	14,900	15,700	15,400	15,200	13,800	30,500	30,300	28,800	10,200	10,200	12,500
20	16,700	14,300	15,900	15,700	15,600	14,100	29,000	33,100	26,400	10,000	10,000	13,100
21	16,800	14,400	15,900	16,400	15,500	13,500	28,000	34,200	24,800	10,200	10,100	13,200
22	15,400	14,500	16,000	16,500	16,200	13,400	26,500	33,900	25,000	10,200	10,200	13,800
23	15,800	14,400	15,900	17,200	21,000	13,700	28,000	36,300	25,000	9,950	10,300	13,900
24	15,800	14,700	15,700	17,400	19,400	14,400	30,000	37,400	24,400	9,630	10,600	14,000
25	15,500	14,600	15,700	17,500	19,300	15,900	28,000	38,400	22,900	9,830	10,600	14,000
26	15,200	14,600	15,200	17,300	18,300	18,600	26,000	40,900	22,800	9,980	11,000	14,100
27	14,600	14,500	15,200	17,100	18,500	17,300	28,000	45,200	29,400	10,200	10,800	14,500
28	14,900	14,900	15,200	17,000	18,400	16,700	26,200	49,700	30,800	10,300	10,800	14,700
29	15,000	16,500	15,100	16,800	16,100	16,000	27,600	51,000	27,000	10,400	11,000	14,600
30	15,200	16,900	14,900	15,300	-	15,900	27,600	48,400	25,500	10,500	10,900	14,200
31	15,300	-	15,200	15,900	-	16,600	-	46,200	-	10,300	10,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	454,500	17,700	12,200	14,660	901,500
November	446,300	16,900	14,200	14,880	885,200
December	492,400	17,100	14,900	15,880	976,700
Calendar year 1947	6,403,040	44,100	9,600	17,540	12,700,000
January	555,500	22,000	14,700	17,920	1,102,000
February	465,200	21,000	14,000	16,040	922,700
March	451,600	18,600	13,300	14,570	895,700
April	704,700	30,500	16,800	23,490	1,398,000
May	997,400	51,000	22,200	32,170	1,978,000
June	1,133,800	54,200	22,800	37,790	2,249,000
July	385,190	25,000	9,630	12,430	764,000
August	324,800	11,000	10,000	10,480	644,200
September	371,400	14,700	10,700	12,380	736,700
Water year 1947-48	6,782,790	54,200	9,630	18,530	13,450,000

Note.- No gage-height record Apr. 3-27; discharge computed on basis of records for station at Weiser and records for nearby tributaries.

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 bench mark).

Drainage area.- 103,200 square miles.

Records available.- October 1935 to September 1948 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, 369,000 second-feet May 29 (gage height, 40.36 feet, from high-water mark in well); minimum, 18,200 second-feet Sept. 17 (gage height, 10.61 feet); minimum daily, 20,200 second-feet Sept. 16, 17.

1909-48: Maximum discharge. that of May 29, 1948; 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 fluctutation caused by power plant on Clearwater River above Lewiston, Idaho.

Revisions (water years).- W 463: 1916. W 933: 1937.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 29 to Sept. 30)

10.9	20,200	15.0	41,000	24.0	119,500	34.0	251,300
11.4	22,200	16.0	47,700	26.0	142,100	36.0	285,200
12.0	24,800	18.0	62,700	28.0	166,400	38.0	321,900
13.0	29,600	20.0	79,700	30.0	192,600	39.5	351,000
14.0	35,000	22.0	98,700	32.0	220,600		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21,800	30,000	43,000	29,000	31,600	47,700	50,500	106,000	263,900	89,700	32,800	21,800
2	22,200	29,000	47,000	29,000	32,200	44,300	53,300	101,000	257,300	86,900	29,600	21,400
3	22,600	29,000	45,000	31,100	30,600	40,400	64,300	93,700	270,000	81,500	30,600	21,400
4	27,600	28,000	43,600	31,600	29,600	37,400	64,300	95,700	290,600	74,300	29,600	21,000
5	27,000	28,600	41,700	31,600	30,000	35,600	61,900	96,700	275,000	68,300	28,600	20,500
6	25,700	28,600	40,400	32,800	28,600	34,400	59,500	95,700	262,700	63,500	27,600	20,500
7	26,200	28,000	38,600	66,100	27,600	33,800	55,500	112,000	261,800	58,700	26,600	20,500
8	26,200	33,300	36,800	101,000	27,600	33,800	52,600	136,000	264,400	55,500	26,600	20,500
9	28,600	40,400	36,200	82,400	29,000	33,800	51,900	153,000	259,600	52,600	25,700	21,000
10	29,000	36,200	35,000	69,100	29,000	32,800	54,700	142,000	252,000	49,800	25,700	20,500
11	28,600	34,400	33,800	59,500	27,600	30,000	56,300	134,000	238,900	47,700	26,200	21,400
12	29,600	35,000	33,800	52,600	25,700	29,600	59,500	127,000	225,100	45,600	26,600	20,500
13	28,600	33,300	32,800	46,300	25,200	30,000	57,900	128,000	200,900	44,300	26,200	20,500
14	28,600	33,300	32,800	41,000	27,000	30,600	56,300	136,000	192,700	42,400	25,200	20,500
15	28,000	33,300	33,300	38,600	28,600	30,600	59,500	134,000	173,400	40,400	24,800	20,500
16	27,600	33,300	33,300	36,200	28,600	30,600	76,100	134,000	168,600	38,600	24,800	20,200
17	35,600	32,800	33,300	34,400	30,000	31,100	102,000	145,300	160,300	37,400	23,900	20,200
18	38,000	33,300	36,800	35,000	32,200	31,100	128,000	169,000	147,800	36,200	23,500	20,500
19	40,400	33,300	38,600	34,400	35,000	31,600	128,000	183,600	136,000	36,200	23,000	20,500
20	36,800	32,200	37,400	32,800	35,000	30,600	125,000	216,300	216,900	38,000	22,600	21,400
21	35,000	31,100	36,200	33,300	33,800	30,600	126,000	233,900	125,400	39,200	22,600	21,400
22	35,600	30,000	35,600	35,000	47,500	30,600	137,000	263,200	134,000	36,200	22,600	21,400
23	32,800	28,600	34,400	36,200	54,000	33,800	143,000	280,800	129,000	33,800	22,600	22,200
24	32,200	28,600	33,800	39,800	51,900	35,000	133,000	254,500	120,000	32,200	22,600	22,600
25	31,600	28,600	32,800	41,300	46,300	41,000	124,000	251,900	112,000	31,100	23,000	23,500
26	30,600	32,800	31,600	36,200	66,700	49,100	113,000	269,400	107,000	30,600	23,500	23,500
27	29,600	51,200	30,600	32,800	76,100	48,400	99,700	291,800	102,000	30,000	23,500	23,900
28	29,000	48,400	30,600	30,000	63,500	47,700	91,700	320,800	104,000	32,200	22,600	25,200
29	29,600	43,600	31,600	30,000	54,700	50,500	95,700	f349,500	99,700	43,000	23,000	25,700
30	29,600	42,400	31,600	30,000	-	54,700	107,000	f329,900	93,700	39,800	21,800	24,800
31	30,000	-	30,600	30,600	-	52,600	-	285,700	-	34,400	21,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	924,300	40,400	21,800	29,820	1,833,000
November	1,010,600	51,200	28,000	33,690	2,004,000
December	1,112,600	47,000	30,600	35,890	2,207,000
Calendar year 1947	19,488,100	230,000	19,000	53,390	38,650,000
January	1,290,300	101,000	29,000	41,620	2,559,000
February	1,085,200	76,100	25,200	37,420	2,152,000
March	1,153,800	54,700	29,600	37,220	2,289,000
April	2,585,200	143,000	50,500	86,170	5,128,000
May	5,770,400	349,500	93,700	186,100	11,450,000
June	5,554,700	290,600	93,700	185,200	11,020,000
July	1,470,100	89,700	30,000	47,420	2,916,000
August	779,800	32,800	21,800	25,150	1,547,000
September	649,500	25,700	20,200	21,650	1,288,000
Water year 1947-48	23,386,500	349,500	20,200	63,900	46,390,000

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 1948.

Extremes.- Maximum discharge during year, 2,280 second-feet June 3 (gage height, 4.66 feet), supersede figures published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin"; minimum discharge not determined, occurred during period of ice effect.

1917-18, 1944-48: Maximum discharge observed, 3,030 second-feet June 15, 1918 (gage height, 3.98 feet, former site and datum); minimum recorded, 32 second-feet Dec. 17, 1946, 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.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	92	61					a50	277	2,010	645	114	50
2	86	62					a56	258	2,040	633	114	a51
3	83	66					h60	243	2,060	573	105	a52
4	80	64					a58	251	1,840	505	103	h54
5	77	64	50				a60	240	1,850	445	103	a54
6	76	57		45			a58	269	1,830	395	101	a54
7	74	54					a55	320	1,940	346	94	a55
8	75	56				40	a50	362	1,950	322	a100	a55
9	75	51					a53	308	1,810	296	103	h55
10	72	47					h56	300	1,740	274	96	a54
11	74	50					a54	296	1,720	257	89	a53
12	75	54					a52	300	1,600	248	87	a52
13	71	55					a50	316	1,530	238	82	a51
14	70	56					*53	328	1,450	278	79	a51
15	69	58	(*)		40		59	353	1,350	254	75	52
16	69	58					74	483	1,240	226	74	53
17	76	56					101	732	1,160	208	72	55
18	72	63					114	1,000	1,050	203	69	77
19	70	58					107	1,200	1,140	197	69	99
20	69	54					117	1,460	1,030	203	68	92
21	68	53	45	(*) 40			140	1,710	1,030	194	67	75
22	69	52					169	1,730	1,140	186	64	68
23	68	50					179	1,710	1,010	191	64	65
24	66	58				45	175	1,790	963	244	65	62
25	64	60					175	1,880	942	232	62	62
26	65	62					160	1,950	854	186	62	60
27	65	60					160	2,020	809	165	59	60
28	65	56					191	2,040	752	152	58	59
29	62	47					277	2,210	710	140	57	57
30	65	45					300	1,950	674	133	54	57
31	62	-					-	1,870	-	120	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,224	92	62	71.7	0.448	0.52	4,410
November	1,687	66	45	56.2	.351	.39	3,350
December	1,445	-	-	46.6	.291	.34	2,870
Calendar year 1947	97,113	1,440	-	266	1.66	22.58	192,600
January	1,295	-	-	41.8	.261	.30	2,570
February	1,160	-	-	40.0	.250	.27	2,300
March	1,320	-	-	42.6	.266	.31	2,620
April	3,263	300	50	109	.681	.76	6,470
May	30,156	2,210	240	973	6.08	7.01	59,810
June	41,224	2,060	674	1,374	8.59	9.58	81,770
July	8,689	645	120	280	1.75	2.02	17,230
August	2,463	114	54	79.5	.497	.57	4,890
September	1,794	99	50	59.8	.374	.42	3,560
Water year 1947-48	96,720	2,210	-	264	1.65	22.49	191,800

Peak discharge (base, 1,300 sec.-ft.).- May 29 (6 a.m.) 2,280 sec.-ft.; June 3 (3 a.m.) 2,200 sec.-ft.; June 8 (1 a.m.) 2,090 sec.-ft.

* Winter discharge measurement made on this day.

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

h Computed from staff-gage reading.

Note.- Stage-discharge relation affected by ice Nov. 17, Nov. 19 to about Mar. 31 (no gage-height record Nov. 22 to Dec. 14, Dec. 17 to Apr. 13 except about once-weekly staff-gage readings: discharge computed on basis of weather records and records for 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 1948.

Extremes.- Maximum discharge during year, 3,900 second-feet June 3 (gage height, 5.50 feet); minimum not determined, occurred during period of ice effect.
1917-18, 1944-48: Maximum discharge observed, 5,840 second-feet June 13, 1918 (gage height, 6.78 feet, datum then in use), from discharge measurement; minimum recorded, 86 second-feet Dec. 17, 1946 (gage height, 0.95 foot), but may have been less during period of ice effect.

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

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1-2)

Oct. 1 to June 2				June 3 to Sept. 30					
1.3	164	2.5	750	1.2	199	1.9	490	3.9	2,120
1.5	223	3.0	1,130	1.4	256	2.5	860	4.6	2,890
1.8	338	4.0	2,120	1.6	333	3.1	1,350	5.4	3,790
2.1	490	5.2	3,510						

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	347	204						375	3,460	1,850	375	215
2	321	204						321	3,500	1,910	380	212
3	309	220				(*)		288	3,770	1,720	371	209
4	300	208						300	3,320	1,610	366	204
5	285	217	180					281	3,060	1,500	391	204
6	277	186		160				292	3,230	1,460	385	204
7	277	181						399	3,420	1,330	375	199
8	273	189				130	150	532	3,620	1,210	380	199
9	285	186						457	3,650	1,150	361	199
10	269	186						394	3,520	1,110	325	199
11	277	198						366	3,460	1,070	304	199
12	273	210						352	3,440	986	292	197
13	254	208						356	3,220	930	281	197
14	258	205					(*)	394	3,350	838	274	195
15	254	201	(*)		130			462	2,640	834	267	190
16	251	200					160	550	2,460	770	260	190
17	258	204					180	930	2,550	738	253	192
18	248	214					200	1,440	2,130	707	247	217
19	237	204					230	1,750	2,110	689	247	260
20	234	195					244	2,410	1,840	689	240	288
21	230	181	160	(*)			277	2,830	1,750	640	237	228
22	237	175		130			317	2,840	1,950	597	234	209
23	234	170					338	2,540	1,790	579	234	202
24	226	208					321	2,560	1,870	555	237	199
25	220	220					321	2,800	1,750	555	234	199
26	211	226					269	3,030	1,640	508	231	197
27	223	223					244	3,310	1,630	479	228	195
28	220	195					285	3,250	1,590	456	222	192
29	223	162					410	3,450	1,700	428	220	192
30	230	160					430	2,970	1,860	417	217	190
31	220	-			-		-	3,090	-	396	215	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,961	347	211	257	0.680	0.78	15,790
November	5,940	226	160	198	.524	.58	11,780
December	5,160	-	-	166	.439	.51	10,230
Calendar year 1947	236,890	3,150	-	649	1.72	23.30	469,900
January	4,360	-	-	141	.373	.43	8,650
February	3,770	-	-	130	.344	.37	7,480
March	4,190	-	-	135	.357	.41	8,310
April	6,476	430	-	216	.571	.64	12,840
May	45,319	3,450	281	1,462	3.87	4.46	89,890
June	79,280	3,770	1,590	2,643	6.99	7.80	157,200
July	28,811	1,910	396	929	2.46	2.83	57,150
August	8,883	391	215	287	.759	.87	17,620
September	6,172	288	190	206	.545	.61	12,240
Water year 1947-48	206,322	3,770	-	564	1.49	20.29	409,200

Peak discharge (base, 3,100 sec.-ft.).- May 22 (5 a.m.) 3,340 sec.-ft.; May 29 (9 to 10 a.m.) 3,610 sec.-ft.; June 3 (11 a.m.) 3,900 sec.-ft.; June 9 (11 a.m.) 3,770 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 12-14, 16, 17, 22, 23, Nov. 30 to Apr. 19 (no gage-height record Jan. 16, Jan. 26 to Mar. 2, Mar. 12-19; discharge computed on basis of weather records and records for Gros Ventre River at Kelly and Hoback River near Jackson).

Gros Ventre River at Kelly, 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 1948. June to September 1918 at site 1 mile upstream.
Extremes.- Maximum discharge observed during year, 3,200 second-feet May 30 (gage height, 6.33 feet, supersedes figure published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin"); minimum observed, 116 second-feet Mar. 12; minimum gage height observed, 1.19 feet Sept. 15.

1918, 1944-48: 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; minimum gage height observed, that of Sept. 15, 1948.

Flood of May 18, 1927, when landslide about 2 miles upstream washed out, releasing about 60,000 acre-feet of impounded water, was considerably higher; discharge not determined.

Remarks.- Records good. Diversions above and below station for irrigation.
Revisions.- W 1043: Drainage area.

Rating tables, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 24 to Feb. 20, May 30, June 9 to Sept. 30)

Oct. 1 to May 30				May 31 to Sept. 30					
1.5	120	3.0	590	1.2	144	2.0	321	4.0	1,320
1.7	154	3.5	884	1.5	199	2.5	500	5.0	2,040
2.0	216	4.0	1,240	1.7	243	3.0	735	6.2	3,060
2.3	297	5.0	2,020						
2.6	405	6.4	3,240						

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	235	212	173	141	140	128	140	447	2,580	832	205	159
2	245	190	181	152	140	133	140	409	2,750	832	201	156
3	245	196	186	158	143	140	152	359	2,980	821	201	152
4	245	207	181	160	141	125	154	320	3,020	799	199	149
5	240	190	177	165	140	123	154	317	2,240	735	207	158
6	238	190	181	164	140	123	154	310	2,200	674	207	163
7	235	196	186	165	133	140	143	341	2,280	635	205	166
8	235	216	184	173	131	141	136	447	2,240	602	201	146
9	235	190	184	162	140	143	140	516	2,330	526	212	152
10	216	190	164	154	141	125	149	439	2,300	488	214	158
11	221	201	162	158	126	117	147	397	2,250	436	216	163
12	221	203	150	154	117	116	145	374	1,700	402	216	149
13	228	201	143	143	134	126	143	370	1,770	374	207	147
14	226	198	156	134	138	143	147	362	1,480	364	205	149
15	223	198	162	145	140	140	154	422	1,450	351	199	144
16	226	198	164	136	140	143	167	555	1,340	333	199	149
17	230	205	165	138	140	140	190	789	1,340	321	199	147
18	226	198	167	140	140	140	230	1,240	1,220	307	165	159
19	228	198	169	131	140	140	248	1,440	1,070	299	168	174
20	221	196	169	131	141	136	254	2,000	1,020	296	159	189
21	216	190	165	138	141	123	259	2,420	966	288	163	207
22	216	184	167	149	145	136	288	3,030	1,010	277	163	205
23	221	177	165	152	147	140	352	2,840	1,150	265	159	205
24	221	175	171	156	141	143	366	2,240	1,180	253	163	197
25	223	179	160	156	133	143	362	2,400	1,060	243	163	187
26	221	188	164	138	140	a142	341	2,490	1,000	238	170	a180
27	212	194	156	134	141	140	307	2,650	972	229	166	177
28	216	190	160	125	133	149	294	3,010	918	225	166	152
29	214	177	160	136	126	138	337	2,910	821	214	163	154
30	214	169	164	133	-	147	418	3,200	799	207	163	152
31	212	-	152	131	-	140	-	2,260	-	203	159	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,005	245	212	226	0.363	0.42	13,890
November	5,796	216	169	193	.310	.35	11,500
December	5,188	186	143	167	.268	.31	10,290
Calendar year 1947	186,292	3,100	122	510	.820	11.15	379,500
January	4,552	173	125	147	.236	.27	9,030
February	3,992	147	117	138	.222	.24	7,920
March	4,203	149	116	136	.219	.25	8,340
April	6,611	418	136	220	.354	.40	13,110
May	41,304	3,200	310	1,332	2.14	2.47	81,930
June	49,436	3,020	799	1,648	2.65	2.96	98,050
July	13,069	832	203	422	.678	.78	25,920
August	5,783	216	159	187	.301	.35	11,470
September	4,945	207	144	165	.265	.30	9,810
Water year 1947-48	151,884	3,200	116	415	.667	9.10	301,300

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

Records available.- November 1944 to Septmeber 1948. 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, 3,180 second-feet May 29 (gage height, 5.53 feet); minimum daily discharge, 130 second-feet Mar. 11.
1917-18, 1944-48: Maximum discharge observed, 6,160 second-feet June 16, 1918 (gage height, 13.46 feet, former site and datum); minimum observed, 90 second-feet Dec. 18, 1946 (gage height, 1.70 feet).

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

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.0	135	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	5.6	3,260

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	314	244	231	165	181	154	181	1,160	2,950	1,290	403	261
2	294	236	223	205	187	157	184	1,010	2,910	1,220	391	261
3	280	244	236	194	181	181	198	762	3,120	1,240	397	257
4	285	236	219	184	173	147	194	882	2,700	1,160	409	252
5	275	252	236	191	162	b147	198	802	2,610	1,050	403	244
6	270	244	244	201	170	149	191	922	2,650	1,020	397	252
7	280	227	231	212	167	159	173	1,220	2,660	957	391	248
8	265	236	184	187	167	179	152	1,460	2,890	874	403	244
9	270	227	194	173	181	152	187	1,050	2,950	818	409	244
10	270	219	179	152	187	b140	205	914	2,700	778	397	227
11	280	205	191	b198	b170	b130	191	882	2,530	748	380	244
12	265	205	173	b170	b150	b140	187	858	2,400	755	368	248
13	261	209	176	b160	173	149	179	882	2,350	718	363	236
14	261	205	*216	b155	184	179	*194	1,070	2,220	688	352	236
15	257	212	198	b170	187	176	209	1,250	1,940	660	346	227
16	252	205	184	b160	176	167	299	1,470	1,810	624	341	216
17	280	212	162	b160	181	176	409	1,890	1,620	596	341	212
18	265	227	212	b160	191	173	535	2,220	1,220	562	330	280
19	252	191	187	b155	181	173	451	2,220	1,420	542	319	270
20	257	205	179	b155	184	162	489	2,870	1,310	562	325	265
21	252	219	173	184	147	b150	569	2,840	1,380	476	304	252
22	261	212	205	*194	179	181	695	2,870	1,360	502	309	244
23	257	184	209	205	187	191	802	2,570	1,530	489	346	248
24	265	212	173	201	162	179	826	2,500	1,620	483	336	244
25	265	236	167	209	157	173	882	2,640	1,520	470	319	240
26	252	244	179	b160	173	176	617	2,830	1,380	464	304	236
27	252	257	173	b155	191	167	638	3,010	1,290	451	290	240
28	244	201	167	b150	142	157	810	2,920	1,320	439	285	240
29	244	191	179	b170	*165	179	1,290	3,180	1,340	439	270	244
30	252	176	173	b170	-	187	1,440	2,750	1,350	420	275	252
31	248	-	170	181	-	154	-	2,640	-	397	270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	8,225	314	244	265	0.470	0.54	16,310
November	6,573	257	176	219	.388	.43	13,040
December	6,023	244	162	194	.344	.40	11,950
Calendar year 1947	240,618	3,010	154	659	1.17	15.86	477,300
January	5,486	212	150	177	.314	.36	10,880
February	5,036	191	142	174	.309	.33	9,990
March	5,084	191	130	164	.291	.34	10,080
April	13,575	1,440	152	425	.801	.90	26,930
May	56,544	3,180	762	1,824	3.23	3.73	112,200
June	61,050	3,120	1,220	2,035	3.61	4.03	121,100
July	21,892	1,290	397	706	1.25	1.44	43,420
August	10,773	409	270	348	.617	.71	21,370
September	7,364	280	212	245	.434	.49	14,610
Water year 1947-48	207,625	3,180	130	567	1.01	13.70	411,900

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

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.- 47.8 square miles (revised).

Records available.- June 1932 to September 1948 (no winter records 1933-35, 1936-37).

Average discharge.- 12 years (1935-36, 1937-48), 35.7 second-feet.

Extremes.- Maximum discharge during year, 256 second-feet May 21 (gage height, 3.30 feet); minimum daily, 6.7 second-feet Apr. 13.
1932-48: Maximum discharge, 430 second-feet May 15, 1936, from rating curve extended above 200 second-feet; minimum daily discharge 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12	12	10	10	7.8	8.8	106	183	68	20	13
2	14	13	12	11	10	7.6	9.2	87	182	64	20	13
3	14	13	13	11	10	7.8	9.4	87	186	60	20	14
4	14	12	13	12	10	8.0	9.4	91	170	59	20	14
5	13	12	12	12	10	8.0	9.4	97	164	51	20	14
6	13	b11	13	12	10	8.0	8.6	128	164	49	18	14
7	13	b12	13	13	10	8.4	8.2	150	164	47	18	14
8	13	b12	13	13	10	8.6	9.0	133	159	45	18	14
9	12	b12	13	13	10	8.4	9.2	106	151	39	18	14
10	13	b11	13	12	10	8.0	9.4	98	145	36	18	14
11	16	b10	13	*12	8.6	7.6	9.2	94	134	36	18	14
12	14	b8.5	13	12	7.6	7.8	*8.7	90	124	34	18	14
13	14	b10	13	12	7.4	8.0	6.7	106	118	31	18	14
14	14	b13	13	11	7.8	8.0	8.4	139	110	31	18	13
15	14	b13	13	11	*8.1	7.6	12	158	106	29	18	13
16	14	b14	*13	11	8.6	7.8	21	171	100	28	18	12
17	15	*13	13	11	8.8	8.0	30	178	97	27	17	14
18	14	13	13	11	8.8	8.2	35	204	92	26	17	14
19	13	12	13	11	8.6	*8.2	27	215	91	25	16	17
20	13	12	13	11	8.4	8.6	30	239	93	25	15	14
21	13	11	13	12	8.2	8.8	36	241	96	24	15	13
22	14	10	13	12	8.4	8.8	59	237	103	22	15	12
23	14	11	12	12	8.6	9.0	53	217	97	21	15	11
24	14	12	12	12	8.4	9.0	50	214	95	21	15	11
25	13	13	12	11	8.4	8.8	49	215	88	21	15	11
26	13	13	12	9.0	8.2	8.4	43	210	84	21	14	10
27	13	12	12	8.0	8.2	8.4	59	202	78	21	14	11
28	13	12	12	8.5	8.2	8.8	117	198	74	21	14	11
29	14	11	12	9.5	8.0	9.2	160	196	71	21	13	11
30	14	11	11	10	-	8.8	134	186	70	21	13	11
31	13	-	9.5	10	-	7.8	-	183	-	20	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	422	16	12	13.6	837
November	354.5	14	8.5	11.8	703
December	387.5	13	9.5	12.5	769
Calendar year 1947	17,109.4	281	6.0	46.9	33,930
January	346.0	13	8.0	11.2	686
February	257.3	10	7.4	8.87	510
March	256.2	9.2	7.6	8.26	508
April	1,038.6	160	6.7	34.6	2,060
May	4,976	241	87	161	9,870
June	3,589	186	70	120	7,120
July	1,044	68	20	33.7	2,070
August	519	20	13	16.7	1,030
September	389	17	10	13.0	772
Water year 1947-48	13,579.1	241	6.7	37.1	26,940

Peak discharge base, 170 sec.-ft.).- Apr. 29 (4 p.m.) 187 sec.-ft.; May 7 (5:30 p.m.) 181 sec.-ft.; May 21 (3 a.m.) 256 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Nov. 17 to Apr. 12 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 6 discharge measurements, weather records, and records for stations on nearby streams.

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 1948. July 1917 to September 1918 at site 4 miles upstream; records not equivalent.

Average discharge.- 14 years, 691 second-feet.

Extremes.- Maximum discharge during year, 2,120 second-feet May 22 (gage height, 3.67 feet); minimum daily, 375 second-feet Feb. 5.

1934-48: 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); minimum daily, 220 second-feet May 17, 1934.

Remarks.- Records excellent. Diversions above station for irrigation. Flow partly regulated by many small power plants on tributaries.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 11)

1.5	360	2.6	1,010
1.8	460	3.0	1,380
2.2	705	3.7	2,150

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	649	629	593	563	642	405	414	1,580	1,690	1,080	705	599
2	635	635	605	656	408	408	417	1,410	1,660	1,060	705	599
3	635	649	605	533	390	408	448	1,290	1,690	1,040	698	587
4	635	649	611	498	390	405	471	1,280	1,700	1,020	691	605
5	629	649	605	510	375	399	460	1,280	1,660	1,000	712	593
6	629	642	605	510	381	399	452	1,280	1,620	942	726	593
7	623	635	599	521	393	396	444	1,520	1,570	910	726	587
8	629	649	593	545	393	402	440	1,730	1,510	888	712	587
9	635	649	581	557	402	396	440	1,580	1,450	888	712	587
10	642	635	575	551	399	396	488	1,450	1,330	872	705	593
11	656	635	575	527	399	387	504	1,390	1,240	842	712	593
12	656	635	569	515	405	387	504	1,370	1,150	850	712	599
13	656	629	569	498	405	393	510	1,360	1,050	820	691	617
14	663	623	569	563	393	393	557	1,460	1,040	790	670	623
15	663	629	581	605	399	387	623	1,570	976	775	649	629
16	663	617	563	656	414	384	835	1,690	934	775	649	629
17	663	617	569	587	432	387	1,110	1,840	872	754	642	642
18	663	623	575	471	428	387	1,440	2,010	828	754	635	663
19	649	629	557	471	414	384	1,350	2,020	842	761	629	677
20	649	623	545	493	414	387	1,370	2,060	902	754	629	691
21	642	611	539	569	417	384	1,500	2,070	1,120	733	635	663
22	642	605	557	466	432	387	1,630	2,080	1,640	726	635	649
23	649	599	557	466	428	393	1,540	2,020	1,880	719	642	642
24	649	599	539	452	414	399	1,400	1,960	1,760	733	635	629
25	642	599	510	444	411	402	1,390	1,950	1,600	761	623	623
26	635	605	527	444	414	411	1,270	1,920	1,440	761	623	617
27	635	623	521	408	411	405	1,220	1,890	1,320	761	617	617
28	635	611	504	420	408	405	1,410	1,840	1,260	740	611	611
29	635	587	539	448	411	405	1,750	1,830	1,190	726	605	617
30	642	587	527	599	-	411	1,800	1,810	1,130	712	605	611
31	642	-	504	649	-	411	-	1,760	-	712	599	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19,970	663	623	644	39,610
November	18,707	649	587	624	37,100
December	17,468	611	504	563	34,650
Calendar year 1947	269,536	1,700	375	738	534,600
January	16,195	656	408	522	32,120
February	12,022	642	375	415	23,850
March	12,303	411	384	397	24,400
April	28,187	1,800	414	940	55,910
May	52,300	2,080	1,280	1,687	103,700
June	40,054	1,880	828	1,335	79,450
July	25,659	1,080	712	828	50,890
August	20,540	726	599	663	40,740
September	18,572	691	587	619	36,840
Water year 1947-48	281,977	2,080	375	770	559,300

Peak discharge (base, 850 sec.-ft.).- Apr. 30 (7 a.m.) 1,860 sec.-ft.; May 22 (8 a.m.) 2,120 sec.-ft.; June 23 (9 a.m.) 1,920 sec.-ft.

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Cottonwood Creek near Smoot, Wyo.

Location.- Water-stage recorder, lat. 42°37', long. 110°53', in sec. 4, T. 30 N., R. 118 W., 1¾ miles downstream from Porcupine Creek and 1½ miles southeast of Smoot.

Drainage area.- 26.8 square miles.

Records available.- May 1932 to September 1948.

Average discharge.- 15 years, 43.2 second-feet.

Extremes.- Maximum discharge during year, 268 second-feet June 9 (gage height, 2.67 feet); minimum, 6.4 second-feet Mar. 11 (gage height, 1.02 feet).
1933-48: Maximum discharge observed, 414 second-feet June 17, 18, 1933 (gage height, 2.76 feet, datum then in use), from rating curve extended above 200 second-feet; minimum, that of Mar. 11, 1948.

Remarks.- Records good. No diversion above station. Flow regulated by Cottonwood Lake.

Revisions.- W 933: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	24	20	17	17	14	13	38	185	122	54	33
2	30	24	20	16	17	14	13	36	202	120	96	33
3	30	25	19	16	17	13	13	34	217	114	74	32
4	30	24	19	16	17	13	13	32	200	109	57	32
5	29	25	19	16	17	13	13	32	190	103	53	32
6	28	24	20	16	16	13	13	34	207	100	51	32
7	28	25	20	15	17	13	14	37	222	101	49	32
8	29	24	20	15	b16	13	13	40	245	93	48	31
9	28	24	19	15	17	13	14	40	258	88	48	31
10	28	25	19	15	17	12	14	37	245	85	46	31
11	29	25	19	*15	15	13	14	35	240	83	45	30
12	29	25	19	15	b15	13	13	34	227	79	44	30
13	28	25	19	b15	b17	12	13	35	200	77	43	30
14	27	25	19	b15	16	11	13	37	212	74	43	30
15	26	25	19	15	*16	11	15	46	200	73	42	30
16	27	25	19	16	16	11	17	61	188	69	42	30
17	28	24	19	15	16	11	22	86	174	67	41	30
18	26	23	19	15	16	11	24	110	161	66	40	30
19	26	22	19	15	16	11	22	128	156	65	40	31
20	26	22	19	16	16	11	23	135	148	65	40	30
21	26	22	19	14	15	11	26	133	148	62	39	30
22	26	22	18	14	15	11	28	137	146	61	38	29
23	26	22	18	15	15	11	28	133	142	60	37	29
24	26	22	18	15	15	11	27	140	142	58	36	30
25	26	22	18	15	15	12	26	144	140	57	36	32
26	25	21	18	11	15	12	26	153	140	56	36	30
27	25	20	18	14	15	12	26	155	136	54	36	29
28	25	19	18	b15	15	12	30	164	132	53	35	28
29	25	19	18	b16	15	12	39	167	128	52	34	28
30	25	19	18	b17	-	13	40	169	126	51	34	28
31	24	-	17	17	-	13	-	180	-	50	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	842	31	24	27.2	1,670
November	693	25	19	23.1	1,370
December	583	20	17	18.8	1,160
Calendar year 1947	20,697	239	11	56.7	41,050
January	472	17	11	15.2	936
February	462	17	15	15.9	916
March	376	14	11	12.1	746
April	605	40	13	20.2	1,200
May	2,742	180	32	88.5	5,440
June	5,457	258	126	182	10,820
July	2,367	122	50	76.4	4,690
August	1,390	96	33	44.8	2,760
September	913	33	28	30.4	1,810
Water year 1947-48	16,902	258	11	46.2	33,520

Peak discharge (base, 140 sec.-ft.).- June 9 (3 a.m.) 268 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1948.

Extremes.- Maximum discharge during year, 560 second-feet June 10 (gage height, 3.39 feet), from rating curve extended above 320 second-feet; minimum daily, 34 second-feet Feb. 16 to Mar. 11, Mar. 21 to Apr. 14.

1943-48: Maximum discharge, that of June 10, 1948; minimum daily, 28 second-feet Apr. 3, 4, 1945.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Pipe line (capacity, about 5 second-feet) diverts water above station for town of Afton. Diurnal fluctuation caused by small power plant and reservoir a quarter of a mile upstream.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	46	41	38	35	34	34	62	364	229	101	66
2	48	44	41	38	35	34	34	60	460	217	95	66
3	48	44	39	38	35	34	34	58	495	209	93	66
4	49	43	39	38	35	34	34	56	418	201	93	66
5	48	44	39	37	35	34	34	56	422	197	90	66
6	48	45	41	36	35	34	34	58	436	182	88	66
7	47	45	41	36	35	34	34	60	455	179	86	66
8	47	44	41	36	35	34	34	62	418	166	84	66
9	47	43	39	36	35	34	34	64	505	156	82	64
10	47	43	39	36	35	34	34	62	475	156	82	63
11	46	44	39	37	35	34	34	60	378	153	80	63
12	46	44	39	37	35	35	34	60	364	147	78	63
13	46	44	39	36	35	35	34	62	337	145	77	63
14	45	43	39	37	35	35	34	66	346	133	75	63
15	46	43	39	37	35	35	35	75	324	131	73	63
16	46	43	39	36	34	35	37	90	310	123	75	63
17	47	43	39	36	34	35	39	131	292	123	77	63
18	47	43	39	36	34	35	42	166	257	120	77	63
19	49	42	39	36	34	35	38	237	237	120	77	65
20	49	41	39	36	34	35	40	283	209	123	75	65
21	50	41	38	36	34	34	42	342	209	123	72	63
22	49	40	39	35	34	34	44	328	209	120	72	62
23	50	40	38	35	34	34	46	324	205	118	70	62
24	52	40	38	35	34	34	45	337	209	118	68	60
25	49	40	38	35	34	34	43	346	209	115	68	59
26	50	40	38	35	34	34	43	328	209	113	68	59
27	52	39	38	35	34	34	45	301	209	111	68	59
28	50	39	38	35	34	34	50	346	213	103	68	58
29	48	39	38	35	34	34	64	346	217	103	68	58
30	52	39	38	35	-	34	64	306	221	103	68	58
31	49	-	38	35	-	34	-	332	-	103	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,496	52	45	48.3	2,970
November	1,268	46	39	42.3	2,520
December	1,209	41	38	39.0	2,400
Calendar year 1947	36,952	385	30	101	73,300
January	1,119	38	35	36.1	2,220
February	1,001	35	34	34.5	1,990
March	1,063	35	34	34.3	2,110
April	1,193	64	34	39.8	2,370
May	5,464	346	56	176	10,840
June	9,612	505	205	320	19,070
July	4,455	229	103	144	8,840
August	2,416	101	68	77.9	4,790
September	1,887	66	58	62.9	3,740
Water year 1947-48	32,183	505	34	87.9	63,860

Peak discharge (base, 390 sec.-ft.).- June 10 (1 a.m.) 560 sec.-ft.

Note.- No gage-height record Nov. 19 to Dec. 15, Dec. 23 to Jan. 11, Jan. 27 to May 10, Aug. 25 to Sept. 16; discharge computed on basis of 3 discharge measurements, weather records, recorded range in stage, 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.

Drainage area.- 114 square miles.

Records available.- March 1946 to September 1948.

Extremes.- Maximum discharge during year, 184 second-feet May 18, 20; maximum gage height observed, 3.49 feet Feb. 14 (ice jam); minimum discharge observed, 16 second-feet Mar. 5 (discharge measurement), but was probably less during period of ice effect; minimum gage height recorded, 1.22 feet Apr. 7.

1946-48: Maximum discharge observed, 236 second-feet Apr. 19, 1946; maximum gage height observed, 3.52 feet Feb. 8, 1947; minimum discharge observed, that of Mar. 5, 1948.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	39	42	32	29	30	34	112	126	65	45	39
2	42	41	43	32	29	30	36	101	123	64	49	39
3	42	42	41	35	29	30	39	91	135	57	48	39
4	41	41	41	38	29	29	38	96	135	58	50	39
5	41	42	40	38	28	*27	36	92	127	57	53	40
6	41	42	39	38	29	27	34	96	118	56	53	40
7	41	43	39	38	29	27	34	112	114	53	48	40
8	43	44	38	43	29	27	33	126	108	51	48	41
9	42	43	38	40	28	25	36	120	106	52	49	40
10	42	41	37	38	29	25	41	112	102	52	49	41
11	46	43	36	36	28	25	36	112	99	52	46	41
12	43	40	35	35	26	25	34	109	92	49	45	39
13	41	43	35	35	24	27	34	106	89	46	43	39
14	41	42	40	35	26	27	41	115	88	46	44	39
15	41	41	38	35	26	25	51	120	89	46	43	39
16	41	41	*35	35	27	25	71	133	85	49	41	39
17	46	40	35	35	28	25	93	154	84	52	41	41
18	42	40	35	33	28	25	94	179	83	53	41	42
19	41	41	35	33	29	25	77	181	84	51	43	44
20	40	40	35	33	29	24	87	181	104	51	41	41
21	39	38	35	35	31	27	98	179	118	49	41	40
22	40	36	34	38	33	26	106	168	134	48	42	39
23	41	38	33	*40	33	28	93	164	112	46	44	39
24	41	40	32	35	29	32	88	158	99	48	41	39
25	41	43	32	32	29	32	96	153	88	48	41	38
26	41	43	32	27	29	31	82	152	81	47	41	39
27	39	44	32	28	31	31	96	147	77	46	41	39
28	39	42	32	30	30	34	127	148	74	47	38	38
29	40	40	32	30	30	35	146	166	70	49	38	38
30	41	41	32	30	-	36	127	153	68	49	38	38
31	40	-	32	30	-	34	-	141	-	45	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,283	46	39	41.4	2,540
November	1,234	44	36	41.1	2,450
December	1,115	43	32	36.0	2,210
Calendar year 1947	19,213	147	-	52.6	38,110
January	1,072	43	27	34.6	2,130
February	834	33	24	28.8	1,650
March	876	36	24	28.3	1,740
April	2,038	146	33	67.9	4,040
May	4,177	181	91	135	8,280
June	3,012	135	68	100	5,970
July	1,582	65	45	51.0	3,140
August	1,363	53	38	44.0	2,700
September	1,189	44	38	39.6	2,360
Water year 1947-48	19,775	181	24	54.0	39,210

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 6, 10, 12-14, 21-26, Nov. 28 to Dec. 1, Dec. 8 to Mar. 27 (no gage-height record Dec. 25 to Mar. 23 except Jan. 11, 12, 23-26, and staff-gage readings Dec. 27, Jan. 5, 9, 17, Feb. 1, 8, 14, 22, 28, Mar. 5, 6, 14; discharge computed on basis of winter discharge measurements, weather records, and 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.

Drainage area.- 103 square miles.

Records available.- March 1946 to September 1948.

Extremes.- Maximum discharge during year, 490 second-feet May 18, 20 (gage height, 3.61 feet); minimum, 11 second-feet Mar. 8 (gage height, 0.81 foot).
1946-48: Maximum discharge observed, that of May 18, 20, 1948; minimum, 6.0 second-feet Feb. 5, 1947 (gage height, 0.66 foot), ice jam upstream.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	26	26	21	19	20	23	161	192	83	37	23
2	26	26	26	21	19	20	25	142	192	79	36	23
3	26	26	25	23	19	20	27	126	192	75	34	23
4	26	27	24	24	19	*19	26	128	179	69	35	24
5	26	27	25	24	18	19	26	126	159	67	41	24
6	25	26	25	24	19	18	25	138	145	64	38	24
7	25	26	25	24	19	18	24	179	133	62	36	24
8	26	26	24	28	19	18	24	196	130	61	36	24
9	26	26	24	26	18	17	26	170	122	59	37	24
10	26	26	24	25	19	17	31	154	112	56	34	24
11	31	26	25	24	18	17	29	159	100	54	32	24
12	28	26	24	23	17	17	29	147	96	52	31	24
13	26	25	24	23	16	18	31	150	91	5[illegible]	31	24
14	26	26	23	23	17	18	36	187	90	49	30	23
15	26	26	24	23	17	18	49	222	87	47	28	23
16	26	26	*24	23	18	18	76	288	80	46	28	24
17	31	26	23	23	18	18	109	369	76	46	27	25
18	26	26	23	21	18	18	130	426	75	46	27	31
19	25	26	23	21	19	18	110	429	82	46	27	32
20	25	25	23	21	19	16	*130	432	109	48	27	28
21	25	24	22	22	21	17	156	412	149	44	27	25
22	24	24	22	23	22	18	158	383	196	44	28	25
23	25	25	21	*23	21	19	135	330	159	43	28	24
24	26	25	21	21	20	21	128	315	138	43	26	24
25	24	25	21	21	20	21	133	303	120	43	26	24
26	24	25	21	18	20	20	114	288	106	43	26	23
27	24	25	21	18	21	20	133	279	100	41	26	24
28	24	25	21	19	20	21	181	268	94	38	23	24
29	26	23	21	19	20	23	218	256	86	39	22	24
30	27	24	21	19	-	24	192	222	80	38	22	24
31	26	-	21	19	-	24	-	202	-	37	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	805	31	24	26.0	1,600
November	765	27	23	25.5	1,520
December	717	26	21	23.1	1,420
Calendar year 1947	19,536	328	-	53.5	38,750
January	687	28	18	22.2	1,360
February	550	22	16	19.0	1,090
March	590	24	16	19.0	1,170
April	2,534	218	23	84.5	5,030
May	7,587	432	126	24.5	15,050
June	3,670	196	75	12.2	7,280
July	1,613	83	37	52.0	3,200
August	929	41	22	30.0	1,840
September	736	32	23	24.5	1,460
Water year 1947-48	21,183	432	16	57.9	42,020

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 21, 22, 27, 29, Dec. 11, 13, 15-17, 19-21, Dec. 24 to Jan. 3, Jan. 10-23, Jan. 26 to Feb. 14, Feb. 24-26, Feb. 28 to Mar. 7, Mar. 9-13, 21 (no gage-height record Feb. 8-12; discharge computed on basis of weather records and records for nearby streams.

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 bench mark).

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

Records available.- September 1922 to September 1948. 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 at times since 1923.

Average discharge.- 28 years, 47.9 second-feet.

Extremes.- Maximum discharge during year, 363 second-feet July 15 (gage height, 3.00 feet); minimum daily, 2 second-feet Oct. 11 (leakage through reservoir gates).
1920-48: Maximum discharge, 908 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 Nov. 14 to May 5, which are fair. Flow regulated by Henrys Lake (see p. 55), gates of which remained closed Oct. 1 to July 15 and Sept. 19-30. No diversion from Dry Creek into Henrys Lake during year.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	3						20	75	131	208	249
2	3	3						22	86	134	208	269
3	3	3						24	107	128	206	269
4	3	3						26	125	147	202	269
5	3	3						28	135	145	202	267
6	3	3						30	144	134	204	267
7	3	3						32	145	126	201	265
8	3	3						36	139	122	200	261
9	3	3						38	156	116	214	261
10	3	3						39	168	112	230	261
11	2	3						40	168	113	230	258
12	3	3						40	166	103	228	258
13	3	3						42	152	110	230	258
14	3	3						42	152	93	230	256
15	3	3						42	152	216	228	245
16	3	3						42	149	321	227	236
17	3	3						42	139	301	227	236
18	3	3						42	139	294	227	123
19	4	3						43	140	283	228	10
20	4	3						44	134	278	228	10
21	3	3						44	147	274	227	10
22	3	3						46	168	272	227	10
23	3	3						49	156	184	227	10
24	3	3						51	154	110	227	10
25	3	3						53	158	110	228	10
26	3	3						48	158	112	227	10
27	3	3						44	155	166	225	10
28	3	3						53	149	213	225	10
29	3	3						58	143	213	227	10
30	3	3						63	138	212	225	10
31	3	-						68	-	210	227	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	94	4	2	3.0	186
November	90	3	3	3.0	179
December	124	-	-	4	246
Calendar year 1947	26,766	-	2	73.3	53,090
January	155	-	-	5	307
February	203	-	-	7	403
March	248	-	-	8	492
April	450	-	-	15	893
May	1,293	68	20	41.7	2,560
June	4,297	168	75	143	8,520
July	5,483	321	93	177	10,880
August	6,850	230	200	221	13,590
September	4,628	269	10	154	9,180
Water year 1947-48	23,915	321	2	65.3	47,440

Note.- No gage-height record Nov. 14 to May 5, Sept. 19-30; discharge computed on basis of discharge measurements made Feb. 21, Mar. 19, Oct. 15, 1948. Monthly mean discharges only December to April.

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 1948.

Extremes.- Maximum contents during year, 136,825 acre-feet May 8 (elevation, 6,303.20 feet); minimum, 32,930 acre-feet Sept. 18 (elevation, 6,283.25 feet).
1938-48: 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. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75,520	76,300	91,050	109,585	129,300	132,630	132,550	135,450	134,960	134,640	83,950	46,110
2	75,575	76,300	92,195	110,015	129,775	132,710	132,550	135,285	134,880	135,045	81,545	44,935
3	75,740	76,415	93,290	111,230	130,245	132,790	132,790	134,960	135,045	134,395	79,265	43,795
4	75,855	76,415	93,935	112,745	130,880	132,710	132,790	134,880	134,960	134,395	76,975	42,495
5	75,855	76,415	94,780	113,550	131,035	132,710	132,790	134,880	135,285	134,155	75,075	41,390
6	75,855	76,415	95,695	114,280	131,435	132,630	132,790	134,880	135,205	133,990	73,260	40,375
7	75,855	76,415	96,620	115,155	131,670	132,710	132,790	135,205	135,045	133,990	71,330	39,055
8	75,910	76,360	97,545	116,185	131,830	132,790	132,710	136,825	134,880	133,670	69,750	37,790
9	75,910	76,360	98,540	116,925	132,230	132,790	132,630	136,015	134,555	133,590	68,715	37,140
10	75,910	76,360	99,410	117,740	132,310	132,790	132,950	135,450	134,475	133,190	67,800	36,615
11	76,190	76,300	100,285	118,485	132,310	132,630	132,950	134,395	134,555	131,830	67,040	36,175
12	76,190	76,300	101,165	119,235	132,310	132,630	132,790	134,475	134,315	130,720	66,095	35,690
13	76,080	76,190	101,980	119,985	132,310	132,630	132,790	134,235	134,555	128,280	65,065	35,210
14	76,080	76,190	102,800	120,895	132,310	132,710	132,790	134,395	134,555	126,485	64,580	34,735
15	76,080	76,190	103,005	121,575	132,310	132,950	132,790	134,075	134,555	124,090	64,095	34,275
16	76,080	77,315	103,005	122,335	132,310	132,950	133,030	134,155	134,155	121,500	63,140	33,765
17	76,190	78,345	103,075	123,170	132,310	132,950	133,110	134,315	134,555	119,010	62,385	33,205
18	76,190	79,265	103,145	124,090	132,310	132,950	133,190	134,555	134,555	116,850	61,590	32,930
19	76,190	79,675	103,215	124,935	132,390	133,030	133,350	134,800	134,555	114,715	60,625	33,430
20	76,190	81,015	103,280	125,320	132,390	132,950	133,350	134,880	134,960	112,745	59,450	-
21	76,190	81,960	103,280	126,785	132,390	132,710	133,430	134,960	134,960	110,515	58,165	-
22	76,190	82,850	103,280	126,250	132,630	132,710	133,750	134,960	135,285	108,445	56,990	33,915
23	76,300	83,750	103,280	126,485	132,870	132,630	133,910	135,045	135,285	106,335	55,930	33,740
24	76,300	85,260	103,280	126,485	132,710	132,630	133,990	134,960	135,530	103,970	54,635	33,585
25	76,300	85,685	103,905	126,485	132,630	132,790	134,155	134,880	135,610	101,235	63,410	33,485
26	76,300	85,055	104,940	126,485	132,470	132,630	134,075	134,960	135,610	98,740	52,605	33,510
27	76,300	87,595	105,845	126,175	132,790	132,630	134,075	135,045	135,530	95,435	51,930	33,405
28	76,300	88,405	106,545	126,485	132,710	132,550	133,750	135,205	135,205	93,290	50,880	33,230
29	76,300	88,965	107,245	126,875	132,710	132,550	134,475	135,285	135,045	90,855	49,700	33,230
30	76,190	90,100	107,950	127,810	-	132,550	134,880	135,045	134,800	88,465	48,510	33,230
31	76,190	-	108,660	128,830	-	132,550	-	134,960	-	86,175	47,345	-

Monthly elevation and contents, water year October 1947 to September 1948

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	6,294.28	75,520	-
Oct. 31	6,294.40	76,190	+670
Nov. 30	6,296.73	90,100	+13,910
Dec. 31	6,299.50	108,660	+18,560
Calendar year 1947	-	-	+35,780
Jan. 31	6,302.20	128,830	+20,170
Feb. 29	6,302.69	132,710	+3,880
Mar. 31	6,302.67	132,550	-160
Apr. 30	6,302.96	134,880	+2,330
May 31	6,302.97	134,960	+80
June 30	6,302.95	134,800	-160
July 31	6,296.10	86,175	-48,625
Aug. 31	6,288.07	47,345	-38,830
Sept. 30	6,283.37	33,230	-14,115
Water year 1947-48	-	-	-42,290

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 1948.

Average discharge.- 15 years, 513 second-feet.

Extremes.- Maximum discharge during year, 1,930 second-feet July 17 (gage height, 5.22 feet); minimum daily, 10 second-feet on many days.
1933-48: Maximum discharge, 2,770 second-feet Apr. 26, 1946 (gage height, 6.15 feet); 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 one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	476	486	11	10	130	414	396	890	1,040	708	1,880	1,240
2	476	486	11	10	163	422	391	940	1,030	669	1,870	1,260
3	476	486	11	10	185	427	418	895	1,070	664	1,870	1,280
4	476	481	11	10	219	418	422	900	1,080	655	1,800	1,300
5	476	481	11	10	244	414	422	875	1,100	630	1,580	1,290
6	476	481	11	10	278	414	418	880	1,080	610	1,590	1,280
7	476	481	11	10	321	409	418	950	1,050	596	1,540	1,280
8	472	481	11	10	342	422	414	1,170	1,010	572	1,430	1,200
9	472	481	11	10	368	422	409	1,220	910	699	1,310	1,040
10	472	481	11	10	382	409	432	1,120	870	961	1,200	961
11	486	481	11	10	378	404	432	1,050	885	1,130	1,200	961
12	495	481	11	10	378	404	427	935	758	1,330	1,200	961
13	495	481	11	10	378	396	418	900	708	1,740	1,020	956
14	495	481	153	10	382	409	422	885	718	1,700	971	956
15	495	163	436	10	382	427	432	777	713	1,750	1,100	950
16	495	11	436	10	382	427	445	743	708	1,840	1,110	940
17	495	11	436	10	382	427	463	787	699	1,820	1,110	940
18	495	11	436	10	382	422	495	905	684	1,910	1,120	684
19	495	11	436	10	391	432	509	961	699	1,840	1,180	504
20	495	11	436	10	391	432	524	992	738	1,750	1,260	528
21	500	11	436	10	400	418	533	1,000	767	1,780	1,260	528
22	500	11	436	223	432	409	552	1,000	802	1,780	1,260	567
23	500	11	436	436	432	409	572	1,000	821	1,860	1,260	581
24	495	11	294	436	418	400	591	997	831	1,910	1,250	576
25	490	11	10	436	409	404	615	986	846	1,910	1,190	576
26	486	11	10	436	414	400	610	1,000	841	1,900	1,020	576
27	486	11	10	294	427	391	615	1,010	831	1,900	1,090	576
28	486	11	10	10	422	391	630	1,050	792	1,900	1,250	528
29	486	11	10	10	418	391	694	1,080	758	1,900	1,250	504
30	486	11	10	10	-	396	762	1,070	733	1,890	1,250	504
31	481	-	10	83	-	391	-	1,060	-	1,890	1,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,085	500	472	487	29,920
November	7,077	486	11	236	14,040
December	4,584	436	10	148	9,090
Calendar year 1947	206,942	2,000	7	567	410,500
January	2,584	436	10	83.4	5,130
February	10,230	432	130	353	20,290
March	12,751	432	391	411	25,290
April	14,881	762	391	496	29,520
May	30,028	1,220	743	969	59,560
June	25,572	1,100	684	852	50,720
July	44,194	1,910	572	1,426	87,660
August	40,671	1,880	971	1,312	80,670
September	26,027	1,300	504	868	51,620
Water year 1947-48	233,684	1,910	10	638	463,500

Note.- Discharge Nov. 29 to Feb. 7 computed from staff-gage readings.

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 1948.

Average discharge.- 34 years, 988 second-feet.

Extremes.- Maximum discharge during year, 2,320 second-feet July 18, 19; maximum gage height, 6.61 feet July 19; minimum discharge, 271 second-feet Jan. 11 (gage height, 3.29 feet).

1910-15, 1918-48: Maximum discharge, 3,540 second-feet May 18, 1927; maximum gage height, 7.80 feet Apr. 27, 1946; minimum discharge, 218 second-feet Jan. 19, 1940 (gage height, 3.17 feet).

Remarks.- Records good. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	897	897	452	413	b520	837	800	1,480	1,570	1,190	2,250	1,610
2	897	903	422	466	b500	819	820	1,540	1,560	1,170	2,240	1,610
3	897	927	409	448	b540	813	830	1,470	1,570	1,150	2,240	1,640
4	879	933	434	443	b580	819	820	1,580	1,580	1,120	2,220	1,660
5	891	921	434	434	b620	867	810	1,520	1,600	1,110	2,020	1,640
6	909	909	434	439	b700	813	807	1,510	1,570	1,100	1,970	1,620
7	897	915	409	452	b740	773	807	1,640	1,540	1,080	1,950	1,610
8	903	921	439	470	b740	789	795	1,900	1,500	1,070	1,870	1,600
9	879	909	422	448	b780	784	789	1,940	1,400	1,050	1,800	1,540
10	897	903	413	409	b740	700	837	1,800	1,330	1,310	1,600	1,440
11	909	909	364	335	b700	819	825	1,670	h1,320	1,550	1,600	h1,330
12	909	897	426	364	b720	849	813	1,540	1,220	1,600	1,600	1,300
13	897	891	452	*349	b800	819	795	1,480	1,180	2,080	1,550	1,290
14	897	909	439	392	b810	795	795	1,450	1,170	2,130	1,380	1,290
15	897	679	750	413	b810	807	825	1,440	1,160	2,110	1,400	1,290
16	915	434	843	413	*b800	*813	843	1,360	1,150	2,270	1,540	1,290
17	909	422	855	413	825	813	897	1,480	1,170	2,200	1,460	1,350
18	897	426	879	413	831	813	945	1,620	1,170	2,320	1,520	1,350
19	891	400	873	456	819	837	951	1,720	1,160	2,310	1,530	1,100
20	891	400	849	439	819	843	969	1,750	1,210	2,160	1,640	1,000
21	903	384	843	439	819	819	1,000	1,730	1,260	2,200	1,640	970
22	897	349	843	484	873	813	1,050	1,720	1,310	2,190	1,640	965
23	891	448	831	b700	873	813	1,090	1,640	1,360	2,220	1,650	965
24	897	430	825	b820	855	801	1,120	1,610	1,380	2,310	1,640	963
25	891	452	548	b800	843	907	1,150	1,590	1,410	2,300	1,630	951
26	897	452	388	b600	837	807	1,130	1,610	1,380	2,290	1,440	975
27	897	452	396	b720	855	75	1,120	1,600	1,340	2,280	1,410	957
28	903	417	409	b680	837	789	1,200	1,600	1,300	2,270	1,580	945
29	921	388	417	413	837	784	1,490	1,600	h1,230	2,260	1,620	885
30	921	439	384	b440	-	789	1,510	1,590	1,200	2,260	1,610	885
31	909	-	349	b460	-	789	-	h1,570	-	2,260	1,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	27,885	921	879	900	55,310
November	19,716	933	349	657	39,110
December	17,231	879	349	556	34,180
Calendar year 1947	368,114	2,660	286	1,009	730,200
January	14,965	820	335	483	29,680
February	22,023	873	500	759	43,680
March	25,028	867	700	807	49,640
April	28,633	1,510	789	954	56,790
May	49,750	1,940	1,360	1,605	98,680
June	40,300	1,600	1,150	1,343	79,930
July	56,920	2,320	1,050	1,836	112,900
August	52,860	2,250	1,380	1,705	104,800
September	38,021	1,660	885	1,267	75,410
Water year 1947-48	393,332	2,320	335	1,075	780,100

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.
Note.- No gage-height record Apr. 1-5, May 30, June 1-10, 12-15, 26-28, June 30 to July 3, Sept. 5-10, 12-23; discharge computed on basis of recorded range in stage and records for stations near Island Park and near Ashton.

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 1948.

Average discharge.- 29 years (1903-8, 1924-48), 1,288 second-feet.

Extremes.- Maximum discharge during year, 3,370 second-feet May 8 (gage height, 7.26 feet); minimum, 309 second-feet Dec. 11 (gage height, 5.56 feet); minimum daily, 562 second-feet Nov. 22.

1902-9, 1920-48: Maximum discharge, 6,220 second-feet May 7, 1925; minimum, 65 second-feet 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. P.P.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	1,170	778	656	836	1,100	1,050	2,160	2,570	1,500	2,760	1,920
2	1,200	1,190	733	760	814	1,130	1,060	2,160	2,530	1,520	2,760	1,900
3	1,200	1,240	665	749	858	1,120	1,160	2,040	2,570	1,520	2,760	1,940
4	1,200	1,230	749	770	916	1,060	1,130	2,280	2,510	1,440	2,720	2,000
5	1,200	1,190	738	749	940	1,090	1,130	2,160	2,400	1,400	2,470	1,980
6	1,200	1,190	738	781	988	1,090	1,120	2,200	2,360	1,390	2,380	1,980
7	1,200	1,190	738	760	1,040	1,060	1,090	2,510	2,280	1,360	2,360	1,940
8	1,200	1,210	718	814	1,040	1,100	1,080	2,910	2,260	1,340	2,300	1,920
9	1,200	1,200	747	803	1,100	1,080	1,120	2,780	2,160	1,320	2,240	1,720
10	1,200	1,190	686	760	1,050	869	1,200	2,570	1,960	1,530	1,920	1,600
11	1,210	1,170	618	686	964	1,080	1,190	2,440	1,940	1,790	1,920	1,560
12	1,210	1,170	656	676	1,000	1,120	1,140	2,340	1,900	1,920	1,920	1,560
13	1,190	1,170	738	627	1,120	1,170	1,160	2,280	1,660	2,470	1,860	1,560
14	1,170	1,230	738	686	1,140	1,120	1,170	2,300	1,630	2,550	1,610	1,560
15	1,170	1,210	952	718	1,160	1,140	1,230	2,320	1,660	2,530	1,600	1,560
16	1,170	728	1,140	676	1,090	1,140	1,330	2,360	1,580	2,700	1,840	1,560
17	1,210	705	1,130	738	1,130	1,090	1,420	2,630	1,610	2,590	1,680	1,600
18	1,190	698	1,170	696	1,160	1,120	1,470	2,970	1,600	2,780	1,790	1,660
19	1,190	703	1,170	676	1,130	1,190	1,420	3,060	1,560	2,740	1,790	1,240
20	1,170	614	1,120	707	1,130	1,130	1,450	3,120	1,700	2,530	1,900	1,230
21	1,210	693	1,130	718	1,120	1,130	1,530	3,100	1,730	2,570	1,980	1,200
22	1,190	562	1,130	770	1,190	1,130	1,630	3,100	1,790	2,570	1,980	1,210
23	1,200	682	1,120	1,030	1,170	1,200	1,630	2,890	1,900	2,570	1,980	1,260
24	1,200	708	1,060	1,170	1,120	1,080	1,630	2,820	1,920	2,760	1,940	1,260
25	1,170	693	858	1,130	1,140	1,050	1,660	2,840	1,880	2,780	1,920	1,240
26	1,170	729	665	928	1,140	1,120	1,630	2,910	1,790	2,760	1,680	1,300
27	1,170	707	707	1,050	1,140	1,090	1,580	2,890	1,720	2,780	1,650	1,240
28	1,170	686	738	1,000	1,130	1,080	1,770	2,840	1,650	2,780	1,840	1,230
29	1,190	646	738	656	1,100	1,090	2,240	2,820	1,560	2,780	1,940	1,160
30	1,230	718	676	738	-	1,100	2,220	2,740	1,520	2,760	1,920	1,160
31	1,200	-	676	738	-	1,120	-	2,610	-	2,760	1,920	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36,970	1,230	1,170	1,193	73,330
November	28,222	1,240	562	941	55,980
December	26,220	1,170	618	846	52,010
Calendar year 1947	510,264	3,720	519	1,398	1,012,000
January	24,416	1,170	627	788	48,430
February	30,856	1,190	814	1,064	61,200
March	34,189	1,200	869	1,103	67,810
April	41,640	2,240	1,050	1,388	82,590
May	81,150	3,120	2,040	2,618	161,000
June	57,900	2,570	1,520	1,930	114,800
July	68,790	2,780	1,320	2,219	136,400
August	63,330	2,760	1,600	2,043	125,600
September	46,250	2,000	1,160	1,542	91,740
Water year 1947-48	539,933	3,120	562	1,475	1,071,000

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 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								598	1,240	837	1,210	815
2								595	1,280	928	1,240	815
3								596	1,320	915	1,210	817
4								610	1,300	865	1,160	807
5								678	1,310	815	1,180	807
6								674	1,320	808	1,140	793
7								688	1,330	854	1,120	792
8								699	1,330	947	1,100	793
9								696	1,320	1,000	1,090	537
10								647	1,330	916	1,050	531
11								643	1,340	1,080	1,010	549
12								606	1,340	1,120	1,030	545
13								598	1,320	1,530	857	538
14								632	1,280	1,460	808	506
15								642	1,280	1,440	824	497
16								651	1,250	1,370	831	518
17								801	1,270	1,210	876	522
18								814	1,220	1,240	1,000	530
19								811	1,150	1,270	1,000	441
20								838	1,140	1,310	940	435
21								852	956	1,230	958	428
22								875	884	1,300	932	353
23								878	791	1,360	912	380
24								1,030	601	1,380	935	420
25								1,130	530	1,310	907	412
26								1,190	529	1,300	861	411
27								1,230	559	1,300	815	409
28								1,200	679	1,000	842	408
29								1,210	666	1,290	821	408
30								1,220	807	1,250	819	408
31								1,210	-	1,280	809	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	25,542	1,230	595	824	50,660
June	32,672	1,340	529	1,089	64,800
July	35,915	1,530	808	1,159	71,240
August	30,287	1,240	808	977	60,070
September	16,625	817	353	554	32,980
The period	-	-	-	-	279,800

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 1948 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 6,490 second-feet May 22 (gage height, 5.95 feet); minimum daily recorded, 617 second-feet July 9.
1919-48: Maximum discharge recorded, 9,030 second-feet May 8, 1925 (gage height, 6.70 feet); minimum daily recorded, 413 second-feet July 22, 1931.

Remarks.- Records excellent except those for periods of no gage-height record, which are good. Diversions above station for irrigation. Flow regulated by power plant 17 miles above station and by Henrys Lake (see p. 55), Island Park Reservoir (see p. 47), and Grassy Lake (see p. 55).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								2,630	4,400	1,590	1,430	1,360
2								2,580	4,060	1,520	1,520	1,360
3								2,470	4,220	1,440	1,590	1,370
4								a2,600	4,290	1,310	1,590	1,360
5								a2,500	4,030	1,180	1,430	1,360
6								a2,600	4,090	1,070	1,340	1,430
7								3,180	4,220	940	1,330	1,360
8								3,930	4,480	786	1,290	1,360
9								3,600	4,220	617	1,420	1,370
10								a3,350	3,800	739	1,290	1,380
11								a3,100	3,580	836	1,250	1,300
12								a2,800	3,360	826	1,330	1,300
13								a2,700	2,890	1,110	1,400	1,330
14								2,630	2,520	1,370	1,210	1,330
15								2,820	2,140	1,370	1,160	1,360
16								3,200	1,980	1,520	1,260	1,340
17								3,260	1,860	1,610	1,140	1,380
18								a4,300	1,660	1,770	1,130	1,580
19								5,350	1,340	1,700	1,120	1,310
20								5,980	1,370	1,480	1,200	1,200
21								5,980	1,610	1,490	1,280	1,130
22								6,010	2,210	1,420	1,310	1,180
23								4,960	3,280	1,300	1,310	1,240
24								4,560	3,280	1,400	1,310	1,300
25								4,500	3,110	1,430	1,340	1,340
26								4,770	2,770	1,460	1,250	1,440
27								4,910	2,490	1,490	1,140	1,340
28								4,940	2,210	1,580	1,130	1,290
29								4,750	1,920	1,580	1,130	1,250
30							2,770	4,450	1,750	1,460	1,370	1,250
31								4,160	-	1,440	1,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	119,570	6,010	2,470	3,857	237,200
June	89,140	4,480	1,340	2,971	176,800
July	40,834	1,770	617	1,317	80,990
August	40,360	1,590	1,120	1,302	80,050
September	39,900	1,580	1,130	1,330	79,140
The period	-	-	-	-	654,200

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

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 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								741	1,200	793	838	561
2								767	1,200	802	813	561
3								785	1,210	769	734	576
4								812	1,190	717	663	586
5								817	1,190	670	674	587
6								747	1,190	629	656	538
7								862	1,190	732	672	541
8								777	1,200	842	670	545
9								773	1,200	803	673	562
10								653	1,180	679	594	502
11								730	1,180	904	544	502
12								728	1,190	920	529	491
13								724	1,170	919	564	435
14								720	1,160	699	564	444
15								745	1,120	717	599	464
16								777	1,050	730	601	457
17								812	825	723	710	441
18								855	658	717	766	438
19								860	587	706	727	328
20								878	838	697	678	316
21								906	839	780	622	307
22								914	777	770	623	236
23								922	703	890	607	257
24								970	583	900	590	274
25								875	573	897	585	275
26								1,100	608	860	564	274
27								1,140	656	833	551	275
28								1,170	690	806	547	275
29								1,170	695	867	552	275
30								1,160	740	880	565	275
31								1,170	-	874	535	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	27,060	1,170	653	873	53,670
June	28,592	1,210	573	953	56,710
July	24,525	920	629	791	48,640
August	19,610	838	529	633	38,900
September	12,598	587	236	420	24,990
The period	-	-	-	-	222,900

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 1948.

Average discharge.- 40 years, (1908-48), 1,916 second-feet.

Extremes.- Maximum discharge during year, 6,740 second-feet May 23 (gage height, 9.22 feet); minimum, 570 second-feet July 13 (gage height, 2.87 feet).
1909-48: 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 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,950	2,090	1,700	924	1,500	1,750	1,830	3,020	5,590	2,470	1,270	1,370
2	1,900	2,010	1,770	1,090	1,550	1,800	1,910	2,900	5,560	2,160	1,380	1,360
3	1,900	2,020	1,570	1,560	1,550	1,700	2,120	2,710	5,550	2,150	1,570	1,340
4	1,910	2,100	1,550	1,660	1,650	1,650	2,270	2,490	5,700	2,150	1,680	1,340
5	1,900	2,120	1,600	1,760	1,700	*1,600	2,060	2,670	5,780	1,980	1,660	1,380
6	1,900	2,080	1,600	1,830	1,750	1,700	1,880	2,470	5,640	1,690	1,410	1,410
7	1,880	2,080	1,570	1,880	1,750	1,920	1,770	2,590	5,490	1,400	1,330	1,410
8	1,880	2,150	1,540	1,830	1,750	1,880	1,690	3,240	5 490	1,060	1,300	1,410
9	1,900	2,170	1,480	*1,850	1,850	1,910	1,670	3,970	5,620	820	1,490	1,470
10	1,970	2,140	1,470	1,750	1,800	1,750	1,720	3,960	5,380	695	1,760	1,410
11	2,020	2,160	1,480	1,660	1,600	1,580	1,860	3,510	4,950	640	1,710	1,340
12	2,020	2,160	1,420	1,540	*1,290	1,650	1,700	3,130	4,480	620	1,690	1,360
13	1,980	2,150	1,430	1,270	1,400	1,780	1,600	2,910	4,110	595	1,720	1,370
14	1,940	2,170	1,500	1,110	1,700	1,840	1,550	2,870	3,600	1,020	1,570	1,380
15	1,920	2,210	1,550	1,240	1,900	1,830	1,700	2,840	3,050	1,210	1,360	1,380
16	1,860	2,160	1,800	1,330	2,050	1,840	1,920	3,040	2,650	1,290	1,300	1,400
17	1,870	1,820	1,860	1,380	2,100	1,790	2,220	3,500	2,420	1,430	1,200	1,430
18	1,920	1,780	1,870	1,400	2,050	1,780	2,510	4,240	2,390	1,470	1,030	1,550
19	1,830	1,700	1,880	1,410	1,900	1,780	2,730	5,310	2,110	1,560	982	1,800
20	1,780	1,600	1,840	1,420	1,900	1,800	2,470	5,950	1,880	1,480	1,010	1,740
21	1,750	1,590	1,790	1,450	1,950	1,750	2,460	6,400	2,030	1,320	1,150	1,740
22	1,760	1,570	1,810	1,500	1,950	*1,750	2,570	6,590	2,510	1,320	1,250	1,710
23	1,780	1,600	1,810	1,650	1,900	1,820	2,730	6,650	3,320	1,170	1,290	1,780
24	1,800	1,670	1,760	1,800	1,850	2,140	2,660	6,260	4,450	1,120	1,320	1,810
25	1,810	1,680	1,740	1,800	1,850	2,100	2,520	5,900	5,110	1,190	1,380	1,880
26	1,830	1,690	1,560	1,570	1,850	1,910	2,520	5,700	5,030	1,280	1,410	1,900
27	1,920	1,700	1,430	1,630	1,850	1,790	2,280	5,790	4,420	1,300	1,270	1,940
28	2,010	1,650	1,430	1,570	1,800	1,760	2,180	5,930	3,880	1,340	1,240	1,840
29	2,040	1,590	1,490	1,420	1,750	1,840	2,440	5,990	3,270	1,480	1,380	1,830
30	2,080	1,550	1,420	1,400	-	2,010	2,930	5,960	2,890	1,360	1,400	1,750
31	2,120	-	1,290	1,450	-	1,950	-	5,820	-	1,280	1,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	59,130	2,120	1,750	1,907	117,300
November	57,160	2,210	1,550	1,905	113,400
December	50,010	1,880	1,290	1,613	99,190
Calendar year 1947	673,509	6,320	650	1,845	1,336,000
January	47,134	1,880	924	1,520	93,490
February	51,490	2,100	1,290	1,776	102,100
March	58,150	2,140	1,580	1,811	111,400
April	64,470	2,930	1,550	2,149	127,900
May	134,310	6,650	2,470	4,333	266,400
June	124,350	5,780	1,880	4,145	246,600
July	42,350	2,470	595	1,356	83,400
August	42,872	1,760	982	1,383	85,040
September	46,830	1,940	1,340	1,561	92,890
Water year 1947-48	775,956	6,650	595	2,120	1,539,000

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Jan. 16 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 1948 (fragmentary). Maximum contents observed during year, 82,927 acre-feet June 4 (gage height, 15.56 feet); minimum observed, 52,481 acre-feet Sept. 18 (gage height, 10.60 feet). Maximum contents observed during period 1923-48, 83,184 acre-feet June 12, 1947; 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 1947-48). Water used for irrigation near St. Anthony. Gage read about once 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 1948. Maximum contents during year, 15,291 acre-feet June 3-7 (elevation, 7,210.35 feet); minimum, 12,114 acre-feet Sept. 12-28 (elevation, 7,199.75 feet). Maximum contents during period 1939-48, 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, 1939. Capacity, 15,182 acre-feet between elevations 7,135.0 feet (sill of trash rack) and 7,210.0 feet (crest of spillway) above mean sea level. Water is used for irrigation of lands in Fremont-Madison irrigation district, Idaho. Gage read once daily about 7 a.m. except for period November to April when occasional readings were made. 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 1947 to September 1948

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	-	a55,600	-	7,203.55	13,220	-
Oct. 31	-	a59,500	+3,900	7,203.65	13,250	+30
Nov. 30	-	a63,000	+3,500	7,204.25	13,430	+180
Dec. 31	-	a65,500	+2,500	7,204.75	13,580	+150
Calendar year 1947	-	-	-8,936	-	-	+1,118
Jan. 31	-	a68,000	+2,500	-	b13,700	+120
Feb. 29	-	a70,200	+2,200	-	b13,855	+155
Mar. 31	-	a72,500	+2,300	-	b14,010	+155
Apr. 30	-	a75,600	+3,100	-	b14,240	+230
May 31	-	a80,300	+4,700	7,210.30	15,275	+1,035
June 30	-	a82,000	+1,700	7,210.10	15,213	-62
July 31	-	a74,200	-7,800	7,208.80	14,810	-403
Aug. 31	-	a61,200	-13,000	7,199.85	12,143	-2,667
Sept. 30	-	a53,300	-7,900	7,199.80	12,129	-14
Water year 1947-48	-	-	-2,300	-	-	-1,091

a Contents interpolated or computed from discharge records of outlet; gage read about once weekly during period of storage withdrawal and occasionally during remainder of year.
b Interpolated on basis of gage readings made about three times a month.

Diversions from Fall River above gaging station near Squirrel, Idaho

Above Squirrel gaging station two canals divert water from Fall River for irrigation. Records available for part of each irrigation season from 1919 to 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0	62	245	10
2									0	62	249	10
3									0	62	238	10
4									0	62	234	10
5									0	102	251	10
6									180	177	251	11
7									200	181	246	11
8									220	182	229	11
9									0	184	248	11
10									0	187	204	12
11									205	186	197	12
12									207	187	160	12
13									207	201	166	12
14									207	202	152	11
15									212	207	153	7
16									222	204	153	7
17									222	204	151	7
18									215	205	157	7
19									220	238	156	5
20									225	206	184	91
21									152	239	175	91
22									102	235	180	91
23									62	233	181	91
24									62	238	178	91
25									62	238	179	91
26									62	235	178	91
27									62	237	144	91
28									62	252	144	91
29									62	252	140	91
30									62	258	143	91
31									-	260	140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	0	0	0	0	0
June	3,492	225	0	116	6,930
July	5,978	260	62	193	11,860
August	5,806	251	140	187	11,520
September	1,187	91	5	39.6	2,350
The period	-	-	-	-	32,660

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 1948. August 1902 to December 1903 at Wilson's sawmill, 3 miles upstream.

Average discharge.- 35 years, (1904-8, 1917-48), 744 second-feet.

Extremes.- Maximum daily discharge during year, 3,690 second-feet June 8; minimum daily, 390 second-feet Mar. 1, 4, 5.
1904-9, 1918-48: Maximum discharge observed, 6,440 second-feet June 27, 1937; 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). Two diversions above station for irrigation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	570	478	540	440	425	390	410	830	2,940	1,330	522	432
2	560	478	491	450	425	400	410	780	3,020	1,280	537	432
3	545	560	460	455	425	400	410	740	3,120	1,250	522	432
4	537	545	480	460	425	390	410	740	3,280	1,100	506	432
5	537	490	500	470	425	390	410	732	3,320	964	514	418
6	537	454	505	475	425	395	408	850	3,370	880	506	418
7	537	475	505	520	425	400	406	970	3,500	790	491	404
8	537	475	506	515	425	404	405	1,100	3,690	765	522	537
9	537	475	*497	485	425	404	404	997	3,450	750	639	537
10	530	475	490	455	415	405	411	960	3,300	730	588	537
11	525	470	485	445	405	410	411	930	3,070	675	537	537
12	522	461	485	*439	400	415	411	920	2,950	675	570	537
13	520	461	490	438	420	425	411	930	2,700	630	554	537
14	517	551	490	438	440	420	411	953	2,580	639	554	537
15	514	570	490	438	460	420	450	1,110	2,530	639	554	537
16	512	540	490	435	*477	414	530	1,450	2,490	622	537	554
17	545	525	492	430	490	418	610	2,370	2,250	613	554	554
18	545	505	496	430	480	420	650	3,140	2,000	613	537	657
19	530	480	499	430	470	420	604	3,250	1,830	596	537	660
20	520	470	492	430	465	420	640	3,330	1,780	562	491	622
21	514	460	485	435	460	410	660	3,050	1,750	545	491	562
22	522	454	480	450	460	404	670	2,720	2,050	522	491	558
23	516	460	480	440	460	415	670	2,440	2,180	522	491	554
24	510	470	480	435	440	425	670	2,610	2,100	522	506	537
25	499	454	480	430	432	425	660	2,770	1,800	506	491	530
26	490	460	480	420	432	420	640	2,870	1,630	491	461	530
27	483	465	476	410	430	405	600	3,010	1,440	483	461	530
28	480	470	460	410	415	400	596	3,050	1,440	530	447	526
29	480	470	440	420	400	404	730	3,050	1,390	499	432	522
30	480	475	420	425	-	415	930	2,970	1,350	514	432	522
31	478	-	430	425	-	415	-	2,850	-	514	432	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,129	570	478	520	31,990
November	14,576	570	454	486	28,910
December	14,994	540	420	484	29,740
Calendar year 1947	292,839	3,500	384	802	580,800
January	13,778	520	410	444	27,330
February	12,676	490	400	437	25,140
March	12,698	425	390	410	25,190
April	15,938	830	404	531	31,610
May	58,472	3,330	732	1,886	116,000
June	74,280	3,690	1,350	2,476	147,300
July	21,751	1,330	483	702	43,140
August	15,907	639	432	513	31,550
September	15,682	660	404	523	31,100
Water year 1947-48	286,881	3,690	390	784	569,000

* Winter discharge measurement made on this day.
Note.- Gage read once daily July 10 to Sept. 18; discharge for other periods computed on basis of once- to twice-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 of times in January).

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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 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								6	571	608	512	396
2								6	581	600	517	389
3								6	620	613	512	396
4								6	636	593	482	397
5								11	529	573	486	398
6								11	533	590	482	393
7								11	552	596	473	392
8								21	560	623	490	389
9								22	588	627	499	408
10								22	599	638	444	462
11								27	738	604	423	461
12								59	721	621	405	453
13								59	731	543	396	453
14								59	745	366	391	458
15								107	763	540	389	458
16								225	758	534	389	432
17								248	758	530	409	430
18								258	739	512	406	463
19								267	720	496	410	439
20								271	716	488	412	428
21								291	702	495	411	422
22								312	693	502	412	319
23								343	661	498	413	309
24								355	660	512	421	189
25								440	621	523	414	187
26								499	621	527	400	272
27								523	576	512	409	270
28								540	544	495	405	270
29								538	584	527	396	270
30								535	606	540	394	270
31								524	-	521	395	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	6,602	540	6	213	13,100
June	19,426	763	529	648	38,530
July	16,947	638	366	547	33,610
August	13,397	517	389	432	26,570
September	11,273	463	187	376	22,360
The period	-	-	-	-	134,200

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 1948 (irrigation seasons only).

Extremes.- Maximum discharge during period May to September, 4,130 second-feet May 22 (gage height, 5.25 feet); minimum, 36 second-feet July 30 (gage height, 1.10 feet).
1920-48: Maximum discharge, 6,380 second-feet June 27, 1927 (gage height, 6.60 feet); minimum, 9 second-feet Aug. 7, 1923.

Remarks.- Records excellent. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1,170	3,150	930	49	53
2								1,030	3,100	864	62	47
3								950	3,290	802	64	44
4								1,080	3,240	653	66	42
5								980	3,140	523	80	41
6								1,050	3,220	412	74	41
7								1,330	3,460	342	67	41
8								1,600	3,720	253	76	78
9								1,350	3,410	203	242	186
10								1,170	3,320	163	242	143
11								1,080	3,050	143	230	143
12								1,010	2,950	134	242	149
13								1,070	2,690	153	226	153
14								1,070	2,320	239	238	156
15								1,230	2,010	234	230	179
16								1,640	1,880	213	208	188
17								2,340	1,810	223	176	197
18								3,240	1,460	234	159	298
19								3,290	1,160	183	149	320
20								3,730	1,050	137	126	303
21								3,790	1,030	120	129	274
22								3,770	1,330	103	129	320
23								3,000	1,970	93	156	307
24								2,880	1,910	74	159	351
25								3,020	1,720	63	153	395
26								3,240	1,540	63	126	401
27								3,190	1,400	59	108	384
28								3,390	1,180	47	101	a345
29								3,370	1,090	41	86	307
30							1,170	3,190	1,040	39	74	307
31							-	3,000	-	33	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	67,250	3,790	950	2,169	133,400
June	67,640	3,720	1,030	2,255	134,200
July	7,818	930	36	252	15,510
August	4,291	242	49	138	8,510
September	6,191	401	41	206	12,280
The period	-	-	-	-	303,900

a No gage-height record; discharge interpolated.

Teton River near Victor, Idaho

Location.- Water-stage recorder, lat. 43°33'50", long. 111°04'00", on line between secs. 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 1946 to September 1948.

Extremes.- Maximum discharge during year, 398 second-feet June 8 (gage height, 2.03 feet, supersedes figure published in Water-Supply Paper 1,080, "Floods of May-June 1948 in Columbia River Basin"); minimum discharge recorded, 29 second-feet Feb. 28 (gage height, -0.06 foot), but may have been less during periods of ice or no gage-height record.
1946-48: Maximum discharge observed, that of June 8, 1948; minimum recorded, 22 second-feet Feb. 20, 1947 (gage height, -0.15 foot), but may have been less during periods of ice effect or no gage-height record.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	45	40					58	310	180	78	57
2	51	45	39					54	320	176	78	57
3	51	46	38					49	330	170	76	57
4	50	44	39					49	340	165	75	59
5	50	44	40					49	350	155	75	59
6	50	42	39				33	56	360	148	74	59
7	50	43	38					64	365	141	72	59
8	51	43	38					72	383	134	76	57
9	51	44	38					65	377	128	74	57
10	51	44	37					55	358	125	72	55
11	51	45	37		36			53	342	121	71	54
12	50	44	*37	38				56	325	118	69	54
13	50	44	38				*33	58	310	116	67	53
14	50	44	38				33	58	295	113	65	53
15	49	43	38				35	70	285	108	65	53
16	50	43	38			34	37	98	270	104	64	53
17	50	42	37				41	120	258	103	64	57
18	40	41	38				42	155	241	100	64	64
19	48	40	38				39	196	234	96	62	61
20	48	39	37				40	320	221	95	62	59
21	48	38	37				45	310	226	93	62	56
22	48	39	37				47	290	226	92	62	55
23	48	40	37				46	270	230	92	62	54
24	47	41	37	(*)	34		46	280	226	90	61	54
25	46	40	37				46	290	215	87	61	53
26	46	41	37				44	310	206	86	60	51
27	46	41	36	36	*36		43	320	198	84	60	51
28	46	40	35		35		42	320	192	84	59	51
29	48	39	34		34		50	320	190	82	59	51
30	47	40	34		-		58	310	184	78	59	51
31	46	-	34		-		-	310	-	78	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,519	53	46	49.0	1.03	1.19	3,010
November	1,264	46	38	42.1	.884	.99	2,510
December	1,157	40	34	37.3	.784	.90	2,290
Calendar year 1947	30,005	295	-	82.2	1.73	23.46	59,510
January	1,162	-	-	37.5	.788	.91	2,300
February	1,029	-	-	25.5	.746	.80	2,040
March	1,054	-	-	34.0	.714	.82	2,090
April	1,163	58	-	38.8	.815	.91	2,310
May	5,085	320	49	164	3.45	3.97	10,090
June	8,367	383	184	279	5.86	6.54	16,600
July	3,542	180	78	114	2.39	2.77	7,030
August	2,067	78	59	66.7	1.40	1.61	4,100
September	1,664	64	51	55.5	1.17	1.30	3,300
Water year 1947-48	29,073	383	-	79.4	1.67	22.71	57,670

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 20-22, Dec. 3, 4, 8, 10, 12, 13, 16, 17, Jan. 24-30, Feb. 28 to about Mar. 22. No gage-height record Nov. 27, Dec. 24 to Jan 23, Jan. 31 to Feb. 26, Mar. 7-9, 13-20, Mar. 22 to Apr. 12, Apr. 25 to May 9, May 13-15, May 20 to June 6; discharge computed on basis of weather records and records for Fall River near Squirrel and Teton River near Tetonia.

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 1948. Additional records collected by Water District 36, State of Idaho, October and November 1932, July to September 1936, July to September 1937.

Extremes.- Maximum discharge during year, 1,330 second-feet May 30 (gage height, 2.42 feet); minimum daily, 105 second-feet Mar. 5.
1929-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	364	324	290	165	193	175	*210	339	1,080	761	443	296
2	354	319	290	192	193	200	380	324	1,120	784	443	292
3	354	339	285	195	193	200	419	319	1,220	808	443	288
4	349	349	280	195	193	150	360	329	1,220	746	437	283
5	344	364	275	195	193	*105	330	329	1,040	678	431	279
6	339	359	270	195	193	130	310	324	972	643	443	283
7	334	344	270	220	193	200	300	344	1,020	615	425	283
8	334	344	265	290	193	195	330	402	1,110	595	425	283
9	339	349	260	*334	*193	190	400	359	1,220	586	454	283
10	334	354	250	285	180	160	528	329	1,180	581	437	283
11	354	354	210	260	175	155	440	349	1,110	566	419	283
12	370	*329	*220	260	170	230	360	349	1,100	566	402	283
13	354	319	240	230	180	290	360	349	997	561	392	279
14	344	319	230	200	195	200	440	349	913	561	375	274
15	344	319	230	195	205	190	540	354	864	566	370	270
16	344	324	230	195	220	180	700	375	776	561	349	270
17	359	324	230	195	230	175	660	402	700	554	344	296
18	349	324	240	195	220	175	640	460	664	561	339	370
19	329	324	230	195	215	170	620	497	678	546	344	402
20	324	319	230	195	210	163	580	746	746	535	344	386
21	319	300	230	195	210	150	620	905	808	507	339	344
22	324	305	230	195	220	180	440	897	1,040	497	329	319
23	324	320	220	195	210	220	380	864	1,150	497	324	310
24	334	310	210	195	200	340	364	792	1,220	503	319	305
25	349	305	205	195	180	240	364	808	1,070	484	314	310
26	334	300	200	180	175	220	364	905	963	472	314	310
27	324	290	190	160	170	214	370	1,020	897	466	314	305
28	324	260	185	172	170	240	364	1,160	808	460	314	301
29	329	270	180	185	170	270	359	1,290	761	460	301	301
30	354	280	170	193	-	320	359	1,210	738	466	296	301
31	344	-	160	193	-	240	-	1,060	-	460	292	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,575	370	319	341	20,980
November	9,640	364	260	321	19,120
December	7,205	290	160	232	14,290
Calendar year 1947	144,038	1,300	150	395	285,700
January	6,444	334	160	208	12,780
February	5,642	230	170	195	11,190
March	6,267	340	105	202	12,430
April	12,891	700	210	430	25,570
May	18,539	1,29	319	598	36,770
June	29,185	1,220	664	973	57,890
July	17,652	808	460	569	35,010
August	11,515	454	292	371	22,840
September	9,067	402	270	302	17,980
Water year 1947 .d	144,622	1,290	105	395	286,800

* Winter discharge measurement made on this day.

Note.- No gage-height record Nov. 21 to Apr. 23 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 5 discharge measurements, weekly readings of auxiliary staff gage 1¾ miles above station, weather records, and records for station near St. Anthony.

Teton River near St. Anthony, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 11°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 1948.

Average discharge.- 21 years (1903-8, 1921-22, 1933-48), 753 second-feet.

Extremes.- Maximum discharge during year, 3,560 second-feet May 29 (gage height, 6.22 feet); minimum, 248 second-feet Mar. 5 (gage height, 1.75 feet).
1903-9, 1920-48: 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 (8,970 acre-feet diverted into river during irrigation season).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	573	558	a480	328	375	328	426	852	3,040	1,300	796	521
2	558	539	a530	456	385	349	712	743	3,130	1,340	803	512
3	558	539	530	458	377	349	954	683	3,210	1,400	796	507
4	558	563	430	460	375	320	776	661	3,110	1,310	796	498
5	549	568	a430	462	380	*312	628	644	2,760	1,190	789	494
6	544	549	a435	466	375	328	554	639	2,590	1,110	796	498
7	544	554	a435	489	375	349	494	737	2,730	1,040	782	503
8	544	544	a435	578	375	349	507	991	2,840	991	803	516
9	544	544	a440	*628	*377	344	582	1,020	2,880	954	859	526
10	544	539	440	549	360	336	917	895	2,780	924	852	526
11	549	535	a405	503	345	a320	756	782	2,600	902	816	516
12	568	535	*374	503	320	a370	628	719	2,470	888	737	512
13	554	521	408	412	340	a410	602	694	2,270	948	639	503
14	544	526	444	380	355	a370	776	700	2,040	1,010	650	498
15	535	526	417	370	370	a340	983	769	1,800	1,030	613	498
16	526	526	426	370	385	a336	1,320	969	1,640	998	597	503
17	535	530	391	370	400	336	1,510	1,330	1,560	976	582	512
18	544	530	462	370	390	336	1,460	2,050	1,410	976	597	597
19	530	530	448	370	385	336	976	2,380	1,380	954	639	672
20	526	507	417	350	380	336	946	2,770	1,450	917	628	650
21	526	498	422	350	374	320	924	2,910	1,500	837	628	608
22	526	498	430	360	391	353	1,010	3,050	1,750	837	628	573
23	530	530	430	360	378	453	909	2,660	2,080	844	639	554
24	539	516	395	360	344	521	796	2,530	2,060	844	623	539
25	549	503	380	360	340	448	769	2,730	1,820	859	563	507
26	544	512	360	340	357	378	743	3,000	1,620	844	602	512
27	530	507	350	310	361	369	700	3,290	1,500	830	613	516
28	526	458	340	320	340	395	689	3,430	1,390	803	578	535
29	526	a450	330	355	324	422	789	3,480	1,340	803	568	526
30	526	a450	320	375	-	480	902	3,340	1,310	816	554	521
31	554	-	310	375	-	412	-	2,970	-	816	530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,803	573	526	542	33,330
November	15,685	568	450	523	31,110
December	12,844	530	310	414	25,480
Calendar year 1947	275,842	2,600	310	736	547,100
January	12,737	628	310	411	25,260
February	10,633	400	320	397	21,090
March	11,405	521	312	368	22,620
April	24,738	1,510	426	825	49,070
May	54,518	3,480	639	1,759	108,100
June	64,060	3,210	1,310	2,135	127,100
July	30,289	1,400	803	977	60,080
August	21,096	859	530	681	41,840
September	15,953	672	494	532	31,640
Water year 1947-48	290,761	3,480	310	794	576,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and recorded range in stage when available.
Note.- Stage-discharge relation affected by ice Dec. 25 to Jan. 4, Jan. 14 to Feb. 20 (no gage-height record Feb. 13-17).

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 1948. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								114	1,040	825	809	550
2								115	1,050	840	838	531
3								115	1,030	858	818	512
4								90	1,020	829	689	520
5								91	998	855	765	503
6								109	1,010	824	740	518
7								58	949	861	752	541
8								76	958	897	785	549
9								86	1,040	870	756	615
10								88	1,110	918	682	573
11								87	1,140	925	651	577
12								94	1,250	872	643	557
13								89	1,240	791	554	556
14								89	1,240	951	565	541
15								189	1,280	996	533	492
16								285	1,330	1,020	528	492
17								330	1,320	999	556	476
18								422	1,230	976	593	525
19								619	1,160	981	631	464
20								642	1,200	913	619	442
21								741	1,200	816	636	332
22								749	1,150	818	668	293
23								752	1,050	850	623	292
24								753	897	848	600	262
25								745	842	867	550	258
26								835	773	839	587	250
27								858	781	854	619	244
28								912	723	802	599	239
29								1,030	731	814	590	233
30								1,060	785	832	594	233
31								1,080	-	824	547	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	13,303	1,080	58	429	26,390
June	31,527	1,330	723	1,051	62,530
July	27,165	1,020	791	876	53,880
August	20,120	838	528	649	39,910
September	13,170	615	233	439	26,120
The period	-	-	-	-	208,800

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 1946 to September 1948.

Extremes.- Maximum discharge during year, 925 second-feet June 8 (gage height, 3.91 feet); minimum, 6.0 second-feet Apr. 7 (gage height, -0.06 foot), but may have been less during period of ice effect or no gage-height record.
1946-48: Maximum discharge, that of June 8, 1948; minimum recorded, that of Apr. 7, 1948.

Remarks.- Records good 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	22	18	b13	9	b8.5	7.8	47	744	408	51	19
2	24	22	17	b13	9	8.5	8.0	43	777	417	49	18
3	23	22	15	b13	9	8.2	8.5	39	777	392	47	18
4	23	21	16	b13	9	b8.5	8.0	39	637	345	47	18
5	23	22	16	b13	8	b8.5	8.0	37	648	310	47	17
6	23	20	16	13	9	8.8	7.8	41	722	282	43	18
7	23	20	16	14	9	8.8	7.5	65	785	261	41	17
8	23	21	16	b15	9	8.8	7.5	84	853	240	43	16
9	23	22	16	13	9	8.8	7.8	69	800	221	43	16
10	22	20	15	13	9	b8.2	8.0	62	785	207	38	15
11	22	20	15	b13	b8	b8.4	8.0	58	788	200	36	15
12	22	20	15	b12	b8	b8.6	7.8	53	748	193	34	15
13	22	20	*15	11	9	8.8	*7.8	53	711	175	32	14
14	22	20	15	11	9	8.8	8.0	54	678	165	31	14
15	22	20	15	11	9	8.8	9.2	60	652	142	30	13
16	23	20	15	11	9	8.5	12	95	623	130	28	13
17	24	20	14	11	8.8	8.2	19	192	587	122	28	15
18	23	20	15	10	8.8	8.5	22	320	523	117	27	29
19	23	19	14	10	8.2	8.5	20	516	495	115	27	32
20	24	18	14	10	8.2	8.2	20	628	447	106	27	40
21	23	18	14	10	8.2	b8.2	26	582	447	94	26	29
22	23	18	14	11	8.2	8.2	35	558	454	90	25	23
23	22	18	14	11	8.2	8.2	35	467	523	86	25	20
24	22	18	13	10	b8.0	8.0	33	484	454	88	24	19
25	22	18	14	10	7.8	8.0	33	568	401	80	22	19
26	22	18	14	9	7.8	7.8	29	632	376	67	22	17
27	22	17	14	*8	7.8	7.5	28	712	351	58	21	17
28	22	16	14	b9	*8.0	7.8	34	752	370	63	21	17
29	23	16	14	9	b8.2	7.8	53	722	395	54	20	16
30	23	17	12	9	-	8.0	52	641	414	50	19	16
31	22	-	b12	9	-	7.5	-	696	-	51	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	704	24	22	22.7	0.672	0.77	1,400
November	583	22	16	19.4	.574	.64	1,160
December	457	18	12	14.7	.435	.50	906
Calendar year 1947	42,364	728	-	116	3.43	46.62	84,040
January	348	15	8	11.2	.331	.38	690
February	247.2	9	7.8	8.52	.252	.27	490
March	257.9	8.8	7.5	8.32	.246	.28	512
April	569.7	53	7.5	19.0	.562	.63	1,130
May	9,369	752	37	302	8.93	10.31	18,580
June	17,965	853	351	599	17.7	19.77	35,630
July	5,329	417	50	172	5.09	5.86	10,570
August	993	51	19	32.0	.947	1.09	1,970
September	565	40	13	18.8	.556	.62	1,120
Water year 1947-48	37,387.8	853	7.5	102	3.02	41.12	74,160

Peak discharge (base, 800 sec.-ft.).- May 29 (12:3 a.m.) 811 sec.-ft.; June 3 (1 a.m.) 894 sec.-ft.; June 8 (11 p.m.) 925 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Oct. 1-16, Jan. 13-26, Jan. 29 to Feb. 10, Feb. 13-16, (stage-discharge relation affected by ice on scattered days); discharge computed on basis of weather records and records for nearby streams.

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 1946 to September 1948.

Extremes.- Maximum discharge during year, 61 second-feet May 17 (gage height, 3.32 feet); minimum recorded, 1.7 second-feet Sept. 3 (gage height, 1.03 feet), but may have been less during winter period.

1946-48: Maximum discharge, that of May 17, 1948; minimum, 0.7 second-foot Nov. 12, 1946, but may have been less during winter period; minimum gage height observed, 0.96 foot Feb. 11, 1947.

Remarks.- Records fair except those below 10 second-feet, which are poor. No diversion or regulation above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	3.1						27	43	15	5.5	2.7
2	3.2	3.4						24	44	16	5.5	2.6
3	3.4							24	43	15	5.0	2.5
4	3.2			2.2				27	42	14	4.9	2.5
5	3.2							27	39	13	5.0	2.4
6	3.1	3.1						31	37	12	4.9	2.6
7	3.1							39	35	12	4.4	3.0
8	3.4						2.5	37	33	12	4.9	3.0
9	3.1							30	31	12	4.6	3.0
10	3.1				2.3			28	29	11	4.4	3.0
11	3.1		2.2	2.5				27	27	11	4.2	3.0
12	3.1							27	26	11	4.0	3.0
13	3.0		(*)					30	24	9.9	3.7	2.8
14	2.8							33	23	9.0	3.6	2.7
15	2.5	2.8					*7.0	36	22	9.0	3.5	2.7
16	3.0					2.2	15	40	21	8.8	3.6	2.8
17	4.0						22	50	20	8.6	3.5	4.3
18	3.0						26	54	20	8.6	3.6	4.8
19	2.7						18	57	19	8.3	4.0	4.2
20	2.7						20	56	19	8.0	4.0	3.9
21	2.6						28	56	20	7.6	3.5	3.4
22	2.8			2.3			32	55	20	7.4	3.2	3.2
23	3.0						27	53	20	7.3	3.5	3.1
24	3.2						23	52	19	7.3	3.1	3.1
25	3.1	2.4	2.0	(*)			22	52	18	6.8	3.4	3.1
26	3.1				2.2		19	51	17	6.6	3.2	3.4
27	3.1						18	51	17	6.5	3.1	3.0
28	3.1				(*)		26	51	16	6.3	3.1	3.0
29	3.6						34	50	15	6.0	3.0	3.1
30	3.5				-		30	46	15	6.0	2.8	3.1
31	3.2	-			-		-	45	-	5.5	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	96.4	4.0	2.5	3.11	0.266	0.31	191
November	82.6	-	-	2.75	.235	.26	164
December	65.6	-	-	2.12	.181	.21	130
Calendar year 1947	3,616.1	52	-	9.91	.847	11.51	7,170
January	72.1	-	-	2.33	.199	.23	143
February	65.8	-	-	2.27	.194	.21	131
March	68.2	-	-	2.20	.188	.22	135
April	402.0	34	-	13.4	1.15	1.28	797
May	1,266	57	24	40.8	3.49	4.02	2,510
June	774	44	15	25.8	2.21	2.46	1,540
July	297.5	16	5.5	9.60	.821	.95	590
August	121.5	5.5	2.8	3.92	.335	.39	241
September	93.0	4.8	2.4	3.10	.265	.30	184
Water year 1947-48	3,404.7	57	-		9.30	10.84	6,760

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice most of period Nov. 3 to Apr. 16; no gage-height record Nov. 6 to Dec. 12, Jan. 14-24, Jan. 28 to Feb. 27, Feb. 29 to Apr. 14; discharge computed on basis of weather records and records for other stations in Teton River Basin.

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 1946 to September 1948.

Extremes.- Maximum discharge during year, 38 second-feet June 2 (gage height, 1.79 feet); minimum discharge, 0.1 second-foot sometime between Dec. 18, Jan. 26 (gage height, 0.34 foot).

1946-48: Maximum discharge, that of June 2, 1948; minimum, 0.1 second-foot Jan. 22, 1947, and sometime between Dec. 18, 1947, and Jan. 26, 1948.

Remarks.- Records fair except those for periods of ice effect or no gage-height record and those below 1.0 second-foot which are poor. No diversion or regulation above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.5	0.6		b0.6	0.7	0.5	5.9	29	5.2	0.9	0.5
2	.5	.5	.6		.6	.6	.6	5.0	32	5.4	.9	.5
3	.5	.5	b.4		.5	.6	b1.0	5.2	33	5.2	.9	.5
4	.5	.5	b.4		.4	.5	.7	6.1	33	4.4	.9	.5
5	.5	.5	.5		.4	.5	b.6	6.7	31	4.1	1.0	.5
6	.4	.5	.5		.4	.5	.5	8.1	30	3.9	.9	.5
7	.4	.5	.6		.3	.5	.6	12	31	3.5	.8	.5
8	.5	.6	.5		.3	.5	.5	11	31	3.7	1.4	.5
9	.5	.5	b.4		.3	.4	.6	8.8	31	3.5	1.8	.5
10	.5	b.5	b.4		.5	.4	b1.5	7.8	28	3.2	.6	.5
11	.5	b.6	b.4		b.3	.4	1.0	6.9	25	3.0	.9	.5
12	.5	.5	b.4		b.3	.4	.6	7.2	23	2.8	.9	.5
13	.4	.5	b.4	a0.5	b.4	.4	.6	7.8	20	3.3	.8	.5
14	.5	.5	b.5		.5	.4	.8	9.2	18	2.2	.8	.4
15	.4	.5	b.5		.5	.4	*b1.2	12	16	2.5	.7	.4
16	.8	.5	b.5		b.6	.4	b2.2	16	14	2.4	.7	.5
17	.8	.5	b.5		b.6	.4	b3.5	23	13	2.5	.6	.7
18	.5	.5	.5		b.6	.5	b3.0	25	12	2.2	.6	1.4
19	.5	.5			b.6	.5	b2.6	27	11	2.2	.6	.9
20	.4	b.4			b.6	.5	b3.5	28	10	2.0	.8	.8
21	.4	b.4			b.6	.4	5.2	27	10	1.9	.7	.6
22	.5	b.4			.5	.4	5.9	26	9.8	1.9	.7	.5
23	.5	.5			.6	.4	5.0	24	9.8	1.9	.7	.5
24	.5	.5			.6	.5	4.2	24	8.8	1.8	.6	.5
25	.5	.5	a0.5		.5	.5	3.9	25	7.8	1.9	.6	.6
26	.5	.5		*0.5	.6	.4	3.0	25	7.2	1.4	.6	.5
27	.5	.5		.5	.6	.5	3.3	25	6.5	1.3	.6	.6
28	.5	b.4		b.5	.6	.5	5.4	27	6.1	1.6	.6	.5
29	.5	b.4		b.5	*.7	.5	7.8	29	5.6	1.0	.5	.5
30	.5	b.4		b.5	-	b.6	7.2	28	5.2	1.3	.6	.5
31	.5	-		b.5	-	.6	-	27	-	1.8	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	15.5	0.8	0.4	0.50	0.088	0.10	31
November	14.6	.6	.4	.49	.086	.10	29
December	15.1	-	-	.49	.086	.10	30
Calendar year 1947	1,338.9	24	.2	3.67	.644	8.74	2,660
January	15.5	-	-	.50	.088	.10	31
February	14.6	.7	.3	.50	.088	.10	29
March	14.8	.7	.4	.48	.084	.10	29
April	77.0	7.8	.5	2.57	.451	.50	153
May	525.7	29	5.0	17.0	2.98	3.43	1,040
June	547.8	33	5.2	18.3	3.21	3.57	1,090
July	85.0	5.4	1.0	2.74	.481	.55	169
August	24.2	1.8	.5	.78	.137	.16	48
September	16.9	1.4	.4	.56	.098	.11	34
Water year 1947-48	1,366.7	33	-	3.73	.654	8.93	2,710

Peak discharge (base, 25 sec.-ft.).- May 17 (8 p.m.) 34 sec.-ft.; June 2 (6 p.m.) 38 sec.-ft.; July 31 (3:30 p.m.) 28 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for other stations in Teton River Basin.

b Stage-discharge relation affected by ice.

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 1946 to September 1948.

Extremes.- Maximum discharge during year, 8.5 second-feet sometime during period June 6 to July 5, when recorder was not operating (gage height, 0.75 foot); minimum 1.9 second-feet Mar. 30, 31 (gage height, 0.38 foot).

1946-48: Maximum discharge recorded, 9.5 second-feet Mar. 19, 1947, but may have been greater during period of no gage-height record Mar. 16-18, 1947; minimum, that of Mar. 30, 31, 1948.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. One diversion above station for irrigation. Approximately 10 acre-feet were diverted during year (6 in June and 4 in July).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	3.2	3.3	a3.3	a2.2	2.4	2.0	5.8	5.8	a6.5	a4.8	4.4
2	3.2	3.3	3.3	a3.3	a2.1	2.3	2.0	5.8	6.0	a6.5	a4.8	4.4
3	3.2	3.3	3.3	a3.3	2.1	2.3	2.0	5.8	5.8	a6.5	a4.8	4.2
4	3.3	3.3	3.3	3.3	2.1	2.3	2.0	5.8	5.8	a6.5	a4.8	4.4
5	3.3	3.3	3.2	3.3	2.0	2.3	2.0	5.8	5.8	h6.2	a4.8	4.4
6	3.3	3.3	3.2	3.3	2.1	2.3	2.0	6.0	5.8	a6.2	a4.8	4.4
7	3.3	3.3	3.2	3.3	2.2	2.3	2.1	6.0	5.8	a6.2	a4.9	4.4
8	3.3	3.3	3.0	3.5	2.2	2.3	2.1	6.0		a6.2	a4.9	4.2
9	3.3	3.3	3.0	3.3	2.2	2.1	2.1	6.2		a6.2	a4.9	3.9
10	3.3	3.3	3.0	3.3	2.2	2.1	2.0	6.2		a6.2	a5.0	3.9
11	3.3	3.3	2.8	3.2	2.2	2.1	2.0	6.2		a6.2	a5.1	3.9
12	3.5	3.3	2.8	3.2	2.3	2.1	2.0	6.2		a6.2	a5.1	3.9
13	3.3	3.3	a2.8	3.2	2.3	2.1	2.0	6.2		a6.2	h5.1	3.9
14	3.2	3.3	2.7	3.0	2.2	2.0	2.3	6.2		a6.2	a4.9	4.2
15	3.2	3.3	a2.7	3.0	2.2	2.0	2.4	6.0		a6.0	a4.8	4.2
16	3.2	3.3	a2.7	3.5	2.2	2.0	3.0	6.2		a6.0	a4.7	4.2
17	3.2	3.3	a2.7	3.3	2.2	2.0	3.4	6.5		a6.0	a4.6	3.9
18	3.3	3.3	a2.7	3.2	2.4	2.0	3.5	6.8	a7.0	6.0	a4.5	3.9
19	3.3	3.3	a2.8	3.2	2.5	2.0	3.5	6.5		6.0	a4.5	3.9
20	3.3	3.3	a2.8	2.8	2.5	2.0	3.9	6.5		6.0	a4.5	3.9
21	3.3	3.3	2.8	2.8	2.5	2.0	4.6	6.5		a6.0	a4.5	3.7
22	3.5	3.3	2.8	2.8	2.5	2.0	4.4	6.2		a6.1	a4.5	3.7
23	3.3	3.3	2.8	2.7	2.5	2.0	4.4	6.0		h6.2	a4.4	3.7
24	3.3	3.5	2.8	2.7	2.5	2.1	4.4	5.8		a6.2	4.4	3.4
25	3.2	3.5	2.8	2.7	2.5	2.0	4.6	5.5		a6.2	4.4	3.4
26	3.0	3.5	3.0	2.7	2.5	2.0	4.6	5.5		a5.8	4.6	3.2
27	3.2	3.5	3.2	2.6	2.4	2.0	4.8	5.5		a5.6	4.6	2.7
28	3.2	3.5	a3.2	a2.6	2.4	2.3	5.1	5.5		a5.4	4.4	3.4
29	3.2	3.3	a3.2	a2.5	2.4	2.1	5.3	5.8		a5.2	4.4	3.7
30	3.2	3.2	a3.2	a2.4	-	1.9	5.8	5.8		4.8	4.2	3.7
31	3.2	-	a3.2	a2.3	-	1.9	-	5.5		a4.8	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	101.1	3.5	3.0	3.26	201
November	99.8	3.5	3.2	3.33	198
December	92.3	3.3	2.7	2.98	183
Calendar year 1947	1,578.7	9.0	2.4	4.33	3,130
January	93.6	3.5	2.3	3.02	186
February	66.6	2.5	2.0	2.30	132
March	65.3	2.4	1.9	2.11	130
April	96.3	5.8	2.0	3.21	191
May	186.3	6.8	5.5	6.01	370
June	203.0	-	5.8	6.77	403
July	186.3	6.5	4.8	6.01	370
August	145.1	5.1	4.2	4.68	288
September	117.1	4.4	2.7	3.90	232
Water year 1947-48	1,452.8	-	1.9	3.97	2,880

a No gage-height record; discharge interpolated or computed on basis of records for Teton River near Tetonia.
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 1948.

Extremes.- Maximum discharge during year, 598 second-feet May 19 (gage height, 5.75 feet); minimum, 4 second-feet July 9 (gage height, 1.11 feet).
1913-48: Maximum discharge, 868 second-feet May 21, 1921; no flow on mary days.

Remarks.- Records good except those for periods of no gage-height record, 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	310	320			125	236	512	98	239	28	37
2	87	340	315			135	165	536	86	235	37	40
3	84	400	311	150	90	*139	180	549	88	221	30	35
4	80	458	304			140	200	543	100	204	21	23
5	74	420	336			126	180	486	114	152	30	21
6	74	363	332			106	174	449	116	100	22	19
7	74	322	314			126	172	454	105	47	28	16
8	69	298	302	170	80	130	129	459	80	10	39	16
9	94	310	294			132	107	501	34	4	66	14
10	98	292	295			125	116	562	19	8	126	12
11	110	290	222	160	75	115	169	564	18	6	145	14
12	140	298	259	155	75	108	180	525	14	8	143	25
13	162	302	354	150	*71	121	139	500	24	8	102	33
14	189	369	273	150	75	148	146	490	32	8	57	23
15	289	327	286	145	85	158	126	504	32	8	28	23
16	267	332	318	*144	95	166	222	524	37	10	30	16
17	255	327	348	135	100	183	286	574	42	12	36	21
18	255	330	250	126	105	172	356	588	60	19	43	55
19	250	327	280	120	110	144	426	592	106	36	41	97
20	241	311	285	120	110	115	394	577	127	34	29	102
21	207	288	285		110	101	326	538	227	31	35	97
22	215	274	*285		105	106	363	446	404	26	41	98
23	213	270	280	120	105	154	438	360	500	21	102	88
24	210	275	250		105	356	462	294	531	21	71	88
25	211	280	240		105	376	443	135	518	52	36	94
26	215	161	220		103	327	424	82	474	106	35	103
27	215	404	200		110	236	406	66	474	60	34	103
28	207	313	190	100	115	190	362	88	416	40	31	94
29	308	282	185		120	225	362	95	318	34	25	96
30	295	327	180		-	364	447	100	282	44	20	122
31	290	-	180		-	452	-	112	-	35	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,567	308	69	180	11,040
November	9,600	458	161	320	19,040
December	8,503	354	180	274	16,870
Calendar year 1947	56,362	538	2	154	111,800
January	4,205	-	-	136	8,340
February	2,729	-	-	94.1	5,410
March	5,601	452	101	181	11,110
April	8,136	462	107	271	16,140
May	12,805	592	66	413	25,400
June	5,476	531	14	183	10,860
July	1,839	239	4	59.3	3,650
August	1,536	145	20	49.5	3,050
September	1,625	122	12	54.2	3,220
Water year 1947-48	67,622	592	4	185	134,100

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 11, 12, Nov. 1-3, 24, 25, Dec. 1, 2, Dec. 18 to Mar. 2, Mar. 10, 11, Apr. 3-5 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 4 discharge measurements, occasional readings of auxiliary staff gage 9 miles above station, weather records, and records for Snake River near Blackfoot.

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-Marsh Valley Canal Co., and 6 miles southeast of McCammon.

Records available.- January 1913 to September 1915, July 1919 to September 1948.

Average discharge.- 29 years (1913-14, 1919-22, 1923-48), 192 second-feet.

Extremes.- Maximum discharge observed during year, 466 second-feet May 20 (gage height, 2.82 feet); minimum observed, 128 second-feet Jan. 27 (gage height, 1.08 feet).
1913-15, 1919-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	138	153	134	140	172	208	280	301	220	233	198
2	142	140	149	134	142	159	220	273	288	223	233	196
3	142	143	151	138	142	155	257	253	280	223	235	196
4	142	145	151	143	142	149	280	253	269	210	235	192
5	138	149	147	147	142	149	249	257	257	206	231	192
6	138	142	147	147	142	149	239	257	241	204	233	196
7	140	145	147	147	142	153	216	257	229	204	235	196
8	142	147	147	202	143	153	216	269	216	204	233	194
9	142	147	145	190	140	153	257	311	212	214	233	196
10	142	151	145	166	140	153	237	311	208	214	235	196
11	142	151	142	159	138	153	220	298	196	218	233	196
12	142	151	142	149	136	153	198	294	196	220	214	196
13	142	151	138	149	136	153	196	303	196	223	214	200
14	138	149	138	145	145	153	194	303	196	218	214	204
15	138	149	143	145	145	153	196	303	198	218	214	212
16	a144	149	143	145	145	157	200	318	206	218	214	212
17	149	149	143	142	237	157	241	318	210	218	214	216
18	145	149	143	142	333	159	261	405	208	214	214	220
19	140	149	140	142	333	160	261	413	214	210	212	218
20	a140	149	143	143	273	188	269	466	296	214	212	225
21	a140	143	143	143	273	196	277	445	307	214	214	225
22	140	140	143	143	443	192	277	434	386	214	216	218
23	138	140	140	143	298	296	261	434	400	214	216	218
24	138	143	132	143	279	318	249	398	387	210	216	218
25	138	143	132	147	214	318	253	380	326	218	214	225
26	143	147	132	132	202	337	237	359	303	214	210	218
27	142	151	134	128	198	330	237	341	263	227	210	178
28	136	147	134	132	196	333	249	341	247	231	206	180
29	140	147	134	132	196	300	257	333	235	233	202	159
30	140	149	134	132	-	261	273	326	220	233	202	155
31	138	-	134	140	-	212	-	318	-	233	198	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,363	149	136	141	8,650
November	4,393	151	138	146	8,710
December	4,389	153	132	142	8,710
Calendar year 1947	64,889	307	132	178	128,700
January	4,524	202	128	146	8,970
February	5,735	443	136	198	11,380
March	6,224	337	149	201	12,350
April	7,185	280	194	240	14,250
May	10,251	466	253	331	20,330
June	7,691	400	196	256	15,250
July	6,734	233	204	217	13,360
August	6,795	235	198	219	13,480
September	6,045	225	155	202	11,990
Water year 1947-48	74,329	466	128	203	147,400

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 1948. May 1897 to October 1899 at site 1 mile upstream.

Average discharge.- 35 years (1912-16, 1917-48), 254 second-feet.

Extremes.- Maximum discharge during year, 733 second-feet May 20 (gage height, 6.07 feet); minimum, 7 second-feet June 10 (gage height, 1.31 feet).
1897-99, 1911-48: Maximum discharge, more than 2,000 second-feet sometime during period May 13 to June 14, 1917; minimum, 5 second-feet July 31, 1942, from rating curve extended below 40 second-feet.

Remarks.- Records good except those during June, which are fair, and 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	243	279	174	260	380	426	686	291	150	66	74
2	180	240	293	263	260	369	450	656	257	145	66	73
3	175	245	290	275	265	350	497	623	224	127	66	71
4	169	248	272	267	260	327	518	592	197	115	63	71
5	170	258	274	255	250	*317	520	596	175	102	66	67
6	169	260	272	262	250	304	502	598	133	87	68	72
7	172	253	270	275	255	306	464	638	116	78	71	74
8	172	258	267	318	260	308	432	686	93	66	77	72
9	170	274	263	392	260	306	426	689	58	62	79	72
10	174	267	258	375	255	295	483	671	35	44	78	73
11	197	263	257	322	231	282	495	658	58	46	82	73
12	228	263	250	295	220	282	470	638	50	45	83	72
13	224	263	243	277	220	286	446	625	41	46	83	69
14	213	260	243	265	230	300	454	623	43	47	83	67
15	221	263	246	281	250	331	458	629	48	37	79	68
16	221	270	248	279	275	329	516	656	49	35	75	68
17	226	270	241	272	346	324	584	678	51	33	68	72
18	231	270	243	253	460	320	636	706	56	33	71	83
19	234	270	245	240	577	315	629	719	59	41	75	111
20	234	272	243	238	603	318	618	730	65	53	75	144
21	236	267	246	265	607	304	642	726	109	54	78	172
22	236	262	253	262	653	300	686	708	279	56	78	186
23	234	252	252	257	697	367	689	684	342	58	84	176
24	234	257	245	286	660	470	658	642	380	65	83	154
25	238	258	238	326	625	527	636	577	348	71	82	148
26	234	262	240	255	612	520	607	544	279	69	79	156
27	236	268	253	*213	527	491	581	502	231	63	77	154
28	233	275	257	218	491	460	594	454	210	57	80	154
29	234	268	248	230	436	481	667	446	169	54	75	163
30	246	267	229	230	-	491	702	398	156	60	72	164
31	246	-	200	248	-	474	-	340	-	66	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,553	246	166	211	13,000
November	7,846	275	240	262	15,560
December	7,858	293	200	253	15,590
Calendar year 1947	82,928	544	15	227	164,500
January	8,368	392	174	270	16,600
February	11,295	697	220	389	22,400
March	11,234	527	282	362	22,280
April	16,486	702	426	550	32,700
May	19,118	730	340	617	37,920
June	4,602	380	35	153	9,130
July	2,065	150	33	66.6	4,100
August	2,334	84	63	75.3	4,630
September	3,173	186	67	106	6,290
Water year 1947-48	100,932	730	33	276	200,200

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Jan. 29 to Feb. 10. Feb. 12-15.

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 1948. October 1911 to August 1914 at site 1¼ miles upstream.

Average discharge.- 12 years (1911-12, 1937-48), 9.26 second-feet.

Extremes.- Maximum discharge observed during year, 25 second-feet May 17-20 (gage height, 1.30 feet); minimum observed, 6.2 second-feet Feb. 24 to Mar. 8.

1911-14, 1937-48: 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 fluctuation. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	8.2	7.3	6.6	6.8	6.2	7.9	13	19	10	8.5	8.5
2	8.2	8.2	7.3	6.6	6.8	6.2	8.2	13	17	10	8.5	8.5
3	8.2	8.2	7.3	6.6	6.8	6.2	8.5	13	17	9.6	8.2	8.5
4	8.2	7.9	7.1	6.6	6.6	6.2	8.2	13	16	9.6	8.2	8.5
5	8.2	7.9	7.1	6.6	6.6	6.2	8.2	14	16	9.6	8.2	8.7
6	8.2	7.9	7.1	6.6	6.6	6.2	8.2	16	15	9.6	8.5	8.7
7	8.2	7.9	7.1	7.1	6.6	6.2	8.2	15	15	9.0	8.2	8.5
8	8.5	7.9	7.1	6.8	6.6	6.2	8.7	14	14	9.0	8.2	8.2
9	8.5	7.9	7.1	6.6	6.6	6.4	8.7	14	14	9.0	8.2	8.2
10	9.0	7.9	7.1	6.6	6.6	6.4	8.7	14	14	9.0	8.2	7.9
11	8.7	7.9	6.8	6.6	6.6	6.4	8.5	14	13	9.0	8.2	7.9
12	8.5	7.7	6.8	6.6	6.6	6.4	8.5	14	12	9.0	7.9	7.9
13	8.5	7.7	6.8	6.8	6.6	6.4	8.7	14	12	9.0	7.9	7.9
14	8.5	7.7	6.8	6.8	6.4	6.4	9.0	14	12	8.7	7.9	7.9
15	8.5	7.7	6.8	6.8	6.4	6.4	10	16	12	8.5	8.5	7.9
16	8.7	7.7	6.8	6.8	6.4	6.4	10	16	12	8.7	7.9	7.9
17	8.5	7.7	6.8	6.8	6.4	6.4	12	19	12	8.7	7.7	7.9
18	8.5	7.7	6.6	6.8	6.4	6.8	12	25	11	8.5	7.5	8.2
19	8.5	7.5	6.8	6.8	6.4	6.8	12	24	11	8.5	7.5	8.5
20	8.5	7.5	6.8	6.8	6.4	6.8	12	25	11	8.2	7.5	8.2
21	8.5	7.5	6.8	6.8	6.4	6.8	13	24	12	8.5	7.5	7.9
22	8.5	7.5	6.8	6.8	6.4	6.8	13	24	12	8.7	7.5	7.9
23	8.5	7.5	6.4	6.8	6.4	7.1	12	24	12	8.7	7.5	7.7
24	8.5	7.5	6.4	6.8	6.2	7.1	12	23	12	8.7	7.5	7.7
25	8.5	7.5	6.4	6.8	6.2	7.1	12	23	12	8.5	7.5	7.7
26	8.2	7.3	6.4	6.8	6.2	7.1	12	23	12	8.7	7.3	7.7
27	8.2	7.3	6.4	6.4	6.2	7.3	13	22	11	8.7	8.5	7.7
28	8.2	7.3	6.4	6.4	6.2	7.3	15	21	11	8.7	8.2	7.7
29	8.5	7.3	6.4	6.8	6.2	7.3	14	20	11	8.7	8.5	7.7
30	8.2	7.3	6.4	6.8	-	7.3	13	20	11	8.5	8.2	7.7
31	8.2	-	6.4	6.8	-	7.5	-	20	-	8.2	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	260.8	9.0	8.2	8.41	517
November	230.7	8.2	7.3	7.69	458
December	210.6	7.3	6.4	6.79	418
Calendar year 1947	3,175.5	19	6.2	8.70	6,300
January	208.3	7.1	6.4	6.72	413
February	187.6	6.8	6.2	6.47	372
March	206.3	7.5	6.2	6.65	409
April	315.2	15	7.9	10.5	625
May	564	25	13	18.2	1,120
June	391	19	11	13.0	776
July	275.8	10	8.2	8.90	547
August	248.1	8.5	7.3	8.00	492
September	241.8	8.7	7.7	8.06	480
Water year 1947-48	3,340.2	25	6.2	9.13	6,630

Raft River at Peterson Ranch, near Bridge, Idaho

Location.- Water-stage recorder, lat. 113°27', long. 42°04', in sec. 5, T. 16 S., R. 26 E., 100 feet upstream from One Mile Creek, 400 feet downstream from road bridge, 7½ miles southwest of Bridge, and 16 miles south of Malta.

Records available.- September 1946 to September 1948.

Extremes.- Maximum discharge during year, 101 second-feet Feb. 23 (gage height, 2.28 feet); minimum, 2.9 second-feet Feb. 4 (gage height, 1.05 feet), caused by ice jam upstream.
1946-48: Maximum discharge, that of Feb. 23, 1948; minimum, 2.4 second-feet Jan. 12, 1947 (gage height, 1.04 feet), caused by ice jam upstream.

Remarks.- Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 1 to Sept. 30)

1.2	5.8	1.6	28
1.3	8.9	1.8	44
1.4	14	2.0	65
1.5	20		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	8.0	18	9.9	11	23	20	31	25	8.9	5.8	5.4
2	8.3	8.3	19	10	11	26	24	32	18	8.9	5.8	5.8
3	8.3	8.3	18	10	11	25	28	29	17	8.6	5.6	5.8
4	8.3	8.6	17	10	11	19	31	28	23	8.3	5.6	5.6
5	8.3	8.9	16	11	11	18	28	28	24	8.0	6.1	6.1
6	8.3	8.9	16	11	11	18	28	28	22	8.0	6.1	6.1
7	8.6	8.6	16	12	10	18	26	28	16	8.0	5.8	6.1
8	8.3	9.9	13	14	9.9	18	23	32	14	8.0	5.8	6.1
9	8.0	9.9	13	14	10	17	22	32	15	8.0	5.8	6.1
10	8.3	8.9	13	13	10	14	24	32	13	7.7	5.8	6.1
11	8.6	9.4	12	13	9.9	14	27	34	12	7.7	5.8	6.1
12	8.6	9.4	11	13	12	17	28	32	11	8.3	5.8	6.1
13	8.6	8.9	12	11	12	23	27	28	11	8.0	6.1	6.1
14	8.6	8.9	12	11	13	18	27	28	11	7.4	6.1	6.1
15	8.6	8.9	12	11	14	17	28	28	11	7.0	5.6	5.8
16	8.6	9.9	12	11	14	17	31	28	10	7.0	5.6	6.1
17	8.6	10	12	11	16	18	32	27	11	7.0	5.4	6.7
18	8.6	12	12	10	16	18	33	27	11	7.0	5.4	7.4
19	8.6	12	12	12	18	17	35	27	11	7.0	5.4	8.9
20	8.3	11	12	10	18	17	32	26	10	6.7	5.4	7.4
21	8.3	11	12	10	18	22	32	24	11	6.4	5.4	6.4
22	8.3	10	12	10	23	28	32	20	12	6.4	5.4	6.1
23	8.3	11	12	11	72	33	33	18	12	6.4	5.4	5.8
24	8.3	11	11	12	32	36	33	16	11	6.4	5.6	5.8
25	7.7	11	11	13	26	18	32	16	11	6.1	5.6	7.0
26	7.7	15	11	12	29	17	29	15	9.9	6.1	5.8	9.4
27	8.0	17	11	11	29	17	28	18	9.9	5.8	5.8	7.4
28	8.0	16	11	11	28	17	29	27	9.9	5.6	5.6	6.7
29	8.3	16	11	11	23	24	28	29	9.4	6.1	5.6	6.7
30	8.3	16	10	11	-	26	29	29	8.9	6.1	5.6	6.7
31	8.3	-	11	11	-	22	-	29	-	5.8	5.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	258.2	8.6	7.7	8.33	512
November	322.7	17	8.0	10.8	640
December	401	19	10	12.9	795
Calendar year 1947	4,594.6	39	5.5	12.6	9,110
January	350.9	14	9.9	11.3	696
February	528.8	72	9.9	18.2	1,050
March	632	36	14	20.4	1,250
April	659	35	20	28.6	1,700
May	826	34	15	26.6	1,640
June	401.0	25	8.9	13.4	795
July	222.7	8.9	5.6	7.18	442
August	176.2	6.1	5.4	5.63	349
September	193.9	9.4	5.4	6.46	385
Water year 1947-48	5,172.4	72	5.4	14.1	10,250

Note.- No gage-height record Mar. 3-27; discharge computed on basis of weather records, recorded range in stage, flow during adjacent periods, and records for nearby streams.

Clear Creek near Naf, Idaho

Location.- Water-stage recorder, lat. 41°58'15", long. 113°17'15", in SW¼S¼ sec. 1, T. 14 N., R. 13 W. Salf Lake meridian, 2 miles south of Utah-Idaho State line, 3 miles south of Naf post office, and 20 miles upstream from Raft River.

Drainage area.- 19 sqaure miles.

Records available.- January 1910 to June 1911 (fragmentary), June to December 1912 (gage heights only), November 1944 to September 1948.

Extremes.- Maximum discharge during year, 127 second-feet May 27 (gage height, 2.30 feet); minimum, 0.5 second-foot Aug. 10, caused by irrigation diversion.
1910-11, 1944-48: Maximum discharge observed, 180 second-feet May 13, 1910; minimum, 0.3 second-foot July 21, 1910, Aug. 5, Sept. 14, 1946.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	3.4	3.7			1.8	2.9	10	80	20	1.6	0.9
2	2.9	4.0	2.9			1.8	3.2	9.8	87	19	1.5	.9
3	2.6	3.7	2.4			1.9	4.3	9.2	96	17	2.5	.9
4	2.6	4.0	2 9		(**)	1.8	3.7	9.2	87	16	2.3	1.0
5	2.6	4.3	*2.6			1.8	3.4	9.8	83	14	2.9	1.0
6	2.4	4.0	2.6			1.8	3.4	12	83	13	2.9	1.0
7	2.6	4.3	3.0	1.8		1.9	3.4	16	74	12	2.3	1.1
8	3.2	4.3	3.0		1.6	2.0	3.7	16	69	12	2.5	1.2
9	3.4	4.0	2.9	(*)		1.9	3.7	13	69	11	1.6	1.0
10	3.7	3.4	2.7			1.8	4.0	12	68	8.0	1.4	1.0
11	4.3	3.5	2.6			1.7	4.0	9.8	60	6.3	1.9	.9
12	4.0	3.4	2.6			*2.0	3.7	8.8	54	6.0	1.7	.8
13	4.0	3.3	2.5			2.0	3.7	11	50	4.9	1.7	.8
14	3.7	3.7	2.5			2.0	3.7	12	46	4.5	1.6	.7
15	3.4	3.4	2.6			2.4	4.6	15	38	3.8	1.5	.8
16	3.7	3.4	2.4			2.2	6.9	23	34	6.7	1.4	.9
17	4.3	3.4	2.2			2.2	10	35	36	7.1	1.2	.9
18	3.7	3.4	2.2			2.2	10	45	32	6.7	1.2	2.7
19	3.4	3.7	2.0			2.2	8.8	46	30	6.0	1.2	4.5
20	3.2	3.7	1.8			2.2	9.2	45	30	6.0	1.3	2.1
21	4.0	3.7	1.8			2.4	11	46	31	5.2	1.2	1.5
22	3.7	3.5	1.8	1.7		2.4	13	48	29	4.9	1.1	1.4
23	4.0	3.4	1.7		1.8	3.4	11	52	24	4.5	1.1	1.4
24	3.7	3.4	1.6			2.6	9.2	62	20	2.9	1.2	1.5
25	3.7	3.4	1.5			2.2	8.2	74	21	2.5	1.4	3.1
26	3.7	3.7	1.5			2.6	7.3	91	22	3.6	1.4	3.1
27	3.7	3.4	1.6			2.6	7.8	100	21	3.4	1.3	2.3
28	3.4	2.6	1.7			2.6	11	102	20	3.4	1.1	1.9
29	4.3	2.6	1.9			2.4	14	96	20	3.4	1.0	1.7
30	3.7	2.6	1.7		-	2.6	12	81	19	3.1	1.0	1.7
31	3.4	-	1.5		-	4.0	-	78	-	2.7	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	107.9	4.3	2.4	3.48	214
November	106.6	4.3	2.6	3.55	211
December	70.4	3.7	1.5	2.27	140
Calendar year 1947	3,418.0	70	.6	9.36	6,790
January	54.0	-	-	1.74	107
February	49.2	-	-	1.70	98
March	69.4	4.0	1.7	2.24	138
April	204.8	14	2.9	6.83	406
May	1,197.6	102	8.8	38.6	2,380
June	1,433	96	19	47.8	2,840
July	239.4	20	2.5	7.72	475
August	48.9	2.9	.9	1.58	97
September	44.7	4.5	.7	1.49	89
Water year 1947-48	3,625.9	102	.7	9.91	7,200

Peak discharge (base, 70 sec.-ft.).- May 27 (7 p.m.) 127 sec.-ft.; June 3 (12:30 a.m.) 106 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 11-13, 22-24, Dec. 7-14, Dec. 23 to Mar. 11; (no gage-height record Dec. 26 to Jan. 8, Jan. 14 to Mar. 11; discharge computed on basis of 2 discharge measurements and weather records).

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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 1948.

Extremes.- Maximum discharge during year, 1,720 second-feet May 18 (gage height, 9.87 feet); no flow during winter.

1909-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	728						0	880	1,650	1,570	1,520	1,290
2	805						0	878	1,590	1,580	1,490	1,290
3	835						0	880	1,570	1,570	1,460	1,280
4	809						0	917	1,500	1,570	1,440	1,280
5	788						0	974	1,370	1,570	1,410	1,270
6	790						0	1,110	1,310	1,590	1,390	1,210
7	795						0	1,240	1,310	1,640	1,390	1,170
8	786						0	1,260	1,310	1,670	1,380	1,170
9	712						0	1,280	1,410	1,660	1,380	1,170
10	622						0	1,280	1,530	1,670	1,380	1,170
11	554						0	1,280	1,570	1,670	1,380	1,170
12	488						0	1,290	1,570	1,660	1,380	1,170
13	488						0	1,360	1,570	1,660	1,410	1,170
14	488						0	1,460	1,570	1,660	1,430	1,130
15	488						0	1,500	1,570	1,660	1,430	981
16	489						0	1,520	1,560	1,660	1,460	949
17	488						0	1,650	1,540	1,660	1,480	926
18	484						0	1,700	1,450	1,660	1,510	816
19	482						241	1,700	1,420	1,650	1,520	553
20	482						358	1,700	1,420	1,660	1,530	437
21	480						358	1,680	1,230	1,660	1,500	435
22	482						506	1,680	1,070	1,660	1,480	434
23	486						506	1,670	1,030	1,660	1,450	434
24	143						506	1,670	1,030	1,660	1,370	435
25	0						508	1,680	1,030	1,670	1,340	364
26	0						508	1,670	1,030	1,670	1,350	323
27	0						574	1,660	1,030	1,660	1,290	317
28	0						696	1,660	1,230	1,660	1,240	318
29	0						833	1,670	1,480	1,610	1,240	320
30	0						887	1,670	1,570	1,590	1,230	322
31	0						-	1,670	-	1,590	1,280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,192	835	0	458	28,150
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	227,439	1,740	0	623	451,100
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	6,481	887	0	216	12,860
May	44,239	1,700	878	1,427	87,750
June	41,520	1,650	1,030	1,384	82,350
July	50,780	1,670	1,570	1,638	100,700
August	43,520	1,530	1,230	1,404	86,320
September	25,304	1,290	317	843	50,190
Water year 1947-48	226,036	1,700	0	618	448,300

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 1948.

Extremes.- Maximum discharge during year, 1,400 second-feet June 10, 12, 14; maximum gage height, 6.04 feet July 13; no flow during winter.
1909-48: Maximum discharge, that of June 10, 12, 14, 1948; 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	517						0	616	1,290	1,310	1,300	1,210
2	483						0	616	1,290	1,300	1,310	1,200
3	508						0	616	1,290	1,310	1,300	1,190
4	593						0	620	1,250	1,320	1,270	1,190
5	625						0	690	1,180	1,310	1,260	1,160
6	622						0	800	1,120	1,300	1,270	1,150
7	620						0	870	1,120	1,290	1,220	1,150
8	605						0	902	1,290	1,280	1,200	1,130
9	567						0	902	1,370	1,300	1,200	1,120
10	480						0	817	1,380	1,330	1,190	1,070
11	445						0	756	1,390	1,320	1,160	1,020
12	418						0	789	1,390	1,310	1,150	965
13	367						0	856	1,390	1,310	1,150	965
14	344						0	959	1,390	1,310	1,180	965
15	344						0	1,040	1,370	1,310	1,240	959
16	365						0	1,090	1,350	1,310	1,240	956
17	377						0	1,210	1,340	1,310	1,230	938
18	131						0	1,310	1,330	1,320	1,220	819
19	0						299	1,330	1,150	1,320	1,230	613
20	0						478	1,330	947	1,320	1,230	350
21	0						478	1,330	902	1,320	1,230	246
22	0						478	1,330	780	1,320	1,220	227
23	0						478	1,340	620	1,320	1,240	227
24	0						478	1,340	538	1,310	1,230	214
25	0						475	1,350	616	1,310	1,220	208
26	0						475	1,350	706	1,300	1,220	208
27	0						475	1,320	822	1,320	1,220	204
28	0						478	1,290	1,080	1,320	1,220	204
29	0						478	1,290	1,260	1,310	1,230	204
30	0						491	1,280	1,310	1,310	1,220	204
31	0						-	1,290	-	1,310	1,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,411	625	0	271	16,680
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	174,969	1,330	0	479	347,000
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	5,561	491	0	185	11,030
May	32,629	1,350	616	1,053	64,720
June	34,261	1,390	538	1,142	67,960
July	40,640	1,330	1,280	1,311	80,610
August	38,010	1,310	1,150	1,226	75,390
September	22,266	1,210	204	742	44,160
Water year 1947-48	181,778	1,390	0	497	360,600

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 1948.

Average discharge.- 25 years (1911-14, 1926-48), 40.6 second-feet.

Extremes.- Maximum discharge during year, 169 second-feet May 20 (gage height, 3.09 feet), supersedes figure published in Water-Supply Paper 1080,"Floods of May-June 1948 in Columbia River Basin";minimum, 0.5 second-foot Sept. 17.

1911-16, 1919-48: 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, Sept. 14, 1947.

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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	15	28	18	22	34	49	111	85	16	5.6	1.2
2	7.2	14	30	15	21	*34	51	113	81	15	5.4	1.1
3	7.2	15	30	19	20	33	56	107	78	15	6.0	1.0
4	6.6	17	28	23	20	30	59	94	75	14	5.6	1.0
5	7.6	18	26	26	21	29	59	80	63	14	5.8	.9
6	7.6	18	26	27	21	33	55	76	53	13	7.2	.9
7	7.6	17	25	27	20	34	52	78	44	13	8.5	.9
8	8.2	17	23	27	19	33	47	98	42	12	8.2	1.0
9	8.5	19	22	23	21	33	44	126	43	11	8.8	1.2
10	8.8	20	21	20	17	31	47	134	38	11	8.2	1.2
11	10	19	21	21	14	29	48	129	35	10	7.9	1.4
12	11	18	22	22	15	30	47	116	29	9.1	6.9	1.2
13	12	18	21	19	20	31	45	106	29	11	6.6	1.1
14	13	18	21	17	25	31	44	102	31	10	5.8	1.0
15	13	19	21	18	30	31	47	100	30	10	5.4	1.1
16	13	21	21	19	40	27	54	104	26	10	4.7	1.3
17	13	21	22	19	60	30	63	118	27	9.5	4.1	1.4
18	13	21	22	18	70	29	73	136	26	9.1	3.4	2.0
19	13	21	22	17	60	29	90	155	23	8.5	3.0	4.1
20	13	20	23	17	54	26	99	166	19	8.2	2.7	8.2
21	13	19	24	18	50	24	95	165	20	8.2	2.6	9.5
22	13	17	*26	21	111	26	104	158	22	7.9	2.6	7.9
23	13	20	24	*28	107	37	116	144	27	8.2	2.3	6.3
24	14	23	23	29	74	73	120	133	31	8.2	2.1	6.0
25	13	24	22	25	48	94	108	122	28	8.2	2.1	7.9
26	13	24	22	15	45	54	99	112	25	6.9	2.7	8.8
27	13	23	23	12	43	42	98	106	21	6.3	2.1	10
28	13	23	24	15	39	45	92	100	21	6.0	2.1	10
29	14	23	24	17	37	73	86	95	18	5.8	1.7	8.8
30	15	24	23	20	-	79	90	98	17	5.6	1.5	8.5
31	16	-	21	22	-	58	-	95	-	5.4	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	350.5	16	6.6	11.3	695
November	586	24	14	19.5	1,160
December	731	30	21	23.6	1,450
Calendar year 1947	10,192.1	116	.1	27.9	20,220
January	634	29	12	20.5	1,260
February	1,144	111	14	39.4	2,270
March	1,222	94	24	39.4	2,420
April	2,137	120	44	71.2	4,240
May	3,577	166	76	115	7,090
June	1,107	85	17	36.9	2,200
July	306.1	16	5.4	9.87	607
August	143.1	8.8	1.5	4.62	284
September	116.9	10	.9	3.90	232
Water year 1947-48	12,054.6	166	.9	32.9	23,910

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 13, 14, 23-25, Dec. 10, 12, 13. 15-19, Dec. 23 to Feb. 20.

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 1948.

Extremes.- Maximum contents observed during year, 19,300 acre-feet May 9, 14 (gage height, 70.0 feet); minimum observed, 1,620 acre-feet Sept. 26 (gage height, 21.2 feet).
1912-48: Maximum contents observed, 74,600 acre-feet June 15, 1921 (gage height, 136.2 feet); reservoir drained at close of seasons in 1915, 1919, 1920, 1926, 1933.

Remarks.- Reservoir is formed by earth dam constructed in 1911-13; storage began in 1911. Capacity, 74,350 acre-feet between gage heights 0.0 foot (bottom of diversion tunnel) and 136.0 feet (crest of spillway). Dead storage negligible. Water is used for irrigation of lands along Goose Creek in Oakley Canal Co. project. Figures given herein represent usable contents. Gage read occasionally and contents shown on days observations were made.

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

Contents, in acre-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	7,360	-	-	-	-	-	15,300	7,740	3,620
2	-	3,380	-	-	-	11,900	-	18,600	-	15,000	-	-
3	-	-	-	-	9,410	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	15,100	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	3,700	5,810	-	-	12,300	-	-	18,200	-	-	-
8	-	-	-	7,780	-	-	-	-	-	-	6,780	-
9	-	-	-	-	-	-	-	19,300	-	-	-	-
10	2,180	-	-	-	9,720	-	-	-	-	-	6,610	-
11	-	-	-	-	-	-	-	-	-	13,700	-	-
12	-	-	-	-	-	-	16,000	-	-	-	-	2,340
13	-	-	-	-	-	-	-	-	17,100	-	6,320	-
14	-	-	-	8,210	-	12,800	16,100	19,300	-	-	-	-
15	2,420	4,220	6,260	-	9,980	-	-	-	16,800	-	-	-
16	2,500	-	-	-	-	-	16,400	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	1,640
18	-	-	-	-	-	-	-	-	-	11,500	-	-
19	-	-	-	-	-	-	-	19,200	-	-	5,590	-
20	-	-	-	-	-	-	-	-	16,000	-	-	-
21	-	-	-	-	-	13,200	-	-	-	-	-	-
22	-	-	6,710	-	10,700	-	17,200	-	-	-	5,190	-
23	-	-	-	8,740	-	-	-	19,100	-	-	-	-
24	2,880	-	-	-	-	-	-	-	-	-	-	-
25	-	4,880	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	9,450	-	1,620
27	-	-	-	-	-	-	-	-	15,900	-	-	-
28	-	-	-	8,920	-	14,100	-	-	-	-	-	-
29	-	-	-	-	11,700	-	-	-	-	-	4,220	-
30	-	5,240	-	-	-	-	-	18,700	-	-	-	-
31	3,300	-	-	-	-	14,600	-	-	-	-	-	-

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 1948.

Average discharge.- 24 years (1911-12, 1913-14, 1926-48), 13.6 second-feet.

Extremes.- Maximum discharge during year, 33 second-feet May 19 (gage height, 5.15 feet); minimum, 3.5 second-feet Jan. 26, Feb. 11 (gage height, 4.63 feet).

1911-16, 1919-48: Maximum discharge recorded, 270 second-feet 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 recorded, 2.5 second-feet Jan. 1, 1941.

Remarks.- Records good. A few small diversions above station. Flow of artesian well, completed in 1936, enters above. Practically entire flow passing station is stored in Oakley Reservoir.

Cooperation.- Water-stage recorder inspected by Oakley Canal Co.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	11	14	12	12	12	15	21	23	11	8.5	7.6
2	9.0	12	12	13	13	12	17	21	23	12	8.5	7.6
3	9.5	12	12	12	12	12	18	20	24	11	8.5	7.6
4	9.0	12	12	12	12	12	17	21	24	11	8.5	7.6
5	9.5	12	12	12	12	12	17	21	23	10	9.0	7.6
6	10	12	12	12	12	12	15	22	21	11	9.0	7.6
7	10	12	12	12	8.5	12	14	25	20	12	8.5	8.0
8	10	12	12	13	10	12	14	25	20	12	8.5	8.0
9	10	12	12	13	12	12	14	25	19	11	9.5	8.0
10	10	12	11	12	11	12	15	25	18	11	9.5	7.6
11	11	12	12	12	7.3	10	15	23	18	11	8.5	7.6
12	10	12	10	12	7.6	11	14	22	17	12	8.0	7.6
13	10	12	12	10	13	11	14	22	17	12	8.0	7.6
14	10	12	12	12	12	11	15	23	17	11	8.0	7.6
15	10	12	12	12	12	12	16	22	17	10	7.6	8.0
16	10	12	12	12	12	12	17	24	16	10	7.6	8.5
17	10	12	12	12	12	12	19	25	15	10	7.6	9.0
18	10	12	12	10	14	12	21	29	14	10	7.6	11
19	10	12	12	8.0	13	12	20	32	14	10	8.0	12
20	9.5	12	12	12	12	12	19	31	14	10	8.5	10
21	9.5	12	12	12	12	12	20	28	15	10	8.0	9.5
22	10	12	12	12	26	12	21	29	16	10	7.6	9.0
23	10	12	10	12	14	15	20	28	15	10	8.0	9.0
24	10	12	12	11	12	14	20	28	14	11	8.5	10
25	10	12	12	10	12	14	20	28	14	9.5	9.0	11
26	10	12	12	5.9	12	12	20	27	13	9.5	8.5	10
27	10	12	12	7.3	12	13	20	26	12	8.5	8.0	9.5
28	10	12	12	10	12	15	19	27	12	9.5	8.0	9.0
29	10	12	12	12	12	18	21	28	12	9.5	7.6	8.5
30	11	12	11	12	-	18	22	27	11	9.0	7.6	8.5
31	10	-	7.3	12	-	14	-	25	-	8.5	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	307.0	11	9.0	9.90	609
November	359	12	11	12.0	712
December	363.3	14	7.3	11.7	721
Calendar year 1947	4,398.7	24	7.3	12.1	8,730
January	351.2	13	5.9	11.3	697
February	353.4	26	7.3	12.2	701
March	392	18	10	12.6	778
April	529	22	14	17.6	1,050
May	780	32	20	25.2	1,550
June	508	24	11	16.9	1,010
July	323.0	12	8.5	10.4	641
August	255.8	9.5	7.6	8.25	507
September	260.1	12	7.6	8.67	516
Water year 1947-48	4,781.8	32	5.9	13.1	9,490

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 1948. Records collected by North Side Canal Co. 1916 to 1918.

Extremes.- Maximum discharge during year, 61 second-feet on many days; no flow at times. 1919-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0						0	44	60	60	59	59
2	0						0	44	61	60	59	59
3	0						0	57	61	60	59	59
4	0						0	57	61	60	59	59
5	0						0	60	61	60	59	59
6	0						0	60	61	60	59	59
7	0						0	60	60	60	59	59
8	14						0	60	60	60	59	59
9	14						0	60	60	60	59	59
10	14						0	60	60	60	59	59
11	7						0	60	60	60	59	59
12	0						0	60	60	60	59	59
13	0						0	60	60	30	59	59
14	0						0	60	61	60	58	59
15	0						0	60	61	59	58	59
16	0						0	60	61	59	58	59
17	0						0	60	60	59	58	59
18	0						0	60	60	59	59	59
19	0						0	60	60	59	59	59
20	0						0	60	60	59	59	59
21	0						0	60	60	59	59	59
22	0						0	60	60	59	59	60
23	0						0	60	60	59	59	60
24	0						0	61	60	59	59	44
25	0						0	61	60	59	59	36
26	0						0	61	60	59	59	36
27	0						11	61	60	59	59	0
28	0						28	61	61	59	59	0
29	0						32	61	61	59	59	0
30	0						44	61	61	59	59	0
31	0						-	60	-	59	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	49	14	0	1.6	97
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	8,916	62	0	24.4	17,680
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	115	44	0	3.8	228
May	1,829	61	44	59.0	3,630
June	1,811	61	60	60.4	3,590
July	1,843	60	59	59.5	3,660
August	1,825	59	58	58.9	3,620
September	1,475	60	0	49.2	2,920
Water year 1947-48	8,947	61	0	24.4	17,740

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 1948.

Extremes.- Maximum discharge during year, 198 second-feet July 27 to Aug. 13; no flow on many days.
1921-48: Maximum discharge, 203 second-feet Aug. 26, 27, 1945; no flow on many days.

Remarks.- Records excellent. 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.- Records of pump discharge furnished by Milner low-lift irrigation district.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	110	178	173	198	194
2							0	97	178	173	198	194
3							0	118	178	173	198	194
4							0	140	178	173	198	194
5							0	155	178	173	198	194
6							0	172	178	173	198	186
7							0	178	178	173	198	179
8							0	178	178	173	198	179
9							0	178	178	173	198	179
10							0	178	179	173	198	179
11							0	178	179	179	198	179
12							0	178	179	197	198	179
13							0	178	179	197	198	179
14							0	178	179	197	188	179
15							0	178	179	197	191	179
16							0	178	177	197	194	179
17							0	178	174	197	194	169
18							0	178	174	197	194	159
19							0	178	174	197	194	138
20							0	178	156	195	194	100
21							0	178	141	195	194	100
22							0	178	105	195	194	100
23							0	178	105	195	194	100
24							22	178	105	195	194	100
25							21	178	105	195	194	85
26							55	178	138	196	194	85
27							74	178	152	198	194	75
28							110	178	152	198	194	50
29							110	178	165	198	194	50
30							110	178	173	198	194	50
31							-	178	-	198	194	-

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 1947	25,472	200	0	69.8	50,520
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	502	110	0	16.7	996
May	5,242	178	97	169	10,400
June	4,872	179	105	162	9,660
July	5,841	198	173	188	11,580
August	6,057	198	188	195	12,010
September	4,307	194	50	144	8,540
Water year 1947-48	26,821	198	0	73.3	53,190

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 1948.

Extremes.- Maximum discharge during year, 2,740 second-feet July 30; no flow on many days. 1909-48: 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 P. A. lateral and part of that diverted by Gooding Canal, all at Milner, is used for irrigation of 163,000 acres of land under 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	626	769	517	436	297	572	312	1,730	2,440	2,510	2,720	2,460
2	626	619	491	454	328	552	312	1,760	2,420	2,500	2,680	2,520
3	622	335	476	445	349	572	312	1,760	2,420	2,620	2,660	2,530
4	688	289	476	424	351	578	210	1,770	2,420	2,640	2,640	2,510
5	769	262	491	424	373	555	141	1,780	2,380	2,640	2,640	2,540
6	769	240	485	401	395	549	497	1,790	2,380	2,630	2,620	2,520
7	304	229	491	376	427	549	501	1,910	2,380	2,580	2,560	2,500
8	0	289	482	362	439	552	504	2,020	2,380	2,620	2,520	2,480
9	0	398	482	365	433	562	504	1,990	2,460	2,620	2,520	2,400
10	0	387	472	362	469	565	646	1,990	2,500	2,640	2,500	2,280
11	0	393	469	365	485	558	856	1,990	2,500	2,640	2,500	2,220
12	0	404	469	373	494	555	956	1,980	2,500	2,620	2,540	2,240
13	0	404	472	370	542	552	932	2,150	2,510	2,580	2,540	2,220
14	0	401	463	368	572	536	892	2,200	2,580	2,600	2,600	2,180
15	0	413	469	370	558	545	908	2,200	2,600	2,610	2,620	2,180
16	0	395	469	373	565	549	952	2,200	2,600	2,560	2,620	2,110
17	0	442	472	351	555	549	1,000	2,380	2,610	2,560	2,610	2,070
18	0	466	472	330	555	545	1,220	2,430	2,540	2,520	2,580	2,090
19	0	457	472	317	565	545	1,540	2,430	2,400	2,500	2,560	1,980
20	0	482	472	317	568	578	1,640	2,540	2,450	2,520	2,580	1,570
21	0	504	469	320	565	608	1,600	2,600	2,350	2,500	2,540	1,450
22	0	513	469	323	545	602	1,580	2,560	2,300	2,490	2,520	1,220
23	0	552	457	328	552	598	1,550	2,490	2,290	2,470	2,520	972
24	0	562	442	336	558	585	1,580	2,460	2,300	2,460	2,520	888
25	432	562	439	333	552	562	1,680	2,460	2,280	2,500	2,510	892
26	798	562	442	320	555	615	1,740	2,440	2,280	2,550	2,520	888
27	798	549	445	333	552	629	1,710	2,440	2,280	2,520	2,500	876
28	802	536	448	310	578	608	1,710	2,420	2,390	2,630	2,490	880
29	784	517	439	289	578	572	1,710	2,420	2,500	2,720	2,490	872
30	784	517	445	297	-	568	1,700	2,420	2,510	2,710	2,460	876
31	772	-	448	302	-	405	-	2,420	-	2,720	2,450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,574	802	0	309	18,990
November	13,448	769	229	448	26,670
December	14,505	517	439	468	28,770
Calendar year 1947	449,820	2,800	0	1,232	892,200
January	11,074	454	289	357	21,960
February	14,355	578	297	495	28,470
March	17,470	629	405	564	34,650
April	31,395	1,740	141	1,046	62,270
May	68,130	2,600	1,730	2,198	135,100
June	72,950	2,610	2,280	2,432	144,700
July	79,980	2,720	2,460	2,580	158,600
August	79,330	2,720	2,450	2,559	157,300
September	55,414	2,540	872	1,847	109,900
Water year 1947-48	467,625	2,720	0	1,278	927,400

Gooding Canal at Milner, Idaho

Location.- 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 1948.

Extremes.- Maximum daily discharge during year, 2,580 second-feet Aug. 7; no flow on many days.

1930-48: Maximum daily discharge, 2,580 second-feet July 31, Aug. 1, 2, 1942, July 31, Aug. 1, 3, 4, 1943, Aug. 7, 1948; 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 North Side Twin Falls Canal and P. A. lateral. Discharge of canal is computed by combining the discharge of Milner-Gooding diversion and that of North Side Canal Co. diversions below their diversion point and adding from 20 to 60 second-feet to that sum for loss between head gates and diversion point.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0					0	1,960	2,440	2,440	2,540	2,130
2	0	0					0	2,080	2,440	2,430	2,540	2,080
3	0	0					0	2,070	2,450	2,450	2,560	2,080
4	0	0					0	2,060	2,440	2,460	2,540	2,060
5	0	0					0	2,070	2,440	2,440	2,550	2,010
6	0	0					0	2,080	2,430	2,420	2,570	2,000
7	450	0					0	2,060	2,430	2,410	2,580	2,010
8	850	0					0	2,090	2,470	2,390	2,550	2,000
9	960	0					0	2,130	2,500	2,370	2,550	1,990
10	980	0					0	2,170	2,500	2,380	2,510	1,990
11	1,010	0					0	2,200	2,250	2,410	2,480	1,970
12	1,020	0					0	2,210	1,080	2,410	2,480	1,970
13	1,030	0					0	2,210	1,100	2,420	2,480	1,980
14	1,000	0					0	2,210	1,940	2,430	2,490	1,980
15	980	0					0	2,220	2,450	2,430	2,390	1,980
16	980	0					0	2,220	2,460	2,430	2,350	1,980
17	980	0					0	2,290	2,460	2,450	2,350	1,980
18	1,000	0					0	2,340	2,480	2,450	2,330	1,990
19	1,010	0					360	2,420	2,480	2,430	2,310	2,000
20	1,030	0					650	2,420	2,480	2,480	2,320	1,940
21	1,000	0					800	2,400	2,440	2,510	2,320	1,910
22	1,000	370					910	2,390	2,440	2,500	2,320	1,870
23	980	350					900	2,360	2,400	2,500	2,320	1,850
24	910	0					910	2,360	2,400	2,460	2,280	1,860
25	360	0					910	2,370	2,400	2,460	2,200	1,500
26	0	0					1,220	2,400	2,410	2,490	2,180	1,280
27	0	0					1,430	2,420	2,410	2,470	2,170	1,270
28	0	0					1,460	2,410	2,400	2,500	2,170	1,270
29	0	0					1,700	2,410	2,420	2,550	2,170	780
30	0	0					1,790	2,420	2,430	2,570	2,160	0
31	0	-					-	2,440	-	2,560	2,160	-

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	17,530	1,030	0	565	34,770	0	34,770
November	720	370	0	24.0	1,430	1,430	0
December	0	0	0	0	0	0	0
Calendar year 1947	383,140	2,520	0	1,050	759,960	405,980	353,970
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	13,040	1,790	0	435	25,860	21,400	4,460
May	69,890	2,440	1,960	2,255	138,620	76,480	62,140
June	69,870	2,500	1,080	2,329	138,580	76,500	62,080
July	76,100	2,570	2,370	2,455	150,940	89,080	61,860
August	73,920	2,580	2,160	2,385	146,620	83,400	63,210
September	53,710	2,130	0	1,790	106,530	66,720	39,810
Water year 1947-48	374,780	2,580	0	1,024	743,350	415,010	328,330

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 settlement, and 12 miles south of Hansen.

Records available.- November 1938 to July 1939, November 1943 to September 1948. 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, 227 second-feet May 19 (gage height, 2.82 feet); minimum, 4.4 second-feet Sept. 14, 15 (gage height, 0.98 foot).

1909-13, 1938-39, 1943-48: 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 period of no gage-height record, which are poor. Small ranch diversions above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	9	14	9	14	15	33	126	84	22	8.6	5.1
2	9.5	8.6	13	12	14	17	38	110	78	23	8.6	5.1
3	9	9	12	14	13	17	47	100	75	20	8.6	5.1
4	9	9	12	15	13	17	45	100	72	20	8.3	5.1
5	9	9	12	14	13	16	44	99	67	18	8.6	5.3
6	9	9	12	14	12	18	43	110	60	18	7.9	5.3
7	9	9	12	15	12	18	41	142	57	18	7.9	5.3
8	10	9	12	16	12	18	40	156	54	18	7.9	5.3
9	10	8.6	12	15	14	18	39	151	51	16	8.3	5.1
10	10	7.2	12	14	13	17	44	137	48	16	8.3	5.1
11	12	7.2	12	14	b12	15	43	126	45	16	8.3	4.6
12	12	7.2	12	14	b12	18	42	120	43	17	7.9	4.6
13	10	6.8	12	13	b13	17	40	124	42	16	7.5	4.6
14	9.5	6.8	13	13	b13	17	43	138	41	14	7.2	4.4
15	9.5	7.5	12	13	14	17	51	159	39	14	6.8	4.6
16	9.5	7.9	12	13	14	16	61	187	36	13	6.4	4.8
17	10	8.3	13	13	14	16	82	211	34	12	6.4	4.8
18	10	7.9	13	12	15	16	106	225	32	12	6.4	7.2
19	9.5	8.3	13	12	15	16	97	221	32	12	6.4	11
20	9.5	8.3	14	12	14	15	103	204	32	12	6.8	7.9
21	10	8.3	14	12	15	15	116	187	42	12	6.4	6.4
22	10	8.3	14	15	27	17	138	171	40	11	6.4	5.7
23	10	8.3	13	16	23	20	125	151	34	11	6.4	5.3
24	10	8.3	13	16	20	28	114	140	30	10	6.4	6.4
25	10	8.6	13	14	18	30	109	131	29	10	6.4	8.6
26	9	8.6	13	14	18	25	102	124	27	9.5	6.4	9.5
27	9	11	13	b12	18	26	96	118	26	9	5.7	7.5
28	9	12	13	12	18	29	106	112	24	9	5.7	6.8
29	9	12	13	13	17	32	142	110	23	9.5	5.3	6.0
30	9.5	12	12	14	-	35	140	102	21	9.5	5.3	6.0
31	9.5	-	10	14	-	33	-	92	-	9	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	300.5	12	9	9.69	596
November	261.0	12	6.8	8.70	518
December	390	14	10	12.6	774
Calendar year 1947	8,959.4	126	6 4	24.5	17,770
January	419	16	9	13.5	831
February	440	27	12	15.2	873
March	624	35	15	20.1	1,240
April	2,270	142	33	75.7	4,500
May	4,384	225	92	141	8,700
June	1,318	84	21	43.9	2,610
July	436.5	23	9	14.1	866
August	218.8	8.6	5.3	7.06	434
September	178.5	11	4.4	5.95	354
Water year 1947-48	11,240.3	225	4.4	30.7	22,300

Peak discharge (base, 130 sec.-ft.).- Apr. 22 (7:30 a.m.) 145 sec.-ft.; Apr. 29 (12 m.) 146 sec.-ft.; May 8 (1 a.m.) 164 sec.-ft.; May 19 (1 a.m.) 227 sec.-ft.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Dec. 13 to Jan. 22; discharge computed on basis of weather records and records for nearby streams.

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 1948.

Extremes.- Maximum discharge during year, 3,730 second-feet Aug. 23 (gage height, 10.53 feet); minimum, 10 second-feet Mar. 18-22.
1909-48: 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. 21, 1920.

Remarks.- Records excellent except those for periods of ice effect 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	658	604	b522	h523	474	538	3,040	3,390	3,410	3,560	3,540
2	1,270	655	601	b522	h523	472	556	3,010	3,380	3,400	3,580	3,520
3	1,270	658	592	b526	b525	405	523	3,000	3,380	3,420	3,570	3,520
4	1,310	664	595	523	*b530	390	483	3,140	3,380	3,450	3,580	3,510
5	1,350	667	604	520	535	526	429	3,230	3,390	3,440	3,590	3,520
6	1,290	664	598	517	523	529	472	3,230	3,380	3,430	3,580	3,500
7	1,220	634	601	*526	h526	477	502	3,220	3,380	3,440	3,590	3,460
8	1,200	613	598	529	h535	477	520	3,310	3,390	3,440	3,600	3,380
9	1,150	613	595	526	h517	488	649	3,280	3,390	3,440	3,610	3,250
10	1,110	631	592	523	b525	491	739	3,280	3,380	3,420	3,640	3,170
11	1,030	652	580	532	b515	500	768	3,270	3,360	3,400	3,650	3,110
12	968	661	586	535	b520	500	819	3,290	3,360	3,400	3,640	3,070
13	960	649	586	b528	h532	488	862	3,290	3,380	3,450	3,620	3,000
14	851	610	565	b520	517	497	947	3,300	3,380	3,460	3,610	2,940
15	762	610	565	b525	517	497	1,050	3,300	3,360	3,480	3,620	2,910
16	564	619	*565	b528	505	491	1,170	3,310	3,310	3,500	3,630	2,850
17	61	607	559	b525	477	491	1,280	3,320	3,280	3,500	3,630	2,840
18	296	610	556	532	466	a170	1,450	3,360	3,250	3,500	3,650	2,740
19	226	604	556	h526	463	a10	1,590	3,360	3,230	3,510	3,660	2,340
20	h61	598	559	h523	458	a10	1,770	3,340	3,200	3,560	3,690	2,170
21	h61	598	559	h520	458	a10	1,980	3,340	3,130	3,560	3,670	1,960
22	743	595	562	h520	458	a221	2,270	3,340	3,030	3,570	3,690	1,780
23	1,150	592	559	h523	458	607	2,320	h3,340	2,880	3,580	3,670	1,640
24	794	592	559	h526	460	601	2,420	h3,360	2,890	3,580	3,670	1,460
25	845	592	559	526	458	486	2,560	h3,380	2,950	3,590	3,680	1,320
26	794	607	b558	500	*466	491	2,580	3,380	3,080	3,590	3,640	1,210
27	730	607	b554	b520	477	502	2,600	3,390	3,190	3,580	3,620	1,110
28	723	604	553	b530	474	491	2,760	3,390	3,280	3,590	3,580	1,010
29	694	598	b535	b515	474	491	2,920	3,370	3,320	3,580	3,580	971
30	694	604	b523	b520	-	514	3,000	3,380	3,390	3,580	3,580	943
31	694	-	b518	b525	-	520	-	3,390	-	3,570	3,580	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	26,141	1,350	61	843	51,850
November	18,666	667	592	622	37,020
December	17,696	604	518	571	35,100
Calendar year 1947	642,510	3,680	42	1,760	1,274,000
January	16,233	535	500	524	32,200
February	14,415	535	458	497	28,590
March	13,317	607	10	430	26,410
April	42,527	3,000	429	1,418	84,350
May	101,940	3,390	3,000	3,288	202,200
June	98,090	3,390	2,880	3,270	194,600
July	108,420	3,590	3,400	3,497	215,000
August	112,260	3,690	3,560	3,621	222,700
September	75,744	3,540	943	2,525	150,200
Water year 1947-48	645,449	3,690	10	1,764	1,280,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of observer's estimate of leakage through dam (gates closed).
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.

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 1948.

Average discharge.- 34 years (1910-16, 1919-20, 1921-48), 127 second-feet.

Extremes.- Maximum discharge during year, 549 second-feet May 21; maximum gage height, 6.18 feet May 30; minimum discharge, 2.8 second-feet Nov. 13 (gage height, 2.05 feet), during channel improvement work upstream; minimum daily discharge, 10 second-feet Sept. 3.

1909-16, 1918-48: 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, that of Nov. 13, 1947.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	37	64	42	68	79	152	385	434	121	26	11
2	20	36	63	48	72	79	206	355	408	118	23	11
3	20	36	65	53	70	73	221	305	403	114	21	10
4	21	38	59	57	64	70	193	274	432	104	21	11
5	21	44	58	60	64	72	175	267	442	88	21	11
6	22	54	58	61	64	74	156	269	421	79	22	11
7	22	53	57	64	59	74	143	296	421	72	22	12
8	24	50	54	66	60	76	128	269	424	69	22	12
9	25	48	54	68	69	80	126	439	406	64	22	12
10	26	46	44	69	73	79	152	437	370	59	22	12
11	28	46	55	69	69	69	170	411	345	55	22	14
12	29	46	46	70	55	76	158	380	320	57	21	18
13	30	44	46	a60	66	76	152	352	303	55	20	18
14	29	48	a52	a55	86	99	158	332	279	57	19	18
15	29	46	58	a50	85	118	188	340	265	58	18	19
16	29	53	61	a50	88	93	221	368	253	57	16	20
17	29	52	59	a55	99	82	267	400	239	54	15	21
18	29	51	59	a55	172	79	358	437	235	52	14	24
19	30	51	55	a55	126	79	439	473	219	46	14	40
20	29	51	57	a60	121	78	406	533	206	44	13	37
21	33	51	57	a65	112	74	388	533	212	42	12	33
22	33	48	57	79	168	85	432	498	249	40	12	31
23	32	46	51	80	199	279	508	482	258	38	12	30
24	32	50	50	88	150	352	490	442	244	38	12	32
25	32	55	48	82	107	360	403	413	212	34	14	40
26	33	53	48	46	99	166	348	411	186	33	14	40
27	33	53	48	57	123	137	330	426	180	29	14	a39
28	34	54	48	63	98	206	305	450	166	29	13	a38
29	35	55	50	64	84	279	286	476	147	31	12	a37
30	36	55	50	66	-	262	355	519	125	31	12	h36
31	36	-	44	64	-	168	-	490	-	30	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	882	36	20	28.5	1,750
November	1,450	55	36	48.3	2,880
December	1,675	65	44	54.0	3,320
Calendar year 1947	31,690.3	328	7.4	86.8	62,860
January	1,921	88	42	62.0	3,810
February	2,770	199	55	96.0	5,490
March	3,973	360	69	128	7,880
April	8,015	508	126	267	15,900
May	12,462	533	267	402	24,720
June	8,804	442	125	293	17,460
July	1,798	121	29	58.0	3,570
August	532	26	11	17.2	1,060
September	698	40	10	23.3	1,380
Water year 1947-48	44,980	533	10	123	89,220

a No gage-height record; discharge computed on basis of weather records, unpublished records for station of Salmon River Canal Co. above Contact, and records for Salmon River Canal Co. reservoir.
h Computed from staff-gage reading.

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 1948.

Extremes.- Maximum contents observed during year, 46,800 acre-feet June 8-13 (gage height, 29.0 feet); minimum observed, 4,795 acre-feet Oct. 15-30 (gage height, 3.7 feet).
1922-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,335	4,930	6,840	9,460	12,220	15,900	22,010	35,580	46,000	44,400	23,540	9,025
2	5,335	5,065	6,995	9,460	12,220	16,050	22,860	36,320	46,000	44,000	23,030	8,735
3	5,200	5,065	7,140	9,460	12,350	16,200	23,540	36,880	46,200	43,600	22,520	8,880
4	5,200	5,065	7,285	9,605	12,350	16,350	24,050	37,440	46,200	43,000	21,840	8,880
5	5,200	5,065	7,430	9,750	12,500	16,500	24,390	37,990	46,200	42,320	21,340	8,880
6	5,200	5,065	7,575	9,895	12,500	16,650	24,730	38,540	46,400	42,060	20,860	8,880
7	5,200	5,200	7,720	10,040	12,640	16,800	24,900	39,100	46,600	41,500	20,220	8,880
8	5,200	5,200	7,865	10,180	12,640	16,800	24,900	39,660	46,800	40,950	19,740	8,880
9	5,200	5,200	8,010	10,330	12,780	16,950	25,070	40,210	46,800	40,400	19,260	8,735
10	5,200	5,200	8,155	10,480	12,780	16,950	25,240	40,760	46,800	39,840	18,620	8,735
11	5,200	5,200	8,300	10,620	12,780	17,100	25,240	41,320	46,800	39,100	18,150	8,735
12	5,200	5,200	8,300	10,760	12,930	17,100	25,240	41,880	46,800	38,360	17,700	8,735
13	5,065	5,335	8,445	10,910	12,930	17,250	25,580	42,620	46,800	37,620	17,100	8,590
14	4,930	5,335	8,445	10,910	12,930	17,250	25,920	43,200	46,600	36,700	16,650	8,735
15	4,795	5,335	8,590	11,060	13,080	17,400	26,260	43,800	46,400	35,770	16,200	8,445
16	4,795	5,335	8,735	11,060	13,220	17,550	26,600	44,400	46,200	34,840	15,600	8,445
17	4,795	5,470	8,735	11,200	13,360	17,700	26,940	44,200	45,800	33,920	15,000	8,445
18	4,795	5,470	8,735	11,200	13,510	17,850	27,280	44,200	45,600	33,000	14,400	8,445
19	4,795	5,470	8,735	11,200	13,660	18,000	27,620	44,200	45,400	32,070	13,800	8,445
20	4,795	5,605	8,735	11,340	13,660	18,150	28,300	44,400	45,000	31,190	13,220	8,590
21	4,795	5,605	8,880	11,340	13,800	18,150	28,980	44,600	45,000	30,340	12,500	8,590
22	4,795	5,740	8,880	11,340	14,100	18,300	29,660	45,000	44,800	29,660	12,220	8,590
23	4,795	5,740	9,025	11,490	14,250	18,300	30,170	45,400	45,000	28,980	12,220	8,590
24	4,795	5,875	9,025	11,490	14,550	18,620	30,850	45,600	45,400	28,300	12,350	8,590
25	4,795	6,010	9,025	11,640	14,850	19,100	31,880	45,600	45,600	27,790	12,350	8,590
26	4,795	6,145	9,170	11,640	15,000	19,900	32,620	45,600	45,600	27,280	12,350	8,590
27	4,795	6,280	9,170	11,780	15,300	20,380	33,550	45,600	45,800	26,600	11,640	8,590
28	4,795	6,415	9,170	11,920	15,450	20,540	34,100	45,600	45,600	25,920	11,060	8,735
29	4,795	6,550	9,315	11,920	15,600	20,860	34,480	45,600	45,400	25,410	10,480	8,735
30	4,795	6,695	9,315	12,070	-	21,180	35,030	45,600	45,000	24,900	10,040	8,735
31	4,930	-	9,315	12,070	-	21,500	-	45,800	-	24,220	9,460	-

Monthly gage height and contents, water year October 1947 to September 1948

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4.1	5,335	-
Oct. 31	3.8	4,930	-405
Nov. 30	5.1	6,695	+1,765
Dec. 31	6.9	9,315	+2,620
Calendar year 1947	-	-	-13,035
Jan. 31	8.8	12,070	+2,755
Feb. 29	11.2	15,600	+3,530
Mar. 31	15.0	21,500	+5,900
Apr. 30	22.8	35,030	+13,530
May 31	28.5	45,800	+10,770
June 30	28.1	45,000	-800
July 31	16.6	24,220	-20,780
Aug. 31	7.0	9,460	-14,760
Sept. 30	6.5	8,735	-725
Water year 1947-48	-	-	+3,400

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 1948.

Extremes.- Maximum discharge during year, 410 second-feet July 18, 19 (gage height, 5.95 feet); no flow during long periods.
1937-48: 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 year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0							0	354	337	h269	h153
2	0							0	354	341	262	0
3	0							0	340	313	251	0
4	0							0	324	280	246	0
5	0							0	299	274	243	0
6	0							0	279	265	235	0
7	0							0	288	278	223	0
8	0							0	289	295	231	0
9	0							0	281	306	239	0
10	0							0	276	326	242	0
11	0							0	296	347	242	0
12	h129							0	308	367	245	0
13	h156							0	322	385	244	0
14	0							0	337	h405	244	0
15	0							0	329	h398	245	0
16	0							194	328	h390	249	0
17	0							292	334	399	256	0
18	0							304	327	407	275	0
19	0							312	312	403	294	0
20	0							303	293	391	295	0
21	0							292	273	363	h233	0
22	0							294	68	330	0	0
23	0							292	0	321	0	0
24	0							295	0	303	0	0
25	0							306	0	h299	0	0
26	0							332	0	h293	144	0
27	0							354	172	h292	213	0
28	0							362	263	h288	227	0
29	0							368	294	h288	229	0
30	0							358	331	h286	208	0
31	0							352	-	h276	196	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	285	156	0	9.2	565
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	27,967	438	0	76.6	55,460
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	5,010	368	0	162	9,940
June	7,671	354	0	256	15,220
July	10,246	407	265	331	20,320
August	6,480	295	0	209	12,850
September	153	153	0	5.1	303
Water year 1947-48	29,845	407	0	81.5	59,200

h Computed from staff-gage readings and time of gate changes.

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 1948.

Extremes.- Maximum contents during year, 47,300 acre-feet May 19 (gage height, 8.84 feet); minimum, 6,640 acre-feet Sept. 17; minimum gage height, 1.27 feet Sept. 16 (affected by wind).

1921-48: 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 released 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 augmented by well flows. For complete description of Mud Lake region see Water-Supply Paper No. 818. Water for irrigation is diverted from lake by pumping. During low lake stages inflow from Camas Creek may be bypassed through Camas Creek diversion canal directly to lake outlet channel leading to First Owsley pumping plant. Bypass was not used during 1948. Other irrigation diversions are made by various means from adjacent lakes and wells and Camas Creek above lake. Area of Mud Lake is varied from time to time by changes in dikes. Figures given herein represent contents above gage height -4.0 feet. Capacity table prepared from surveys made by Geological Survey and adjusted for changes in dikes. High winds occasionally disturb the recording of lake stages.

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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	h24,900	-	-	40,300	44,500	44,300	30,500	13,700	7,240
2	-	h10,200	h17,700	-	-	-	40,400	44,700	44,000	30,500	13,200	7,160
3	-	h10,300	-	h25,600	31,500	-	-	44,900	43,700	30,300	12,600	7,070
4	-	-	-	-	31,600	-	-	45,100	43,400	30,100	12,100	6,990
5	-	-	-	h26,000	31,800	-	-	45,100	43,200	29,900	11,500	7,070
6	-	-	-	-	32,100	36,800	40,800	45,200	42,900	29,700	11,000	7,160
7	-	-	-	-	32,300	-	41,000	45,300	42,400	29,300	10,600	7,160
8	-	h11,200	19,400	-	32,500	-	41,100	45,400	41,900	28,800	10,300	7,100
9	-	-	19,600	-	32,700	-	41,200	45,700	41,300	28,400	10,100	7,050
10	-	-	19,800	h27,000	32,800	h37,300	41,300	46,100	40,500	28,000	9,950	7,050
11	-	-	20,100	-	33,000	-	41,500	46,300	39,600	27,300	9,780	6,990
12	-	-	20,400	-	33,000	-	41,500	46,400	38,900	26,700	9,590	6,960
13	-	-	20,700	-	33,100	-	41,600	46,700	38,000	26,100	9,450	6,940
14	-	-	20,900	-	33,100	37,900	41,600	46,700	37,200	25,500	9,280	-
15	8,570	h13,200	21,100	h28,100	33,200	38,000	41,700	46,800	36,500	24,800	9,110	6,720
16	8,540	-	21,400	-	33,200	38,100	41,900	46,900	35,700	24,200	9,010	6,670
17	8,670	-	21,600	-	33,400	38,300	41,800	46,900	34,700	23,500	8,940	6,640
18	8,740	-	21,900	-	-	38,500	41,900	47,000	34,300	22,800	8,840	6,690
19	8,670	-	22,100	-	-	38,500	42,100	47,200	33,400	22,100	8,440	6,830
20	8,770	-	22,300	-	-	38,700	42,300	47,100	33,200	21,400	8,500	6,940
21	8,810	h14,700	22,600	-	-	38,700	42,500	47,000	32,700	20,800	8,370	7,020
22	8,970	-	22,800	-	-	38,800	42,500	46,700	32,100	20,000	8,210	7,020
23	9,010	-	23,100	-	-	39,100	42,700	46,700	31,800	19,100	7,900	6,960
24	9,040	h15,600	23,300	-	-	39,200	42,900	46,700	31,500	18,400	7,810	7,240
25	9,070	-	23,500	-	-	39,400	43,200	46,500	31,200	17,800	7,780	7,210
26	9,110	-	23,700	-	-	39,600	43,500	46,300	31,100	17,200	7,690	7,300
27	9,140	-	23,900	-	-	39,600	43,800	46,000	30,900	16,600	7,530	7,360
28	-	-	24,100	-	-	39,800	44,000	45,600	30,800	15,800	7,530	7,500
29	h9,590	h16,800	24,400	-	h35,700	39,900	44,100	45,300	30,800	15,300	7,470	7,560
30	h9,700	h17,000	24,600	-	-	40,000	44,300	45,100	30,700	14,800	7,360	7,650
31	h9,810	-	a24,800	h31,000	-	40,200	-	44,700	-	14,200	7,330	-

a No gage-height record; contents interpolated.
h Staff-gage reading at supplemental gage when not affected by pump operation.

Monthly gage height and contents, water year October 1947 to September 1948

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	†2.39	9,490	-
Oct. 31	h2.48	9,810	+320
Nov. 30	h4.15	17,000	+7,190
Dec. 31	-	24,800	+7,800
Calendar year 1947	-	-	0
Jan. 31	h6.59	31,000	+6,200
Feb. 29	h7.28	35,700	+4,700
Mar. 31	†7.91	40,200	+4,500
Apr. 30	†8.46	44,400	+4,200
May 31	†8.49	44,600	+200
June 30	†6.53	30,600	-14,000
July 31	†3.51	14,000	-16,600
Aug. 31	†1.71	7,300	-6,700
Sept. 30	†1.86	7,750	+450
Water year 1947-48	-	-	-1,740

† Gage height at 12 p.m.
h Staff-gage reading; time variable.

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 1948 (no winter records prior to 1947).

Extremes.- Maximum daily discharge during year, 500 second-feet Apr. 29, May 8; maximum gage height, 4.17 feet sometime between Apr. 6 and May 13, during period of no gage-height record (ice jam); minimum discharge recorded, 9.7 second-feet Sept. 4, 5, but may have been less during period of no gage-height record in winter.

1937-48: Maximum discharge 1,340 second-feet Apr. 21, 1946 (gage height, 6.08 feet), from rating curve extended above 500 second-feet; minimum recorded, 0.7 second-foot Aug. 19, 1940.

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

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	33			(*)			390	246	54	26	14
2	28	32						310	216	52	25	14
3	28	33						250	221	54	27	14
4	30	33						210	257	52	26	12
5	28	32						230	251	52	25	11
6	30	29	25	22			18	220	189	54	25	10
7	33	29						220	151	42	24	11
8	32	30				16		500	127	37	24	12
9	32							450	108	30	29	12
10	33							410	99	30	32	12
11	36					(*)		350	90	32	30	12
12	37							250	77	29	27	12
13	34							189	71	29	25	13
14	33							176	65	30	24	13
15	32						25	154	63	33	22	12
16	32				16			156	59	32	20	13
17	38							176	57	30	19	13
18	37		(*)				30	232	59	29	18	15
19	33	25					70	305	65	27	15	19
20	31			16			90	346	61	26	15	21
21	31		22				110	367	69	26	15	21
22	32						130	376	104	25	15	18
23	31						200	376	106	25	15	18
24	32					18	270	331	122	25	14	18
25	32						320	296	139	26	14	18
26	31						300	296	120	26	15	22
27	31						280	317	104	25	15	23
28	31						280	328	81	25	15	21
29	32						500	337	65	25	15	19
30	37				-		450	322	57	26	15	19
31	37	-			-		-	288	-	26	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,004	38	28	32.4	1,900
November	801	-	-	26.7	1,590
December	712	-	-	23.0	1,410
Calendar year 1947	29,141	594	-	79.8	57,800
January	556	-	-	17.9	1,100
February	464	-	-	16.0	920
March	528	-	-	17.0	1,050
April	3,385	500	-	113	6,710
May	9,158	500	154	295	18,160
June	3,499	257	57	117	6,940
July	1,034	54	25	33.4	2,050
August	641	32	14	20.7	1,270
September	462	23	10	15.4	916
Water year 1947-48	22,244	500	-	60.8	44,100

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 6, 7, Nov. 9 to about Apr. 15. No gage-height record Jan. 15 to May 12; discharge computed on basis of weather records, 2 discharge measurements, and records from other streams in Mud Lake Basin.

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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 1948.

Average discharge.- 22 years (1926-48), 23.9 second-feet.

Extremes.- Maximum discharge during year, 470 second-feet May 9 (gage height, 4.63 feet); no flow at times.

1925-48: Maximum discharge, 900 second-feet probably May 3, 1938 (gage height, 3.98 feet, datum then in use, from floodmark), from rating curve extended above 400 second-feet; no flow June 1-7, 1926, and for many periods during 1930-48.

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 and below station for irrigation and stock water.

Cooperation.- Gage-height record collected in cooperation with Water District No. 66 and nine winter field estimates furnished by that district.

Revisions.- W 813: 1935. Revised figures of discharge for the water year 1947 superseding those published in Water-Supply Paper 1093, are given herewith.

Discharge, in second-feet, 1946-48

	1946-47											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	12	17				42	287	111	44	0.1	0
2	2.4	12	17				56	243	159	37	.1	0
3	5.3	6.4	21				45	218	189	33	.1	0
4	15	11	17		(*)	12	48	230	169	28	.3	0
5	15	16	16				37	291	169	24	.3	0
6	11	14					34	311	171	17	.3	0
7	8.9						28	313	156	13	.5	0
8	7.6					13	27	315	141	12	.9	0
9	7.2					13	25	331	139	8.3	.4	0
10	4.8		(*)			14	23	368	187	8.3	.8	0
			17									
11	4.5	15				15	24	388	271	6.8	.8	0
12	5					*16	23	355	262	4.9	0	0
13	5					18	24	365	211	5.6	0	0
14	5				(*)	20	29	338	169	4.0	.6	0
15	5					*25	51	343	142	3.2	.9	0
				11	11							
16	5.6	f17				28	70	295	126	2.7	0	0
17	6.4	f15		(*)		30	86	241	113	2.4	0	0
18	8.1					35	106	213	106	.3	0	.3
19	6.8					37	123	203	105	.4	0	3.2
20	6.0					36	152	191	103	3.7	0	18
21	5.6				(*)	35	239	183	103	4.2	0	14
22	4.2					33	271	169	137	4.5	0	10
23	4.8					31	249	152	123	2.2	0	9.0
24	11	17	13			28	295	142	92	1.3	0	7.6
25	12					24	365	132	73	2.7	0	7.3
26	11					22	413	123	65	3.5	0	6.7
27	11					20	413	116	60	2.9	0	6.1
28	14				(*)	21	390	114	52	2.4	0	7.0
29	12					23	348	113	46	2.4	0	9.3
30	10				-	30	324	120	45	2.4	0	7.3
31	9.7	-	(*)	(*)	-	42	-	111	-	1.3	0	-

* Winter discharge measurement or field estimate made on this day.
f Computed on basis of partly-estimated gage-height.

Note.- Stage-discharge relation affected by ice about Nov. 29 to Dec. 1, Dec. 10 to about Mar. 25. No gage-height record Oct. 12-15, Nov. 7-15, 18-29, Dec. 6-9, Dec. 13 to Feb. 3, Feb. 5 to Mar. 11, Mar. 13-18, 20-26, Aug. 11; discharge computed on basis of weather records, 7 field estimates, and records for nearby streams.

Discharge, in second-feet, of Camas Creek at Camas, Idaho, 1946-48--Continued

1947-48

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	26		(*)				320	140	22	0	0
2	5.6	22			(*)			247	124	22	0	0
3	5.6	22						168	112	21	.5	0
4	4.9	21						135	112	21	.1	0
5	4.5	22						162	127	21	0	0
6	3.7	22	19	16				160	116	20	.2	0
7	3.7	22					15	138	92	23	0	0
8	3.7	22			8	11		158	77	20	.9	0
9	5.3	22	(*)					402	63	15	2.7	0
10	4.5					(*)		335	52	11	1.1	0
11	4.5							254	43	6.4	1.5	0
12	5.3							175	36	5.6	3.2	.1
13	7.5						16	156	32	5.3	2.7	.2
14	8.8						17	129	27	3.7	1.8	.1
15	7.2		(*)	(*)	(*)		17	115	26	3.5	1.5	.6
16	6.4					(*)	18	99	25	4.0	.8	.6
17	6.4						18	101	23	5.6	.4	.6
18	7.5			12			24	108	23	5.3	.1	.6
19	20						58	140	24	4.2	0	.6
20	15	19					80	185	26	3.7	0	1.5
21	13		16				91	211	27	2.2	0	3.2
22	12						116	211	29	1.9	0	4.9
23	12				11		162	216	54	.9	0	3.7
24	13					15	205	209	58	.4	0	2.7
25	13						270	173	70	1.1	0	2.9
26	12						265	153	75	.6	0	3.2
27	12						211	151	61	.3	0	3.5
28	12			8			231	160	52	0	0	5.6
29	13	(*)			(*)		291	168	36	0	0	7.2
30	20				-		400	173	27	.2	0	5.3
31	24	-		(*)	-	(*)	-	164	-	0	0	-

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

Note.- Stage-discharge relation affected by ice Nov. 7, 8 and about Nov. 15 to Apr. 1. No gage-height record Oct. 24-30, Nov. 10-14, Nov. 18 to Dec. 8, Dec. 10 to Apr. 14; discharge computed on basis of weather records, 9 field estimates, winter discharge measurements, and records for other stations in Mud Lake Basin.

Monthly discharge, in second-feet, 1946-48

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1946	241.8	15	1.9	7.80	480
November	459.4	-	6.4	15.3	911
December	466	-	-	15.0	924
Calendar year 1946	18,796.4	741	0	51.5	37,280
January 1947	341	-	-	11.0	676
February	308	-	-	11.0	611
March	693	42	-	22.4	1,370
April	4,360	413	23	145	8,650
May	7,314	388	111	236	14,510
June	3,995	271	45	133	7,920
July	288.4	44	.3	9.30	572
August	6.1	.9	0	.20	12
September	105.8	18	0	3.53	210
Water year 1946-47	18,578.5	413	0	50.9	35,850
October 1947	292.5	24	3.7	9.44	580
November	600	26	-	20.0	1,190
December	526	-	-	17.0	1,040
Calendar year 1947	18,829.8	413	0	51.6	37,340
January 1948	388	-	-	12.5	770
February	274	-	-	9.45	543
March	405	-	-	13.1	803
April	2,670	400	-	89.0	5,300
May	5,676	402	99	183	11,260
June	1,789	140	23	59.6	3,550
July	250.9	23	0	8.09	498
August	17.5	3.2	0	.56	35
September	47.1	7.2	0	1.57	93
Water year 1947-48	12,936.0	402	0	35.3	25,660

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 1948 (no winter records 1942-48).

Extremes.- Maximum discharge observed during year, 263 second-feet Apr. 18; maximum gage height observed, 4.70 feet Apr. 17 (ice jam); minimum discharge observed, 5.8 second-feet Sept. 12, 13.

1940-48: 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, which are poor. Gage read twice daily. Several ranch diversions above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	25					-	112	81	32	11	6.2
2	21	25					-	96	81	37	12	6.2
3	21	25					-	101	112	37	14	6.2
4	21	25					-	101	101	28	14	6.2
5	21	b25					-	89	91	24	14	6.0
6	30	b24					-	91	86	20	14	6.4
7	25	b24					-	134	83	17	15	7.0
8	25	25					-	201	73	17	17	7.0
9	31	25	*b18				-	125	59	16	30	6.8
10	31						-	123	49	16	27	6.8
11	32						-	118	44	15	22	6.4
12	31						-	112	37	14	22	6.0
13	29						-	101	37	14	17	5.8
14	26						-	93	34	16	17	6.0
15	19						-	91	31	14	13	6.0
16	36						*b94	92	29	14	13	6.2
17	48						b160	96	34	14	11	6.2
18	31						231	101	37	14	11	11
19	31						178	118	48	14	11	17
20	25	b20					156	134	66	14	11	17
21	25						162	101	96	14	11	15
22	36						217	106	90	14	11	12
23	31						215	101	95	12	11	11
24	26						169	101	91	12	11	11
25	25						169	99	86	12	9.2	11
26	25						134	101	76	11	6.6	25
27	25						134	101	71	11	6.6	19
28	25						144	101	52	11	6.6	16
29	31						167	99	34	11	6.4	16
30	36						130	91	31	11	6.4	14
31	30	-					-	91	-	11	6.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	870	48	19	28.1	1,730
November	643	25	-	21.4	1,280
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 16-30	2,460	231	94	164	4,880
May	3,321	201	89	107	6,590
June	1,935	112	29	64.5	3,840
July	517	37	11	16.7	1,030
August	408.2	30	6.4	13.2	810
September	302.4	25	5.8	10.1	600
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
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. 21, T. 10 N., R. 36 E., half a mile north of Dubois.

Drainage area.- 220 square miles.

Records available.- April 1921 to September 1948.

Average discharge.- 21 years (1921-24, 1928-29, 1931-48), 16.6 second-feet.

Extremes.- Maximum discharge during year, 271 second-feet Apr. 23 (gage height, 2.54 feet); minimum recorded, 0.2 second-foot Sept. 18 (gage height, 0.45 foot).
1921-48: 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.- Nine field estimates furnished and water-stage recorder inspected by Water District No. 66.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	19		(*)	(*)		20	106	60	24	3.8	0.4
2	12	18					25	92	56	29	5.1	.3
3	13	19					24	86	80	31	8.6	.4
4	14	19					23	84	75	30	8.2	.3
5	14	19	14	12			22	81	69	24	5.9	.3
6	14	18					21	73	69	18	5.9	.4
7	19	18				11	21	86	55	15	4.8	.6
8	16	21			6		45	188	47	13	4.3	.8
9	18	16	(*)			(*)	55	138	41	12	14	.8
10	18	11					50	103	39	10	23	1.1
11	19	11					45	95	35	10	18	1.0
12	19	14					40	92	30	8.6	18	1.0
13	14	14					40	79	27	8.6	14	.8
14	14	14					41	73	26	8.6	12	.7
15	14	14	(*)	(*)	(*)		41	68	26	9.0	9.0	.6
16	14	19				(*)	62	65	25	8.6	6.7	.4
17	29	19					*116	66	25	8.2	5.1	.4
18	23	18					188	76	29	8.2	4.6	.4
19	19						136	90	40	10	3.8	2.7
20	18		12				114	112	40	6.7	3.2	11
21	16						126	108	49	5.5	4.0	10
22	20			6			198	97	79	6.7	3.8	5.9
23	20				10	15	230	97	69	5.1	2.7	4.3
24	19	15					185	93	73	4.8	2.2	3.8
25	19						175	86	66	4.3	1.9	4.8
26	19						128	77	66	4.8	2.1	12
27	18						106	76	65	4.0	1.9	18
28	18						116	76	42	3.2	1.6	13
29	18	(*)			(*)		158	74	33	3.2	1.1	10
30	22				-		138	73	28	4.8	1.1	8.6
31	20	-		(*)	-	(*)	-	69	-	4.8	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	542	29	12	17.5	1,080
November	481	21	-	16.0	954
December	390	-	-	12.6	774
Calendar year 1947	12,274.7	150	-	33.6	24,360
January	246	-	-	7.9	488
February	230	-	-	7.9	456
March	413	-	-	13.3	819
April	2,689	240	20	89.6	5,330
May	2,779	188	65	89.6	5,510
June	1,464	80	25	48.8	2,900
July	353.7	31	3.2	11.1	682
August	200.8	23	.4	6.48	398
September	114.8	18	.3	3.83	228
Water year 1947-48	9,893.3	230	.3	27.0	19,620

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

Note.- Stage-discharge relation affected by ice Nov. 6, 7, 15, about Nov. 25 to Apr. 13. No gage-height record Nov. 13, 14, Nov. 19 to Apr. 6, June 3, 4, except for staff-gage readings Nov. 29, Dec. 9, Feb. 2; discharge computed on basis of weather records, 9 field estimates, 3 discharge measurements, and records for Beaver Creek at Spencer and 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 1948.

Extremes.- Maximum discharge observed during year, 125 second-feet Apr. 23 (gage height, 2.93 feet); no flow most of year.

1921-48: 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, 1940.

Remarks.- Records good except those below 10 second-feet, which are fair. Flow affected by irrigation diversions above Dubois, about 14 miles above station, and by heavy channel losses below Dubois.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	63	11			
2							0	46	7.6			
3							0	42	8.8			
4							0	35	12			
5							0	30	12			
6							0	26	14			
7							0	27	10			
8							0	89	5.4			
9							0	90	1.8			
10							0	66	0			
11							0	56	0			
12							0	48	0			
13							0	40	0			
14							0	36	0			
15							0	26	0			
16							0	19	0			
17							28	17	0			
18							83	17	0			
19							89	29	0			
20							81	45	0			
21							87	49	0			
22							108	39	0			
23							122	37	0			
24							113	30	.1			
25							99	25	.5			
26							85	23	4.3			
27							60	21	14			
28							60	17	2.1			
29							74	18	0			
30							89	16	0			
31							-	14	-			

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 1947	4,007.1	93	0	11.0	7,950
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,178	122	0	39.3	2,340
May	1,136	90	14	36.6	2,250
June	103.6	14	0	3.45	205
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1947-48	2,417.6	122	0	6.61	4,800

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 1948.

Extremes.- Maximum discharge during year, 78 second-feet Apr. 2 (gage height, 2.58 feet); minimum, 11 second-feet Mar. 10 (gage height, 1.08 feet).

1940-48: 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 except those for period of no gage-height record, which are poor. Several diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	41	52	20	32	46	46	30	61	64	59	46
2	46	38	52	22	39	46	54	30	62	64	59	46
3	43	38	52	23	40	36	61	31	64	64	58	46
4	42	37	52	26	41	30	50	31	68	62	57	46
5	42	37	52	31	44	35	48	29	71	59	57	46
6	41	35	51	48	47	39	46	30	68	62	56	46
7	41	37	48	52	50	48	44	33	66	63	56	46
8	41	40	47	50	53	46	45	37	66	64	57	46
9	41	41	45	48	54	41	47	31	66	65	60	46
10	42	42	43	42	41	20	48	31	66	66	58	45
11	43	45	44	40	16	27	45	29	64	65	56	45
12	41	46	32	29	16	35	45	28	63	64	55	44
13	40	49	35	23	18	42	47	26	64	64	55	45
14	40	50	33	24	24	50	45	24	66	66	54	44
15	40	50	22	26	34	46	52	25	66	66	52	43
16	41	50	23	26	43	45	55	30	67	65	52	43
17	41	49	24	26	56	45	54	37	68	66	51	44
18	39	50	34	26	61	44	54	44	68	66	50	46
19	40	49	49	21	52	44	46	54	68	64	50	49
20	40	37	50	26	50	43	46	62	67	63	50	48
21	41	37	50	36	50	42	47	62	70	63	50	46
22	42	23	49	40	50	45	46	62	61	63	49	46
23	42	28	49	40	49	48	44	64	62	62	48	45
24	42	30	48	38	48	50	41	63	64	62	48	46
25	41	50	48	36	48	48	41	59	65	63	48	48
26	39	52	48	24	48	46	39	58	63	62	48	50
27	40	51	45	16	48	46	36	59	59	62	48	47
28	41	50	42	19	48	46	36	63	58	60	47	46
29	41	48	40	22	46	48	33	65	57	61	46	46
30	42	52	23	26	-	46	32	62	60	59	46	46
31	44	-	20	28	-	44	-	62	-	59	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,285	46	39	41.5	2,550
November	1,282	52	23	42.7	2,540
December	1,302	52	20	42.0	2,580
Calendar year 1947	18,014	107	14	49.4	35,720
January	954	52	16	30.8	1,890
February	1,246	61	16	43.0	2,470
March	1,317	50	20	42.5	2,610
April	1,376	61	32	45.9	2,730
May	1,351	65	24	43.6	2,680
June	1,938	71	57	64.6	3,840
July	1,958	66	59	63.2	3,880
August	1,626	60	46	52.5	3,230
September	1,376	50	43	45.9	2,730
Water year 1947-48	17,011	71	16	46.5	33,730

Note.- No gage-height record Jan. 14-30; discharge computed on basis of recorded range in stage and weather records.

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 1948.

Extremes.- Maximum discharge during year, 111 second-feet June 21; maximum gage height recorded, 5.88 feet Feb. 18 (ice jam); minimum daily discharge, 12 second-feet Jan. 28, Feb. 12.

1921-23, 1940-48: Maximum discharge recorded, 265 second-feet June 9, 1944, from rating curve extended above 150 second-feet; maximum gage height recorded, 6.49 feet Feb. 13, 1947 (ice jam); minimum discharge 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	46	56	18	24	53	58	43	88	74	61	47
2	51	42	56	18	*25	50	64	42	88	78	63	46
3	48	43	56	21	30	43	69	43	99	76	63	46
4	47	42	56	24	43	36	62	42	99	74	61	47
5	47	40	55	35	48	45	60	41	103	69	60	47
6	48	39	54	50	53	53	56	41	90	70	60	48
7	50	37	50	55	55	56	54	46	87	71	59	48
8	50	42	50	55	58	53	54	56	85	73	61	48
9	50	43	*49	54	58	*52	57	46	86	72	68	47
10	51	45	47	48	45	19	60	44	85	73	66	46
11	52	38	47	45	13	25	56	43	82	72	62	46
12	50	47	35	38	12	35	54	43	81	71	60	44
13	48	51	36	21	13	50	56	42	82	70	60	45
14	48	52	30	18	17	60	60	42	84	72	59	45
15	47	52	20	22	28	56	61	42	85	73	57	44
16	48	53	20	22	44	55	69	46	83	71	55	44
17	48	53	24	22	60	54	74	52	86	70	53	45
18	45	56	40	20	67	54	71	60	89	70	51	48
19	45	56	53	15	65	52	60	76	88	68	51	51
20	46	41	55	22	58	50	61	87	86	67	51	53
21	46	34	55	40	56	51	60	86	98	67	52	49
22	46	24	55	45	56	53	60	86	86	66	52	48
23	46	25	55	45	56	55	57	92	84	65	51	46
24	46	38	54	45	56	56	53	92	84	63	50	48
25	45	50	54	38	56	56	52	89	85	66	51	49
26	44	54	53	20	56	56	51	89	80	65	50	53
27	45	54	51	13	55	55	48	92	76	65	50	50
28	45	54	48	12	54	55	48	97	71	63	49	49
29	46	54	43	17	53	56	46	97	68	65	48	48
30	46	56	21	20	-	55	43	92	70	63	47	47
31	48	-	18	22	-	54	-	94	-	61	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,472	52	44	47.5	2,920
November	1,361	56	24	45.4	2,700
December	1,396	56	18	45.0	2,770
Calendar year 1947	21,523	123	-	59.0	42,700
January	940	55	12	30.3	1,850
February	1,314	67	12	45.3	2,610
March	1,553	60	19	50.1	3,080
April	1,734	74	43	57.8	3,440
May	1,983	97	41	64.0	3,930
June	2,558	103	68	85.3	5,070
July	2,143	78	61	69.1	4,250
August	1,729	68	47	55.8	3,430
September	1,422	53	44	47.4	2,820
Water year 1947-48	19,605	103	12	53.6	38,880

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 6, 7, 11, 14, 20-26, 29, Dec. 8 to about Mar. 6, Mar. 10 to about Mar. 31; no gage-height record Dec. 20-24, 28, Dec. 30 to Jan. 30, Feb. 10-15, Feb. 20 to Mar. 6, Mar. 15 to Apr. 4; discharge computed on basis of weather records and records for station near Argora and nearby streams.

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 1948 (no winter records prior to 1948).

Extremes.- Maximum discharge during year, 161 second-feet June 22; maximum gage height recorded, 4.96 feet Jan. 24 (ice jam); minimum discharge recorded, 29 second-feet Mar. 10, but was probably less during periods of ice effect or no gage-height record in winter.

1921-48: 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 poor. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	88	61	42			65	94	138	135	75	64
2	80	89	62	45			71	90	137	137	80	65
3	81	92	63	45			72	90	141	140	80	65
4	77	85	61	45			66	88	141	140	77	66
5	75	80	65	45		50	66	86	142	131	77	68
6	74	70	66	48			68	85	142	125	76	70
7	75	74	61	49			65	92	140	119	74	71
8	75	96	53	48	30	*h53	65	103	140	114	74	71
9	77	86		49		51	71	98	152	110	81	71
10	78	70	(*)			45	73	92	154	103	84	70
11	80	83				46	72	86	154	101	80	69
12	84	85				52	71	85	154	103	77	68
13	83	74				55	71	83	153	100	74	68
14	83	65	40	(*)		56	73	81	153	98	72	68
15	82	70				56	82	80	152	97	72	66
16	83	72				56	85	78	148	94	70	66
17	86	75				57	96	81	148	91	65	68
18	86	69				59	118	96	144	88	62	71
19	84	66	46			55	103	126	144	84	61	84
20	a84	48	47	30		50	103	133	138	84	65	85
21	a86	45	48			50	107	138	144	83	69	80
22	a86	44	49			55	109	142	158	78	68	76
23	84	45	51		50	62	107	146	153	77	66	73
24	83	46	52			61	98	142	146	76	66	77
25	84	47	50			62	96	142	144	77	68	84
26	88	49	52			61	94	145	141	77	66	91
27	88	50	55			60	90	148	137	76	65	91
28	88	50	45			62	90	149	131	77	64	86
29	88	50	38			64	92	153	130	84	63	86
30	88	55	40		-	65	96	149	130	82	62	85
31	88	-	41		-	63	-	138	-	77	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,556	88	74	82.5	5,070
November	2,018	96	44	67.3	4,000
December	1,506	66	-	48.6	2,990
Calendar year	-	-	-	-	-
January	1,076	-	-	34.7	2,130
February	1,150	-	-	39.7	2,280
March	1,706	65	-	55.0	3,380
April	2,535	118	65	84.5	5,030
May	3,439	153	78	111	6,820
June	4,329	158	130	144	8,590
July	3,058	140	76	98.6	6,070
August	2,197	84	61	70.9	4,360
September	2,223	91	64	74.1	4,410
Water year 1947-48	27,793	158	-	75.9	55,130

* 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 Big Lost River at Wildhorse, near Chilly.

h Computed from staff-gage reading.

Note.- Stage-discharge relation affected by ice Nov. 4-6, 10, 20-23, 28, 29, Dec. 9-18, Dec. 25 to Jan. 5, Jan. 10 to Mar. 13, Mar. 19-22 (no gage-height record Dec. 9, Jan. 21-25, Jan. 26 to Mar. 7, Mar. 8; discharge computed on basis of weather records and records for Big Lost River at Wildhorse, near Chilly, and other nearby streams).

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 1948 (prior to 1939, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 62 second-feet May 29, 30, June 10-12 (gage height, 2.14 feet); no flow during long periods.
1924-48: Maximum discharge observed, 87 second-feet May 24, 25, 1928; no flow during long periods each year.

Remarks.- Records good. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	43				0	5.6	8.3	48	30	6.6	5.3
2	9.9	43				0	5.6	8.3	48	30	6.6	5.3
3	9.9	43				0	23	8.3	48	30	6.6	5.3
4	9.9	49				0	23	6.2	48	31	6.6	5.3
5	9.9	49				0	29	6.2	48	30	6.6	5.3
6	9.9	19				0	33	6.2	48	26	6.6	5.3
7	9.9	0				0	33	6.2	48	22	6.6	5.3
8	9.9	0				0	30	6.2	49	18	6.6	8.3
9	9.9	0				0	34	a6.2	58	18	6.6	8.3
10	9.9	0				0	34	a6.2	62	13	6.6	8.3
11	9.9	0				0	34	6.2	62	12	6.6	8.3
12	9.9	0				0	38	6.2	62	12	6.6	8.3
13	9.9	0				0	38	5.9	54	12	6.6	8.3
14	9.9	0				0	38	5.9	54	12	5.6	8.3
15	9.9	0				0	43	5.3	53	9.9	5.6	8.3
16	a9.9	0				0	38	5.3	49	9.9	5.6	4.6
17	9.9	0				0	41	5.3	42	7.6	5.6	4.6
18	9.9	0				0	55	5.6	41	7.6	5.6	4.6
19	9.9	0				0	39	32	41	7.6	5.6	4.6
20	9.9	0				0	40	38	34	7.6	5.6	6.6
21	9.9	0				0	40	45	34	7.6	5.6	6.6
22	16	0				0	48	45	51	6.6	5.6	6.6
23	16	0				0	48	53	51	6.6	5.6	6.6
24	16	0				0	35	51	38	6.6	5.6	6.6
25	27	0				0	35	53	38	6.6	5.3	6.6
26	27	0				0	26	54	38	6.6	5.3	9.1
27	27	0				0	10	58	36	6.6	5.3	9.1
28	30	0				0	7.6	58	32	6.6	5.3	9.1
29	30	0				3.7	7.6	62	32	6.6	5.3	9.1
30	36	0				5.6	*8.3	62	30	6.6	5.3	8.0
31	36	-				5.6	-	48	-	6.6	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	475.0	36	9.9	15.3	942
November	246	49	0	8.20	488
December	0	0	0	0	0
Calendar year 1947	7,113.4	65	0	19.5	14,100
January	0	0	0	0	0
February	0	0	0	0	0
March	14.9	5.6	0	.48	30
April	919.7	55	5.6	30.7	1,820
May	773.0	62	5.3	24.9	1,530
June	1,377	62	30	45.9	2,730
July	419.8	31	6.6	13.5	833
August	184.5	6.6	5.3	5.95	366
September	205.9	9.1	4.6	6.86	408
Water year 1947-48	4,615.8	62	0	12.6	9,150

a No gage-height record; discharge interpolated.

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 1948.

Extremes.- Maximum discharge during year, 876 second-feet June 9 (gage height, 4.99 feet); minimum recorded, 10 second-feet Mar. 9-12; minimum gage height recorded, 1.12 feet Mar. 11.

1944-48: Maximum discharge, that of June 9, 1948; minimum recorded, 9 second-feet sometime during period Feb. 4 to Mar. 14, 1947, computed from recorded range in stage; minimum gage height recorded, that of Mar. 11, 1948.

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

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

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 16 to July 10)

1.3	16	2.2	87	3.8	435
1.4	21	2.5	129	4.3	599
1.6	33	2.9	199	5.0	856
1.9	55	3.3	288		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	37	28	23		23	20	47	610	365	87	39
2	31	37	27	24		21	23	44	669	350	87	39
3	31	36	22	23		19	22	45	817	307	80	38
4	30	35	24	24		16	20	45	712	260	79	38
5	29	34	27	23		18	20	45	630	261	75	38
6	32	31	25	23		19	20	55	658	247	73	39
7	31	33	25	26		20	18	101	724	234	70	38
8	34	33	24	29		20	19	97	760	221	76	37
9	33	32	24	22		18	20	83	825	209	88	36
10	34	29	23	24		18	20	74	738	215	81	35
11	36	32	23	25		18	19	68	694	213	72	34
12	36	29	23	23		20	19	72	620	205	66	34
13	35	28	22	23		20	20	81	589	190	63	33
14	34	26	24	24		18	26	85	539	171	60	32
15	34	29	23	24		18	49	108	477	166	57	32
16	50	29	22	24	21	18	92	180	470	159	55	32
17	48	26	22	24		19	171	291	441	155	53	32
18	43	29	23	23		18	77	407	410	148	52	36
19	41	28	23	21		17	55	380	365	145	52	45
20	41	24	23	22		20	64	377	350	140	52	41
21	45	28	23	23		21	76	398	368	132	49	38
22	44	23	24	24		22	83	353	347	128	48	36
23	42	23	23	24		21	67	341	330	123	46	36
24	41	28	23	24		20	57	435	341	120	46	39
25	39	28	23	20		18	57	548	344	113	45	49
26	39	28	23	16		18	53	644	335	106	44	60
27	39	28	23	16		18	53	676	321	103	44	51
28	38	25	23	18		20	53	798	332	101	42	49
29	39	25	20	18		20	56	790	344	95	41	48
30	39	28	21	18	-	19	50	616	371	88	41	47
31	38	-	22	18	-	18	-	539	-	88	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,158	50	29	37.4	0.328	0.38	2,300
November	881	37	23	29.4	.258	.29	1,750
December	725	28	20	23.4	.205	.24	1,440
Calendar year 1947	35,655	592	-	97.7	.857	11.64	70,740
January	693	29	16	22.4	.196	.23	1,370
February	609	-	-	21	.184	.20	1,210
March	593	23	16	19.1	.168	.19	1,180
April	1,399	171	18	46.6	.409	.46	2,770
May	8,823	798	44	285	2.50	2.88	17,500
June	15,531	825	321	518	4.54	5.07	30,810
July	5,578	365	88	180	1.58	1.82	11,060
August	1,865	88	41	60.2	.528	.61	3,700
September	1,181	60	32	39.4	.346	.39	2,340
Water year 1947-48	39,036	825	-	107	.939	12.76	77,430

Peak discharge (base, 300 sec.-ft.).- May 18 (4 a.m.) 457 sec.-ft.; May 29 (4 a.m.) 844 sec.-ft.; June 3 (2:30 p.m.) 848 sec.-ft.; June 9 (5 a.m.) 876 sec.-ft.

Note.- No gage-height record Jan. 14 to Feb. 29, Mar. 3-6, 17-24; 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. 8 N., R. 21 E., at Howell Ranch, 9 miles southwest of Chilly and 21 miles northwest of Mackay.

Records available.- April 1904 to August 1906, July 1907 to November 1914, May 1920 to September 1948 (no winter records).

Extremes.- Maximum discharge during year, 2,390 second-feet June 9 (gage height, 4.35 feet); minimum not determined, probably occurred during period of no record.
1904-14, 1920-48: 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 Nov. 7-30, Apr. 1-15, which are fair. No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 second-feet) diverts a quarter of a mile below station.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	115						200	1,640	1,050	236	115
2	115	113						177	1,830	1,010	229	113
3	113	110						177	2,200	891	216	110
4	108	110						177	1,940	802	207	108
5	108	108						169	1,730	748	207	108
6	115	100						200	1,830	815	194	113
7	119						70	359	2,000	653	186	110
8	128							302	2,100	624	194	110
9	128							260	2,260	578	240	106
10	126							240	2,070	595	226	102
11	135							236	1,950	600	200	100
12	132							236	1,780	567	183	98
13	126	90						268	1,680	519	175	96
14	126						100	279	1,550	468	166	92
15	126						200	314	1,330	459	159	89
16	146						260	454	1,330	444	154	85
17	172						459	684	1,220	430	152	87
18	142						322	982	1,080	408	146	100
19	135						f219	982	975	408	142	144
20	135						243	975	968	390	142	142
21	146						283	1,010	1,040	355	137	130
22	144						338	926	982	355	135	121
23	137						f279	891	919	342	130	117
24	126						246	1,070	975	326	128	119
25	126	80					240	1,380	975	298	128	139
26	126						232	1,640	947	275	126	191
27	123						230	1,730	898	268	119	156
28	121						232	2,070	933	264	117	146
29	123						260	2,100	989	246	117	144
30	119						226	1,730	1,040	240	115	142
31	115	-					-	1,460	-	240	115	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,956	172	108	128	7,850
November	2,706	115	-	90.2	5,370
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	5,279	459	-	176	10,470
May	23,678	2,100	169	764	46,960
June	43,161	2,260	898	1,439	85,610
July	15,668	1,050	240	505	31,080
August	5,121	240	115	165	10,160
September	3,533	191	85	118	7,010
Water year	-	-	-	-	-

Peak discharge (base, 900 sec.-ft.).- May 29 (6:30 a.m.) 2,230 sec.-ft.; June 3 (9 to 11 a.m.) 2,300 sec.-ft.; June 9 (7 a.m.) 2,380 sec.-ft.; July 1 (4 a.m.) 1,160 sec.-ft.

f Computed from partly estimated gage-height record.

Note.- Stage-discharge relation affected by ice Nov. 7-30, Apr. 1-15. No gage-height record Nov. 15-30, Apr. 1-5, 8-13, 27, May 1; discharge computed on basis of weather records and records for station at Wild Horse, near Chilly.

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 1948.

Average discharge.- 29 years, 65.8 second-feet.

Extremes.- Maximum discharge during year, 902 second-feet June 9 (gage height, 4.75 feet); no flow Sept. 12-25.
1919-48: 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, 1948.

Remarks.- Records good except those below 10 second-feet, which are fair. Diversions above station for irrigation. The sum of the combined discharge of east and west channels of Big Lost River and of the combined discharge of east and west channel 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12	9	a6	5	5	5	4	635	520	57	4
2	14	12	9	a6	5	5	5	4	692	524	54	3
3	12	12	9	a6	5	5	6	4	794	493	48	3
4	14	12	9	h6	5	5	6	4	842	458	41	3
5	13	12	9	a6	5	5	5	4	800	416	41	3
6	13	12	9	a6	5	5	5	4	788	385	38	3
7	13	12	8	a6	4	5	5	4	818	362	36	2
8	13	12	9	a6	4	5	5	5	836	337	37	3
9	13	12	9	a6	4	5	5	4	874	304	40	2
10	13	11	9	a6	4	5	5	4	881	283	37	2
11	13	11	9	h6	5	5	5	4	854	274	36	2
12	14	11	8	a6	4	5	5	3	836	269	33	1
13	13	10	8	6	4	5	5	3	806	252	30	0
14	13	10	8	a6	4	5	5	3	776	240	28	0
15	13	10	8	a6	5	5	5	3	704	212	26	0
16	13	10	7	a5	5	5	5	4	675	189	23	0
17	13	10	8	a5	5	5	5	4	655	165	20	0
18	13	10	8	h5	5	5	5	4	605	160	19	0
19	12	10	8	a5	5	5	5	10	551	151	18	0
20	13	10	8	a5	6	5	5	68	532	143	16	0
21	14	10	8	a5	5	5	5	116	551	138	15	0
22	14	9	8	a5	6	5	5	149	566	141	14	0
23	13	9	7	a5	6	5	5	158	520	136	10	0
24	13	9	7	a5	5	5	5	179	524	127	10	0
25	12	9	6	h5	6	6	5	235	524	118	10	a3
26	12	9	6	a5	6	6	5	369	512	107	10	4
27	12	9	6	a5	5	6	5	528	488	91	8	5
28	13	9	6	a5	a5	6	4	635	476	91	6	4
29	13	9	6	a5	5	6	4	776	484	77	5	4
30	13	9	6	a5	-	6	4	770	500	69	4	3
31	12	-	a6	a5	-	6	-	655	-	63	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	403	14	12	13.0	799
November	312	12	9	10.4	619
December	241	9	6	7.8	478
Calendar year 1947	38,237	836	6	105	75,840
January	170	6	5	5.5	337
February	143	6	4	4.9	284
March	162	6	5	5.2	321
April	149	6	4	5.0	296
May	4,717	776	3	152	9,360
June	20,099	881	476	670	39,870
July	7,294	524	63	235	14,470
August	774	57	4	25.0	1,540
September	54	5	0	1.8	107
Water year 1947-48	34,518	881	0	94.3	68,480

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

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

Location.- Water-stage recorder, lat. 43°58', long. 112°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 1948.

Average discharge.- 29 years, 58.9 second-feet.

Extremes.- Maximum discharge during year, 425 second-feet June 9 (gage height, 3.96 feet); minimum, 28 second-feet May 11-19; minimum gage height, 2.00 feet for long periods during March, April, and May.

1919-48: 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. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	41	34	33	33	33	32	30	222	160	58	56
2	43	41	34	34	32	33	32	30	270	166	56	54
3	43	41	34	36	33	33	32	30	332	160	56	54
4	43	41	34	36	33	33	32	29	383	146	54	53
5	43	41	34	36	33	33	32	29	334	129	58	53
6	43	42	34	36	33	33	32	29	312	120	58	53
7	43	40	34	36	33	32	32	29	322	112	58	53
8	43	40	34	36	33	32	31	29	357	105	58	53
9	43	39	34	36	33	31	31	29	393	99	59	52
10	43	39	34	36	33	31	31	29	409	99	58	50
11	43	39	34	36	33	31	31	28	380	97	59	50
12	43	38	34	36	33	31	31	28	357	96	59	50
13	43	39	34	36	33	31	31	28	330	94	61	48
14	43	38	34	36	33	31	31	28	310	90	59	48
15	43	38	34	36	33	31	31	28	277	89	58	48
16	43	38	36	34	33	31	31	28	256	87	58	50
17	43	38	36	34	33	32	31	28	236	89	58	52
18	43	38	36	34	33	32	31	28	204	87	58	56
19	43	38	36	34	33	33	31	28	181	84	58	58
20	43	37	36	34	33	33	32	40	170	84	58	54
21	43	37	36	34	33	33	32	61	174	82	58	53
22	43	36	36	36	33	33	32	77	181	84	54	53
23	43	34	34	36	33	32	31	90	160	84	54	54
24	43	34	34	36	33	32	31	100	156	82	54	54
25	43	34	34	36	33	32	31	118	156	78	54	61
26	43	34	33	36	33	31	31	185	152	75	54	64
27	43	33	33	36	33	31	31	244	146	70	56	62
28	43	33	32	34	33	31	31	268	138	65	56	59
29	42	34	32	34	33	31	31	242	140	64	54	59
30	42	34	32	33	-	31	30	310	148	62	54	58
31	41	-	33	33	-	31	-	246	-	59	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,329	43	41	42.9	2,640
November	1,129	42	33	37.6	2,240
December	1,059	36	32	34.2	2,100
Calendar year 1947	18,769	212	30	51.4	37,230
January	1,089	36	33	35.1	2,160
February	956	33	32	33.0	1,900
March	988	33	31	31.9	1,960
April	939	32	30	31.3	1,860
May	2,626	342	28	84.7	5,210
June	7,596	409	138	253	15,070
July	2,998	166	59	96.7	5,950
August	1,763	61	54	56.9	3,500
September	1,622	64	48	54.1	3,220
Water year 1947-48	24,094	409	28	65.8	47,810

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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	191	192	169	161	153	151	145	112	1,140	890	225	158
2	192	195	169	163	153	150	145	112	1,290	904	219	155
3	190	194	169	164	153	150	146	112	1,500	863	212	153
4	192	190	169	164	153	150	140	112	1,620	798	203	151
5	190	186	168	163	154	151	139	111	1,470	721	209	149
6	191	188	169	164	153	151	138	112	1,420	673	201	150
7	190	185	167	165	152	149	137	114	1,490	639	199	148
8	190	185	168	166	152	149	133	118	1,560	600	203	150
9	193	183	168	166	152	148	133	114	1,670	558	212	148
10	194	182	166	166	152	146	132	114	1,700	533	206	146
11	195	182	165	165	154	147	132	113	1,600	522	204	146
12	193	180	164	165	152	147	132	111	1,540	512	199	144
13	194	181	164	162	152	147	131	109	1,460	490	197	141
14	191	179	165	162	152	147	131	109	1,390	470	194	141
15	189	177	165	162	152	146	129	110	1,260	440	187	141
16	186	176	165	159	151	147	125	111	1,200	412	183	142
17	188	176	166	159	151	147	124	111	1,140	394	180	144
18	188	175	165	157	152	148	122	110	1,040	389	178	154
19	187	174	165	157	152	149	122	126	942	379	177	160
20	189	174	166	157	155	149	122	242	908	367	172	152
21	191	174	166	156	154	149	119	335	939	353	171	149
22	191	171	167	158	157	148	119	403	967	369	164	146
23	193	169	162	159	157	147	118	435	881	363	160	146
24	198	169	162	160	153	146	115	470	879	356	161	150
25	195	169	160	159	153	147	116	564	878	339	161	177
26	195	169	159	159	153	146	116	814	861	310	162	185
27	194	168	159	159	151	147	115	1,080	825	282	163	180
28	193	168	158	157	151	147	114	1,230	802	271	163	174
29	192	169	158	155	151	147	114	1,510	811	253	160	176
30	191	169	160	154	-	147	111	1,440	844	243	160	175
31	189	-	161	153	-	146	-	1,200	-	232	161	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,935	198	186	191	11,770
November	5,349	195	168	178	10,610
December	5,104	169	158	165	10,120
Calendar year 1947	102,815	1,280	119	282	203,900
January	4,976	166	153	161	9,870
February	4,430	157	151	153	8,790
March	4,586	151	146	148	9,100
April	3,815	146	111	127	7,570
May	11,864	1,510	109	383	23,530
June	36,027	1,700	802	1,201	71,460
July	14,937	904	232	482	29,630
August	5,746	225	160	185	11,400
September	4,631	185	141	154	9,140
Water year 1947-48	107,400	1,700	109	293	213,000

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 1948.

Extremes.- Maximum contents observed during year, 39,690 acre-feet June 11 (gage height, 63.00 feet); minimum observed, 5,900 acre-feet Sept. 19, 20 (gage height, 24.80 feet).
1919-48: 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 is 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,300	14,160	22,070	27,950	32,110	35,360	38,060	37,250	38,050	38,700	24,580	8,770
2	6,330	14,440	22,310	28,090	32,240	35,460	38,130	37,220	38,130	38,750	23,560	8,490
3	6,460	14,730	22,520	28,340	32,380	35,580	38,150	37,140	38,710	38,780	22,600	8,150
4	6,680	15,020	22,730	28,390	32,500	35,670	38,160	36,950	39,120	38,700	22,200	7,880
5	6,790	15,320	22,970	28,520	32,610	35,800	38,180	36,810	39,050	38,520	21,530	7,710
6	6,870	15,610	23,190	28,670	32,730	35,900	38,150	36,680	39,230	38,330	20,830	7,430
7	6,940	15,940	23,400	28,840	32,850	35,980	38,150	36,520	39,140	38,190	20,440	7,300
8	7,000	16,270	23,610	29,050	32,960	36,090	38,160	36,420	39,190	37,960	19,950	7,220
9	7,160	16,570	23,800	29,190	33,080	36,170	38,150	36,230	39,380	37,760	19,640	7,070
10	7,380	16,830	23,990	29,290	33,200	36,230	38,150	36,060	39,620	37,360	19,330	6,930
11	7,560	17,050	24,200	29,380	33,320	36,320	38,150	35,940	39,520	36,810	19,040	6,780
12	7,730	17,280	24,400	29,520	33,440	36,400	38,150	35,900	39,290	36,300	18,780	6,570
13	7,920	17,470	24,580	29,670	33,540	36,530	38,150	35,820	39,020	35,630	18,520	6,420
14	8,080	17,740	24,780	29,810	33,650	36,620	38,150	35,870	38,690	35,240	18,180	6,320
15	8,450	18,110	24,980	29,940	33,760	36,720	38,150	35,830	38,370	34,830	17,810	6,240
16	8,870	18,440	25,120	30,090	33,860	36,810	38,150	35,770	38,190	34,340	17,460	6,140
17	9,220	18,710	25,320	30,210	33,950	36,880	38,150	35,750	38,150	33,830	17,000	6,050
18	9,560	18,970	25,520	30,360	34,070	36,980	38,150	35,750	38,140	33,210	16,430	5,940
19	9,880	19,210	25,700	30,460	34,180	37,100	38,140	35,680	38,130	32,850	15,450	5,900
20	10,240	19,470	25,870	30,580	34,280	37,180	38,130	35,660	38,140	32,290	14,920	6,020
21	10,530	19,690	26,050	30,780	34,390	37,250	38,130	35,660	38,160	31,750	14,530	6,210
22	10,860	19,960	26,250	30,900	34,510	37,360	37,960	35,740	38,300	31,200	14,010	6,390
23	11,220	20,220	26,440	30,960	34,650	37,430	37,880	35,780	38,370	30,650	13,450	6,570
24	11,580	20,400	26,590	31,070	34,760	37,490	37,800	35,820	38,420	30,130	12,900	6,780
25	11,920	20,660	26,770	31,210	34,880	37,570	37,630	35,960	38,420	29,560	12,290	7,080
26	12,210	20,930	26,930	31,350	34,960	37,630	37,440	36,470	38,470	28,960	11,640	7,300
27	12,490	21,140	27,100	31,460	35,070	37,680	37,380	36,380	38,530	28,410	11,060	7,490
28	12,870	21,420	27,300	31,580	35,170	37,810	37,370	37,250	38,520	27,660	10,560	7,710
29	13,230	21,580	27,440	31,730	35,250	37,900	37,340	37,870	38,620	26,750	10,010	8,000
30	13,530	21,770	27,580	31,860	-	37,950	37,290	37,260	38,700	25,920	9,530	8,350
31	13,820	-	27,750	31,980	-	38,010	-	38,190	-	25,390	9,140	-

Monthly gage height and contents, water year October 1947 to September 1948.

Date	Gage height (feet)	Contents (acre feet)	Change in contents during month (acre-feet)
Sept. 30	25.55	6,260	-
Oct. 31	37.47	13,820	+7,560
Nov. 30	47.01	21,770	+7,950
Dec. 31	52.34	27,750	+5,980
Calendar year 1947	-	-	-9,330
Jan. 31	56.72	31,980	+4,230
Feb. 29	59.47	35,250	+3,270
Mar. 31	61.69	38,010	+2,760
Apr. 30	61.12	37,290	-720
May 31	61.83	38,190	+900
June 30	62.23	38,700	+510
July 31	50.69	25,390	-13,310
Aug. 31	30.67	9,140	-16,250
Sept. 30	29.38	8,350	-790
Water-year 1947-48	-	-	+2,090

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 1948.

Average discharge.- 32 years (1904-5, 1912-14, 1919-48), 272 second-feet.

Extremes.- Maximum discharge during year, 1,790 second-feet June 10 (gage height, 4.74 feet); minimum, 28 second-feet Sept. 21 (gage height, 1.55 feet).
1903-6, 1912-15, 1919-48: Maximum discharge, 2,990 second-feet June 10, 1921 (gage height, 5.79 feet); minimum, 18 second-feet Nov. 1, 1934; minimum gage height, 1.23 feet Nov. 5-8, 1926.

Remarks.- Records good. Sharp ditch is only diversion between station and reservoir; many 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	54	77	a93	h106	h112	130	130	1,230	799	624	365
2	201	54	77	a93	a106	115	136	130	1,230	799	592	324
3	136	54	77	a93	a106	115	142	149	1,280	793	592	311
4	115	54	80	93	a106	115	142	190	1,450	775	580	320
5	176	56	82	96	a106	115	146	194	1,580	721	570	315
6	179	58	82	96	a106	115	149	194	1,510	697	545	302
7	183	58	82	96	a106	115	146	224	1,510	674	500	272
8	186	60	80	96	h106	115	149	225	1,560	663	461	260
9	176	60	80	98	a106	115	146	212	1,650	663	447	255
10	139	60	80	98	a106	115	142	204	1,760	658	417	251
11	142	60	85	101	a106	115	146	186	1,770	697	384	247
12	142	60	85	104	a106	118	149	162	1,710	715	347	247
13	142	60	87	106	a106	118	139	149	1,650	709	342	228
14	109	60	87	a106	a106	118	136	149	1,580	703	361	197
15	50	60	87	a106	h106	118	136	149	1,460	680	393	201
16	50	63	87	a106	a106	118	130	149	1,240	652	403	220
17	52	63	87	a106	a107	118	127	156	1,090	652	417	224
18	52	63	85	h106	a107	118	127	183	1,040	630	461	224
19	52	63	87	a106	a108	118	124	179	938	619	520	216
20	52	65	87	a106	a108	118	124	250	823	602	505	140
21	54	65	87	a106	a109	118	127	379	781	624	486	87
22	54	65	87	a106	h109	121	149	374	805	636	466	101
23	54	65	87	a106	a109	121	186	456	811	619	447	101
24	52	69	87	a106	a110	121	179	500	805	592	452	104
25	52	69	87	h106	a110	121	186	545	799	602	486	106
26	52	72	93	a106	a111	121	179	674	745	630	505	106
27	54	75	93	a106	a111	121	169	901	715	658	491	106
28	54	75	93	a106	a112	121	162	1,100	721	680	461	96
29	54	75	96	a106	h112	121	158	1,220	727	685	427	69
30	54	75	93	a106	-	121	130	1,250	763	691	417	70
31	52	-	a93	a106	-	127	-	1,270	-	652	393	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,117	201	50	101	6,180
November	1,890	75	54	63.0	3,750
December	2,657	96	77	85.7	5,270
Calendar year 1947	112,544	1,110	50	308	223,200
January	3,171	106	93	102	6,290
February	3,119	112	106	108	6,190
March	3,658	127	112	118	7,260
April	4,389	186	124	146	8,710
May	12,243	1,270	130	395	24,280
June	35,733	1,770	715	1,191	70,880
July	20,970	799	592	676	41,590
August	14,492	624	342	467	28,740
September	6,065	365	69	202	12,030
Water year 1947-48	111,504	1,770	50	305	221,200

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

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Big Lost River near Arco, Idaho

Location.- Water-stage recorder, lat. 43°35', long. 113°17', in SW¼ sec. 17, T. 3 N., R. 27 E., 600 feet downstream from head of box canyon, 2,000 feet southeast of Mower ranch house, and 3 miles southeast of Arco.

Records available.- August 1946 to September 1948.

Extremes.- Maximum discharge during year, 171 second-feet June 15; maximum gage height recorded, 2.66 feet Jan. 27 (ice jam); minimum discharge 3.0 second-feet May 20, 21, (gage height, 1.01 feet).

1946-48: Maximum discharge, 285 second-feet June 6, 1947; maximum gage height, 3.83 feet Feb. 3, 4, 1947 (ice jam); minimum discharge, that of May 20, 21, 1948.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Station is below all large diversions for irrigation in Big Lost River Valley. Flow regulated by Mackay Reservoir (see p. 104).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		50	32	27		*28	27	14	26	49	36	30
2		51	31	27		29	26	12	25	53	38	29
3		51	31	27		29	27	12	30	54	40	29
4		50	30	27		29	27	12	44	56	41	30
5		50	30	27		33	27	12	61	59	41	33
6		47	29	27		32	26	12	76	44	41	32
7		50	29	27		26	25	12	102	32	40	31
8		51	28	27	25	24	24	14	97	29	40	32
9		50	28	26		24	24	14	92	28	39	36
10		47	*34	25		26	24	13	111	29	37	41
11	45	45	33	24		27	23	13	128	29	36	41
12		43	33	24		26	23	12	131	29	36	44
13		43	32	23		25	22	9.5	143	29	35	44
14		41	31	(*)		25	19	7.8	149	30	35	45
15		40	30			25	19	6.4	137	31	34	45
16		39	30			25	19	5.1	143	34	34	46
17		40	30			26	19	4.2	102	33	33	47
18		39	29			27	18	3.9	76	35	34	53
19		39	29			26	16	3.9	62	35	35	71
20		38	29			26	15	3.6	53	36	33	97
21		37	29			26	15	3.3	51	37	32	85
22		36	28	25		26	15	4.8	47	37	30	87
23	45	34	28		30	27	15	5.7	51	36	28	100
24	44	34	28			27	15	7.4	59	35	28	97
25	43	34	28			27	14	8.8	87	34	30	102
26	43	34	27			25	14	8.4	140	34	34	100
27	40	34	27			25	14	8.4	158	35	35	94
28	49	34	27			25	14	7.8	128	34	35	97
29	50	32	27			25	14	12	92	34	36	89
30	50	32	27		-	25	14	25	56	34	33	85
31	50	-	27		-	26	-	25	-	36	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,404	-	-	45.3	2,780
November	1,245	51	32	41.5	2,470
December	911	34	27	29.4	1,810
Calendar year 1947	27,197	279	-	74.5	53,930
January	788	-	-	25.4	1,560
February	795	-	-	27.4	1,580
March	822	33	24	26.5	1,630
April	594	27	14	19.8	1,180
May	313.0	25	3.3	10.1	621
June	2,657	158	25	88.6	5,270
July	1,140	59	28	36.8	2,260
August	1,091	41	28	35.2	2,160
September	1,792	102	29	**59.7**	3,550
Water year 1947-48	13,552	158	3.3	37.0	26,870

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 9, Dec. 11 to about Feb. 25. No gage-height record Oct. 1-22, Dec. 18-25, Jan. 1-8, 13, Jan. 27 to Feb. 29; discharge computed on basis of weather records, recorded range in stage, and records for station below Mackay Reservoir, near Mackay.

Warm Spring Creek (east channel) near Mackay, Idaho

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

Records available.- May 1919 to September 1948.

Average discharge.- 29 years, 28.5 second-feet.

Extremes.- Maximum discharge during year, 176 second-feet June 9 (gage height, 3.32 feet); minimum, 15 second-feet Apr. 29, 30 (gage height, 1.59 feet).

1919-48: 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 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	34	28	29	27	25	22	16	101	72	30	27
2	35	35	28	29	27	24	22	16	124	73	29	27
3	35	35	27	29	27	24	22	16	149	72	28	26
4	34	33	27	29	27	24	21	16	159	65	28	25
5	33	32	27	29	27	24	21	16	127	57	30	25
6	33	32	27	29	27	24	20	16	121	54	28	25
7	33	32	27	30	27	24	20	17	130	51	28	25
8	33	32	27	30	27	24	20	18	146	48	28	25
9	33	31	27	30	27	24	20	17	164	48	30	25
10	34	31	27	30	27	23	20	17	166	46	30	25
11	34	31	27	30	28	24	20	17	146	46	29	25
12	34	30	27	30	27	24	20	17	135	45	29	25
13	34	30	27	28	27	24	19	17	122	44	28	25
14	33	30	27	28	27	24	19	17	116	42	29	25
15	33	29	27	28	26	24	19	17	104	41	28	25
16	32	29	27	28	26	24	18	17	96	40	27	25
17	34	29	27	28	25	23	18	17	91	42	27	25
18	34	28	27	28	25	24	17	16	80	42	27	27
19	34	28	27	28	25	24	17	19	72	42	27	28
20	34	28	28	28	26	23	17	35	70	41	27	27
21	34	28	28	28	26	23	16	46	73	40	27	26
22	34	28	28	28	26	22	16	55	77	42	26	25
23	35	28	27	28	26	23	16	61	70	44	26	25
24	36	28	27	29	26	22	16	62	69	45	27	27
25	35	28	27	28	25	23	16	71	69	42	27	32
26	35	28	27	28	25	23	16	92	69	38	28	34
27	35	28	27	28	25	24	16	113	66	35	28	32
28	35	28	27	28	25	24	16	120	65	32	28	30
29	35	28	27	27	25	24	16	158	64	32	28	30
30	34	28	28	27	-	24	16	138	66	32	29	30
31	34	-	28	27	-	23	-	109	-	30	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,056	36	32	34.1	2,090
November	899	35	28	30.0	1,780
December	844	28	27	27.2	1,670
Calendar year 1947	11,287	86	16	30.9	22,380
January	884	30	27	28.5	1,750
February	761	28	25	26.2	1,510
March	733	25	22	23.6	1,450
April	552	22	16	18.4	1,090
May	1,379	158	16	44.5	2,740
June	3,107	166	64	104	6.160
July	1,423	73	30	45.9	2,820
August	869	30	26	28.0	1,720
September	803	34	25	26.8	1,590
Water year 1947-48	13,310	166	16	36.4	26,370

Warm Spring Creek (west channel) near Mackay, Idaho

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

Records available.- May 1919 to September 1948.

Average discharge.- 29 years, 92.6 second-feet.

Extremes.- Maximum discharge during year, 246 second-feet June 4 (gage height, 2.66 feet); minimum, 60 second-feet May 17 (gage height, 1.16 feet).
1919-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	105	98	93	88	88	86	62	180	138	80	71
2	100	107	98	94	89	88	86	62	204	141	80	71
3	100	106	99	93	88	88	86	62	228	141	80	70
4	101	104	99	93	88	88	81	63	238	131	80	70
5	101	101	98	92	89	89	81	62	212	119	80	68
6	102	102	99	93	88	89	81	63	204	116	77	69
7	101	101	98	93	88	88	80	64	212	111	77	68
8	101	101	98	94	88	88	77	66	222	110	80	69
9	104	101	98	94	88	88	77	64	237	107	83	69
10	104	101	96	94	88	87	76	64	239	105	81	69
11	105	101	95	93	88	87	76	64	225	105	80	69
12	102	101	95	93	88	87	76	63	215	102	78	68
13	104	102	95	92	88	87	76	61	199	100	78	68
14	102	101	96	92	88	87	76	61	190	98	78	68
15	100	100	96	92	88	86	74	62	178	98	75	68
16	98	99	95	92	87	87	71	62	169	96	75	67
17	98	99	95	92	88	87	70	62	160	98	75	67
18	98	99	94	90	89	87	69	62	147	100	74	71
19	98	98	94	90	89	87	69	69	138	102	74	74
20	99	99	94	90	90	88	68	99	136	99	71	71
21	100	99	94	89	90	88	66	112	141	95	71	70
22	100	98	95	89	92	88	66	122	143	102	70	68
23	102	98	94	90	92	87	66	126	131	102	70	67
24	106	98	94	90	89	87	63	129	130	102	70	69
25	105	98	93	90	89	86	64	140	129	101	70	81
26	105	98	93	90	89	86	64	168	128	90	70	83
27	104	98	93	90	88	86	63	192	125	86	71	81
28	102	98	93	90	88	86	63	204	123	83	73	81
29	102	98	93	89	88	86	63	233	123	82	73	83
30	102	98	94	89	-	86	61	220	130	82	73	84
31	102	-	94	88	-	86	-	190	-	80	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,147	106	98	102	6,240
November	3,009	107	98	100	5,970
December	2,960	99	93	95.5	5,870
Calendar year 1947	34,530	150	62	94.6	68,500
January	2,833	94	88	91.4	5,720
February	2,570	92	87	88.6	5,100
March	2,703	89	86	87.2	5,360
April	2,175	86	61	72.5	4,310
May	3,133	233	61	101	6,210
June	5,236	239	123	175	10,390
July	3,222	141	80	104	6,390
August	2,340	83	70	75.5	4,640
September	2,152	84	67	71.7	4,270
Water year 1947-48	35,480	239	61	96.9	70,470

Sharp ditch near Mackay, Idaho

Location.- Water-stage recorder and articial control, 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 1948. June 1912 to October 1914 and March 1919 to April 1939 at site 1,400 feet upstream, above Hintze ditch.

Extremes.- Maximum discharge during year, 38 second-feet June 10-13, 18, 19 (gage height, 1.46 feet); no flow for long periods during fall and winter.
1912-14, 1919-48:- Maximum discharge, 50 second-feet July 10, 1947 (gage height, 1.63 feet); no flow at times.

Remarks.- Records good except those below 1.0 second-foot 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 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 38 acre-feet during year (7 in May, 7 in June, and 24 in July).

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	5.3					h0.3	10	28	34	25	16
2	9.2	5.3					.3	10	28	34	26	17
3	8.0	5.5					.4	10	28	34	27	18
4	8.2	5.8	0.3				.4	11	28	34	28	17
5	9.2	3.6					.6	9.7	29	34	28	17
6	6.2	.4					1.1	8.2	29	34	27	16
7	2.1	.4	h.3				2.4	8.2	29	34	24	15
8	0	.3					2.3	8.8	30	34	22	14
9	0	.3					8.9	9.4	30	34	22	14
10	0						13	9.4	35	34	22	14
11	0						6.1	8.8	38	34	21	13
12	0						2.7	5.0	38	34	19	13
13	0						10	5.0	38	34	18	13
14	0						12	5.3	37	34	18	12
15	0						17	5.0	36	33	19	12
16	0						22	5.0	34	31	19	16
17	0						22	5.0	33	23	20	16
18	0						22	5.0	36	22	22	15
19	0						22	6.0	37	18	24	14
20	0		.3				22	7.1	36	22	23	13
21	0	.3					20	9.4	36	22	22	12
22	0						16	13	36	22	22	12
23	.6						17	13	36	23	22	12
24	3.0						15	13	36	23	22	11
25	3.2						13	13	36	23	20	11
26	2.8						13	15	34	23	19	11
27	1.2						13	15	33	23	19	10
28	1.0						12	15	33	24	18	7.6
29	1.1						10	20	33	25	17	4.0
30	2.4						10	23	33	26	16	4.0
31	4.8	-					-	25	-	25	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	72.2	9.2	0	2.33	143
November	33.2	5.8	-	1.11	66
December	9.3	-	-	0.30	18
Calendar year 1947	3,606.7	39	0	9.88	7,160
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	326.5	22	.3	10.9	648
May	324.3	25	5.0	10.5	643
June	1,003	38	28	33.4	1,990
July	884	34	18	28.5	1,750
August	667	28	16	21.5	1,320
September	389.6	18	4.0	13.0	773
Water year 1947-48	3,709.1	39	0	10.1	7,350

h Computed from staff-gage reading.

Note.- No gage-height record Nov. 10 to Dec. 6, Dec. 8 to Mar. 31, Apr. 2, 3, July 21-24, Sept. 22-25,29, 30; discharge interpolated or computed on basis of recorded range in stage, engineers' field notes, and information furnished by watermaster.

Big Wood River near Ketchum, Idaho

Location.- Staff gage, lat. 43°48', long. 114°26', in sec. 4, T. 5 N., R. 17 E., half a mile upstream from North Fork and 8 miles northwest of Ketchum. Altitude of gage, 6,240 feet (from topographic map).

Drainage area.- 137 square miles.

Records available.- May to September 1948.

Extremes.- Maximum discharge observed during period May to September, 1,200 second-feet June 3 (gage height, 3.20 feet); minimum observed, 63 second-feet Sept. 14 (gage height, 0.48 foot).

Remarks.- Records fair. Gage read once daily. No diversion or regulation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1								-	776	300	110	71
2								-	836	294	110	71
3								-	1,160	270	106	71
4								-	812	253	110	71
5								-	760	247	98	71
6								-	818	230	98	73
7								-	806	219	98	73
8								-	842	214	122	71
9								-	818	208	118	71
10								-	765	203	106	71
11								187	743	197	102	69
12								203	651	192	94	68
13								225	682	192	94	68
14								239	631	177	94	66
15								276	561	172	91	65
16								357	551	167	87	66
17								516	507	162	83	68
18								e560	498	153	83	76
19								626	426	149	83	76
20								556	435	149	83	73
21								498	417	140	83	71
22								417	381	140	80	69
23								444	349	131	80	69
24								556	341	131	80	73
25								688	334	126	80	114
26								732	320	122	80	102
27								848	306	122	76	91
28								980	300	122	76	87
29								980	300	118	76	83
30								836	313	118	71	80
31								688	-	114	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May 11-31	11,412	980	187	543	3.96	3.10	22,640
June	17,439	1,160	300	581	4.24	4.73	34,590
July	5,532	300	114	178	1.30	1.50	10,970
August	2,825	122	71	91.1	.665	.77	5,600
September	2,248	114	65	74.9	.547	.61	4,460
The period	-	-	-	-	-	-	78,260

e Gage reading not representative of mean for day; discharge computed on basis of weather records and records for combination of Big Wood River and Big Wood Slough at Hailey.

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 and three-eights of a mile above Croy Creek.

Drainage area.- 640 square miles (total area above river and slough stations).

Records available.- July to December 1889, June 1915 to September 1948.

Average discharge.- 33 years, 296 second-feet. Average combined discharge of Big Wood River and Big Wood Slough, 33 years, 409 second-feet.

Extremes.- Maximum discharge during year, 2,920 second-feet June 3 (gage height, 6.14 feet); minimum, 16 second-feet Aug. 6 (gage height, 1.10 feet).

1889, 1915-48 (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.

1889, 1915-48 (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 through Big Wood Slough (see p. 119). 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, and one discharge measurement furnished, by Water District No. 7 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	131	95	49	68	54	84	378	1,940	970	256	120
2	86	131	91	65	68	67	98	353	2,110	934	253	110
3	112	131	86	65	67	62	129	361	2,670	845	247	95
4	100	129	93	b65	68	53	112	369	2,320	780	244	93
5	75	127	96	65	65	b53	102	361	2,030	733	244	95
6	84	114	95	74	65	59	96	412	2,150	693	184	98
7	86	122	84	89	b60	64	82	641	2,390	664	195	95
8	80	120	79	104	b62	62	87	653	2,390	647	203	95
9	86	116	74	b80	67	56	87	542	2,480	602	238	93
10	89	108	70	b65	65	52	91	486	2,290	597	220	91
11	100	120	65	75	b55	b50	89	448	2,210	580	212	87
12	95	102	64	b77	b55	56	87	452	2,030	564	184	87
13	93	108	62	b65	*b70	49	98	517	1,970	537	166	86
14	91	100	74	b65	67	64	116	537	1,830	501	154	84
15	89	116	64	b70	68	56	135	602	1,610	472	142	82
16	120	108	67	b75	67	56	195	780	1,540	452	140	82
17	171	102	70	b72	65	60	390	952	1,440	416	140	84
18	131	106	74	b70	68	58	537	1,230	1,350	398	138	95
19	124	102	*79	b67	64	59	398	1,300	1,230	386	138	114
20	122	89	79	b70	62	48	425	1,200	1,200	378	140	108
21	133	100	79	b72	67	50	476	1,180	1,200	365	138	102
22	142	84	77	77	68	62	542	1,100	1,110	342	131	98
23	140	75	79	77	60	62	506	1,020	1,060	323	129	100
24	135	95	75	80	54	62	467	1,130	1,050	331	129	110
25	133	100	75	79	58	64	491	1,380	1,030	323	124	133
26	133	102	75	b55	65	*59	438	1,770	988	313	124	206
27	133	100	72	b55	64	60	398	1,890	958	299	122	164
28	133	93	77	b60	53	67	369	2,290	964	289	120	154
29	142	89	67	b60	54	77	416	2,480	946	289	116	147
30	142	96	b52	b60	-	80	416	2,100	982	279	114	144
31	135	-	b50	b65	-	74	-	1,810	-	269	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,517	171	75	113	6,980
November	3,216	131	75	107	6,380
December	2,339	95	50	75.5	4,640
Calendar year 1947	130,917	2,170	50	359	259,700
January	2,167	104	49	69.9	4,300
February	1,839	70	53	63.4	3,650
March	1,855	80	48	59.8	3,680
April	7,957	542	82	265	15,780
May	30,724	2,480	353	991	60,940
June	49,468	2,670	946	1,649	98,120
July	15,571	970	269	502	30,880
August	5,209	256	114	168	10,330
September	3,252	206	82	108	6,450
Water year 1947-48	127,114	2,670	48	347	252,100

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

Combined discharge, in second-feet, of Big Wood River and Big Wood Slough at Hailey, Idaho, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	215	174	120	142	124	159	422	1,970	1,040	274	141
2	170	214	169	136	142	139	177	393	2,130	1,010	269	139
3	168	214	164	136	141	134	215	402	2,700	911	262	137
4	165	212	173	139	142	123	195	412	2,340	842	259	135
5	162	210	176	138	139	118	182	403	2,080	792	258	137
6	175	194	175	148	140	124	175	459	2,200	748	246	141
7	177	203	163	167	130	129	157	704	2,440	718	228	137
8	170	201	157	184	137	127	165	718	2,440	699	234	138
9	177	196	149	160	142	122	164	602	2,530	652	277	135
10	184	186	145	139	135	121	169	542	2,330	646	252	133
11	197	201	138	152	115	116	166	501	2,250	627	243	126
12	190	180	137	155	120	129	164	505	2,060	610	228	125
13	188	187	134	140	140	124	176	576	2,000	578	219	124
14	187	178	149	140	140	139	199	597	1,860	536	203	121
15	184	196	137	146	142	130	221	666	1,640	504	187	120
16	222	187	140	152	141	129	288	853	1,570	486	184	121
17	280	180	144	147	137	133	496	1,030	1,470	458	184	124
18	231	185	148	145	140	130	638	1,330	1,380	437	181	141
19	219	181	154	137	135	132	491	1,420	1,260	427	180	165
20	213	163	154	145	133	118	522	1,320	1,220	415	183	154
21	222	179	153	150	138	120	587	1,300	1,220	396	180	147
22	231	161	152	155	139	135	674	1,210	1,130	369	170	141
23	227	150	154	155	131	134	630	1,130	1,080	354	168	143
24	220	175	150	159	124	134	571	1,240	1,070	363	167	157
25	217	183	150	158	128	135	551	1,480	1,050	354	161	192
26	217	185	152	117	135	128	492	1,840	1,010	341	161	287
27	216	183	146	111	134	126	448	1,960	976	325	161	230
28	216	173	154	120	122	135	417	2,360	991	314	158	219
29	225	168	139	125	124	148	464	2,540	1,010	312	153	209
30	226	176	117	132	-	152	464	2,130	1,050	300	149	204
31	218	-	118	137	-	147	-	1,840	-	289	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,268	280	162	202	12,430
November	5,616	215	150	187	11,140
December	4,665	176	117	150	9,250
Calendar year 1947	156,935	2,240	110	430	311,300
January	4,445	184	111	143	8,820
February	3,908	142	115	135	7,750
March	4,035	152	116	130	8,000
April	10,417	674	157	347	20,660
May	32,885	2,540	393	1,061	65,230
June	50,457	2,700	976	1,682	100,100
July	16,853	1,040	289	544	33,430
August	6,324	274	145	204	12,540
September	4,623	287	120	154	9,170
Water year 1947-48	150,496	2,700	111	411	298,500

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., 1¾ 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 1948 (except winters of 1942 and prior to 1940).

Extremes.- Maximum discharge during year, 1,720 second-feet June 3 (gage height, 4.36 feet); minimum, 45 second-feet Feb. 7; minimum gage height, 1.79 feet Aug. 2.
1911-48: 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. Many diversions above station for irrigation.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	75	80	57	49	78	65	236	1,070	489	73	82
2	69	80	78	57	49	82	63	196	1,210	483	65	80
3	67	85	73	55	49	82	69	168	1,520	453	63	75
4	67	85	75	55	49	78	75	162	1,610	424	69	73
5	67	85	73	55	50	71	71	134	1,300	370	73	73
6	69	82	73	55	52	71	71	124	1,320	321	73	71
7	69	82	71	78	53	75	73	179	1,500	326	75	69
8	71	85	71	98	50	78	71	285	1,560	290	73	69
9	73	85	67	95	52	82	71	254	1,620	258	98	69
10	71	85	67	80	b52	82	73	216	1,540	249	109	69
11	75	88	65	82	b52	71	69	179	1,460	244	98	69
12	75	90	65	82	*b53	71	67	151	1,350	236	92	69
13	71	92	63	b71	b52	78	65	148	1,250	224	90	67
14	75	95	63	b63	50	82	69	168	1,180	204	82	65
15	73	95	61	b61	52	85	78	182	1,010	176	80	65
16	75	95	59	b61	52	80	98	224	924	140	75	67
17	85	98	59	59	53	78	172	312	853	127	78	65
18	88	100	*59	55	75	78	370	514	745	103	78	67
19	88	103	61	57	82	78	355	645	652	92	78	112
20	82	100	65	b53	73	71	360	675	630	95	80	98
21	80	100	67	52	78	59	396	638	668	96	73	82
22	80	100	67	52	151	57	441	588	623	92	78	73
23	82	95	67	55	127	61	465	528	574	90	80	71
24	80	98	69	69	98	65	430	554	560	85	88	71
25	80	92	69	73	95	69	430	705	521	86	90	82
26	78	92	69	b65	95	*65	396	924	495	90	88	130
27	78	92	71	b55	95	67	370	1,100	465	78	88	127
28	75	90	71	b53	85	67	303	1,370	441	75	80	98
29	80	88	69	b52	80	69	262	1,640	424	75	80	92
30	82	80	63	50	-	71	267	1,470	453	75	80	90
31	80	-	57	b49	-	67	-	1,120	-	75	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,352	88	67	75.9	4,670
November	2,712	103	75	90.4	5,380
December	2,087	80	57	67.3	4,140
Calendar year 1947	81,746	1,500	57	224	162,200
January	1,954	98	49	63.0	3,880
February	2,003	151	49	69.1	3,970
March	2,268	85	57	73.2	4,500
April	6,165	465	63	206	12,230
May	15,789	1,640	124	509	31,320
June	29,528	1,620	424	984	58,570
July	6,225	489	75	201	12,350
August	2,507	109	63	80.9	4,970
September	2,390	130	65	79.7	4,740
Water year 1947-48	75,980	1,640	49	208	150,700

* Winter discharge measurement made on this day.
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 1948.

Extremes.- Maximum contents observed during year, 189,500 acre-feet June 18-20 (gage height, 134.5 feet); minimum observed, 83,100 acre-feet Oct. 1 (gage height, 97.9 feet).

1909-48: Maximum contents observed, 193,500 acre-feet June 26-28, 1948 (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. Gage read in morning except during irrigation season when it was read morning and evening; contents computed from morning reading.

Cooperation.- Gage readings and yield table furnished by Water District No. 7 AB.

Contents, in acre-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83,100	87,730	90,910	95,560	101,600	112,100	123,800	161,700	168,700	186,400	148,500	112,400
2	83,320	87,960	91,140	95,560	101,600	112,600	125,500	161,700	170,100	186,100	146,900	111,100
3	83,320	88,190	91,140	95,800	101,800	112,900	127,200	161,700	171,200	185,700	145,600	110,600
4	83,530	88,640	91,370	96,740	101,800	112,900	129,400	161,700	173,300	184,900	144,100	109,600
5	83,530	88,640	91,370	96,980	101,800	113,200	131,400	161,300	175,500	184,500	142,500	108,000
6	83,750	88,860	91,600	97,220	102,000	113,400	131,300	161,000	177,000	183,800	141,000	107,000
7	83,970	89,090	91,830	97,220	102,300	113,700	134,500	161,000	178,500	183,000	139,500	106,000
8	83,970	89,090	92,060	97,690	102,300	113,900	135,100	160,300	180,400	182,200	138,000	105,300
9	84,190	89,320	92,060	97,930	102,500	114,200	136,000	160,600	181,900	181,500	136,500	104,300
10	84,410	89,320	92,290	97,930	102,800	114,500	136,800	160,600	183,800	180,700	135,700	103,000
11	84,410	89,540	92,520	98,170	102,800	114,700	137,700	160,600	185,300	180,000	134,200	101,800
12	84,630	89,540	92,520	98,410	103,000	114,700	138,300	160,000	186,800	178,900	133,100	101,100
13	84,850	89,770	92,750	98,650	103,000	115,000	139,200	159,600	188,000	177,700	132,500	99,860
14	84,850	89,990	92,750	98,890	103,300	115,300	139,800	158,900	188,400	176,600	131,100	98,890
15	85,070	90,220	92,980	98,890	103,500	115,500	140,400	158,600	189,200	175,200	129,900	97,690
16	85,070	90,450	92,980	98,890	103,800	115,800	141,300	157,900	189,200	173,700	129,400	96,500
17	85,290	90,680	93,220	99,130	103,800	116,300	142,200	157,900	189,200	172,200	127,700	94,620
18	85,730	90,910	93,220	99,130	104,000	116,600	143,800	157,600	189,500	170,800	126,600	93,680
19	85,730	91,140	93,450	99,620	105,300	116,800	145,300	157,900	189,500	169,400	125,800	92,750
20	85,950	90,680	93,450	99,620	105,800	117,100	147,200	158,300	189,500	168,000	124,400	91,830
21	85,950	89,990	93,680	99,860	106,000	117,400	148,800	158,900	189,200	166,200	123,600	91,370
22	86,400	89,540	93,920	100,100	106,500	117,400	150,700	159,300	189,200	164,800	122,200	90,910
23	86,620	89,540	94,150	100,300	109,000	117,900	153,000	159,600	189,200	163,400	121,400	89,990
24	86,620	89,540	94,150	100,600	109,800	118,200	154,900	160,000	188,800	161,700	120,000	89,320
25	86,840	89,770	94,380	100,800	110,300	118,700	156,900	160,000	188,800	160,300	119,500	88,640
26	86,840	89,770	94,380	101,100	110,800	119,200	157,900	160,600	188,400	158,600	118,400	87,960
27	87,060	89,990	94,620	101,100	111,100	119,600	159,300	161,300	188,400	156,900	117,400	87,510
28	87,060	90,220	94,850	101,100	111,400	119,800	160,300	162,400	188,000	154,900	116,300	87,060
29	87,290	90,450	94,850	101,100	111,600	a120,500	161,000	164,100	187,600	153,300	115,300	86,620
30	87,510	90,680	95,090	101,300	-	a121,100	161,300	165,800	186,800	151,700	111,900	86,170
31	87,730	-	95,320	101,300	-	122,500	-	168,000	-	150,100	113,200	-

a No gage-height record; contents computed on basis of measured inflow to reservoir.

Monthly gage height and contents, water year October 1947 to September 1948

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	97.9	83,100	-
Oct. 31	100.0	87,730	+4,630
Nov. 30	101.3	90,680	+2,950
Dec. 31	103.3	95,320	+4,640
Calendar year 1947	-	-	-40,880
Jan. 31	105.8	101,300	+5,980
Feb. 29	109.9	111,600	+10,300
Mar. 31	114.0	122,500	+10,900
Apr. 30	126.8	161,300	+38,800
May 31	128.7	168,000	+6,700
June 30	133.8	186,800	+18,800
July 31	123.4	150,100	-36,700
Aug. 31	110.5	113,200	-36,900
Sept. 30	99.3	86,170	-27,030
Water year 1947-48	-	-	+3,070

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 1948.

Average discharge.- 36 years (1912-48), 401 second-feet.

Extremes.- Maximum discharge during year, 1,040 second-feet June 12 (gage height, 4.56 feet); minimum, 9 second-feet on many days during winter period.
1911-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	12	10	9	10	10	10	346	785	746	840	563
2	13	12	10	9	10	10	10	372	790	752	824	563
3	13	12	10	9	10	10	10	408	796	746	818	563
4	13	12	9	9	10	10	10	448	802	741	818	563
5	13	12	9	9	10	10	10	476	802	741	796	563
6	13	12	10	9	10	10	10	476	796	725	785	563
7	13	12	10	9	10	10	11	476	796	719	758	563
8	13	11	10	9	10	10	11	476	812	714	746	604
9	13	11	10	9	10	10	11	500	840	714	746	598
10	13	12	10	9	10	10	13	529	852	706	741	614
11	13	12	9	9	10	10	13	544	858	741	714	609
12	12	12	9	9	9	10	13	544	918	774	681	609
13	12	12	9	9	9	10	14	544	1,030	802	614	609
14	12	12	9	10	10	10	14	568	990	834	614	614
15	12	12	9	10	10	10	14	593	912	840	619	614
16	12	12	9	10	10	10	13	593	864	840	619	624
17	12	12	9	10	10	10	13	609	834	840	640	624
18	12	12	9	10	10	10	13	640	818	846	650	624
19	12	362	9	10	10	10	13	660	790	856	650	629
20	12	444	9	10	10	9	13	660	785	864	645	583
21	12	444	9	10	10	9	13	660	768	882	645	510
22	12	236	9	10	10	10	13	660	736	886	619	476
23	12	10	9	10	10	10	13	671	698	886	588	467
24	12	10	9	10	10	10	95	698	687	882	573	467
25	12	10	9	10	10	9	209	725	687	894	573	439
26	12	10	9	10	10	9	209	741	681	900	568	430
27	12	10	10	10	10	9	212	763	681	900	563	403
28	12	10	10	10	10	10	300	796	681	894	553	368
29	12	9	9	10	10	10	334	812	714	906	544	359
30	12	10	10	10	-	10	346	812	736	870	544	143
31	12	-	9	10	-	10	-	790	-	864	544	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	383	13	12	12.4	760
November	1,779	444	9	59.3	3,530
December	290	10	9	9.4	575
Calendar year 1947	142,590	1,630	9	391	282,800
January	297	10	9	9.6	589
February	288	10	9	9.9	571
March	305	10	9	9.8	605
April	1,983	346	10	66.1	3,930
May	18,590	812	346	600	36,870
June	23,939	1,030	681	798	47,480
July	25,313	906	708	817	50,210
August	20,632	840	544	666	40,920
September	15,958	629	143	532	31,650
Water year 1947-48	109,757	1,030	9	300	217,700

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 1948, except for winters (discontinued).

Extremes.- Maximum discharge during year, 234 second-feet Sept. 30 (gage height, 2.49 feet); no flow for long periods.
1921-48: 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 from staff-gage readings, which are fair. Many diversions above station for irrigation. Flow regulated by Magic Reservoir (see p. 114) and affected by deliveries from Milner-Gooding canal which diverts from Snake River.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	f64						h5	131	44	46	40	34
2	-						h4	121	37	51	40	35
3	†1						h9	124	36	54	38	35
4	-						h5	113	45	62	40	35
5	-						h12	82	46	59	42	32
6	-						h11	70	45	51	42	38
7	-						h12	67	43	44	42	40
8	-						h16	67	39	35	47	40
9	-						h9	68	44	32	46	42
10	-						h7	74	43	24	44	37
11	-						h6	77	40	24	44	36
12	-						h3	78	35	27	44	37
13	-						h2	67	47	32	47	37
14	-						h2	56	54	35	50	38
15	0						h1	52	35	34	47	38
16	-						0	51	92	37	52	34
17	-						0	48	61	31	38	36
18	-						h33	44	52	28	33	44
19	-						h28	53	51	28	29	133
20	-						h35	54	53	24	30	124
21	-						32	58	61	29	36	128
22	-						101	51	79	45	46	118
23	-						126	47	90	48	45	119
24	-						113	46	68	44	44	119
25	-						96	34	59	38	43	151
26	-						97	36	56	38	33	189
27	-						123	32	52	39	38	165
28	-						153	39	46	37	39	204
29	-						137	44	40	40	38	204
30	-						137	48	40	46	35	204
31	-					h10	-	53	-	45	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,315	153	0	43.8	2,610
May	1,985	131	32	64.0	3,940
June	1,533	92	35	51.1	3,040
July	1,207	62	24	38.9	2,390
August	1,266	52	29	40.8	2,510
September	2,526	204	32	84.2	5,010
The period	-	-	-	-	19,500

† Result of field estimate.
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 1948 (fragmentary 1922-37, 1941, 1943).

Extremes.- Maximum discharge during year, 1,180 second-feet Feb. 22 (gage height, 5.93 feet); practically no flow Apr. 18; minimum daily, 3 second-feet Apr. 18.
1916-48: 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 station for irrigation. Flow regulated by Magic Reservoir (see p. 114) and affected by deliveries from canals diverting from Snake River at Milner.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	40	137	84	52	214	209	136	60	34	46	37
2	75	52	134	65	62	231	177	126	50	57	42	30
3	100	58	131	114	b60	209	174	151	34	68	38	34
4	42	83	132	124	b58	200	167	167	36	81	30	40
5	17	67	137	163	b62	212	114	114	44	100	38	45
6	14	56	142	192	b58	216	57	60	46	90	34	44
7	11	55	139	185	b54	217	48	35	40	86	42	61
8	10	42	140	169	b58	204	34	41	23	64	43	70
9	8	22	104	161	b60	204	112	49	20	44	46	76
10	12	18	134	166	b55	204	122	90	26	29	43	81
11	23	72	147	164	*b52	200	110	108	30	20	44	68
12	24	93	126	136	b55	197	85	118	51	21	42	60
13	24	94	140	104	b70	212	78	92	43	31	46	59
14	25	99	148	126	b75	221	61	69	72	38	47	70
15	28	104	137	72	79	229	38	54	58	42	49	64
16	30	108	*145	b80	86	229	28	56	100	36	42	49
17	31	101	126	b70	103	236	9	48	120	32	34	45
18	34	90	142	b60	112	238	3	36	120	26	30	51
19	33	75	145	b55	155	236	22	39	125	21	24	179
20	34	68	172	b55	174	233	55	69	120	25	24	244
21	27	74	150	*b55	166	231	57	84	143	23	33	280
22	32	90	163	b75	412	236	172	107	174	32	53	282
23	43	110	137	79	584	234	229	147	204	38	66	285
24	46	137	155	99	293	233	226	161	166	32	69	246
25	54	180	148	b90	226	229	175	116	126	25	73	302
26	57	219	159	b75	273	236	132	67	100	27	78	380
27	61	164	140	b45	234	250	120	38	79	26	76	365
28	48	150	137	b48	212	269	142	29	54	30	74	408
29	39	134	136	b50	217	282	97	32	31	38	61	408
30	34	134	122	b50	-	282	81	45	15	43	50	353
31	31	-	113	b50	-	253	-	65	-	42	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,195	148	8	38.5	2,370
November	2,789	219	18	93.0	5,530
December	4,318	172	104	139	8,560
Calendar year 1947	56,829	938	8	156	112,700
January	3,061	192	45	98.7	6,070
February	4,157	584	52	143	8,250
March	7,077	282	197	228	14,040
April	3,134	229	3	104	6,220
May	2,550	167	29	82.3	5,060
June	2,310	204	15	77.0	4,580
July	1,301	100	20	42.0	2,580
August	1,459	78	24	47.1	2,890
September	4,716	408	30	157	9,350
Water year 1947-48	38,067	584	3	104	75,500

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

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 1948. 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, 468 second-feet May 29 (gage height, 2.79 feet); minimum recorded, 14 second-feet Mar. 4 (gage height, 0.81 foot).
1940-48: 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, 17 second-feet Dec. 17, 1946.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	35	34	32	a30	26	31	83	346	99	44	32
2	35	35	33	36	31	29	34	81	371	97	42	31
3	35	35	32	33	30	26	36	86	439	91	41	31
4	34	35	35	34	30	22	34	86	379	88	41	31
5	34	34	33	32	29	24	32	88	346	81	41	32
6	39	30	33	33	29	26	32	118	336	79	40	32
7	38	35	31	35	26	28	29	167	340	74	40	32
8	37	35	28	38	30	27	31	144	340	72	41	32
9	37	32	30	26	31	28	31	118	336	70	47	32
10	39	33	30	34	26	25	31	102	309	67	44	31
11	41	36	30	37	a21	25	30	97	285	66	41	30
12	40	29	27	33	a25	28	30	112	257	64	40	29
13	38	33	31	27	32	28	32	129	242	64	38	29
14	37	31	31	31	30	28	37	135	225	61	37	29
15	37	37	29	33	30	26	45	169	211	57	36	28
16	57	34	30	33	30	25	66	213	197	56	35	28
17	60	32	31	33	29	28	127	260	179	54	35	29
18	46	35	31	32	30	26	131	309	172	53	34	33
19	41	34	31	29	29	25	108	343	162	52	34	39
20	40	31	31	31	28	24	127	298	153	52	34	35
21	39	34	29	32	29	25	142	282	146	52	34	33
22	39	28	31	a33	29	27	148	251	135	51	33	32
23	38	32	31	a33	25	27	133	236	131	48	33	31
24	36	33	30	a33	24	28	125	269	127	47	33	32
25	36	34	31	a30	28	28	118	319	118	46	33	44
26	36	34	31	a21	29	27	102	375	112	46	33	57
27	35	34	30	a22	28	27	91	382	106	45	33	44
28	35	32	33	25	24	28	84	439	104	45	32	41
29	37	33	25	25	25	31	97	435	101	45	32	39
30	36	35	28	a25	-	30	91	364	99	45	32	37
31	35	-	29	a25	-	28	-	329	-	44	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,203	60	34	38.8	2,390
November	1,000	37	28	33.3	1,980
December	949	35	25	30.6	1,880
Calendar year 1947	26,853	429	25	73.6	53,270
January	956	38	21	30.8	1,900
February	817	32	21	28.2	1,620
March	830	31	22	26.8	1,650
April	2,185	148	29	72.8	4,330
May	6,819	439	81	220	13,530
June	6,804	439	99	227	13,500
July	1,911	99	44	61.6	3,790
August	1,145	47	32	36.9	2,270
September	1,015	57	28	33.8	2,010
Water year 1947-48	25,634	439	21	70.0	50,850

Peak discharge (base, 300 sec.-ft.).- May 17 (11 p.m.) 379 sec.-ft.; May 29 (1 a.m.) 468 sec.-ft.; June 3 (4 a.m.) 166 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for combination of Big Wood River and Big Wood Slough at Hailey and other nearby streams.

Big Wood Slough at Hailey, Idaho

Location.- Water-stage recorder, lat. 43°31'00", long. 114°19'30", in sec. 9, T. 2 N., R. 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 1948.

Average discharge.- 33 years, 114 second-feet.

Extremes.- Maximum discharge during year, 257 second-feet Aug. 6 (gage height, 3.42 feet); minimum recorded, 9.6 second-feet Jan. 26 (gage height, 1.41 feet).
1915-48: 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 poor. 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. 111) 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	84	79	71	74	70	75	44	29	72	18	21
2	84	83	78	71	74	72	79	40	24	72	16	29
3	56	83	78	71	74	72	86	41	25	66	15	42
4	65	83	80	74	74	70	83	43	25	62	15	42
5	87	83	80	73	74	a65	80	42	50	59	14	42
6	91	80	80	74	75	a65	79	47	49	55	62	43
7	91	81	79	78	b70	a65	75	63	49	54	33	42
8	90	81	78	80	b75	a65	78	65	46	52	31	43
9	91	80	75	80	b75	66	77	60	47	50	39	42
10	95	78	75	74	b70	69	78	56	42	49	32	42
11	97	81	73	77	a60	66	77	53	39	47	31	39
12	95	78	73	78	*b65	73	77	53	35	45	44	38
13	95	79	72	b75	b70	75	78	59	33	41	53	38
14	96	78	75	b75	a73	75	83	60	32	35	49	37
15	95	80	73	b76	74	74	86	64	30	32	45	38
16	102	79	73	b77	74	73	93	73	29	34	44	39
17	109	78	74	a75	72	73	106	80	27	42	44	40
18	100	79	74	a75	72	72	101	97	a26	39	43	46
19	95	79	*75	a70	71	73	93	119	25	41	42	51
20	91	74	75	a75	71	70	97	118	24	37	43	46
21	89	79	74	a78	71	70	111	115	24	31	42	45
22	89	77	75	78	71	73	132	111	23	27	39	43
23	87	75	75	78	71	72	124	106	22	31	39	43
24	85	80	75	79	70	72	104	113	22	32	38	47
25	84	83	75	79	70	71	60	97	21	31	37	59
26	84	83	77	b62	70	*69	54	70	20	23	37	81
27	83	83	74	b56	70	66	50	66	18	23	39	66
28	83	80	77	b60	69	68	48	69	27	23	38	65
29	83	79	72	b65	70	71	48	61	66	23	37	62
30	84	80	b65	72	-	72	48	31	70	21	35	60
31	83	-	b68	b72	-	73	-	28	-	23	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,751	109	56	88.7	5,460
November	2,400	84	74	80.0	4,760
December	2,326	80	65	75.0	4,610
Calendar year 1947	26,062.6	144	7.6	71.4	51,710
January	2,278	80	56	73.5	4,520
February	2,069	75	60	71.3	4,100
March	2,180	75	65	70.3	4,320
April	2,460	132	48	82.0	4,880
May	2,144	119	28	69.2	4,250
June	999	70	18	33.3	1,980
July	1,280	72	20	41.3	2,540
August	1,115	62	14	36.0	2,210
September	1,371	81	21	45.7	2,720
Water year 1947-48	23,373	132	14	63.9	46,350

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Big Wood River at Hailey and near Bellevue and Warm Spring Creek at Guyer Hot Springs, near Ketchum.
b Stage-discharge relation affected by ice.

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 1948 (no winter records prior to 1945). Discharge measurements only for 1922.

Extremes.- Maximum discharge during year, 1,100 second-feet Apr. 3 (gage height, 5.67 feet); minimum recorded, 2.2 second-feet Aug. 18 (gage height, 0.86 foot).
1912-48: Maximum discharge recorded, 9,780 second-feet Apr. 8, 1943; maximum gage height, 15.48 feet about 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.- Two discharge measurements and occassional inspections of recorder furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	8.4	13			50	680	278	176	20	2.8	2.6
2	3.8	8.7	13			49	758	250	164	19	4	2.6
3	3.8	8.7	12			38	1,040	237	174	20	4	2.6
4	3.8	8.7	12			34	966	235	177	23	4	2.6
5	3.8	9	12			34	834	228	187	16	3.8	2.6
6	4.0	8.7	12	12		31	606	235	166	14	3.7	2.8
7	4.0	8.4	11		10	34	465	228	148	13	3.3	2.8
8	4.2	9	10			38	381	235	136	9	3.3	2.8
9	4.2	9	8.4			36	315	244	133	7.5	3.3	2.8
10	4.4	8.7				32	308	230	128	6.3	3.2	2.8
11	4.4	9.4				26	336	211	120	5.8	3.2	2.8
12	4.4	9.4	8			38	341	191	106	5.2	3	2.8
13	4.2	9				43	283	168	96	4.6	2.8	3
14	4.2	8.7			12	53	269	177	81	4.4	2.6	3
15	4.2	9.8			12	45	276	177	67	4.4	2.6	3
16	4.8	9.4	10		13	46	308	183	60	4.0	2.6	3
17	5.2	9.4	12		16	50	384	197	51	4.0	2.6	3.2
18	4.8	10	13		93	43	453	218	49	4.0	2.6	3.7
19	4.6	9.8	13	10	84	47	514	248	44	3.8	2.5	5.2
20	4.4	9.4	13		67	38	580	253	39	3.5	2.5	5.4
21	4.2	9.4			53	38	638	250	40	3.2	2.5	4.4
22	4.4	9.8			311	43	596	237	44	3.2	2.5	3.8
23	4.4	9.8			239	53	584	226	48	3.0	2.5	3.8
24	4.4	9.8			157	90	577	207	43	2.8	2.5	4.2
25	4.6	9.8	12		103	125	590	197	38	2.8	2.5	4.6
26	5.6	9.8			84	86	511	193	34	2.6	2.6	5.2
27	5.8	11			65	133	408	195	30	2.6	2.6	4.8
28	6.0	11		7	59	191	318	193	27	2.6	2.8	4.4
29	7.2	11	10		54	129	283	203	24	2.6	2.8	4.2
30	9.0	11			-	473	273	209	22	2.6	2.8	4.2
31	8.4	-			-	638	-	203	-	2.6	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	149.2	9.0	3.8	4.81	296
November	284.0	11	8.4	9.47	563
December	336.4	-	-	10.9	667
Calendar year 1947	35,268.2	1,190	2.8	96.6	69,960
January	316	-	-	10.2	627
February	1,552	311	-	53.5	3,080
March	2,804	638	26	90.5	5,560
April	14,875	1,040	269	496	29,500
May	6,736	278	168	217	13,360
June	2,652	187	22	88.4	5,260
July	222.1	23	2.6	7.16	441
August	91.3	4.0	2.5	2.95	181
September	105.7	5.4	2.6	3.52	210
Water year 1947-48	30,123.7	1,040	2.5	82.3	59,740

Peak discharge (gage, 500 sec.-ft.).- Feb. 22 (5 p.m.) 618 sec.-ft.; Apr. 3 (9 a.m.) 1,100 sec.-ft.; Apr. 21 (8 a.m.) 657 sec.-ft.

Note.- No gage-height record Dec. 10-16, Dec. 21 to Feb. 13; discharge computed on basis of weather records and records for 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 1948 (irrigation seasons only except 1937-46), discontinued.

Extremes.- Maximum daily discharge during year, 296 second-feet June 14; maximum gage height observed, 2.94 feet Sept. 15, 16; no flow for long periods.
1925-48: 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 diversions above station.

Cooperation.- Gage readings furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	a135	a175	167	a190	159
2							0	a140	179	167	181	a163
3							0	148	a185	a167	a175	167
4							0	151	214	a167	182	a168
5							0	151	a200	167	184	a168
6							0	a150	a195	a167	176	169
7							0	148	187	170	a175	a166
8							0	a150	a187	a172	a175	164
9							0	a150	187	174	165	a163
10							0	148	a186	a174	176	162
11							0	a155	186	a176	176	a170
12							0	164	a195	181	169	a170
13							0	a155	a280	a182	169	170
14							0	148	296	184	a166	a172
15	†0						0	a150	a250	a188	a164	174
16							0	a153	186	192	162	174
17							0	156	187	a192	a162	170
18							0	a165	194	a193	162	a172
19							0	174	187	194	165	a174
20							0	a173	a186	a194	165	170
21							0	172	184	194	a166	a170
22							0	a172	a180	198	a168	170
23							0	a173	174	191	169	a157
24							0	174	a175	196	a170	157
25							104	a174	176	a196	172	a157
26							140	174	a176	196	a174	a150
27							a138	a174	a176	a194	169	142
28							136	181	176	191	a168	a120
29							130	a180	a170	198	a167	113
30							133	a180	164	191	167	75
31							-	174	-	a191	a168	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	781	140	0	26.0	1,550
May	4,992	181	135	161	9,900
June	5,793	296	164	193	11,490
July	5,704	198	167	184	11,310
August	5,297	190	162	171	10,510
September	4,776	174	75	159	9,470
The period	-	-	-	-	54,230

† Field observation made on this day.
a No gage-height record; discharge computed on basis of records for station near Shoshone and information regarding diversions between stations.

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Lincoln Canal near Shoshone, Idaho

Location.- Water-stage recorder and concrete control, 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. Staff gage at same site and datum used May 21 to Sept. 30, 1947.

Records available.- May 1925 to September 1948 (1929-36, 1947, 1948, irrigation seasons only), discontinued.

Extremes.- Maximum discharge during year, 260 second-feet June 14 (gage height, 1.46 feet); no flow for long periods.

1925-48: 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 Apr. 26, which are poor. No record of domestic flow in November or of leakage during nonirrigation season. 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 one discharge measurement furinshed by Water District No. 7 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	104	147	138	162	131
2							0	110	147	138	150	131
3							0	121	150	138	147	131
4							0	123	160	136	157	131
5							0	123	160	136	154	131
6							0	123	160	136	145	131
7							0	123	154	136	145	131
8							0	125	154	136	145	131
9							0	125	154	136	145	131
10							0	121	152	134	145	131
11							0	125	152	138	140	138
12							0	129	152	150	138	138
13							0	127	244	160	138	140
14							0	114	250	162	136	140
15							0	121	219	162	136	143
16							0	123	160	162	136	143
17							0	125	157	162	134	143
18							0	129	157	162	134	145
19							0	140	154	162	136	147
20							0	140	150	170	136	143
21							0	138	150	170	136	134
22							0	138	145	164	138	131
23							0	138	136	164	136	131
24							0	138	138	167	136	131
25							0	136	143	167	138	131
26							h93	138	143	167	140	125
27							121	143	143	167	138	123
28							114	145	140	167	138	98
29							102	152	138	164	136	97
30							104	152	138	162	134	97
31							-	152	-	162	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	534	121	0	17.8	1,060
May	4,041	152	104	130	6,020
June	4,747	250	136	158	9,420
July	4,775	170	134	154	9,470
August	4,360	162	131	141	6,650
September	3,928	147	97	131	7,790
The period	-	-	-	-	44,410

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 1948 (prior to 1937, irrigation seasons only), discontinued.

Extremes.- Maximum discharge during year, 278 second-feet Sept. 30 (gage height, 2.33 feet); no flow for long periods.
1928-48: Maximum discharge, 447 second-feet Apr. 24, 1938 (gage height, 2.90 feet); usually no flow during nonirrigation seasons.

Remarks.- Records good except those below 10 second-feet, which are poor. 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 five discharge measurements furnished by Water District No. 7 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	0					0	190	120	129	118	98
2	18	0					0	182	108	127	116	101
3	a3	0					0	182	114	125	130	102
4	a2	0					0	171	118	127	118	102
5	0	0					0	146	120	123	116	101
6	0	0					0	138	120	120	114	106
7	0	0					0	132	113	111	114	102
8	0	0					0	125	114	106	116	104
9	0	0					0	127	120	102	114	102
10	0	0					0	129	118	96	114	101
11	0	0					0	136	118	96	113	101
12	0	0					0	134	113	102	116	101
13	0	0					0	123	114	108	120	99
14	0	0					0	118	86	108	120	99
15	0	0					0	113	96	106	116	101
16	0	0					3	114	154	111	109	99
17	0	0					39	111	132	104	96	98
18	0	0					39	116	123	99	88	116
19	0	0					45	121	118	96	86	150
20	0	0					51	127	116	93	87	169
21	0	0					67	125	116	104	99	173
22	0	56					158	120	134	116	106	169
23	0	40					179	116	132	120	109	160
24	0	18					158	109	125	114	109	160
25	0	3					146	104	125	109	102	188
26	0	1					142	101	123	113	96	199
27	0	a1					197	106	121	116	102	211
28	0	0					206	114	114	116	104	230
29	0	0					188	114	111	120	101	230
30	0	0					199	120	114	121	98	230
31	0	-					-	123	-	121	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	93	70	0	3.0	184
November	119	56	0	4.0	236
December	0	0	0	0	0
Calendar year 1947	21,790	278	0	59.7	43,220
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,817	206	0	60.6	3,600
May	3,987	190	101	129	7,910
June	3,550	154	86	118	7,040
July	3,459	129	93	112	6,860
August	3,345	130	86	108	6,630
September	4,102	230	98	137	8,140
Water year 1947-48	20,472	230	0	55.9	40,600

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

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.- 367 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 1948 (no winter records except 1921-24, 1926).

Extremes.- Maximum discharge during year, 595 second-feet May 29 (gage height, 2.82 feet); minimum observed, 22 second-feet Dec. 11 (discharge measurement).
1920-26, 1941-42, 1944-48: 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.

Revisions.- W 633: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	64	64			-	172	166	423	232	52	29
2	42	66	60			-	198	148	472	232	50	28
3	42	66	57			-	201	138	568	213	48	27
4	41	68	57			-	130	148	472	195	47	27
5	41	66	56			-	107	136	413	186	46	28
6	43	63	45			-	99	148	447	172	43	30
7	46	64	54			-	80	207	483	161	43	30
8	46	64	43			-	86	226	478	156	47	29
9	47	62	a37			*b34	103	201	503	146	51	28
10	50	56	a34			-	114	186	478	140	46	28
11	52	58	*b30			-	92	172	447	136	42	28
12	50	52	-			-	92	161	404	126	39	26
13	48	52	-			-	112	161	376	116	38	27
14	50	51	-			-	140	166	342	105	36	27
15	50	58	-			-	183	195	298	103	36	26
16	73	56	-			-	232	262	294	97	36	26
17	90	54	-			-	329	342	283	94	35	28
18	75	57	-			-	291	437	259	90	34	34
19	73	54	-			-	216	418	232	88	34	42
20	71	50	-			-	252	413	223	82	34	38
21	71	52	-			-	291	390	239	79	*4	36
22	70	42	-			-	325	363	216	75	33	36
23	68	52	-			71	283	321	229	71	33	35
24	66	52	-			60	242	342	226	68	33	37
25	66	52	-			68	229	413	220	64	33	43
26	66	52	-			71	207	488	213	62	33	54
27	66	54	-			80	189	483	216	60	32	48
28	66	56	-			114	177	540	220	58	31	47
29	70	60	-			195	201	562	226	58	31	46
30	70	64	-			166	192	462	232	57	30	47
31	66	-	-			123	-	381	-	54	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,817	90	41	58.6	3,600
November	1,717	68	42	57.2	3,410
December 1-11	548	64	30	49.8	1,090
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 23-31	948	195	60	105	1,880
April	5,565	329	80	186	11,040
May	9,176	562	136	296	18,200
June	10,152	568	213	338	20,100
July	3,576	232	54	115	7,090
August	1,191	52	30	38.4	2,360
September	1,015	54	26	33.8	2,010
Water year	-	-	-	-	-

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

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 1948.

Average discharge.- 19 years (1926-27, 1929-42, 1943-48), 127 second-feet.

Extremes.- Maximum discharge during year, 612 second-feet May 29 (gage height, 4.64 feet); minimum, 1 second-foot Jan. 20 (gage height, 1.63 feet); minimum daily, 3 second-feet Nov. 16 to Dec. 2.

1904-5, 1926-48: 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, Jan. 20, 1948; minimum daily, 3 second-feet on several days during November, December 1943, January 1944, November, December 1947.

Remarks.- Records good except those for periods of ice effect, which are fair. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	30	3	b15	6	b18	159	188	432	222	177	44
2	20	31	a3	b5	5	56	220	165	468	220	154	40
3	20	31	a50	5	5	55	230	154	561	208	152	47
4	20	31	a99	5	b5	b47	165	161	512	184	150	46
5	20	31	a99	5	b5	b45	128	150	443	170	154	40
6	30	31	a99	5	5	b46	120	154	446	161	174	34
7	20	31	a99	6	5	55	99	198	482	145	181	33
8	20	31	a99	8	b5	56	92	238	489	139	174	38
9	20	31	a99	b5	b5	*54	105	215	500	161	174	37
10	20	31	a99	b5	b5	b50	141	203	475	184	165	36
11	a20	31	*99	b5	b5	b47	126	184	460	193	159	31
12	a20	32	98	b5	b5	b47	116	172	422	212	161	27
13	20	30	98	b5	b5	61	128	168	392	203	152	27
14	20	5	98	b5	6	69	163	168	366	222	137	34
15	20	4	94	*b5	6	61	200	184	323	253	120	37
16	21	3	89	b5	6	56	245	238	308	283	103	36
17	21	3	87	b5	6	59	338	323	294	283	98	35
18	21	3	76	b5	18	57	357	446	264	291	94	37
19	21	3	60	b5	b19	56	256	432	238	283	91	36
20	21	3	59	b5	13	b48	261	432	228	285	81	33
21	21	3	59	b5	10	b48	291	409	235	280	65	32
22	20	b3	59	5	53	57	329	382	220	253	62	31
23	8	b3	59	5	b26	75	308	344	220	230	56	31
24	29	3	59	6	b14	75	264	341	232	191	45	33
25	29	b3	59	5	12	82	248	399	215	183	40	33
26	29	3	59	b5	17	84	225	464	208	210	36	33
27	29	3	59	b5	b16	92	208	489	208	225	35	33
28	30	3	59	b5	b10	112	193	542	208	233	34	33
29	30	b3	47	b5	b10	188	208	592	215	220	35	33
30	30	3	b27	b5	-	222	210	512	222	203	44	34
31	30	-	b27	b5	-	135	-	422	-	193	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	691	30	8	22.3	1,370
November	456	32	3	15.2	904
December	2,180	99	3	70.3	4,320
Calendar year 1947	55,130	746	3	151	109,300
January	170	15	5	5.5	337
February	308	53	5	10.6	611
March	2,213	222	18	71.4	4,390
April	6,133	357	92	204	12,160
May	9,469	592	150	305	18,780
June	10,286	561	208	343	20,400
July	6,756	291	139	218	13,400
August	3,347	181	34	108	6,640
September	1,054	47	27	35.1	2,090
Water year 1947-48	43,063	592	3	118	85,400

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and gate changes for Little Wood Reservoir.

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 Byrns 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 1948 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 208 second-feet Nov. 24 (gage height, 1.98 feet); minimum recorded, 39 second-feet June 2 (gage height, 1.23 feet).
1911-48: Maximum discharge recorded, 868 second-feet May 3, 1938 (gage height, 3.97 feet); minimum recorded, 7.6 second-feet June 24, 25, 1920 (gage height, 0.52 foot).

Remarks.- Records good except those for periods of no gage-height record, which are fair. 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 five discharge measurements furnished by Water District No. 11 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	162				a155	165	127	78	93	100	98
2	140	162				a155	165	124	71	100	106	100
3	138	162				a155	162	117	72	100	105	100
4	138	162				a152	162	118	75	101	106	97
5	140	165				a150	162	122	78	110	100	95
6	144	165				h148	156	124	78	110	103	98
7	146	165				a148	154	122	74	110	106	98
8	148	165				a148	154	120	76	110	106	100
9	156	165				a147	152	120	76	108	106	98
10	158	162				a147	150	127	76	112	106	98
11	158	162				a146	150	125	75	113	110	98
12	158	160				a146	148	124	76	112	112	101
13	158	162				h146	146	118	80	108	112	103
14	158	162				a148	142	113	81	105	112	101
15	158	165				a155	138	115	82	101	108	101
16	158	165				a160	138	105	82	100	108	100
17	158	167				a158	142	103	84	97	101	100
18	158	167				h156	158	100	84	92	101	103
19	158	167				a155	178	103	86	92	101	113
20	158	167				a155	169	105	89	93	100	120
21	156	167				a150	162	105	98	86	101	127
22	156	165				a150	165	100	100	84	108	127
23	156	165				156	167	90	110	86	112	124
24	158	180				158	167	92	110	86	113	125
25	158	176				169	158	81	112	84	112	129
26	158	176				173	152	76	113	86	108	131
27	158	167				169	146	74	108	90	106	129
28	158	165				165	136	69	101	90	100	134
29	160	165			h160	162	129	72	95	95	100	136
30	160	162			-	162	129	75	98	98	100	134
31	160	-			-	167	-	89	-	97	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,772	160	138	154	9,470
November	4,967	180	160	166	9,850
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	4,811	173	146	155	9,540
April	4,602	178	129	153	9,130
May	3,255	127	69	105	6,460
June	2,618	113	71	87.3	5,190
July	3,049	113	84	98.4	6,050
August	3,267	113	98	105	6,480
September	3,318	136	95	111	6,580
Water year	-	-	-	-	-

a No gage-height record, discharge computed on basis of records for Silver Creek near Picabo.
h Computed from staff-gage reading.

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 1948 (irrigation seasons only).

Extremes.- Maximum discharge during year, 490 second-feet July 6 (gage height, 2.81 feet); minimum recorded, 37 second-feet Oct. 3 (gage height, 0.71 foot).
1922-48: 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 period of no gage-height record, which are fair. 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 Byrns Slough for Dietrich Canal via Little Wood River at Richfield.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	90			-	134	80	406	437	431	430	337
2	95	92			-	131	75	401	414	445	408	344
3	48	98			-	128	73	402	398	459	410	358
4	50	95			-	128	71	375	413	475	417	366
5	44	98			-	125	73	355	414	482	417	362
6	44	100			-	122	71	353	410	489	432	368
7	46	100			-	120	69	358	404	485	437	377
8	44	98			-	122	64	342	386	478	439	373
9	52	95			-	122	62	347	406	454	433	370
10	56	98			-	120	62	362	414	422	437	360
11	56	100			-	122	62	390	425	421	433	362
12	58	100			-	122	62	398	322	428	440	355
13	62	103			-	125	62	388	58	439	443	358
14	64	106			-	128	60	373	75	436	439	362
15	67	114			-	131	67	364	256	434	427	353
16	67	108	h95		-	134	54	375	454	439	386	349
17	69	73			-	140	54	364	456	439	377	353
18	69	54			-	137	58	364	446	437	388	368
19	67	52			-	137	71	384	443	437	393	410
20	69	52			-	134	73	416	453	438	402	428
21	69	78			-	131	186	427	450	439	418	407
22	71	103			-	131	284	427	464	437	425	398
23	71	95			-	131	307	413	451	432	425	373
24	71	147			-	128	317	401	449	421	426	373
25	73	153			-	131	307	391	425	416	407	401
26	a77	128			-	137	326	388	407	421	395	386
27	a81	128			-	153	358	393	404	425	386	373
28	85	114			137	140	355	393	391	418	368	379
29	88	114			134	137	364	402	381	426	360	381
30	92	111			-	134	414	418	398	438	347	291
31	90	-			-	106	-	433	-	443	334	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,068	95	44	66.7	4,100
November	2,997	153	52	99.9	5,940
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	4,021	153	106	130	7,980
April	4,541	414	54	151	9,010
May	12,003	433	342	387	23,810
June	11,704	464	58	390	23,210
July	13,684	489	416	441	27,140
August	12,679	443	334	409	25,150
September	11,075	428	291	369	21,970
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 1948 (1922-35, irrigation seasons only).

Average discharge.- 15 years (1920-22, 1935-48), 147 second-feet.

Extremes.- Maximum discharge during year, 227 second-feet Feb. 23, Sept. 20; maximum gage height recorded, 3.95 feet Jan. 22 (ice jam); minimum discharge, 78 second-feet June 1 (gage height, 1.17 feet).
1920-48: 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 by Water District No. 11 AB.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	180	170	140		152	167	130	88	134	147	137
2	164	178	178	140		150	163	126	95	136	147	136
3	167	179	188	140	130	151	163	124	102	140	146	134
4	166	181	185	140		148	166	130	103	151	142	134
5	169	183	181	140		142	164	131	102	153	142	139
6	170	182	178	154		142	162	129	102	151	148	142
7	169	181	178	158		143	160	128	102	153	149	141
8	175	180	177	165	120	143	155	129	103	152	152	138
9	175	178	173	163		143	153	126	104	155	158	140
10	174	177	171	149		144	153	129	103	161	163	144
11	174	178	168	140	100	143	152	130	105	162	163	148
12	175	178	168	140	*100	141	148	131	107	161	161	157
13	175	179	167	135	100	141	145	130	107	156	158	156
14	173	180	160		110	147	144	130	110	154	155	156
15	172	179	158		130	157	144	129	112	147	150	156
16	172	186	152		130	160	143	128	113	145	146	156
17	175	185	165		130	159	144	123	116	145	140	158
18	179	183	*157	130	141	156	146	121	118	141	137	165
19	178	183	153		168	156	143	121	123	141	135	184
20	176	183	152		150	154	141	122	130	138	134	216
21	174	182	151		139	150	138	116	139	137	136	215
22	173	182	151		159	150	137	115	148	138	136	209
23	173	179	150	144	216	157	134	116	147	139	138	191
24	172	178	150	142	198	*168	134	117	147	142	139	186
25	170	177	149	144	171	179	134	97	145	141	136	187
26	171	176	148	144	166	181	131	93	139	141	134	193
27	172	176	147	122	165	175	129	90	134	144	132	205
28	174	178	148		158	177	126	91	133	142	131	206
29	175	170	149	130	154	177	126	91	130	143	128	197
30	177	167	144		-	177	130	92	130	149	129	190
31	180	-	140		-	175	-	92	-	149	133	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,350	180	161	173	10,610
November	5,378	186	167	179	10,670
December	5,006	188	140	161	9,930
Calendar year 1947	54,771	188	70	150	108,600
January	4,290	165	-	138	8,510
February	4,035	216	100	139	8,000
March	4,838	181	141	156	9,600
April	4,375	167	126	146	8,680
May	3,657	131	90	118	7,250
June	3,537	148	88	118	7,020
July	4,541	162	134	146	9,010
August	4,445	163	128	143	8,820
September	5,016	216	134	167	9,950
Water year 1947-48	54,468	216	88	149	108,000

* Winter discharge measurement made on this day.

Note.- Flow in bypass channel, which carries water around gage, measured as 9.16 sec.-ft. Oct. 18; 5.64 sec.-ft. Dec. 18; no flow Feb. 12; 2.93 sec.-ft. Mar. 24; 4.19 sec.-ft. May 16; 1.77 sec.-ft. June 18; 1.19 sec.-ft. Aug. 10; 0.2 sec.-ft. (estimated) Sept. 15. Stage-discharge relation affected by ice Dec. 17, Dec. 31 to Jan. 5, Jan 11-22, Jan. 28 to Feb. 15 (no gage-height record Jan. 31 to Feb. 11; discharge computed on basis of 1 discharge measurement and weather records).

King Hill Canal near Hagerman, Idaho

Location.- Staff gage in concrete-lined channel above entrance to inverted siphon crossing Snake River, lat. 42°52', long. 114°55', in SW¼ sec. 27, T. 6 S., R. 13 E., half a mile west of highway bridge over Big Wood River and 3½ miles north of Hagerman. Prior to April 1948, staff gage 400 feet upstream in former unlined canal, at different datum.

Records available.- March 1930 to September 1948 (irrigation seasons only except 1939, 1947, 1948).

Extremes.- Maximum discharge observed during year, 340 second-feet June 2; maximum gage height observed, 3.29 feet May 29 to June 2; no flow when gates were closed.
1930-48: Maximum discharge observed, 343 second-feet May 27, 1947; maximum gage height observed, 3.80 feet July 19-22, 26, 27, 1944 (site and datum then in use); no flow or small flow from leakage at head gate during nonirrigation seasons.

Remarks.- Records good except those below 200 second-feet, which are fair. Gage read once daily during irrigation season. 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). Diversion works and approach to siphon reconstructed during nonirrigation season of 1947-48.

Cooperation.- Gage readings furnished by King Hill Irrigation District.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	278						9	283	336	297	286	217
2	278						12	283	340	297	286	286
3	275						12	283	322	297	286	283
4	275						12	283	307	297	286	283
5	275						12	283	314	300	286	280
6	275						12	283	314	300	286	273
7	275						12	283	314	300	286	266
8	275						13	283	314	304	286	245
9	275						8	283	314	307	283	245
10	275						60	283	314	304	283	245
11	275						100	283	314	304	283	245
12	257						100	283	307	304	286	245
13	241						103	306	307	304	293	245
14	240						142	325	307	304	293	245
15	240						177	325	300	307	293	260
16	240						185	325	307	307	293	254
17	80						182	325	307	307	293	254
18	0						180	325	300	307	297	254
19	0						185	318	300	307	293	254
20	0						221	325	300	307	297	236
21	0						245	322	300	307	297	236
22	0						242	322	300	307	297	236
23	0						242	322	293	304	297	236
24	0						263	322	283	300	297	203
25	0						276	322	280	304	293	203
26	0						283	325	136	304	293	187
27	0						283	325	0	304	286	187
28	0						283	325	0	300	286	187
29	0						283	336	173	297	191	187
30	0						283	336	297	286	0	187
31	0						-	336	-	286	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,329	278	0	140	8,590
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	56,070.5	338	0	154	111,200
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	4,420	283	8	147	8,770
May	9,563	336	283	308	18,970
June	8,300	340	0	277	16,460
July	9,360	307	286	302	18,570
August	8,312	297	0	268	16,490
September	7,164	286	187	239	14,210
Water year 1947-48	51,448	340	0	141	102,100

Mountain Home feeder canal near Mountain Home, Idaho

Location.- Water-stage recorder and concrete control, lat. 43°13', long. 115°42', in sec. 36, T. 2 S., R. 6 E., 40 feet downstream from point of diversion from Canyon Creek and 5 miles north of Mountain Home.

Records available.- April 1924 to September 1929, April 1931 to September 1948.

Extremes.- Maximum discharge during year, 114 second-feet May 19 (gage height, 1.50 feet); minimum recorded, 1.0 second-foot Sept. 14-16, 29, 30 (gage height, 0.06 foot), but may have been less during period of no gage-height record.

1924-29, 1931-48: 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 poor. Canal diverts from Canyon Creek in sec. 36, T. 2 S., R. 6 E., and delivers water to Mountain Home cooperative canal, which heads in Mountain Home feeder canal half a mile below station, for irrigation of about 5,000 acres in Mountain Home Irrigation District. During nonirrigation season and at times when there is a surplus of water for irrigation, canal feeds directly into Mountain Home Reservoir. No diversion from canal above station; 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					12	25	49	36	58	74	38	28
2					9.5	25	58	35	56	72	42	25
3					11	22	66	34	57	56	43	18
4					10	20	60	37	55	54	43	5.9
5					8	18	55	35	56	54	44	3.7
6					8	18	53	34	55	52	43	3.4
7					8	17	48	35	51	52	57	3.4
8			3.0		9	17	46	35	53	52	51	3.0
9					10	16	44	34	52	72	50	2.4
10					9	14	47	33	52	76	49	2.0
11					6	14	45	44	58	65	48	1.7
12					6	14	44	69	70	60	53	1.4
13					8	15	42	75	73	58	53	1.2
14					10	16	45	71	72	56	58	1.0
15				6.0	10	16	51	69	71	45	58	1.0
16	2.5	2.5			11	15	60	103	73	40	63	1.2
17					11	15	75	109	58	40	59	1.5
18			(*)		11	15	71	109	55	41	50	1.5
19					14	15	62	111	37	39	43	1.5
20	(*)				14	14	57	108	33	49	40	1.5
21					13	13	54	108	33	51	44	1.5
22					30	14	54	108	39	53	49	1.5
23			3.5		35	16	50	98	32	54	49	1.7
24					35	26	45	95	42	52	43	2.4
25					35	32	43	92	46	51	40	2.4
26					*35	25	40	93	58	52	38	2.4
27					34	26	37	75	65	52	35	2.4
28					29	30	36	72	55	32	33	1.7
29				*3.5	27	37	36	70	53	28	32	1.2
30				*8.0	-	47	36	69	70	28	31	1.0
31		-		10	-	45	-	60	-	28	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	77.5	-	-	2.50	154
November	75.0	-	-	2.50	149
December	101	-	-	3.26	200
Calendar year 1947	12,080.2	110	-	33.1	23,970
January	189.5	-	-	6.11	376
February	468.5	35	6	16.2	929
March	652	47	13	21.0	1,290
April	1,509	75	36	50.3	2,990
May	2,156	111	33	69.5	4,280
June	1,638	73	32	54.6	3,250
July	1,588	76	28	51.2	3,150
August	1,409	63	30	45.5	2,790
September	126.5	28	1.0	4.22	251
Water year 1947-48	9,990	111	-	27.3	19,810

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 1 to Jan. 28, Feb. 7-13, 17-25, except at time of discharge measurements Oct. 20 and Dec. 18; discharge computed on basis of weather records, 3 discharge measurements, and records for nearby streams. Stage-discharge relation affected by ice Jan. 29-31, Feb. 4-6, 14-16, and part of periods of no gage-height record.

Bruneau River near Winter Camp Ranch, Idaho

Location.- Water-stage recorder, lat. 42°38', long. 115°42', in sec. 13, T. 9 S., R. 6 E., at Roberson Trail crossing, 6 miles downstream from East Fork, 11 miles northwest of Winter Camp Ranch, and 11 miles south of Hot Spring. Datum of gage is 3,015.68 feet above mean sea level, datum of 1929.

Records available.- November 1946 to September 1948.

Extremes.- Maximum discharge during year, 1,600 second-feet June 6 (gage height, 3.47 feet); minimum daily, 24 second-feet Jan. 28; minimum gage height, 0.48 foot Sept. 16.
1946-48: Maximum discharge, that of June 6, 1948; minimum daily, that of Jan. 28, 1948; minimum gage height, that of Sept. 16, 1948.

Remarks.- Records good. Several small reservoirs and many small diversions for irrigation above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	54	104	42	80	108	255	679	1,130	426	76	32
2	37	51	126	84	87	114	272	634	1,190	410	74	31
3	38	51	128	110	93	101	421	575	1,290	339	71	31
4	38	56	126	104	87	84	474	535	1,330	338	69	30
5	38	60	126	106	82	82	378	541	1,440	323	69	30
6	38	62	116	101	77	*87	303	588	1,590	230	69	30
7	38	59	110	108	67	101	268	761	1,490	233	67	31
8	38	60	99	128	67	116	229	898	1,290	244	67	32
9	41	66	97	236	80	106	212	845	1,210	225	66	33
10	43	66	85	244	77	87	233	768	1,200	212	71	33
11	46	66	80	181	67	74	303	705	1,130	202	66	32
12	46	66	82	136	60	76	290	666	1,020	195	64	31
13	46	66	104	106	72	99	259	649	965	189	59	30
14	46	62	78	91	90	108	255	679	920	181	57	30
15	46	62	104	60	95	108	337	775	875	170	56	29
16	46	69	91	107	107	101	529	912	810	154	51	28
17	44	71	*85	74	110	99	726	1,070	747	148	49	30
18	44	74	99	93	110	99	1,090	1,250	692	141	47	33
19	47	72	93	100	114	104	1,090	1,290	660	131	44	37
20	47	72	87	58	131	97	875	1,170	620	124	43	53
21	47	67	89	67	119	91	905	1,110	705	119	43	60
22	49	74	89	134	124	93	1,020	1,060	838	114	43	49
23	49	66	78	153	186	99	1,040	1,000	775	99	42	42
24	49	50	60	150	199	146	882	1,040	698	104	41	41
25	49	76	67	124	161	255	733	1,180	634	97	42	44
26	49	89	84	100	143	290	653	1,280	575	93	42	51
27	49	84	82	33	138	225	608	1,340	541	91	42	53
28	49	89	85	24	131	199	575	1,460	502	84	41	50
29	49	95	93	*35	121	248	620	1,440	474	82	38	51
30	49	93	85	50	-	352	712	1,240	447	84	36	49
31	51	-	51	64	-	357	-	1,130	-	82	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,385	51	37	44.6	2,740
November	2,048	95	51	68.3	4,060
December	2,883	126	51	93.0	5,720
Calendar year 1947	81,785	1,190	28	224	162,200
January	3,203	244	24	103	6,350
February	3,075	199	60	106	6,100
March	4,306	357	74	139	8,540
April	16,547	1,090	212	552	32,820
May	29,261	1,480	535	944	58,040
June	27,788	1,590	447	926	55,120
July	5,834	426	82	188	11,570
August	1,678	76	33	54.1	3,330
September	1,136	60	28	37.9	2,250
Water year 1947-48	99,142	1,590	24	271	196,600

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 29 to Jan. 2, Jan. 15 to Feb. 18.

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 1948.

Average discharge.- 10 years (1909-14, 1943-48), 426 second-feet.

Extremes.- Maximum discharge during year, 1,610 second-feet June 6 (gage height, 7.02 feet); minimum, 52 second-feet Jan. 28 (gage height, 3.83 feet).
1909-15, 1943-48: 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 Jan. 23, Nov. 29, 1911.

Remarks.- Records good. Several small reservoirs and many small diversions from tributaries above station for irrigation; large diversions below.

Revisions (water year).- W 1063: 1911(m), 1912(m), 1923.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)

3.8	48	4.3	153	5.5	691
3.9	62	4.5	217	6.0	974
4.0	79	4.7	293	6.5	1,280
4.1	100	5.0	435	7.0	1,620

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	94	139	83	118	165	337	713	1,130	465	108	72
2	70	92	165	122	125	165	315	654	1,180	450	108	72
3	70	90	172	165	131	153	455	617	1,290	435	105	74
4	70	98	175	162	125	136	535	571	1,340	405	102	74
5	70	100	168	159	120	125	450	571	1,430	366	102	74
6	72	102	162	156	115	139	380	607	1,590	337	102	74
7	72	100	153	159	105	147	333	745	1,500	311	102	76
8	74	100	145	178	105	159	293	910	1,310	285	100	76
9	76	102	136	277	118	156	277	870	1,200	269	102	76
10	79	102	128	333	115	142	285	784	1,190	253	105	76
11	81	105	118	253	105	120	356	740	1,130	242	105	76
12	79	105	118	207	98	118	351	702	1,040	239	102	72
13	81	108	120	162	110	139	315	675	980	231	98	69
14	81	105	110	112	128	153	302	702	939	221	96	67
15	81	102	142	94	133	156	371	778	887	217	94	67
16	79	112	133	145	147	153	545	887	835	200	94	67
17	79	115	125	112	150	153	745	1,040	778	191	90	67
18	79	118	136	131	150	150	1,090	1,200	723	181	87	70
19	81	115	133	139	162	150	1,120	1,290	686	172	85	74
20	79	115	131	96	184	150	893	1,190	659	165	83	85
21	79	112	128	105	175	139	910	1,110	723	159	81	105
22	81	118	131	172	175	136	1,020	1,070	858	156	81	94
23	83	110	120	191	204	142	1,040	1,020	806	150	79	90
24	83	96	105	187	285	168	904	1,040	723	142	77	83
25	83	105	98	162	217	285	756	1,160	664	133	77	83
26	85	131	118	133	207	366	680	1,270	617	131	77	92
27	85	122	120	65	197	293	643	1,340	576	125	77	94
28	87	125	122	56	187	261	607	1,440	540	118	77	92
29	87	133	131	67	184	289	633	1,470	515	115	76	92
30	90	136	125	83	-	395	729	1,270	490	115	74	92
31	90	-	92	102	-	435	-	1,140	-	115	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,456	90	70	79.2	4,870
November	3,268	136	90	109	6,480
December	4,099	175	92	132	8,130
Calendar year 1947	97,360	1,190	64	267	193,100
January	4,568	333	56	147	9,060
February	4,375	285	98	156	8,680
March	5,838	435	118	188	11,580
April	17,670	1,120	277	589	35,050
May	29,576	1,470	571	954	58,660
June	28,329	1,590	490	944	56,190
July	7,094	465	115	229	14,070
August	2,820	108	74	91.0	5,590
September	2,375	105	67	79.2	4,710
Water year 1947-48	112,468	1,590	56	307	223,100

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 circuit 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 1948.

Extremes.- Maximum discharge during year, 1,450 second-feet June 7 (gage height, 4.41 feet); minimum, 0.9 second-foot Oct. 7-9; minimum gage height, 0.42 foot Sept. 3, 4. 1895-1903, 1909-16, 1944-48: 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, 0.9 second-foot Sept. 30, Oct. 7-9, 1947.

Remarks.- Records excellent except those below about 10 second-feet, which are fair. Many diversions for irrigation above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	21	49	119	142	194	354	447	920	251	2.6	1.5
2	1.8	21	51	149	159	185	327	411	950	233	2.8	1.5
3	1.8	19	60	182	164	188	427	379	1,050	214	2.8	1.3
4	1.5	21	62	194	159	172	540	348	1,160	200	2.8	1.3
5	1.3	25	62	194	154	152	464	320	1,180	169	2.8	1.5
6	1.0	26	62	188	152	159	393	330	1,340	134	2.8	1.5
7	.9	28	60	185	144	159	348	411	1,390	114	2.6	1.5
8	.9	26	55	211	139	182	313	644	1,240	93	2.6	1.8
9	.9	26	53	264	149	182	274	698	1,060	78	2.6	2.3
10	1.3	28	51	362	154	175	230	626	1,040	53	2.6	2.3
11	1.3	28	47	294	149	149	274	563	1,020	44	2.6	2.3
12	1.3	28	44	245	132	142	297	518	1,040	35	2.6	2.0
13	18	28	42	200	134	152	236	478	980	29	2.6	1.8
14	26	30	44	164	154	172	217	473	930	21	2.6	1.5
15	25	38	49	129	167	175	217	532	900	16	2.8	1.8
16	25	47	172	159	182	177	313	608	835	14	2.8	1.3
17	25	46	164	146	185	175	509	752	770	11	2.8	1.3
18	24	47	164	149	185	172	766	915	604	4.4	2.8	1.3
19	23	47	180	175	200	177	990	1,080	536	2.6	2.8	1.3
20	24	47	169	146	211	175	766	1,050	500	2.3	2.6	1.3
21	22	47	164	124	214	164	684	945	540	2.3	2.6	1.3
22	21	44	169	182	211	162	748	885	694	2.3	2.6	1.3
23	22	44	164	211	217	164	835	805	671	2.3	2.3	1.3
24	23	41	152	217	337	180	743	790	599	2.0	2.3	1.3
25	21	38	134	200	255	294	586	855	509	2.0	2.3	1.3
26	21	42	139	172	236	372	468	965	439	2.0	2.3	1.3
27	22	47	152	129	220	317	397	1,040	383	2.0	2.3	1.5
28	22	46	156	95	211	287	354	1,100	320	2.3	2.0	2.0
29	22	47	162	93	208	303	337	1,260	290	2.6	2.0	2.3
30	22	49	167	104	-	397	423	1,140	264	2.3	2.0	2.0
31	21	-	139	124	-	435	-	1,000	-	2.3	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	444.5	26	0.9	14.3	882
November	1,072	49	19	35.7	2,130
December	3,338	180	42	108	6,620
Calendar year 1947	70,466.3	980	.9	193	139,800
January	5,506	362	93	178	10,920
February	5,324	337	132	184	10,560
March	6,489	435	142	209	12,870
April	13,830	990	217	461	27,430
May	22,368	1,260	320	722	44,370
June	24,154	1,390	264	805	47,910
July	1,742.7	251	2.0	56.2	3,460
August	78.7	2.8	2.0	2.54	156
September	48.0	2.3	1.3	1.60	95
Water year 1947-48	84,394.9	1,390	.9	231	167,400

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 1948.

Extremes.- Maximum discharge during year, 76 second-feet Feb. 18 (gage height, 1.55 feet); no flow during most of year.

1938-48: 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 poor.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0						
2					0	0						
3					0	0						
4					0	0						
5					0	0						
6					0	0						
7					0	0						
8					0	0						
9					0	0						
10					0	0						
11					0	0						
12					0	0						
13					0	0						
14					0	0						
15					0	0						
16					0	0						
17					0	0						
18					31	0						
19					52	0						
20					10	0						
21					.1	0						
22					0	0						
23					33	0						
24					44	8.5						
25					29	2.0						
26					18	0						
27					7.3	0						
28					.9	0						
29					0	0						
30					-	0						
31					-	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 1947	244.0	68	0	.67	484
January	0	0	0	0	0
February	225.5	52	0	7.77	447
March	10.5	8.5	0	.34	21
April	0	0	0	0	0
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 1947-48	235.8	52	0	.64	468

Note.- Discharge for periods of flow computed on basis of gage-height record partly estimated on basis of floodmarks, partial recorder record, observer's notes, and 1 outside 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 1948.

Extremes.- Maximum discharge during year, 62 second-feet June 20 (gage height, 2.83 feet); no flow for long periods.
1938-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0			
2									0			
3									0			
4									0			
5									0			
6									0			
7									0			
8									0			
9									0			
10									0			
11									0			
12									0			
13									0			
14									0			
15									0			
16									0			
17									0			
18									0			
19									0			
20									2.2			
21									.1			
22									0			
23									0			
24									0			
25									0			
26									0			
27									0			
28									0			
29									0			
30									0			
31									-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	116.5	34	0	.32	231
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	2.3	2.2	0	.08	4.6
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1947-48	2.3	2.2	0	.006	4.6

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 1948.

Average discharge.- 19 years (1917-21, 1922-25, 1936-48), 41.7 second-feet.

Extremes.- Maximum discharge during year, 172 second-feet June 25, (gage height, 3.28 feet); Oct. 11 to June 14.
1916-25, 1936-48: 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; no flow at times when reservoir gates were closed.

Remarks.- Records good. Small diversions above station for irrigation. Flow regulated by Wild Horse Reservoir beginning Mar. 18, 1938 (see p. 141).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12								0	169	80	60
2	10								0	167	80	60
3	4.6								0	166	79	59
4	4.4								0	164	78	58
5	4.8								0	162	78	57
6	5.0								0	161	77	56
7	5.0								0	160	77	56
8	5.0								0	156	76	55
9	5.0								0	155	76	55
10	5.2								0	152	76	54
11	0								0	151	76	54
12	0								0	149	75	53
13	0								0	148	75	46
14	0								0	98	73	34
15	0								19	61	73	34
16	0								59	59	73	33
17	0								89	59	73	33
18	0								93	59	72	33
19	0								124	58	71	33
20	0								152	58	76	33
21	0								154	58	89	27
22	0								151	58	88	14
23	0								149	58	87	14
24	0								146	59	87	14
25	0								156	69	85	14
26	0								170	86	84	14
27	0								170	85	83	14
28	0								169	81	82	14
29	0								169	81	81	14
30	0								169	81	71	14
31	0								-	80	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	61.0	12	0	1.97	121
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	11,233.1	144	0	30.7	22,280
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	2,139	170	0	71.3	4,240
July	3,308	169	58	107	6,560
August	2,411	89	60	77.8	4,780
September	1,109	60	14	37.0	2,200
Water year 1947-48	9,028	170	0	24.7	17,900

Note.- No gage-height record Oct. 11 to Apr. 1, May 23, 24; discharge computed on basis of 5 discharge measurements and records of gate operation at Wild Horse reservoir.

Owyhee River at Mountain City, Nev.

Location.- 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 December 1948 (discontinued).

Average discharge.- 22 years (1926-48), 96.9 second-feet.

Extremes.- 1947-48: Maximum discharge during water year, 339 second-feet Apr. 22 (gage height, 3.23 feet); minimum recorded, 8.2 second-feet Oct. 16, Nov. 10, but may have been less during periods of ice effect.

1948: Maximum discharge during period October to December, 27 second-feet Nov. 4 (gage height, 1.57 feet); minimum recorded, 6.2 second-feet Nov. 4, but may have been less during period of ice effect.

1913, 1927-48: Maximum discharge, 1,830 second-feet Apr. 20, 1936 (gage height, 7.6 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 or no gage-height record, which are fair. Diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir (see p. 141).

Discharge, in second-feet, 1947-48

1947-48

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	8.6		11		42	89	182	107	184	85	67
2	16	8.6		11		32	131	164	107	180	85	67
3	15	8.6		11		27	116	150	148	172	85	67
4	9.7	9.0		11	(*)	25	78	154	139	170	85	66
5	9.0	9.7		11		*25	67	172	147	168	85	66
6	9.0	9.0		23		27	64	198	120	162	85	62
7	9.0	9.0		44		24	55	248	110	160	85	62
8	9.7	9.7		52	15	31	58	246	103	158	85	61
9	11	11		25		28	77	213	94	154	85	61
10	13	9.7				27	96	190	90	152	85	60
11	15	10				26	77	172	87	150	85	58
12	11	10				27	69	162	78	150	85	56
13	9.7	10				29	75	172	88	148	85	56
14	9.0	10				30	103	192	81	134	81	41
15	8.6		11			30	141	198	78	64	80	36
16	9.0					30	170	206	99	61	80	36
17	11					28	257	223	139	58	80	34
18	10				25	27	280	238	130	60	81	37
19	9.7					26	238	221	152	58	81	41
20	9.0			15		26	253	196	202	58	81	38
21	9.0				56	27	289	186	250	56	97	37
22	9.0	11			187	24	304	182	223	56	99	24
23	8.6				124	71	257	168	206	56	101	19
24	8.6				90	89	206	158	184	56	99	18
25	8.6	(*)			80	68	194	156	178	56	96	18
26	8.6				75	36	174	160	198	81	94	19
27	9.0				80	44	164	150	196	87	94	18
28	9.0				37	80	170	150	192	85	94	17
29	9.0		(*)		42	94	219	147	190	85	92	16
30	9.7				-	72	198	137	184	83	90	17
31	9.7	-			-	49	-	124	-	83	69	-

Peak discharge (base, 250 sec.-ft.).- Feb. 22 (6 p.m.) 319 sec.-ft.; Apr. 18 (3 to 4 a.m.) 319 sec.-ft.; Apr. 22 (5 a.m.) 339 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 11 to Feb. 20, Mar. 3-5, 11-13 (no gage-height record Feb. 1-4, 7-17; discharge computed on basis of 1 discharge measurement, weather records, and records for stations on nearby streams).

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Discharge, in second-feet, of Owyhee River at Mountain City, Nev., 1947-48--Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
			1948									
1	18	12										
2	18	13										
3	17	15										
4	18	13										
5	22	12										
6	17	10										
7	16	14										
8	16	13										
9	16	9.7										
10	15	10										
11	15	10										
12	15	11										
13	15	12										
14	16	11										
15	17	11										
			13									
16	17	12										
17	15	12										
18	13	14										
19	13	14										
20	13	12										
21	14											
22	13											
23	13											
24	12											
25	12											
		13										
26	12											
27	12											
28	12											
29	12											
30	12											
31	12	-										

Peak discharge (base, 250 sec.-ft.).- No peak above base.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 21 to Dec. 31 (no gage-height record Dec. 16-31; discharge computed on basis of weather records and records for stations on nearby streams.

Monthly discharge, in second-feet, 1947-48

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1947	318.2	16	8.6	10.3	631
November	308.9	-	8.6	10.3	613
December	341	-	-	11	676
Calendar year 1947	24,272.1	230	8.0	66.5	48,150
January 1948	529	52	11	17.1	1,050
February	1,121	187	-	38.7	2,220
March	1,221	94	25	39.4	2,420
April	4,669	304	55	156	9,260
May	5,615	248	124	181	11,140
June	4,300	250	78	143	8,530
July	3,385	184	56	109	6,710
August	2,694	101	69	86.9	5,340
September	1,275	67	16	42.5	2,530
Water year 1947-48	25,777.1	304	8.6	70.4	51,120
October 1948	458	22	12	14.8	908
November	370.7	15	9.7	12.4	735
December	403	-	-	13	799
Calendar year 1948	26,040.7	304	9.7	71.1	51,640

Owyhee River above China diversion dam, near Owyhee, Nev.

Location.- 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 1948.

Extremes.- Maximum discharge during year, 499 second-feet Apr. 22 (gage height, 5.22 feet); minimum, 9.1 second-feet Mar. 16.
1939-48: 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. 141).

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 8-24)

1.0	10	3.0	155
1.3	23	3.5	208
1.6	41	4.0	269
2.0	69	4.5	337
2.5	109	5.2	446

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	16				53	108	269	179	212	84	61
2	18	16				38	184	250	171	212	83	60
3	18	16		b20		b38	176	227	232	201	81	59
4	15	18			(*)	b35	111	230	227	197	81	59
5	12	20				*b35	94	254	225	192	82	59
6	13	20		b35		b35	91	294	185	183	81	59
7	14	20		b50		28	74	366	168	180	80	58
8	16	20		b56		24	78	362	159	177	80	57
9	14	20		b40	b20	26	98	329	140	172	82	56
10	17	20		b20		24	131	291	131	169	81	56
11	18	20				b25	106	262	122	166	79	55
12	16					b26	93	251	115	165	78	a54
13	14					27	98	264	130	166	76	a49
14	13					32	137	303	114	164	75	38
15	13					25	*200	334	106	93	73	37
16	14	b20	b18			22	242	370	114	77	71	35
17	14					27	349	404	146	71	72	35
18	14				b30	25	396	419	149	70	72	38
19	12					26	330	385	162	68	72	43
20	12			b20		22	352	343	212	66	71	39
21	12				77	22	398	322	287	66	81	37
22	12				178	29	433	317	256	64	89	32
23	13				186	61	372	290	236	64	90	23
24	13				110	146	308	276	216	62	91	22
25	13	*b18			96	114	285	268	199	61	91	22
26	13				74	55	257	262	215	76	87	22
27	13				75	61	244	251	218	87	86	22
28	13				57	100	248	244	215	87	86	21
29	15		(*)		49	141	309	236	213	86	84	20
30	16				-	114	298	220	208	85	83	20
31	16	-			-	71	-	202	-	84	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	444	18	12	14.3	881
November	566	-	16	18.9	1,120
December	558	-	-	18	1,110
Calendar year 1947	31,096	356	12	85.2	61,670
January	721	56	-	23.3	1,430
February	1,352	186	-	46.6	2,680
March	1,507	146	22	48.6	2,990
April	6,600	433	74	220	13,090
May	9,095	419	202	293	18,040
June	5,450	287	106	182	10,810
July	3,823	212	61	123	7,580
August	2,491	91	69	80.4	4,940
September	1,248	61	20	41.6	2,480
Water year 1947-48	33,855	433	12	92.5	67,150

Peak discharge (base, 380 sec.-ft.).- Apr. 18 (6 to 9 a.m.) 420 sec.-ft.; Apr. 22 (11 a.m.) 449 sec.-ft.; May 7 (4:30 to 8 p.m.) 380 sec.-ft.; May 17 (8 p.m.) 446 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for stations near Gold Creek and at Mountain City.

b Stage-discharge relation affected by ice.

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 1948 in reports of Geological Survey. April 1929 to September 1936 in reports of Oregon State engineer.

Average discharge.- 19 years, 834 second-feet.

Extremes.- Maximum discharge during year, 3,760 second-feet Feb. 23 (gage height, 8.19 feet); minimum, 156 second-feet Sept. 16 (gage height, 3.73 feet).

1929-48: Maximum discharge, 16,000 second-feet Mar. 20, 1932, Apr. 19, 1936; maximum gage height, 12.95 feet Mar. 1932; minimum discharge, 103 second-feet Aug. 19, 1932 (gage height, 3.57 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation. Flow slightly regulated by 11 small reservoir which have a total capacity of 52,000 acre-feet.

Cooperation.- Water-stage recorder inspected, and some discharge measurements made by Bureau of Reclamation.

Revisions (water year).- W 793: 1932(M).

Rating table, water year 1947-48, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

3.7	149	5.4	890
3.9	198	5.9	1,240
4.2	288	6.5	1,730
4.5	400	7.2	2,450
4.9	585	7.8	3,200

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	206	269	262	302	a650	2,100	1,420	624	392	212	182
2	180	206	285	275	302	a620	1,870	1,420	652	372	218	180
3	182	206	320	278	298	a580	2,810	1,400	694	368	209	180
4	180	206	334	269	292	a550	2,880	1,320	694	345	195	177
5	180	209	312	327	278	520	2,160	1,300	754	349	193	177
6	177	212	334	392	278	454	1,680	1,230	1,270	334	193	180
7	170	215	345	467	275	416	1,370	1,160	1,670	330	193	177
8	180	215	330	712	269	408	1,160	1,110	1,380	330	204	177
9	175	218	316	2,400	253	412	1,020	1,160	1,100	323	206	175
10	182	218	302	1,980	262	416	932	1,190	911	316	212	175
11	185	218	285	1,380	253	420	1,030	1,170	772	306	212	175
12	185	218	266	953	253	408	1,260	1,130	694	295	209	167
13	182	223	256	754	238	404	1,220	1,060	629	278	206	165
14	182	229	256	607	238	392	1,230	960	555	269	195	163
15	185	229	223	480	244	372	1,320	904	500	266	193	163
16	190	229	241	416	250	384	1,790	834	505	253	190	160
17	185	232	288	376	269	400	2,270	796	596	253	190	165
18	185	235	292	360	269	476	3,040	772	540	282	185	172
19	185	241	282	345	1,240	500	3,100	766	515	292	185	172
20	185	250	288	334	1,580	480	2,790	827	495	288	182	175
21	182	256	285	323	1,180	449	2,730	939	462	272	182	180
22	182	253	278	316	1,070	454	2,570	967	472	253	182	182
23	182	256	278	327	1,940	467	2,500	939	472	241	188	180
24	182	250	275	338	3,140	480	2,440	904	472	229	190	180
25	185	247	262	353	a1,500	596	2,320	897	575	220	190	182
26	188	241	256	349	a1,100	2,050	2,090	855	607	220	190	188
27	190	250	250	b330	a900	1,880	1,890	820	575	218	190	188
28	193	244	250	b320	a800	1,460	1,710	712	510	206	190	182
29	198	247	259	b300	a700	1,490	1,560	629	462	206	185	182
30	201	262	266	285	-	2,100	1,460	624	424	206	185	185
31	204	-	266	285	-	2,400	-	602	-	209	182	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,722	204	170	185	11,350
November	6,921	262	206	231	13,730
December	8,749	345	223	282	17,350
Calendar year 1947	183,740	3,740	160	503	364,400
January	16,873	2,400	262	544	33,470
February	19,973	3,140	238	689	39,620
March	23,088	2,400	372	745	45,790
April	58,302	3,100	932	1,943	115,600
May	30,817	1,420	602	994	61,120
June	20,581	1,670	424	686	40,820
July	8,721	392	206	281	17,300
August	6,036	218	182	195	11,970
September	5,286	188	160	176	10,480
Water year 1947-48	211,069	3,140	160	577	418,600

Peak discharge (base, 3,100 sec.-ft.).- Feb. 23 (8 p.m.) 3,760 sec.-ft.; Apr. 4 (4 a.m.) 3,510 sec.-ft.; Apr. 19 (3 a.m.) 3,450 sec.-ft.

a No gage-height record; discharge computed on basis of change in contents of Owyhee Reservoir.

b Stage-discharge relation affected by ice.

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 1948.

Extremes.- Maximum contents observed during year, 20,700 acre-feet May 31 (gage height, 72.53 feet); minimum observed, 3,310 acre-feet Oct. 10, 29.
1938-48: 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 heights 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 1947 to September 1948

Date	Contents	Date	Contents	Date	Contents
Oct. 10	3,310	Feb. 28	5,320	June 29	18,200
29	3,310	Mar. 5	5,460	July 31	11,020
Nov. 25	3,580	31	7,450	Aug. 3	10,440
28	3,470	Apr. 2	7,810	30	6,120
Dec. 29	4,060	30	16,760	Sept. 14	4,390
Jan. 31	b4,560	May 25	20,240	30	3,750
Feb. 4	4,650	31	20,700		

b Contents computed from gage readings corrected for ice cover.

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., at Owyhee Dam, 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 1948.

Extremes.- Maximum contents observed during year, 895,200 acre-feet May 13 (elevation, 2,650.64 feet); minimum observed, 630,500 acre-feet Sept. 30 (elevation, 2,622.29 feet).
1932-48: 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, those of Sept. 30, 1948.

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 1947 to September 1948

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	2,625.72	659,000	-
Oct. 31	2,624.84	651,700	-7,300
Nov. 30	2,626.25	663,500	+11,800
Dec. 31	2,628.39	681,800	+18,300
Calendar year 1947	-	-	-175,900
Jan. 31	2,632.33	716,400	+34,600
Feb. 29	2,636.58	755,100	+38,700
Mar. 31	2,641.30	799,900	+44,800
Apr. 30	2,649.92	887,500	+87,600
May 31	2,649.26	880,500	-7,000
June 30	2,645.65	843,200	-37,300
July 31	2,637.74	765,900	-77,300
Aug. 31	2,629.90	695,000	-70,900
Sept. 30	2,622.29	630,500	-64,500
Water year 1947-48	-	-	-28,500

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 1948.

Average discharge.- 19 years, 407 second-feet.

Extremes.- Maximum discharge during year, 141 second-feet May 24 (gage height, 1.22 feet); minimum observed, 4 second-feet Oct. 11-14 (gates closed at Owyhee Dam), but may have been less during periods of no gage-height record.
1924-48: 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 for periods of backwater from moss which are fair, and those below 10 second-feet, which are poor. Diversions above station for irrigation. Flow regulated by Wild Horse and Owyhee Reservoirs (see preceding page).

Cooperation.- Water-stage recorder inspected by Bureau of Reclamation.

Revisions (water years).- W 983: 1941, 1942.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65						a7	60	46	28	46	15
2	64						a7	60	46	28	48	15
3	65						a7	60	46	28	36	15
4	65						a7	52	46	28	31	14
5	65						h32	44	45	28	31	14
6	65						55	36	46	41	31	14
7	65						63	36	46	53	24	a12
8	65						49	36	56	55	18	a10
9	65						12	36	73	56	18	a10
10	35						7	36	72	57	18	h10
11	5						a7	51	56	58	18	h10
12	4						a7	62	42	58	18	h10
13	4						a7	71	42	58	18	h7
14	4						a7	82	42	59	18	
15		a4	a4	a5	a5	a6	a7	82	43	59	18	
16							a7	82	42	59	18	
17							a7	59	43	40	18	
18							h35	54	43	33	20	
19							64	53	43	46	32	
20							65	52	43	42	23	
21	a4						66	44	43	38	21	a5
22							82	29	44	39	20	
23							83	12	45	40	19	
24							83	86	49	40	17	
25							84	77	49	40	17	
26							84	70	47	40	17	
27							78	118	47	41	17	
28							69	118	34	46	16	
29							66	72	27	45	16	
30					-		59	45	28	45	16	a4
31		-			-		-	45	-	45	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	704	65	-	22.7	1,400
November	120	-	-	4.0	238
December	124	-	-	4.0	246
Calendar year 1947	22,903	208	-	62.7	45,430
January	155	-	-	5.0	307
February	145	-	-	5.0	288
March	186	-	-	6.0	369
April	1,213	84	7	40.4	2,410
May	1,820	118	12	58.7	3,610
June	1,374	73	27	45.8	2,730
July	1,373	59	28	44.3	2,720
August	693	48	15	22.4	1,370
September	240	15	-	8.0	476
Water year 1947-48	8,147	118	-	22.3	16,160

a No gage-height record; discharge interpolated, or computed on basis of records of release from Owyhee Reservoir.
h Computed from staff-gage reading.
Note.- Backwater from moss Oct. 1-14, June 12 to Sept. 13, and during parts of periods of no gage-height record.

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 Jordan Valley.

Records available.- October 1945 to September 1948.

Extremes.- Maximum discharge during year, 1,530 second-feet Apr. 18 (gage height, 4.47 feet); minimum, 1.6 second-feet Sept. 10 (gage height, 0.69 foot).

1945-48: Maximum discharge, 2,100 second-feet Apr. 19, 1946 (gage height, 5.44 feet); minimum, 1.5 second-feet Sept. 6, 1947; minimum gage height, 0.69 foot Nov. 12, 1946, Sept. 6, 1947, Sept. 10, 1948.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	14	*45	27	35	65	295	520	288	55	6.7	3.6
2	4.8	14	48	36	32	69	366	480	274	54	6.4	3.4
3	4.8	14	41	42	28	51	411	470	330	55	6.4	3.4
4	4.3	15	44	41	30	47	318	485	425	52	6.4	3.6
5	4.3	15	39	51	26	51	253	505	344	47	7.0	3.6
6	4.3	15	36	67	25	59	230	580	295	45	5.9	3.6
7	4.3	16	32	160	23	52	201	766	266	44	6.1	2.9
8	5.9	18	31	398	31	48	192	700	240	41	6.7	1.8
9	5.6	19	30	*221	29	48	190	628	210	38	7.0	2.0
10	6.1	18	b26	160	27	46	240	556	187	34	7.3	2.3
11	6.4	18	b27	122	22	39	250	515	173	32	6.7	2.7
12	6.4	18	27	113	26	48	218	500	158	30	6.7	2.7
13	6.4	18	26	76	30	47	227	526	160	27	6.4	2.7
14	6.4	18	33	69	29	51	274	526	138	23	6.1	2.5
15	6.4	20	26	76	32	46	505	538	122	19	5.9	2.9
16	7.6	25	24	69	33	42	700	598	120	18	5.1	3.8
17	8.6	26	31	62	36	45	1,190	694	113	15	5.1	4.3
18	13	27	28	58	62	45	1,250	786	107	14	4.8	4.6
19	12	25	27	48	64	44	929	760	105	12	4.8	5.1
20	11	23	26	44	55	38	1,010	658	107	9.2	4.8	5.6
21	12	22	24	48	77	40	1,160	598	153	9.5	4.6	5.4
22	12	b18	b23	52	310	51	1,240	568	134	10	4.1	5.1
23	11	b20	b23	55	192	90	884	490	109	9.2	4.6	4.6
24	11	24	b22	48	109	134	670	475	92	8.9	5.1	5.4
25	12	24	b21	35	*96	150	580	475	83	8.6	5.4	6.4
26	11	24	b20	b26	100	108	532	475	74	8.0	5.1	7.0
27	11	25	b25	24	88	153	480	465	62	7.6	4.3	7.3
28	11	29	28	31	81	243	470	445	52	7.0	3.8	7.3
29	12	31	25	33	72	326	646	398	45	7.0	3.8	7.0
30	13	32	22	36	-	375	550	352	45	7.0	3.8	7.0
31	14	-	19	32	-	250	-	318	-	7.0	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	263.7	14	4.3	8.51	523
November	625	32	14	20.8	1,240
December	899	48	19	29.0	1,780
Calendar year 1947	35,576.7	634	1.6	97.5	70,560
January	2,360	398	24	76.1	4,680
February	1,800	310	22	62.1	3,570
March	2,901	375	38	93.6	5,750
April	16,461	1,250	190	549	32,650
May	16,850	786	318	544	33,420
June	5,011	425	45	167	9,940
July	754.0	55	7.0	24.3	1,500
August	170.5	7.3	3.6	5.50	338
September	129.6	7.3	1.8	4.32	257
Water year 1947-48	48,224.8	1,250	1.8	132	95,680

* Winter discharge measurement made on this day.
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 1948.

Average discharge.- 37 years, 1,123 second-feet.

Extremes.- Maximum discharge during year, 8,210 second-feet May 28, 29 (gage height, 7.41 feet); minimum daily, 230 second-feet Jan. 27.

1911-48: 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 no gage-height record, which are fair. No diversion or regulation.

Rating table, water year 1947-48 (gage heights, in feet, and discharge, in second-feet)
(Shifting-control method used July 13 to Sept. 30)

2.0	250	3.7	1,620
2.2	325	4.3	2,440
2.4	420	5.0	3,520
2.7	620	6.0	5,300
3.1	960	7.3	7,970

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	343	456	519	334	a400	444	660	2,050	5,240	1,940	538	352
2	338	450	512	519	456	456	724	1,850	5,810	1,840	526	348
3	343	450	468	500	440	426	951	1,780	6,640	1,660	519	343
4	348	438	474	486	385	400	980	1,890	5,690	1,520	486	343
5	343	420	462	486	366	400	879	1,800	5,510	1,380	486	348
6	334	400	444	500	380	410	798	2,060	5,490	1,300	474	352
7	338	438	420	740	352	432	716	3,150	5,550	1,240	462	352
8	366	462	415	1,490	375	438	692	3,200	5,530	1,180	456	352
9	390	456	415	1,020	405	426	684	2,770	5,670	1,110	493	348
10	420	410	348	816	366	405	772	2,440	5,050	1,060	468	343
11	519	450	385	772	a320	380	756	2,260	4,820	1,040	450	338
12	444	400	420	676	309	415	716	2,220	4,260	1,000	444	334
13	405	415	390	519	410	426	716	2,560	4,320	970	432	334
14	385	438	444	468	405	438	816	2,940	4,050	924	426	330
15	375	438	390	480	400	426	1,020	3,280	3,680	879	420	343
16	706	438	380	a490	385	410	1,850	3,940	3,420	834	410	330
17	1,040	420	390	a510	385	410	4,090	4,770	3,000	816	400	330
18	652	420	432	a540	410	415	4,160	5,850	2,830	789	395	343
19	552	390	426	a410	450	420	2,950	6,470	2,620	764	390	361
20	506	366	410	a400	410	395	2,940	5,730	2,590	748	395	338
21	506	375	400	a520	415	385	3,330	5,450	2,780	716	390	330
22	493	366	410	a570	493	405	3,900	4,840	2,770	692	380	325
23	468	352	380	582	519	415	3,410	4,230	2,470	668	385	330
24	456	395	375	506	486	432	2,890	4,500	2,400	636	395	338
25	438	462	352	450	468	512	2,710	5,510	2,270	620	395	352
26	432	462	370	338	500	474	2,190	6,470	2,160	612	385	450
27	432	474	370	a230	519	468	1,950	6,720	2,030	590	380	390
28	420	438	456	a350	486	512	1,840	7,790	2,010	590	375	366
29	450	426	432	a420	444	628	2,190	7,270	1,990	598	370	356
30	519	468	356	a420	-	732	2,230	5,650	1,990	575	356	352
31	480	-	250	a390	-	668	-	4,900	-	552	352	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	14,241	1,040	334	459	0.553	0.64	28,250
November	12,773	474	352	426	.513	.57	25,330
December	12,695	519	250	410	.494	.57	25,180
Calendar year 1947	453,994	7,350	250	1,244	1.50	20.34	900,500
January	16,932	1,490	230	546	.658	.76	33,580
February	12,139	519	309	419	.505	.54	24,080
March	14,003	732	380	452	.545	.63	27,770
April	54,510	4,160	660	1,817	2.19	2.44	108,100
May	126,340	7,790	1,780	4,075	4.91	5.66	250,600
June	114,640	6,640	1,990	3,821	4.61	5.14	227,400
July	29,852	1,940	552	963	1.16	1.34	59,210
August	13,233	538	352	427	.514	.59	26,250
September	10,451	450	325	348	.419	.47	20,730
Water year 1947-48	431,809	7,790	230	1,180	1.42	19.35	856,500

Peak discharge (base, 3,700 sec.-ft.).- Apr. 18 (1 a.m.) 5,020 sec.-ft.; Apr. 22 (7 to 8 a.m.) 4,070 sec.-ft.; May 19 (11 a.m.) 6,720 sec.-ft.; May 28 (4 a.m.) 8,210 sec.-ft.; June 3 (11 a.m.) 7,140 sec.-ft.

a Nc gage-height record; discharge computed on basis of weather records, records for Middle Fork Boise River near Twin Springs, and records of inflow to Arrowrock and Anderson Ranch Reservoirs.

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 1948.

Extremes.- Maximum contents observed during year, 301,200 acre-feet May 29 (elevation, 3,219.1 feet); minimum observed, 32,950 acre-feet Oct. 27 (elevation, 3,177.4 feet).
1917-48: Maximum contents observed, that of May 29, 1948; 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 original total contents (including bank storage), which, according to survey by Bureau of Reclamation completed in December 1947, has been reduced 7,700 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86,000	39,810	76,500	102,300	141,000	161,300	176,000	292,800	300,300	292,500	204,800	167,000
2	83,150	41,610	77,760	103,500	142,000	160,700	176,800	292,800	300,300	290,600	202,200	164,400
3	80,150	43,410	79,020	104,500	143,200	160,200	178,400	291,300	300,300	288,500	199,300	161,500
4	77,480	45,200	80,000	105,700	144,200	159,800	180,800	290,300	299,700	286,700	197,900	157,900
5	74,680	46,900	81,200	106,700	145,200	159,000	183,700	289,400	299,000	284,600	196,900	153,500
6	71,960	48,700	82,550	107,900	146,200	158,100	185,500	288,500	299,000	282,200	195,600	148,800
7	68,580	50,150	83,600	109,100	147,000	157,700	187,100	288,500	299,000	280,100	194,000	144,200
8	64,940	51,470	84,650	111,800	148,000	157,100	188,300	290,300	299,000	277,700	192,400	140,000
9	61,560	52,680	85,700	114,800	148,600	156,700	190,100	291,900	299,000	275,300	191,300	135,600
10	58,560	53,780	86,900	117,000	149,600	157,100	192,200	292,200	298,700	272,600	189,700	131,600
11	56,040	54,840	87,500	118,800	150,400	159,400	194,500	292,200	298,400	269,700	188,300	127,800
12	54,840	56,040	88,460	120,600	151,200	160,700	195,600	291,600	298,700	266,800	186,700	123,400
13	53,670	57,000	89,260	121,900	151,800	160,900	196,900	291,600	299,700	263,900	184,900	119,300
14	52,460	58,200	90,380	122,800	152,900	161,100	197,600	291,900	300,000	261,000	183,200	115,000
15	51,360	59,280	91,500	123,800	153,900	161,900	197,900	292,800	299,700	257,900	181,200	109,800
16	50,480	60,390	91,500	124,700	155,000	161,900	199,800	294,100	299,700	255,100	189,500	104,300
17	51,140	61,560	91,180	125,900	156,000	161,900	207,900	295,300	299,000	252,000	177,300	98,560
18	49,820	62,600	91,020	126,800	156,900	161,500	225,000	296,600	298,700	248,600	175,300	92,940
19	48,200	63,770	91,020	128,200	158,400	160,700	239,300	297,800	298,700	245,300	172,800	87,660
20	46,400	64,810	91,500	129,100	159,600	160,200	250,600	297,800	298,700	242,100	170,700	82,700
21	44,500	65,720	92,620	130,000	160,000	161,100	259,000	297,500	298,700	239,300	168,400	78,040
22	42,600	66,760	93,420	131,000	160,700	162,600	272,300	296,900	298,700	236,200	165,900	73,140
23	40,710	67,410	94,220	132,600	162,100	163,800	280,400	297,200	298,400	233,000	163,600	73,140
24	38,840	68,320	95,500	134,000	162,300	165,100	287,300	297,200	298,100	229,900	161,300	73,280
25	36,890	69,490	96,350	135,200	162,100	167,000	293,800	298,400	297,800	226,500	161,100	73,420
26	34,890	70,530	97,200	136,200	162,100	168,600	295,000	300,300	297,800	223,200	162,100	73,560
27	32,950	71,700	98,050	137,000	162,300	170,300	293,800	300,300	297,500	219,500	163,200	74,260
28	33,640	72,870	98,900	137,400	162,300	171,600	292,800	300,900	297,200	216,200	164,400	74,540
29	34,330	73,980	100,100	138,200	161,900	173,300	292,500	301,200	296,600	213,200	166,100	74,960
30	35,850	75,240	101,100	139,000	-	174,200	292,800	300,300	295,000	210,500	167,200	73,000
31	37,870	-	101,600	140,200	-	175,300	-	299,700	-	207,500	168,000	-

Monthly elevation and contents, water year October 1947 to September 1948

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	3,126.0	89,100	-
Oct. 31	3,083.6	37,870	-51,230
Nov. 30	3,116.6	75,240	+37,370
Dec. 31	3,133.6	101,600	+26,360
Calendar year 1947	-	-	-83,200
Jan. 31	3,154.6	140,200	+38,600
Feb. 29	3,165.2	161,900	+21,700
Mar. 31	3,171.5	175,300	+13,400
Apr. 30	3,216.4	292,800	+117,500
May 31	3,218.6	299,700	+6,900
June 30	3,217.1	295,000	-4,700
July 31	3,185.4	207,500	-87,500
Aug. 31	3,168.1	168,000	-39,500
Sept. 30	3,115.0	73,000	-95,000
Water year 1947-48	-	-	-16,100

† 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 1948.

Average discharge.- 37 years, 2,241 second-feet.

Extremes.- Maximum discharge during year, 12,000 second-feet May 29 (gage height, 8.28 feet); minimum, 1 second-foot Jan. 13 (gage height, 0.69 foot); minimum daily, 4 second-feet Nov. 5-14, 20-22, Jan. 19.

1911-48: Maximum discharge, 18,800 second-feet Apr. 20, 1943 (gage height, 9.93 feet); minimum, 1 second-foot Jan. 3, 1945, Jan. 13, 1948; minimum gage height, 0.62 foot Nov. 21, 22, 1935; minimum daily discharge, 2 second-feet for many days in 1935, 1936, 1942.

Remarks.- Records excellent except those below 20 second-feet, which are poor. Flow regulated by Arrowrock Reservoir (see preceding page) and Anderson Ranch Reservoir (see p.153). No diversion above station.

Cooperation.- One discharge measurement furnished by Water District No. 12-A.

Revisions.- W 883: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,050	6	6	8	h6	865	653	3,910	9,320	4,590	3,150	2,450
2	2,040	5	6	7	h7	865	597	3,990	9,950	4,300	3,060	2,590
3	2,040	5	6	6	*6	856	431	3,970	10,900	4,170	2,990	2,680
4	2,020	5	5	7	6	892	22	3,950	10,700	4,030	2,970	2,870
5	2,010	4	5	7	b6	919	108	3,910	10,100	3,970	2,990	2,990
6	2,190	4	5	8	6	919	415	3,890	10,100	3,870	3,120	2,960
7	2,320	4	5	10	b6	910	555	3,850	10,200	3,790	3,170	2,870
8	2,310	4	6	10	b6	910	286	3,870	10,200	3,750	3,120	2,790
9	2,280	4	6	8	b6	910	14	3,950	10,300	3,730	3,080	2,650
10	2,160	4	5	b7	b6	910	14	4,010	9,920	3,770	3,040	2,520
11	1,540	4	5	b7	b6	955	255	3,990	9,200	3,850	3,030	2,460
12	1,460	4	5	6	b6	982	490	4,010	7,700	3,890	3,060	2,440
13	1,450	4	5	6	b6	991	732	4,070	7,140	3,830	3,040	2,420
14	1,430	4	5	b6	h7	838	982	4,300	7,140	3,730	3,080	2,700
15	1,210	5	*267	b6	h7	847	910	4,750	6,320	3,710	3,080	3,030
16	1,210	5	h576	b6	h8	946	236	5,430	5,620	3,750	3,100	3,060
17	1,680	5	583	b6	h8	955	19	6,370	5,200	3,790	3,130	3,030
18	2,040	5	576	b6	10	955	17	7,610	4,920	3,810	3,130	2,960
19	2,010	5	372	h4	10	955	198	8,380	4,770	3,750	3,150	2,790
20	1,980	4	f106	h5	192	437	700	8,260	4,810	3,710	3,150	2,740
21	1,950	4	6	b6	425	13	1,280	7,670	4,950	3,600	3,130	2,680
22	1,940	4	5	b6	420	11	2,490	6,760	4,840	3,600	3,080	1,400
23	1,910	5	5	h7	571	10	3,260	6,350	4,530	3,600	3,060	315
24	1,860	5	b5	h8	748	11	2,540	6,400	4,360	3,600	2,970	320
25	1,820	5	5	b6	*740	13	4,030	7,780	4,240	3,560	2,840	306
26	1,790	5	5	b6	740	10	5,080	9,800	4,050	3,520	2,770	288
27	1,050	5	5	b6	740	10	4,340	10,600	3,620	3,440	2,540	288
28	548	5	b5	b6	804	10	3,930	11,400	3,620	3,350	2,340	288
29	478	5	5	b6	865	424	3,850	11,800	4,170	3,260	2,370	828
30	12	5	5	b6	-	732	3,990	10,600	4,640	3,170	2,400	1,570
31	6	-	6	b6	-	653	-	9,350	-	3,120	2,460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	50,794	2,320	6	1,639	100,700
November	138	6	4	4.6	274
December	2,612	583	5	84.3	5,180
Calendar year 1947	856,482	11,300	4	2,347	1,699,000
January	205	10	4	6.6	407
February	6,374	865	6	220	12,640
March	19,714	991	10	636	39,100
April	42,424	5,080	14	1,414	84,150
May	194,980	11,800	3,850	6,290	386,700
June	207,530	10,900	3,620	6,918	411,600
July	115,610	4,590	3,120	3,729	229,300
August	91,600	3,170	2,340	2,955	181,700
September	63,373	3,060	288	2,112	125,700
Water year 1947-48	795,354	11,800	4	2,173	1,577,000

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

Diversions from Boise River between Dowling Ranch and Boise gaging stations, Idaho

Between Dowling Ranch and Boise gaging stations, 6 canals divert water from Boise River for irrigation.

Records of total diversion during irrigation seasons for each canal for years 1919-46, and daily flow of New York Canal February 1939 to September 1948 in reports of Geological Survey. Records of daily diversion for each canal during irrigation seasons from 1916 to 1948 on file in office of Idaho State Reclamation Engineer.

Records show summation of discharge for the six canals. Gage readings obtained daily or several times weekly, and frequent discharge measurements made. Records summarized under direction of W. E. Welsh, watermaster for Boise River.

Correction.- Monthly figures for October to December 1946 shown in Water-Supply Paper 1093 are a duplication of figures for April to June 1947. There should be no figures shown for October to December 1946.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							1,100	2,680	3,490	2,940	2,400	2,150
2							1,200	2,720	3,530	2,930	2,320	2,140
3							1,550	2,800	3,440	2,830	2,270	2,170
4							1,140	2,300	3,420	2,730	2,290	2,170
5							730	2,310	3,450	2,730	2,280	2,210
6							821	2,320	3,480	2,710	2,320	2,210
7							987	2,510	3,460	2,710	2,360	2,250
8							1,040	2,740	3,440	2,730	2,350	2,180
9							378	2,890	3,450	2,830	2,300	1,120
10							327	2,900	3,520	2,810	2,290	1,940
11							339	2,300	3,510	2,830	2,300	1,840
12							615	2,460	3,520	2,830	2,300	1,890
13							658	2,740	3,490	2,870	2,340	1,880
14							1,020	2,900	3,490	2,810	2,370	1,850
15							1,060	3,090	3,480	2,790	2,400	2,530
16							756	3,210	3,490	2,770	2,400	2,570
17							718	3,380	3,500	2,770	2,420	2,540
18							734	3,420	3,500	2,730	2,450	2,550
19							1,020	3,440	3,460	2,770	2,470	2,560
20							1,110	3,460	3,430	2,730	2,490	2,360
21							1,360	3,410	3,400	2,630	2,480	2,420
22							1,570	3,480	3,230	2,630	2,440	2,390
23							1,820	3,420	3,050	2,630	2,400	46
24							1,780	3,500	3,070	2,630	2,390	46
25							1,950	3,540	3,090	2,630	2,320	45
26							1,890	3,500	3,100	2,630	2,160	45
27							2,050	3,500	3,090	2,630	2,160	45
28							2,100	3,520	2,940	2,620	2,060	45
29							2,210	3,530	2,860	2,570	2,080	45
30							2,540	3,460	2,980	2,510	2,070	1,500
31							-	3,500	-	2,440	2,100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	36,373	2,540	327	1,212	72,140
May	94,930	3,540	2,300	3,062	188,300
June	100,360	3,530	2,860	3,345	199,100
July	84,740	2,940	2,440	2,734	168,100
August	71,780	2,490	2,060	2,315	142,400
September	50,737	2,570	45	1,691	100,600
The period	-	-	-	-	870,600

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, Boise River Surveys).

Records available.- March 1938 to September 1939 (gage heights only), February 1940 to September 1948.

Extremes.- Maximum discharge during year, 9,860 second-feet May 29 (gage height, 7.99 feet); minimum not determined, occurred during period of no gage-height record; minimum daily recorded, 16 second-feet Apr. 7.

1940-48: 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 periods of doubtful or no gage-height record, which are poor. Flow regulated by Arrowrock Reservoir (see p. 145) and Anderson Ranch Reservoir (see p. 153). New York, Ridenbaugh, and four smaller canals divert between Moore Creek and this station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	286	118	152	92	127		41	2,190	6,880	1,960	755	375
2	238	121	159	115	136		34	2,160	7,340	1,650	787	410
3	286	127	155	136	139		30	2,280	8,370	1,630	735	490
4	286	270	145	142	133		27	2,510	8,560	1,510	705	611
5	298	152	145	155	133		22	2,580	7,810	1,420	695	755
6	304	145	145	162	124		18	2,510	7,680	1,360	755	755
7	254	127	145	180	118		16	2,440	7,710	1,220	842	685
8	188	124	127	304	115		47	2,350	7,680	1,100	842	656
9	145	124	127	354	118		148	2,280	7,710	1,020	820	647
10	148	199	87	280	121		193	2,600	7,450	1,030	820	638
11	152	130	115	270	118	30	219	2,650	6,720	1,080	798	602
12	180	130	105	254	113		148	2,320	5,500	1,100	798	558
13	121	127	105	145	113		215	2,120	4,450	1,030	755	532
14	113	127	121	121	127		304	2,070	4,480	962	745	490
15	180	130	78	133	148		375	2,280	3,880	988	745	498
16	92	136	71	145	148		532	2,690	2,950	975	745	532
17	341	130	44	145	148		943	3,480	2,370	1,000	745	498
18	975	133	34	148	102		1,340	4,600	1,960	975	745	450
19	900	127	142	130	74		558	5,550	1,840	962	735	375
20	875	118	316	145	46		675	5,840	1,730	900	735	347
21	842	102	184	136	39		864	5,320	2,070	912	735	310
22	831	85	124	152	50	188	1,700	4,620	2,300	900	725	334
23	798	100	115	188	55	197	2,880	4,100	1,920	875	725	286
24	776	108	102	188	50	219	1,790	4,020	1,590	888	695	310
25	725	121	97	162	45	292	2,510	5,180	1,320	900	656	316
26	665	127	97	113	39	280	4,020	7,140	1,060	853	656	310
27	665	127	102	95	37	270	3,360	8,150	735	831	541	270
28	656	136	121	65	33	292	2,690	8,930	550	809	304	286
29	656	130	130	52	32	234	2,370	9,500	1,220	735	316	280
30	444	130	97	69	-	87	2,320	8,690	1,690	725	322	244
31	118	-	110	113	-	56	-	7,190	-	705	347	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,538	975	92	437	26,850
November	3,961	270	85	132	7,860
December	3,797	316	34	122	7,530
Calendar year 1947	404,197	8,390	22	1,107	801,800
January	4,889	354	52	158	9,700
February	2,781	148	32	95.9	5,520
March	2,745	292	-	88.5	5,440
April	30,389	4,020	16	1,013	60,280
May	130,340	9,500	2,070	4,205	258,500
June	127,525	8,560	550	4,251	252,900
July	33,005	1,960	705	1,065	65,460
August	21,324	842	304	688	42,300
September	13,850	755	244	462	27,470
Water year 1947-48	388,144	9,500	16	1,061	769,800

Note.- No gage-height record Feb. 21 to Mar. 21; discharge computed on basis of records for stations at Dowling Ranch and at Notus and New York Canal and Moore Creek near Arrowrock. Discharge computed on basis of doubtful gage-height record Dec. 16-19, Apr. 1-8.

Diversions from Boise River between Boise and Notus gaging stations, Idaho

Between Boise and Notus gaging stations, 21 principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during irrigation seasons for each canal for years 1919-46 in reports of Geological Survey. Records of daily diversion for canal during irrigation seasons from 1916 to 1948 on file in office of Idaho State Reclamation Engineer.

Revords show summation of discharge for these diversions. Gage readings obtained daily or several times weekly, and frequent discharge measurements made. Records summarized under direction of W. E. Welsh, watermaster for Boise River.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	1,370	2,250	2,110	1,510	1,110
2							0	1,390	2,260	2,010	1,580	1,150
3							0	1,470	2,040	2,130	1,610	1,200
4							12	1,510	2,000	2,120	1,490	1,460
5							12	1,600	2,000	2,120	1,480	1,650
6							12	1,660	1,990	2,130	1,460	1,630
7							12	1,750	1,960	2,040	1,510	1,580
8							12	1,780	1,940	2,030	1,540	1,550
9							38	1,790	1,790	1,950	1,630	1,550
10							42	1,800	1,900	1,900	1,620	1,530
11							42	1,850	1,840	1,910	1,610	1,570
12							42	1,870	1,870	1,960	1,600	1,480
13							58	1,900	1,960	1,890	1,590	1,510
14							74	1,970	1,940	1,860	1,510	1,480
15							167	2,030	1,930	1,780	1,480	1,320
16							222	2,100	1,970	1,780	1,490	1,360
17							230	2,140	1,880	1,770	1,480	1,370
18							259	2,170	1,840	1,810	1,480	1,270
19							298	2,180	1,850	1,820	1,480	1,180
20							333	2,200	1,800	1,750	1,460	1,080
21							495	2,170	1,900	1,690	1,500	1,040
22							556	2,120	1,830	1,690	1,530	999
23							608	2,090	1,840	1,630	1,530	1,000
24							606	2,100	1,840	1,620	1,520	998
25							625	2,180	1,840	1,600	1,560	996
26							756	2,210	1,620	1,620	1,540	967
27							884	2,180	1,570	1,560	1,510	910
28							1,120	2,270	1,390	1,600	1,260	921
29							1,240	2,280	1,590	1,550	1,160	902
30							1,300	2,280	1,740	1,570	1,230	901
31							-	2,230	-	1,520	1,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	10,054	1,300	0	335	19,940
May	60,640	2,280	1,370	1,956	120,300
June	56,170	2,260	1,390	1,872	111,400
July	56,520	2,130	1,520	1,823	112,100
August	46,090	1,630	1,140	1,487	91,420
September	37,664	1,650	901	1,255	74,710
The period	-	-	-	-	529,900

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 Calwell. Datum of gage is 2,288.55 feet above mean sea level (datum of Corps of Engineers, Boise River Surveys).

Records available.- April 1920 to September 1948.

Average discharge.- 26 years (1920-22, 1924-48), 1,085 second-feet.

Extremes.- Maximum discharge during year, 7,880 second-feet June 4 (gage height, 8.23 feet); minimum, 27 second-feet Aug. 20; minimum gage height, 1.18 feet Oct. 4; minimum daily discharge, 29 second-feet Aug. 20.

1920-48: 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. Station is below all large diversions for irrigation in Boise Valley; many diversions above. Flow regulated by Arrowrock Reservoir (see p. 145) and Anderson Ranch Reservoir (see p. 153).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	756	698	534	556	468	551	1,410	4,840	344	45	34
2	147	723	698	608	573	468	540	1,330	4,860	464	36	31
3	144	730	704	662	562	458	540	1,410	6,140	319	36	30
4	132	749	698	656	562	448	518	1,700	7,590	310	34	32
5	139	868	674	680	545	448	477	1,880	6,810	283	32	33
6	146	762	668	680	545	444	468	1,730	6,350	227	36	40
7	142	756	668	692	513	439	468	1,520	6,140	174	33	40
8	187	736	668	730	524	439	458	1,410	5,970	110	33	48
9	268	716	656	854	545	434	463	1,430	5,810	94	34	45
10	328	710	644	847	534	425	534	1,470	5,760	66	35	45
11	458	775	602	801	487	416	596	1,820	5,270	61	45	43
12	430	716	620	775	498	412	529	1,430	4,330	64	42	44
13	434	723	602	730	508	416	325	986	2,840	70	42	44
14	425	716	614	632	518	421	181	706	2,870	70	38	44
15	551	730	620	608	562	416	227	595	2,700	59	35	42
16	847	742	562	608	590	412	298	758	1,860	50	36	43
17	896	723	562	608	584	412	412	1,430	1,380	45	32	68
18	1,280	756	568	608	579	412	972	2,310	1,020	45	30	235
19	1,760	742	562	602	518	416	718	3,780	895	45	30	344
20	1,600	716	686	584	487	408	199	4,580	818	47	29	319
21	1,580	704	801	579	508	399	181	4,240	993	50	30	301
22	1,540	686	674	596	632	518	464	4,080	1,330	44	34	283
23	1,510	662	620	626	644	573	1,850	3,360	1,290	43	33	278
24	1,450	644	602	650	551	608	1,750	3,120	944	43	38	248
25	1,430	668	590	638	524	749	1,050	3,330	660	47	38	265
26	1,370	680	573	596	513	782	2,710	4,750	502	45	38	274
27	1,340	680	568	551	518	762	2,820	6,430	383	42	38	287
28	1,320	686	602	503	492	788	2,050	6,640	248	40	39	296
29	1,310	686	620	508	472	834	1,520	7,340	136	43	40	274
30	1,400	674	608	529	-	788	1,430	7,460	118	43	38	256
31	931	-	551	524	-	596	-	6,200	-	40	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	25,650	1,760	132	827	50,880
November	21,615	868	644	720	42,870
December	19,583	801	551	632	38,840
Calendar year 1947	346,995	7,410	24	951	688,200
January	19,799	854	503	639	39,270
February	15,644	644	472	539	31,030
March	16,009	834	399	516	31,750
April	25,299	2,820	181	843	50,180
May	90,635	7,460	595	2,924	179,800
June	90,857	7,590	118	3,029	180,200
July	3,427	464	40	111	6,800
August	1,112	45	29	35.9	2,210
September	4,366	344	30	146	8,660
Water year 1947-48	333,996	7,590	29	913	662,500

Middle Fork Boise River near Twin Springs, Idaho

Location.- Water-stage recorder, lat. 43°42'45", long. 115°37'50", in sec. 4, T. 4 N., R. 7 E., 1,000 feet upstream from confluence with North Fork Boise River, 1,000 feet upstream from Troutdale ranger station, and 4½ miles northeast of Twin Springs.

Drainage area.- 382 square miles.

Records available.- October 1946 to September 1948.

Extremes.- Maximum discharge during year, 4,370 second-feet May 29 (gage height, 7.40 feet); minimum, 104 second-feet Jan. 27 (gage height, 1.41 feet).
1946-48: Maximum discharge, that of May 29, 1948; minimum, that of Jan. 27, 1948.

Remarks.- Records excellent except those for period from about Dec. 1 to Mar. 31, which are good. No diversion or regulation above station.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)

1.4	102	2.4	382	4.8	1,820
1.5	119	2.8	546	5.6	2,550
1.7	160	3.3	800	6.4	3,350
2.0	243	4.0	1,220	7.2	4,200

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	246	272	185	228	222	320	882	2,830	1,200	295	178
2	185	243	262	240	237	231	360	806	3,150	1,140	292	178
3	188	243	243	222	207	207	452	772	3,590	1,010	285	175
4	191	240	256	228	193	199	448	800	3,010	934	278	172
5	185	234	240	225	182	202	409	756	3,010	850	275	172
6	185	225	237	234	193	207	375	872	3,010	800	262	175
7	185	246	228	360	170	222	338	1,300	3,170	745	256	175
8	202	262	225	640	172	222	320	1,300	3,130	690	259	172
9	207	246	228	436	202	219	323	1,160	3,200	650	285	170
10	234	237	182	371	180	207	364	1,040	2,870	626	262	170
11	278	253	219	367	156	199	352	964	2,770	611	253	165
12	237	222	196	320	145	219	334	958	2,450	583	243	168
13	219	243	213	228	205	216	349	1,080	2,560	555	237	168
14	210	237	234	216	207	222	397	1,220	2,400	520	231	162
15	207	237	210	225	202	219	515	1,350	2,140	489	222	160
16	405	234	199	228	193	213	910	1,670	1,990	473	216	165
17	460	231	207	256	193	213	1,890	2,110	1,710	456	219	165
18	323	234	213	256	219	216	1,760	2,580	1,630	440	213	172
19	289	219	205	202	225	216	1,260	2,890	1,480	428	210	185
20	272	219	202	193	207	210	1,250	2,570	1,510	416	216	178
21	275	210	199	240	207	202	1,370	2,490	1,610	401	210	172
22	272	202	199	259	253	207	1,610	2,230	1,520	386	205	168
23	259	185	191	262	234	216	1,410	1,940	1,420	375	205	172
24	256	225	191	237	231	225	1,180	2,160	1,410	360	210	175
25	246	240	185	210	237	272	1,070	2,730	1,350	345	205	185
26	237	237	185	151	249	249	928	3,290	1,280	338	199	259
27	237	253	185	114	256	246	838	3,490	1,210	331	202	205
28	231	237	210	172	234	269	800	4,070	1,230	334	193	196
29	246	234	202	213	222	331	964	3,770	1,250	331	188	191
30	272	240	165	210	-	367	964	2,850	1,260	316	180	185
31	253	-	119	191	-	334	-	2,520	-	302	178	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,631	460	185	246	0.644	0.74	15,140
November	7,014	262	185	234	.613	.68	13,910
December	6,502	272	119	210	.550	.63	12,900
Calendar year 1947	231,280	3,680	119	634	1.66	22.51	458,800
January	7,891	640	114	255	.668	.77	15,650
February	6,039	256	145	208	.545	.59	11,980
March	7,199	367	199	232	.607	.70	14,280
April	23,860	1,890	320	795	2.08	2.32	47,330
May	58,620	4,070	756	1,891	4.95	5.71	116,300
June	65,150	3,590	1,210	2,172	5.69	6.34	129,200
July	17,435	1,200	302	562	1.47	1.70	34,580
August	7,184	295	178	232	.607	.70	14,250
September	5,333	259	160	178	.466	.52	10,580
Water year 1947-48	219,858	4,070	114	601	1.57	21.40	436,100

Peak discharge (base, 1,900 sec.-ft.).- Apr. 17 (11 p.m.) 2,210 sec.-ft.; May 19 (10:30 a.m.) 3,010 sec.-ft.; May 29 (2 a.m.) 4,370 sec.-ft.; June 3 (12 m.) 3,830 sec.-ft.

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 1948.

Extremes.- Maximum discharge during year, 4,750 second-feet May 29 (gage height, 6.87 feet); minimum, 121 second-feet Dec. 31 (gage height, 1.37 feet).
1945-48: Maximum discharge, that of May 29, 1948; minimum, that of Dec. 31, 1947.

Remarks.- Records excellent. Small ranch diversions above station. No regulation.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)

1.5	145	2.6	562	5.0	2,570
1.7	192	3.0	805	6.0	3,700
1.9	252	3.5	1,170	6.6	4,420
2.2	369	4.0	1,580		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	246	252	167	236	187	296	1,020	3,400	1,090	304	190
2	190	246	242	214	230	209	256	926	3,640	1,020	300	184
3	187	242	223	236	220	209	424	954	4,350	954	274	184
4	190	236	239	233	209	195	414	1,020	3,810	905	274	184
5	187	230	230	233	198	184	365	1,000	3,460	811	277	184
6	195	214	226	252	203	192	340	1,190	3,520	753	263	187
7	203	242	214	300	184	206	300	1,720	3,600	708	256	190
8	206	242	198	365	182	217	304	1,680	3,640	683	263	190
9	214	230	198	315	200	209	308	1,420	3,650	653	311	190
10	230	220	182	226	198	198	340	1,290	3,310	617	296	187
11	288	252	184	239	182	184	327	1,240	3,100	584	277	184
12	249	206	190	259	187	190	319	1,310	2,870	562	266	180
13	230	226	184	212	200	217	356	1,510	2,890	552	256	180
14	220	236	230	182	214	230	452	1,580	2,620	537	252	180
15	217	249	*190	172	212	214	532	1,760	2,430	502	246	180
16	396	242	190	192	209	209	838	2,130	2,220	487	236	180
17	517	214	203	209	206	214	1,520	2,500	2,010	462	220	182
18	340	239	230	209	223	214	1,710	3,090	1,900	443	214	187
19	292	217	230	200	223	212	1,290	3,460	1,720	433	217	206
20	274	184	220	200	214	198	1,360	3,120	1,650	419	223	206
21	274	209	206	223	212	192	1,510	3,020	1,660	400	223	198
22	270	203	214	252	223	214	1,810	2,680	1,540	392	220	192
23	259	184	187	*259	212	226	1,620	2,400	1,450	378	217	190
24	249	214	182	249	198	226	1,290	2,670	1,420	361	220	198
25	246	263	170	230	203	246	1,410	3,260	1,350	352	214	217
26	242	263	177	177	217	226	1,110	3,820	1,270	344	206	315
27	239	256	172	152	220	226	1,040	3,990	1,220	331	203	256
28	236	226	b170	147	200	249	1,030	4,470	1,180	319	198	242
29	256	220	b150	175	190	288	1,210	4,460	1,140	327	198	233
30	277	249	152	209	-	204	1,150	3,700	1,110	319	192	214
31	256	-	130	212	-	270	-	3,210	-	311	190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,821	517	187	252	0.397	0.46	15,510
November	6,900	263	184	230	.362	.40	13,690
December	6,165	252	130	199	.313	.36	12,230
Calendar year 1947	245,583	4,040	130	673	1.06	14.39	487,100
January	6,900	365	147	223	.351	.40	13,690
February	6,005	236	182	207	.326	.35	11,910
March	6,655	288	184	215	.339	.39	13,200
April	25,231	1,810	256	841	1.32	1.48	50,040
May	71,600	4,470	926	2,310	3.64	4.19	142,000
June	73,130	4,350	1,110	2,438	3.84	4.28	145,100
July	17,009	1,090	311	549	.865	1.00	33,740
August	7,506	311	190	242	.381	.44	14,890
September	5,990	315	180	200	.315	.35	11,880
Water year 1947-48	240,912	4,470	130	658	1.04	14.10	477,900

Peak discharge (base, 2,000 sec.-ft.).- Apr. 18 (4 a.m.) 2,050 sec.-ft.; May 19 (12 m.) 3,570 sec.-ft.; May 29 (3 a.m.) 4,750 sec.-ft.; June 3 (11 a.m.) 4,610 sec.-ft.

* Winter discharge measurement made on this day.

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 1948.

Extremes.- Maximum contents observed during year, 140,700 acre-feet June 28, 29 (elevation, 4,101.4 feet); minimum observed, 1,742 acre-feet Oct. 1-4, 6-9 (elevation, 3,994.7 feet).

1945-48: Maximum contents observed, that of June 28, 29, 1948; no usable contents prior to Jan. 27, 1946.

Remarks.- Reservoir is formed by earth-fill dam. 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.

Contents, in acre-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,742	2,270	17,360	-	-	70,920	76,240	80,070	128,400	140,500	-	4,772
2	1,742	-	18,140	35,620	54,680	71,640	77,000	-	129,700	140,200	102,200	3,541
3	1,742	2,270	18,840	-	55,300	72,080	-	79,450	131,200	140,000	100,800	2,803
4	1,742	2,270	19,450	-	55,800	72,520	-	79,300	133,400	-	97,760	-
5	-	2,204	20,160	37,420	56,300	72,960	80,380	78,990	133,900	-	94,270	2,138
6	1,742	2,204	-	38,180	56,800	-	81,480	78,830	133,600	137,900	91,380	2,006
7	1,742	2,535	-	38,940	57,310	-	82,420	79,450	133,600	137,000	-	1,874
8	1,742	3,205	22,050	39,810	-	73,990	83,050	-	133,400	136,100	-	1,874
9	1,742	-	22,600	40,690	58,590	74,140	83,850	-	133,400	135,000	82,100	1,874
10	1,874	4,496	23,150	41,350	59,240	74,140	-	83,050	133,200	134,100	79,140	1,874
11	2,006	5,117	23,620	-	59,630	69,620	-	83,370	132,100	-	76,240	2,270
12	-	5,677	24,180	43,030	59,890	69,190	86,590	83,530	130,300	131,600	73,400	-
13	2,138	6,242	24,640	43,480	60,420	-	87,560	84,010	-	130,300	70,480	3,138
14	2,138	6,813	-	44,040	-	-	88,550	84,810	133,200	129,200	-	3,541
15	2,072	7,463	25,880	44,500	-	67,630	89,710	85,780	133,600	127,900	-	3,949
16	2,072	-	26,360	44,950	62,280	67,630	91,720	-	135,700	126,600	62,140	4,358
17	2,735	8,789	26,930	45,530	62,810	67,770	-	89,870	137,000	-	59,500	4,841
18	2,803	9,389	27,610	-	63,490	68,340	-	93,420	138,200	-	56,800	-
19	-	10,070	28,200	46,680	64,170	68,910	88,880	97,940	139,100	122,800	54,060	-
20	2,602	10,610	28,880	47,140	64,720	-	87,240	103,200	-	121,400	51,520	6,100
21	2,468	11,070	-	47,730	-	-	85,940	107,400	138,600	120,000	-	6,597
22	2,402	11,620	30,070	48,310	-	70,050	85,130	111,000	139,300	118,500	-	7,101
23	2,336	-	30,670	49,020	-	70,630	84,650	-	139,500	117,100	44,160	7,536
24	2,270	12,650	31,180	49,720	67,490	71,200	-	116,500	139,800	-	41,800	7,974
25	2,270	13,290	-	-	68,060	71,790	-	117,900	139,800	-	36,680	-
26	-	14,020	-	50,920	68,620	72,370	79,760	119,700	139,500	112,800	31,280	-
27	2,204	-	-	51,520	69,330	-	79,760	121,600	-	111,200	25,880	9,768
28	2,138	15,420	-	51,760	-	-	79,600	123,900	140,700	109,700	-	10,380
29	2,138	16,010	33,740	52,120	a70,390	74,140	79,600	127,100	140,700	108,400	-	11,000
30	2,270	a16,680	34,150	52,720	-	74,890	80,070	128,800	140,500	106,700	11,070	11,620
31	2,270	-	34,570	53,210	-	75,640	-	128,800	-	a105,200	6,741	-

a No gage reading; contents interpolated.

Monthly elevation and contents, water year October 1947 to September 1948

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	3,994.7	1,742	-
Oct. 31	3,995.5	2,270	+528
Nov. 30	-	a16,680	+14,410
Dec. 31	4,033.6	34,570	+17,890
Calendar year 1947	-	-	+30,074
Jan. 31	4,050.1	53,210	+18,640
Feb. 29	-	a70,390	+17,180
Mar. 31	4,066.6	75,640	+5,250
Apr. 30	4,069.5	80,070	+4,430
May 31	4,096.1	128,800	+48,730
June 30	4,101.3	140,500	+11,700
July 31	-	a105,200	-35,300
Aug. 31	4,002.0	6,741	-98,459
Sept. 30	4,008.5	11,620	+4,879
Water year 1947-48	-	-	+9,878

† 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, and 1½ miles downstream from Anderson Ranch Reservoir, and 2¾ miles northwest of Bennett (Dixie store).

Drainage area.- 982 square miles.

Records available.- April 1943 to September 1948 (include flow of Dixie Creek prior to October 1946 and exclude Dixie Creek thereafter).

Extremes.- Maximum discharge during year, 4,220 second-feet June 4 (gage height, 7.05 feet); minimum, 1 second-foot on several days when gates in dam were closed; minimum gage height, 1.03 feet Nov. 28, 29.

1943-48: Maximum discharge, 9,100 second-feet Apr. 17, 1943 (gage height, 10.06 feet); minimum, 1 second-foot on several days during 1947, 1948.

Remarks.- Records excellent except those below 10 second-feet, 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 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 24 to May 29)

1.1	1	1.7	39	3.5	685
1.2	4	1.9	66	4.0	1,020
1.3	8	2.2	132	5.0	1,860
1.4	14	2.6	262	6.0	2,910
1.5	21	3.0	422	7.1	4,290

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230	331	2	5	b2	4	68	1,520	3,670	1,360	1,090	985
2	233	327	2	b15	b2	3	70	1,510	3,600	1,380	1,070	655
3	233	323	2	b10	b2	3	71	1,520	3,910	1,390	1,590	463
4	233	320	2	5	2	40	71	1,520	4,030	1,390	1,980	355
5	233	308	2	3	2	106	73	1,530	4,190	1,390	1,960	300
6	233	224	2	3	b2	104	82	1,540	4,190	1,380	1,900	270
7	237	6	2	4	2	102	86	1,550	4,190	1,380	1,880	251
8	240	4	2	3	b2	202	93	1,560	4,190	1,370	1,860	237
9	248	3	2	2	b2	589	99	1,580	4,190	1,360	1,820	230
10	258	2	2	2	b2	1,550	109	1,580	4,190	1,350	1,810	93
11	289	2	2	2	b2	*1,300	114	1,600	4,160	1,340	1,780	4
12	304	2	2	1	b2	507	119	1,600	3,110	1,330	1,740	3
13	304	2	2	2	b2	497	127	1,620	2,500	1,310	1,720	2
14	296	2	2	b2	b2	492	129	1,620	2,510	1,310	1,700	2
15	289	2	2	b2	b2	337	135	1,630	1,980	1,290	1,670	2
16	316	2	*2	b2	2	240	1,360	1,640	1,690	1,280	1,640	2
17	440	2	2	b2	3	103	2,900	1,650	1,690	1,190	1,620	2
18	463	2	2	b2	6	25	2,890	1,670	1,700	1,210	1,600	2
19	431	2	2	b2	3	64	2,880	1,700	1,810	1,200	1,560	2
20	400	2	2	b2	2	64	2,860	1,720	2,010	1,190	1,530	2
21	379	2	2	b3	3	64	2,830	1,720	1,750	1,180	1,510	1
22	367	2	2	b3	8	64	2,830	1,730	1,590	1,170	1,470	2
23	355	2	1	*b3	3	64	2,840	1,740	1,590	1,150	1,440	1
24	339	2	2	2	3	64	2,810	2,350	1,590	1,150	2,190	2
25	327	2	2	2	3	66	2,800	3,010	1,540	1,130	2,820	1
26	320	2	2	2	3	64	2,050	3,600	1,280	1,120	2,810	2
27	316	2	2	b2	3	64	1,540	3,690	1,110	1,110	2,710	2
28	308	2	2	b2	3	64	1,520	3,870	1,250	1,110	2,710	2
29	312	2	2	b2	3	64	1,520	4,100	1,340	1,110	2,540	2
30	327	1	2	b2	-	66	1,510	4,160	1,350	1,110	2,450	2
31	335	-	3	b2	-	66	-	4,110	-	1,100	1,550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,595	463	230	310	19,030
November	1,887	331	1	62.9	3,740
December	62	3	1	2.0	123
Calendar year 1947	302,674	4,240	1	829	600,300
January	96	15	1	3.1	190
February	78	8	2	2.7	155
March	7,042	1,550	3	227	13,970
April	36,586	2,900	68	1,220	72,570
May	65,940	4,160	1,510	2,127	130,800
June	77,900	4,190	1,110	2,597	154,500
July	38,840	1,390	1,100	1,253	77,040
August	57,720	2,820	1,070	1,862	114,500
September	3,879	985	1	129	7,690
Water year 1947-48	299,625	4,190	1	819	594,300

* Winter discharge measurement made on this day.
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 upstream from 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 1948.

Extremes.- Maximum discharge during year, 593 second-feet Apr. 17 (gage height, 4.88 feet); minimum, 11 second-feet Nov. 12; minimum gage height, 2.06 feet Aug. 30, 31, Sept. 2, 3, 14.

1945-48: Maximum discharge, 1,180 second-feet Apr. 19, 1946 (gage height, 6.11 feet); minimum, 9 second-feet Aug. 25, 1945.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	26	35	b26	28	31	45	138	158	41	18	14
2	19	26	32	30	28	31	58	120	164	41	17	14
3	20	26	30	32	26	28	68	121	168	39	16	14
4	20	26	30	29	26	26	62	150	152	38	16	14
5	20	25	29	29	26	28	54	129	142	34	17	14
6	21	23	28	30	26	30	51	152	131	33	16	15
7	20	28	25	33	24	30	45	190	123	32	16	15
8	22	28	20	41	26	28	46	175	120	30	16	15
9	22	24	b19	33	28	*28	49	154	114	30	18	14
10	25	24	b20	36	25	26	57	138	108	28	17	14
11	28	27	b20	38	24	b25	56	129	101	27	16	14
12	24	18	25	28	b24	b26	56	131	93	26	16	13
13	23	28	30	b26	b25	27	66	146	95	27	16	14
14	22	26	31	b25	27	28	89	150	84	27	15	13
15	22	28	*28	b23	28	27	121	164	79	25	15	13
16	39	25	25	b25	27	27	192	185	75	24	15	14
17	38	25	28	b27	26	28	352	205	70	23	14	15
18	26	28	29	b27	33	28	310	232	69	23	14	16
19	25	23	27	b26	31	28	272	270	66	22	14	18
20	24	22	28	b25	28	25	267	222	63	22	15	18
21	25	b20	26	b27	28	28	277	207	68	22	16	16
22	24	b20	27	*b29	34	29	285	192	63	22	15	16
23	24	b25	25	b30	31	28	236	175	60	20	15	16
24	24	31	23	b29	28	31	201	172	54	19	16	18
25	23	32	26	27	31	37	185	185	50	18	16	20
26	24	34	25	23	31	30	152	203	48	18	16	25
27	24	35	25	b21	30	32	142	212	46	18	15	20
28	24	28	29	b20	26	37	148	227	43	18	15	19
29	28	28	23	28	28	43	166	215	41	20	14	18
30	32	31	b21	29	-	44	158	190	38	19	14	18
31	28	-	b19	28	-	39	-	166	-	18	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	759	39	19	24.5	0.187	0.22	1,510
November	790	35	18	26.3	.201	.22	1,570
December	808	35	19	26.1	.199	.23	1,600
Calendar year 1947	22,588	291	14	61.9	.473	6.40	44,810
January	880	41	20	28.4	.217	.25	1,750
February	803	34	24	27.7	.211	.23	1,590
March	933	44	25	30.1	.230	.26	1,850
April	4,266	352	45	142	1.08	1.21	8,460
May	5,445	270	120	176	1.34	1.55	10,800
June	2,686	168	38	89.5	.683	.76	5,330
July	804	41	18	25.9	.198	.23	1,590
August	483	18	14	15.6	.119	.14	958
September	477	25	13	15.9	.121	.14	946
Water year 1947-48	19,134	352	13	52.3	.399	5.44	37,950

Peak discharge (base, 230 sec.-ft.).- Apr. 17 (4:30 p.m.) 593 sec.-ft.; May 19 (8 a.m.) 299 sec.-ft.; May 28 (8 to 9 p.m.) 236 sec.-ft.

* Winter discharge measurement made on this day.

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 1948.

Extremes.- Maximum discharge during year, 353 second-feet May 19 (gage height, 4.73 feet); minimum, 9.5 second-feet Nov. 12, 18 (gage height, 2.45 feet).
1945-48: Maximum discharge, 793 second-feet Apr. 17, 1946; maximum gage height recorded, 6.07 feet Jan. 5, 1947 (ice jam); minimum discharge, 9.5 second-feet Sept. 18, Nov. 12, 18, 1947 (gage height, 2.45 feet).

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	18	20	b15	b20	b20	30	134	163	52	19	13
2	13	17	20	b19	b20	20	40	120	169	51	19	13
3	13	17	19	b20	18	b19	45	120	178	50	19	13
4	13	17	19	18	18	b18	45	128	161	47	19	13
5	13	16	18	18	b18	b19	41	133	170	43	18	13
6	13	15	18	18	17	b21	38	165	165	41	17	13
7	13	17	17	21	b16	b20	36	217	163	38	17	13
8	15	18	b14	25	b17	20	35	194	161	36	17	13
9	15	15	b14	b21	18	20	35	165	154	36	17	12
10	17	15	b15	b23	b18	*20	37	148	147	34	17	12
11	24	17	b15	24	b17	b19	36	141	134	33	17	12
12	18	14	b16	21	b17	b20	36	145	124	31	17	11
13	16	16	b17	b19	b17	20	40	167	118	30	16	11
14	16	15	18	b18	17	20	49	180	107	30	16	11
15	15	16	b16	b17	18	20	68	194	101	29	15	11
16	33	15	*b14	b19	17	20	123	219	94	28	15	11
17	26	15	18	b20	17	20	257	243	85	27	15	11
18	20	16	18	b19	20	20	223	264	85	26	15	12
19	18	16	18	b18	20	20	188	300	78	25	15	13
20	17	b15	18	b19	19	19	217	248	77	25	15	12
21	17	b14	18	b20	19	b20	250	221	82	24	15	12
22	17	b14	18	b19	23	20	271	206	76	24	15	11
23	17	b15	b16	*20	b21	20	234	196	69	23	15	11
24	16	b15	b15	20	b20	20	215	200	64	22	15	12
25	16	16	b17	19	20	22	194	210	60	22	15	13
26	16	17	b16	b17	20	b20	170	217	57	22	15	14
27	16	19	b16	b15	20	21	156	225	54	21	15	13
28	16	19	b15	b14	b18	23	152	236	52	21	14	13
29	17	20	b15	b18	b18	29	170	206	49	22	13	12
30	20	19	b14	b21	-	30	154	180	49	20	13	11
31	18	-	b13	b20	-	28	-	165	-	19	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	527	33	13	17.0	0.307	0.35	1,050
November	488	20	14	16.3	.295	.33	968
December	515	20	13	16.6	.300	.35	1,020
Calendar year 1947	20,518	295	12	56.2	1.02	13.79	40,690
January	595	25	14	19.2	.347	.40	1,180
February	538	23	16	18.6	.336	.36	1,070
March	648	30	18	20.9	.378	.44	1,290
April	3,585	271	30	120	2.17	2.41	7,110
May	5,887	300	120	190	3.44	3.96	11,680
June	3,246	178	49	108	1.95	2.18	6,440
July	952	52	19	30.7	.555	.64	1,890
August	493	19	13	15.9	.288	.33	978
September	365	14	11	12.2	.221	.25	724
Water year 1947-48	17,839	300	11	48.7	.881	12.00	35,400

Peak discharge (base, 300 sec.-ft.).- Apr. 17 (8 p.m.) 336 sec.-ft.; Apr. 21 (9:30 p.m.) 313 sec.-ft.; May 19 (5 a.m.) 353 sec.-ft.; May 23 (7:45 p.m.) 303 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Little Camas Canal at heading, near Bennett, Idaho

Location.- Staff gage, lat. 43°21'30", long. 115°23', in sec. 9, T. 1 S., R. 9 E., 400 feet downstream from Little Camas Reservoir, 4 miles northeast of Bennett, and 22 miles northeast of Mountain Home.

Records available.- June to November 1917, April 1924 to September 1948.

Extremes.- Maximum discharge observed during year, 52 second-feet May 21-23; maximum gage height, 2.04 feet July 12-14; no flow during long periods.
1917, 1924-48: Maximum discharge observed, 77 second-feet Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.- Records good. Gage read once daily. Canal diverts from Little Camas Reservoir (South Fork 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	47	50	47	46	
2							0	47	50	47	46	
3							0	47	49	46	46	
4							0	47	49	46	45	
5							0	47	49	46	30	
6							0	47	49	46	5	
7							0	47	49	46	0	
8							0	47	49	46	0	
9							0	47	49	46	0	
10							0	47	49	46	0	
11							0	19	49	46	0	
12							0	0	49	46	0	
13							0	0	49	46	0	
14							0	11	50	46	0	
15							0	25	50	46	0	
16							0	25	50	46	0	
17							0	33	50	46	0	
18							0	38	50	46	0	
19							7	40	49	46	0	
20							13	42	49	46	0	
21							20	49	49	46	0	
22							34	52	49	46	0	
23							38	52	48	46	0	
24							47	51	48	46	0	
25							47	51	48	46	0	
26							47	51	48	46	0	
27							47	51	48	46	0	
28							47	50	48	46	0	
29							47	50	47	46	0	
30							47	50	47	46	0	
31							-	50	-	46	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 1947	7,608	63	0	20.8	15,090
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	441	47	0	14.7	875
May	1,260	52	0	40.6	2,500
June	1,467	50	47	48.9	2,910
July	1,428	47	46	46.1	2,830
August	218	46	0	7.0	432
September	0	0	0	0	0
Water year 1947-48	4,814	52	0	13.2	9,550

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 1948.

Average discharge.- 32 years (1916-48), 294 second-feet.

Extremes.- Maximum discharge observed during year, 2,790 second-feet Apr. 17 (gage height, 5.10 feet); minimum observed, 28 second-feet Aug. 17 (gage height, 0.61 foot).
1915-48: 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 periods of ice effect or those for Aug. 10 to Sept. 30, which are fair. Gage read once daily except Apr. 3 to Sept. 30, when it was usually read twice daily. No large diversion above station.

Cooperation.- Gage readings and two discharge measurements furnished by Water District No. 12-A.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	100	117	56	103	209	495	858	792	190	40	33
2	45	95	136	77	106	226	591	798	786	210	38	32
3	46	95	114	103	*106	168	870	738	888	185	38	32
4	46	90	117	103	100	168	852	834	846	163	36	32
5	48	88	114	126	81	155	684	750	792	163	36	32
6	48	84	120	129	b85	164	618	810	750	154	34	32
7	46	86	106	151	77	160	500	1,010	708	132	32	32
8	52	95	100	370	88	178	480	993	668	124	32	34
9	60	100	100	328	98	173	510	906	618	116	32	34
10	77	95	b70	232	88	147	668	840	591	108	32	34
11	108	100	b75	226	b60	133	624	762	515	100	32	34
12	103	98	b65	209	b55	160	596	714	471	104	34	32
13	84	90	70	129	86	164	558	792	449	102	32	32
14	77	93	98	b85	103	182	674	834	405	93	31	32
15	70	98	*74	b85	103	187	822	888	397	85	29	32
16	88	100	66	b90	111	173	1,270	958	372	85	29	32
17	292	95	86	100	106	168	2,620	1,040	345	71	28	32
18	147	100	100	103	111	178	2,420	1,200	320	68	30	33
19	114	90	100	b85	136	178	1,780	1,340	329	65	e32	39
20	93	73	95	b80	136	160	1,640	1,200	302	59	34	36
21	90	79	88	b90	133	151	1,640	1,120	355	59	34	36
22	95	b70	93	120	289	164	1,870	1,070	323	59	33	36
23	90	50	77	129	310	182	1,550	965	293	50	33	36
24	89	73	77	143	280	198	1,270	972	263	46	35	37
25	84	98	64	123	*253	268	1,100	993	249	48	37	39
26	81	100	52	100	232	238	972	1,050	231	40	37	43
27	77	111	50	b50	274	238	864	1,030	218	40	36	45
28	79	114	90	b50	250	274	804	1,060	200	40	35	44
29	84	103	100	b55	214	345	930	1,010	190	46	34	42
30	108	106	68	77	-	569	900	900	172	45	33	40
31	111	-	44	73	-	515	-	834	-	45	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,676	292	44	86.3	0.203	0.23	5,310
November	2,769	114	50	92.3	.217	.24	5,490
December	2,726	136	44	87.9	.206	.24	5,410
Calendar year 1947	91,919	974	27	252	.592	8.03	182,400
January	3,877	370	50	125	.293	.34	7,690
February	4,174	310	55	144	.338	.36	8,280
March	6,573	569	133	212	.498	.57	13,040
April	31,172	2,620	480	1,039	2.44	2.72	61,830
May	29,269	1,340	714	944	2.22	2.56	58,050
June	13,838	888	172	461	1.08	1.21	27,450
July	2,895	210	40	93.4	.219	.25	5,740
August	1,041	40	28	33.6	.079	.09	2,060
September	1,059	45	32	35.3	.083	.09	2,100
Water year 1947-48	102,069	2,620	28	279	.655	8.90	202,400

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

New York Canal near Barber, Idaho

Location.- Water-stage recorder at trapezoidal concrete-lined canal section, lat. 43°33', long. 116°07', in SE¼NE¼ 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 October 1948 (discontinued).
Extremes.- Maximum discharge during period October 1947 to October 1948, 2,950 second-feet May 25 (gage height, 9.22 feet); no flow for long periods.
1939-48: 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 following page). Flow regulated by head gates.
Cooperation.- Three discharge measurements furnished by Board of Control for Boise project.

Discharge, in second-feet, 1947-48

1947-48

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,480		0		0	1,130	1,160	2,400	a2,820	2,330	1,880	1,690
2	1,510		0		0	1,160	1,200	2,400	a2,850	2,280	1,820	1,710
3	1,500		0		0	1,120	1,230	2,230	a2,860	2,180	1,820	1,740
4	1,500		0		0	1,100	897	2,000	a2,850	2,120	1,820	1,740
5	1,510		0		0	1,150	702	1,910	a2,860	2,120	1,840	1,770
6	1,650		0		0	1,160	880	2,000	2,810	2,100	1,870	1,790
7	1,870		0		0	1,160	1,090	2,230	2,800	2,100	1,880	1,780
8	1,910		0		0	1,160	822	2,400	2,810	2,160	1,850	1,720
9	1,930		0		0	1,160	396	2,440	2,840	2,200	1,830	1,620
10	1,960		0		0	1,140	359	2,040	2,860	2,200	1,830	1,470
11	1,250		0		0	1,120	538	1,900	2,850	2,200	1,830	1,440
12	1,170		0		0	1,170	795	2,160	2,850	2,240	1,850	1,460
13	1,220		0		0	1,200	774	2,360	2,880	2,240	1,880	1,470
14	1,220		0		0	1,190	1,070	2,490	2,850	2,200	1,920	1,760
15	1,230		126		0	1,050	1,090	2,600	2,830	2,200	1,920	2,090
16	1,250		714		0	1,150	756	2,710	2,830	2,190	1,930	2,150
17	1,230		f697		0	1,170	726	2,770	2,850	2,190	1,960	2,160
18	1,220		f677		0	1,180	946	2,820	2,830	2,190	1,980	2,200
19	1,220		f312		0	1,190	1,100	2,850	2,800	2,180	2,000	2,080
20	1,230		0		38	915	1,270	2,840	2,800	2,180	2,000	2,040
21	1,240		0		566	0	1,510	2,820	2,720	2,120	1,980	2,040
22	1,230		0		663	0	1,740	2,820	2,540	2,140	1,940	1,120
23	1,230		0		849	0	1,820	2,830	2,500	2,170	1,920	0
24	1,220		0		1,100	0	1,880	2,830	2,500	2,160	1,890	0
25	1,230		0		1,050	0	1,890	2,860	2,500	2,140	1,790	0
26	1,220		0		1,040	0	1,890	2,830	2,500	2,160	1,700	0
27	681		0		1,060	0	1,840	2,830	2,440	2,130	1,660	0
28	0		0		1,060	0	1,880	a2,850	2,290	2,080	1,610	0
29	0		0		1,130	297	2,100	a2,840	2,320	2,040	1,620	356
30	0		0		-	1,310	2,300	a2,800	2,360	1,980	1,640	1,140
31	0		0		-	1,200	-	a2,830	-	1,910	1,680	-

a No gage-height record; discharge computed on basis of recorded range in stage and canal manager's reports.
f Discharge computed from partly estimated gage-height record.

1948

Day	Discharge	Day	Discharge	Day	Discharge
Oct. 1	1,160	Oct. 6	1,200	Oct. 11	843
2	1,200	7	1,170	12	771
3	1,210	8	1,020	13	674
4	1,240	9	858	14	674
5	1,240	10	849	15	f777

f Discharge computed from partly estimated gage-height record.

Monthly discharge, in second-feet, 1947-48

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1947	37,111	1,960	0	1,197	73,610
November	0	0	0	0	0
December	2,526	714	0	81.5	5,010
Calendar year 1947	466,381	2,900	0	1,278	925,000
January 1948	0	0	0	0	0
February	8,556	1,130	0	295	16,970
March	25,582	1,310	0	825	50,740
April	36,651	2,300	359	1,222	72,700
May	78,690	2,860	1,900	2,538	156,100
June	81,400	2,880	2,290	2,713	161,500
July	66,830	2,330	1,910	2,156	132,600
August	57,140	2,000	1,610	1,843	113,300
September	40,536	2,200	0	1,351	80,400
Water year 1947-48	435,022	2,880	0	1,189	862,900
Oct. 1-15, 1948	14,886	1,240	674	992	29,530

Lake Lowell 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 1948.

Extremes.- Maximum contents observed during year, 177,500 acre-feet Apr. 17 (gage height, 30.04 feet); minimum observed, 33,460 acre-feet Sept. 9.
1917-48: Maximum contents observed, 178,900 acre-feet Apr. 27, 28, 1922, Apr. 24, 1932 (gage height, 30.18 feet); minimum observed, 5,390 acre-feet Oct. 22, 1924.

Remarks.- Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-feet between gage heights 0.0 foot (sill of outlet gates) and 30.0 feet (maximum operating level). Dead storage, about 13,000 acre-feet. Below gage height 12.0 feet reservoir divides into two pools. In addition to water received from local 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42,460	97,320	98,130	102,600	103,400	119,500	162,400	175,300	168,500	165,200	99,900	44,710
2	44,550	97,250	98,130	102,700	103,400	121,400	164,300	175,800	167,800	162,900	98,280	43,080
3	46,910	97,250	98,200	102,700	103,400	123,400	166,500	176,200	167,000	160,700	96,590	41,580
4	48,710	97,180	98,200	102,700	103,400	125,400	168,500	176,600	166,600	158,600	94,920	39,910
5	50,540	97,180	98,280	102,700	103,400	127,400	170,400	176,600	167,000	156,400	92,750	38,290
6	52,630	97,180	98,350	102,700	103,400	129,400	171,200	176,200	167,500	154,300	90,960	36,820
7	53,780	97,100	98,420	102,700	103,400	131,500	172,400	175,800	167,900	151,900	88,970	35,140
8	55,980	97,100	98,650	102,700	103,400	133,400	174,200	175,700	168,200	149,600	87,350	34,160
9	57,690	97,100	98,650	103,300	103,400	135,600	175,300	176,000	168,500	147,600	85,400	33,460
10	59,360	97,180	98,650	103,300	103,600	137,600	175,600	176,700	168,400	145,300	83,390	34,090
11	61,480	97,180	98,720	103,300	103,600	139,400	175,400	176,700	167,800	142,800	81,480	34,610
12	63,440	97,180	98,870	103,300	103,600	141,300	175,200	176,200	167,500	140,700	79,440	35,140
13	64,980	97,180	98,940	103,300	103,700	143,500	175,500	175,400	167,700	138,400	77,560	35,570
14	66,990	97,250	98,940	103,300	103,700	145,500	176,000	175,200	168,200	136,200	75,510	35,900
15	68,760	97,250	99,020	103,300	103,700	147,700	176,400	175,200	168,300	133,800	73,860	35,860
16	70,420	97,320	99,020	103,300	103,800	149,600	177,300	175,000	168,500	131,600	71,840	36,430
17	72,490	97,400	99,020	103,300	103,800	151,400	177,500	175,200	168,900	129,500	69,780	36,810
18	74,320	97,620	99,680	103,300	103,800	153,500	177,300	174,500	169,100	127,400	67,680	37,910
19	76,570	97,620	100,900	103,300	103,800	155,600	177,300	174,100	169,800	125,400	65,420	39,170
20	78,840	97,690	101,800	103,300	103,800	157,700	177,300	173,400	170,400	123,300	63,680	40,090
21	80,460	97,690	102,200	103,300	103,800	159,100	177,200	172,600	171,300	121,300	61,780	41,160
22	83,390	97,690	102,300	103,300	104,500	159,700	177,200	172,300	171,600	119,300	59,960	42,340
23	85,820	97,690	102,300	103,300	106,300	159,500	177,100	172,200	172,500	117,100	58,160	43,290
24	88,120	97,840	102,300	103,300	107,700	159,600	177,100	172,200	173,300	115,100	56,450	43,080
25	90,390	97,910	102,300	103,300	109,400	159,600	176,900	172,300	173,700	113,000	54,580	42,340
26	92,750	97,910	102,400	103,400	111,800	159,600	177,000	172,400	173,300	111,100	53,140	41,820
27	94,920	97,910	102,400	103,400	113,800	159,500	177,000	172,100	172,600	109,000	51,610	41,270
28	96,960	97,910	102,400	103,400	115,200	159,300	176,700	171,300	171,500	107,000	50,260	40,820
29	97,320	97,910	102,400	103,400	117,300	159,200	176,000	170,600	170,300	105,000	48,930	40,420
30	97,320	97,910	102,400	103,400	-	159,300	175,300	169,900	167,800	103,300	47,670	39,810
31	97,320	-	102,600	103,400	-	160,400	-	169,000	-	101,700	46,100	-

Monthly gage height and contents, water year October 1947 to September 1948

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30 (upper)	11.60	40,420	-
(lower)	11.35	-	-
Oct. 31	20.59	97,320	+56,900
Nov. 30	20.67	97,910	+590
Dec. 31	21.30	102,600	+4,690
Calendar year 1947	-	-	+10,640
Jan. 31	21.41	103,400	+800
Feb. 29	23.20	117,300	+13,900
Mar. 31	28.24	160,400	+43,100
Apr. 30	29.81	175,300	+14,900
May 31	29.16	169,000	-6,300
June 30	29.03	167,800	-1,200
July 31	21.18	101,700	-66,100
Aug. 31	12.57	46,100	-55,600
Sept. 30 (upper)	11.42	39,810	-6,290
(lower)	11.30	-	-
Water year 1947-48	-	-	-610

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 1948. April to September 1923 and June 1926 to June 1939 at site 7 miles downstream. Records practically equivalent.
Average discharge.- 22 years (1926-48), 157 second-feet.
Extremes.- Maximum discharge during year, 1,180 second-feet Jan. 7 (gage height, 6.90 feet); minimum, 8.9 second-feet Sept. 15 (gage height, 2.52 feet).
1920-21, 1923, 1926-48. Maximum discharge, 4,290 second-feet Feb. 27, 1940 (gage height, 11.35 feet), from rating curve extended above 2,500 second-feet; no flow at times.
Remarks.- Records good except those for periods of ice effect, which are poor. Several small diversions above station for irrigation.
Revisions (water year).- W 1093: 1927.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 7						Jan. 8 to Sept. 30					
2.6	12	3.1	59	4.0	242	2.5	8	3.0	49	4.3	325
2.7	18	3.3	88	4.5	367	2.6	12	3.3	97	4.8	460
2.8	26	3.5	126	5.1	535	2.7	19	3.6	157	5.5	680
2.9	36	3.7	171	5.8	750	2.8	27	3.9	225	6.2	930

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	52	69	46	56	126	220	624	392	63	13	11
2	16	51	78	47	b59	128	265	508	345	63	15	9.8
3	17	48	63	79	b55	110	260	433	342	49	19	9.4
4	20	48	80	70	b56	97	475	499	392	47	17	9.8
5	19	47	74	72	53	93	181	541	481	47	16	10
6	20	47	65	143	b50	101	186	493	430	50	15	10
7	17	48	53	734	b49	108	159	541	409	53	16	11
8	16	51	58	478	53	106	146	631	395	49	18	10
9	17	57	70	172	56	105	157	580	385	42	18	10
10	19	57	54	126	*b57	93	260	499	360	41	18	10
11	22	53	62	118	b53	74	225	430	360	35	19	10
12	25	53	72	108	b53	81	193	403	358	34	18	9.8
13	24	52	*62	97	b56	93	193	390	292	30	16	9.8
14	24	57	51	b85	57	95	230	388	262	23	14	9.8
15	24	57	73	b73	76	99	355	380	230	23	12	9.4
16	31	65	84	b69	140	88	442	378	216	23	12	9.4
17	39	60	53	b63	114	86	517	382	230	21	11	9.8
18	39	62	57	b60	278	83	631	406	202	23	11	9.4
19	33	63	58	b62	308	83	662	427	209	19	11	11
20	33	55	60	b57	177	77	718	466	200	18	10	12
21	35	57	52	b59	142	73	838	478	202	17	9.8	12
22	38	42	55	60	625	74	906	523	197	17	9.8	13
23	39	38	55	126	530	88	827	541	161	15	11	14
24	42	39	60	197	214	112	701	469	140	14	12	14
25	44	59	67	144	168	230	620	448	110	14	14	16
26	46	70	78	b85	168	209	550	448	105	14	14	24
27	46	66	67	*b69	228	207	514	475	97	14	12	25
28	46	69	48	b73	168	275	493	511	92	14	11	17
29	46	65	66	b56	140	352	502	520	81	12	11	16
30	48	62	b49	b45	-	345	673	493	76	12	11	21
31	52	-	b48	b52	-	232	-	433	-	12	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	954	52	16	30.8	1,890
November	1,650	70	38	55.0	3,270
December	1,941	84	48	62.6	3,850
Calendar year 1947	42,650.3	3,120	4.1	117	84,590
January	3,725	734	45	120	7,390
February	4,239	625	49	146	8,410
March	4,123	352	73	133	8,180
April	13,079	906	146	436	25,940
May	14,738	631	378	475	29,230
June	7,751	481	76	258	15,370
July	930	69	12	30.0	1,840
August	425.6	19	9.8	13.7	844
September	373.4	25	9.4	12.4	741
Water year 1947-48	53,929.0	906	9.4	147	107,000

Peak discharge (base, 800 sec.-ft.).- Jan. 7 (4 p.m.) 1,180 sec.-ft.; Apr. 22 (1 a.m.) 1,010 sec.-ft.
* 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 1948. 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.- 36 years (1909-16, 1919-48), 173 second-feet.

Extremes.- Maximum discharge observed during year, 615 second-feet July 16-18 (gage height, 5.16 feet); practically no flow Oct. 12 to Apr. 27.
1906-7, 1908-17, 1919-48: Maximum discharge observed, 5,490 second-feet Mar. 2, 1910; no flow at times.

Remarks.- Records fair above 50 second-feet and poor below. Gage read once daily. Flow completely regulated since November 1919 by Warmsprings Reservoir (see p.164). Several small diversions above station for irrigation.

Revisions (water years).- W 833: 1936. W 1063: 1942-45.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)

2.6	0	3.0	5.3	3.6	39	4.4	248
2.7	.6	3.1	8.5	3.8	68	4.7	386
2.8	1.3	3.2	12	4.0	110	5.0	535
2.9	3.0	3.4	22	4.2	171	5.2	635

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	212						0	204	485	535	525	283
2	201						0	244	320	560	515	297
3	186						0	190	301	585	510	306
4	175						0	197	301	595	505	306
5	164						0	197	270	595	396	206
6	158						0	197	244	595	329	306
7	151						0	197	244	595	343	292
8	151						0	212	252	595	362	283
9	130						0	228	261	595	348	283
10	118						0	228	261	595	338	274
11	116						0	228	240	595	329	266
12	47						0	228	216	595	315	266
13	0						0	240	216	595	306	261
14	0						0	248	201	595	301	252
15	0						0	270	164	595	301	252
16	0						0	306	241	600	306	244
17	0						0	333	283	615	310	228
18	0						0	376	270	595	310	201
19	0						0	415	288	590	301	182
20	0						0	460	320	600	301	175
21	0						0	460	301	600	301	164
22	0						0	475	288	600	301	135
23	0						0	480	301	595	301	121
24	0						0	480	301	585	301	110
25	0						0	480	310	585	301	81
26	0						0	480	324	560	301	52
27	0						17	480	333	535	297	36
28	0						83	520	376	525	292	13
29	0						134	550	465	525	283	1
30	0						158	550	505	525	274	1
31	0						-	550	-	525	270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,809	212	0	58.4	3,590
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1947	76,222	695	0	209	151,200
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	392	158	0	13.1	778
May	10,703	550	190	345	21,230
June	8,882	505	164	293	17,620
July	17,980	615	525	580	35,660
August	10,473	525	270	338	20,770
September	5,977	306	1	199	11,860
Water year 1947-48	56,216	615	0	154	111,500

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 1948 (incomplete prior to October 1922).

Average discharge.- 25 years (1922-25, 1926-48), 214 second-feet.

Extremes.- Maximum discharge during year, 385 second-feet June 15 (gage height, 2.04 feet); minimum, 14 second-feet Mar. 10, 11.

1919-48: 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 diversion above station, but many small ones. Flow regulated by Warmsprings and Agency Valley Reservoirs (see following page).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	32	49	b40	b40	54	26	180	288	183	171	143
2	69	32	49	b45	b40	57	31	180	300	199	168	140
3	69	30	51	63	b40	46	29	195	259	206	162	151
4	68	30	52	98	b39	49	25	210	288	209	151	157
5	70	30	56	125	b37	32	28	150	288	223	140	154
6	66	30	54	101	b37	27	26	152	270	231	122	157
7	63	29	52	107	b37	19	25	142	248	234	109	151
8	60	29	52	144	b38	18	25	147	259	234	118	154
9	60	29	51	130	b39	19	25	150	266	234	145	154
10	62	28	*47	120	b37	19	25	180	288	231	157	162
11	63	28	46	109	b35	16	23	183	288	216	148	160
12	61	28	45	92	b35	16	23	180	288	227	148	145
13	60	29	45	90	b40	16	22	172	276	216	145	145
14	57	30	48	b80	b45	17	22	172	276	203	143	151
15	50	31	47	b75	b50	16	23	177	276	227	140	140
16	48	30	b45	b65	54	16	25	174	209	223	140	143
17	43	28	51	b60	53	16	22	183	196	220	138	151
18	42	30	49	b55	*50	16	20	195	199	223	138	157
19	39	28	50	b50	49	17	19	210	206	213	125	151
20	38	28	51	b60	48	16	22	238	203	231	113	154
21	37	28	48	b70	48	16	21	245	234	231	122	160
22	36	25	49	88	40	17	21	262	203	227	127	151
23	36	26	47	72	52	16	110	262	168	220	122	157
24	36	35	45	60	68	18	123	256	168	216	148	160
25	35	44	b44	b50	90	22	137	259	171	190	151	160
26	34	48	43	b35	72	18	147	256	171	190	138	154
27	33	49	b45	35	62	18	137	231	177	180	143	122
28	33	49	b47	b35	54	18	137	231	174	162	154	107
29	34	47	49	b36	50	19	137	259	168	168	145	89
30	36	48	47	b37	-	19	174	280	171	171	140	86
31	33	-	39	b38	-	19	-	284	-	171	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,541	70	33	49.7	3,060
November	988	49	25	32.9	1,960
December	1,493	56	39	48.2	2,960
Calendar year 1947	44,506	1,850	25	122	88,280
January	2,265	144	35	73.1	4,490
February	1,379	90	35	47.6	2,740
March	703	57	16	22.7	1,390
April	1,630	174	19	54.3	3,230
May	6,395	284	142	206	12,680
June	6,976	300	168	233	13,840
July	6,509	234	162	210	12,910
August	4,343	171	109	140	8,610
September	4,366	162	86	146	8,660
Water year 1947-48	38,588	300	16	105	76,530

* Winter discharge measurement made on this day.
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 1948. Maximum contents observed during year, 82,700 acre-feet June 18 (elevation, 3,377.55 feet); minimum observed, 1,240 acre-feet Sept. 28 (elevation, 3,333.25 feet). Maximum contents observed during period 1920-48, 196,000 acre-feet Apr. 7, 1942 (elevation, 3,407.08 feet); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935.

Reservoir is formed by concrete-arch dam; capacity, 191,000 acre-feet between elevations 3,327 feet (bottom of outlet tunnel) and 3,406 feet (top of 5-foot flashboards). Dead storage, 1,400 acre-feet below elevation 3,327 feet. Records given herein represent contents above elevation 3,327 feet. Storage began in 1919. In 1926 a half interest in reservoir was purchased by the Federal Government for Vale project of Bureau of Reclamation. Water used to irrigate lands on both sides of river between Namorf and Ontario. Once-daily gage readings and data for computing capacity table furnished by Bureau of Reclamation.

Agency Valley Reservoir.- Pressure gage with mercury column, lat. 43°55', long. 118°09', in SW¼ sec. 15, T. 19 S., R. 37 E., at dam on North Fork Malheur River, a quarter of a mile northwest of Beulah. Gage readings are elevations above mean sea level by original surveys of Bureau of Reclamation, or 7.72 feet less than elevations above mean sea level, datum of 1929. Drainage area, 420 square miles. Records available, December 1935 to September 1948. Maximum contents observed during year, 58,600 acre-feet June 6 (elevation, 3,339.30 feet); minimum observed, 23,620 acre-feet Oct. 1, 2, (elevation, 3,316.20 feet). Maximum contents during period 1935-48, 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 1947 to September 1948

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	3,345.95	11,400	-	3,316.20	23,620	-
Oct. 31	-	a9,470	-1,930	3,317.88	25,640	+2,020
Nov. 30	-	a12,960	+3,490	3,320.53	28,940	+3,300
Dec. 31	-	a17,300	+4,340	-	a31,980	+3,040
Calendar year 1947	-	-	-76,560	-	-	-50
Jan. 31	3,354.97	25,050	+7,750	3,325.40	35,600	+3,620
Feb. 29	-	a33,850	+8,800	3,328.80	40,680	+5,080
Mar. 31	-	a42,330	+8,480	3,331.85	45,500	+4,820
Apr. 30	-	a70,180	+27,850	3,335.80	52,230	+6,730
May 31	3,376.65	79,920	+9,740	3,339.00	58,040	+5,810
June 30	3,375.46	76,230	-3,690	3,337.50	55,280	-2,760
July 31	3,360.77	36,890	-39,340	3,335.90	52,400	-2,880
Aug. 31	-	a14,490	-22,400	3,328.98	40,950	-11,450
Sept. 30	-	a1,340	-13,150	3,319.35	27,440	-13,510
Water year 1947-48	-	-	-10,060	-	-	+3,820

† Gage reading observed about 10 a.m., Oct. 1 to June 26, and about 6 p.m., June 27 to Sept. 28.
‡ Gage reading observed about 8 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.

Drainage area.- 355 square miles.

Records available.- January to September 1914, June 1936 to September 1948.

Average discharge.- 12 years, 123 second-feet.

Extremes.- Maximum discharge during year, 726 second-feet Feb. 22 (gage height, 3.53 feet); minimum, 12 second-feet Jan. 27 (gage height, 0.20 foot).
1914. 1936-48: Maximum discharge recorded, 1,010 second-feet Feb. 12, 1947; maximum gage height, 4.60 feet Mar. 26, 1940; minimum discharge recorded, that of Jan. 27, 1948, but may have been less at times during periods of ice effect.

Remarks.- Records good except those for periods of ice effect, which are poor. A few diversions above station for irrigation.

Revisions (water years).- W 883: 1938(M). W 1093: 1944(m).

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Backwater from debris Oct. 1 to Dec. 5)

Oct. 1 to May 28						May 29 to Sept. 30					
0.5	28	1.1	101	2.1	308	0.7	30	1.2	95	2.2	302
.7	44	1.4	152	2.7	465	.8	40	1.5	146	2.7	441
.9	70	1.7	215	3.5	715	1.0	65	1.8	208	3.3	630

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	50	63	b50	b40	64	129	243	406	125	66	44
2	44	50	51	b60	b45	72	141	220	395	123	61	42
3	44	50	69	b65	b42	56	124	226	424	116	55	41
4	44	48	63	b70	b40	51	104	279	497	116	50	40
5	44	49	51	b65	b40	60	93	263	461	111	51	40
6	41	48	b45	70	b40	67	93	303	441	113	51	40
7	42	52	b42	103	b40	66	80	354	424	109	50	39
8	44	60	b50	101	b42	66	87	337	412	103	50	39
9	44	56	b45	62	b45	64	95	303	380	100	53	39
10	45	54	b30	59	*b48	44	111	270	361	94	58	38
11	49	55	b45	64	b47	46	111	259	375	94	58	37
12	46	48	b50	66	b45	64	109	254	312	90	56	36
13	43	57	*b35	51	b45	62	122	266	282	88	53	36
14	42	54	b50	36	b47	64	160	282	251	84	50	35
15	43	60	b70	b35	b50	56	202	298	230	82	50	35
16	63	59	62	b34	b70	57	245	327	235	78	48	36
17	52	57	b45	b33	107	56	277	377	215	77	48	38
18	45	60	b50	b32	147	56	279	392	237	78	48	44
19	43	52	b55	b34	106	55	296	384	215	72	48	44
20	42	55	b55	b40	73	50	337	377	204	72	50	41
21	43	45	b45	b50	141	56	380	362	217	70	48	39
22	43	b29	b50	b70	374	57	387	421	200	68	50	39
23	43	40	b50	95	132	79	347	435	183	65	55	45
24	43	63	b52	99	78	93	308	480	170	62	55	50
25	44	70	56	84	84	114	284	510	162	62	56	53
26	44	67	57	55	109	78	272	591	152	60	52	57
27	44	66	b45	35	109	98	259	673	142	58	52	57
28	44	62	b40	b35	69	129	240	684	133	64	50	57
29	49	59	b55	b37	67	154	277	598	130	64	48	56
30	52	60	b48	b35	-	129	261	503	125	60	46	56
31	50	-	43	b35	-	91	-	456	-	58	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,403	63	41	45.3	2,780
November	1,635	70	29	54.5	3,240
December	1,567	70	30	50.5	3,110
Calendar year 1947	32,417	526	-	88.8	64,310
January	1,760	103	32	56.8	3,490
February	2,322	374	40	80.1	4,610
March	2,254	154	44	72.7	4,470
April	6,210	387	80	207	12,320
May	11,727	684	220	378	23,260
June	8,371	497	125	279	16,600
July	2,616	125	58	84.4	5,190
August	1,611	66	45	52.0	3,200
September	1,293	57	35	43.1	2,560
Water year 1947-48	42,769	684	29	117	84,830

Peak discharge (base, 400 sec.-ft.).- Feb. 22 (9 a.m.) 726 sec.-ft.; Apr. 22 (2 to 4 a.m.) 410 sec.-ft.; May 28 (7 to 8 a.m.) 701 sec.-ft.; June 4 (5 a.m.) 521 sec.-ft.

* Winter discharge measurement made on this day.

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 1948. 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.- 13 years (1935-48), 125 second-feet.
Extremes.- Maximum discharge observed during year, 469 second-feet June 1-16 (gage height, 2.58 feet); minimum observed, 0.3 second-foot (estimated) Dec. 13, but may have been less during periods of no gage-height record.
1909-12, 1913-14, 1926-48: 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 fair except those for Oct. 13 to Apr. 18, which are poor. Gage read once daily, twice at times. Flow regulated by Agency Valley Reservoir (see p. 164) 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 1947-48 (gage height, in feet, and discharge, in second-feet)

0.6	30	1.4	156
.7	40	1.7	227
.8	53	2.0	304
1.0	82	2.3	385
1.2	116	2.6	475

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36							349	387	191	76	268
2	36							349	469	191	76	268
3	36							341	469	191	76	268
4	36							322	469	191	76	268
5	36				0.5			322	469	191	177	268
6	36		0.4				2	312	469	191	237	268
7	36							307	469	191	237	268
8	36							307	469	191	237	268
9	36							307	469	184	237	268
10	36				*.5			307	469	165	237	268
11	36							307	469	158	237	268
12	12						2	301	469	146	237	268
13	.7		*.3					288	469	118	237	268
14	.7							288	469	88	237	268
15	.7	0.5		0.4		1	2	283	469	76	237	268
16	.7							278	380	76	237	268
17								278	304	76	237	268
18								278	304	76	237	268
19							35	278	288	76	237	268
20					.5		116	278	263	76	247	268
21							175	278	247	76	260	268
22			.3				294	278	217	76	260	268
23							301	278	191	76	260	268
24	.7						349	278	191	76	260	268
25							349	278	191	76	265	268
26							349	278	191	76	268	268
27							349	278	191	76	268	255
28							349	278	191	76	268	242
29							349	278	191	76	268	242
30					-		349	278	191	76	268	237
31		-			-		-	278	-	76	268	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	421.3	36	-	13.6	836
November	15.0	-	-	.50	30
December	10.5	-	-	.34	21
Calendar year 1947	31,944.8	433	-	87.5	63,360
January	12.4	-	-	.40	25
February	14.5	-	-	.50	29
March	31	-	-	1.0	61
April	3,400	349	-	113	6,740
May	9,138	349	278	295	18,120
June	10,484	469	191	349	20,790
July	3,679	191	76	119	7,300
August	6,959	268	76	224	13,800
September	7,944	268	237	265	15,760
Water year 1947-48	42,108.7	469	-	115	83,510

* Winter discharge measurement or field estimate made on this day.
Note.- No gage-height record Oct. 13 to Apr. 18 except Oct. 16, Dec. 13, Feb. 10, Apr. 12 (stage-discharge relation affected by ice during most of winter period); discharge interpolated or computed on basis of 4 discharge measurements or field estimates.

Bully Creek near Vale, Oreg.

Location.- Water-stage recorder and concrete control, lat. 43°58', long. 117°21', in SW¼ sec. 33, T. 18 S., R. 44 E., 5 miles southwest of Vale.

Records available.- October 1945 to September 1948 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.

Average discharge.- 12 years (1933-34, 1937-48), 41.3 second-feet.

Extremes.- Maximum discharge during year, 76 second-feet June 15 (gage height, 1.58 feet); minimum recorded, 3 second-feet Mar. 10, 11, Apr. 13, 14.

1903-7, 1910-17, 1919, 1922-23, 1933-48: 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 fair. Small diversions above station for irrigation. Occasional fluctuations caused by releases from Vale-Oregon Canal of Bureau of Reclamation, which diverts water from Malheur River for irrigation of lands west of Vale; considerable return flow at times enters Bully Creek above station.

Cooperation.- Water-stage recorder inspected by employee of Bureau of Reclamation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	12	9	7	11	7	4	a5	10	14	9	12
2	16	12	8	8	11	7	4	a4	9	11	9	14
3	16	12	8	7	a8	6	4	a4	11	14	8	15
4	16	12	9	9	a7	6	4	a4	12	16	8	15
5	16	12	9	8	a8	6	4	a4	12	16	10	14
6	16	12	8	9	a8	6	4	a4	13	16	10	15
7	15	13	8	b10	a7	11	4	a4	13	14	10	14
8	16	12	9	b10	a8	18	4	a6	12	10	10	14
9	16	11	8	b9	a9	11	4	a5	12	10	11	14
10	15	11	*8	b8	a9	6	4	a5	12	10	11	14
11	15	12	7	b8	a8	5	4	a4	12	9	12	14
12	14	12	7	b8	a7	4	4	a4	14	9	9	14
13	14	12	7	b8	a9	4	4	a4	16	10	9	12
14	12	12	7	b7	a9	4	4	a4	17	10	8	11
15	12	12	7	b7	a15	5	4	a5	22	9	8	11
16	14	12	7	b7	a14	5	4	a5	22	10	8	12
17	12	12	7	b7	*14	4	4	a5	15	10	8	12
18	12	13	7	b7	15	4	4	a5	16	10	8	12
19	12	12	7	b7	14	4	4	a6	15	11	6	12
20	12	12	8	b7	13	4	4	a5	16	11	6	12
21	12	12	7	b7	11	4	4	a6	20	12	8	13
22	12	11	7	10	13	4	4	a6	16	11	8	12
23	12	11	7	11	14	4	5	a5	14	11	11	13
24	12	10	7	b10	13	4	5	a5	12	11	9	11
25	12	11	6	b9	9	6	4	h5	12	10	9	11
26	13	12	6	b8	8	4	a4	a6	13	9	9	11
27	13	13	7	b7	8	5	h4	a6	14	8	10	11
28	13	10	8	b7	7	4	a4	a6	16	9	11	11
29	13	10	7	b8	7	4	a4	6	14	10	10	10
30	13	8	6	b10	-	4	a4	6	11	8	10	10
31	12	-	6	b10	-	4	-	8	-	9	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	424	16	12	13.7	841
November	348	13	8	11.6	690
December	229	9	6	7.4	454
Calendar year 1947	6,161	584	2	16.9	12,220
January	255	11	7	8.2	506
February	294	15	7	10.1	583
March	174	18	4	5.6	345
April	122	5	4	4.1	242
May	157	8	4	5.1	311
June	423	22	9	14.1	839
July	338	16	8	10.9	670
August	285	12	6	9.2	565
September	376	15	10	12.5	746
Water year 1947-48	3,425	22	4	9.4	6,790

* 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 North Fork Malheur River above Agency Valley Reservoir, near Beulah.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.

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 1948.

Extremes.- Maximum discharge during year, 5,250 second-feet May 28 (gage height, 6.73 feet); minimum, 173 second-feet Dec. 31, Jan. 26 (gage height, 2.50 feet).
1941-48: Maximum discharge, that of May 28, 1948; 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 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 23 to Sept. 30)

2.6	203	3.4	625	5.0	2,340
2.8	278	3.8	970	5.8	3,540
3.1	428	4.4	1,600	6.6	4,990

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug	Sept.
1	358	406	390	292	358	*305	343	934	3,860	1,900	611	373
2	358	400	373	333	343	318	373	862	4,380	1,850	603	363
3	368	390	363	333	328	292	440	880	4,910	1,690	575	363
4	363	390	*363	348	314	282	428	925	4,570	1,550	567	363
5	358	373	348	323	b300	287	400	880	4,400	1,450	560	358
6	348	368	343	363	b300	300	384	1,040	4,480	1,360	540	363
7	348	390	338	589	b290	305	358	1,530	4,690	1,310	540	358
8	400	412	333	764	b290	296	358	1,460	4,880	1,260	520	353
9	384	390	333	501	b300	292	378	1,290	4,860	1,200	567	348
10	428	373	278	440	b290	274	406	1,160	4,380	1,160	540	343
11	452	384	333	452	b260	270	378	1,100	4,110	1,160	520	338
12	417	348	287	390	b260	300	373	1,100	3,710	1,120	508	333
13	395	378	343	287	b300	296	373	1,280	3,680	1,080	488	328
14	378	368	338	333	b290	300	406	1,470	3,510	1,020	482	328
15	378	368	318	333	296	296	470	1,640	3,190	961	470	323
16	790	368	305	323	292	292	730	1,990	2,990	934	458	328
17	773	358	333	333	287	296	1,690	2,510	2,710	898	446	328
18	567	358	323	358	328	296	1,440	2,980	2,540	880	440	338
19	508	338	318	310	305	300	1,140	3,420	2,390	862	440	348
20	476	328	314	328	296	292	1,200	3,230	2,350	835	440	338
21	476	333	310	368	300	287	1,360	3,150	2,500	799	434	328
22	464	300	310	390	348	296	1,570	2,940	2,430	773	422	323
23	446	310	300	368	310	305	1,340	2,690	2,190	756	428	338
24	434	368	292	333	300	314	1,180	2,900	2,130	730	434	338
25	422	368	b290	b300	310	328	1,080	3,490	2,080	714	428	368
26	412	368	b280	*b200	328	310	970	4,100	1,980	689	417	440
27	406	368	b300	b190	328	310	880	4,440	1,880	673	412	378
28	395	358	b320	b210	296	318	853	4,910	1,870	673	400	368
29	417	358	310	b230	287	363	1,030	4,820	1,870	665	390	353
30	440	368	228	b280	-	368	1,010	3,970	1,900	633	378	343
31	417	-	197	310	-	343	-	3,560	-	611	378	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	13,576	790	348	438	0.961	1.11	26,930
November	10,987	412	300	366	.803	.90	21,790
December	9,811	390	197	316	.693	.80	19,460
Calendar year 1947	329,038	4,350	197	901	1.98	26.84	652,600
January	10,912	764	190	352	.772	.89	21,640
February	8,834	358	260	305	.669	.72	17,520
March	9,431	368	270	304	.667	.77	18,710
April	23,341	1,690	343	778	1.71	1.90	46,300
May	72,651	4,910	862	2,344	5.14	5.93	144,100
June	97,420	4,910	1,870	3,247	7.12	7.95	193,200
July	32,196	1,900	611	1,039	2.28	2.63	63,860
August	14,836	611	378	479	1.05	1.21	29,430
September	10,492	440	323	350	.768	.86	20,810
Water year 1947-48	314,487	4,910	190	859	1.88	25.67	623,800

Peak discharge (base, 2,500 sec.-ft.).- May 19 (8 p.m.) 3,540 sec.-ft.; May 28 (10 p.m.) 5,250 sec.-ft.; June 3 (8 a.m.) 5,030 sec.-ft.

* 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 1948.

Average discharge.- 24 years (1924-48), 1,225 second-feet.

Extremes.- Maximum discharge during year, 7,740 second-feet June 9 (gage height, 6.43 feet); minimum, 228 second-feet Dec. 31 (gage height, 1.24 feet); minimum daily, 280 second-feet Jan. 27.

1921-48: 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, which are fair. Practically no diversion above station. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 175).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	634	562	531	356	495	*416	502	1,450	5,260	2,780	914	1,820
2	667	554	516	461	475	447	546	1,320	5,880	2,720	904	1,950
3	684	539	482	468	441	391	650	1,300	6,660	2,490	875	1,820
4	684	531	502	488	422	379	675	1,440	6,320	2,320	856	1,850
5	577	516	*482	495	400	385	625	1,350	6,120	2,150	856	1,990
6	482	502	475	531	410	410	577	1,540	6,550	2,030	810	1,980
7	454	531	468	875	390	416	531	2,440	7,040	1,940	800	1,850
8	509	569	454	1,410	385	410	524	2,390	7,500	1,870	782	1,920
9	524	554	454	943	410	397	539	2,060	7,670	1,770	819	2,000
10	569	509	379	710	397	362	617	1,850	7,270	1,710	800	1,990
11	642	531	428	650	350	351	592	1,740	6,850	1,680	772	1,960
12	569	482	422	550	360	404	562	1,730	6,320	1,630	754	2,000
13	531	524	428	450	410	404	554	2,030	6,100	1,570	737	2,060
14	509	516	475	430	404	397	592	2,340	5,760	1,530	710	2,120
15	502	516	447	450	410	391	693	2,580	5,360	1,440	693	2,030
16	1,010	516	422	460	404	391	1,050	3,060	5,000	1,410	684	2,070
17	1,260	495	447	460	397	385	2,580	3,760	4,560	1,340	667	2,030
18	828	502	461	480	447	391	2,580	4,520	4,250	1,300	650	1,940
19	710	468	447	450	454	391	1,990	5,200	4,000	1,280	634	1,780
20	650	441	447	480	410	379	1,990	5,070	3,830	1,250	642	1,730
21	650	454	428	520	416	368	2,250	4,880	3,980	1,220	625	1,710
22	634	410	441	550	524	391	2,620	4,560	3,920	1,170	609	1,770
23	609	385	422	540	488	422	2,270	4,130	3,540	1,110	672	1,190
24	592	482	404	460	441	404	1,960	4,320	3,350	1,090	1,040	1,790
25	569	531	391	420	447	475	1,780	5,130	3,230	1,060	992	1,940
26	554	524	385	320	468	441	1,590	5,900	3,070	1,040	1,050	1,600
27	546	524	404	*280	495	435	1,440	6,280	2,910	1,010	1,170	1,370
28	539	488	461	300	447	447	1,340	7,010	2,820	1,000	1,290	1,230
29	554	482	441	350	422	502	1,550	6,820	2,780	1,000	1,510	1,320
30	625	502	345	410	-	546	1,570	5,760	2,740	972	1,820	1,380
31	584	-	296	450	-	509	-	5,030	-	943	1,680	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19,451	1,260	454	627	38,580
November	15,140	569	385	505	30,030
December	13,585	531	296	438	26,950
Calendar year 1947	552,791	6,320	296	1,514	1,096,000
January	16,197	1,410	280	522	32,130
February	12,419	524	350	428	24,630
March	12,837	546	351	414	25,460
April	37,339	2,620	502	1,245	74,060
May	108,990	7,010	1,300	3,516	216,200
June	150,660	7,670	2,740	5,022	298,800
July	47,825	2,780	943	1,543	94,860
August	27,817	1,820	609	897	55,170
September	54,190	2,120	1,190	1,806	107,500
Water year 1947-48	516,450	7,670	280	1,411	1,024,000

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Jan. 11-31, Feb. 5, 7, 11, 12.

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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 1948.

Average discharge.- 27 years, 1,634 second-feet.

Extremes.- Maximum discharge during year, 9,690 second-feet May 29 (gage height, 9.05 feet); minimum, 285 second-feet Dec. 31 (gage height, 0.05 foot).
1921-48: 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 or no gage-height record, which are fair. Small diversions above station for irrigation. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p. 175).

Rating table, water year 1947-48, except for period of ice effect
(gage height, in feet, and discharge, in second-feet)

0.2	345	2.0	1,370	5.0	4,070
.5	485	2.5	1,730	7.0	6,660
1.0	750	3.0	2,140	9.0	9,530
1.5	1,040	4.0	3,040		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a820	734	734	465	b720	712	919	2,490	7,050	2,950	1,030	1,910
2	a880	728	734	629	b680	*739	985	2,260	7,740	2,890	1,020	2,040
3	a890	722	678	656	b640	668	1,320	2,250	8,680	2,680	997	1,940
4	a890	712	700	678	b620	651	1,340	2,510	8,130	2,500	967	1,960
5	a760	690	*678	712	602	640	1,210	2,330	7,820	2,330	961	2,100
6	a640	673	673	750	612	662	1,130	2,580	8,100	2,200	937	2,140
7	a610	712	656	1,320	585	684	1,030	3,830	8,540	2,100	913	1,990
8	a630	756	640	2,320	590	684	991	3,810	8,900	2,010	901	2,040
9	a640	761	646	1,440	618	673	1,030	3,330	9,060	1,930	937	2,030
10	a770	695	560	1,090	585	629	1,250	3,010	8,560	1,860	925	2,100
11	877	722	580	1,050	545	602	1,210	2,820	7,990	1,820	901	2,070
12	756	673	612	937	540	662	1,140	2,770	7,360	1,790	877	2,110
13	695	706	570	684	624	673	1,100	3,170	7,020	1,710	847	2,160
14	673	706	673	640	618	673	1,180	3,620	6,560	1,630	841	2,230
15	662	706	624	695	624	678	1,360	3,900	6,040	1,560	817	2,150
16	1,240	712	585	700	618	656	1,960	4,540	5,570	1,520	794	2,180
17	1,750	690	607	695	607	656	4,230	5,550	5,080	1,480	778	2,150
18	1,060	690	646	761	662	673	4,520	6,670	4,670	1,430	761	2,070
19	901	640	640	712	717	673	3,470	7,530	4,470	1,390	761	1,930
20	829	585	618	712	640	646	3,420	7,220	4,230	1,370	761	1,870
21	835	618	602	766	634	624	3,730	6,910	4,420	1,330	766	1,820
22	823	570	607	817	835	656	4,360	6,630	4,310	1,270	778	1,900
23	783	515	580	811	841	728	3,960	6,030	3,890	1,240	778	1,490
24	766	673	560	761	739	761	3,350	6,140	3,660	1,200	1,140	1,720
25	739	744	525	b630	728	841	3,040	7,090	3,510	1,170	1,090	2,090
26	722	728	535	b480	783	794	2,660	7,980	3,350	1,140	1,120	1,800
27	717	728	555	*b400	859	772	2,420	8,400	3,160	1,120	1,240	1,540
28	706	678	662	b450	761	811	2,250	9,300	3,040	1,120	1,360	1,370
29	728	668	629	b540	722	919	2,700	9,200	2,980	1,120	1,560	1,400
30	811	695	510	b650	-	1,010	2,700	7,890	2,930	1,080	1,910	1,600
31	766	-	333	b680	-	943	-	6,940	-	1,050	1,810	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	25,369	1,750	610	818	50,320
November	20,630	761	515	683	40,920
December	18,952	734	333	611	37,590
Calendar year 1947	727,049	8,880	333	1,992	1,442,000
January	24,631	2,320	400	795	48,850
February	19,349	859	540	667	38,380
March	22,193	1,010	602	716	44,020
April	65,865	4,520	919	2,193	130,600
May	158,700	9,300	2,250	5,119	314,800
June	176,820	9,060	2,930	5,894	350,700
July	51,990	2,950	1,050	1,677	103,100
August	31,278	1,910	761	1,009	62,040
September	57,900	2,230	1,370	1,930	114,800
Water year 1947-48	673,677	9,300	333	1,841	1,336,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for North Fork Payette River near Banks and Payette River near Horseshoe Bend.
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).

Drainage area.- 2,230 square miles.

Records available.- November 1912 to September 1916, July 1919 to September 1948. February 1906 to November 1912 at site 2 miles upstream.

Average discharge.- 37 years (1907-15, 1919-48), 3,026 second-feet.

Extremes.- Maximum discharge during year, 15,300 second-feet June 9 (gage height, 7.93 feet); minimum daily, 400 second-feet Dec. 31; minimum gage height, 0.28 foot Dec. 31. 1906-16, 1919-48: 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 good. Flow regulated by Deadwood Reservoir (see p.175), Payette Lake (see p.178), Lake Fork Reservoir (see p.185), and Cascade Reservoir (see p. 180). Several diversions from tributaries above station for irrigation.

Revisions.- W 533: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	1,330	872	502	2,500	1,610	1,780	6,360	12,100	4,530	3,020	2,460
2	1,180	1,310	881	736	2,490	1,570	2,000	5,900	12,800	4,490	3,010	2,730
3	1,200	1,280	809	752	2,370	1,330	2,660	5,690	14,100	4,340	3,000	2,550
4	1,200	1,260	827	776	2,250	1,290	2,870	6,210	13,900	3,910	2,940	2,490
5	1,110	1,220	784	836	2,080	1,220	2,430	5,770	13,400	4,260	3,010	2,600
6	1,010	1,190	776	881	2,060	1,200	2,340	5,880	13,600	4,160	3,040	2,600
7	935	1,150	736	1,390	1,860	1,200	2,150	7,270	14,200	4,030	3,010	2,410
8	1,010	935	728	3,010	1,710	1,200	2,020	7,430	14,600	3,940	3,020	2,410
9	1,110	1,120	736	2,130	1,570	1,170	2,060	6,760	14,900	3,680	3,010	2,490
10	1,190	853	636	1,520	1,330	1,070	2,550	6,490	14,200	3,520	3,040	2,460
11	1,470	836	615	1,340	1,070	1,060	2,460	6,070	13,600	3,120	2,010	2,410
12	1,380	1,040	*706	1,220	1,010	1,110	2,260	5,960	12,600	3,160	2,000	2,420
13	1,180	1,730	643	944	1,070	1,100	2,170	6,290	11,500	3,200	2,980	2,450
14	1,120	1,610	768	827	1,090	1,110	2,370	4,930	10,400	3,160	2,950	2,550
15	1,110	1,450	713	854	1,090	1,110	2,910	6,250	9,950	3,080	2,940	2,430
16	1,650	1,320	671	854	1,060	1,090	4,120	8,150	10,900	3,080	2,940	2,450
17	2,900	1,060	671	827	1,010	1,100	6,970	9,140	10,700	3,120	2,980	2,420
18	2,040	1,110	728	899	1,140	1,120	7,500	10,400	10,300	3,100	2,920	2,370
19	1,870	971	720	1,900	1,290	1,120	6,230	11,400	10,000	3,040	2,940	2,210
20	1,590	699	692	2,060	1,340	1,080	6,490	11,200	9,170	3,060	2,940	2,160
21	1,640	699	678	2,600	1,410	1,060	6,830	10,800	9,740	3,070	2,910	2,080
22	1,600	671	671	2,640	1,770	1,090	7,360	10,800	9,710	3,010	2,880	2,160
23	1,520	574	664	2,590	1,840	1,220	6,600	10,600	9,170	2,850	2,690	1,890
24	1,470	768	636	2,880	1,760	1,450	6,030	10,800	8,800	3,020	2,910	1,730
25	1,420	872	594	2,850	1,710	1,710	5,580	11,600	8,770	3,080	2,690	2,390
26	1,380	854	587	2,640	1,710	1,570	5,250	12,600	8,520	3,080	2,590	2,070
27	1,340	872	608	2,430	2,040	1,490	4,970	13,300	6,830	3,020	2,560	1,850
28	1,310	800	736	*2,450	1,940	1,490	5,090	14,200	4,950	3,020	2,530	1,660
29	1,340	768	728	2,490	1,750	1,660	6,030	14,100	4,340	3,020	2,590	1,650
30	1,430	818	b575	2,560	-	1,860	6,560	13,000	4,430	3,000	2,810	1,950
31	1,380	-	b400	2,530	-	1,770	-	11,500	-	3,020	2,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	43,265	2,900	935	1,396	85,810
November	31,171	1,730	574	1,039	61,830
December	21,589	881	400	696	42,820
Calendar year 1947	1,252,465	16,500	400	3,431	2,484,000
January	52,918	3,010	502	1,707	105,000
February	47,330	2,500	1,010	1,632	93,860
March	40,230	1,860	1,060	1,298	79,800
April	126,640	7,500	1,780	4,221	251,200
May	276,850	14,200	4,930	8,931	549,100
June	322,180	14,900	4,340	10,740	639,000
July	105,170	4,530	2,850	3,392	208,600
August	89,630	3,040	2,530	2,891	177,800
September	68,500	2,730	1,650	2,283	135,900
Water year 1947-48	1,225,463	14,900	400	3,348	2,431,000

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

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 1948.

Average discharge.- 23 years, 2,884 second-feet.

Extremes.- Maximum discharge during year, 16,700 second-feet June 3 (gage height, 10.75 feet); minimum, 251 second-feet Dec. 17, 18 (gage height, 1.83 feet); minimum daily, 602 second-feet Jan. 1.

1925-48: 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 Cascade Reservoir (see p. 180), Deadwood Reservoir (see p. 175), Payette Lake (see p. 178), and Lake Fork Reservoir (see p. 185).

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	882	1,370	1,170	602	2,730	730	2,020	6,280	12,300	3,670	1,960	1,720
2	926	1,370	1,370	731	2,730	970	2,200	5,750	13,200	3,680	1,980	1,660
3	926	1,400	1,240	870	2,610	1,340	3,140	5,520	15,100	3,480	2,020	1,700
4	937	1,420	1,260	1,070	2,460	1,190	3,380	6,340	14,900	2,860	1,860	1,650
5	948	1,380	1,160	1,180	2,360	1,290	2,980	5,680	13,800	3,440	1,890	1,620
6	860	1,370	1,140	1,260	2,200	1,420	2,660	5,700	14,100	3,190	2,080	1,670
7	690	1,380	1,140	1,430	2,030	1,410	2,450	7,040	14,600	3,070	1,960	1,600
8	690	1,220	1,030	3,120	1,950	1,410	2,340	7,480	14,900	2,980	1,950	1,560
9	820	1,150	1,020	3,600	1,860	1,380	2,260	8,960	15,000	2,720	1,930	1,550
10	1,160	1,240	1,030	2,370	1,520	1,290	2,970	6,340	14,300	2,540	2,000	1,540
11	1,270	1,080	842	1,910	1,300	1,230	3,050	5,880	13,400	2,210	1,950	1,530
12	1,520	1,060	826	1,960	1,100	1,380	2,680	5,660	12,200	2,100	1,890	1,590
13	1,340	1,580	875	1,660	1,230	1,310	2,510	5,920	11,000	2,320	1,890	1,620
14	1,070	1,820	802	1,160	1,260	1,340	2,650	5,120	10,200	2,160	1,900	1,620
15	1,240	1,610	892	1,040	1,270	1,400	3,180	5,560	9,710	2,110	1,840	1,640
16	1,560	1,430	903	1,030	1,310	1,270	4,640	8,020	10,900	2,020	1,800	1,620
17	3,640	1,380	872	952	1,100	1,310	7,540	9,000	10,600	2,060	1,860	1,600
18	2,190	1,180	971	1,040	1,240	1,350	9,230	10,400	9,930	2,080	1,890	1,580
19	1,930	1,230	1,030	1,600	1,500	1,240	7,230	11,500	9,770	1,980	1,850	1,590
20	1,730	1,060	982	2,060	1,530	860	7,280	11,700	8,680	2,030	1,840	1,550
21	1,650	1,100	911	2,370	1,710	830	7,740	11,200	9,460	2,000	1,770	1,580
22	1,780	1,140	946	2,900	3,040	820	8,360	10,900	9,490	1,950	1,720	1,480
23	1,670	1,170	860	2,860	2,480	1,100	7,540	10,700	8,870	1,780	1,650	1,500
24	1,600	1,090	816	2,910	2,150	1,540	6,620	10,500	8,340	1,900	1,730	1,370
25	1,590	1,260	780	3,140	1,800	2,240	6,060	11,500	8,360	2,020	1,740	1,480
26	1,420	1,370	676	2,770	1,950	2,060	5,430	12,900	8,080	2,000	1,650	1,640
27	1,370	1,560	632	2,510	2,120	1,770	5,140	13,900	6,770	2,020	1,640	1,550
28	1,370	1,240	606	2,550	1,820	1,740	5,000	15,100	4,250	2,000	1,680	1,440
29	1,400	1,270	712	2,630	1,600	1,950	5,790	14,700	3,640	1,980	1,670	1,440
30	1,490	1,080	916	2,840	-	2,300	6,680	13,300	3,640	1,930	1,670	1,440
31	1,530	-	742	2,840	-	2,170	-	11,500	-	1,980	1,780	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	43,199	3,640	690	1,334	85,680
November	38,810	1,820	1,060	1,234	76,980
December	29,152	1,370	606	940	57,820
Calendar year 1947	1,198,173	16,700	606	3,283	2,377,000
January	60,965	3,600	602	1,967	120,900
February	53,760	3,040	1,100	1,854	106,600
March	43,640	2,300	730	1,408	86,560
April	140,750	9,230	2,020	4,692	279,200
May	278,050	15,100	5,120	8,969	551,500
June	319,490	15,100	3,640	10,650	633,700
July	74,260	3,680	1,780	2,395	147,300
August	57,040	2,080	1,640	1,840	113,100
September	47,130	1,720	1,440	1,571	93,480
Water year 1947-48	1,186,246	15,100	602	3,241	2,353,000

Note.- Discharge May 25 to June 11, computed from average of hourly readings of long-distance gage at power plant, furnished by Bureau of Reclamation.

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 1948. January 1895 to July 1897 (incomplete) at site 2 miles downstream.

Average discharge.- 13 years (1935-48), 3,039 second-feet.

Extremes.- Maximum discharge during year, 15,900 second-feet June 4 (gage height, 10.62 feet); minimum, 600 second-feet Dec. 31 (gage height, 4.07 feet); minimum daily discharge, 671 second-feet Oct. 9.

1895-97, 1935-48: Maximum discharge observed, 28,300 second-feet June 4, 1896 (gage height, 9.30 feet, site and datum then in use); 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 1947-48 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 29

4.2	755	6.0	3,460
4.6	1,280	7.0	5,410
5.2	2,150		

Note.- Same as following table above 7.0 feet.

May 30 to Sept. 30

4.9	1,360	8.0	7,690
5.5	2,380	9.0	10,400
6.3	3,910	10.4	15,000
7.2	5,840		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	755	1,710	1,350	919	2,840	1,650	2,390	6,720	11,200	3,180	1,540	1,490
2	731	1,680	1,390	919	2,840	1,080	2,450	6,100	11,900	3,330	1,500	1,360
3	792	1,600	1,460	1,180	2,790	1,500	2,970	5,710	13,500	3,120	1,470	1,360
4	792	1,650	1,420	1,280	2,630	1,320	4,070	6,280	15,200	2,730	1,440	1,380
5	792	1,590	1,350	1,490	2,500	1,390	3,410	6,150	13,700	2,730	1,360	1,340
6	792	1,530	1,320	1,600	2,340	1,580	3,060	5,910	13,600	2,820	1,490	1,440
7	731	1,580	1,280	1,840	2,270	1,580	2,860	6,400	14,000	2,630	1,460	1,460
8	683	1,490	1,280	2,560	2,090	1,590	2,470	7,590	14,400	2,580	1,440	1,340
9	671	1,150	1,210	4,140	2,060	1,580	2,380	7,450	14,600	2,340	1,490	1,300
10	830	1,500	1,180	2,920	1,760	1,520	2,790	6,690	14,400	2,220	1,460	1,380
11	1,090	1,130	1,140	2,260	1,660	1,390	3,350	6,190	13,500	1,830	1,500	1,330
12	1,290	1,220	1,040	2,060	1,340	1,460	2,870	5,860	12,700	1,640	1,460	1,380
13	1,390	1,490	1,130	2,030	1,380	1,450	2,670	5,820	11,400	1,740	1,460	1,390
14	1,150	2,000	1,090	1,430	1,390	1,460	2,640	5,490	10,700	1,670	1,570	1,410
15	1,040	1,890	1,060	1,200	1,520	1,520	3,040	4,730	9,250	1,550	1,410	1,440
16	1,350	1,710	1,090	1,270	1,500	1,490	4,160	7,070	10,200	1,460	1,390	1,440
17	2,740	1,650	1,080	1,240	1,280	1,530	6,150	8,000	10,300	1,460	1,360	1,460
18	2,940	1,490	1,100	1,100	1,390	1,520	9,610	9,070	9,760	1,490	1,410	1,500
19	2,280	1,460	1,210	1,250	1,580	1,580	7,740	10,000	9,550	1,440	1,360	1,550
20	2,140	1,420	1,200	2,200	1,650	1,210	7,280	11,300	8,760	1,420	1,380	1,460
21	2,000	1,170	1,140	2,360	1,710	1,010	7,620	10,600	9,100	1,470	1,380	1,420
22	2,030	1,380	1,140	2,940	3,010	1,010	8,090	10,500	9,420	1,470	1,340	1,410
23	1,920	1,420	1,110	3,010	3,110	1,050	7,760	10,500	8,900	1,330	1,420	1,390
24	1,840	1,310	1,060	3,040	2,420	1,640	6,900	10,200	8,220	1,230	1,390	1,410
25	1,840	1,390	1,010	3,350	2,120	2,450	6,400	10,600	8,120	1,420	1,550	1,390
26	1,780	1,520	919	3,080	1,890	2,630	5,750	11,200	7,840	1,470	1,420	1,570
27	1,680	1,560	906	2,920	2,440	2,390	5,330	12,400	7,310	1,590	1,360	1,570
28	1,650	1,480	868	2,750	1,870	2,380	5,140	13,000	4,620	1,500	1,390	1,500
29	1,700	1,490	880	2,750	1,780	2,320	5,370	13,500	3,450	1,520	1,340	1,440
30	1,710	1,430	1,050	2,840	-	2,800	6,900	13,200	3,200	1,500	1,330	1,410
31	1,830	-	1,010	2,890	-	2,560	-	11,500	-	1,490	1,390	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	44,959	2,940	671	1,450	89,170
November	45,090	2,000	1,130	1,503	89,430
December	35,473	1,460	868	1,144	70,360
Calendar year 1947	1,167,823	16,300	671	3,200	2,316,000
January	66,818	4,140	919	2,155	132,500
February	59,160	3,110	1,280	2,040	117,300
March	51,640	2,800	1,010	1,666	102,400
April	143,620	9,610	2,380	4,787	284,900
May	265,730	13,500	4,730	8,572	527,100
June	312,800	15,200	3,200	10,430	620,400
July	59,570	3,330	1,230	1,922	118,200
August	44,260	1,570	1,330	1,428	87,790
September	42,720	1,570	1,300	1,424	84,730
Water year 1947-48	1,171,840	15,200	671	3,202	2,324,000

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.

Drainage area.- 59.6 square miles.

Records available.- May 1941 to September 1948.

Extremes.- Maximum discharge observed during year, 692 second-feet May 28; maximum gage height observed, 3.75 feet Jan. 22 (ice jam); minimum daily discharge, 17 second-feet Dec. 31.

1941-48: 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 about 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	38	42	23	33	*31	a37	117	544	143	a58	39
2	33	37	40	36	32	a32	40	120	601	a133	54	37
3	33	a36	38	36	31	28	44	114	582	a128	54	36
4	33	a36	*37	37	a30	26	46	a118	553	a122	54	a36
5	a32	a36	a36	35	30	27	42	a114	563	117	a52	a36
6	a31	a35	35	36	a30	27	40	139	a570	107	49	36
7	a31	a37	35	48	29	27	40	151	582	100	47	37
8	38	a39	35	89	30	27	41	a190	601	100	a46	36
9	34	a40	38		30	a27	a42	172	534	a95	47	a36
10	a37	39	a33		a28	26	43	a160	525	91	47	36
11	a40	39	35	45	a25	25	45	a156	470	a90	45	36
12	a36	41	33		25	30	47	179	434	84	45	36
13	33	39	36		a28	29	a47	220	398	86	a45	a35
14	33	39	38		28	28	49	237	a420	a83	43	34
15	34	38	36		28	a29	49	309	365	a80	a43	32
16	a54	38	a35		a28	29	52	325	309	78	41	32
17	52	38	a37		28	31	288	a380	302	73	39	a34
18	45	33	38		30	29	185	434	281	a72	41	36
19	a41	30	37		29	30	a170	506	261	70	44	36
20	38	30	35		29	30	a170	497	243	a68	a44	34
21	39	30	35	30	28	30	210	479	231	a67	a42	a34
22	36	28	37		a32	a31	200	434	220	a64	a41	34
23	37	29	a36		28	32	190	386	210	a61	41	32
24	33	a34	a35		28	32	159	497	190	a58	41	34
25	33	a40	a35		28	32	147	a500	176	a57	39	a37
26	a33	48	a34	(*)	28	34	a130	a520	168	a56	39	41
27	33	38	37		a28	34	128	534	a160	56	a39	43
28	a32	40	38		28	34	139	692	155	a58	a39	a40
29	a35	40	20		28	a36	139	553	143	59	39	37
30	a39	40	18		-	37	132	497	147	a58	a39	36
31	37	-	17		-	37	-	488	-	a48	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,126	54	31	36.3	0.609	0.70	2,230
November	1,105	48	28	36.8	.617	.69	2,190
December	1,071	42	17	34.5	.579	.67	2,120
Calendar year 1947	38,015	540	17	104	1.74	23.74	75,390
January	1,090	89	23	35.2	.591	.68	2,160
February	837	33	25	28.9	.485	.52	1,660
March	937	37	25	30.2	.507	.58	1,860
April	3,091	288	37	103	1.73	1.93	6,130
May	10,218	692	114	330	5.54	6.38	20,270
June	10,938	601	143	365	6.12	6.83	21,700
July	2,572	143	56	83.0	1.39	1.60	5,100
August	1,377	58	39	44.4	.745	.86	2,730
September	1,078	43	32	35.9	.602	.67	2,140
Water year 1947-48	35,440	692	17	96.8	1.62	22.11	70,290

* Winter discharge measurements 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 and Deadwood River near Lowman.

Note.- Stage-discharge relation affected by ice Nov. 20-23, Dec. 7, 11-15, 18, 19, Dec. 31 to Jan. 6, Jan. 9 to Feb. 18, Feb. 24, Mar. 3-6, 8-11.

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 1948.

Extremes.- Maximum elevation observed during year, 5,336.65 feet June 9, 10; minimum observed, 5,290.5 feet Oct. 5.
1935-48: 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 of Johnson Creek in Salmon River Basin to Deadwood River Basin for supplemental storage in Deadwood Reservoir. Discharge measurements of Oct. 15 and July 16, indicated flow in this canal of 1.02 and 6.05 second-feet, respectively. Gage read once daily about 8 a.m.

Cooperation.- Gage readings furnished by Bureau of Reclamation.

Elevation, in feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290.95	293.9	296.2	298.15	300.8	303.2	306.3	310.2	330.4	335.05	334.4	329.9
2	290.85	294.0	296.4	298.2	300.85	303.3	306.4	310.4	331.4	335.05	334.4	328.95
3	290.7	294.1	296.5	298.25	300.9	303.4	306.5	310.7	332.5	335.0	334.4	328.1
4	290.6	294.25	296.6	298.35	300.95	303.5	306.6	311.0	333.6	334.95	334.4	327.2
5	290.5	294.3	296.7	298.4	301.0	303.55	306.7	311.3	334.6	334.9	334.4	326.1
6	290.6	294.4	296.8	298.5	301.05	303.6	306.8	311.5	335.4	334.9	334.4	325.0
7	290.65	294.6	296.9	298.8	301.05	303.7	306.9	311.7	336.0	334.85	334.4	324.1
8	290.7	294.7	297.0	299.2	301.1	303.8	307.0	312.0	336.35	334.8	334.35	323.1
9	290.8	294.75	297.05	299.4	301.1	303.9	307.1	312.3	336.65	334.8	334.4	322.0
10	291.0	294.8	297.1	299.6	301.15	304.0	307.2	312.7	336.65	334.75	334.4	321.0
11	291.15	294.85	297.1	299.7	301.2	304.1	307.3	312.9	336.5	334.7	334.35	319.8
12	291.25	294.9	297.15	299.8	301.25	304.2	307.4	313.2	336.5	334.7	334.35	318.7
13	291.3	294.95	297.2	299.9	301.3	304.3	307.5	313.6	336.4	334.7	334.35	317.5
14	291.4	295.0	297.25	299.95	301.4	304.4	307.6	313.9	336.3	334.65	334.35	316.2
15	291.5	295.1	297.3	300.0	301.4	304.5	307.7	314.4	336.2	334.65	334.35	314.9
16	292.6	295.15	297.35	300.05	301.5	304.6	307.8	315.0	336.1	334.6	334.3	313.6
17	292.7	295.2	297.4	300.1	301.6	304.7	307.9	315.6	335.95	334.6	334.3	312.3
18	292.8	295.3	297.45	300.15	301.8	304.8	308.1	316.5	335.85	334.6	334.3	311.0
19	292.85	295.4	297.5	300.2	302.0	304.9	308.2	317.4	335.8	334.55	334.3	310.0
20	292.85	295.5	297.55	300.25	302.1	305.0	308.3	318.4	335.7	334.55	334.3	308.9
21	292.9	295.55	297.6	300.3	302.2	305.1	308.4	319.4	335.7	334.55	334.3	307.8
22	292.95	295.6	297.65	300.35	302.4	305.2	308.5	320.3	335.6	334.5	334.3	306.6
23	293.0	295.7	297.7	300.4	302.5	305.35	308.6	321.2	335.5	334.5	334.25	305.7
24	293.1	295.8	297.75	300.45	302.6	305.5	308.8	321.95	335.4	334.5	334.0	304.9
25	293.15	295.9	297.8	300.5	302.7	305.6	309.0	322.9	335.35	334.5	333.8	303.4
26	293.2	296.0	297.85	300.55	302.8	305.7	309.2	323.9	335.3	334.5	333.6	302.5
27	293.3	296.05	297.9	300.6	302.9	305.8	309.4	325.0	335.3	334.45	333.3	301.7
28	293.4	296.1	297.95	300.6	303.0	305.9	309.6	326.2	335.2	334.45	332.9	301.0
29	293.6	296.15	298.0	300.65	303.1	306.0	309.8	327.4	335.15	334.45	332.35	300.3
30	293.7	296.2	298.05	300.7	-	306.1	310.0	328.5	335.1	334.45	331.6	299.4
31	293.8	-	298.1	300.75	-	306.2	-	329.4	-	334.45	330.6	-

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 1948.

Average discharge.- 21 years (1927-48), 199 second-feet.

Extremes.- Maximum discharge during year, 1,700 second-feet Sept. 13, 14 (gage height, 5.15 feet); minimum not determined, occurred during period of no gage-height record when gates in dam were closed.

1926-48: 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 1930-48 when gates in dam were closed.

Revisions.- The maximum discharge for the water year 1943 has been revised to 1,940 second-feet June 1 (gage height, 5.46 feet), superseding figure published in Water-Supply Paper 983.

Remarks.- Records good except those below 10 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 measurements of Oct. 15 and July 16 indicated flow in this canal of 1.02 and 6.05 second-feet, respectively.

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 31	1,680	June 2	1,880
June 1	1,910	3	1,680

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
May	7,069	1,680	-	228	14,020
June	36,005	1,910	995	1,200	71,410
Water year 1942-43	104,906	1,910	-	287	208,079
Calendar year 1943	121,291	1,910	-	332	240,578

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	191			a3			a5	h5		392	132	1,370
2	211	a4		a3			a5		a5	380	130	1,410
3	213			h3		a4	h5	a5		362	126	1,300
4	150	h4	a3		a3				14	342	122	1,430
5	51						a5		238	323	117	1,510
6		a4		a3		h4		a6	563	301	113	1,420
7			h3		h3				925	285	108	1,390
8	a5						a4	h6	1,210	270	108	1,500
9									1,320	260	111	1,560
10			a3	h3		a4	h4		1,370	247	108	1,510
11	h5	a3			a3			a6	1,330	237	106	1,530
12							a4		1,260	228	102	1,560
13	a5	h3	h3			h4			1,200	218	100	1,660
14				a3	h3				1,140	213	97	1,650
15	h5						a5	h6	1,070	200	93	1,640
16	a5		a3		a3	a4			985	195	90	1,640
17	a5			h3			h5		905	188	86	1,570
18	h5	a3							833	186	85	1,410
19					a4			a6	786	180	83	1,310
20			h3			h4			726	175	81	1,260
21	a5			a3			a5		708	169	78	1,290
22						h4		h6	682	165	76	1,340
23		h3							631	162	319	546
24			a3	h3			h5	a6	582	156	432	1,640
25	h5				a4	a4			540	150	429	1,230
26		a3							511	144	526	950
27			h3	a3		h4	a5	a5	477	144	669	795
28	a5				h4	a4			451	138	847	758
29		h3	a3		a4	a4		h5	429	136	1,140	940
30		a3			-	a5		a5	407	136	1,340	621
31	a4	-		h3	-	a5	-	a5	-	134	935	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	945	213	-	30.5	1,870
November	98	-	-	3.3	194
December	93	-	-	3.0	184
Calendar year 1947	107,747	1,280	-	295	213,700
January	93	-	-	3.0	184
February	99	-	-	3.4	196
March	126	-	-	4.1	250
April	143	-	-	4.8	284
May	176	-	-	5.7	349
June	21,308	1,370	-	710	42,260
July	6,816	392	134	220	13,520
August	8,889	1,340	76	287	17,630
September	39,740	1,660	546	1,325	78,820
Water year 1947-48	78,526	1,660	-	215	155,700

a No gage-height record; gates closed; discharge interpolated or computed on basis of weather records.

h Computed from staff-gage reading.

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 1948.

Average discharge.- 27 years, 374 second-feet.

Extremes - Maximum discharge during year, 2,090 second-feet June 9; maximum gage height, 4.58 feet Jan. 28 (ice jam); minimum discharge recorded, 44 second-feet Mar. 11, but may have been less during periods of ice effect; minimum daily, 50 second-feet Dec. 31.
1921-48: 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 Nov. 4, 1935 (gage height, 0.83 foot); minimum daily, 34 second-feet Nov. 4, 1935.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated since Nov. 2, 1930, by Deadwood Reservoir (see p. 175). Small amount of water diverted from tributary of Johnson Creek in Salmon River Basin to Deadwood River Basin during year.

Revisions.- W 633: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	221	84	82	70	86	*60	86	324	915	593	218	1,380
2	269	84	80	75	84	62	95	296	968	580	210	1,460
3	278	80	77	75	78	62	124	305	1,060	555	203	1,340
4	257	78	*80	75	70	62	119	329	986	530	200	1,430
5	158	75	75	75	68	66	108	310	1,060	499	196	1,530
6	75	73	73	90	68	68	102	385	1,330	469	190	1,490
7	64	78	72	150	66	68	91	654	1,650	452	186	1,430
8	75	87	72	250	70	67	91	613	1,940	440	177	1,490
9	77	77	70	196	70	66	102	518	2,020	418	186	1,540
10	97	72	56	156	70	61	114	464	2,000	401	183	1,520
11	110	82	72	153	64	61	108	440	1,900	391	183	1,520
12	89	66	66	122	66	72	102	452	1,770	374	177	1,540
13	80	80	78	89	60	67	104	574	1,660	364	174	1,610
14	77	77	78		70	66	112	681	1,530	354	177	1,650
15	75	78	73		68	66	144	746	1,460	344	170	1,600
16	272	77	70		68	64	244	873	1,370	329	170	1,610
17	200	73	78		68	64	606	1,060	1,260	314	161	1,570
18	119	75	78		76	64	574	1,180	1,170	310	156	1,460
19	99	53	73	80	73	64	475	1,340	1,110	296	150	1,370
20	93	58	72		66	61	469	1,230	1,050	291	153	1,320
21	95	58	72		64	60	542	1,150	1,040	282	150	1,320
22	91	54	70		80	66	620	1,120	995	273	144	1,390
23	87	54	70		70	72	536	1,040	924	265	262	587
24	84	68	64		70	73	469	1,090	848	248	518	1,580
25	82	70	64		68	75	412	1,180	782	232	493	1,390
26	80	72	62	(*)	75	70	359	1,240	739	221	568	1,050
27	80	72	70		78	70	319	1,260	696	214	681	889
28	80	72	74		70	75	305	1,290	660	210	823	815
29	86	72	74	70	60	87	359	1,190	633	210	1,080	924
30	97	74	60		-	91	359	1,030	613	214	1,360	823
31	87	-	50		-	86	-	924	-	210	1,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,734	278	64	120	7,410
November	2,173	87	53	72.4	4,310
December	2,205	82	50	71.1	4,370
Calendar year 1947	182,253	1,720	50	499	361,500
January	2,956	250	-	95.4	5,860
February	2,044	86	60	70.5	4,050
March	2,116	91	60	68.3	4,200
April	8,250	606	86	275	16,360
May	25,288	1,340	296	816	50,160
June	36,149	2,020	613	1,205	71,700
July	10,883	593	210	351	21,590
August	10,909	1,360	144	352	21,640
September	40,628	1,650	587	1,354	80,580
Water year 1947-48	147,335	2,020	50	403	292,200

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 21 to Dec. 1, Dec. 11-15, Dec. 25 to Jan. 8, Jan. 14 to Feb. 18, Feb. 23, Feb. 28 to Mar. 2.

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 1948 (fragmentary prior to Nov. 23, 1943).

Extremes.- Maximum gage height during year, 8.24 feet June 4; minimum, 2.07 feet Oct. 15. 1921-48: 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.

Revisions (water years).- W 753: 1931. W 1013: Drainage area.

Gage height, in feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.37	2.38	2.85	3.10	3.26	3.18	3.13	3.21	6.86	6.88	5.62	5.25
2	2.33	2.37	2.87	3.18	3.25	3.18	3.12	3.18	7.03	6.82	5.62	5.23
3	2.27	2.34	2.88	3.19	3.25	3.17	3.14	3.15	7.76	6.82	5.61	5.20
4	2.23	2.33	2.89	3.20	3.24	3.15	3.14	3.15	8.16	6.74	5.60	5.19
5	2.20	2.31	2.90	3.20	3.22	3.14	3.15	3.12	7.99	6.61	5.58	5.18
6	2.16	2.31	2.92	3.24	3.22	3.12	3.16	3.12	7.89	6.48	5.58	5.16
7	2.13	2.34	2.93	3.34	3.20	3.12	3.16	3.25	7.89	6.37	5.57	5.14
8	2.15	2.39	2.93	3.52	3.18	3.12	3.15	3.39	7.93	6.30	5.54	5.12
9	2.14	2.42	2.95	3.61	3.21	3.11	3.17	3.45	7.85	6.26	5.53	5.11
10	2.16	2.44	2.95	3.65	3.20	3.08	3.23	3.43	7.82	6.20	5.52	5.12
11	2.18	2.47	2.97	3.67	3.17	3.06	3.24	3.40	7.64	6.14	5.50	5.13
12	2.15	2.49	2.98	3.67	3.17	3.04	3.23	3.38	7.31	6.07	5.48	5.14
13	2.13	2.51	2.98	3.64	3.17	3.06	3.21	3.41	7.07	6.00	5.46	5.13
14	2.11	2.54	2.98	3.62	3.13	3.08	3.20	3.49	6.92	5.91	5.44	5.10
15	2.09	2.58	2.99	3.57	3.19	3.12	3.20	3.58	6.67	5.81	5.42	5.09
16	2.27	2.60	3.00	3.53	3.19	3.11	3.20	3.71	6.40	5.70	5.41	5.08
17	2.58	2.62	3.01	3.51	3.19	3.10	3.27	4.02	6.12	5.62	5.39	5.07
18	2.64	2.64	3.02	3.47	3.19	3.11	3.30	4.46	5.89	5.57	5.37	5.07
19	2.65	2.66	3.03	3.44	3.19	3.11	3.27	4.90	5.88	5.52	5.36	5.06
20	2.66	2.66	3.02	3.42	3.18	3.10	3.26	5.31	6.08	5.52	5.35	5.04
21	2.66	2.66	3.03	3.38	3.20	3.09	3.27	5.54	6.15	5.53	5.34	5.03
22	2.63	2.66	3.05	3.34	3.24	3.12	3.34	5.85	6.19	5.54	5.32	5.01
23	2.60	2.66	3.04	3.37	3.24	3.17	3.37	5.86	6.33	5.55	5.32	5.02
24	2.57	2.67	3.03	3.41	3.23	3.17	3.36	5.82	6.47	5.55	5.34	4.99
25	2.53	2.68	3.03	3.40	3.21	3.20	3.34	5.97	6.64	5.55	5.33	4.98
26	2.50	2.69	3.02	3.34	3.24	3.20	3.28	6.29	6.87	5.54	5.32	4.98
27	2.47	2.71	3.02	3.30	3.24	3.18	3.22	6.65	6.98	5.53	5.32	4.98
28	2.43	2.74	3.07	3.29	3.21	3.16	3.15	7.02	7.01	5.57	5.30	4.97
29	2.42	2.76	3.11	3.28	3.20	3.15	3.16	7.22	6.96	5.58	5.30	4.96
30	2.41	2.80	3.11	3.28	-	3.14	3.21	7.12	7.03	5.60	5.28	4.94
31	2.39	-	3.09	3.27	-	3.13	-	6.92	-	5.61	5.27	-

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 1948.

Average discharge.- 37 years (1908-16, 1919-48), 348 second-feet.

Extremes.- Maximum discharge during year, 4,260 second-feet June 4 (gage height, 7.71 feet), supersedes figure published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin"; minimum, 37 second-feet Sept. 29 (gage height, 1.83 feet).

1908-17, 1919-48: Maximum discharge, 4,260 second-feet June 10, 1933, June 4, 1948; maximum gage height, that of June 4, 1948; practically no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

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

Cooperation.- Water-stage recorder inspected by employee of U. S. Forest Service.

Revisions.- W 963: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a210	161	60	89	132	111	100	467	3,030	1,650	85	52
2	a150	156	60	102	132	111	99	452	3,170	931	85	51
3	a150	151	61	104	128	108	104	443	3,790	872	85	51
4	a150	148	61	109	128	104	104	443	4,180	878	85	50
5	a100	141	63	109	124	102	104	429	4,020	812	84	50
6	a100	141	64	115	121	100	108	434	3,930	739	82	49
7	a100	107	64	139	119	99	106	491	3,960	648	82	47
8	a100	54	65	190	121	97	104	548	3,980	493	81	46
9	h100	53	65	218	128	95	111	586	3,910	443	81	46
10	a100	53	66	228	124	93	124	580	3,820	432	78	46
11	a100	54	66	237	121	92	126	569	3,670	432	76	45
12	a100	53	68	237	115	89	124	559	3,450	448	76	45
13	a100	54	68	228	113	89	119	580	3,270	438	73	46
14	a100	54	68	224	111	93	115	614	3,130	434	69	45
15	a100	57	71	215	113	99	115	660	2,890	424	68	45
16	f130	58	72	209	113	97	172	739	2,670	420	68	44
17	201	58	73	201	111	95	319	904	2,490	344	65	44
18	215	59	73	195	111	95	491	1,160	1,970	243	64	44
19	218	58	73	187	109	95	481	1,440	1,290	185	61	44
20	218	58	73	181	108	93	472	1,750	1,270	136	60	42
21	224	58	75	176	111	93	486	1,890	1,600	97	58	42
22	218	57	79	171	121	99	527	2,150	1,140	95	58	41
23	209	57	78	171	121	108	548	2,280	925	93	58	56
24	204	58	78	168	117	111	537	2,260	884	92	57	62
25	192	58	76	166	113	117	522	2,410	1,170	92	57	38
26	184	58	75	156	121	115	496	2,740	1,000	90	55	38
27	179	58	75	151	121	111	472	3,020	918	90	54	80
28	174	59	82	146	117	108	443	3,280	946	90	54	42
29	168	59	90	141	113	106	448	3,400	1,010	90	53	37
30	166	59	89	134	-	104	467	3,270	1,250	89	53	103
31	163	-	87	132	-	102	-	3,070	-	89	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,823	224	100	156	9,570
November	2,309	161	53	77.0	4,580
December	2,218	90	60	71.5	4,400
Calendar year 1947	150,915	3,250	46	413	299,300
January	5,229	237	89	169	10,370
February	3,437	132	108	119	6,820
March	3,131	117	89	101	6,210
April	8,544	548	99	285	16,950
May	43,618	3,400	429	1,407	86,520
June	74,733	4,180	884	2,491	148,200
July	12,519	1,650	89	404	24,830
August	2,117	85	52	68.3	4,200
September	1,471	103	37	49.0	2,920
Water year 1947-48	164,149	4,180	37	448	325,600

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Payette Lake and Lake Fork Payette River above Jumbo Creek.
f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.

Cascade Reservoir at Cascade, Idaho

Location.- Staff gage, lat. 44°31'30", long. 116°03', in NE¼NE¼ sec. 26, T. 14 N., R. 3 E., just upstream from left abutment of dam on North Fork Payette River, half a mile downstream from Willow Creek and three-quarters of a mile northwest of Cascade. Datum of gage is at mean sea level (preliminary, unadjusted levels of U. S. Coast of Geodetic Survey).

Drainage area.- 620 square miles.

Records available.- January to September 1948 (fragmentary).

Extremes.- Maximum contents observed during period, 203,900 acre-feet June 16, 17 (elevation, 4,802.95 feet); no contents at times during March and September.

Remarks.- Reservoir is formed by earth-fill dam under construction. Storage began Nov. 7, 1947. Capacity, 703,200 acre-feet between elevations 4,766 feet (4.0 feet above sill of outlet tunnel) and 4,828 feet (top of spillway gates). Figures herein represent contents currently usable. The Bureau of Reclamation plans to limit withdrawal to elevation 4,787.5 feet, retaining 50,000 acre-feet capacity as dead storage. Contents table computed from tables furnished by Bureau of Reclamation (revised 1950). Water is used for irrigation of lands in Payette Division of the Boise project and for power at Black Canyon power plant near Emmett, pending construction of Scriver Creek power development and Garden Valley Reservoir. 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)

4,766.0	0	4,768.0	100	4,700.5	720	4,775.0	5,350	4,782.0	23,700	4,800.0	165,200
4,766.4	6	4,768.5	160	4,771.0	1,000	4,776.0	7,050	4,785.0	36,500	4,805.0	233,500
4,766.8	20	4,769.0	250	4,772.0	1,650	4,777.0	9,000	4,788.0	53,110	4,810.0	313,500
4,767.2	42	4,769.5	371	4,773.0	2,550	4,778.0	11,300	4,792.0	81,300	4,820.0	508,500
4,767.6	70	4,770.0	520	4,774.0	3,850	4,780.0	16,800	4,796.0	119,100	4,830.0	757,200

Contents, in acre-feet, January to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	105,000	167,700	108,900	
2								-	109,900	170,200	106,000	
3								-	125,400	171,500	102,100	
4								-	123,300	171,500	99,260	
5								-	134,100	170,200	94,620	
6								-	142,100	169,000	91,880	
7								-	149,200	167,700	88,270	
8								-	156,500	166,400	83,850	
9								-	165,200	166,400	80,470	
10								-	172,800	165,200	76,420	
11								-	179,200	165,200	72,590	
12								-	184,400	164,000	68,980	
13								-	-	162,700	66,200	
14								-	197,700	161,400	61,490	
15								-	201,800	159,000	57,560	
16								-	203,900	157,700	53,740	
17								-	203,900	155,300	-	
18				60,830				-	203,200	152,800	-	
19								-	200,400	151,600	-	
20								-	199,100	148,000	-	
21								-	196,400	145,600	-	
22								-	191,000	142,100	-	
23								-	187,000	139,700	-	
24								51,860	181,800	136,300	-	
25								58,210	176,600	133,000	-	
26								62,150	169,000	129,700	-	
27								67,580	165,200	126,400	-	
28								73,340	165,200	122,200	-	
29								82,140	167,700	119,100	-	
30								90,070	167,700	116,000	-	
31								99,260	-	111,900	-	

Note.- Records for North Fork Payette River at Cascade indicate minor regulation Nov. 7-18; gates closed Nov. 19 to Jan. 16; storage released at varying rates Jan. 17 to about Mar. 31 and again accumulated to contents shown on May 24; storage of Aug. 16 largely released by Sept. 13; minor regulation Sept. 14-30.

North Fork Payette River at Cascade, Idaho

Location.- Water-stage recorder, 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 2¼ miles downstream from Willow Creek.

Drainage area.- 626 square miles.

Records available.- May 1941 to September 1948.

Extremes.- Maximum discharge during year, 5,290 second-feet June 16 (gage height, 4.89 feet); minimum, 2 second-feet or less in January when stage was below intake.
1941-48: Maximum discharge recorded, 7,320 second-feet May 10, 1947 (gage height, 6.29 feet); minimum, 2 second-feet or less in January 1948 when stage was below intake.

Remarks.- Records good except those for periods of ice effect, which are fair, and those below 10 second-feet, which are poor. Flow regulated by Cascade Reservoir since Nov. 6, 1947 (see p. 180), Payette Lake (see p. 178), Lake Fork Reservoir (see p. 185), and occasionally by Halleck and Howard mill dam. Several diversions from tributaries above station for irrigation.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 25 to Sept. 30)

-0.1	3	0.4	46	1.2	344	2.8	2,480
0.0	6	.5	66	1.4	482	3.2	3,020
.1	12	.6	91	1.7	751	4.0	4,060
.2	20	.8	154	2.0	1,110	4.8	5,160
.3	31	1.0	237	2.4	1,730		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	364	446			1,560	626	663	2,980	4,160	1,250	2,040	653
2	350	431			1,480	547	731	2,790	4,260	1,360	1,950	547
3	333	416		2	1,380	539	848	2,670	4,310	1,100	1,770	490
4	327	396			1,300	475	871	2,510	4,310	1,950	1,860	460
5	321	396	3		1,190	424	859	2,370	4,470	1,950	2,000	402
6	304	271		*2	1,060	390	919	2,260	4,600	1,970	2,000	357
7	287	12		50	943	376	848	2,180	4,670	1,890	2,020	298
8	293	189		27	762	390	773	2,160	4,730	1,590	1,970	293
9	344	9		11	608	396	773	2,140	4,640	1,540	2,020	277
10	431	4	*3	6	482	409	816	2,100	4,820	1,150	2,020	257
11	467	286		4	482	364	805	2,160	4,500	1,030	2,020	242
12	355	919			424	338	783	2,080	3,860	1,300	2,000	224
13	364	741			333	338	751	842	3,390	1,310	2,000	215
14	390	563			327	357	773	494	2,940	1,310	2,000	197
15	327	409		3	333	364	805	2,620	4,980	1,360	2,000	193
16	424	208			263	376	805	2,430	5,260	1,480	2,040	189
17	682	258		500	327	376	919	2,390	5,240	1,560	2,100	181
18	751	181		1,200	364	383	920	2,410	5,240	1,560	2,040	193
19	605	7		1,200	490	390	1,400	2,530	4,440	1,560	2,040	189
20	626	4		1,250	522	396	1,820	2,650	4,980	1,680	2,020	189
21	617		3	1,400	514	390	1,540	2,820	4,950	1,680	2,020	185
22	581			1,450	563	390	1,180	2,900	4,940	1,380	1,750	170
23	563			1,600	741	482	1,430	3,080	4,680	1,860	1,630	174
24	547			1,900	*731	590	1,710	3,120	5,080	1,950	1,480	162
25	522	3		2,000	663	608	1,730	3,070	5,020	2,000	1,590	177
26	498			1,850	663	590	1,950	3,290	4,500	2,000	1,430	193
27	475			1,800	773	563	2,280	3,400	1,310	1,970	1,260	189
28	475	3		1,800	773	555	2,500	3,380	966	1,950	1,140	181
29	446	3		1,700	712	563	3,050	3,810	1,190	1,910	967	228
30	446	3		1,650	-	599	3,140	3,320	1,250	1,990	827	260
31	453	-		1,600	-	635	-	4,090	-	2,060	702	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,968	751	287	451	27,710
November	6,176	919	-	206	12,250
December	93	-	-	3.0	184
Calendar year 1947	395,860	7,150	-	1,085	785,100
January	23,025	2,000	-	743	45,670
February	20,763	1,560	263	716	41,180
March	14,219	635	338	459	28,200
April	38,392	3,140	663	1,280	76,150
May	81,046	4,090	494	2,614	160,800
June	123,686	5,260	966	4,123	245,300
July	50,650	2,060	1,030	1,634	100,500
August	54,706	2,100	702	1,765	108,500
September	7,965	653	162	266	15,800
Water year 1947-48	434,689	5,260	-	1,188	862,200

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 25 to Jan. 7, Jan. 17-31. No recorder record Nov. 21 to Dec. 24, Dec. 28, 29, Jan. 4-6, 12-16, when stage was below intakes; discharge computed on basis of 3 discharge measurements, staff-gage readings on outside gage Nov. 28, Dec. 10, Jan. 8, and weather records.

North Fork Payette River near Banks, Idaho

Location.- Water-stage recorder, lat. 44°07', long. 116°06', in SE¼ sec. 16, T. 9 N., R. 3 E., 40 feet downstream from steel highway bridge, 2½ miles north of Banks, and 3 miles upstream from confluence with South Fork. Datum of gage is 3,081.13 feet above mean sea level, preliminary unadjusted elevation.

Drainage area.- 933 square miles.

Records available.- April 1947 to September 1948.

Extremes.- Maximum discharge during year, 5,840 second-feet June 3 (gage height, 11.62 feet); minimum recorded, 36 second-feet Dec. 31 (gage height, 3.01 feet).
1947-48: Maximum discharge, 8,830 second-feet May 11, 1947, computed on basis of records for station at Smiths Ferry; minimum recorded, that of Dec. 31, 1947.

Remarks.- Records excellent except those for Nov. 20 to Dec. 4, which are fair. Flow regulated by Payette Lake (see p. 178), Lake Fork Reservoir (see p. 185), Cascade Reservoir (see p. 180) and occasionally by mill dam at Cascade. Several diversions from tributaries above station for irrigation.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1 to Sept. 3)

3.2	48	5.0	379	9.0	2,770
3.4	65	5.5	554	10.0	3,780
3.7	98	6.0	767	11.5	5,680
4.0	140	7.0	1,280		
4.5	239	8.0	1,940		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	429	593	a130	76	1,810	852	790	3,580	5,200	1,510	1,990	726
2	415	581	h119	79	1,750	781	955	3,440	5,260	1,510	1,990	656
3	402	558	a120	75	1,650	643	1,360	3,330	5,680	1,590	2,000	574
4	392	539	122	80	1,570	630	1,390	3,510	5,700	1,420	1,960	536
5	379	528	104	91	1,450	585	1,140	3,270	5,580	1,900	2,080	492
6	363	510	106	108	1,400	554	1,130	3,220	5,670	1,900	2,120	450
7	350	360	82	222	1,260	528	1,050	3,320	5,700	1,910	2,120	402
8	373	217	93	762	1,100	539	990	3,340	5,740	1,850	2,130	347
9	382	289	90	554	940	524	1,000	3,240	5,670	1,730	2,110	332
10	464	150	75	382	739	481	1,230	3,140	5,570	1,620	2,120	314
11	554	126	76	279	543	517	1,150	3,100	5,540	1,270	2,140	297
12	609	579	87	226	532	485	1,060	3,070	5,070	1,420	2,120	279
13	432	980	93	178	499	464	1,020	2,870	4,520	1,500	2,140	266
14	470	819	93	155	499	474	1,140	1,110	3,480	1,490	2,110	253
15	460	660	90	166	488	478	1,470	2,470	4,260	1,480	2,110	239
16	690	536	82	170	464	474	2,090	3,540	5,360	1,540	2,120	230
17	926	356	82	166	412	492	2,830	3,550	5,570	1,620	2,230	230
18	901	390	86	412	470	488	2,680	3,660	5,510	1,640	2,150	237
19	945	238	90	1,380	558	481	2,470	3,920	5,360	1,630	2,160	246
20	712	a90	88	1,360	712	467	2,930	3,970	4,940	1,670	2,160	239
21	781	a60	84	1,720	690	460	2,910	4,020	5,330	1,720	2,150	235
22	744	a80	82	1,800	795	470	2,730	4,190	5,260	1,660	2,150	226
23	708	a50	84	1,780	901	521	2,560	4,350	5,110	1,590	1,890	221
24	690	h110	79	2,240	960	744	2,530	4,430	5,040	1,800	1,790	237
25	664	h107	85	2,200	921	809	2,480	4,370	5,180	1,900	1,560	226
26	643	h117	67	2,120	891	730	2,570	4,560	5,120	1,920	1,460	256
27	618	a130	77	2,040	1,090	690	2,640	4,740	3,280	1,910	1,310	268
28	601	h119	85	2,010	1,080	660	2,820	4,830	1,730	1,910	1,170	261
29	614	a90	84	1,960	960	686	3,320	4,890	1,340	1,900	1,040	251
30	605	a110	82	1,920	-	758	3,660	4,910	1,450	1,890	931	300
31	601	-	58	1,860	-	762	-	4,700	-	2,000	824	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17,917	945	350	578	35,540
November	10,072	980	50	336	19,980
December	2,775	130	58	89.5	5,500
Calendar year	-	-	-	-	-
January	28,571	2,240	75	922	56,670
February	27,134	1,810	412	936	53,820
March	18,227	852	460	588	36,150
April	58,095	3,660	790	1,936	115,200
May	114,640	4,910	1,110	3,698	227,400
June	144,220	5,740	1,340	4,807	286,100
July	52,400	2,000	1,270	1,690	103,900
August	58,335	2,230	824	1,882	115,700
September	9,826	726	221	328	19,490
Water year 1947-48	542,212	5,740	50	1,481	1,075,000

a No gage-height record; discharge computed on basis of records for Payette River near Horseshoe Bend and South Fork Payette River near Banks.
h Computed from wire-weight gage reading.

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 1948.

Extremes.- Maximum discharge observed during year, 2.6 second-feet Oct. 1; maximum gage height observed, 1.60 feet June 11 (backwater from North Fork Payette River); minimum observed, 0.8 second-foot Oct. 28 to Nov. 2 (gage height, 0.38 foot)
1942-48: Maximum discharge observed, 6.7 second-feet May 10, 1947; maximum gage height observed, that of June 11, 1948; no flow Sept. 22 to Nov. 7, 1943.

Remarks.- Records fair except those for period of backwater from North Fork Payette River, which are poor. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	0.8	1.5	1.4	1.6	1.6	1.5	1.6	1.6	1.8	2.0	1.8
2	2.4	.8	1.5	1.4	1.6	1.6	1.5	1.6	1.6	1.8	2.0	1.8
3	2.4	.9	1.5	1.4	1.6	1.6	1.5	1.6	1.7	1.7	2.0	1.8
4	2.4	1.2	1.4	1.5	1.6	1.6	1.5	1.6	1.7	1.6	2.0	1.8
5	2.3	1.2	1.4	1.5	1.6	1.6	1.5	1.6	1.8	1.6	2.0	1.9
6	2.2	1.2	1.4	1.5	1.6	1.6	1.4	1.6	1.8	1.7	2.0	1.8
7	2.2	1.2	1.5	1.5	1.6	1.6	1.4	1.6	1.9	1.7	2.0	1.8
8	2.2	1.2	1.4	1.5	1.6	1.6	1.4	1.6	1.9	1.8	2.0	1.8
9	2.2	1.3	1.4	1.5	1.6	1.6	1.4	1.6	2.0	1.8	2.0	1.8
10	2.2	1.3	1.4	1.5	1.6	1.6	1.4	1.6	2.0	1.8	2.0	1.8
11	1.9	1.3	1.4	1.5	1.6	1.6	1.4	1.7	2.1	1.8	2.0	1.7
12	1.7	1.3	1.4	1.5	1.6	1.6	1.4	1.7	2.0	1.8	2.0	1.7
13	1.7	1.3	1.4	1.5	1.6	1.6	1.4	1.7	2.0	1.8	2.0	1.6
14	1.6	1.3	1.4	1.5	1.6	1.6	1.4	1.7	1.9	1.8	2.0	1.6
15	1.6	1.3	1.4	1.5	1.6	1.6	1.4	1.7	1.8	1.8	2.0	1.5
16	1.6	1.3	1.4	1.5	1.6	1.6	1.4	1.4	1.7	1.8	2.0	1.5
17	1.6	1.4	1.5	1.5	1.6	1.6	1.4	1.4	1.7	1.8	2.0	1.4
18	1.6	1.4	1.5	1.5	1.6	1.6	1.4	1.4	1.7	1.8	2.0	1.4
19	1.7	1.4	1.5	1.5	1.6	1.6	1.6	1.5	1.7	1.8	2.0	1.4
20	1.6	1.4	1.4	1.6	1.6	1.6	1.6	1.5	1.7	1.8	2.0	1.4
21	1.6	1.4	1.4	1.6	1.6	1.6	1.6	1.5	1.7	1.8	2.0	1.5
22	1.6	1.4	1.4	1.6	1.6	1.6	1.6	1.5	1.7	1.8	2.0	1.5
23	1.6	1.3	1.4	1.6	1.6	1.6	1.6	1.5	1.7	1.8	2.0	1.5
24	1.5	1.4	1.4	1.6	1.6	1.6	1.6	1.5	1.7	1.8	2.0	1.5
25	1.5	1.4	1.4	1.6	1.6	1.6	1.6	1.5	1.8	1.8	2.0	1.5
26	1.5	1.4	1.4	1.6	1.6	1.5	1.6	1.5	1.8	1.8	2.0	1.6
27	.9	1.4	1.5	1.6	1.6	1.5	1.6	1.5	1.7	1.9	2.1	1.6
28	.8	1.4	1.5	1.6	1.6	1.5	1.6	1.5	1.7	1.9	1.9	1.6
29	.8	1.5	1.5	1.6	1.6	1.5	1.6	1.5	1.7	1.9	1.9	1.6
30	.8	1.5	1.5	1.6	-	1.5	1.6	1.5	1.7	1.9	1.9	1.6
31	.8	-	1.5	1.6	-	1.5	-	1.5	-	1.9	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	53.1	2.6	0.8	1.71	105
November	38.6	1.5	.8	1.29	76.6
December	44.6	1.5	1.4	1.44	88.5
Calendar year 1947	971.6	6.7	.8	2.66	1,930
January	47.4	1.6	1.4	1.53	94.0
February	46.4	1.6	1.6	1.60	92.0
March	49.0	1.6	1.5	1.58	97.2
April	44.9	1.6	1.4	1.50	89.1
May	48.2	1.7	1.4	1.55	95.6
June	53.5	2.1	1.6	1.78	106
July	55.6	1.9	1.6	1.79	110
August	61.6	2.1	1.8	1.99	122
September	48.8	1.9	1.4	1.63	96.8
Water year 1947-48	591.7	2.6	.8	1.62	1,170

Note.- Backwater from North Fork Payette River May 25 to June 18 (no gage-height record June 1-10, 12-15); discharge computed on basis of 1 discharge measurement.

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.

Drainage area.- 48.9 square miles.

Records available.- October 1945 to September 1948.

Extremes.- Maximum discharge during year, 2,600 second-feet June 3 (gage height, 9.19 feet), from rating curve extended above 1,000 second-feet by logarithmic plotting; minimum, 13 second-feet Oct. 7 (gage height, 2.16 feet).
1945-48: Maximum discharge, that of June 3, 1948; minimum, that of Oct. 7, 1947.

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

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 31

2.2	14	3.6	77
2.5	24	4.1	109
2.8	35	4.5	144
3.1	50	5.0	204

Note.- Same as following table above 5.0 feet.

June 1 to Sept. 30

2.3	15	4.5	144	7.0	788
2.6	24	5.0	204	7.5	1,080
3.0	40	5.5	289	8.0	1,450
3.5	66	6.0	405	8.5	1,890
4.0	100	6.5	570		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	58	58	40	42	32	29	155	1,170	434	54	21
2	16	58	54	38	41	32	31	140	1,310	326	51	20
3	18	54	49	38	40	32	34	143	1,910	270	48	20
4	17	52	48	41	39	32	32	148	1,280	237	46	20
5	15	48	47	40	38	*31	31	138	1,260	208	44	19
6	14	47	46	60	39	30	31	227	1,310	182	41	18
7	13	52	44	200	37	30	31	344	1,330	166	40	18
8	28	54	*42	*177	39	28	31	278	1,320	150	39	18
9	29	50	43	110	38	27	33	219	1,200	138	39	17
10	43	49	34	90	36	26	33	193	1,130	131	38	17
11	43	50	42	80	35	26	32	184	934	128	37	16
12	34	47	40	70	34	29	31	203	814	117	36	16
13	31	48	44	65	34	29	31	297	1,010	107	34	16
14	31	47	42	60	34	29	34	301	804	99	33	15
15	32	47	41	55	34	28	45	339	768	91	32	15
16	342	47	40	50	33	28	73	508	716	88	31	14
17	149	45	42	50	32	29	186	768	630	82	30	14
18	96	46	40	50	32	28	173	856	586	79	29	16
19	82	41	39	50	32	*27	140	1,160	582	81	29	16
20	72	35	38	50	32	26	170	939	605	82	31	16
21	76	41	39	50	32	26	235	900	621	73	29	16
22	68	32	38	48	32	28	272	962	498	69	28	15
23	64	39	36	46	32	28	198	783	459	64	30	16
24	59	43	34	45	32	30	170	862	446	61	36	17
25	56	45	34	40	32	30	151	1,120	405	58	33	17
26	56	50	34	40	32	27	132	1,330	376	56	30	27
27	57	56	36	40	32	26	123	1,410	368	55	29	22
28	56	49	38	40	32	29	128	1,300	368	66	27	20
29	60	48	37	42	32	30	229	1,100	358	71	26	20
30	62	50	35	44	-	29	190	884	348	62	25	18
31	57	-	29	43	-	28	-	962	-	56	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,791	342	13	57.8	1.18	1.36	3,550
November	1,428	58	32	47.6	.973	1.09	2,830
December	1,263	58	29	40.7	.832	.96	2,510
Calendar year 1947	59,511	1,310	13	163	3.33	45.25	118,000
January	1,892	200	38	61.0	1.25	1.44	3,750
February	1,009	42	32	34.8	.712	.77	2,000
March	890	32	26	28.7	.587	.68	1,770
April	3,059	272	29	102	2.09	2.33	6,070
May	19,153	1,410	138	618	12.6	14.57	37,990
June	24,916	1,910	348	831	17.0	18.95	49,420
July	3,887	434	55	125	2.56	2.96	7,710
August	1,077	54	22	34.7	.710	.82	2,140
September	530	27	14	17.7	.362	.40	1,050
Water year 1947-48	60,895	1,910	13	166	3.39	46.33	120,800

Peak discharge (base, 850 sec.-ft.).- May 19 (9 p.m.) 1,320 sec.-ft.; May 26 (10 p.m.) 1,790 sec.-ft.; June 3 (11 a.m.) 2,600 sec.-ft.; June 13 (7 a.m.) 1,190 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 17, 19-24, 28, 29, Dec. 7, 8, 10-12, 24-27, 31, Jan. 6, 7, Jan. 9 to Mar. 12, Mar. 20, 21, 27 (no gage-height record Jan. 20 to Mar. 4; discharge computed on basis of weather records and records for station below Lake Irrigation District Canal and Johnson Creek at Yellow Pine).

Lake Fork Reservoir near McCall, Idaho

Location.- 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 1948.

Extremes.- Maximum contents observed during year, 18,770 acre-feet July 1, 2 (elevation, 5,118.15 feet); practically no storage at times during fall and winter.

1926-48: Maximum contents observed, 19,740 acre-feet June 19, 1941 (elevation, 5,118.75 feet); practically no storage above elevation 5,101.0 feet for long periods during fall and winter of most years.

Remarks.- Reservoir is formed by earth- and rock-fill dam completed in 1926. Capacity, 16,940 acre-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 elevations 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	18,770	11,640	5,076
2									-	18,770	11,390	4,917
3									-	18,520	10,940	4,705
4									-	18,440	10,820	4,547
5						173			-	18,240	10,690	4,453
6									-	18,160	10,340	4,340
7									-	18,080	10,100	4,220
8									-	17,860	9,810	4,099
9									-	17,740	9,522	4,024
10				452					-	17,540	9,311	3,940
11			750						-	17,290	9,108	3,866
12									-	17,080	8,906	-
13									16,320	16,860	8,662	-
14									-	16,630	8,433	-
15									-	16,390	8,258	-
16									-	16,130	8,028	-
17	2,887								-	15,850	7,840	-
18									-	15,570	7,676	-
19									-	15,360	7,487	-
20									-	15,140	7,298	
21									17,730	14,890	6,958	-
22							2,511		17,890	14,580	6,769	-
23									17,890	14,310	6,594	-
24									17,890	14,000	6,418	-
25								16,160	17,890	13,660	6,244	-
26									17,970	13,370	6,105	-
27									18,050	13,070	5,896	-
28									18,200	12,780	5,722	-
29									18,360	12,500	5,529	-
30									18,520	12,290	5,452	-
31							-		-	11,990	5,235	-

Monthly elevation and contents, water year October 1947 to September 1948

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
June 30.....	5,118.00	11,520	-
July 31.....	5,113.78	11,990	-6,530
Aug. 31.....	5,108.65	5,235	-6,755

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 1948.

Extremes.- Maximum discharge during year, 2,120 second-feet June 3 (gage height, 7.09 feet), from rating curve extended above 1,200 second-feet by logarithmic plotting; minimum, 0.8 second-foot Nov. 20 (gage height, 1.86 feet).
1940-48: Maximum discharge, that of June 3, 1948; minimum, 0.4 second-foot Mar. 27, 28, 1944; minimum gage height, 1.76 feet Mar. 28, 1944.

Remarks.- Records good except those for period of no gage-height record, which are poor. Flow regulated by Lake Fork Reservoir (see preceding page). Lake Irrigation District Canal diverts above station.

Revisions (water years).- W 963: 1941.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 18 to May 4)

Oct. 1 to May 26

1.9	1.0	2.7	30	4.0	276
2.1	3.5	3.0	64	4.4	418
2.3	9.0	3.3	110	5.0	690
2.5	16	3.6	170	6.0	1,220

May 27 to Sept. 30

2.5	17	3.6	170	6.0	1,220
2.6	24	4.0	273	6.4	1,500
2.8	43	4.5	436	6.8	1,840
3.0	66	5.0	635		
3.3	110	5.5	900		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		31	148	48	56	b41	b34	12	1,140	216	69	48
2		31	144	49	56	41	36	12	1,270	232	67	40
3		31	140	49	55	b41	36	13	1,790	161	66	33
4		31	138	48	55	b41	37	15	1,850	124	65	33
5		31	134	48	b52	*b40	37	46	1,540	92	64	30
6		31	130	50	b51	b40	38	72	1,460	78	61	26
7		31	124	60	b50	b36	b40	74	1,500	74	62	24
8		32	119	81	b51	b38	38	74	1,540	72	59	23
9	a22	32	114	88	54	b35	39	74	1,440	72	58	19
10		23	107	*90	b52	b36	44	75	1,400	80	58	16
11		1.2	*102	92	b51	b35	43	90	1,210	76	56	17
12		1.1	96	92	b48	b37	42	103	910	72	59	20
13		1.1	92	88	b48	b37	41	105	924	71	55	19
14		1.0	88	87	b47	37	41	114	972	72	54	18
15		1.0	84	86	b46	37	43	132	818	71	54	17
16		1.0	81	84	b45	b37	47	187	665	69	56	16
17	25	1.0	78	82	b44	37	38	379	433	69	58	16
18	24	1.0	74	81	42	37	6.3	650	318	67	58	15
19	24	1.0	71	80	42	36	7.2	934	297	67	56	16
20	24	95	68	75	42	b33	8.1	1,080	215	72	55	20
21	35	220	65	74	41	b33	9.0	1,030	341	71	56	20
22	29	215	63	74	42	36	10	1,100	387	69	54	20
23	30	210	60	72	42	37	11	1,040	360	70	54	20
24	30	204	56	71	b42	36	11	940	303	71	52	20
25	29	199	55	68	41	39	11	1,010	235	71	50	19
26	29	194	52	b66	43	b37	11	1,210	177	70	50	20
27	29	192	51	b64	42	b37	11	1,420	168	70	50	20
28	30	187	51	b61	b42	b36	11	1,530	168	71	53	20
29	30	168	51	59	b42	36	12	1,440	212	69	54	20
30	30	150	49	58	-	36	12	1,220	199	64	54	20
31	30	-	b49	b55	-	b35	-	1,070	-	69	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	780	35	22	25.2	1,550
November	2,347.4	220	1	78.2	4,660
December	2,734	148	49	88.2	5,420
Calendar year 1947	53,066	1,420	1	145	105,300
January	2,180	92	48	70.3	4,320
February	1,364	56	41	47.0	2,710
March	1,150	41	33	37.1	2,280
April	804.6	47	6	26.8	1,600
May	17,251	1,530	12	556	34,220
June	24,242	1,850	168	808	48,080
July	2,672	232	64	86.2	5,300
August	1,769	69	50	57.1	3,510
September	665	48	15	22.2	1,320
Water year 1947-48	57,959.0	1,850	1	158	115,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records, records for Lake Fork Payette River above Jumbo Creek, Johnson Creek at Yellow Pine, and Lake Irrigation District Canal.
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 southeast of McCall.

Records available.- May 1926 to September 1948.

Extremes.- Maximum discharge observed during year, 201 second-feet June 30, July 1 (gage height, 4.05 feet); no flow for long periods.
1926-48: Maximum discharge observed, that of June 30, July 1, 1948; no flow or small amount of leakage through head gate during nonirrigation seasons.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Staff gage read once or twice daily. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5								a2	192	128	56
2	5								a10	185	116	56
3	5								a25	184	110	54
4	5								40	176	105	50
5		a4							52	176	103	48
6								a0	52	176	103	44
7	a5								58	173	102	41
8									75	172	98	40
9									75	173	93	38
10									88	177	86	36
11									90	173	84	36
12									93	164	83	41
13									83	158	79	41
14	a4								103	158	68	41
15								a1	119	159	64	41
16									133	155	64	41
17	4								137	150	63	41
18									141	148	64	41
19									145	148	65	13
20									a144	146	68	13
21		a0							144	145	70	13
22								a2	132	143	69	13
23									138	137	69	a13
24									139	134	65	13
25	a4								154	141	60	13
26								2	163	143	57	14
27									166	147	54	14
28									181	146	51	14
29								a2	194	137	50	14
30									201	131	54	14
31									-	130	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	134	5	4	4.3	266
November	40	4	0	1.3	79
December	0	0	0	0	0
Calendar year 1947	13,773.4	176	0	37.7	27,320
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	33	2	0	1.1	65
June	3,277	201	2	109	6,500
July	4,877	192	130	157	9,670
August	2,401	128	50	77.5	4,760
September	947	56	13	31.6	1,880
Water year 1947-48	11,709	201	0	32.0	23,220

a No gage-height record; discharge computed on basis of inflow-outflow study of Lake Fork Reservoir, record of gate changes, and records for Lake Fork Payette River below Lake Irrigation District Canal.

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 1948 (fragmentary), discontinued.
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 5.18 second-feet made Oct. 17. Discharge of 13 second-feet was computed for Oct. 1-4.
Cooperation.- Gage readings furnished by Lake Irrigation District.

Monthly discharge, in second-feet, of Cruzen Canal at Lake Fork, Idaho, 1947-48

Month	Maximum	Minimum	Mean	Runoff in acre-feet
May 25-31	13	12	12.3	171
June	61	10	40.9	2,430
July	61	52	55.8	3,430
August	53	44	48.1	2,960
September 1-11	43	21	27.0	589
The period	-	-	-	9,580

WEISER RIVER BASIN

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 1948.
Average discharge.- 12 years, 41.8 second-feet.
Extremes.- Maximum discharge observed during year, 628 second-feet Apr. 22 (gage height, 5.30 feet); minimum daily, 5.2 second-feet Sept. 13-16; minimum gage height observed, 0.79 foot Sept. 15.
1936-48: Maximum discharge observed, 775 second-feet Mar. 27, 1940 (gage height, 6.00 feet); minimum observed, 1.0 second-foot Sept. 2, 1947 (gage height, 0.55 foot).
Remarks.- Records fair except those for periods of backwater from beaver dams and doubtful or no gage-height record, which are poor. Gage read once daily. No diversions above station. Diurnal fluctuation caused by millpond at Tamarack. Small flow from Boulder Creek in Salmon River Basin enters Weiser River above station through transmountain diversion during late irrigation season.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	a11	16	12	17	a20	91	248	119	21	a9	a5.8
2	7.1	d11	16	a13	a16	*20	124	a230	a110	20	a9	5.5
3	7.7	d11	17	13	16	21	156	257	129	18	c8	a5.5
4	8.3	a11	16	12	a16	a21	157	297	a110	18	a8	5.8
5	7.7	d11	17	a14	16	21	a150	a300	92	a18	c8	5.8
6	a8.0	a11	16	15	a16	22	146	304	68	17	a8	a5.5
7	8.3	d12	a14	a30	16	22	a140	458	64	c16	c8	5.5
8	11	d14	16	62	16	24	137	436	59	a16	c8	a5.5
9	12	a14	*16	a60	a16	a24	a130	340	a58	c15	a8	5.5
10	a13	13	a13	b54	15	19	122	a325	57	c15	c8	a5.6
11	d20	14	16	b45	a13	17	115	309	50	c15	a8	5.8
12	d14	a14	16	a40	15	a17	a110	226	47	a14	c8	5.5
13	d12	14	a15	b35	a14	17	101	a225	a45	c14	a8	a5.2
14	a11	a14	15	a36	14	17	145	250	43	a14	7.4	a5.2
15	d11	14	14	b37	15	a17	169	257	39	c14	a7.2	5.2
16	a35	13	14	a33	a15	16	273	268	a38	a13	a7.0	a5.2
17	d30	a13	a14	b31	a15	a16	419	a290	36	c13	a6.6	6.0
18	a20	13	14	b29	15	16	578	311	34	c13	6.2	6.0
19	12	14	a14	a27	16	a16	530	273	a32	a13	6.5	6.5
20	a13	a13	14	a26	a16	16	a500	a260	29	c13	6.5	a6.0
21	a15	a13	14	26	22	17	530	248	a30	c12	a6.2	6.0
22	12	b10	a14	*26	22	a17	628	a270	39	a10	6.2	a6.0
23	*12	13	13	26	22	18	530	244	28	c10	a6.4	5.8
24	a12	a14	a13	26	22	a20	423	a230	28	c10	6.5	a5.6
25	12	13	a13	b24	a21	22	359	226	a26	c9	a6.4	5.5
26	a12	a14	13	a18	21	a25	a300	207	24	a9	6.2	a11
27	12	14	a13	b17	a22	28	254	a200	a23	a9	a6.2	a10
28	a10	14	13	a18	20	31	a225	183	a22	c10	6.2	9.5
29	12	14	a13	22	a20	33	301	124	21	a10	6.5	a9.2
30	a15	15	12	a24	-	a42	261	122	a21	a9	a6.2	9.2
31	d12	-	a10	18	-	54	-	a120	-	c9	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	404.2	35	7.1	13.0	802
November	389	15	10	13.0	772
December	444	17	10	14.3	881
Calendar year 1947	12,081.2	200	3.4	33.1	23,960
January	869	62	12	28.0	1,720
February	500	22	13	17.2	992
March	686	54	16	22.1	1,360
April	8,104	628	91	270	16,070
May	8,038	458	120	259	15,940
June	1,511	129	21	50.4	3,000
July	417	21	9	13.5	827
August	222.4	9	6.0	7.17	441
September	190.4	11	5.2	6.35	378
Water year 1947-48	21,775.0	628	5.2	59.5	43,180

* 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.
c Backwater from beaver dams; discharge computed as explained in footnote a.
d Doubtful gage-height record; discharge computed as explained in footnote a.

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, 200 feet upstream from Warm Springs Creek and 10 miles north of Council.

Drainage area.- 106 square miles.

Records available.- August to September 1920, March 1939 to September 1948.

Extremes.- Maximum discharge during year, 1,500 second-feet Apr. 17 (gage height, 5.35 feet); minimum, 14 second-feet Sept. 14, 15; minimum gage height, 1.45 feet Dec. 31.
1920, 1939-48: 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. Diurnal fluctuation at low flow caused by millpond at Tamarack. Several small diversions from river and tributaries above station.

Rating tables, water years 1947-48 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 22

1.6	20	2.4	95	4.0	631
1.7	26	2.6	133	4.5	892
1.8	32	2.8	180	5.0	1,210
2.0	45	3.0	238		
2.2	66	3.4	378		

Apr. 23 to Sept. 30

1.6	18	2.0	50	2.6	138
1.7	24	2.2	75	2.8	183
1.8	31	2.4	104	3.0	238

Note.- Same as preceding table above 3.0 feet.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	44	56	36	60	62	162	660	359	82	26	17
2	20	42	56	37	56	67	208	554	348	75	25	16
3	21	37	55	41	50	59	409	537	581	67	24	16
4	22	39	55	43	49	57	401	679	498	63	22	17
5	20	39	52	43	46	59	329	645	429	61	22	17
6	20	38	52	60	47	62	280	719	390	57	22	16
7	20	44	35	170	44	63	229	939	351	54	22	17
8	35	51	48	333	44	64	205	864	326	52	21	16
9	30	50	49	277	44	64	244	719	297	49	22	16
10	42	44	33	238	42	57	308	603	270	47	22	16
11	64	45	47	194	37	55	284	554	241	47	22	16
12	45	43	39	151	35	60	260	541	215	42	22	16
13	39	44	45	117	42	59	244	599	201	41	21	15
14	35	44	42	121	42	62	277	665	178	40	20	15
15	35	46	42	127	40	60	363	660	171	39	20	15
16	126	44	39	106	39	59	585	704	153	38	20	15
17	99	43	42	97	39	59	1,180	841	151	37	19	18
18	59	43	41	95	42	60	1,220	904	146	36	18	20
19	43	39	39	74	43	59	975	886	144	36	18	20
20	46	35	38	72	42	56	986	808	133	36	19	18
21	56	40	37	82	44	56	1,100	729	136	34	18	18
22	49	30	38	87	72	67	1,270	858	124	30	18	18
23	44	36	35	82	72	76	1,080	776	110	27	20	20
24	44	49	32	74	64	113	886	724	95	26	22	20
25	42	47	31	65	64	144	745	699	89	27	21	20
26	45	47	28	43	74	113	631	679	85	25	20	30
27	44	47	35	39	82	117	554	641	82	25	20	29
28	33	46	40	46	74	125	498	581	78	26	20	24
29	43	45	39	54	69	155	684	502	72	26	18	21
30	56	47	33	78	-	155	750	433	72	27	18	21
31	46	-	24	58	-	158	-	370	-	25	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,344	126	20	43.4	2,670
November	1,288	51	30	42.9	2,550
December	1,277	56	24	41.2	2,530
Calendar year 1947	37,752	457	14	103	74,870
January	3,140	333	36	101	6,230
February	1,498	82	35	51.7	2,970
March	2,482	158	55	80.1	4,920
April	17,347	1,270	162	578	34,410
May	21,073	939	370	680	41,800
June	6,525	581	72	218	12,940
July	1,303	82	25	42.0	2,580
August	639	26	17	20.6	1,270
September	553	30	15	18.4	1,100
Water year 1947-48	58,469	1,270	15	160	116,000

Peak discharge (base, 500 sec.-ft.).- Apr. 17 (10 p.m.) 1,500 sec.-ft.; Apr. 22 (4 p.m.) 1,300 sec.-ft.; Apr. 29 (9 to 10 p.m.) 781 sec.-ft.; May 7 (10 a.m. to 12 m.) 957 sec.-ft.; May 17 (10 to 12 p.m.) 933 sec.-ft.; June 3 (9:30 a.m.) 704 sec.-ft.

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 3¼ miles southwest of Council.

Drainage area.- 390 square miles.

Records available.- April 1937 to September 1948.

Average discharge.- 11 years, 414 second-feet.

Extremes.- Maximum discharge during year, 3,280 second-feet Apr. 18 (gage height, 7.33 feet); minimum, 49 second-feet Oct. 1, 7 (gage height, 0.87 foot).
1937-48: 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 or no gage-height record, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.194) and other reservoirs. Many diversion above station for irrigation.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 7 to Mar. 23, July 9 to Sept. 30)

0.9	52	2.0	250	4.2	1,080
1.1	74	2.5	385	5.0	1,540
1.3	104	3.0	547	6.0	2,220
1.6	160	3.6	786	7.0	3,000

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	106	179	98	158	368	629	1,720	1,320	226	91	74
2	52	101	170	125	148	348	734	1,470	1,280	214	93	72
3	53	96	166	181	146	293	1,380	1,460	1,860	188	90	70
4	51	98	162	199	134	283	1,180	1,980	1,700	175	87	69
5	52	94	152	217	138	283	975	1,730	1,460	166	84	69
6	51	91	154	394	125	283	866	1,770	1,360	154	82	69
7	50	102	130	1,230	b120	296	734	2,230	1,260	142	82	63
8	82	129	146	1,160	112	291	668	2,260	1,180	136	80	56
9	81	125	148	782	114	285	920	2,040	1,080	125	84	56
10	104	111	*b90	594	109	245	1,360	1,760	980	114	85	57
11	138	114	120	492	b100	233	1,160	1,560	870	102	85	56
12	102	109	118	394	b95	248	985	1,460	764	102	87	57
13	82	111	130	298	b105	255	870	1,520	704	93	85	56
14	75	114	125	278	107	306	1,020	1,650	629	82	81	56
15	74	134	b120	275	118	314	1,200	1,670	561	73	81	54
16	256	148	116	265	123	314	1,690	1,770	495	69	78	54
17	243	140	129	258	136	304	2,700	2,090	462	87	78	60
18	144	140	123	255	219	323	3,090	2,350	452	94	78	67
19	114	125	123	208	250	323	2,530	2,450	472	94	73	62
20	107	111	119	199	250	291	2,480	2,350	437	94	74	62
21	132	121	114	210	275	283	2,660	2,170	472	109	72	61
22	118	88	123	212	915	373	2,960	2,410	421	107	70	62
23	106	104	119	212	533	509	2,740	2,400	385	102	77	64
24	102	134	109	*208	409	751	2,280	2,260	323	99	90	67
25	99	140	93	183	394	1,530	1,950	2,210	306	101	91	69
26	101	142	b86	123	800	842	1,620	2,180	a260	96	85	93
27	99	146	b100	111	629	704	1,420	2,140	a230	88	85	96
28	90	142	130	132	478	652	1,250	2,040	a215	90	81	85
29	98	138	125	144	415	713	1,580	1,760	a200	96	81	80
30	134	144	106	173	-	700	1,910	1,530	181	91	74	67
31	114	-	74	175	-	648	-	1,400	-	87	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,154	256	50	102	6,260
November	3,598	148	88	120	7,140
December	3,899	179	74	126	7,730
Calendar year 1947	110,195	1,490	40	302	218,600
January	9,785	1,230	98	316	19,410
February	7,655	915	95	234	15,180
March	13,591	1,530	233	438	26,960
April	47,541	3,090	629	1,585	94,300
May	59,790	2,450	1,400	1,929	118,600
June	22,319	1,860	181	744	44,270
July	3,596	226	69	116	7,130
August	2,538	93	70	81.9	5,030
September	1,983	96	54	66.1	3,930
Water year 1947-48	179,449	3,090	50	490	355,900

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for other stations on Weiser River.
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 1948.
Extremes.- Maximum discharge during year, 4,320 second-feet June 3 (gage height, 7.21 feet); minimum discharge, 41 second-feet Sept. 15 (gage height, 0.83 foot); minimum daily, 58 second-feet Sept. 15.
1939-48: Maximum discharge, 6,670 second-feet Mar. 31, 1940 (gage-height, 8.30 feet); minimum, 23 second-feet Oct. 1, 1943 (gage height, 0.78 foot); minimum daily, 27 second-feet Sept. 2, 3, 1940.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Lost Valley Reservoir (see p.194) and other reservoirs. Diversions above station for irrigation.

Rating table, water year 1947-48, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-17)

1.0	60	2.4	379	5.0	1,940
1.2	87	2.8	535	6.0	2,890
1.4	119	3.2	729	7.0	4,050
1.7	180	3.6	965		
2.0	255	4.0	1,220		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	167	275	127	245	666	893	2,290	2,390	401	104	86
2	68	158	255	201	234	636	983	1,930	2,390	397	116	84
3	70	150	239	301	199	510	1,560	1,840	3,500	339	109	81
4	69	146	234	313	209	473	1,550	2,740	3,150	313	104	79
5	66	148	214	352	204	461	1,320	2,290	2,690	292	98	80
6	66	142	219	664	202	489	1,190	2,320	2,460	275	94	81
7	65	152	190	2,160	185	501	1,050	2,890	2,270	255	94	79
8	93	197	197	1,970	178	*481	941	2,960	2,100	237	94	69
9	123	202	204	f1,170	187	461	1,170	2,700	1,920	226	94	65
10	142	176	150	983	178	376	2,030	2,340	1,730	206	94	65
11	202	176	*167	a800	169	352	1,730	2,090	1,550	187	96	64
12	152	167	156	a600	162	386	1,440	1,990	1,380	185	98	64
13	117	176	182	465	180	383	1,260	2,090	1,290	165	100	64
14	107	180	176	449	182	461	1,430	2,260	1,170	150	96	61
15	104	212	173	434	182	506	1,660	2,320	1,070	128	94	58
16	406	250	154	423	204	501	2,170	2,510	947	116	93	59
17	448	250	182	408	199	493	3,300	3,010	869	119	90	63
18	239	247	173	393	322	497	4,060	3,430	827	134	88	76
19	187	224	171	323	372	522	3,350	3,660	881	134	86	74
20	165	197	169	304	316	465	3,160	3,600	779	130	81	72
21	190	199	167	326	359	438	3,380	3,340	851	136	84	76
22	190	154	176	345	1,720	527	3,810	3,610	746	138	84	77
23	162	146	180	345	1,200	740	3,580	3,620	671	130	86	80
24	154	190	167	339	845	1,000	2,920	3,480	602	123	107	87
25	146	204	140	292	751	1,870	2,450	3,500	548	121	107	90
26	144	209	127	b190	1,440	1,410	2,060	3,550	497	117	105	112
27	144	222	138	*b160	1,320	1,160	1,800	3,570	449	109	102	136
28	142	214	194	b180	911	1,020	1,630	3,480	408	112	94	123
29	144	206	199	199	757	1,060	1,990	2,980	372	123	96	116
30	197	209	150	237	-	1,050	2,490	2,620	352	119	90	105
31	182	-	114	237	-	941	-	2,450	-	110	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,750	448	65	153	9,420
November	5,670	250	142	189	11,250
December	5,632	275	114	182	11,170
Calendar year 1947	179,213	2,600	61	491	355,500
January	15,690	2,160	127	506	31,120
February	13,612	1,720	162	469	27,000
March	20,836	1,870	352	672	41,330
April	62,357	4,060	893	2,079	123,700
May	87,460	3,660	1,840	2,821	173,500
June	40,859	3,500	352	1,362	81,040
July	5,727	401	109	185	11,360
August	2,962	116	81	95.5	5,880
September	2,426	136	58	80.9	4,810
Water year 1947-48	267,981	4,060	58	732	531,600

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations near Council and near Weiser.
b Stage-discharge relation affected by ice.
f Computed from partly estimated gage-height record.

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 1948.
Average discharge.- 27 years (1921-48), 859 second-feet.
Extremes.- Maximum discharge during year, 6,340 second-feet June 3 (gage height, 6.27 feet); minimum, 52 second-feet Sept. 15 (gage height, 0.94 foot).
1920-48: 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. 194) and other reservoirs. Diversions above station for irrigation.
Revisions (water years).- W 903: 1932(M).

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 26 to Sept.30)

1.0	66	1.9	407	4.0	2,430
1.1	88	2.2	588	4.8	3,690
1.2	115	2.6	880	5.7	5,270
1.4	181	3.0	1,230		
1.6	260	3.5	1,770		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	248	391	200	370	1,180	1,250	3,100	3,460	517	115	91
2	96	231	441	310	360	1,100	1,280	2,610	3,520	582	115	81
3	99	223	402	480	300	960	1,780	2,300	4,890	511	115	84
4	107	219	386	500	320	800	2,100	3,540	5,360	457	112	77
5	104	219	359	550	310	755	1,790	3,120	4,270	429	110	75
6	96	211	334	1,100	*310	748	1,580	2,940	3,880	402	104	77
7	93	204	330	2,900	280	816	1,440	3,440	3,600	386	102	75
8	107	235	292	3,890	270	785	1,280	3,710	3,360	339	96	73
9	150	282	315	2,210	280	748	1,270	3,620	3,070	305	91	68
10	181	269	287	1,540	270	*628	2,990	3,220	2,780	278	86	62
11	244	244	240	1,290	250	556	2,820	2,880	2,420	248	91	61
12	269	244	*230	1,020	240	575	2,150	2,670	2,110	223	91	59
13	211	244	269	704	270	582	1,820	2,680	1,900	208	107	59
14	181	256	282	595	280	622	1,790	2,900	1,750	185	96	57
15	167	278	282	568	280	778	2,360	2,990	1,540	164	88	59
16	208	315	240	542	310	725	2,660	3,150	1,360	130	84	64
17	676	375	282	517	300	748	3,740	3,690	1,230	115	79	66
18	407	359	296	536	550	732	4,870	4,270	1,140	127	77	84
19	292	349	300	475	650	762	4,350	4,620	1,230	143	77	102
20	244	310	296	380	550	697	3,910	4,730	1,090	134	75	104
21	240	287	269	380	655	642	4,050	4,500	1,180	134	79	99
22	269	269	269	481	2,920	683	4,440	4,480	1,100	140	75	102
23	252	204	287	511	2,910	888	4,500	4,840	968	134	81	104
24	227	264	282	505	1,690	1,110	3,810	4,660	880	130	88	110
25	215	292	240	457	1,420	2,620	3,220	4,690	800	127	118	124
26	211	300	189	330	2,150	2,320	2,740	4,820	725	121	121	137
27	208	349	190	255	2,910	1,820	2,390	4,950	655	115	118	170
28	*208	370	310	250	1,650	1,620	2,120	5,020	582	115	112	185
29	208	354	320	300	1,370	1,540	2,320	4,340	523	118	102	170
30	235	334	230	360	-	1,530	3,060	3,810	475	130	102	170
31	269	-	180	360	-	1,340	-	3,500	-	124	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,570	676	93	212	13,030
November	8,338	375	204	278	16,540
December	9,020	441	180	291	17,890
Calendar year 1947	264,840	4,500	48	726	525,300
January	24,496	3,890	200	790	48,590
February	24,425	2,920	240	842	48,450
March	31,410	2,620	556	1,013	62,300
April	79,880	4,870	1,250	2,663	158,400
May	115,790	5,020	2,300	3,735	229,700
June	61,848	5,360	475	2,062	122,700
July	7,271	582	115	235	14,420
August	3,009	121	75	97.1	5,970
September	2,849	185	57	95.0	5,650
Water year 1947-48	374,906	5,360	57	1,024	743,600

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 12, Dec. 27 to Jan. 7, Jan. 27 to Feb. 20 (no gage-height record Jan. 29 to Feb. 5; discharge computed on basis of weather records and records for station near Cambridge).

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 1948.
Average discharge.- 16 years (1911-12, 1919-22, 1924-25, 1937-48), 93.2 second-feet.
Extremes.- Maximum discharge observed during year, 858 second-feet May 19, 22, 23 (gage height, 4.49 feet); minimum observed, 8.2 second-feet Oct. 14, 15 (gage height, 1.25 feet).
1910-13, 1919-25, 1937-48: 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 p. 194).
Revisions.- W 833: Drainage area.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 11 to Apr. 24)

Oct. 1 to Apr. 16				Apr. 17 to Sept. 30					
1.3	10	2.0	87	1.5	10	2.3	70	3.6	412
1.4	15	2.3	135	1.6	15	2.5	96	4.0	592
1.5	22	2.6	195	1.7	21	2.7	130	4.4	805
1.6	32	2.9	273	1.9	35	2.9	175		
1.8	58	3.1	334	2.1	51	3.2	264		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	12	28	a15	b25	42	110	392	425	39	a61	47
2	9.6	12	24	b19	b23	a42	a130	384	368	a39	61	45
3	9.6	12	24	b30	b21	40	205	a380	a330	34	61	45
4	9.0	a12	24	b32	b21	*41	a200	408	298	33	61	a45
5	a9.0	12	24	a35	b19	42	135	384	267	33	61	45
6	a9.0	12	22	81	b19	43	118	429	288	32	61	45
7	a9.0	14	22	146	b19	32	105	689	278	a29	61	30
8	a9.5	14	22	133	a19	36	96	658	254	26	a61	29
9	a10	a14	*20	81	b19	35	173	587	199	24	61	27
10	a11	12	a15	76	b19	35	161	494	194	24	61	27
11	12	14	b17	64	b16	32	146	408	173	a24	59	27
12	9.6	a14	b18	61	b16	32	132	408	a170	23	59	27
13	8.6	14	b19	b40	b18	32	125	a450	a150	18	58	a26
14	8.2	14	b19	b35	b18	37	146	512	125	17	57	26
15	8.2	17	19	b32	b18	37	182	539	61	16	a57	26
16	28	14	b19	b35	b18	37	344	637	52	15	56	27
17	a22	16	19	b35	b18	36	592	689	50	75	56	27
18	a14	17	16	b35	18	37	663	743	52	52	54	27
19	12	14	15	b30	17	36	684	858	50	50	49	27
20	10	14	a15	b30	16	34	678	782	a53	50	49	27
21	14	b13	19	b33	20	a34	776	743	56	65	49	27
22	12	b12	16	b33	47	50	811	858	54	63	a49	25
23	12	b18	14	b32	40	61	699	858	52	63	49	26
24	11	26	17	*28	a38	110	582	799	50	65	49	26
25	10	22	a14	b28	35	144	458	743	49	a65	49	26
26	10	20	b12	b18	81	110	408	743	47	65	49	a26
27	10	22	b15	b17	55	107	330	743	45	61	49	26
28	9.6	22	b19	b19	44	116	323	726	42	61	49	26
29	a12	20	b19	b22	44	110	416	632	41	65	49	26
30	14	22	18	b30	-	110	450	539	34	61	45	10
31	12	-	b11	b25	-	100	-	480	-	61	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	354.5	28	8.2	11.4	703
November	471	26	12	15.7	934
December	575	28	11	18.5	1,140
Calendar year 1947	25,354	337	8.2	69.5	50,280
January	1,330	146	15	42.9	2,640
February	781	81	16	26.9	1,550
March	1,790	144	32	57.7	3,550
April	10,378	811	96	346	20,580
May	18,695	858	380	603	37,080
June	4,307	425	34	144	8,540
July	1,348	75	15	43.5	2,670
August	1,695	61	45	54.7	3,360
September	896	47	10	29.9	1,780
Water year 1947-48	42,620.5	858	8.2	116	84,530

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records, 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 1948.

Extremes.- Maximum gage height observed during year, 26.30 feet June 8; minimum observed, about 17.5 feet Sept. 29.
1924, 1926-48: 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; flashboard structure built in 1938 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.

Revisions.- W 883: Drainage area.

Gage height, in feet, water year October 1947 to September 1948

Date	Gage height	Date	Gage height	Date	Gage height
Nov. 18	17.75	May 12	24.80	June 14	25.68
Jan. 23	19.41	19	26.00	29	26.24
Mar. 3	21.25	27	25.88	July 16	26.10
Apr. 18	24.30	June 2	24.78	20	25.60
23	25.16	5	26.15	Aug. 19	20.85
24	25.12	8	26.30	Sept. 6	18.90
				29	17.5

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 1948.

Average discharge.- 18 years (1930-48), 36.3 second-feet.

Extremes.- Maximum discharge during year, 457 second-feet May 23 (gage height, 3.35 feet); minimum daily, 5 second-feet for long periods when gates in dam were closed.
1910-14, 1920-21, 1924-48: 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 and those for periods of no gage-height record, which are fair. No diversion between reservoir and station; practically entire flow diverted below station during irrigation season. Flow regulated since 1910 by Lost Valley Reservoir (see p. 194).

Cooperation.- Water-stage recorder inspected by Lost Valley Reservoir Co.

Revisions.- W 833: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	5	6	6	6	5	5	174	273	22	64	45
2	5	5	6	6	6	5	5	163	176	22	64	45
3	5	5	6	6	6	5	6	153	106	22	64	45
4	5	5	6	6	6	5	6	160	141	21	64	45
5	5	5	6	6	6	5	7	160	150	20	62	45
6	5	5	6	6	6	5	7	174	168	19	62	37
7	5	5	6	6	6	5	7	216	174	18	62	27
8	5	5	6	6	6	5	9	254	165	17	62	27
9	5	5	6	6	6	5	15	250	155	16	62	27
10	5	5	6	6	6	5	19	228	143	15	61	27
11	5	5	6	6	6	5	21	202	130	15	61	27
12	5	5	5	6	6	5	21	190	128	15	61	27
13	5	5	5	6	6	5	21	199	111	14	61	27
14	5	5	5	6	6	5	24	219	80	13	61	27
15	5	5	5	6	6	5	27	238	18	13	61	27
16	5	5	5	6	5	5	35	264	18	39	60	27
17	5	5	6	6	5	5	62	304	20	58	60	27
18	5	5	6	6	5	5	116	357	22	56	55	26
19	5	5	6	6	5	5	146	405	24	55	51	26
20	5	5	6	6	5	5	160	417	28	69	51	26
21	5	5	6	6	5	5	190	421	31	77	51	26
22	5	5	6	6	5	5	228	437	31	76	51	26
23	5	5	6	6	5	5	247	441	31	74	51	27
24	5	5	6	6	5	5	238	429	31	71	49	27
25	5	5	6	6	5	5	222	421	30	70	48	27
26	5	5	6	6	5	5	193	421	29	70	48	27
27	5	5	6	6	5	5	168	425	28	69	48	27
28	5	5	6	6	5	5	153	421	28	66	47	26
29	5	5	6	6	5	5	155	393	24	66	45	17
30	5	5	6	6	-	5	174	346	20	64	45	8
31	5	-	6	6	-	5	-	308	-	64	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	155	5	5	5.0	307
November	150	5	5	5.0	298
December	181	6	5	5.8	359
Calendar year 1947	14,495	222	5	39.7	28,750
January	186	6	6	6.0	369
February	160	6	5	5.5	317
March	155	5	5	5.0	307
April	2,687	247	5	89.6	5,330
May	9,190	441	153	296	18,230
June	2,513	273	18	83.8	4,980
July	1,306	77	13	42.1	2,590
August	1,737	64	45	56.0	3,450
September	875	45	8	29.2	1,740
Water year 1947-48	19,295	441	5	52.7	38,277

Note.- No gage-height record Jan. 9-22, Feb. 1 to Mar. 2, when gates were closed; discharge computed on basis of 2 discharge measurements.

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 1948. October 1910 to August 1913 at site three-quarters of a mile upstream.

Average discharge.- 11 years (1937-48), 119 second-feet.

Extremes.- Maximum discharge observed during year, 994 second-feet May 27; maximum gage height observed, 4.10 feet June 3; minimum discharge observed, 0.5 second-foot Aug. 20; minimum gage height observed, 0.78 foot Oct. 1.

1919-21, 1937-48: 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 good except those for periods of ice effect and those for May 15 to June 15, which are fair. Gage read twice daily. Mesa Orchards Canal diverts about 6½ miles above station.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 17 to June 23)

Oct. 1 to June 1

0.8	12	1.2	50	2.1	278
.9	18	1.4	82	2.4	409
1.0	26	1.6	123	2.8	635
1.1	37	1.8	176	3.2	925

June 2 to Sept. 30

1.7	0.8	2.2	24	2.8	146
1.8	2.8	2.3	35	3.0	218
1.9	6.0	2.4	50	3.4	400
2.0	10	2.5	68	3.9	665
2.1	16	2.6	90	4.4	965

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	30	58	27	30	58	84	278	609	128	5.4	0.8
2	13	24	47	35	29	58	148	298	626	119	5.4	.7
3	15	22	47	40	28	47	159	260	965	95	5.0	.7
4	16	25	50	45	27	42	136	278	755	86	4.7	.7
5	16	25	38	46	26	*47	103	302	749	81	1.2	.7
6	14	24	33	121	26	52	101	390	701	88	.8	.7
7	14	24	28	508	25	54	108	409	731	75	1.0	.7
8	36	28	25	238	25	50	112	367	689	64	1.6	.7
9	49	24	22	154	24	46	126	367	572	59	1.4	.7
10	52	25	*19	154	24	36	168	322	577	55	1.2	.7
11	75	27	20	105	23	46	185	314	490	54	1.2	.7
12	25	26	22	84	23	46	112	306	440	47	1.2	.7
13	35	30	23	68	25	45	121	344	425	44	1.0	.7
14	40	35	23	58	29	45	148	419	380	41	.8	.7
15	64	36	22	54	30	46	165	476	370	38	.8	.7
16	101	40	22	52	54	46	224	498	336	35	.8	.8
17	75	40	23	50	49	46	548	616	296	30	.7	1.0
18	37	37	27	47	68	46	371	761	278	31	.7	2.4
19	29	25	30	44	49	46	278	790	256	25	.7	2.4
20	24	23	30	33	50	49	340	872	256	22	.6	4.7
21	38	21	28	35	46	46	367	705	231	22	.7	9.1
22	34	20	33	36	227	54	404	910	222	17	.7	9.5
23	32	19	30	37	123	60	349	880	210	16	1.2	13
24	29	30	28	36	119	95	322	828	177	14	.8	12
25	28	35	29	32	72	119	322	888	170	12	2.4	14
26	28	38	28	*28	114	112	231	941	146	9.1	2.4	22
27	27	40	30	23	103	112	224	895	131	8.6	1.4	18
28	32	40	33	25	97	112	214	812	125	7.3	.8	19
29	38	41	33	27	93	112	376	733	113	8.2	.8	22
30	38	42	32	28	-	90	322	705	106	14	.8	19
31	34	-	21	30	-	88	-	642	-	10	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,100	101	12	35.5	2,180
November	896	42	19	29.9	1,780
December	934	58	19	30.1	1,850
Calendar year 1947	43,904.1	918	.5	120	87,090
January	2,300	508	23	74.2	4,560
February	1,658	227	23	57.2	3,290
March	1,951	119	36	62.9	3,870
April	6,868	548	84	229	13,620
May	17,606	941	260	568	34,920
June	12,132	965	106	404	24,060
July	1,355.2	128	7.3	43.7	2,690
August	49.0	5.4	.6	1.58	97
September	179.5	22	.7	5.98	356
Water year 1947-48	47,028.7	965	.6	128	93,270

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 20-26, Dec. 8-18, Dec. 28 to Jan. 4, Jan. 14 to Feb. 16.

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, 1928-48 (irrigation seasons only except 1947, 1948).

Extremes.- Maximum discharge observed during year, 38 second-feet July 1921-28; maximum gage-height observed, 2.47 feet July 22, 23, 27; no flow for long periods during non-irrigation season.

1924, 1928-48: Maximum discharge observed, 39 second-feet July 17, 1945, July 18-23, 27, 30, 1947; maximum gage height observed, 2.71 feet July 18, 21-23, 1947; 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 SE¼NW¼ sec. 9, T. 15 N., R. 1 E., for irrigation of Mesa orchards and for domestic supply of Mesa. Flow regulated by gates in diversion dam and waste gates in flume above gage.

Cooperation.- Gage readings furnished by The Mesa Co.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6						0		12	31	36	23
2	4.7						0		11	33	34	22
3	5.2						0		13	32	33	22
4	5.2	a3.5					0		11	a31	37	21
5	4.7						0		8.6	a30	35	20
								all				
6	4.9						0		9.1	29	35	21
7	5.2	0					0		9.4	29	a34	21
8	5.2	0					0		10	30	a33	21
9	2.8	0					0		10	31	33	20
10	4.2	0					0		11	31	33	20
11	4.2	0					0		11	26	32	19
12	4.5	0					0		9.8	29	32	18
13	4.5	0					0		a10	33	31	18
14	5.2	0					0		11	33	30	18
15	5.2	0					0		13	34	29	16
16	4.7	0					0		13	33	24	18
17	5.5	0					0		17	33	28	20
18	5.3	0					0	a14	17	32	27	21
19	4.7	0					0		18	32	27	a21
20	4.2	0					a6		23	35	28	a19
21	a4.0	0					8.7		22	36	28	a14
22	a4.0	0							19	37	24	a13
23	a4.0	0							18	37	27	a10
24	3.3	0							21	36	30	a10
25	a4.0	0						14	24	36	29	a9
26	4.7	0					a9	14	25	36	28	a6
27		0						14	27	37	27	a6
28		0						13	27	35	25	a6
29	a4.0	0						14	28	33	24	a6
30		0						15	30	32	23	a6
31		-					-	13	-	34	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	139.7	5.6	2.8	4.51	277
November	21.0	-	0	.7	42
December	0	0	0	0	0
Calendar year 1947	4,321.5	39	0	11.8	8,560
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	95.7	-	0	3.2	190
May	403	-	-	13.0	799
June	488.9	30	8.6	16.3	970
July	1,016	37	26	32.8	2,020
August	920	37	23	29.7	1,820
September	485	23	6	16.2	962
Water year 1947-48	3,569.3	37	0	9.75	7,080

a No gage-height record; discharge interpolated or computed on basis of reported gate changes, weather records, and records for Bacon Creek and Middle Fork Weiser River near Mesa.

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 1948 (no winter records).

Extremes.- Maximum discharge during year, 222 second-feet June 3 (gage height, 3.35 feet); minimum recorded, 1.2 second-feet Sept. 11-16 (gage height, 0.38 foot).
1941-48: Maximum discharge, that of June 3, 1948; minimum recorded, 0.4 second-foot Oct. 16, 1946 (gage height, 0.35 foot).

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

Revisions (water years).- W 1093: 1945(M).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	3.6						15	68	17	3.5	1.6
2	1.5	3.2						14	70	13	3.2	1.6
3	1.5	2.8						13	124	10	3.1	1.6
4	1.5	3.2						13	90	9.5	3.2	1.5
5	1.7	3.2						13	82	9.5	3.0	1.5
6	1.7	3.2						19	77	8.0	2.8	1.5
7	1.7	3.0						29	71	7.6	2.9	1.5
8	2.4	2.8					a4	23	69	7.0	2.8	1.5
9	1.8	-						19	60	6.4	2.8	1.4
10	6.0	-						17	54	6.2	2.6	1.4
11	3.4	-						17	47	6.4	2.5	1.4
12	2.0	-						22	39	6.0	2.3	1.3
13	1.8	-						33	38	5.4	2.2	1.3
14	1.8	-						34	33	5.0	2.2	1.3
15	2.6	-						41	30	5.0	2.2	1.3
16	54	-					a6	55	29	4.7	2.1	1.3
17	8.0	-					a9	68	26	4.7	2.1	2.2
18	4.5	-					a8	72	35	4.5	2.1	2.3
19	3.6	-					7.6	78	30	4.5	2.2	1.7
20	3.4	-					16	73	26	4.5	2.3	1.6
21	4.1	-					28	71	25	4.5	1.8	1.5
22	3.6	-					24	87	22	4.5	2.0	1.4
23	3.4	-					20	80	20	4.3	2.3	1.7
24	3.0	-					18	80	18	4.6	2.4	1.6
25	2.8	-					15	82	17	4.3	2.2	1.7
26	2.8	-					14	85	15	4.0	2.0	2.0
27	2.8	-					12	92	15	3.9	2.0	2.8
28	2.8	-					12	82	13	3.8	1.8	3.0
29	4.5	-					16	73	9.9	4.4	1.7	2.6
30	5.0	-					17	69	12	3.7	1.6	2.3
31	3.9	-					-	69	-	3.6	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	145.1	54	1.5	4.68	288
November 1-8	25.0	3.6	2.8	3.12	50
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	282.6	28	0	9.42	561
May	1,538	92	13	49.6	3,050
June	1,264.9	124	9.9	42.2	2,510
July	190.5	17	3.6	6.15	378
August	73.5	3.5	1.6	2.37	146
September	51.4	3.0	1.3	1.71	102
Water year	-	-	-	-	-

Peak discharge (base, 80 sec.-ft.).- May 22 (1:30 a.m.) 115 sec.-ft.; May 27 (6:30 p.m.) 114 sec.-ft.; June 3 (4:30 a.m.) 222 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records from stations on other Weiser River tributaries and nearby streams having similar drainage area.

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 1948.

Extremes.- Maximum discharge during year, 29 second-feet June 3 (gage height, 2.55 feet), from rating curve extended above 15 second-feet; minimum not determined, occurred during period of no gage-height record.

1944-48: Maximum discharge recorded, 50 second-feet 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 subsurface runoff from this source.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 15		Feb. 16 to Sept. 30			
0.8	1.1	0.7	1.3	1.5	11
.9	2.1	.8	2.2	1.8	15
1.0	3.1	1.0	4.2	2.1	20
1.2	5.3	1.2	6.5		
1.4	7.6				

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	3.8	1.8	1.1		5.3	4.1	9.9	7.3	16	20	16
2	3.4	2.7	1.3	1.4		5.3	4.3	11	5.5	16	18	16
3	3.4	3.9	1.2	1.7		4.6	5.7	14	13	15	16	14
4	3.5	4.0	1.1	1.6		4.3	4.1	11	5.0	15	14	13
5	3.6	3.8	1.0	1.6		4.4	3.8	9.2	4.6	13	14	14
6	3.0	2.5	1.2	2.9		*5.1	4.5	11	5.1	12	16	13
7	3.4	3.1	1.2	4.2		5.0	3.8	11	4.5	11	16	14
8	7.7	2.7	1.2	3.3	0.7	4.9	3.5	14	4.9	11	15	13
9	3.9	1.7	1.2	2.5		4.5	5.0	13	4.3	11	14	12
10	7.8	1.5	*1.0	2.2		3.7	9.3	12	4.0	13	14	11
11	5.4	1.9	1.2	2.1		3.5	5.9	11	5.0	12	16	11
12	4.9	1.8	1.1	1.9		3.8	5.2	10	5.0	12	18	12
13	4.6	1.4	1.2			4.1	4.8	11	4.6	11	17	11
14	4.9	1.5	1.2			5.9	6.4	11	4.4	10	16	9.9
15	5.7	1.9	1.2			5.0	5.3	9.6	5.8	11	18	9.2
16	6.4	2.3	1.1	1.2	.7	4.5	5.5	9.3	5.1	12	16	9.3
17	3.3	1.8	1.3		1.0	4.4	10	8.6	5.9	11	16	11
18	5.1	1.6	1.3		1.8	4.3	4.9	9.1	6.5	11	16	12
19	4.9	1.2	1.3		1.2	3.9	5.1	9.2	6.8	11	16	12
20	5.0	1.0	1.3	.8	1.2	3.5	8.1	9.8	10	15	16	13
21	4.3	1.0	1.2		2.5	3.5	8.8	8.9	15	17	16	11
22	3.6	1.0	1.5		7.3	4.0	11	8.9	8.9	17	15	11
23	4.1	1.0	1.3	1.0	5.1	4.4	10	6.9	7.2	16	21	13
24	4.1	1.0	1.3		3.9	4.4	9.1	7.3	6.8	16	21	14
25	3.9	1.2	1.2		4.5	8.8	8.6	6.1	6.9	17	20	13
26	3.9	1.5	1.1	*1.3	10	6.4	8.1	7.9	7.8	16	18	13
27	4.2	1.4	1.2		7.2	5.8	7.5	12	11	17	16	10
28	4.2	1.2	1.4		5.9	5.2	5.9	9.6	10	19	16	8.5
29	4.9	1.2	1.4	1.0	5.8	5.1	8.1	11	9.5	18	18	7.9
30	4.1	1.4	1.3		-	4.6	13	12	12	17	16	8.2
31	4.1	-	1.0		-	4.2	-	10	-	16	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	138.0	7.8	2.7	4.45	274
November	58.0	4.0	1.0	1.93	115
December	38.4	1.8	1.0	1.24	76
Calendar year 1947	2,452.1	19	-	6.72	4,860
January	47.0	4.2	-	1.52	93
February	68.6	10	-	2.37	136
March	146.4	8.8	3.5	4.72	290
April	199.4	13	3.5	6.65	396
May	315.3	14	6.1	10.2	625
June	212.4	15	4.0	7.08	421
July	435	19	10	14.0	863
August	514	21	14	16.6	1,020
September	356.0	16	7.9	11.9	706
Water year 1947-48	2,528.5	21	-	6.91	5,020

* Winter discharge measurement made on this day.

Note.- No gage-height record Jan. 14-19, 22-25, Jan. 27 to Feb. 15, Aug. 16-21; discharge computed on basis of weather records and records for stations on other Weiser River tributaries and Mesa Orchards Canal near Mesa. Stage-discharge relation affected by ice about Jan. 13-16, 21, Jan. 26 to Feb. 14.

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 1948.

Average discharge.- 10 years, 38.4 second-feet.

Extremes.- Maximum discharge observed during year, 505 second-feet May 27 (gage height, 3.60 feet, from rating curve extended above 200 second-feet by logarithmic plotting, but may have been more when gage was overtopped June 3; minimum observed, 1.8 second-feet Sept. 9; minimum gage height observed, 0.52 foot Oct. 1, 4, 6, 7.

1938-48: Maximum discharge observed, that of May 27, 1948; minimum observed, 1.6 second-feet Aug. 27, 28, 1947 (gage height, 0.43 foot).

Remarks.- Records fair except 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	12	14	9.0	11	22	70	88	322	36	5.0	2.4
2	4.9	11	12	9.0	10	21	67	83	338	38	4.2	2.4
3	4.3	11	12	10	10	20	79	85	a450	29	4.0	2.4
4	3.5	13	14	11	10	20	73	104	379	28	4.2	2.5
5	4.0	11	12	12	9.5	18	60	100	366	26	4.2	2.2
6	3.5	12	12	14	9.0	22	52	108	336	21	3.8	2.2
7	3.8	12	10	40	9.0	*23	52	110	273	20	4.0	2.2
8	6.6	14	12	32	9.5	22	48	114	243	17	4.2	1.9
9	4.9	12	12	26	9.5	23	74	115	198	16	4.0	1.9
10	8.6	13	11	26	9.0	22	85	112	138	15	4.0	1.9
11	10	12	*11	27	9.0	24	87	107	121	13	4.0	2.0
12	9.5	11	12	16	9.0	25	82	107	115	13	4.0	2.0
13	9.5	12	12	15	9.0	23	83	101	108	13	4.0	2.4
14	10	12	10	15	10	24	89	105	83	12	4.0	2.4
15	10	13	10	14	11	24	97	110	79	13	3.5	2.2
16	22	12	9.0	14	13	26	100	108	80	12	3.8	2.2
17	14	12	10	14	10	29	124	121	78	10	3.8	2.5
18	11	12	10	13	15	27	124	158	77	9.8	3.2	2.8
19	11	10	10	12	26	26	100	222	73	9.8	3.8	2.5
20	14	10	10	11	23	26	93	228	73	9.3	4.2	2.4
21	13	10	10	12	16	26	111	236	71	9.3	2.8	2.5
22	11	9.5	12	13	59	29	121	253	62	8.8	2.4	2.5
23	12	12	12	13	46	33	104	259	57	9.8	3.0	2.5
24	11	12	10	12	39	41	96	261	49	11	3.2	3.0
25	12	10	9.5	9.0	24	59	93	301	46	10	3.2	4.0
26	11	12	9.0	7.5	47	59	89	370	40	10	3.2	6.1
27	11	12	9.5	*6.5	32	52	89	459	39	7.7	2.8	6.5
28	11	12	10	7.0	26	54	85	370	36	7.3	2.8	8.4
29	12	12	10	8.0	27	65	107	279	27	11	3.0	9.8
30	12	12	10	13	-	60	111	261	26	8.8	3.0	8.0
31	12	-	9.0	12	-	68	-	238	-	6.1	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	296.6	22	3.5	9.57	588
November	350.5	14	9.5	11.7	695
December	336.0	14	9.0	10.8	666
Calendar year 1947	10,601.6	203	1.8	29.0	21,020
January	453.0	40	6.5	14.6	899
February	547.5	59	9.0	18.9	1,090
March	1,013	68	18	32.7	2,010
April	2,645	124	48	88.2	5,250
May	5,673	459	83	183	11,250
June	4,383	450	26	146	8,690
July	460.7	38	6.1	14.9	914
August	111.8	5.0	2.4	3.61	222
September	98.7	9.8	1.9	3.29	196
Water year 1947-48	16,368.8	459	1.9	44.7	32,470

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for other Weiser River tributaries.
Note.- Stage-discharge relation affected by ice Dec. 10, 15-17, 25-27, Dec. 31 to Jan. 4, Jan. 13-22, Jan. 25 to Feb. 7, Feb. 10-14.

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 1948. June 1920 to February 1921, March to September 1923, and February 1924 to October 1927 at nearby sites.
Extremes.- Maximum discharge observed during year, 844 second-feet May 27 (gage height, 4.50 feet); minimum observed, 7.1 second-feet Sept. 14 (gage height, 0.48 foot).
1920-21, 1923-27, 1938-48: 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 twice daily. One small ranch diversion above station. Many diversions below station for irrigation including feeder canal to C. Ben Rose Reservoir.

Rating tables, water year 1947-48, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 27

0.8	11	1.6	56	3.0	318
1.0	18	1.9	92	3.5	463
1.2	27	2.2	139	4.0	640
1.4	39	2.6	220	4.4	802

May 28 to Sept. 30

0.5	7.5	1.3	43	3.0	334
.6	9.5	1.5	60	3.5	479
.7	12	1.8	93	4.0	649
.9	20	2.1	136		
1.1	30	2.5	214		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	24	45	26	13	41	89	238	537	112	28	11
2	13	22	55	29	12	39	98	213	544	103	28	11
3	13	22	52	38	12	42	181	211	724	87	26	11
4	14	22	45	47	12	32	114	232	613	83	26	11
5	13	24	37	74	12	27	109	229	575	85	25	11
6	13	22	36	157	12	31	96	238	561	80	25	11
7	13	24	35	313	12	27	88	332	498	73	24	11
8	22	28	32	196	12	32	86	292	482	70	24	10
9	16	30	31	153	12	32	96	267	448	67	23	10
10	24	29	*29	150	12	23	153	272	395	60	20	9.3
11	32	26	31	144	12	20	144	267	348	57	17	8.3
12	30	24	30	139	11	26	129	243	308	55	16	7.7
13	28	26	29	79	11	30	124	308	321	54	16	7.5
14	22	29	29	56	12	32	179	340	264	53	14	7.1
15	22	30	26	51	17	30	205	345	238	50	14	7.7
16	134	29	26	45	22	29	287	441	204	48	13	8.3
17	37	30	25	45	27	29	479	547	208	46	12	9.5
18	34	30	24	a42	28	30	345	558	212	45	11	10
19	24	29	24	a40	30	30	329	671	234	44	11	8.7
20	24	27	25	a31	32	28	351	602	206	42	11	8.5
21	34	26	24	a32	40	29	373	551	199	41	11	8.1
22	30	26	26	a32	50	35	365	640	177	41	11	7.9
23	25	26	26	a32	52	46	305	595	162	36	11	9.3
24	24	28	26	a27	48	52	250	558	150	37	11	10
25	24	30	27	a21	50	74	209	679	134	35	12	a11
26	22	41	b23	*15	49	67	198	727	125	33	12	a12
27	22	55	b22	14	a46	100	175	810	120	34	12	a14
28	21	46	26	14	a44	112	200	682	109	35	11	a14
29	21	38	26	14	a42	119	290	568	110	34	11	a13
30	26	36	23	14	-	106	290	531	109	32	10	a13
31	26	-	24	13	-	86	-	485	-	30	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	817	134	13	26.4	0.322	0.37	1,620
November	879	55	22	29.3	.358	.40	1,740
December	939	55	22	30.3	.370	.43	1,860
Calendar year 1947	38,274	683	13	105	1.28	17.39	75,920
January	2,083	313	13	67.2	.821	.95	4,130
February	744	52	11	25.7	.314	.34	1,480
March	1,436	119	20	46.3	.565	.65	2,850
April	6,337	479	86	211	2.58	2.88	12,570
May	13,672	810	211	441	5.38	6.21	27,120
June	9,315	724	109	310	3.79	4.23	18,480
July	1,705	112	30	55.0	.672	.77	3,380
August	507	28	10	16.4	.200	.23	1,010
September	301.9	14	7.1	10.1	.123	.14	599
Water year 1947-48	38,735.9	810	7.1	106	1.29	17.60	76,840

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for other stations in Weiser River Basin.
b Stage-discharge relation affected by ice.

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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 structures near left end of dam on Crane Creek, 10 miles southeast of Midvale.

Drainage area.- 242 square miles.

Records available.- November 1923 to September 1948.

Extremes.- Maximum gage height observed during year, 48.8 feet Apr. 18, 21; minimum observed, 33.4 feet Oct. 13.
1923-48: Maximum gage height observed, 56.3 feet Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, Sept. 25 to Dec. 1, 1929.

Remarks.- Reservoir is formed by earth dam completed in 1910 and raised in 1920-21. Capacity is reported to be about 60,000 acre-feet at gage height 55.0 feet (elevation of spillway crest). Water is used for irrigation of lands in lower Weiser Valley.

Cooperation.- Gage readings furnished by Crane Creek Reservoir Administration Board.

Revisions.- W 833: Drainage area.

Gage height, in feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	33.6	-	-	-	-	-	47.9	-	-	-	-
2	-	-	-	-	-	-	-	-	-	48.2	45.5	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	48.4	-	-	40.5
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	48.5	-	-	-
7	-	-	-	-	-	43.1	-	48.0	-	-	-	-
8	-	-	-	38.3	-	43.2	-	-	-	-	-	-
9	-	33.8	-	-	39.8	-	46.8	-	-	48.0	44.7	-
10	-	-	-	-	-	43.2	-	-	-	-	-	-
11	-	-	34.2	-	-	-	-	48.0	-	-	-	39.5
12	-	-	-	-	-	-	-	-	-	47.9	-	-
13	33.4	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	39.0
15	-	-	-	-	-	-	48.5	-	48.4	-	-	-
16	-	-	34.2	-	-	-	48.7	47.9	-	47.5	43.5	-
17	33.5	-	-	-	40.0	-	-	-	-	-	-	-
18	-	-	-	-	-	-	48.8	-	-	-	-	-
19	-	-	-	38.3	-	43.5	-	-	-	-	-	-
20	-	-	-	-	-	-	-	47.9	-	-	-	-
21	-	-	-	-	-	-	48.8	-	-	47.0	-	37.8
22	-	-	-	-	41.8	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	47.9	-	-	42.5	-
24	33.5	-	34.4	-	-	-	48.4	-	-	-	-	37.2
25	-	-	-	-	-	-	-	-	48.3	-	-	-
26	-	-	-	-	-	-	48.32	-	-	-	-	-
27	-	-	-	39.52	-	-	48.0	-	-	46.2	-	36.4
28	-	34.0	-	-	42.7	-	-	47.9	-	-	-	-
29	-	-	-	39.5	-	-	-	-	-	-	41.5	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	46.0	-	-	-	-	-	-

Crane Creek near Midvale, Idaho

Location.- Water-stage recorder and concrete control, lat. 44°23', long. 116°37'30", 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 1948.

Average discharge.- 27 years (1912-15, 1924-48), 69.5 second-feet.

Extremes.- Maximum discharge during year, 240 second-feet Apr. 21-23 (gage height, 2.23 feet); no flow for period in December and January.
1910-16, 1924-48: 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 below 1 second-foot, which are poor. Flow regulated since 1911 by Crane Creek Reservoir (see p. 202). No large diversion above station.

Cooperation.- Water-stage recorder inspected by Crane Creek Reservoir Administration Board.

Revisions (water years).- W 833: Drainage area, W 963: 1941(M).

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)

0.1	0.5	0.5	18	1.6	124
.2	3.0	.7	31	1.9	168
.3	6.5	1.0	56	2.2	232
.4	12	1.3	88		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	0.4	0.2					125	11	11	112	138
2	83	.4	.1					90	11	10	112	136
3	82	.4						91	11	10	112	135
4	35	.2		0				91	11	10	112	135
5	.8	.2						91	11	10	112	135
6	.8	.2						91	11	10	112	135
7	.8	.2						91	11	10	112	135
8	.5	.2					0.3	91	11	10	112	133
9	.5	.2						91	11	10	120	133
10	.5	.2						91	11	10	142	133
11	.5	.2						91	11	10	142	133
12	.4	.2						91	11	94	142	133
13	.4	.2						91	11	94	142	133
14	.4	.2						91	11	94	142	133
15	.4	.2			3.0	0.3		91	11	94	142	133
16	.4	.2					27	69	11	96	142	133
17	.4	.2	0				69	2.2	10	104	140	133
18	.4	.2		.3			99	1.8	11	104	140	132
19	.4	.2					143	.8	11	104	140	132
20	.4	.2					145	3.9	11	104	140	131
21	.4	.2					206	11	11	103	140	131
22	.4	.2					238	11	11	111	140	129
23	.4	.2					238	11	11	111	140	128
24	.4	.2					199	10	11	111	140	128
25	.4	.2					184	10	11	111	139	128
26	.4	.2					188	10	11	112	138	127
27	.4	.2					170	10	11	112	138	127
28	.4	.2					140	11	11	112	138	128
29	.4	.2					139	11	11	112	136	127
30	.4	.2			-		140	11	11	112	138	127
31	.4	-			-		-	11	-	112	138	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	295.4	83	0.4	9.53	586
November	6.6	0.4	.2	.22	13
December	.3	-	-	.01	.6
Calendar year 1947	21,815.9	818	-	59.8	43,270
January	7.2	-	-	.23	14
February	8.7	-	-	.30	17
March	9.3	-	-	.30	18
April	2,329.5	238	-	77.6	4,620
May	1,592.7	125	0.8	51.4	3,160
June	329	11	10	11.0	653
July	2,148	112	10	69.3	4,260
August	4,095	142	112	132	8,120
September	3,954	138	127	132	7,840
Water year 1947-48	14,775.7	238	-	40.4	29,300

Note.- No gage-height record Dec. 3 to Apr. 15, when gates in dam were closed Aug. 21, 22; discharge computed or interpolated on basis of field estimates Dec. 11, Jan. 27, Mar. 8, and observer's reports.

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 1948.

Average discharge.- 27 years (1921-48), 77.0 second-feet.

Extremes.- Maximum discharge during year, 593 second-feet Feb. 22 (gage height, 4.62 feet); minimum, 1.1 second-feet Jan. 26 (gage height, 1.61 feet); minimum daily, 3.0 second-feet Jan. 26.

1920-48: 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 Jan. 21, 1922.

Remarks.- Records good. Flow regulated since 1911 by Crane Creek Reservoir (see p. 202). Several small ditches divert above station for irrigation.

Revisions.- W 833: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	4.8	6.0	5.5	5.5	9.6	9.3	142	4.2	6.0	104	134
2	81	4.5	6.5	11	5.5	8.9	8.6	98	4.0	5.2	104	132
3	80	4.5	6.0	19	5.5	8.6	8.6	99	98	6.5	104	130
4	66	5.0	5.8	13	5.2	7.9	8.9	124	45	6.8	103	132
5	12	5.0	5.5	12	5.2	7.2	8.6	103	21	7.2	103	132
6	6.5	5.0	5.5	40	5.5	7.2	8.2	99	18	6.5	103	132
7	6.0	5.0	5.5	271	5.2	6.8	8.6	98	13	7.2	103	130
8	6.8	5.0	5.8	69	5.5	6.8	8.6	99	11	7.9	103	126
9	6.5	4.8	5.5	25	5.8	6.8	8.2	103	9.3	8.9	104	124
10	7.2	4.8	5.5	15	5.2	6.2	76	98	10	8.2	134	124
11	7.6	5.0	5.5	11	4.5	6.0	44	96	10	6.8	136	124
12	6.0	5.0	5.5	8.2	5.0	6.0	19	94	10	7.2	134	124
13	5.2	5.5	5.5	6.2	5.5	5.5	13	93	11	58	132	126
14	5.2	5.5	5.5	6.2	5.2	5.8	11	92	11	84	132	126
15	5.2	6.2	5.5	6.0	5.8	6.0	18	92	11	86	132	126
16	6.0	6.0	5.2	5.5	22	6.2	13	90	10	86	132	128
17	6.0	5.8	5.8	5.5	16	6.2	72	22	8.2	96	132	130
18	5.2	6.0	5.8	5.2	46	6.2	92	6.5	6.8	98	132	128
19	4.8	5.8	5.8	5.0	34	6.2	148	6.2	6.2	96	132	126
20	4.8	5.5	5.8	5.0	14	6.2	150	5.8	7.2	94	132	128
21	5.2	5.2	5.8	5.0	31	5.8	193	6.8	6.5	94	132	126
22	5.0	4.8	5.8	5.0	339	5.5	237	13	6.8	104	134	124
23	5.0	4.8	5.8	5.0	51	5.5	237	12	6.2	108	138	124
24	5.0	5.0	5.5	5.2	21	5.8	220	10	6.0	108	136	124
25	5.0	5.0	5.2	4.2	15	31	195	9.3	9.3	108	136	126
26	5.0	5.0	5.2	3.0	17	55	193	7.2	10	106	136	128
27	5.0	5.8	5.2	5.0	27	52	188	5.8	12	108	134	126
28	5.0	6.0	5.8	5.0	14	22	154	5.0	10	108	132	128
29	5.2	5.8	5.8	5.5	11	18	152	3.5	5.2	108	136	128
30	5.5	5.8	5.0	5.2	-	14	152	3.5	5.5	106	136	128
31	5.0	-	5.0	5.5	-	10	-	4.0	-	108	136	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	464.9	81	4.8	15.0	922
November	157.9	6.0	4.5	5.26	313
December	173.6	6.5	5.0	5.60	344
Calendar year 1947	23,186.3	841	1.8	63.5	45,990
January	597.9	271	3.0	19.3	1,190
February	738.1	339	4.5	25.5	1,460
March	360.9	55	5.5	11.6	716
April	2,654.6	237	8.2	88.5	5,270
May	1,740.6	142	3.5	56.1	3,450
June	402.4	98	4.0	13.4	798
July	1,948.4	108	5.2	62.9	3,860
August	3,877	138	103	125	7,690
September	3,824	134	124	127	7,580
Water year 1947-48	16,940.3	399	3.0	46.3	33,590

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 1948 (winter records fragmentary).

Extremes.- Maximum discharge during year, 214 second-feet July 1 (gage height, 3.04 feet); minimum not determined, may have been practically dry at times during period of no gage-height record.

1920-48: 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 for periods of ice effect or no gage-height record, and those below 5.0 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 Districts. 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a127	59	-			-			203	210	194	185
2	h127	59	-			-		a70	204	206	194	183
3	a126	58	-			-			205	201	195	180
4	h124	73	-			-			189	200	188	179
5		-	-			-		73	186	196	186	178
6		-	-		*h2.9	-		73	161	197	183	176
7		-	-			-		73	176	202	176	174
8		-	-			-		74	174	203	173	174
9		-	-			-		71	f174	205	170	171
10		-	-			-	a3	68	172	203	186	167
11		-	-			-		63	123	199	198	164
12		-	*8.4			-		83	77	186	197	163
13		-	b8.5			-		100	171	201	201	166
14		-	b8.5			*2.3		117	181	205	197	159
15		-	b8.5			2.3		126	182	202	197	148
16	a60	-	b8.5			2.3		128	182	186	191	151
17		-	8.4			2.3		138	184	172	190	151
18		-	b8.5			2.3		176	187	180	183	153
19		-	b8.5			2.3		187	192	197	187	156
20		-	-			2.1		182	192	192	186	155
21		-	-			2.1		177	193	190	186	154
22		-	-			-	a50	177	192	199	185	154
23		-	-			-		175	192	202	187	155
24		-	-			-		174	193	197	f188	h153
25		-	-			-		175	192	192	194	f130
26		-	-			-	h47	175	194	190	191	115
27		-	-			-		186	193	190	190	119
28	59	-	-			-	a50	194	192	189	190	119
29	59	-	-			-		f200	202	188	189	119
30	59	-	-		-	-		h208	206	197	188	119
31	59	-	-		-	-	-	h207	-	199	187	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,120	127	-	68.4	4,200
November	-	-	-	-	-
December 12-19	67.8	8.5	8.4	8.48	134
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 14-21	18.0	2.3	2.1	2.25	36
April	651	-	-	21.7	1,290
May	4,060	208	-	131	8,050
June	5,464	206	77	182	10,840
July	6,076	210	172	196	12,050
August	5,847	201	170	189	11,600
September	4,670	185	115	156	9,260
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Crane Creek at mouth, near Weiser, Weiser River above Crane Creek, and Boise River diversions.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.

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 1948.

Average discharge.- 13 years (1911-13, 1937-48), 42.4 second-feet.

Extremes.- Maximum discharge observed during year, 343 second-feet Apr. 17 (gage height, 2.05 feet, auxiliary gage); minimum observed, 1.7 second-feet Oct. 1, 2, 4-8.
1911-13, 1920-48: 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 fair except 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.4	19	7.2	b12	22	59	126	60	20	5.7	3.1
2	1.7	4.1	14	11	b11	19	71	117	60	21	5.7	3.1
3	2.0	4.7	13	10	b11	15	83	146	113	16	5.4	3.1
4	1.8	4.4	10	10	b11	16	71	167	97	17	5.2	2.9
5	1.7	4.1	8.2	10	b10	15	58	167	83	16	5.2	2.9
6	1.7	4.4	6.8	25	b10	19	55	178	73	16	4.9	2.9
7	1.7	4.7	5.9	94	b9.6	23	45	178	67	16	4.6	2.9
8	2.9	4.4	7.2	47	9.5	20	44	167	72	15	4.6	2.9
9	4.1	4.1	8.2	33	10	20	66	167	58	16	4.6	2.9
10	5.4	4.4	4.7	28	9.5	*16	70	167	59	19	4.6	2.7
11	5.0	4.7	*9.0	28	b8.2	19	55	156	59	15	4.6	2.7
12	3.2	4.7	6.8	19	b8.4	20	51	128	57	13	5.2	2.7
13	2.9	5.0	8.2	b14	8.6	18	47	128	57	12	4.6	2.5
14	2.9	5.0	7.2	13	9.5	20	75	130	56	11	4.1	2.3
15	2.9	5.0	6.8	14	9.5	20	109	142	54	10	4.4	2.3
16	9.5	5.9	7.7	13	9.0	22	170	151	47	9.2	4.6	2.2
17	9.0	5.9	8.2	13	17	23	251	186	46	9.2	4.1	2.5
18	8.2	5.4	7.2	14	29	26	201	186	44	9.2	4.1	4.9
19	7.2	3.8	9.5	12	15	25	167	196	34	8.5	3.6	3.9
20	5.9	3.2	7.2	10	13	24	167	193	25	8.5	3.6	3.1
21	4.4	4.4	6.8	11	17	23	213	171	23	8.5	3.6	2.9
22	4.1	4.1	7.7	14	76	22	251	169	22	8.1	3.6	2.7
23	4.1	3.8	6.8	16	50	25	167	155	16	7.7	5.4	3.6
24	4.1	5.4	5.9	19	34	29	167	150	20	7.3	7.0	3.9
25	4.1	5.0	5.9	15	28	42	167	141	21	7.0	5.4	4.4
26	3.8	6.8	5.4	12	36	39	146	130	15	7.0	4.9	5.4
27	3.5	13	6.8	7.2	33	38	117	128	16	6.2	4.4	5.4
28	4.1	14	8.2	*b9.0	25	48	117	122	16	7.0	3.9	4.9
29	5.9	14	8.2	9.0	25	51	156	104	16	7.0	3.4	4.1
30	6.4	13	4.4	b14	-	55	146	91	17	6.6	3.2	3.6
31	5.4	-	4.4	b13	-	50	-	78	-	5.7	3.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	131.3	9.5	1.7	4.24	260
November	175.8	14	3.2	5.86	349
December	245.3	19	4.4	7.91	487
Calendar year 1947	7,521.7	146	.4	20.6	14,930
January	564.4	94	7.2	18.2	1,120
February	554.8	76	8.2	19.1	1,100
March	824	55	15	26.6	1,630
April	3,562	251	44	119	7,070
May	4,615	196	78	149	9,150
June	1,403	113	15	46.8	2,780
July	355.7	21	5.7	11.5	706
August	141.3	7.0	3.1	4.56	280
September	99.4	5.4	2.2	3.31	197
Water year 1947-48	12,672.0	251	1.7	34.6	25,120

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Maximum discharge Apr. 17 and daily discharge May 12-31, June 3-9 based on record at auxiliary gage 100 feet downstream.

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 1948.

Extremes.- Maximum discharge observed during year, 74 second-feet Jan. 7 (gage height, 1.76 feet); no flow July 8, 9.
1945-48: Maximum discharge observed, 170 second-feet Mar. 18, 19, 1946 (gage height, 2.40 feet); no flow about Aug. 1 to Sept. 7, Sept. 16, 17, 1947, July 8, 9, 1948.

Remarks.- Records fair except those for periods of ice effect of no gage-height record, which are poor. Diversions above station for irrigation and storage in Barton Reservoir.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.4	a2.4	1.7	5.6	6.6	6.1	9.0	0.6	0.2	a0.1	0.1
2	.4	.4	a2.2	4.2	4.7	4.2	5.6	6.6	1.0	.3	.1	.2
3	.5	.4	2.0	5.6	b5.0	b4.5	19	8.0	13	.2	.1	.2
4	.6	.4	1.5	4.0	4.2	b4.5	9.0	19	4.7	.2	.2	a.2
5	.5	.4	1.5	3.2	b4.5	5.2	4.7	15	3.0	.1	.2	.2
6	.5	.4	a1.2	13	4.0	5.2	9.0	13	2.4	.2	.1	.1
7	.6	.4	1.2	54	b4.0	a7.0	9.6	16	3.4	.1	a.1	.1
8	.7	.4	1.2	27	4.0	4.2	7.6	13	1.2	.1	a.1	.1
9	.8	.3	1.2	19	3.7	4.2	13	14	1.0	.1	.1	.2
10	1.2	.3	1.2	16	3.4	*b3.7	27	14	.8	.1	.1	.2
11	1.1	.4	*1.1	11	b3.5	b3.5	20	13	.6	.1	.1	.1
12	1.0	.4	1.2	b9.0	b3.0	b3.5	18	11	.6	.1	.1	.1
13	.8	.4	1.4	b7.0	b3.5	3.4	14	11	.6	.1	.1	.1
14	.7	.4	1.2	b6.5	b3.5	4.2	26	11	1.2	.1	.1	.1
15	.7	.7	1.1	b6.0	6.6	3.7	20	11	.8	.1	.1	.1
16	.6	.7	1.2	b6.0	5.2	4.0	22	9.0	1.0	.2	.1	.1
17	.6	.7	1.7	b6.0	4.2	3.7	28	8.0	a.9	.1	.2	.1
18	.6	.7	1.1	b5.5	13	5.2	21	6.1	a.8	a.1	.2	.1
19	a.6	.4	1.1	b5.0	7.6	5.2	15	9.0	a.7	.1	.2	.1
20	a.6	.4	1.1	b4.7	6.6	4.7	14	6.1	a.7	.1	.2	.1
21	a.6	.4	1.1	b5.0	5.2	3.7	14	5.2	.7	.1	.1	.1
22	a.6	.4	1.2	b5.5	70	4.0	13	6.6	.4	.2	.2	.1
23	a.6	.4	1.2	b5.6	22	4.7	11	7.1	.4	.1	.2	.1
24	.6	.4	1.4	12	15	9.6	9.0	5.2	.3	.1	.2	.1
25	a.6	.6	.8	7.1	9.6	13	8.0	4.7	.2	a.1	.2	.1
26	a.5	.6	.6	4.2	26	9.0	7.1	4.2	.2	.1	.2	a.3
27	a.4	.6	1.1	b3.0	11	13	7.1	3.4	.2	.1	a.2	.3
28	.3	1.0	1.2	*b3.0	11	7.1	6.1	1.7	.2	.1	a.2	.3
29	.3	1.2	1.1	b3.5	11	9.0	8.5	1.5	.2	.1	a.2	.3
30	.4	a1.0	b.9	b7.0	-	11	8.5	1.4	.2	.1	.2	.4
31	.4	-	b.8	b6.5	-	7.6	-	1.1	-	.1	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18.8	1.2	0.3	0.61	37
November	15.6	1.2	.3	.52	31
December	39.2	2.4	.6	1.26	78
Calendar year 1947	1,379.9	86	0	3.78	2,730
January	276.8	54	1.7	8.93	549
February	280.6	70	3.0	9.68	557
March	182.1	13	3.4	5.87	361
April	400.9	28	4.7	13.4	795
May	264.9	19	1.1	8.55	525
June	42.0	13	.2	1.40	83
July	3.9	.3	.1	.13	7.7
August	4.6	.2	.1	.15	9.1
September	4.7	.4	.1	.16	9.3
Water year 1947-48	1,534.1	70	.1	4.19	3,040

* 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 Weiser River tributaries.
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 convert elevations to datum of 1929, add 0.12 foot.)

Drainage area.- 309 square miles.

Records available.- March 1938 to September 1948.

Extremes.- Maximum contents observed during year, 25,220 acre-feet May 20, 22-26, June 10-12 (elevation, 3,820.0 feet); minimum observed, 256 acre-feet Oct. 7 (elevation, 3,778.2 feet).

1938-48: Maximum contents observed, 25,770 acre-feet Apr. 13, 1942 (elevation, 3,820.6 feet); minimum observed, those of Oct. 7, 1947.

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 1947 to September 1948

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	3,780.0	590	-
Oct. 31	3,783.0	1,320	+730
Nov. 30	3,788.3	3,252	+1,932
Dec. 31	3,789.0	3,560	+308
Calendar year 1947	-	-	-6,360
Jan. 31	3,791.1	4,550	+990
Feb. 29	3,796.5	7,460	+2,910
Mar. 31	3,803.6	11,980	+4,520
Apr. 30	3,813.0	19,080	+7,100
May 31	3,819.3	24,580	+5,500
June 30	3,818.3	23,680	-900
July 31	3,810.5	17,070	-6,610
Aug. 31	3,803.3	11,770	-5,300
Sept. 30	3,797.2	7,870	-3,900
Water year 1947-48	-	-	+7,280

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 1948.
Average discharge.- 19 years (1929-48), 73.2 second-feet.
Extremes.- Maximum discharge during year, 510 second-feet Apr. 22 (gage height, 4.23 feet); minimum, 1 second-foot Oct. 7-9.
1915-16, 1928-48: Maximum discharge, 2,220 second-feet Apr. 17, 1943 (caused by opening of automatic spillway gates), from rating curve extended above 1,300 second-feet by logarithmic plotting; maximum gage height, 6.91 feet Apr. 14, 1936 (site and datum then in use); no flow at times; minimum discharge before construction of Unity Reservoir Dam, 1.6 second-feet Aug. 31, 1935.
Remarks.- Records good except those below 10 second-feet, which are poor. Many small diversions above station for irrigation; Van Cleve ditch diverts below gage but above cableway. 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.
Revisions (water years).- W 903: 1939.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 24 to Sept. 30)

1.0	1	1.4	8	1.9	35	3.0	160
1.1	2	1.5	13	2.1	49	3.3	230
1.2	4	1.6	18	2.4	74	3.7	350
1.3	6	1.7	23	2.7	110	4.3	535

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	6	16	55	28	18	20	190	386	124	87	107
2	68	6	16	54	28	18	39	192	251	124	85	107
3	58	6	16	54	28	18	30	146	218	125	83	109
4	57	6	16	55	28	18	32	128	263	122	80	109
5	54	6	16	54	21	18	80	137	281	127	77	109
6	49	7	16	54	17	18	236	139	281	125	74	109
7	24	7	16	54	17	18	230	139	281	118	84	110
8	1	7	16	55	16	18	215	147	284	120	87	110
9	4	7	16	55	16	18	200	156	287	120	85	109
10	5	7	16	56	16	18	205	188	311	119	83	107
11	5	7	42	57	16	18	212	190	428	112	98	107
12	3	7	59	58	16	18	136	192	398	114	116	106
13	2	7	58	58	16	18	26	192	386	114	112	106
14	3	7	58	57	16	19	169	192	275	122	120	106
15	8	7	58	57	16	19	266	222	185	125	125	106
16	16	7	58	57	16	19	287	254	168	122	124	106
17	16	14	58	57	16	19	389	254	155	120	125	105
18	16	17	58	58	17	19	464	278	140	116	122	101
19	16	14	58	58	17	19	479	344	132	119	116	101
20	16	14	58	58	16	19	491	419	132	122	122	101
21	16	14	58	58	16	19	500	476	146	120	122	101
22	13	14	58	39	18	19	507	470	180	119	119	101
23	8	14	57	27	17	19	504	467	174	118	110	101
24	8	14	57	27	17	19	500	467	164	113	118	100
25	8	14	56	28	17	19	491	464	162	116	114	98
26	9	14	56	28	18	19	348	461	144	118	110	98
27	8	14	55	28	18	19	172	461	140	120	106	97
28	7	14	55	28	18	19	176	461	134	116	102	97
29	5	15	55	27	18	19	180	455	134	101	100	95
30	6	15	55	27	-	19	185	452	130	93	105	93
31	6	-	55	28	-	19	-	458	-	92	107	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	596	81	1	19.2	1,180
November	308	17	6	10.3	611
December	1,342	59	16	43.3	2,660
Calendar year 1947	28,057	433	1	76.9	55,640
January	1,466	58	27	47.3	2,910
February	534	28	16	18.4	1,060
March	576	19	18	18.6	1,140
April	7,769	507	20	259	15,410
May	9,191	476	128	296	18,230
June	6,750	428	130	225	13,390
July	3,636	127	92	117	7,210
August	3,218	125	74	104	6,380
September	3,112	110	93	104	6,170
Water year 1947-48	38,498	507	1	105	76,350

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.- 219 square miles.

Records available.- December 1903 to August 1914 and October 1928 to September 1948 in reports of Geological Survey. January 1904 to July 1914 and June 1926 to September 1936 in reports of State engineer.

Average discharge.- 30 years (1904-13, 1926-28, 1929-48), 109 second-feet.

Extremes.- Maximum discharge during year, 1,200 second-feet May 28 (gage height, 6.26 feet); minimum, 7.4 second-feet Oct. 3-5 (gage height, 1.20 feet).
1903-14, 1926-48: 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 except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Revisions (water years).- W 813: 1935. W 1093: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	23	75	b20		86	173	253	571	129	40	18
2	8.0	23	64	b30		76	198	225	615	121	39	17
3	8.0	19	68	41		72	199	239	673	112	36	16
4	7.4	19	66	44		80	186	282	725	103	31	16
5	7.4	20	63	44		74	167	267	715	105	27	18
6	8.5	20	56	62		66	167	269	716	107	27	18
7	9.6	24	*53	146		62	147	357	722	111	27	16
8	12	28	58	125		59	137	384	833	103	27	15
9	11	25	50	152	a35	57	137	366	908	96	25	14
10	12	26	39	111		b50	146	327	817	84	27	14
11	13	26	49			b52	146	294	705	80	27	14
12	14	23	42			b54	140	267	589	74	27	14
13	16	26	b40			57	144	263	500	68	26	14
14	14	26	46			63	182	267	435	68	25	13
15	15	29	39			64	263	273	402	68	24	13
16	25	29	b30			67	349	292	372	64	22	13
17	30	35	b35			64	421	380	330	62	21	14
18	32	38	47			67	445	460	328	56	20	15
19	27	28	44		*63	63	416	522	374	54	19	16
20	26	27	43		73	62	426	526	331	54	19	16
21	24	b24	42	b50	60	59	469	535	325	54	18	14
22	22	b20	41		123	69	474	590	294	53	18	12
23	21	21	44		85	72	443	629	271	49	18	12
24	21	29	35		74	91	377	638	239	47	20	12
25	21	35	b30		72	97	331	686	207	44	25	12
26	21	42	b30		113	90	284	748	191	43	24	11
27	20	49	41		105	98	259	864	159	39	24	9.0
28	20	54	47		88	113	237	1,040	125	40	22	9.0
29	20	60	42		86	126	259	939	136	42	20	9.5
30	21	63	b35		-	149	265	698	134	43	18	9.5
31	22	-	b25		-	142	-	608	-	42	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	536.9	32	7.4	17.3	1,060
November	911	63	19	30.4	1,810
December	1,419	75	25	45.8	2,810
Calendar year 1947	35,122.8	632	4.9	96.2	69,660
January	1,825	152	-	58.9	3,620
February	1,572	123	-	54.2	3,120
March	2,401	149	50	77.5	4,760
April	7,987	474	137	266	15,840
May	14,488	1,040	225	467	28,740
June	13,742	908	125	458	27,260
July	2,215	129	39	71.5	4,390
August	761	40	18	24.5	1,510
September	414.0	18	9.0	13.8	821
Water year 1947-48	48,271.9	1,040	7.4	132	95,740

Peak discharge (base, 300 sec.-ft.).- Apr. 22 (6 a.m.) 486 sec.-ft.; May 7 (4 p.m.) 414 sec.-ft.; May 28 (3 p.m.) 1,200 sec.-ft.; June 9 (9 a.m.) 968 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Powder River near Haines and Catherine Creek near Union.

b Stage-discharge relation affected by ice.

Powder River near Haines, Oreg.

Location.- Water-stage recorder, lat. 44°56', long. 117°57', in S½ sec. 21, T. 7 S., R. 39 E., a tenth of a mile upstream from Muddy Creek, 1 mile downstream from Rock Creek, and 1.7 miles north of Haines.

Drainage area.- 572 square miles.

Records available.- October 1946 to September 1948.

Extremes.- Maximum discharge during year, 1,300 second-feet June 8, 9 (gage height, 6.67 feet); minimum, 4.8 second-feet Aug. 19, 20.
1946-48: Maximum discharge, that of June 8, 9, 1948; minimum, 2.5 second-feet Aug. 6, 1947.

Remarks.- Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation; no seasonal regulation.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 7 to Nov. 27)

Oct. 1 to May 29

0.1	2.5	0.7	32	3.8	468
.2	5.5	.9	48	5.0	715
.3	9.5	1.3	88	5.5	840
.4	14	1.7	135	6.2	1,080
.5	19	2.1	188		
.6	25	2.9	309		

May 30 to Sept. 30

0.3	5.1	1.4	93	5.5	840
.4	9.0	2.0	166	6.0	1,000
.5	14	3.0	315	6.6	1,260
.7	28	4.0	490		
1.0	53	5.0	700		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	20	57	23	46	160	191	333	1,030	50	16	9.5
2	5.9	21	53	25	b40	145	210	304	939	40	19	9.5
3	5.5	20	54	31	b37	157	234	280	911	37	17	9.0
4	5.2	19	57	31	b40	133	258	312	991	36	14	8.2
5	5.5	26	61	31	b39	135	248	341	974	40	11	7.8
6	5.5	21	55	84	b37	139	249	333	1,010	39	10	8.6
7	15	21	*49	212	b35	138	242	321	1,020	36	8.6	9.5
8	13	23	49	187	35	133	230	343	1,190	34	7.8	9.0
9	12	24	43	*161	40	131	222	390	1,250	28	9.0	9.0
10	11	26	32	142	b40	92	215	408	1,200	26	17	9.0
11	11	28	35	142	b38	97	222	393	1,090	23	16	8.6
12	10	26	42	139	b34	106	216	363	998	20	14	8.6
13	10	26	37	119	33	115	202	350	917	19	13	8.2
14	9.5	30	42	96	41	128	195	314	818	17	13	7.0
15	10	33	45	79	52	144	218	293	708	13	12	5.9
16	24	35	30	71	75	160	261	279	605	13	11	6.3
17	33	38	33	64	111	178	306	256	549	11	10	6.7
18	23	42	43	58	133	188	368	262	496	6.7	5.5	7.4
19	20	40	42	54	*116	182	431	375	507	5.5	5.1	7.8
20	21	39	46	50	135	162	445	455	498	7.4	5.1	5.9
21	21	37	40	48	127	153	431	511	513	7.0	5.9	6.3
22	21	27	38	52	*166	151	436	592	467	7.0	6.3	6.3
23	21	26	39	b40	205	174	464	670	411	7.0	8.2	7.0
24	20	27	32	b60	199	222	466	681	365	9.0	12	13
25	20	33	30	b50	169	231	447	714	301	8.6	13	16
26	21	38	27	b40	175	220	395	768	252	9.0	13	13
27	21	48	27	b42	189	195	345	876	207	11	13	13
28	21	51	34	42	185	187	304	968	167	13	12	14
29	21	46	38	42	166	191	298	1,080	121	16	11	12
30	22	51	29	45	-	194	346	1,180	71	13	11	11
31	21	-	26	46	-	192	-	1,120	-	14	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	485.6	33	5.2	15.7	963
November	942	51	19	31.4	1,870
December	1,265	61	26	40.8	2,510
Calendar year 1947	26,827.6	451	3.0	73.5	53,210
January	2,336	212	23	75.4	4,630
February	2,738	205	33	94.4	5,430
March	4,933	231	92	159	9,780
April	9,095	466	191	303	18,040
May	15,865	1,180	256	512	31,470
June	20,576	1,250	71	686	40,810
July	616.2	50	5.5	19.9	1,220
August	350.5	19	5.1	11.3	695
September	273.1	16	5.9	9.10	542
Water year 1947-48	59,475.4	1,250	5.1	163	118,000

Peak discharge (base, 300 sec.-ft.).- Apr. 24 (2 a.m. and 9 p.m.) 468 sec.-ft.; May 10 (3 to 9 p.m.) 411 sec.-ft.; May 30 (4 a.m.) 1,220 sec.-ft.; June 8 (10 p.m.) to June 9 (1 a.m.) 1,300 sec.-ft.

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Figures of daily discharge June 29 to July 14, July 18-26, 29 supersede those published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin."

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 1948.

Average discharge.- 20 years, 490 second-feet.

Extremes.- Maximum discharge during year, 5,320 second-feet May 28 (gage height, 6.6 feet, from floodmark); minimum observed, 90 second-feet Oct. 1.
1928-48: Maximum discharge, that of May 28, 1948; maximum gage height observed, 6.9 feet June 15, 1933, site and datum then in use; minimum discharge observed, 18 second-feet Sept. 2-10, 1930.

Remarks.- Records good except those for periods of ice effect or doubtful gage-height record, which are fair. 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. Flow partly regulated by several reservoirs, the largest being Thief Valley Reservoir near North Powder (capacity, 17,400 acre-feet).

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 28						May 29 to Sept. 30					
0.7	90	1.7	390	3.5	1,540	0.5	95	2.0	600	4.5	2,540
.9	128	2.0	525	4.5	2,520	.7	141	2.5	860	5.5	3,740
1.1	175	2.5	800	5.5	3,740	1.0	225	3.0	1,180	6.2	4,720
1.4	270	3.0	1,140	6.3	4,870	1.5	390	3.5	1,560		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	211	310	184	b250	498	669	1,360	4,010	1,060	216	162
2	104	202	306	220	b230	502	764	1,260	4,080	950	225	151
3	118	217	310	208	b220	458	818	1,230	4,150	800	204	146
4	143	211	298	205	b240	435	836	1,400	4,080	725	189	141
5	148	223	278	217	b230	430	794	1,340	4,600	715	170	141
6	152	232	274	346	b210	426	770	1,360	4,640	635	157	149
7	152	246	260	625	208	412	734	1,720	4,430	591	164	144
8	165	263	249	620	266	417	722	1,790	4,640	546	175	136
9	158	238	*246	422	266	412	728	1,790	4,570	490	187	129
10	158	220	199	370	256	394	728	1,680	4,640	458	192	122
11	160	223	232	330	187	358	758	1,580	4,500	474	216	108
12	d168	220	211	314	172	346	740	1,470	4,080	462	201	106
13	d158	223	229	b315	274	346	722	1,440	3,480	410	198	104
14	d155	229	223	b320	278	378	782	1,480	3,110	383	187	117
15	d168	249	220	b330	282	426	944	1,480	2,820	372	181	129
16	d1,390	249	205	334	263	440	1,140	1,580	2,760	362	157	127
17	d740	242	217	326	294	453	1,520	1,810	2,380	334	141	136
18	d412	238	223	318	366	471	1,580	1,760	2,170	334	134	159
19	d211	232	220	294	*412	494	1,500	2,460	2,070	324	131	162
20	d190	229	223	286	390	480	1,610	2,520	2,120	327	119	154
21	d178	211	223	290	404	458	1,790	2,630	2,070	302	119	144
22	d168	190	208	326	585	448	1,880	2,740	1,920	299	124	136
23	d178	172	199	370	625	448	1,840	2,800	1,920	273	192	144
24	d168	217	217	417	560	664	1,680	3,420	1,970	246	225	149
25	d160	214	223	294	545	794	1,550	3,740	1,740	246	240	164
26	d168	220	223	238	595	710	1,470	3,870	1,390	258	228	184
27	d172	249	223	238	565	642	1,320	4,290	1,280	234	201	192
28	d175	249	217	242	550	636	1,230	4,870	1,220	246	207	184
29	184	249	199	235	516	652	1,360	4,080	1,150	252	201	184
30	187	270	172	b240	-	674	1,440	4,010	1,130	225	192	178
31	205	-	150	249	-	658	-	3,780	-	204	184	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,085	1,390	92	229	14,050
November	6,838	270	172	223	13,560
December	7,187	310	150	232	14,260
Calendar year 1947	177,863	2,160	70	487	352,800
January	9,723	625	184	314	19,290
February	10,239	625	172	353	20,310
March	15,360	794	346	495	30,470
April	34,419	1,880	669	1,147	68,270
May	72,740	4,870	1,230	2,346	144,300
June	89,120	4,640	1,130	2,971	176,800
July	13,537	1,060	204	437	26,850
August	5,657	240	119	182	11,220
September	4,382	192	104	146	8,690
Water year 1947-48	276,287	4,870	92	755	548,100

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; dates of observer's gage readings changed on basis of engineers' gage reading and records for Imnaha River above Gunboat Creek and Wolf Creek near North Powder.

Wolf Creek near North Powder, Oreg.

Location.- Water-stage recorder, lat. 45°03', long. 118°01', in SE¼ sec. 11, T. 6 S., R. 38 E., 5 miles northwest of North Powder.

Drainage area.- 32.9 square miles.

Records available.- May 1913 to July 1914 (incomplete), September 1946 to September 1948.

Extremes.- Maximum discharge during year, 433 second-feet May 23 (gage height, 4.46 feet); minimum, 0.2 second-foot Sept. 12-14.
1913-14, 1944-48: Maximum discharge, that of May 23, 1948; minimum, that of Sept. 12-14, 1948.

Remarks.- Records good except those for periods of ice effect or shifting control, which are fair, and those for periods of doubtful gage-height record, which are poor. Many small diversions above station for irrigation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	2.7	8.3	b3.9	7.9	6.9	23	87	d140	21	5.3	0.9
2	1.1	2.5	6.6	3.9	7.6	6.9	25	82	133	20	4.8	.8
3	1.3	2.5	4.8	b3.9	b6.9	6.9	27	93	d156	18	5.1	.8
4	1.3	2.5	5.6	3.7	6.6	6.2	26	113	d166	18	4.5	.8
5	1.3	2.5	5.9	3.7	6.2	7.9	23	111	143	18	3.7	.8
6	2.1	2.5	3.9	4.2	b6.2	6.9	21	134	d127	16	4.2	.8
7	2.1	4.5	*4.5	8.6	b6.2	6.9	20	177	d111	15	4.2	.7
8	3.1	6.9	4.8	10	5.9	6.9	19	163	d106	14	3.9	.7
9	3.1	4.5	4.8	*b9.7	5.6	6.6	21	139	d98	13	3.4	.6
10	2.5	3.9	b3.4	11	5.3	b6.4	24	124	80	12	3.4	.5
11	2.7	3.7	4.5	b9.7	b5.2	b6.9	24	110	71	12	3.1	.4
12	2.5	3.1	4.8	9.3	b5.2	6.9	24	105	60	11	2.5	.3
13	2.3	2.7	4.5	b9.0	5.3	6.9	26	129	d55	6.2	2.5	.3
14	2.3	3.1	4.5	b9.0	5.1	7.3	33	142	51	d4.8	2.5	.2
15	2.3	2.5	4.2	b8.6	5.1	7.3	50	152	41	d5.9	2.7	.4
16	2.9	4.2	b4.5	b8.4	4.8	7.3	75	194	d37	d5.3	2.9	.5
17	2.9	4.8	4.5	b8.3	4.8	7.3	96	d253	37	d5.1	2.7	.7
18	2.5	4.2	4.5	8.3	5.6	7.3	100	d290	d45	d5.3	2.3	1.0
19	2.3	4.8	4.2	b7.9	*5.9	7.3	118	d294	62	d5.9	2.3	.9
20	2.7	4.8	4.2	b7.6	5.6	7.3	146	d297	61	d5.9	2.8	.8
21	3.9	2.1	b3.9	7.3	5.9	6.9	170	d301	68	d5.6	3.1	.7
22	3.4	1.3	b4.2	7.3	7.3	7.3	159	d363	62	5.1	2.9	.9
23	3.1	2.7	4.2	8.3	6.9	7.3	142	d368	55	5.3	3.1	1.1
24	3.1	2.7	b3.4	8.6	6.6	7.9	121	d328	44	6.2	2.7	1.5
25	2.9	2.9	b4.2	b8.0	6.6	8.6	105	d316	38	5.6	2.7	1.9
26	2.8	4.2	b3.7	b7.5	7.3	8.6	96	d333	33	5.6	3.1	2.1
27	2.3	5.1	b4.2	b7.5	6.9	11	84	347	31	6.6	2.9	1.9
28	2.3	4.8	4.2	b7.5	6.9	14	79	d296	28	6.9	2.3	1.3
29	2.5	4.8	4.2	b7.5	6.9	17	93	d220	25	6.9	1.7	1.1
30	2.7	5.9	b3.3	b7.6	-	19	90	d174	23	6.2	1.3	1.0
31	2.7	-	b3.5	b7.8	-	20	-	d153	-	5.3	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	75.8	3.9	0.9	2.45	150
November	109.4	6.9	1.3	3.65	217
December	140.0	8.3	3.3	4.52	278
Calendar year 1947	5,645.9	142	.6	15.5	11,200
January	233.6	11	3.7	7.54	463
February	178.3	7.9	4.8	6.15	354
March	267.9	20	6.2	8.64	531
April	2,060	170	19	68.7	4,090
May	6,388	368	82	206	12,670
June	2,187	166	23	72.9	4,340
July	297.7	21	4.8	9.60	590
August	95.7	5.3	1.1	3.09	190
September	26.4	2.1	.2	.88	52
Water year 1947-48	13,059.8	368	.2	33.0	23,920

Peak discharge (base, 350 sec.-ft.).- May 23 (2 a.m.) 433 sec.-ft.; May 26 (10 p.m.) 382 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of 4 discharge measurements and records for Powder River at Haines.
Note.- Shifting-control method used Oct. 1 to Jan. 17, July 22 to Sept. 30.

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 1948.

Extremes.- Maximum discharge during year, 2,400 second-feet May 27 (gage height, 5.07 feet); minimum recorded, 34 second-feet Mar. 4 (gage height, 0.55 foot), result of ice jam upstream.

1944-48: Maximum discharge, that of May 27, 1948; minimum recorded, 14 second-feet Dec. 10, 1944.

Remarks.- Records good except those below 100 second-feet, which are fair, and those for periods of ice effect or no gage-height record, which are poor. No regulation or diversion above station.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 21 to Sept. 30)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
0.6	38	1.5	180	0.9	75	2.5	505
.7	49	1.8	258	1.1	104	3.0	745
.8	62	2.1	355	1.3	138	3.5	1,040
1.0	89	2.5	515	1.6	204	4.0	1,410
1.2	120	3.0	780	2.0	319	4.6	1,930

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	127	115	78	a64	74	90	370	1,340	794	204	100
2	66	124	109	79	a62	72	127	339	1,520	688	199	98
3	79	118	117	80	a62	68	194	342	1,670	633	192	96
4	74	115	*110	77	a68	58	178	362	1,520	590	185	98
5	68	114	107	75	a60	72	156	352	1,610	577	180	96
6	67	112	101	150	a62	80	140	432	1,740	527	173	95
7	67	114	104	334	a54	71	125	549	1,760	523	169	94
8	79	117	101	279	a56	71	117	476	1,920	484	167	92
9	75	115	101	209	a56	70	124	424	1,890	459	169	90
10	102	114	80	a165	a56	60	125	398	1,730	455	162	90
11	92	114	96	a140	a45	64	122	391	1,570	463	156	88
12	83	110	90	a120	a47	70	120	406	1,310	444	152	88
13	81	112	95	a110	a50	70	118	455	1,220	413	148	88
14	79	109	94	a110	a55	71	134	471	1,190	391	144	86
15	89	110	90	a105	a60	70	194	497	1,290	373	140	88
16	737	107	82	a105	a65	70	339	624	1,230	359	134	88
17	279	106	88	a100	a70	68	531	821	1,070	345	131	90
18	197	107	87	90	a75	68	480	850	1,030	349	127	92
19	171	106	86	a88	a73	67	424	976	1,020	349	125	88
20	162	101	82	a88	a70	64	467	976	976	319	124	86
21	165	102	82	a105	a74	67	540	1,040	890	300	120	86
22	154	75	80	a110	a86	74	590	1,080	833	288	118	86
23	150	109	78	112	82	74	514	a1,050	822	285	125	90
24	140	107	76	102	79	74	444	a1,230	833	273	134	88
25	136	100	72	98	79	72	398	a1,480	811	258	120	86
26	131	106	70	79	82	72	359	1,650	772	244	115	94
27	131	109	79	76	78	70	326	1,880	778	238	115	92
28	127	109	82	a72	72	74	316	1,840	806	236	110	92
29	134	109	76	a70	74	81	413	1,390	822	222	106	88
30	134	115	68	a68	-	83	409	1,220	850	212	104	85
31	129	-	50	a66	-	83	-	1,220	-	204	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,243	737	66	137	8,420
November	3,293	127	75	110	6,530
December	2,748	117	50	88.6	5,450
Calendar year 1947	88,487	1,290	50	242	175,500
January	3,540	334	66	114	7,020
February	1,916	86	45	66.1	3,800
March	2,202	83	58	71.0	4,370
April	8,614	590	90	287	17,090
May	25,591	1,880	339	826	50,760
June	36,823	1,920	772	1,227	73,040
July	12,295	794	204	397	24,390
August	4,449	204	102	144	8,820
September	2,718	100	85	90.6	5,390
Water year 1947-48	108,432	1,920	45	296	215,100

Peak discharge (base, 800 sec.-ft.).- Oct. 16 (11 a.m.) 1,380 sec.-ft.; May 27 (11 p.m.) 2,400 sec.-ft.; June 8 (11 p.m.) 2,230 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, recorded range in stage when available, and records for Imnaha River at Imnaha and Grande Ronde River at Troy.

Note.- Stage-discharge relation affected by ice Dec. 10 to Jan. 5, Jan. 18, Feb. 28 to Mar. 6, Mar. 10-12, 20 and during parts of winter periods of no gage-height record.

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 1948.
Average discharge.- 20 years, 460 second-feet.
Extremes.- Maximum discharge during year, 5,700 second-feet May 28 (gage height, 7.06 feet); minimum, 126 second-feet Oct. 1, but may have been less during periods of ice effect.
1928-48: Maximum discharge, that of May 28, 1948; minimum observed, 16 second-feet Nov. 22, 1931.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 16 to June 20)

Oct. 1 to May 15				May 16 to Sept. 30			
2.0	129	3.2	620	1.8	145	3.5	1,060
2.2	191	3.7	965	2.0	200	4.0	1,530
2.5	295	4.5	1,690	2.3	314	4.5	2,070
2.8	420	5.5	2,700	2.7	510	5.5	3,410
				3.1	760	6.4	4,700

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	242	351	b165	b180	253	a400	1,650	2,990	1,420	355	176
2	132	253	351	b205	b175	260	a500	1,480	3,100	1,230	342	170
3	135	242	359	b205	b170	239	a800	1,430	3,490	1,140	319	168
4	144	236	*347	208	b180	215	a700	1,570	3,140	1,030	306	170
5	132	232	327	198	b160	225	a600	1,550	3,050	1,090	294	168
6	129	228	319	284	b170	253	a550	1,700	3,190	956	282	165
7	129	242	292	1,010	b150	242	a510	2,490	3,130	908	270	162
8	159	264	303	1,030	b170	236	a490	2,420	3,240	858	262	160
9	153	264	288	732	b170	232	a520	2,240	3,210	735	270	158
10	165	250	b250	626	b165	b195	a540	2,200	3,000	774	282	158
11	191	a240	b240	535	b130	b185	a510	2,360	2,710	774	274	152
12	165	a236	b230	438	b140	b220	a500	2,320	2,410	753	266	150
13	153	a236	b230	b300	b150	236	a490	2,550	2,270	711	246	148
14	147	a236	b240	b300	b160	246	a540	2,570	2,180	650	242	148
15	144	a240	b230	b295	b180	242	a880	2,460	2,250	618	231	145
16	840	a240	b215	b290	b200	228	a1,400	2,720	2,250	576	224	148
17	582	a240	b225	b280	b210	228	a2,300	3,280	2,030	540	214	150
18	371	a240	236	b260	228	228	a2,100	3,130	1,930	546	207	158
19	315	a265	228	b230	218	232	a1,900	3,400	2,000	540	210	155
20	292	a260	222	b235	215	228	a2,100	3,370	1,960	534	207	150
21	315	250	215	b270	218	239	a2,400	3,310	1,900	485	200	145
22	288	201	b210	b300	288	250	2,690	3,450	1,870	465	200	148
23	274	228	b200	b300	260	274	2,290	3,330	1,820	445	203	160
24	267	270	b195	295	242	281	1,960	3,690	1,760	430	224	155
25	253	246	b185	*274	246	a290	1,740	4,010	1,710	420	210	158
26	250	246	b180	b200	371	a290	1,560	4,240	1,590	395	200	160
27	246	281	191	b210	292	a280	1,390	4,400	1,520	385	197	170
28	246	307	218	b200	260	a290	1,290	4,560	1,510	405	188	165
29	253	311	211	b190	260	a340	1,710	3,420	1,480	380	185	160
30	260	327	b190	b190	-	a350	1,880	2,850	1,480	355	179	158
31	250	-	b135	b185	-	a360	-	2,780	-	337	179	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,512	840	129	242	14,900
November	7,553	327	201	252	14,980
December	7,613	359	135	246	15,100
Calendar year 1947	168,930	2,020	113	463	335,100
January	10,440	1,030	165	337	20,710
February	5,958	371	130	205	11,820
March	7,867	360	185	254	15,600
April	37,240	2,690	400	1,241	73,860
May	86,930	4,560	1,430	2,804	172,400
June	70,170	3,490	1,480	2,339	139,200
July	20,955	1,420	337	676	41,560
August	7,468	355	179	241	14,810
September	4,738	176	145	158	9,400
Water year 1947-48	274,444	4,560	129	750	544,300

Peak discharge (base, 1,300 sec.-ft.).- Oct 16 (5:30 p.m.) 1,750 sec.-ft.; Apr. 17 (about 12 p.m.) 3,150 sec.-ft.; Apr. 21 or 22 (time and discharge unknown); Apr. 29 (12 p.m.) 1,970 sec.-ft.; May 7 (10:30 a.m. and 1:30 p.m.) 2,720 sec.-ft.; May 28 (4 a.m.) 5,700 sec.-ft.

* 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 Imnaha River above Gumboot Creek and Grande Ronde River at Troy.

b Stage-discharge relation affected by ice.

Note.- Figures of daily discharge May 16-18, 20-22, May 25 to July 30 supersede those published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin."

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 1948.

Extremes.- Maximum discharge during year, 706 second-feet June 3 (gage height, 4.22 feet); minimum, 6 second-feet Aug. 26 to Sept. 7; minimum gage height, 1.27 feet Aug. 30, Sept. 2.

1940-48: Maximum discharge, that of June 3, 1948; 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	37	28					41	445	171	14	6
2	30	36	27					40	507	160	12	6
3	30	35	27					42	625	155	11	6
4	30	35	*28					41	541	151	11	6
5	30	34	27					40	512	119	11	6
6	31	33	28	26				61	507	101	10	6
7	30	36	28			(*)	21	99	533	98	10	20
8	31	37	27					81	520	85	11	40
9	31	33	27	(*)				67	547	70	12	42
10	35	32	27					63	514	66	10	42
11	34	34	28					68	513	63	9	41
12	32	34	27					84	463	60	8	41
13	32	33	28				*21	105	494	59	8	40
14	31	30	27				21	105	443	57	8	40
15	31	31	26	24			22	128	424	44	7	40
16	49	31	26		21	21	29	168	396	34	7	40
17	44	30	27				50	211	347	32	7	40
18	36	30	28				49	258	321	31	7	40
19	34	30	28				46	340	299	30	7	40
20	34	28	28				47	294	287	29	7	40
21	40	26	27	22			60	301	315	28	7	30
22	40	22	28				58	266	276	21	7	39
23	39	23	27				51	262	240	19	7	40
24	38	28	27				45	323	228	18	7	44
25	36	31	26				42	394	222	18	7	56
26	36	31	26				37	457	208	17	6	62
27	36	29	26				37	499	200	17	6	55
28	37	27	27	21			50	571	188	17	6	55
29	39	26	26				51	559	178	17	6	52
30	39	28	25		-		45	458	180	16	6	49
31	37	-	24		-		-	404	-	15	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,082	49	30	34.9	2,150
November	930	37	22	31.0	1,840
December	836	28	24	27.0	1,660
Calendar year 1947	25,033	482	6	68.6	49,650
January	733	-	-	23.6	1,450
February	609	-	-	21.0	1,210
March	651	-	-	21.0	1,290
April	1,013	60	-	33.8	2,010
May	6,830	571	40	220	13,550
June	11,473	625	178	382	22,760
July	1,818	171	15	58.6	3,610
August	258	14	6	8.3	512
September	1,073	62	6	35.8	2,130
Water year 1947-48	27,306	625	6	74.6	54,170

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 20-26, Dec. 10-13, 15-17, 21, Dec. 23 to about Mar. 31. No gage-height record Jan. 1 to Apr. 27 except staff-gage readings Jan. 9, Mar. 6, Apr. 13; discharge computed on basis of weather records, 3 discharge measurements, and records for station at Stanley and other 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 1½ miles northeast of Upper 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 1948.

Average discharge.- 23 years, 609 second-feet.

Extremes.- Maximum discharge during year, 4,090 second-feet June 9 (gage height, 3.91 feet); minimum recorded, 277 second-feet Jan. 26 (gage height, 0.84 foot), but may have been less during period of no gage-height record in winter.

1925-48: 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 Nov. 15 to Apr. 20, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	396	472	403	318	a330	a330	a310	687	2,880	1,730	502	318
2	396	465	377	353	a330	*h341	h324	654	3,120	1,720	494	318
3	396	458	341	347	a330	a320	a340	730	3,770	1,660	480	312
4	396	451	358	364	a330	a300	a335	791	3,840	1,590	465	312
5	390	429	341	383	a330	h282	h335	738	3,600	1,430	458	312
6	390	416	347	396	h341	a280	a325	930	3,570	1,320	451	312
7	390	443	329	573	a330	a300	a310	1,190	3,670	1,250	436	312
8	410	458	335	*630	a340	h335	a320	960	3,790	1,200	451	329
9	410	436	324	525	a340	a320	h324	836	3,990	1,120	502	335
10	458	416	335	472	a330	b310	a330	854	3,900	1,060	487	335
11	487	443	353	465	a320	a300	a330	902	3,700	1,040	458	335
12	451	416	329	451	a330	b310	a325	980	3,460	1,010	443	329
13	436	443	358	410	h347	a330	a330	1,180	3,560	980	436	329
14	429	429	353	396	a340	a330	h335	1,170	3,400	940	416	324
15	423	436	341	396	a340	h324	a390	1,160	3,130	892	396	324
16	646	429	329	377	a340	a325	h630	1,290	2,930	845	390	324
17	712	396	341	377	a340	h329	a1,000	1,430	2,700	800	377	324
18	565	416	353	377	a340	a332	a960	1,720	2,470	791	377	341
19	517	410	353	353	a340	h335	a800	2,150	2,360	764	364	353
20	494	364	358	353	h335	a310	a820	2,090	2,190	746	364	347
21	517	370	347	353	a340	a310	1,060	2,130	2,360	721	353	347
22	517	341	347	364	a350	h324	1,020	2,050	2,260	693	353	341
23	494	358	335	358	a350	a324	883	1,940	2,010	670	353	353
24	487	390	329	353	a350	h329	809	1,980	1,870	646	353	353
25	472	403	324	341	a350	a330	738	2,240	1,820	630	353	423
26	472	423	324	307	a350	h329	654	2,560	1,770	605	347	525
27	465	423	318	307	a350	a310	646	2,860	1,690	589	335	494
28	465	377	335	a330	a340	a310	721	3,260	1,650	581	335	487
29	472	364	329	b340	a340	h318	930	3,680	1,610	565	329	465
30	494	396	297	a350	-	a315	809	3,410	1,620	533	324	436
31	487	-	287	a330	-	h297	-	2,990	-	509	318	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	14,534	712	390	469	0.877	1.01	28,830
November	12,471	472	341	416	.778	.87	24,740
December	10,530	403	287	340	.636	.73	20,890
Calendar year 1947	272,475	3,200	-	747	1.40	18.93	540,400
January	12,049	630	307	389	.727	.84	23,900
February	9,823	350	320	339	.634	.68	19,480
March	9,839	341	280	317	.593	.68	19,520
April	17,443	1,060	310	581	1.09	1.21	34,600
May	51,542	3,680	654	1,663	3.11	3.58	102,200
June	84,690	3,990	1,610	2,823	5.28	5.89	168,000
July	29,633	1,730	509	956	1.79	2.06	58,780
August	12,500	502	318	403	.753	.87	24,790
September	10,749	525	312	358	.669	.75	21,320
Water year 1947-48	275,803	3,990	280	754	1.41	19.17	547,000

Peak discharge (base, 1,700 sec.-ft.).- May 29 (2 p.m.) 3,810 sec.-ft.; June 9 (1 to 4 p.m.) 4,090 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station below Yankee Fork, near Clayton, and stations on nearby streams.

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

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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 1948.

Average discharge.- 25 years (1922-24, 1925-48), 891 second-feet.

Extremes.- Maximum discharge during year, 7,060 second-feet June 3 (gage height, 9.27 feet); minimum, 323 second-feet Mar. 10 (gage height, 2.14 feet).
1921-48: 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 period of no gage-height record, which are good. All diversions above station for irrigation are above Stanley.

Rating table, water year 1947-48 (gage height, in feet, and discharge in second-feet)

2.3	395	4.0	1,380	7.0	4,070
2.5	491	4.5	1,760	8.0	5,280
3.0	754	5.0	2,160	9.1	6,800
3.5	1,040	6.0	3,030		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	522	578	516	418	409	400	404	939	5,230	2,460	716	442
2	511	573	501	442	404	414	418	888	5,760	2,430	711	437
3	516	552	442	433	409	400	442	963	6,830	2,310	679	428
4	511	552	481	452	404	381	418	1,040	6,680	2,210	663	428
5	501	522	471	462	390	372	414	974	6,210	1,990	658	428
6	501	501	452	486	404	381	409	1,230	6,210	1,830	631	433
7	496	552	442	642	395	390	381	1,850	6,390	1,720	615	428
8	522	563	442	743	414	390	404	1,510	6,520	1,620	626	442
9	527	532	418	605	404	377	409	1,250	6,650	1,520	716	447
10	568	481	428	537	395	363	414	1,210	6,300	1,440	689	442
11	605	a520	433	558	390	358	409	1,230	5,810	1,390	647	442
12	568	a530	433	542	400	372	400	1,300	5,360	1,340	615	433
13	552	a530	442	491	409	381	414	1,560	5,380	1,280	599	437
14	542	a530	452	486	404	381	428	1,690	5,020	1,230	578	428
15	537	532	433	486	404	381	491	1,780	4,610	1,170	552	423
16	770	532	423	481	404	377	689	2,170	4,360	1,110	537	423
17	916	471	447	476	409	381	1,300	2,660	3,990	1,060	527	428
18	722	527	452	486	418	381	1,250	3,270	3,670	1,030	511	457
19	668	506	452	466	414	381	998	4,000	3,480	998	506	471
20	631	452	447	466	418	363	1,040	3,930	3,290	968	511	462
21	658	457	428	471	414	363	1,250	3,770	3,510	957	501	452
22	652	433	437	466	437	390	1,510	3,510	3,370	934	496	442
23	620	442	414	462	423	395	1,290	3,230	3,010	911	491	466
24	599	501	409	452	414	400	1,140	3,450	2,830	871	501	486
25	589	527	409	428	423	409	1,040	4,170	2,720	848	496	516
26	589	537	404	386	442	390	905	5,020	2,620	826	486	663
27	584	537	404	386	428	381	854	5,620	2,480	804	481	584
28	578	471	447	400	409	390	899	6,280	2,410	798	471	578
29	584	457	428	423	409	404	1,190	6,570	2,340	787	466	552
30	605	501	390	428	-	404	1,090	5,940	2,340	749	452	527
31	594	-	372	409	-	381	-	5,190	-	727	447	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	18,338	916	496	592	0.704	0.81	36,370
November	15,399	578	433	513	.610	.68	30,540
December	13,549	516	372	437	.520	.60	26,870
Calendar year 1947	409,592	5,950	290	1,122	1.33	18.11	812,400
January	14,869	743	386	480	.571	.66	29,490
February	11,897	442	390	410	.488	.53	23,600
March	11,931	414	358	385	.458	.53	23,660
April	22,700	1,510	381	757	.900	1.00	45,020
May	88,194	6,570	888	2,845	3.38	3.90	174,900
June	135,380	6,830	2,340	4,513	5.37	5.99	268,500
July	40,318	2,460	727	1,301	1.55	1.78	79,970
August	17,575	716	447	567	.674	.78	34,860
September	14,005	663	423	467	.555	.62	27,780
Water year 1947-48	404,155	6,830	358	1,104	1.31	17.88	801,600

Peak discharge (base, 2,350 sec.-ft.).- May 19 (6 p.m.) 4,260 sec.-ft.; June 3 (10 p.m.) 7,060 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for other stations on Salmon River.

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 1948.

Average discharge.- 20 years, 1,319 second-feet.

Extremes.- Maximum discharge during year, 10,300 second-feet June 3 (gage height, 8.04 feet); minimum, 351 second-feet Dec. 31 (gage height, 1.57 feet).
1928-48: Maximum discharge, 10,500 second-feet May 30, 1943 (gage height, 8.07 feet); minimum, 160 second-feet Dec. 14, 1940.

Remarks.- Records good except those for period of ice effect, which are fair. Some diversion above station for irrigation.

Revisions.- W 1043: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	776	836	754	555	590	590	610	1,320	7,280	3,740	1,210	737
2	776	830	748	715	610	627	649	1,200	8,060	3,730	1,220	732
3	770	818	676	682	590	605	710	1,240	9,790	3,490	1,160	720
4	764	806	676	688	595	580	666	1,350	9,610	3,350	1,120	715
5	748	782	710	688	545	555	638	1,270	8,800	3,060	1,120	710
6	742	737	693	720	555	580	622	1,420	8,820	2,810	1,080	720
7	754	776	682	836	526	610	570	2,180	9,170	2,640	1,060	715
8	759	812	*654	1,030	555	605	595	2,130	9,380	2,510	1,050	715
9	788	794	666	830	610	585	610	1,740	9,750	2,380	1,180	726
10	800	737	616	*693	580	550	627	1,630	9,160	2,280	1,170	715
11	878	776	616	794	517	536	605	1,580	8,690	2,240	1,120	710
12	854	742	595	770	507	575	585	1,620	7,870	2,180	1,070	704
13	818	754	627	649	622	595	590	1,840	7,690	2,100	1,040	693
14	800	770	698	644	638	595	638	2,110	7,320	2,010	1,010	688
15	794	754	644	666	616	585	676	2,130	6,640	1,910	974	676
16	854	764	616	654	600	580	860	2,550	6,270	1,840	942	676
17	1,320	720	649	654	605	580	1,500	3,180	5,800	1,770	922	682
18	1,060	748	693	682	622	585	1,870	4,210	5,230	1,710	896	698
19	962	759	676	605	595	585	1,360	4,840	5,010	1,670	878	754
20	916	682	666	610	595	560	1,350	5,090	4,790	1,620	878	764
21	922	660	644	660	595	545	1,540	4,890	5,050	1,580	872	742
22	929	616	660	710	632	600	1,930	4,790	4,990	1,540	854	726
23	896	616	622	704	610	605	1,800	4,430	4,490	1,500	842	726
24	866	759	605	688	595	616	1,540	4,670	4,240	1,440	842	742
25	848	782	595	616	605	632	1,460	5,800	4,110	1,390	842	788
26	842	782	585	494	649	605	1,280	7,160	3,950	1,340	818	1,010
27	842	794	585	589	654	585	1,180	7,790	3,780	1,280	806	962
28	830	732	671	502	590	600	1,170	8,830	3,680	1,270	788	936
29	836	688	649	541	580	632	1,440	9,280	3,640	1,260	776	922
30	854	720	536	580	-	632	1,540	8,220	3,620	1,220	759	890
31	848	-	b423	575	-	595	-	7,230	-	1,180	748	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	26,446	1,320	742	853	0.474	0.55	52,460
November	22,546	836	616	752	.418	.47	44,720
December	19,930	754	423	643	.357	.41	39,530
Calendar year 1947	602,977	8,540	423	1,652	.918	12.47	1,196,000
January	20,724	1,030	489	669	.372	.43	41,110
February	17,183	654	507	593	.329	.36	34,080
March	18,310	632	536	591	.328	.38	36,320
April	31,211	1,930	570	1,040	.578	.64	61,910
May	117,720	9,280	1,200	3,797	2.11	2.43	233,500
June	196,680	9,790	3,620	6,556	3.64	4.06	390,100
July	64,050	3,740	1,180	2,066	1.15	1.32	127,000
August	30,047	1,220	748	969	.538	.62	59,600
September	22,894	1,010	676	756	.420	.47	45,010
Water year 1947-48	587,541	9,790	423	1,591	.884	12.14	1,165,000

Peak discharge (base, 3,800 sec.-ft.).- May 29 (6 a.m.) 9,670 sec.-ft.; June 3 (3:30 p.m.) 10,300 sec.-ft.

* 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 1948.

Average discharge.- 31 years (1913-16, 1920-48), 1,811 second-feet.

Extremes.- Maximum discharge during year, 10,900 second-feet June 4 (gage height, 7.32 feet); minimum, 712 second-feet Jan. 28 (gage height, 2.54 feet).
1912-16, 1919-48: Maximum discharge observed, 16,400 second-feet June 12, 1921 (gage height, 9.35 feet, staff gage at site 700 feet upstream); minimum, 242 second-feet Jan. 8, 1937 (gage height, 1.50 feet).

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

Revisions.- W 1043: Drainage area.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 15 to Sept. 30)

2.6	760	4.5	3,470
3.0	1,120	5.0	4,530
3.5	1,730	6.0	7,030
4.0	2,530	7.2	10,500

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	1,540	1,390	760	1,050	1,110	1,050	1,820	8,660	4,460	1,520	1,010
2	1,440	1,520	1,410	1,000	1,060	1,120	1,070	1,630	8,930	4,620	1,550	1,010
3	1,460	1,520	1,390	1,170	1,130	1,130	1,130	1,510	9,770	4,510	1,520	993
4	1,450	1,510	1,300	1,170	1,150	1,100	1,140	1,560	10,800	4,350	1,460	1,010
5	1,440	1,500	1,280	1,170	1,160	1,090	1,100	1,630	10,200	4,090	1,450	1,000
6	1,410	1,450	1,330	1,180	993	1,060	1,070	1,540	9,750	3,820	1,400	1,010
7	1,400	1,410	1,320	1,300	1,010	1,110	1,030	1,940	9,840	3,510	1,360	1,010
8	1,420	1,470	1,310	1,520	1,000	1,160	984	2,820	9,950	3,310	1,340	1,020
9	1,420	1,500	1,280	1,700	1,060	1,140	1,000	2,510	10,100	3,180	1,380	1,020
10	1,440	1,470	1,300	1,580	1,210	1,070	1,050	2,210	10,000	2,970	1,510	1,020
11	1,470	1,420	1,240	1,500	1,050	1,050	1,060	2,090	9,540	2,850	1,470	1,020
12	1,540	1,470	1,250	1,400	948	1,040	1,010	2,050	9,140	2,870	1,450	975
13	1,510	1,410	1,220	1,300	975	1,080	993	2,090	8,720	2,730	1,400	957
14	1,490	1,460	1,280	1,150	1,140	1,110	1,000	2,390	8,490	2,620	1,360	948
15	1,460	1,460	1,310	1,190	1,330	1,100	1,060	2,510	7,880	2,500	1,330	930
16	1,450	1,450	1,250	1,160	1,200	1,090	1,140	2,660	7,360	2,390	1,270	912
17	1,620	1,450	1,240	1,160	1,160	1,070	1,460	3,270	7,040	2,280	1,250	921
18	1,940	1,400	1,250	1,190	1,210	1,080	2,330	4,270	6,510	2,240	1,230	930
19	1,720	1,440	1,240	1,160	1,220	1,080	2,190	5,150	6,230	2,190	1,200	984
20	1,630	1,410	1,220	1,070	1,160	1,060	1,840	6,140	5,950	2,130	1,180	1,030
21	1,620	1,340	1,210	1,030	1,150	1,030	1,850	5,970	6,270	2,080	1,180	1,030
22	1,620	1,300	1,200	1,240	1,200	1,040	2,090	5,840	6,680	2,000	1,140	1,020
23	1,620	1,260	1,190	1,300	1,230	1,120	2,380	5,420	6,070	1,920	1,110	1,020
24	1,590	1,280	1,170	1,270	1,180	1,130	2,110	5,200	5,700	1,850	1,090	1,060
25	1,560	1,420	1,140	1,200	1,150	1,130	1,910	5,820	5,450	1,780	1,100	1,150
26	1,550	1,440	1,100	984	1,200	1,130	1,790	7,080	5,250	1,730	1,100	1,350
27	1,560	1,450	1,080	858	1,260	1,090	1,600	8,280	4,990	1,690	1,090	1,500
28	1,550	1,450	1,160	808	1,210	1,070	1,520	9,320	4,760	1,630	1,060	1,440
29	1,540	1,360	1,120	849	1,130	1,110	1,540	10,300	4,600	1,620	1,050	1,390
30	1,540	1,340	930	930	-	1,130	1,860	10,200	4,490	1,600	1,030	1,350
31	1,540	-	910	1,020	-	1,110	-	9,250	-	1,540	1,020	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	47,410	1,940	1,400	1,529	94,040
November	42,900	1,540	1,260	1,430	85,090
December	38,020	1,410	910	1,226	75,410
Calendar year 1947	835,220	9,650	910	2,288	1,656,000
January	36,319	1,700	760	1,172	72,040
February	32,926	1,330	948	1,135	65,310
March	33,940	1,160	1,030	1,095	67,320
April	43,357	2,380	984	1,445	86,000
May	134,470	10,300	1,510	4,338	266,700
June	229,120	10,800	4,490	7,637	454,500
July	83,060	4,620	1,540	2,679	164,700
August	39,600	1,550	1,020	1,277	78,550
September	32,020	1,500	912	1,067	63,510
Water year 1947-48	793,142	10,800	760	2,167	1,573,000

Note.- No gage-height record Dec. 19 to Jan. 11; discharge computed on basis of weather records and records for stations near Challis.

Salmon River near Shoup, Idaho

Location.- Staff gage, lat. 45°19'30", long. 114°25', in sec. 13, T. 23 N., R. 17 E., 200 feet downstream from highway bridge, 1 mile downstream from Panther Creek, and 8 miles southwest of Shoup. Feb. 29 to Mar. 20 auxiliary wire-weight gage 200 feet upstream at different datum.

Drainage area.- 6,270 square miles.

Records available.- October 1944 to September 1948.

Extremes.- Maximum discharge observed during year, 16,900 second-feet June 4 (gage height, 7.90 feet); minimum daily, 1,100 second-feet Jan. 1.
1944-48: Maximum discharge observed, that of June 4, 1948; minimum observed, 1,040 second-feet Sept. 12, 13, 1945 (gage height, 1.93 feet, site and datum then in use), but may have been less during winter periods.

Remarks.- Records fair. Gage read once daily. Diversions above station for irrigation.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 24, Mar. 21 to Sept. 30						Jan. 25 to Mar. 20	
0.8	1,200	2.0	2,840	5.0	9,450	2.2	1,290
1.1	1,530	3.0	4,850	6.0	11,900	2.4	1,500
1.5	2,070	4.0	7,100	7.9	16,900	2.7	1,850

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,220	2,400	2,070	1,100	1,500	1,660	1,660	2,840	12,600	6,870	2,220	1,430
2	2,220	2,220	2,100	1,400	1,500	1,610	1,660	2,680	13,200	7,100	2,220	1,430
3	2,220	2,220	1,990	1,700	1,500	1,490	1,930	2,520	15,300	7,100	2,370	1,410
4	2,220	2,220	1,900	1,700	1,600	*1,500	1,900	2,370	16,900	6,640	2,370	1,410
5	2,190	2,220	1,870	1,700	1,600	1,460	1,790	2,370	16,600	6,410	2,220	1,410
6	2,130	2,340	1,850	1,700	1,600	1,430	1,660	2,460	15,300	5,950	2,070	1,300
7	2,220	2,340	1,870	1,800	1,400	1,400	1,580	3,010	14,500	5,510	1,720	1,300
8	2,220	2,340	1,930	2,040	1,400	1,660	1,530	4,410	14,500	5,070	1,720	1,300
9	2,220	2,310	*1,830	2,220	1,400	1,460	1,530	4,200	15,000	5,070	2,070	1,300
10	2,130	2,310	1,850	2,000	1,500	1,290	1,530	3,580	14,800	4,630	2,220	1,300
11	2,220	2,280	1,850	1,900	1,700	1,140	1,660	3,380	13,700	4,410	2,070	1,300
12	2,280	2,250	1,660	*1,700	1,500	1,420	1,580	3,190	12,500	4,200	2,220	1,410
13	2,250	2,220	1,660	1,900	1,350	1,370	1,560	3,380	11,900	3,990	2,070	1,410
14	2,220	2,190	1,660	1,600	1,400	1,390	1,530	3,780	9,900	3,780	1,990	1,410
15	2,340	2,250	1,850	1,600	1,600	1,560	1,740	3,990	10,200	3,580	1,930	1,410
16	2,280	2,250	1,850	1,600	1,900	1,500	1,960	4,200	9,900	3,380	1,850	1,300
17	e2,600	2,250	1,660	1,600	1,700	1,560	2,680	4,200	9,700	3,190	1,790	1,300
18	e3,000	2,250	1,660	1,600	1,600	1,430	3,380	7,100	8,730	2,840	1,790	1,300
19	2,490	2,250	1,930	1,700	1,700	1,560	3,380	8,730	8,490	3,010	1,660	1,410
20	2,370	2,190	1,930	1,500	1,700	1,530	2,840	10,200	8,250	3,010	1,660	1,410
21	2,460	2,100	1,790	1,500	1,600	1,530	2,840	9,900	8,730	3,010	1,660	1,480
22	2,430	2,000	1,790	1,600	1,600	1,580	3,380	10,200	9,900	2,680	1,600	1,480
23	2,430	1,900	1,790	1,700	1,700	1,660	3,580	9,700	8,970	2,680	1,600	1,530
24	2,400	1,900	1,870	1,700	1,700	1,930	3,380	7,100	8,730	2,680	1,530	1,530
25	2,430	2,220	1,790	1,700	1,650	1,930	3,010	9,450	8,020	2,520	1,530	1,660
26	2,220	2,250	1,660	1,500	1,600	1,790	2,840	11,100	8,020	2,370	1,530	1,790
27	2,220	2,250	1,530	1,200	1,700	1,660	2,740	13,200	7,790	2,370	1,530	2,220
28	2,220	2,190	1,530	1,200	1,700	1,660	2,520	15,300	7,330	2,370	1,530	2,220
29	2,220	2,130	1,530	1,200	1,680	1,660	2,520	16,600	7,100	2,370	1,530	2,220
30	2,220	2,070	1,660	1,300	-	1,740	2,840	15,800	6,870	2,370	1,530	2,070
31	2,400	-	1,300	1,500	-	1,660	-	13,200	-	2,370	1,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	71,690	3,000	2,130	2,313	142,200
November	66,310	2,400	1,900	2,210	131,500
December	55,210	2,100	1,300	1,781	109,500
Calendar year 1947	1,247,800	16,600	1,290	3,419	2,475,000
January	50,160	2,220	1,100	1,618	99,490
February	46,080	1,900	1,350	1,589	91,400
March	48,240	1,930	1,140	1,556	95,680
April	68,730	3,580	1,530	2,291	136,300
May	214,140	16,600	2,370	6,908	424,700
June	333,430	16,900	6,870	11,110	661,300
July	123,530	7,100	2,370	3,985	245,000
August	57,330	2,370	1,530	1,849	113,700
September	45,450	2,220	1,300	1,515	90,150
Water year 1947-48	1,180,300	16,900	1,100	3,225	2,341,000

* 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. 21-24, Dec. 31 to Jan. 7, Jan. 9 to Feb. 28.

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 1948.

Extremes.- Maximum discharge observed during year, 75,300 second-feet May 29 (gage height, 33.50 feet); minimum daily, 2,600 second-feet Jan. 28; minimum gage height observed, 2.42 feet Jan. 1.

1944-48: Maximum discharge observed, that of May 29, 1948; 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. Gage read twice daily. Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 2 to Apr. 13)

2.1	2,630	8.0	11,800	25.0	51,900
3.0	3,710	11.0	18,200	29.0	62,600
4.0	4,940	14.0	25,000	33.3	74,800
5.0	6,250	17.0	32,100		
6.0	7,900	21.0	41,800		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,720	5,030	5,100	3,030	b3,900	3,900	4,070	11,300	60,700	23,600	7,180	4,080
2	4,650	4,970	5,170	3,340	3,940	3,790	4,060	10,600	62,300	23,700	7,210	4,000
3	4,860	4,930	5,000	b3,750	3,990	3,840	4,430	9,900	71,700	22,200	7,040	3,940
4	4,850	4,900	*4,820	4,200	3,540	3,630	4,850	9,690	71,000	20,700	6,740	3,890
5	4,690	4,830	4,600	4,340	3,470	3,410	4,730	9,520	66,800	19,400	6,510	3,850
6	4,600	4,740	4,490	4,320	3,420	3,340	4,520	9,960	64,500	18,100	6,290	3,840
7	4,560	4,760	4,590	5,320	3,180	3,490	4,290	13,600	66,500	16,600	6,080	3,880
8	4,790	4,990	4,450	7,260	3,190	3,650	4,150	17,400	67,300	15,700	5,840	3,870
9	5,080	5,040	4,440	7,060	3,250	3,690	4,090	17,400	65,700	14,800	5,980	3,840
10	5,070	4,930	4,330	5,450	3,550	3,520	4,520	15,600	63,100	14,100	6,250	3,830
11	5,080	4,940	4,140	4,850	3,410	3,060	4,660	14,400	59,400	13,500	6,290	3,780
12	5,100	4,800	4,140	*4,920	3,090	2,980	4,580	13,900	54,400	13,300	6,120	3,730
13	5,120	4,780	4,170	4,240	2,860	3,420	4,430	14,700	51,900	12,700	5,990	3,660
14	5,000	4,760	4,200	4,080	3,180	3,480	4,440	17,300	48,700	12,000	5,860	3,570
15	4,840	4,760	4,480	3,910	3,480	*3,540	4,780	18,600	45,300	11,500	5,640	3,510
16	5,190	4,800	4,400	b3,800	3,870	3,470	5,940	20,900	43,200	11,000	5,460	3,510
17	7,440	4,730	4,240	b3,900	3,970	3,410	9,020	25,700	40,100	10,500	5,210	3,450
18	7,100	4,580	4,190	b4,100	3,910	3,420	12,900	37,300	37,500	10,300	5,060	3,480
19	6,360	4,660	4,320	b4,000	4,200	3,450	12,600	42,900	35,300	10,400	4,940	3,550
20	5,770	4,620	4,260	b3,900	4,340	3,420	11,800	49,100	33,900	10,500	5,040	3,630
21	5,560	4,500	4,220	b3,900	4,070	3,330	12,200	50,100	35,900	9,900	5,110	3,640
22	5,490	4,070	4,150	b4,200	3,940	3,340	14,600	50,200	37,700	9,380	4,880	3,610
23	5,430	3,810	4,170	4,720	4,200	3,600	15,400	48,200	34,700	9,000	4,740	3,650
24	5,360	4,020	4,110	5,120	4,140	3,810	13,900	47,000	32,400	8,560	4,750	3,700
25	5,230	4,680	3,910	4,630	4,010	4,150	12,500	50,400	30,800	8,200	4,790	3,780
26	5,120	5,360	3,700	b3,800	4,050	4,150	11,100	57,400	29,300	7,860	4,690	4,400
27	5,070	6,140	3,520	b2,900	4,420	4,010	10,100	63,700	27,500	7,670	4,600	4,990
28	5,110	5,780	3,730	b2,600	4,430	3,840	9,380	69,800	26,200	7,980	4,480	4,970
29	5,100	5,200	4,140	b2,800	4,110	3,950	9,610	74,800	24,900	8,660	4,360	4,830
30	5,080	4,940	4,140	b3,200	-	4,320	11,300	68,500	23,900	8,260	4,240	4,620
31	5,100	-	3,610	b3,600	-	4,280	-	62,600	-	7,600	4,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	162,530	7,440	4,560	5,243	0.427	0.49	322,400
November	145,050	6,140	3,810	4,835	.394	.44	287,700
December	132,930	5,170	3,520	4,288	.349	.40	263,700
Calendar year 1947	4,083,460	66,400	3,000	11,190	.912	12.37	8,100,000
January	131,240	7,260	2,600	4,234	.345	.40	260,300
February	109,110	4,430	2,860	3,762	.307	.33	216,400
March	112,690	4,320	2,980	3,635	.296	.34	223,500
April	238,950	15,400	4,060	7,965	.649	.72	474,000
May	1,022,470	74,800	9,520	32,980	2.69	3.10	2,028,000
June	1,412,600	71,700	23,900	47,090	3.84	4.28	2,802,000
July	397,670	23,700	7,600	12,830	1.05	1.21	788,800
August	171,510	7,210	4,140	5,533	.451	.52	340,200
September	117,080	4,990	3,450	3,903	.318	.35	232,200
Water year 1947-48	4,153,830	74,800	2,600	11,350	.925	12.58	8,239,000

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

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 1948.

Average discharge.- 36 years, 10,480 second-feet.

Extremes.- Maximum discharge during year, 103,000 second-feet June 3 (gage height, 32.95 feet); minimum, 2,790 second-feet Jan. 29 (gage height, 11.59 feet).

1910-17, 1919-48: Maximum discharge, that of June 3, 1948; 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.

Revisions (water years).- W 753: 1932. W 1043: Drainage area.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 13 to Sept. 30)

11.7	2,930	16.5	13,000	25.0	49,300
12.5	4,170	18.0	17,100	29.0	75,600
13.5	6,020	20.0	24,300	32.3	98,700
15.0	9,270	22.0	33,000		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,060	5,710	6,020	3,570	4,000	4,860	5,460	14,600	80,800	26,000	8,560	4,900
2	5,020	5,670	6,220	3,420	4,410	4,700	5,420	14,000	84,300	25,800	8,440	4,810
3	5,160	5,610	6,060	4,100	4,520	4,590	5,980	13,000	96,400	24,000	8,330	4,720
4	5,360	5,550	5,780	4,480	4,390	4,520	6,700	12,800	98,200	22,500	8,050	4,680
5	5,160	5,460	5,570	4,950	4,240	4,310	6,720	12,700	91,000	21,100	7,720	4,610
6	5,010	5,380	5,330	5,010	4,170	4,140	6,340	12,800	88,900	19,500	7,480	4,570
7	4,930	5,400	5,290	6,560	4,000	4,170	5,860	16,000	90,000	18,100	7,250	4,570
8	5,120	5,630	5,250	9,250	3,860	4,390	5,570	20,000	90,900	17,000	7,040	4,590
9	5,570	5,820	5,120	9,410	3,920	4,540	5,460	21,500	88,400	16,200	6,940	4,570
10	5,670	5,720	5,040	8,140	4,150	4,380	6,020	19,400	85,100	15,400	7,120	4,560
11	5,670	5,630	4,790	6,810	4,070	4,050	6,360	18,000	78,900	14,900	7,380	4,520
12	5,760	5,550	4,680	6,140	3,750	3,770	6,260	17,200	71,400	14,600	7,290	4,470
13	5,720	5,480	4,810	5,670	3,700	3,900	6,000	17,900	66,600	13,900	7,120	4,410
14	5,570	5,460	4,700	4,830	3,720	4,340	5,980	20,500	62,000	13,100	6,890	4,320
15	5,380	5,420	4,930	4,340	4,000	4,340	6,500	22,300	56,500	12,500	6,660	4,260
16	6,580	5,440	5,040	4,270	4,410	4,270	8,140	24,200	53,200	12,000	6,440	4,220
17	8,970	5,420	4,840	4,340	4,700	4,150	12,200	31,000	48,500	11,500	6,200	4,190
18	8,440	5,310	4,720	4,590	4,740	4,140	17,300	41,800	44,300	11,200	6,000	4,270
19	7,680	5,270	4,860	4,520	4,930	4,150	17,300	50,400	41,100	11,200	5,860	4,320
20	6,960	5,230	4,880	4,450	5,060	4,120	16,100	59,100	39,400	11,500	5,840	4,360
21	6,560	5,060	4,810	4,450	4,970	4,000	16,200	62,100	40,900	11,000	5,960	4,430
22	6,440	4,810	4,720	4,660	4,810	4,000	18,600	67,500	43,800	10,400	5,800	4,430
23	6,300	4,410	4,650	5,120	5,040	4,290	19,900	66,400	40,700	9,830	5,650	4,480
24	6,160	4,270	4,610	5,840	5,160	4,540	18,200	62,600	37,200	9,430	5,650	4,520
25	6,000	4,930	4,480	5,760	4,920	5,080	16,200	66,200	35,000	9,180	5,710	4,590
26	5,820	5,740	4,200	4,810	4,900	5,270	14,600	75,900	33,000	8,810	5,630	4,920
27	5,760	7,120	4,000	4,000	5,290	5,170	13,300	85,500	30,900	8,580	5,480	5,690
28	5,760	7,040	3,970	3,170	5,460	5,020	12,300	92,600	29,200	8,990	5,380	5,900
29	5,780	6,380	4,450	2,890	5,230	5,140	12,800	99,200	27,700	9,980	5,230	5,710
30	5,780	5,920	4,650	3,320	-	5,500	14,200	92,900	26,400	9,730	5,120	5,500
31	5,800	-	4,290	3,640	-	5,650	-	84,500	-	9,110	4,990	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	184,950	8,970	4,930	5,966	0.440	0.51	366,800
November	165,840	7,120	4,270	5,528	.408	.46	328,900
December	152,760	6,220	3,970	4,928	.364	.42	303,000
Calendar year 1947	4,661,750	82,500	3,500	12,770	.942	12.78	9,246,000
January	156,510	9,410	2,890	5,049	.373	.43	310,400
February	130,520	5,460	3,700	4,501	.332	.36	258,900
March	139,490	5,650	3,770	4,500	.332	.38	276,700
April	317,970	19,900	5,420	10,600	.782	.87	630,700
May	1,314,600	99,200	12,700	42,410	3.13	3.61	2,607,000
June	1,800,700	98,200	26,400	60,020	4.43	4.94	3,572,000
July	437,130	26,000	8,580	14,100	1.04	1.20	867,000
August	203,210	8,560	4,990	6,555	.484	.56	403,100
September	140,090	5,900	4,190	4,670	.345	.38	277,900
Water year 1947-48	5,143,770	99,200	2,890	14,050	1.04	14.12	10,200,000

Peak discharge (base, 29,700 sec.-ft.).- June 3 (9 to 12 p.m.) 103,000 sec.-ft.

Note.- Figures of daily discharge July 13-31 supersede those published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin."

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 1948.

Extremes.- Maximum discharge during year, 609 second-feet June 9 (gage height, 5.41 feet); minimum recorded, 13 second-feet Sept. 7, 14-18, 24; minimum gage height, 1.97 feet Sept. 15-18, 24.

1940-48: Maximum discharge, 612 second-feet May 31, 1943; maximum gage height, that of June 9, 1948; minimum discharge recorded, 10 second-feet Apr. 3, 1945.

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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	24	19					43	452	201	38	17
2	16	23	19					42	488	189	36	17
3	16	23	19					42	568	176	35	17
4	16	22	*18	20				44	594	162	34	16
5	16	22	18					43	564	148	33	16
6	16	21	18			(*)		46	548	133	31	16
7	16	21	18				20	50	557	123	30	16
8	17	23	17	40				57	568	115	31	15
9	17	23	17	(*)				59	601	107	33	15
10	19	22						60	592	101	32	15
11	20	22						62	568	95	31	16
12	19	22						65	535	90	30	15
13	19	21		30			18	74	538	86	29	15
14	19	21					17	80	532	83	28	14
15	19	21					19	90	494	78	27	14
16	26	21			18	17	21	102	460	74	26	14
17	30	21					24	125	414	70	25	14
18	29	21					27	166	373	65	24	14
19	28	20					28	234	338	63	23	15
20	28	20	18	25			28	255	308	60	22	14
21	29	20					30	268	310	58	21	16
22	28	19					33	264	282	56	21	14
23	27	19					35	247	260	53	19	14
24	26	19					36	244	242	54	18	13
25	26	18					41	279	232	49	18	18
26	25	18					42	358	220	47	18	23
27	24	18					42	427	209	45	19	21
28	23	18		18			42	509	199	42	19	21
29	25	18					44	586	194	40	17	20
30	25	18			-		44	553	197	39	18	20
31	24	-			-		-	473	-	39	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	684	30	16	22.1	0.619	0.71	1,360
November	619	24	18	20.6	.577	.64	1,230
December	559	-	-	18.0	.504	.58	1,110
Calendar year 1947	26,561	451	14	72.8	2.04	27.66	52,690
January	788	-	-	25.4	.711	.82	1,560
February	522	-	-	18.0	.504	.54	1,040
March	527	-	-	17.0	.476	.55	1,050
April	811	44	17	27.0	.756	.84	1,610
May	5,947	586	42	192	5.38	6.20	11,800
June	12,437	601	194	415	11.6	12.96	24,670
July	2,741	201	39	88.4	2.48	2.86	5,440
August	804	38	17	25.9	.725	.84	1,590
September	485	23	13	16.2	.454	.51	962
Water year 1947-48	26,924	601	13	73.6	2.06	28.05	53,420

Peak discharge (base, 250 sec.-ft.).- May 29 (1 to 2 p.m.) 597 sec.-ft.; June 9 (12 m. to 4 p.m.) 609 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 12, 20-23, 28, 29, Dec. 8, Dec. 10 to about Mar. 31. No gage-height record Jan. 21 to Mar. 5, Mar. 9 to Apr. 12; discharge computed on basis of weather records and records for nearby streams.

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 1948.

Average discharge.- 28 years (1911-13, 1922-48), 185 second-feet.

Extremes.- Maximum discharge observed during year, 1,290 second-feet June 3 (gage height, 3.50 feet); minimum observed, 63 second-feet Dec. 24; minimum gage height observed, 1.01 feet Mar. 31.

1910-13, 1921-48: 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 periods Apr. 25 to June 29, July 1-20, when daily readings were made. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	a112	109	a80	a75	73	a70	203	940	508	a130	84
2	a105	a112	a105	84	75	83	81	173	996	474	a125	86
3	102	107	98	a85	a75	79	a90	239	1,290	d454	122	a84
4	a100	a108	a105	a90	75	a75	a85	283	1,120	435	a120	81
5	a96	96	*88	96	a68	75	84	196	1,110	380	122	a82
6	100	a100	a85	a120	73	a75	a80	385	1,120	354	a120	a84
7	a105	107	a80	176	a65	a80	70	520	1,140	327	117	84
8	120	a105	85	a190	a65	81	a75	319	1,150	315	a115	a85
9	a125	a100	a80	b140	75	a80	83	250	1,200	294	a140	84
10	133	109	b70	*b126	a70	81	a80	256	1,150	283	136	a84
11	a140	a110	a85	a130	73	a80	a80	440	1,030	275	a130	81
12	a115	b110	b80	129	a75	81	83	457	989	260	122	a78
13	111	a115	a95	a100	77	a80	a85	446	1,010	250	a115	a76
14	a108	113	a92	b100	a75	a82	88	405	947	246	113	75
15	107	a110	90	a100	a76	77	a120	362	842	236	a110	a75
16	203	a110	a86	b100	77	a80	141	508	765	219	a100	75
17	242	104	90	a100	a78	83	a275	568	751	206	90	a76
18	a170	a115	a90	a100	84	a85	a270	670	676	196	a85	81
19	a150	109	92	98	a85	90	268	926	682	199	92	a88
20	141	a90	a88	a98	84	a78	a280	800	622	193	a98	a86
21	a145	102	a86	98	a85	a80	287	786	682	a187	92	84
22	143	a80	90	a97	a90	81	a320	800	664	181	a90	a84
23	a138	a90	a80	96	72	a82	323	706	550	a177	a90	92
24	126	109	63	a90	a75	83	a300	712	520	173	94	a93
25	a125	a120	a70	a80	88	a80	250	835	502	a167	a95	94
26	a122	141	73	b70	a92	75	187	912	502	a160	96	a125
27	120	a150	a85	a75	90	a70	199	975	462	154	a94	a120
28	a118	115	a95	b78	a85	a72	264	1,110	440	a152	92	117
29	120	a90	90	a80	a80	73	376	1,210	452	151	86	a110
30	a125	a100	a75	79	-	a75	271	1,030	a480	a144	a86	100
31	115	-	b65	a78	-	65	-	912	-	138	a85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,977	242	96	128	0.727	0.84	7,890
November	3,239	150	80	108	.614	.68	6,420
December	2,665	109	63	86.0	.489	.56	5,290
Calendar year 1947	83,773	1,150	56	230	1.31	17.69	166,200
January	3,163	190	70	102	.580	.67	6,270
February	2,257	92	65	77.8	.442	.48	4,480
March	2,434	90	65	78.5	.446	.51	4,830
April	5,265	376	70	176	1.00	1.11	10,440
May	18,394	1,210	173	593	3.37	3.89	36,480
June	24,784	1,290	440	826	4.69	5.24	49,160
July	7,888	508	138	254	1.44	1.67	15,650
August	3,302	140	85	107	.608	.70	6,550
September	2,648	125	75	88.3	.502	.56	5,250
Water year 1947-48	80,016	1,290	63	219	1.24	16.91	158,700

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

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 1948.

Average discharge.- 25 years (1922-24, 1925-48), 194 second-feet.

Extremes.- Maximum discharge during year, 2,260 second-feet May 29 (gage height, 5.97 feet); minimum discharge not determined, occurred during period of ice effect.
1921-48: 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 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	70	72					175	1,700	487	143	83
2	73	70	67					165	1,920	466	145	82
3	73	69	58			(*)		165	2,180	434	136	81
4	72	69	65	55				h174	2,040	408	135	81
5	70	64	*60					165	1,890	378	131	80
6	67	58	60		45			220	1,950	361	127	81
7	68	72	55				50	480	2,030	341	124	80
8	71	74	55					400	2,000	321	125	80
9	73	67	55					299	1,950	305	141	79
10	72	58	45	(*) 65				258	1,740	294	130	76
11	79	69	60					232	1,600	281	127	74
12	76	63	55					225	1,380	271	120	73
13	73	66	60					284	1,330	258	114	73
14	72	67	60				*58	361	1,200	246	112	73
15	70	64	60				65	424	1,030	236	107	73
16	105	65				40	70	595	952	227	104	73
17	133	56					115	856	823	220	102	73
18	102	66		55			130	1,100	751	213	99	76
19	92	67					h116	1,320	689	209	99	81
20	88	55	55				120	1,310	685	200	100	79
21	90	60			40		h178	1,160	743	194	97	75
22	86	45					170	996	690	188	95	74
23	82	55					150	869	636	182	95	80
24	78	66					150	1,020	628	178	96	76
25	75	68					142	1,510	603	170	93	82
26	80	70					h138	1,890	572	165	92	106
27	78	71	50	45			135	2,070	535	161	91	86
28	73	61					135	2,140	521	159	88	82
29	75	65					175	2,080	504	159	86	80
30	75	70			-		175	1,780	493	150	84	76
31	71	-			-		-	1,540	-	145	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,466	133	67	79.5	0.408	0.47	4,890
November	1,940	74	45	64.7	.332	.37	3,850
December	1,722	72	-	55.5	.285	.33	3,420
Calendar year 1947	98,267	2,150	-	269	1.38	18.74	194,900
January	1,685	-	-	54.4	.279	.32	3,340
February	1,210	-	-	41.7	.214	.23	2,400
March	1,240	-	-	40.0	.205	.24	2,460
April	2,872	178	-	95.7	.491	.55	5,700
May	26,263	2,140	165	847	4.34	5.01	52,090
June	35,765	2,180	493	1,192	6.11	6.82	70,940
July	8,007	487	145	258	1.32	1.53	15,880
August	3,421	145	83	110	.564	.65	6,790
September	2,368	106	73	78.9	.405	.45	4,700
Water year 1947-48	88,959	2,180	-	243	1.25	16.97	176,500

Peak discharge (base, 730 sec.-ft.).- May 19 (10 p.m.) 1,500 sec.-ft.; May 29 (2 to 3 a.m.) 2,260 sec.-ft.; June 3 (6 a.m.) 2,250 sec.-ft.

* Winter discharge measurement made on this day.

h Computed from staff-gage reading.

Note.- Stage-discharge relation affected by ice Nov. 20-26, Dec. 4 to about Mar. 31. No gage-height record Dec. 18-25, Dec. 28 to Jan. 9, Jan. 16 to Apr. 18, Apr. 20, 22-25, Apr. 27 to May 3, May 5-8; discharge computed on basis of 2 discharge measurements, weather records, inflow between stations on Salmon River below Yankee Fork and below Valley Creek, and records for 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 1948.

Extremes.- Maximum discharge during year, 418 second-feet June 4 (gage height, 2.30 feet); minimum recorded, 8 second-feet Mar. 9 (gage height, 0.07 foot), but may have been less during winter period.
1943-48: Maximum discharge, that of June 4, 1948; minimum, 8 second-feet Mar. 17, 1946, Mar. 9, 1948.

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

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 5 to Sept. 30)

0.2	12	0.6	36	1.3	131
.3	17	.7	45	1.6	194
.4	22	.8	56	1.9	278
.5	28	1.0	82	2.2	380

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	23	21			12	14	27	284	127	47	23
2	26	22	20			12	15	25	318	126	45	23
3	25	22	19			*12	16	25	373	118	44	23
4	25	22	19	15		12	14	25	403	113	44	24
5	24	21	18			12	15	24	380	103	41	25
6	23	20	18			12	15	28	380	100	38	25
7	23	23	17			12	15	42	380	96	39	26
8	25	23	*17			12	15	43	384	91	40	26
9	25	23				11	15	39	373	86	44	25
10	25	22		20		11	15	38	330	85	45	25
11	25	22		(*)		11	15	35	313	82	44	25
12	25	20				12	15	34	297	81	40	25
13	25	22				13	15	37	272	79	38	25
14	25	22				13	15	41	245	75	36	23
15	25	21			13	13	20	45	215	72	35	22
16	27	21				13	25	56	204	71	34	22
17	31	21				12	41	78	189	68	33	22
18	27	22				12	38	110	180	67	32	24
19	27	21				12	26	137	171	63	32	26
20	26	17	16	16		12	29	146	163	62	32	25
21	26	18				12	34	142	185	61	29	24
22	25	14				13	38	142	167	58	29	24
23	25	17				15	33	137	154	57	30	25
24	23	22				14	30	135	154	55	30	27
25	24	23				13	28	152	150	53	29	32
26	25	23				13	25	207	148	52	27	38
27	24	21				13	23	240	140	49	27	32
28	24	20				14	24	288	135	52	27	31
29	23	20				15	28	330	129	53	26	29
30	23	23			-	14	27	327	127	50	25	28
31	23	-			-	13	-	294	-	47	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	777	31	23	25.1	1,540
November	631	23	14	21.0	1,250
December	517	21	-	16.7	1,030
Calendar year 1947	18,927	355	-	51.9	37,540
January	514	-	-	16.6	1,020
February	377	-	-	13.0	748
March	390	15	11	12.6	774
April	678	41	14	22.6	1,340
May	3,429	330	24	111	6,800
June	7,342	403	127	245	14,560
July	2,352	127	47	75.9	4,670
August	1,087	47	25	35.1	2,160
September	774	38	22	25.8	1,540
Water year 1947-48	18,868	403	-	51.6	37,430

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 20-24, 28, 29, Dec. to about Feb. 29, Mar. 4-6, 10-12, 20, 21. No gage-height record Dec. 15-25, Jan. 16 to Mar. 2, Apr. 6-14; discharge computed on basis of weather records and records for 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 miles downstream from old highway bridge on Challis-Salmon 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 1948.

Average discharge.- 18 years (1930-48), 203 second-feet.

Extremes.- Maximum discharge observed during year, 438 second-feet June 21; maximum gage height observed, 3.21 feet June 4 (backwater from Salmon River); minimum discharge observed, 101 second-feet May 28.

1929-48: Maximum discharge observed, 454 second-feet May 30, 1943; maximum gage height observed, that of June 4, 1948; minimum discharge observed, 75 second-feet Apr. 28, 1934.

Remarks.- Records good except those for periods of no gage-height record or backwater from Salmon River, which are poor. Gage read once daily. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	306	375	322	284	247	280			201	210	171	173
2	303	360	314	287	251	272			204	207	176	179
3	306	348	314	280	247	276		200	c210	204	176	173
4	310	341	314	269	247	280			c230	204	176	179
5	325	337	310	287	247	276			c210	198	176	195
6	329	337	310	284	251	287			c210	195	182	198
7	325	325	314	303	258	287			c250	188	182	201
8	314	329	303	314	258	284	280		c300	192	182	201
9	314	329	310	310	258	284			c350	188	185	201
10	310	325	306	310	254	280			c350	185	188	201
11	322	325	306	291	251	284			c340	182	185	204
12	329	325	303	287	254	280			c330	188	179	204
13	333	325	306	276	254	280		160	325	201	179	204
14	325	329	306	276	254	276			299	198	176	210
15	329	325	306	265	254	276	262		280	198	173	207
16	325	325	306	262	254	280			272	195	173	210
17	325	325	306	251	265	280			269	198	176	210
18	329	322	303	244	262	280			262	192	176	214
19	337	325	303	237	265	284			244	192	176	224
20	337	329	303	240	269	287		146	233	188	176	230
21	344	314	299	237	276	291		135	438	188	176	240
22	341	318	299	240	287	295		126	394	166	173	251
23	341	314	303	244	287	295	250	117	390	166	171	265
24	341	318	303	254	287	299		118	367	168	171	280
25	337	325	299	262	291			111	284	168	168	310
26	337	322	295	272	291			107	240	163	168	356
27	348	318	295	247	295	300		103	240	163	168	344
28	358	314	295	244	295			101	233	163	168	329
29	369	314	295	240	287			c180	227	166	171	333
30	379	314	291	240	-			c190	227	166	168	333
31	375	-	284	244	-		-	207	-	168	171	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,303	379	303	332	20,440
November	9,832	375	314	328	19,500
December	9,423	322	284	304	18,690
Calendar year 1947	92,349	379	130	253	183,200
January	8,281	314	237	267	16,430
February	7,696	295	247	265	15,260
March	8,893	-	272	287	17,640
April	7,932	-	-	264	15,730
May	4,881	-	101	157	9,680
June	8,409	438	201	280	16,680
July	5,748	210	163	185	11,400
August	5,436	188	168	175	10,780
September	7,059	356	173	235	14,000
Water year 1947-48	98,893	438	101	257	186,200

c Backwater from Salmon River; discharge computed as for periods of no gage-height record.

Note.- No gage-height record Oct. 27-29. Mar. 25 to Apr. 14, Apr. 16 to May 19; discharge computed on basis of inflow between Salmon River near Challis and Salmon River at Salmon, records for other nearby streams, and weather records.

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 1948.

Extremes.- Maximum discharge observed during year, 2,400 second-feet May 29 (gage height, 4.10 feet); minimum observed, 51 second-feet Mar. 4 (gage height, 0.04 foot), but may have been less during periods of ice effect.

1944-48: Maximum discharge observed, 2,500 second-feet May 9, 1947; maximum gage height observed, 4.4 feet Jan. 6, 1947 (backwater from ice); minimum discharge observed, 35 second-feet Dec. 17, 1946 (gage height, -0.08 foot).

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

Revisions (water years).- W 1063: 1945.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.1	58	1.5	470
.2	73	2.0	715
.4	113	2.6	1,100
.7	190	3.2	1,570
1.0	283	3.9	2,200

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	102	123			82	88	270	1,780	698	250	118
2	123	109	96			82	84	225	1,830	634	238	118
3	118	113	84			88	127	257	2,200	698	234	115
4	118	113	73	80		*55	88	250	1,920	569	219	115
5	118	113	67			80	88	311	1,780	513	204	115
6	118	113	100			100	77	347	1,740	522	190	113
7	118	113	105			92	61	422	1,700	470	185	113
8	118	118	88			96	105	438	1,700	430	185	113
9	118	118	*90	130		80	88	372	1,570	430	202	113
10	118	118	70			60	81	347	1,370	410	204	109
11	125	118	90			65	84	325	1,290	414	204	109
12	123	118	85	(*)		70	84	325	1,140	334	204	109
13	118	118	88			73	88	372	996	391	185	109
14	118	113	100			70	88	407	930	354	176	109
15	118	102	96			58	96	438	897	336	168	102
16	118	92	96		80	67	179	559	897	318	153	102
17	118	67	96			73	257	715	866	318	147	96
18	118	113	109			70	238	1,030	744	311	147	102
19	113	102	109			66	190	1,330	715	311	153	102
20	113	92	100			58	257	1,410	660	300	153	102
21	113	73	102	85		81	257	1,390	1,140	290	147	109
22	113	58	109			92	290	1,410	996	283	147	102
23	113	90	96			73	300	1,250	962	270	147	102
24	113	113	90			88	234	1,330	930	270	147	118
25	109	125	85			92	219	1,530	859	250	147	125
26	109	118	85			77	213	2,010	834	250	142	176
27	109	150	90			82	207	2,200	715	238	142	132
28	109	113	95			88	202	2,200	660	231	137	125
29	109	88	90			92	250	2,250	629	250	137	125
30	102	102	75		-	96	266	1,830	608	250	137	123
31	102	-	65		-	77	-	1,830	-	250	127	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,577	127	102	115	0.217	0.25	7,090
November	3,195	150	58	106	.200	.22	6,340
December	2,847	123	65	91.8	.174	.20	5,650
Calendar year 1947	111,788	2,500	53	306	.578	7.85	221,700
January	2,830	-	-	91.3	.173	.20	5,610
February	2,320	-	-	80.0	.151	.16	4,600
March	2,423	100	55	78.2	.148	.17	4,810
April	4,886	300	61	163	.308	.34	9,690
May	29,380	2,250	225	948	1.79	2.07	58,270
June	35,058	2,200	608	1,169	2.21	2.46	69,540
July	11,433	634	231	369	.698	.80	22,680
August	5,358	250	127	173	.327	.38	10,630
September	3,421	176	96	114	.216	.24	6,790
Water year 1947-48	106,728	2,250	-	292	.552	7.49	211,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 23, Dec. 10-12, 22, Dec. 24 to Feb. 29, Mar. 4, 5, 9-12.

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 1948 (no winter records 1941-45).
Average discharge.- 16 years (1928-41, 1945-48), 211 second-feet.
Extremes.- Maximum discharge during year, 2,340 second-feet June 3 (gage height, 6.26 feet); minimum recorded, 59 second-feet Nov. 17 (gage height, 2.34 feet), but may have been less during winter period.
1928-49: Maximum discharge, 2,340 second-feet June 9, 1933, about May 31, 1943, June 3, 1948; maximum gage height, 6.26 feet June 9, 1933, June 3, 1948; 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.
Revisions.- W 738: Drainage area.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.4	68	4.0	575
2.6	103	4.5	850
2.9	169	5.0	1,180
3.2	254	5.5	1,580
3.6	398	6.1	2,160

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	111						147	1,730	514	177	107
2	105	111						141	1,920	496	172	107
3	109	105						143	2,220	465	162	105
4	105	103		80				143	2,020	443	162	105
5	101	96						141	1,920	398	159	105
6	99	99						174	1,950	371	152	105
7	99	105		(*)				261	2,010	352	152	103
8	125	105	90				80	248	2,030	337	162	103
9	111	99						223	2,010	318	182	101
10	130	98		100				212	1,830	308	167	99
11	134	103						215	1,690	301	159	98
12	117	98						229	1,520	287	152	98
13	109	101						312	1,570	277	147	96
14	107	99						348	1,350	267	143	96
15	105	101					90	402	1,210	254	141	96
16	324	94			80	75	109	518	1,130	245	136	96
17	212	92					130	732	1,030	238	132	96
18	159	98		90			121	974	965	232	130	105
19	145	90					105	1,250	889	223	132	105
20	136	75					119	1,300	858	220	132	99
21	150	80					141	1,230	964	215	127	98
22	136	65					162	1,120	856	206	125	98
23	127	76					152	1,110	757	201	127	103
24	121	90	80				152	1,230	713	195	130	99
25	119	100					157	1,400	674	192	127	119
26	117	100					147	1,600	630	187	121	141
27	115	100		80			141	1,820	580	187	121	125
28	113	90					138	2,010	551	190	119	119
29	121	90					155	2,020	527	190	115	111
30	121	90			-		155	1,770	509	179	111	105
31	113	-			-		-	1,620	-	172	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,990	324	99	129	0.935	1.08	7,910
November	2,863	111	65	95.4	.691	.77	5,680
December	2,630	-	-	84.8	.614	.71	5,220
Calendar year 1947	103,523	1,840	-	284	2.06	27.91	205,300
January	2,720	-	-	87.7	.636	.73	5,400
February	2,320	-	-	80.0	.580	.63	4,600
March	2,325	-	-	75.0	.543	.63	4,610
April	3,294	162	-	110	.797	.89	6,530
May	25,043	2,020	141	808	5.86	6.75	49,670
June	38,613	2,220	509	1,287	9.33	10.41	76,590
July	8,660	514	172	279	2.02	2.33	17,180
August	4,383	182	109	141	1.02	1.18	8,690
September	3,143	141	96	105	.761	.85	6,230
Water year 1947-48	99,984	2,220	-	273	1.98	26.96	198,300

Peak discharge (base, 930 sec.-ft.).- May 20 (8 p.m.) 1,600 sec.-ft.; May 29 (1 a.m.) 2,200 sec.-ft.; June 3 (3 to 4 a.m.) 2,340 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 17 to about Mar. 31. No gage-height record Nov. 22 to Jan. 5, Jan. 10 to Apr. 15; discharge computed on basis of weather records and records for 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 1948 (no winter records 1941-45).

Average discharge.- 16 years (1928-41, 1945-48), 256 second-feet.

Extremes.- Maximum discharge during year, 2,960 second-feet May 29 (gage height, 5.15 feet); minimum not determined, occurred during period of ice effect or no gage-height record.

1921-48: 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 period of ice effect or no gage-height record, which are poor. No regulation or diversion above station.

Revisions.- W 573: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	140	126					222	1,960	467	176	114
2	108	135	115					201	2,080	484	176	112
3	110	126	115					208	2,460	440	167	110
4	112	128	119	100				205	2,270	420	161	110
5	110	114	115					194	2,100	386	161	110
6	106	130	108					229	2,100	362	156	112
7	106	126	105				100	376	2,150	348	151	112
8	124	126	105					367	2,140	330	153	112
9	138	114	105					330	2,120	308	185	110
10	140	110	90	130				304	1,930	296	167	110
11	170	120						296	1,750	292	158	108
12	156	115						322	1,600	292	153	106
13	133	120						440	1,510	275	148	106
14	124	120						544	1,390	259	143	104
15	119	120			100	90	115	645	1,300	248	140	104
16	369	117					150	826	1,250	240	138	104
17	478	115					210	1,100	1,180	233	133	106
18	222	120					225	1,360	1,040	225	130	114
19	179	115		110			215	1,680	1,020	222	128	124
20	158	95	100				229	1,750	906	218	133	114
21	158	110					275	1,750	1,050	215	130	110
22	156	85					313	1,680	938	205	126	108
23	153	100					326	1,500	786	198	128	112
24	143	125					308	1,670	701	191	133	114
25	135	133					279	1,950	651	188	135	121
26	133	138					248	2,160	609	185	128	164
27	133	140		100			229	2,190	561	182	128	148
28	130	120					218	2,610	522	185	126	133
29	140	120					248	2,620	489	191	121	126
30	156	133			-		240	2,230	462	182	121	119
31	145	-			-		-	1,930	-	173	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	4,852	478	106	157	0.872	1.00	9,620
November	3,610	140	85	120	.667	.75	7,160
December	3,203	126	-	103	.572	.66	6,350
Calendar year 1947	123,565	2,740	-	339	1.88	25.53	245,100
January	3,400	-	-	110	.611	.70	6,740
February	2,900	-	-	100	.556	.60	5,750
March	2,790	-	-	90.0	.500	.58	5,530
April	5,228	326	-	174	.967	1.08	10,370
May	33,889	2,620	194	1,093	6.07	7.00	67,220
June	41,025	2,460	462	1,368	7.60	8.48	81,370
July	8,440	484	173	272	1.51	1.74	16,740
August	4,447	185	114	143	.794	.92	8,820
September	3,457	164	104	115	.639	.71	6,860
Water year 1947-48	117,241	2,620	-	320	1.78	24.22	232,500

Peak discharge (base, 1,200 sec.-ft.).- May 20 (7 p.m.) 1,910 sec.-ft.; May 29 (7 a.m.) 2,960 sec.-ft.; June 3 (3 p.m.) 2,680 sec.-ft.

Note.- Stage-discharge relation affected by ice Nov. 10-15, 17-24, 27-29, Dec. 2, 3, 5, Dec. 7 to about Mar. 31. No gage-height record Jan. 4 to Apr. 18; 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., 1½ 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 1948.

Extremes.- Maximum discharge during year, 5,800 second-feet June 3 (gage height, 7.12 feet, from floodmark), from rating curve extended above 3,000 second-feet by logarithmic plotting; minimum observed, 95 second-feet Nov. 22, Jan. 10, but may have been less during period of ice effect.

1944-48: Maximum discharge, that of June 3, 1948; minimum observed, 66 second-feet Dec. 17, 1946 (discharge measurement), but may have been less during period of ice effect.

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

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	190	197	190	127		120	122	525	4,230	1,390	396	228
2	197	194	177	164		125	133	497	4,920	1,380	387	225
3	190	197	164	158		120	158	506	5,480	1,290	359	218
4	194	194	164	127		*117	152	478	4,360	1,140	343	211
5	187	184	177	158	135	120	139	534	3,960	1,120	335	210
6	177	171	171	98		120	127	573	4,260	1,140	339	210
7	190	184	164	425		120	127	950	4,110	1,010	324	210
8	208	204	152	367		120	*125	1,010	4,520	856	324	218
9	204	197	177	*157		110	145	798	4,160	764	320	210
10	197	190	116	e155		100	139	719	3,600	697	335	210
11	200	187	160			110	116	687	3,110	676	305	200
12	208	180	150			115	122	665	2,880	676	301	200
13	200	177	170			120	133	891	2,880	644	301	195
14	190	177	160			120	e150	926	2,830	613	294	195
15	208	174	160			110	e200	998	2,540	613	290	195
16	e500	174	150			110	320	1,210	2,380	613	283	190
17	e550	174	150	150		130	613	1,620	2,160	573	283	200
18	283	177	150			120	593	2,400	2,020	597	286	205
19	275	164	150			110	487	2,780	2,060	487	279	210
20	268	152	150		125	100	487	2,980	2,110	469	286	205
21	261	116	150			105	563	2,680	2,110	460	268	200
22	254	95	150			111	583	2,310	1,930	460	261	200
23	243	140	140			105	613	2,400	1,890	425	261	210
24	225	180	140			105	593	2,380	1,740	434	272	220
25	222	190	140			105	583	3,130	1,680	421	272	230
26	218	197	130			105	515	3,650	1,630	404	272	280
27	214	184	140	135		116	469	4,130	1,440	404	268	260
28	214	190	150			127	563	4,680	1,380	400	261	250
29	211	211	140			139	534	4,920	1,360	391	239	250
30	208	204	110		-	122	563	4,030	1,440	400	236	230
31	200	-	100		-	116	-	3,420	-	412	228	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,286	550	177	235	0.500	0.58	14,450
November	5,355	211	95	178	.379	.42	10,620
December	4,692	190	100	151	.321	.37	9,310
Calendar year 1947	191,133	4,010	95	524	1.11	15.14	379,100
January	5,181	425	-	167	.355	.41	10,280
February	3,725	-	-	128	.272	.29	7,390
March	3,573	139	100	115	.245	.28	7,090
April	10,167	613	116	339	.721	.80	20,170
May	59,477	4,920	478	1,919	4.08	4.71	118,000
June	85,170	5,480	1,360	2,839	6.04	6.74	168,900
July	21,359	1,390	391	689	1.47	1.69	42,360
August	9,208	396	228	297	.632	.73	18,260
September	6,475	280	190	216	.460	.51	12,840
Water year 1947-48	221,668	5,480	95	606	1.29	17.53	439,700

* Winter discharge measurement made on this day.

e Staff-gage reading in error or not representative of average for day; discharge interpolated or computed on basis of weather records and records for Johnson Creek at Yellow Pine and Panther Creek near Shoup.

Note.- Stage-discharge relation affected by ice Nov. 23-25, Dec. 11-31, Jan. 9, Jan. 11 to Mar. 19 No gage-height record Dec. 25, Jan. 13-20, 26-29, Feb. 11-12, Feb. 26 to Mar. 3, Sept. 5-7, 9-30; discharge computed on basis of weather records and records for Johnson Creek at Yellow Pine and Panther Creek near Shoup.

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 1948.

Average discharge.- 20 years, 132 second-feet.

Extremes.- Maximum discharge during year, 1,330 second-feet May 27 (gage height, 5.99 feet); minimum, 26 second-feet Nov. 10 (gage height, 2.38 feet), but may have been less during winter period.

1928-48: Maximum discharge observed, 1,560 second-feet June 9, 1933 (gage height, 4.69 feet, site and datum then in use), from rating curve extended above 1,000 second-feet; minimum observed, 16 second-feet Feb. 17, Aug. 19, 20, 1931, Nov. 16, 1944.

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

Revisions (water years).- W 1043: 1943.

Rating table, water year, 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.5	37	3.6	254
2.6	48	4.0	384
2.7	62	4.5	580
3.0	116	5.0	817
3.3	179	5.8	1,220

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	56	59	b45		b44	45	186	998	254	77	42
2	41	55	54	b45		46	48	172	1,100	224	76	41
3	44	52	49	b45		b45	52	184	1,260	202	72	40
4	42	52	49	b45		b45	49	202	1,160	186	69	41
5	41	48	47	b45	b50	b45	47	195	1,140	172	67	41
6	40	52	46	65		b46	48	271	1,150	164	64	42
7	40	55	b45	157		b46	47	398	1,150	157	62	41
8	55	55	46	188		46	46	342	1,150	149	64	40
9	52	51	*46	b120		b45	49	280	1,100	142	64	40
10	69	46	b40	*b85		b44	51	263	1,010	136	62	39
11	74	52	b50			b45	48	260	913	140	61	38
12	59	54	b50			b45	46	271	807	132	59	37
13	51	54	b50			b46	46	391	763	126	66	37
14	48	51	48			46	49	406	681	122	55	37
15	48	51	46			46	58	428	630	116	51	37
16	275	49	b45			b45	99	522	569	114	49	37
17	132	b46	47	b60		46	200	674	517	110	48	39
18	86	b50	46		b45	42	227	769	489	108	47	45
19	74	b45	45			42	184	974	463	110	48	45
20	67	b40	46			b41	197	911	457	106	49	40
21	74	b45	b45			b42	254	863	508	103	47	39
22	69	b35	46			44	302	974	424	97	46	38
23	64	b45	b45			44	257	861	377	93	48	46
24	61	b50	b42			45	230	871	342	90	54	44
25	58	56	b42			44	200	985	312	86	54	48
26	58	56	b41		*46	42	172	1,090	286	83	49	74
27	58	56	b45	b50	45	b44	157	1,210	266	84	47	52
28	58	b50	51		b45	b45	159	1,230	249	93	46	48
29	61	b50	47		b44	48	217	1,180	235	90	45	46
30	64	54	b40		-	46	204	1,020	222	83	45	44
31	58	-	b35		-	47	-	952	-	79	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,063	275	40	66.5	0.723	0.83	4,090
November	1,511	56	35	50.4	.548	.61	3,000
December	1,433	59	35	46.2	.502	.58	2,840
Calendar year 1947	64,604	1,330	35	177	1.92	26.11	128,100
January	2,030	188	--	65.5	.712	.82	4,030
February	1,355	-	-	46.7	.508	.55	2,690
March	1,387	48	41	44.7	.486	.56	2,750
April	3,788	302	45	126	1.37	1.53	7,510
May	19,335	1,230	172	624	6.78	7.82	38,350
June	20,728	1,260	222	691	7.51	8.38	41,110
July	3,953	254	79	128	1.39	1.60	7,840
August	1,735	77	44	56.0	.609	.70	3,440
September	1,278	74	37	42.6	.463	.52	2,530
Water year 1947-48	60,596	1,260	35	166	1.80	24.50	120,200

Peak discharge (base, 600 sec.-ft.).- May 27 (10:30 p.m.) 1,330 sec.-ft.; June 3 (10 a.m.) 1,320 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Jan. 25 to Feb. 25; discharge computed on basis of weather records and records for Johnson Creek at Yellow Pine and other stations on nearby streams.

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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 1948.

Extremes.- Maximum discharge during year, 1,510 second-feet May 27 (gage height, 5.95 feet); minimum not determined, occurred during period of ice effect; minimum gage height, 1.83 feet Sept. 15.

1942-48: Maximum discharge, that of May 27, 1948; minimum observed, 7.8 second-feet Feb. 6, 1943 (discharge measurement), but may have been less some winters; minimum gage height recorded, 1.79 feet Nov. 25, 1943, Nov. 16, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. During late fall of 1936, the Bureau of Reclamation cut a transmountain canal to divert a small flow from a tributary of Johnson Creek to Deadwood River Basin to supplement storage in Deadwood Reservoir. Discharge measurements of Oct. 15 and July 16 indicated flow in this canal of 1.02 and 6.05 second-feet, respectively.

Revisions (water years).- W 1063: 1943, 1945(M).

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	24						72	927	176	34	14
2	14	25						69	1,010	155	33	14
3	14	24						70	1,180	134	31	16
4	14	25						68	949	118	30	14
5	14	20	20					72	896	110	28	14
6	13	22						88	894	100	27	13
7	12	24						132	881	93	26	13
8	16	24					20	138	850	86	26	13
9	18	22	(*)					127	796	82	31	12
10	19	22		(*)				119	700	75	29	12
11	24	23						119	640	77	27	12
12	21	21						129	560	75	26	12
13	18	23						165	540	69	24	12
14	17	22						174	470	63	23	11
15	16	22						196	410	60	21	11
16	114	22		20	20	18		266	383	56	19	11
17	77							382	349	53	18	12
18	42							508	325	52	18	14
19	34							672	314	53	20	14
20	31		18					714	299	52	21	13
21	31						(*)	716	355	48	18	12
22	30						28	674	289	44	18	12
23	29	20						637	252	42	18	14
24	26							737	226	40	20	16
25	25							902	210	39	20	17
26	24							998	194	36	18	25
27	24				(*)			1,120	181	39	18	21
28	24						54	1,240	165	49	17	22
29	25						72	1,140	155	44	16	19
30	28				-		72	925	148	39	15	17
31	25	-			-		-	850	-	36	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	833	114	12	26.9	0.492	0.57	1,650
November	645	-	-	21.5	.393	.44	1,280
December	576	-	-	18.6	.340	.39	1,140
Calendar year 1947	38,031	1,150	-	104	1.90	25.86	75,430
January	620	-	-	20.0	.366	.42	1,230
February	580	-	-	20.0	.366	.39	1,150
March	558	-	-	18.0	.329	.38	1,110
April	834	72	-	27.8	.508	.57	1,650
May	14,219	1,240	68	459	8.39	9.67	28,200
June	15,548	1,180	148	518	9.47	10.57	30,840
July	2,195	176	36	70.8	1.29	1.49	4,350
August	704	34	14	22.7	.415	.48	1,400
Septsmber	432	25	11	14.4	.263	.29	857
Water year 1947-48	37,744	1,240	-	103	1.88	25.66	74,860

Peak discharge (base, 600 sec.-ft.).- May 20 (11 p.m.) 802 sec.-ft.; May 27 (11 p.m.) 1,510 sec.-ft.; June 3 (8 a.m.) 1,260 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 5 to May 1. No gage-height record Dec. 31 to Jan. 9, Jan. 14, 16-28, June 10-14; 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 1948.

Average discharge.- 20 years, 311 second-feet.

Extremes.- Maximum discharge during year, 4,620 second-feet May 27 (gage height, 7.01 feet); minimum, 53 second-feet Nov. 22 (gage height, 1.02 feet).
1928-48: 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 1947-48 (gage height, in feet, and discharge, in second-feet)

1.1	64	2.3	418	4.5	1,830
1.2	80	2.6	560	5.0	2,300
1.4	118	3.0	770	5.7	3,050
1.6	167	3.5	1,070	6.5	3,990
1.9	260	4.0	1,420		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	114	106	87	96	74	77	307	3,040	861	184	98
2	91	114	102	87	94	80	82	285	3,420	759	182	96
3	93	106	94	82	93	75	91	296	4,070	671	173	96
4	91	108	100	87	91	75	84	300	3,280	610	164	96
5	82	94	94	85	87	75	82	289	3,270	560	164	96
6	84	102	94	106	89	74	82	367	3,480	515	157	94
7	87	114	85	154	85	77	77	570	3,520	501	151	94
8	98	112	91	164	85	77	80	570	3,450	450	151	94
9	112	104	89	125	84	75	84	498	3,240	427	167	93
10	118	100	69	120	80	70	85	454	2,890	405	162	91
11	123	108	89	123	a76	74	84	450	2,610	401	157	89
12	112	98	84	108	a76	74	82	468	2,280	388	149	87
13	102	106	94	96	a86	74	82	655	2,230	359	144	85
14	96	102	91	98	82	77	85	710	1,960	338	136	84
15	96	102	89	108	82	75	94	759	1,820	311	130	84
16	274	102	85	104	78	74	123	969	1,650	292	127	82
17	311	93	87	106	80	75	205	1,340	1,500	278	127	84
18	187	100	87	114	87	75	224	1,660	1,420	271	120	89
19	157	94	87	110	82	75	208	2,200	1,390	271	123	93
20	144	78	85	110	78	70	234	2,160	1,320	264	127	89
21	144	89	84	110	78	74	285	2,090	1,480	250	120	85
22	139	67	87	108	85	77	346	2,040	1,280	237	116	84
23	132	82	82	104	78	78	342	1,840	1,140	224	116	89
24	123	104	77	100	77	78	323	2,050	1,060	215	123	93
25	120	106	77	91	78	77	307	2,580	981	208	123	98
26	118	108	75	a75	87	75	278	2,990	915	202	116	123
27	118	114	80	a80	84	72	274	3,460	855	205	112	112
28	114	98	89	a90	77	77	267	3,920	814	244	108	108
29	116	96	80	a95	74	78	315	3,610	776	237	106	106
30	123	108	72	100	-	78	315	2,910	748	212	102	98
31	116	-	63	98	-	77	-	2,720	-	193	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	3,917	311	82	126	0.592	0.68	7,770
November	3,023	114	67	101	.474	.53	6,000
December	2,668	106	63	86.1	.404	.47	5,290
Calendar year 1947	152,628	4,069	63	418	1.96	26.65	302,700
January	3,225	164	75	104	.488	.56	6,400
February	2,409	96	74	83.1	.390	.42	4,780
March	2,336	80	70	75.4	.354	.41	4,630
April	5,297	346	77	177	.831	.92	10,510
May	45,515	3,920	285	1,468	6.89	7.95	90,280
June	61,889	4,070	748	2,063	9.69	10.81	122,800
July	11,359	861	193	366	1.72	1.98	22,530
August	4,237	184	100	137	.643	.74	8,400
September	2,810	123	82	93.7	.440	.49	5,570
Water year 1947-48	148,685	4,070	63	406	1.91	25.96	295,000

Peak discharge (base, 1,800 sec.-ft.).- May 19 (10 p.m.) 2,490 sec.-ft.; May 27 (11:30 p.m.) 4,620 sec.-ft.; June 3 (9 a.m.) 4,330 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for South Fork Payette River near Lowman and Lake Fork Payette River above Jumbo Creek, near McCall.

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 1948.

Extremes.- Maximum discharge during year, 2,500 second-feet June 3 (gage height, 8.24 feet), by slope-area method; minimum not determined, occurred during winter period.
1943-48: Maximum discharge, that of June 3, 1948; minimum observed, 29 second-feet (discharge measurement) Jan. 30, 1945, but may have been less during periods of ice effect.

Remarks.- Records fair except those for period of ice effect, which are poor.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr	May	June	July	Aug.	Sept.
1	61	80					-	212	1,550	614	154	70
2	62	79						194	1,630	539	159	66
3	70	78						194	2,080	483	134	66
4	64	70		60				183	1,610	436	125	66
5	59	72						176	1,540	407	120	66
6	59	70						245	1,580	374	114	65
7	58	76						347	1,620	352	111	65
8	75	80	65				(*) 55	312	1,650	329	108	64
9	78	80						264	1,580	302	126	63
10	84	80		100				237	1,570	287	125	61
11	90	79						234	1,460	284	120	60
12	78	82		(*)				253	1,340	266	111	58
13	71	82						331	1,390	247	104	58
14	66	82			65			354	1,310	233	100	57
15	69	80				55		397	1,260	221	95	56
16	424	79						530	1,230	209	91	56
17	203	75						760	1,120	197	90	62
18	129	80		75			120	917	1,060	197	85	69
19	109	75						1,080	1,010	205	89	62
20	97	65						1,080	990	204	92	60
21	101	70						1,100	1,140	180	86	58
22	96	52						1,240	976	165	83	57
23	92	65	60					1,210	849	156	86	66
24	84	80						1,310	805	151	97	63
25	84	85			(*)		200	1,420	761	144	91	65
26	84	85						1,500	700	140	85	96
27	86	90		65				1,590	660	144	83	80
28	88	80					194	1,640	632	179	79	78
29	90	80					240	1,660	605	191	77	75
30	90	85			-		237	1,530	587	156	73	70
31	84	-			-		-	1,490	-	140	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,985	424	58	96.3	0.944	1.09	5,920
November	2,316	90	52	77.2	.757	.84	4,590
December	1,935	-	-	62.4	.612	.71	3,840
Calendar year 1947	70,039	1,450	-	192	1.88	25.53	138,900
January	2,315	-	-	74.7	.732	.84	4,590
February	1,885	-	-	65.0	.637	.69	3,740
March	1,705	-	-	55.0	.539	.62	3,380
April	3,496	-	-	117	1.15	1.27	6,930
May	23,990	1,660	176	774	7.59	8.75	47,580
June	36,295	2,080	587	1,210	11.9	13.23	71,990
July	8,132	614	140	262	2.57	2.96	16,130
August	3,165	159	72	102	1.00	1.15	6,280
September	1,958	96	56	65.3	.640	.71	3,880
Water year 1947-48	90,177	2,080	-	246	2.41	32.86	178,800

Peak discharge (base, 900 sec.-ft.).- June 3 (7:40 a.m.) 2,500 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 17 to Apr. 27. No gage-height record Dec. 27 to Jan. 11, Sept. 29, 30; discharge computed on basis of weather records and records for Warren Creek and other nearby streams.

Warren Creek near Warren, Idaho

Location.- Water-stage recorder, lat. 45°17', long. 115°42', in sec. 3, T. 22 N., R. 6 E., 100 feet downstream from bridge on Warren-McCall road, a tenth of a mile downstream from Steamboat Creek, and 1.3 miles northwest of Warren. Water-stage recorder at site 75 feet upstream at same datum Oct. 1, 1947, to May 25, 1948, and staff gage at present site and datum June 12 to Sept. 21, 1948.

Drainage area.- 37 square miles.

Records available.- February 1943 to September 1948.

Extremes.- Maximum discharge during year, 1,100 second-feet June 3 (gage height, 5.3 feet, site then in use, from floodmarks), by slope-area method; minimum 7.1 second-feet Mar. 26, 27.

1943-48: Maximum discharge observed, that of June 3, 1948; minimum, 4.2 second-feet Dec. 27, 1943 (gage height, 2.31 feet, site then in use).

Remarks.- Records good. No diversion or regulation above station. Staff gage read once daily June 12 to Sept. 21. Small amount of flow bypasses station through debris from dredging operation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	12	16	16	12	12	9.7	10	59	a580	a140	44	16
2	12	16	15	12	12	10	11	54	a640	a125	41	14
3	14	15	15	12	11	9.9	11	52	a750	a110	33	15
4	13	13	15	12	11	9.7	11	50	a600	a100	32	16
5	12	14	13	12	11	9.7	11	51	a560	a93	30	15
6	12	13	14	15	11	9.9	10	76	a600	86	26	15
7	12	15	12	35	10	10	11	109	a620	84	25	14
8	15	16	14	33	10	9.9	11	99	a600	74	25	14
9	16	16	13	18	9.9	9.7	11	86	a560	63	29	14
10	15	15	12	20	9.7	9.5	11	77	a500	65	28	13
11	16	15	13	21	9.7	9.5	11	71	a450	74	26	13
12	15	15	13	17	10	9.7	10	71	393	60	25	13
13	14	15	13	16	10	9.5	11	92	384	53	24	12
14	14	15	13	18	10	9.5	12	102	346	54	23	12
15	14	15	13	17	9.9	9.3	16	128	318	51	21	12
16	66	14	12	16	9.9	9.3	27	192	302	48	20	13
17	42	13	13	16	10	9.5	56	296	265	48	19	13
18	27	15	13	16	11	9.5	57	364	240	50	19	14
19	23	14	13	15	10	9.3	48	409	216	56	24	a15
20	20	12	12	14	11	9.5	54	432	216	48	20	13
21	21	12	12	14	10	9.5	72	427	235	44	19	12
22	20	11	12	14	11	9.5	88	450	198	39	20	a12
23	19	14	12	14	10	9.7	74	442	a180	33	23	a12
24	18	15	11	13	9.9	9.7	62	469	a165	34	20	a16
25	17	15	12	13	10	9.5	54	517	a155	34	20	20
26	17	21	11	12	10	9.5	48	a570	a140	34	18	21
27	17	21	12	12	10	9.7	45	a620	a135	39	17	18
28	17	16	12	a12	9.9	10	46	a680	a130	50	17	17
29	17	15	12	a12	9.7	11	62	a620	a125	41	17	16
30	17	18	11	a12	-	10	63	a580	a120	33	16	15
31	16	-	10	12	-	9.9	-	a550	-	32	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	580	66	12	18.7	0.505	0.58	1,150
November	450	21	11	15.0	.405	.45	893
December	394	16	10	12.7	.343	.40	781
Calendar year 1947	19,936.5	518	9.2	54.6	1.48	20.05	39,550
January	487	35	12	15.7	.424	.49	966
February	299.6	12	9.7	10.3	.278	.30	594
March	300.6	11	9.3	9.70	.262	.30	596
April	1,024	88	10	34.1	.922	1.03	2,030
May	8,795	680	50	284	7.68	8.84	17,440
June	10,723	750	120	357	9.65	10.78	21,270
July	1,908	140	32	61.5	1.66	1.92	3,780
August	736	44	15	23.7	.641	.74	1,460
September	435	21	12	14.5	.392	.44	863
Water year 1947-48	26,132.2	750	9.3	71.4	1.93	26.27	51,820

a No gage-height record; discharge computed on basis of weather records and records for nearby streams.

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, 3¼ miles northeast of Tamarack, and 5 miles upstream from mouth.

Drainage area.- 15.8 square miles.

Records available.- April 1937 to September 1940 (incomplete), September 1945 to September 1948.

Extremes.- Maximum discharge during year, 292 second-feet Apr. 17 (gage height, 4.31 feet); minimum, 1.4 second-feet Oct. 1, 2, Sept. 11-17; minimum gage height, 2.17 feet Oct. 1, 2.

1937-38, 1945-48: 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-feet during late summer of 1937.

Remarks.- Records good except those for Mar. 28 to Apr. 24, which are fair, and those for periods of ice effect or no gage-height record, which are poor. No diversion or regulation.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	3.9	5.2			7.0	12	116	44	9.1	4.4	1.9
2	1.4	3.7	5.2			*7.5	16	98	39	8.2	3.6	1.9
3	1.5	3.7	5.2			6.5	40	103	72	7.0	3.1	1.8
4	1.5	3.7	4.8	4.0		6.5	41	123	54	6.7	2.9	1.8
5	1.5	3.7	4.5			6.5	34	121	46	6.5	2.9	1.8
					5.0							
6	1.5	3.7	4.5			6.5	26	146	40	6.0	2.7	1.6
7	1.6	3.9	5.0			6.5	20	198	35	6.0	2.5	1.5
8	3.7	5.2	7.5			6.5	18	185	31	5.7	2.5	1.5
9	2.2	5.0	*6.2			6.2	21	151	28	5.4	2.5	1.5
10	6.2	4.5		20		5.5	22	127	26	5.2	2.5	1.5
11	5.0	4.0				5.5	22	110	24	5.4	2.5	1.4
12	2.7	4.0				6.0	20	108	22	5.2	2.3	1.4
13	2.5	4.0				6.0	22	121	22	4.7	2.3	1.4
14	2.4	4.0				6.0	31	136	19	4.4	2.3	1.4
15	2.5	4.0				6.0	47	136	18	4.2	2.2	1.4
16	16	3.9			4.5	5.5	109	140	19	4.2	2.0	1.4
17	7.3	3.9				5.5	242	159	18	4.2	2.2	1.9
18	5.0	3.9				5.5	246	157	18	4.2	2.2	2.3
19	4.3	3.5				5.2	198	153	18	4.2	2.3	1.8
20	3.9	3.3	4.0			5.2	196	136	16	4.2	2.3	1.6
21	5.7	3.5		8.0 (*)		5.2	217	124	14	4.0	2.3	1.5
22	4.5	3.0				6.0	242	145	14	3.8	2.2	1.5
23	3.9	3.5				10	219	126	12	3.6	2.7	1.9
24	3.9	5.0				15	173	118	11	3.4	3.1	1.8
25	3.7	4.5				16	142	112	10	3.4	2.9	1.9
					8.0							
26	3.4	4.5				11	116	107	9.4	3.1	2.5	4.2
27	3.4	4.5				9.0	100	99	8.8	3.4	2.3	2.9
28	3.2	4.5		5.0		8.8	97	88	8.2	4.2	2.2	2.2
29	4.3	4.5				9.7	130	76	7.3	4.0	2.2	1.9
30	5.0	4.5				11	138	64	7.6	3.6	2.0	1.8
31	4.1	-				11	-	52	-	3.8	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	119.2	16	1.4	3.85	0.244	0.28	236
November	121.5	5.2	3.0	4.05	.256	.29	241
December	136.1	7.5	-	4.39	.278	.32	270
Calendar year 1947	4,884.3	95	1.1	13.4	.848	11.49	9,690
January	314	-	-	10.1	.639	.74	623
February	163.5	-	-	5.64	.357	.38	324
March	234.7	16	5.2	7.57	.479	.55	466
April	2,957	246	12	98.6	6.24	.70	5,870
May	3,835	198	52	124	7.85	9.03	7,610
June	711.3	72	7.3	23.7	1.50	1.67	1,410
July	151.0	9.1	3.1	4.87	.308	.36	300
August	78.5	4.4	1.9	2.53	.160	.18	156
September	54.4	4.2	1.4	1.81	.115	.13	108
Water year 1947-48	8,876.2	246	1.4	24.3	1.54	14.63	17,610

Peak discharge (base, 100 sec.-ft.).- Apr. 17 (8 p.m.) 292 sec.-ft.; Apr. 22 (5 p.m.) 255 sec.-ft.; Apr. 29 (6 p.m.) 148 sec.-ft.; May 3 (10 p.m.) 157 sec.-ft.; May 7 (12 m.) 204 sec.-ft.; May 17 (12 p.m.) 167 sec.-ft.; May 22 (7 a.m.) 169 sec.-ft.; June 3 (8 a.m.) 119 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 6, 9-15, 17, Nov. 19 to Dec. 3, Dec. 5-8, Dec. 16 to Mar. 8, Mar. 10-14, 22-27 (no gage-height record Dec. 25 to Jan. 20, Jan. 24 to Mar. 1; discharge computed on basin of weather records and records for Weiser River at Starkey and other stations on nearby streams).

Grande Ronde River near Hilgard, Oreg.

Location.- Water-stage recorder, lat. 45°19', long. 118°16', near center of 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.
Drainage area.- 489 square miles.
Records available.- October 1945 to September 1948 in reports of Geological Survey. March 1937 to September 1945 in files of State engineer.
Average discharge.- 11 years, 262 second-feet.
Extremes.- Maximum discharge during year, 3,300 second-feet May 28 (gage height, 5.26 feet); minimum, 21 second-feet Oct. 5 (gage height, 0.77 foot).
1937-48: Maximum discharge, that of May 28, 1948; 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.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 7-25)

Oct. 1 to May 28

0.7	15	1.7	267	4.0	1,560
.8	24	2.0	373	4.6	2,330
1.0	54	2.5	570	5.1	3,060
1.2	107	3.0	800		
1.4	168	3.5	1,110		

May 29 to Sept. 30

0.9	19	1.3	87	2.0	340
1.0	29	1.5	149	2.5	555
1.1	43	1.7	221	3.0	800

Note.- Same as preceding table above 3.0 feet.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	37	619	149	b66	466	646	910	1,760	340	80	32
2	23	40	562	190	b65	395	866	822	1,870	308	77	a30
3	23	39	474	178	b63	330	922	822	1,950	288	75	29
4	23	34	392	174	b62	240	760	998	2,480	272	80	30
5	22	39	*344	159	b61	267	637	946	1,960	312	104	30
6	22	40	302	380	59	278	590	1,070	1,810	276	90	30
7	29	52	260	1,760	59	243	542	1,670	1,650	264	63	29
8	34	107	247	*1,440	b58	230	510	1,740	1,550	233	57	28
9	40	*101	233	795	b56	220	624	1,800	1,440	214	55	28
10	36	96	194	558	54	134	745	1,640	1,360	195	68	28
11	47	116	b180	470	b53	165	664	1,550	1,170	191	57	27
12	42	110	165	377	b52	197	554	1,470	1,010	180	49	26
13	36	119	b155	190	b50	178	570	2,060	926	163	47	26
14	33	119	b145	b185	49	178	750	2,020	874	152	45	26
15	30	134	b140	b175	56	174	1,290	1,730	797	142	45	26
16	33	187	131	b165	69	178	2,040	1,770	762	136	43	26
17	44	197	187	162	96	178	2,440	2,020	702	129	42	27
18	36	270	194	146	220	187	2,130	1,920	735	132	40	29
19	32	236	226	b125	162	162	1,920	2,160	933	123	39	29
20	34	210	207	152	*113	152	2,120	2,110	843	132	40	29
21	52	178	181	200	162	156	2,260	2,220	958	119	39	28
22	51	122	187	178	606	187	2,150	2,970	872	110	42	27
23	42	b135	181	203	418	210	1,860	2,910	795	104	47	30
24	39	146	162	210	320	250	1,500	2,720	715	102	59	35
25	34	*156	125	171	334	295	1,220	2,700	635	93	55	37
26	34	373	125	93	1,190	281	1,070	2,750	573	87	49	42
27	36	558	156	72	934	334	910	2,980	510	87	49	40
28	39	474	171	b71	655	466	866	2,990	456	104	43	40
29	42	377	149	b70	534	619	1,030	2,340	412	96	42	40
30	42	380	134	b68	-	770	977	1,930	376	87	39	37
31	39	-	101	b67	-	619	-	1,850	-	82	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,093	52	22	35.3	2,170
November	5,182	558	34	173	10,280
December	7,029	619	101	227	13,940
Calendar year 1947	85,076	1,100	15	233	168,800
January	9,333	1,760	67	301	18,510
February	6,676	1,190	49	230	13,240
March	8,739	770	134	282	17,330
April	35,163	2,440	510	1,172	69,740
May	59,588	2,990	822	1,922	118,200
June	32,884	2,480	376	1,096	65,220
July	5,253	340	82	169	10,420
August	1,697	104	37	54.7	3,370
September	921	42	26	30.7	1,830
Water year 1947-48	173,558	2,990	22	474	344,200

Peak discharge (base, 1,500 sec.-ft.).- Jan. 7 (5 p.m.) 2,600 sec.-ft.; Feb. 26 (10:30 a.m.) 1,510 sec.-ft.; Apr. 17 (3 a.m.) 2,600 sec.-ft.; May 13 (9 a.m.) 2,250 sec.-ft.; May 28 (3:30 a.m.). 3,300 sec.-ft.; June 4 (4 a.m.) 2,970 sec.-ft.

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

Grande Ronde River at La Grande, Oreg.

Location.- Water-stage recorder, lat. 45°21', long. 118°08', in sec. 36, 2 S., R. 37 E., 2 miles northwest of La Grande and 4 miles downstream from Fivepoint Creek. Datum of gage is 2,831.25 feet above mean sea level, datum of 1929.

Drainage area.- 678 square miles.

Records available.- February 1918 to June 1923, October 1925 to September 1948. November 1903 to September 1915 at Hilgard, 4 miles upstream.

Average discharge.- 34 years (1905-9, 1910-11, 1912-15, 1918-20, 1921-22, 1925-48), 356 second-feet.

Extremes.- Maximum discharge during year, 4,620 second-feet May 22 (gage height, 7.04 feet); minimum, 25 second-feet Oct. 5.

1903-15, 1918-23, 1925-48: Maximum discharge, 8,860 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 periods of ice effect, which are poor. Some discharge measurements made at cable 3 miles above station. Small diversions above station for irrigation.

Revisions (water year).- W 768: 1933.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 22

1.5	18	2.3	175	4.4	1,470
1.6	27	2.6	290	5.1	2,190
1.7	40	2.9	435	5.9	3,150
1.9	72	3.3	650	6.9	4,440
2.1	116	3.8	980		

May 23 to Sept. 30

1.6	23
1.7	34
1.9	68
2.1	116

Note.- Same as preceding table above 2.1 feet.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	48	1,000	234	b160	730	1,030	1,380	2,160	420	89	38
2	28	50	931	286	b155	644	1,410	1,240	2,240	375	86	37
3	27	51	736	290	b155	534	1,530	1,230	2,280	340	82	34
4	27	50	595	278	b150	405	1,260	1,500	2,790	317	84	34
5	26	51	*529	250	b145	430	1,030	1,410	2,260	360	106	34
6	26	56	465	490	b140	450	938	1,560	2,080	330	104	34
7	31	70	400	2,080	b135	395	847	2,360	1,920	312	75	33
8	40	159	375	*2,080	b135	375	820	2,490	1,790	274	66	32
9	47	169	350	1,190	b130	360	994	2,680	1,720	250	62	32
10	43	153	294	834	b130	238	1,260	2,450	1,630	230	75	31
11	51	182	b275	686	b125	270	1,130	2,290	1,430	226	70	30
12	50	182	258	573	b120	317	917	2,160	1,280	214	60	28
13	46	186	b240	335	b120	290	924	2,770	1,140	192	53	27
14	40	186	b230	b320	b120	294	1,230	2,790	1,090	182	51	26
15	36	200	b220	b310	b130	278	2,080	2,470	991	169	49	26
16	37	258	206	b300	b150	290	2,950	2,530	964	156	48	26
17	47	278	262	b290	210	304	3,310	2,810	869	149	46	28
18	46	395	270	b270	405	322	3,080	2,660	904	149	44	30
19	39	360	330	b250	390	286	2,770	3,020	1,170	149	43	31
20	39	322	299	b300	*b185	258	2,980	3,000	1,050	153	44	31
21	59	274	274	365	252	262	3,190	3,000	1,240	138	43	31
22	61	203	282	330	1,030	282	3,070	4,350	1,150	124	43	30
23	53	b205	270	326	704	317	2,750	4,240	1,030	119	49	32
24	48	b210	246	326	534	400	2,210	3,770	917	111	60	36
25	44	*218	200	290	518	485	1,840	3,750	814	106	62	38
26	43	485	178	196	2,190	455	1,590	3,750	723	98	55	46
27	43	788	222	186	1,700	556	1,380	3,820	650	98	53	46
28	47	662	270	b180	1,110	782	1,270	3,730	573	119	48	43
29	54	551	258	b175	868	1,060	1,520	2,940	518	116	44	44
30	54	573	234	b170	-	1,340	1,470	2,460	465	104	40	40
31	51	-	186	b165	-	1,030	-	2,310	-	91	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,313	61	26	42.4	2,600
November	7,575	788	48	252	15,020
December	10,885	1,000	178	351	21,590
Calendar year 1947	126,327	1,720	16	346	250,600
January	14,355	2,080	165	463	28,470
February	12,186	2,190	120	420	24,170
March	14,439	1,340	238	466	28,640
April	52,780	3,310	820	1,759	104,700
May	82,920	4,350	1,230	2,675	164,500
June	39,838	2,790	465	1,328	79,020
July	6,171	420	91	199	12,240
August	1,872	108	38	60.4	3,710
September	1,008	46	26	33.6	2,000
Water year 1947-48	245,342	4,350	26	670	486,700

Peak discharge (base, 1,900 sec.-ft.).- Jan 7 (7 to 8 p.m.) 3,230 sec.-ft.; Feb. 26 (1 p.m.) 2,870 sec.-ft.; Apr. 18 (12:30 a.m.) 3,440 sec.-ft.; May 9 (3 a.m.) 2,860 sec.-ft.; May 22 (9 p.m.) 4,620 sec.-ft.; June 4 (5 a.m.) 3,190 sec.-ft.

* Winter discharge measurement made on this day.

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 2,281.87 feet (revised) above mean sea level, datum of 1929.
Drainage area.- 2,555 square miles.
Records available.- October 1926 to September 1948.
Average discharge.- 22 years, 1,967 second-feet.
Extremes.- Maximum discharge during year, 19,900 second-feet May 28 (gage height, 9.76 feet); minimum, 517 second-feet Sept. 14, 15 (gage height, 1.16 feet).
1926-48: Maximum discharge, that of May 28, 1948; minimum, 225 second-feet Dec. 19, 1935.
Remarks.- Records good except those for period of doubtful gage-height record, which are fair, and those for period of no gage-height record, which are poor. Many diversions above station for irrigation. Flow slightly regulated by Wallowa Lake Reservoir.
Revisions (water years).- W 1093: 1927-29, 1932-33, 1936, 1938, 1939(M), 1943.

Rating tables, water year 1947-48 (gage height, in feet, and discharge, in second-feet.

Oct. 1 to May 27

1.3	545	3.0	2,430	6.0	8,520
1.6	780	3.5	3,280	7.5	12,700
1.9	1,050	4.0	4,200	9.4	18,700
2.2	1,360	4.5	5,160		
2.6	1,840	5.0	6,170		

May 28 to Sept. 30

1.1	475	2.6	1,970
1.3	620	3.4	3,140
1.6	865	4.0	4,200
2.0	1,250		

Note.- Same as preceding table above 4.0 feet.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	587	1,020	2,640	1,200	1,220	3,530	3,190	5,380	12,700	5,400	1,210	676
2	601	1,020	2,830	1,360	1,160	3,140	3,770	5,040	13,500	4,730	1,230	660
3	704	978	2,880	1,510	1,040	2,710	4,280	5,080	14,000	4,100	1,160	620
4	729	969	2,640	1,610	1,080	2,370	4,050	5,640	13,000	3,710	1,100	612
5	647	951	2,400	1,550	1,030	2,160	3,750	5,340	12,500	3,540	1,060	612
6	679	951	2,180	2,200	1,020	2,120	3,590	5,580	13,100	3,250	1,030	598
7	687	1,090	1,980	5,200	915	2,040	a3,500	7,520	13,400	3,120	1,010	590
8	843	1,670	1,840	5,300	1,000	1,920	a3,400	7,520	13,800	2,880	984	590
9	843	1,630	1,750	4,430	978	1,850	a3,300	7,540	13,800	2,720	955	582
10	879	1,490	1,630	3,860	960	1,650	a3,600	7,470	13,400	2,620	937	568
11	951	1,550	1,580	3,350	825	1,520	a3,600	7,260	12,100	2,620	937	545
12	879	1,510	1,480	2,760	789	1,570	a3,600	6,960	10,700	2,610	910	538
13	834	1,510	1,450	2,090	942	1,540	a3,500	7,420	9,760	2,420	848	524
14	834	1,510	1,420	1,760	924	1,610	a3,500	7,520	9,300	2,270	d806	524
15	825	1,550	1,390	1,650	1,020	1,610	a4,000	7,540	9,510	2,140	d780	524
16	1,490	1,570	1,380	1,570	1,040	1,610	a6,000	7,880	9,000	2,020	d756	531
17	1,510	1,610	1,490	1,510	1,260	1,600	a6,400	8,980	8,080	1,920	d740	531
18	1,190	1,800	1,630	1,470	1,450	1,690	a6,600	8,900	7,550	1,840	d700	538
19	1,090	1,790	1,740	1,330	1,440	1,630	a6,400	11,200	7,760	1,830	d676	552
20	1,070	1,690	1,700	1,330	1,370	1,570	a7,000	12,000	7,810	1,800	660	552
21	1,360	1,570	1,640	1,390	1,870	1,550	a7,400	12,000	8,320	1,700	660	545
22	1,180	1,360	1,590	1,480	4,850	1,880	a7,700	13,000	7,540	1,600	644	545
23	1,120	1,290	1,550	1,740	3,620	1,900	7,810	13,300	6,940	1,530	668	598
24	1,060	1,270	1,480	1,880	3,020	2,050	7,230	14,500	6,730	1,470	724	598
25	1,020	1,250	1,380	1,710	2,760	2,160	6,670	15,600	6,510	1,400	716	598
26	1,000	1,450	1,280	1,400	5,980	2,050	6,000	16,500	6,040	1,320	708	605
27	1,010	2,020	1,260	1,200	5,460	2,080	5,500	17,800	5,780	1,260	724	612
28	1,040	2,210	1,300	1,130	4,560	2,290	5,120	18,500	5,820	1,320	724	605
29	1,050	2,150	1,360	1,140	3,970	2,790	5,420	15,500	5,700	1,330	740	612
30	1,060	2,150	1,330	1,270	-	3,330	5,460	13,300	5,700	1,260	724	605
31	1,020	-	1,160	1,190	-	3,240	-	12,500	-	1,210	692	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	29,792	1,510	587	961	59,090
November	44,579	2,210	951	1,486	88,420
December	53,360	2,880	1,160	1,721	105,800
Calendar year 1947	807,860	8,940	451	2,213	1,602,000
January	62,570	5,300	1,130	2,018	124,100
February	57,553	5,980	789	1,985	114,200
March	64,760	3,530	1,520	2,089	128,500
April	151,340	7,810	3,190	5,045	300,200
May	310,270	18,500	5,040	10,010	615,400
June	289,850	14,000	5,700	9,662	574,900
July	72,940	5,400	1,210	2,353	144,700
August	26,213	1,230	644	846	51,990
September	17,390	676	524	580	34,490
Water year 1947-48	1,180,617	18,500	524	3,226	2,342,000

Peak discharge (base, 5,000 sec.-ft.).- Jan. 7 (4 p.m.) 6,130 sec.-ft.; Feb. 22 (5 a.m.) 6,170 sec.-ft.; Feb. 26 (2 p.m.) 7,140 sec.-ft.; Apr. 22 or 23 (time and discharge unknown); May 28 (2 a.m.) 19,900 sec.-ft.

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

d Doubtful gage-height record; discharge computed on basis of change in stage when inlets were cleared on Aug. 19, 1 discharge measurement, and records for station at Troy.

Note.- Figures of daily discharge July 5-31 supersede those published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin."

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.
Drainage area.- 3,275 square miles.
Records available.- August 1944 to September 1948.
Extremes.- Maximum discharge during year, 23,600 second-feet May 27 (gage height, 22.15 feet, from floodmark); minimum daily, 680 second-feet Sept. 15-18.
1944-48: Maximum discharge observed, 30,000 second-feet Dec. 15, 1946 (gage height. 23.20 feet); minimum observed, 470 second-feet Sept. 11, 1944.
Remarks.- Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. 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 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 21

14.9	700	16.0	2,090	18.0	6,300
15.3	1,100	16.5	2,890	19.0	9,260
15.7	1,640	17.0	3,840	20.0	13,000

Feb. 22 to Sept. 30

14.2	690	16.5	3,190	20.0	13,000
14.8	1,110	17.0	4,100	21.0	17,400
15.3	1,540	18.0	6,310	22.0	22,800
15.9	2,260	19.0	9,260		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	772	1,410	3,300	1,670	b1,750	5,450	5,140	8,090	14,700	a7,000	1,440	a810
2	800	1,360	3,590	1,610	b1,700	4,960	5,820	7,670	15,700	6,880	1,500	a790
3	950	1,340	3,710	2,150	b1,500	4,380	7,380	7,160	16,400	6,570	a1,450	a780
4	970	1,280	3,370	2,180	b1,600	3,800	6,310	d8,500	15,000	6,310	a1,400	a760
5	890	1,230	3,100	2,200	b1,500	3,580	5,820	8,280	14,700	5,640	a1,350	a740
6	920	1,270	2,860	2,460	b1,500	3,470	5,590	a8,800	a15,300	4,060	a1,300	a740
7	930	1,320	2,670	10,700	b1,300	3,320	5,270	12,300	15,300	3,580	a1,260	a740
8	1,000	2,460	2,560	10,000	b1,400	3,190	5,140	12,000	15,500	3,500	a1,220	a730
9	1,100	2,670	2,400	7,380	b1,350	3,120	4,920	11,900	16,000	3,360	a1,200	a720
10	1,090	2,160	2,180	6,040	b1,300	2,960	5,680	11,600	15,000	3,290	a1,160	a720
11	1,210	2,270	2,150	5,220	b1,200	2,800	5,540	11,200	14,400	3,190	a1,150	a710
12	1,120	2,220	*2,090	4,290	b1,150	2,670	5,450	10,900	14,000	3,020	a1,120	a710
13	1,100	2,150	2,030	3,630	b1,300	2,640	5,230	11,800	11,200	2,830	a1,100	a700
14	1,060	2,220	1,980	2,920	b1,300	2,670	5,270	11,300	11,200	2,700	a1,080	a690
15	1,080	2,300	1,920	2,800	b1,450	2,700	6,520	11,100	11,500	2,490	a1,040	a680
16	1,250	2,290	1,940	b2,650	b1,550	2,700	10,700	12,000	11,300	2,290	a1,040	a680
17	2,040	2,240	2,020	b2,500	1,800	2,700	11,000	12,700	10,500	2,120	1,020	a680
18	1,560	2,640	* 2,400	b2,300	2,210	2,730	11,400	12,600	9,600	2,070	a980	a680
19	1,380	2,640	2,700	b2,100	2,370	2,760	10,700	16,300	9,670	1,990	a960	a690
20	1,310	2,460	2,590	b1,900	2,120	2,670	11,400	17,300	9,810	1,940	a940	a700
21	1,640	2,240	2,420	b2,000	2,240	2,700	11,800	17,400	10,400	1,920	a900	a710
22	1,610	2,090	2,380	2,060	9,780	2,730	12,100	17,600	9,330	1,850	a880	a720
23	1,450	1,860	2,210	2,480	6,280	3,190	12,200	16,700	8,670	1,800	a870	a730
24	1,390	1,720	2,150	2,890	4,960	3,220	10,700	18,000	8,280	1,730	a900	a740
25	1,350	1,730	2,060	2,690	4,420	3,290	9,600	19,500	8,030	1,710	a880	a750
26	1,320	1,830	1,880	b2,200	6,060	3,400	8,600	20,900	7,670	1,660	a880	a780
27	1,350	2,290	1,790	*b1,900	8,930	3,400	8,090	22,800	7,440	1,620	a890	a770
28	1,280	2,870	1,760	b1,800	7,160	4,100	7,440	22,200	7,270	1,600	a900	a770
29	1,320	2,940	1,850	b1,750	6,060	4,300	7,670	18,700	6,830	1,560	a900	a770
30	1,420	2,790	1,800	b1,900	-	5,230	7,970	a16,000	7,160	1,520	a870	a770
31	1,410	-	1,640	b1,800	-	5,100	-	a15,000	-	1,480	a840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	38,072	2,040	772	1,228	75,510
November	62,290	2,940	1,230	2,076	123,600
December	73,500	3,710	1,640	2,371	145,800
Calendar year 1947	1,074,379	11,300	592	2,944	2,131,000
January	100,170	10,700	1,610	3,231	198,700
February	87,240	9,780	1,150	3,008	173,000
March	105,930	5,450	2,640	3,417	210,100
April	236,450	12,200	4,920	7,882	469,000
May	428,300	22,800	7,160	13,820	849,500
June	347,860	16,400	6,830	11,600	690,000
July	93,280	7,000	1,480	3,009	185,000
August	33,420	1,500	840	1,078	66,290
September	21,940	810	680	731	43,520
Water year 1947-48	1,628,452	22,800	680	4,449	3,230,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station at Rondowa.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed as explained in footnote a.

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 1948.

Average discharge.- 24 years (1911-12, 1918-19, 1925-44, 1945-48), 119 second-feet.

Extremes.- Maximum discharge during year, 1,740 second-feet May 27 (gage height, 4.57 feet); minimum, 28 second-feet Oct. 1, 2, 4, 5, 7, Nov. 22.
1906-7, 1911-12, 1915, 1918-19, 1925-48: Maximum discharge, that of May 27, 1948; minimum recorded, 4 second-feet Nov. 26, 27, 1930.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. A few small diversions above station for irrigation and some water diverted into Big Creek, in Powder River Basin.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	41	143	90		53	94	277	940	255	70	a40
2	32	43	131	90		52	118	255	1,070	222	67	a40
3	40	40	121	64		50	151	264	1,100	202	63	39
4	30	39	103	53		52	149	280	1,040	185	61	39
5	28	39	*90	51		52	133	277	1,040	178	59	39
6	32	38	82	76		48	121	356	1,030	163	57	39
7	31	53	76	b100		47	108	492	984	157	56	39
8	52	*70	71	*b140		47	102	452	978	147	55	38
9	36	54	67	b125		47	107	412	943	135	53	37
10	53	52	62	117	b40	b40	114	372	870	120	53	36
11	50	54	60	103		b45	112	360	762	13[illegible]	53	35
12	41	53	59	86		49	107	352	638	121	51	34
13	37	52	58	b85		46	107	412	582	121	51	34
14	35	51	54	b84		48	125	474	551	114	51	33
15	35	53	54	b82		47	183	500	536	110	50	33
16	52	52	52	b80		47	330	630	493	103	49	32
17	43	52	55	b78		49	448	794	437	100	47	33
18	39	54	54	76		51	436	772	407	103	46	34
19	37	51	54	b75		51	416	1,070	397	93	46	32
20	38	50	53	b73	*39	50	469	1,090	389	97	46	32
21	47	45	54	b70	38	49	555	1,080	443	90	45	32
22	42	46	54	b80	49	51	570	1,170	385	8[illegible]	45	32
23	41	b47	54	93	47	52	478	1,160	357	81	46	36
24	38	b48	53	68	46	56	388	1,260	343	81	48	33
25	39	*50	51	68	47	59	316	1,400	326	75	46	33
26	41	78	50	b56	52	*59	267	1,450	303	74	46	33
27	43	102	53	b55	54	63	235	1,500	291	77	45	33
28	42	98	53	b54	54	72	230	1,390	282	91	43	33
29	44	95	53	b52	54	86	312	1,030	276	81	a42	32
30	43	112	47	b50	-	96	312	863	267	74	a42	32
31	41	-	60	b49	-	92	-	813	-	63	a41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,230	53	28	39.7	2,440
November	1,712	112	38	57.1	3,400
December	2,081	143	47	67.1	4,130
Calendar year 1947	44,173	732	25	121	87,630
January	2,423	140	49	78.2	4,810
February	1,240	54	-	42.8	2,460
March	1,706	96	10	55.0	3,380
April	7,593	570	94	253	15,060
May	23,007	1,500	255	742	45,630
June	18,460	1,100	267	615	36,610
July	3,746	255	68	121	7,430
August	1,573	70	41	50.7	3,120
September	1,047	40	32	34.9	2,080
Water year 1947-48	65,818	1,500	28	180	130,600

Peak discharge (base, 500 sec.-ft.).- Apr. 22 (1:30 a.m.) 620 sec.-ft.; May 7 (4 to 8 a.m.) 518 sec.-ft.; May 27 (8 to 9 p.m.) 1,740 sec.-ft.; June 2 (10 p.m.) 1,240 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Grande Ronde River near Hilgard and at La Grande and Powder River at Salisbury.

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 1948 in reports of Geological Survey. March 1938 to September 1945 (incomplete) in files of Oregon State engineer.

Extremes.- Maximum discharge during year, 818 second-feet May 27, from rating curve extended above 270 second-feet; maximum gage height, 3.58 feet sometime during period Jan. 10-21 (ice jam); minimum discharge, 4.0 second-feet Sept. 21, 22 (gage height, 0.63 foot).

1938-48: Maximum discharge, that of May 27, 1948; maximum gage height, 4.09 feet sometime during period Jan. 4-7, 1947 (ice jam); minimum discharge, 0.1 second-foot Nov. 15, 1939 (gage height, 0.05 foot).

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

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 20 to Nov. 20, May 22-28)

Oct. 1 to May 27

1.2	4.0	1.7	21	2.6	270
1.3	5.0	1.8	29	2.8	405
1.4	7.0	2.0	53	3.2	720
1.5	10	2.2	100		
1.6	15	2.4	170		

May 28 to Sept. 30

0.6	3.4	1.1	21	2.3	205
.7	5.4	1.3	34	2.6	320
.8	8.2	1.5	53	2.9	500
.9	12	1.7	80	3.1	645
1.0	16	2.0	130		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	10	32			17	8.2	46	360	119	15	6.5
2	4.8	10	b27			16	9.7	43	432	105	15	6.2
3	6.2	9.7	b25			16	12	43	438	92	14	6.0
4	4.8	8.2	22			b14	11	42	390	83	14	6.0
5	4.5	8.2	20			b13	10	39	395	80	13	6.0
6	6.6	7.6	*19		b7	12	9.4	50	398	73	13	5.7
7	5.4	11	b18			11	9.4	72	412	70	12	5.4
8	16	23	b17			10	8.8	72	451	63	12	5.2
9	8.5	17	b16			10	9.4	66	466	57	11	5.0
10	14	14	b15			b9.5	9.4	61	415	52	11	5.0
11	13	13	b14		6.6	b9.5	9.1	59	336	50	11	4.8
12	9.1	12	b14		6.4	b9.0	8.8	59	289	45	10	4.8
13	7.9	13	b13		6.4	8.5	9.4	87	255	40	10	4.6
14	6.8	13	b12		6.2	8.5	12	90	238	37	10	4.4
15	6.4	12	b12		6.2	8.2	20	97	230	35	10	4.2
16	6.6	9.4	b11	b9	6.0	7.9	35	130	213	32	9.3	4.2
17	6.6	9.4	b12		6.2	7.6	55	187	194	30	9.0	4.6
18	6.4	9.7	9.7		6.6	7.6	50	218	185	30	9.0	4.8
19	6.0	9.1	9.4		6.4	7.6	45	303	190	28	8.6	4.4
20	6.4	8.8	9.1		6.0	7.3	53	299	183	26	8.6	4.2
21	9.4	b8.6	9.4		b7.0	7.0	68	275	229	24	8.2	4.0
22	7.3	b8.5	9.4		b8.0	7.3	77	364	205	22	8.2	4.4
23	7.6	b8.5	8.8		b9.0	7.3	74	382	178	21	8.6	7.6
24	7.0	b9.0			10	7.3	61	400	165	20	11	6.0
25	6.4	b11			9.7	7.3	53	444	155	18	9.3	5.2
26	6.4	19			b30	7.0	46	537	144	18	8.2	5.0
27	7.0	22	b9		b25	7.0	40	665	136	17	8.2	5.0
28	7.9	20			23	7.6	42	637	134	19	7.6	4.8
29	9.7	19			b19	9.1	52	460	132	20	7.4	4.6
30	9.7	25			-	9.1	49	359	130	18	7.1	4.4
31	10	-			-	8.5	-	341	-	16	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	238.9	16	4.5	7.71	0.350	0.40	474
November	378.7	25	7.6	12.6	.573	.64	751
December	426.8	32	-	13.8	.627	.72	847
Calendar year 1947	16,758.4	430	3.4	45.9	2.09	28.34	33,220
January	279	-	-	9.0	.409	.47	553
February	273.7	30	-	9.44	.429	.46	543
March	291.7	17	7.0	9.41	.428	.49	579
April	956.6	77	8.2	31.9	1.45	1.62	1,900
May	6,927	665	39	223	10.1	11.71	13,740
June	8,078	466	130	269	12.2	13.66	16,020
July	1,360	119	16	43.9	2.00	2.30	2,700
August	316.1	15	6.8	10.2	.464	.53	627
September	153.0	7.6	4.0	5.10	.232	.26	303
Water year 1947-48	19,679.5	665	4.0	53.8	2.45	33.26	39,040

Peak discharge (base, 250 sec.-ft.).- May 27 (9 p.m. and 11 p.m.) 818 sec.-ft.; June 8 (6 p.m.) 570 sec.-ft.; June 21 (11 a.m. to 12 m.) 255 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Jan. 11-20, Apr. 15-19; 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 SE¼ (corrected) sec. 29, T. 3 S., R. 45 E., a quarter of a mile upstream from confluence with West Fork, 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 1948.

Average discharge.- 24 years, 12.2 second-feet.

Extremes.- Maximum discharge during year, 171 second-feet June 8 (gage height, 2.70 feet), from rating curve extended above 87 second-feet by logarithmic plotting; minimum observed, 0.5 second-foot Feb. 11, Mar. 31, Apr 1 (gage height, 0.58 foot)

1924-48: 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 Dec. 7, 1929, Nov. 1, 6, 1935.

Remarks.- Records poor. Gage read twice daily. Wallowa Falls power plant of Pacific Power & Light Co. diverts water 1 mile above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	3.5	2.0	0.7	a.7	0.6	0.6	2.5	63	71	18	7.4
2	2.9	3.7	1.6	.7	a.7	a.6	1.2	2.2	78	66	16	7.2
3	3.7	2.9	*2.9	.7	a.7	a.6	a1.2	1.9	75	60	16	6.9
4	3.3	3.3	2.7	.7	a.7	a.6	a1.2	2.4	83	50	15	6.6
5	2.0	2.5	3.3	a1.0	a1.7	a.6	a1.2	2.2	94	50	13	7.2
6	1.9	2.5	3.5	5.0	a.7	a.6	a1.2	4.5	102	55	13	6.9
7	1.8	3.1	b2.8	5.5	a.6	a.6	a.6	7.2	116	52	13	6.6
8	2.4	3.3	b.8	3.7	.6	a.6	a.6	4.3	154	50	11	6.1
9	1.9	3.7	b.8	4.3	.8	a.6	a.6	3.7	149	50	13	5.5
10	2.4	2.7	b.8	b4.0	.8	a.6	a.6	4.1	a148	48	13	6.1
11	3.5	2.5	a.8	b3.7	.6	a.6	a.6	4.1	132	49	13	6.1
12	1.9	2.5	a.8	a3.4	.6	a.6	a.6	3.3	120	49	13	6.4
13	2.5	2.5	a.8	a3.0	.6	a.6	.6	3.7	115	48	12	6.1
14	2.2	2.4	a.8	a2.7	.6	a.6	.6	2.2	119	48	12	5.5
15	2.4	2.4	1.0	a2.0	b1.2	a.6	2.5	3.5	130	46	11	5.5
16	42	2.4	1.0	a1.3	.8	a.6	2.7	13	120	44	9.7	5.8
17	8.4	2.4	.9	a.6	a.9	a2.6	6.4	15	123	43	9.7	6.1
18	5.0	2.4	.9	a.6	.9	a.6	2.4	15	120	42	11	13
19	5.5	2.4	1.1	a.6	1.2	a.6	2.0	17	138	40	10	a11
20	3.7	*b2.0	3.5	a.6	.8	a.6	2.5	19	123	38	9.0	4.1
21	2.7	b1.4	1.9	a.7	1.2	.8	2.9	17	94	38	9.7	4.1
22	3.7	b.7	.7	a.7	a1.2	a.7	3.3	20	78	35	10	5.5
23	3.3	b1.2	.6	.7	a.6	a.7	2.2	25	76	33	8.4	5.5
24	3.7	a1.6	.6	1.4	.6	a.7	2.4	32	76	34	9.0	6.1
25	3.7	1.9	a.6	1.5	.8	.6	2.2	44	76	31	7.7	6.1
26	4.1	2.5	2.5	a1.0	2.5	.6	1.8	46	81	30	8.4	7.7
27	4.1	2.5	2.2	a.7	a1.0	.6	1.9	54	84	30	8.4	5.5
28	4.1	3.1	a1.0	a.7	a1.0	.6	2.2	73	84	29	7.7	5.5
29	3.9	5.3	a1.0	a.7	.6	.6	5.0	54	81	25	6.4	5.0
30	3.7	4.5	.9	a.7	-	a.6	2.2	56	88	19	7.7	5.5
31	3.7	-	1.4	a.7	-	.6	-	56	-	18	7.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	142.1	42	1.8	4.58	282
November	79.8	5.3	.7	2.66	158
December	46.2	3.5	.6	1.49	92
Calendar year 1947	3,915.0	70	.6	10.7	7,760
January	54.3	5.5	.6	1.75	108
February	25.7	2.5	.6	.89	51
March	21.1	2.6	.6	.68	42
April	56.0	6.4	.6	1.87	111
May	607.8	73	1.9	19.6	1,210
June	3,120	154	63	104	6,190
July	1,321	71	18	42.6	2,620
August	342.5	18	6.4	11.0	679
September	192.6	13	4.1	6.42	382
Water year 1947-48	6,009.1	154	.6	16.4	11,920

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Hurricane Creek near Joseph.
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 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 1948.

Average discharge.- 24 years, 7.90 second-feet.

Extremes.- Maximum daily discharge during year, 15 second-feet Sept. 10; maximum gage height observed, 0.72 foot June 23; no flow many times when power plant was shut down. 1924-48: Maximum daily discharge, that of Sept. 10, 1948; no flow at times.

Remarks.- Records poor. Gage read hourly. Flow regulated for impulse wheel in power-house. Water diverted at dam on East Fork Wallowa River into conduit 1 mile above powerhouse and discharged into West Fork a quarter of a mile below station.

Rating table, water year 1947-48 (gage height, in feet, and discharge, in second-feet)

0.31	4.6
.40	6.7
.50	9.4
.60	12
.70	15

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	13	11	11	11	10	13	13	13	12	13
2	12	12	12	12	11	12	11	12	12	11	13	13
3	12	12	12	12	11	11	11	13	12	11	13	13
4	12	12	12	12	11	12	11	12	13	11	13	13
5	12	12	12	13	11	11	11	13	12	10	12	11
6	12	12	12	13	12	12	11	13	11	12	12	12
7	12	13	12	13	11	11	11	13	11	12	12	13
8	12	13	13	12	11	11	11	13	13	12	12	13
9	12	12	12	12	12	11	11	14	8.3	12	12	13
10	12	13	12	12	11	11	11	14	9.7	13	13	15
11	12	13	13	13	12	11	11	14	12	12	13	13
12	12	12	13	12	11	11	11	14	12	13	12	12
13	12	13	13	13	10	11	11	14	12	12	13	13
14	12	13	12	12	10	11	11	14	12	13	13	12
15	12	13	12	12	10	11	12	14	12	13	12	13
16	12	12	12	12	11	11	13	14	12	12	12	13
17	12	13	12	12	11	9.0	12	14	13	12	13	13
18	12	13	12	12	11	11	12	14	14	10	13	6.3
19	12	13	12	12	11	11	13	14	13	13	12	7.6
20	12	13	12	12	11	11	13	14	12	12	13	13
21	12	13	12	11	11	11	13	14	12	11	12	13
22	12	13	12	12	11	11	13	14	12	13	10	13
23	12	13	12	12	11	11	13	14	13	13	13	13
24	12	13	11	11	11	11	13	14	13	12	13	13
25	13	13	12	12	11	11	12	14	13	11	13	13
26	12	13	12	12	12	11	12	13	13	9.6	13	11
27	12	13	11	11	12	11	12	13	11	11	14	13
28	12	12	12	12	12	11	12	4.0	12	12	14	13
29	12	12	12	11	11	11	13	12	11	12	12	13
30	12	12	12	11	-	11	13	12	13	13	13	13
31	12	-	a12	11	-	11	-	13	-	12	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	373	13	12	12.0	740
November	378	13	12	12.6	750
December	375	13	11	12.1	744
Calendar year 1947	3,805.2	13	5.2	10.4	7,550
January	370	13	11	11.9	734
February	322	12	10	11.1	639
March	342.0	12	9.0	11.0	678
April	354	13	10	11.8	702
May	407.0	14	4.0	13.1	807
June	362.0	14	8.3	12.1	718
July	368.6	13	9.6	11.9	731
August	390	14	10	12.6	774
September	372.9	15	6.3	12.4	740
Water year 1947-48	4,414.5	15	4.0	12.1	8,760

a No gage-height record; discharge interpolated.

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 1948.

Average discharge.- 21 years (1927-48), 68.4 second-feet.

Extremes.- Maximum discharge during year, 1,110 second-feet June 9 (gage height, 3.55 feet); minimum, 3.5 second-feet Feb. 22 (gage height, 0.90 foot).
1915, 1924-48: Maximum discharge, that of June 9, 1948; minimum recorded, 3.4 second-feet Feb. 10, 1938, Feb. 6 1946, probably caused by ice jam upstream.

Remarks.- Records fair except those for period of no gage-height record or those below 15 second-feet, which are poor. No diversion or regulation above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	52	48	24	22	15	11	52	465	326	128	47
2	40	51	44	27	23	15	13	51	499	270	122	46
3	70	49	44	26	22	15	13	52	557	259	119	44
4	46	45	43	26	21	13	13	51	516	254	116	43
5	39	45	41	24	21	15	13	49	558	259	108	43
6	42	45	38	39	20	15	13	71	595	254	100	42
7	37	45	38	49	20	14	12	86	660	259	93	40
8	49	45	37	39	19	14	12	a80	738	243	90	39
9	43	43	37	30	19	14	12	a75	783	243	93	38
10	49	43	35	30	19	13	12	a70	624	249	88	37
11	46	43	37	30	18	13	12	a68	508	281	84	35
12	44	41	35	28	20	13	12	66	462	259	80	35
13	45	41	35	26	18	12	12	74	434	238	78	35
14	44	40	34	27	18	13	13	74	430	222	76	34
15	58	39	33	28	18	12	19	84	431	218	74	34
16	284	38	32	28	17	12	31	127	414	214	72	32
17	108	38	31	28	18	12	43	167	367	209	68	31
18	87	37	31	29	17	12	39	166	345	232	66	31
19	80	37	30	27	16	12	38	166	387	214	63	30
20	82	35	30	27	16	12	45	188	353	191	62	30
21	82	33	29	26	16	12	55	206	313	186	58	29
22	74	30	28	25	18	12	58	207	287	191	57	30
23	69	33	28	25	16	12	55	245	281	186	58	29
24	62	34	28	23	16	12	52	350	287	171	55	28
25	59	37	27	23	16	12	48	407	281	155	54	28
26	58	51	27	16	22	12	46	446	281	148	55	28
27	61	49	28	18	17	11	44	559	307	148	52	28
28	56	46	28	19	15	11	45	503	313	138	49	28
29	55	44	27	21	15	12	56	389	339	128	49	26
30	53	49	23	21	-	12	55	357	360	119	48	25
31	52	-	22	20	-	11	-	420	-	119	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,003	284	29	64.6	2.08	2.40	3,970
November	1,258	52	30	41.9	1.35	1.51	2,500
December	1,028	48	22	33.2	1.07	1.23	2,040
Calendar year 1947	31,827	420	21	87.2	2.81	38.18	63,130
January	829	49	16	26.7	.861	.99	1,640
February	531	23	15	18.3	.590	.64	1,050
March	395	15	11	12.7	.410	.47	783
April	902	58	11	30.1	.971	1.08	1,790
May	5,906	559	49	191	6.16	7.09	11,710
June	13,175	783	281	439	14.2	15.81	26,130
July	6,583	326	119	212	6.84	7.90	13,060
August	2,363	128	48	76.2	2.46	2.83	4,690
September	1,025	47	25	34.2	1.10	1.23	2,030
Water year 1947-48	35,998	783	11	98.4	3.17	43.18	71,390

Peak discharge (base, 350 sec.-ft.).- Oct. 16 (8 a.m.) 450 sec.-ft.; May 27 (6 p.m.) 718 sec.-ft.; June 9 (11:30 p.m.) 1,110 sec.-ft.; June 30 (6 p.m.) 420 sec.-ft.

a No gage-height record; discharge computed on basis of records for Lostine River near Lostine, Bear Creek near Wallowa, and Catherine Creek near Union.

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.

Drainage area.- 70 square miles.

Records available.- August 1912 to March 1914, April to September 1915, July 1925 to September 1948.

Average discharge.- 21 years (1912-13, 1928-48), 183 second-feet.

Extremes.- Maximum discharge during year, 1,960 second-feet June 9 (gage height, 7.27 feet); minimum, 36 second-feet Mar. 11.
1912-14, 1915, 1925-48: Maximum discharge, 2,540 second-feet May 27, 1913; minimum recorded, 10 second-feet Nov. 28-30, 1936.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. No large diversions above station. Flow slightly regulated by Minam Lake Reservoir.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 9						June 10 to Sept. 30					
0.9	40	2.1	183	4.8	920	0.8	37	1.8	148	4.0	700
1.1	57	2.6	281	6.0	1,400	1.0	53	2.2	220	5.0	1,050
1.4	85	3.2	425	6.9	1,790	1.2	73	2.7	325	6.0	1,440
1.7	121	3.9	625			1.5	106	3.3	485	6.7	1,720

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	132	150	70	b54	62	47	185	1,170	1,110	180	71
2	61	131	135	72	b54	62	54	169	1,400	900	171	67
3	132	121	a130	72	b53	60	61	171	1,500	738	162	66
4	89	113	a120	71	b53	62	56	174	1,310	676	158	65
5	77	112	a115	70	b53	65	52	161	1,330	672	150	64
6	89	107	a110	96	53	58	53	218	1,540	599	136	60
7	80	108	a105	142	53	55	50	317	1,850	602	127	57
8	108	118	*102	141	53	54	50	275	1,740	536	123	54
9	95	107	101	112	53	53	52	246	1,750	508	126	49
10	112	107	98	b100	53	55	53	226	1,700	524	119	46
11	107	100	97	b95	b52	62	52	210	1,560	575	111	45
12	97	98	93	b90	b52	52	50	210	1,330	539	106	43
13	96	96	93	b88	b51	49	49	264	1,250	475	102	42
14	100	93	87	a86	50	49	52	277	1,260	431	99	40
15	109	92	86	b85	51	48	63	283	1,300	408	95	40
16	480	89	82	b84	*49	48	96	395	1,260	390	92	40
17	294	86	85	82	53	46	141	569	1,080	365	88	40
18	226	85	83	79	53	46	146	560	1,010	405	83	43
19	192	82	82	b77	49	45	135	609	1,120	390	83	40
20	187	79	81	b75	48	44	153	635	1,120	340	80	40
21	197	76	78	73	51	45	205	711	1,070	304	76	40
22	168	70	77	73	69	50	244	749	886	302	74	40
23	163	70	75	73	54	47	216	766	819	302	77	46
24	142	70	73	71	50	46	187	962	889	277	80	43
25	141	72	72	65	52	46	169	1,180	924	238	74	43
26	140	121	72	b60	98	43	156	1,330	917	218	72	43
27	146	141	72	b57	78	43	146	1,560	962	220	84	42
28	152	127	73	b57	68	46	142	1,640	1,050	209	82	46
29	171	117	71	b56	63	50	199	1,240	1,120	190	79	41
30	141	140	70	b56	-	52	203	1,040	1,190	171	78	40
31	132	-	70	b55	-	48	-	1,050	-	166	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,469	480	45	144	8,860
November	3,060	141	70	102	6,070
December	2,838	150	70	91.5	5,630
Calendar year 1947	80,962	1.330	37	222	160,600
January	2,483	142	55	80.1	4,920
February	1,623	98	48	56.0	3,220
March	1,591	65	43	51.3	3,160
April	3,332	244	47	111	6,610
May	18,382	1,640	161	593	36,460
June	37,207	1,750	819	1,240	73,800
July	13,779	1,110	186	444	27,330
August	3,241	180	72	105	6,430
September	1,436	71	40	47.9	2,850
Water year 1947-48	93,441	1,750	40	255	185,300

Peak discharge (base, 1,100 sec.-ft.).- May 27 (11:30 p.m.) 1,860 sec.-ft.; June 3 (1 a.m.) 1,700 sec.-ft.; June 9 (11:30 p.m.) 1,960 sec.-ft.; June 30 (11 p.m.) 1,340 sec.-ft.

* Winter discharge measurements made on this day.

a No gage-height record; discharge computed on basis of records for Bear Creek near Wallowa, Hurricane Creek near Joseph, and Catherine Creek near Union,

b Stage-discharge relation affected by ice.

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 southwest of Wallowa.

Drainage area.- 68 square miles.

Records available.- April to September 1915, November 1931 to September 1948. April 1924 to November 1931 (incomplete) at site 1 mile upstream above intakes of two irrigation ditches with a combined capacity of about 3 second-feet.

Average discharge.- 19 years (1929-48), 106 second-feet.

Extremes.- Maximum discharge during year, 1,270 second-feet May 27, June 11, supersedes figure published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin"; maximum gage height recorded, 3.34 feet June 11, supersedes figure published in Water-Supply Paper 1080; minimum discharge, 10 second-feet Sept. 14-17, 20-22.
1915, 1924-48: 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 fair except those for periods of ice effect or no gage-height record, which are poor. Small diversions above station for irrigation.

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 27

0.6	15	1.3	77	2.1	370
.7	20	1.5	125	2.4	545
.9	31	1.7	190	2.7	770
1.1	47	1.9	275	3.1	1,130

May 28 to Sept. 30

0.8	9	1.4	62	2.3	350
.9	15	1.6	95	2.6	560
1.0	22	1.8	140	2.9	820
1.2	40	2.0	200	3.3	1,230

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	48	172	67		75	56	202	452	431	48	16
2	18	48	152	57		67	70	194	658	332	48	15
3	24	45	140	42		60	88	193	990	275	43	14
4	22	42	122	42		54	81	226	980	255	42	14
5	22	41	109	40		54	70	226	910	245	38	14
6	27	39	97	63		47	63	270	1,050	208	37	14
7	24	44	88	226		44	55	381	1,080	200	35	13
8	37	60	79	262		44	51	365	1,050	176	33	13
9	33	54	74	198	a30	43	55	325	1,030	161	33	13
10	41	54	65	158		40	59	298	1,080	155	34	12
11	41	52	63	131		45	62	280	1,190	164	31	11
12	37	48	56	104		42	57	270	930	140	28	11
13	37	47	55	b80		37	56	345	900	122	27	11
14	37	45	52	b70		36	62	370	840	111	26	10
15	37	46	50	b70		36	107	370	830	101	26	10
16	74	43	47	b65		34	214	437	730	91	25	11
17	57	44	50	b65	28	33	306	521	488	86	24	11
18	47	46	48	b65	28	33	293	491	584	95	21	11
19	42	45	48	b60	24	33	275	539	816	91	21	11
20	43	44	47		24	32	298	638	592	86	21	11
21	50	42	46		27	32	340	601	766	75	20	10
22	43	35	45		43	35	360	615	592	66	20	12
23	42	39	44		41	37	316	645	528	62	21	14
24	40	39	42		39	38	270	690	520	57	22	12
25	40	39	42	a50	38	39	230	802	520	52	21	12
26	42	107	b42		107	37	194	994	528	49	20	11
27	52	166	b43		120	37	172	1,050	480	50	19	11
28	54	143	43		104	41	155	703	488	58	18	11
29	51	122	43		88	51	206	576	496	55	17	10
30	48	149	42		-	62	214	488	512	51	16	10
31	47	-	47		-	59	-	431	-	46	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,225	74	16	39.5	2,430
November	1,816	166	35	60.5	3,600
December	2,093	172	42	67.5	4,150
Calendar year 1947	46,075.2	794	9.2	126	91,380
January	2,465	262	-	79.5	4,890
February	1,191	120	-	41.1	2,360
March	1,357	75	32	43.8	2,690
April	4,835	360	51	161	9,690
May	14,541	1,050	194	469	28,840
June	22,410	1,190	452	747	44,450
July	4,146	431	46	134	8,220
August	851	48	16	27.5	1,690
September	359	16	10	12.0	712
Water year 1947-48	57,289	1,190	10	157	113,600

Peak discharge (base, 600 sec.-ft.).- May 27 (11 p.m.) 1,270 sec.-ft.; June 3 (3 a.m.) 1,150 sec.-ft.; June 11 (4 a.m.) 1,270 sec.-ft.; June 21 (8 to 9 a.m.) 850 sec.-ft.

a No gage-height record; discharge computed on basis of records for Hurricane Creek near Joseph, Lostine River near Lostine, and Catherine Creek near Union.

b Stage-discharge relation affected by ice.

Note.- Figures of daily discharge for May 17, May 20 to July 31, supersede those published in Water-Supply Paper 1080.

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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 1948. March 1904 to November 1906 and August 1910 to October 1911 at practically same site.

Average discharge.- 20 years (1928-48), 60.6 second-feet.

Extremes.- Maximum discharge observed during year, 674 second-feet Jan. 7 (gage height, 2.85 feet); minimum observed, 29 second-feet Oct. 5.
1904-6, 1910-11, 1928-48: 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 rapidly changing stage, 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.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	43	70	49	55	118	86	149	367	70	42	35
2	31	43	66	52	50	100	100	138	384	67	42	34
3	32	41	67	50	b50	94	138	128	401	63	41	34
4	30	42	66	50	b50	83	128	138	367	60	40	34
5	29	42	62	48	50	*78	118	138	333	65	40	34
6	36	40	60	138	50	77	109	149	333	61	40	33
7	32	40	55	636	b50	74	100	197	316	63	38	34
8	36	56	55	489	50	71	92	184	316	60	38	33
9	32	58	55	300	47	70	95	184	300	57	38	33
10	32	56	52	210	46	57	100	197	300	55	38	32
11	32	55	52	160	42	57	98	210	268	56	40	32
12	30	54	49	128	43	62	97	238	210	55	38	32
13	30	54	49	109	44	62	90	300	210	52	38	31
14	30	51	48	97	45	63	94	333	172	51	38	32
15	31	51	47	87	128	62	109	300	197	50	37	32
16	50	49	46	81	55	60	184	284	197	48	35	32
17	43	49	46	76	78	57	238	316	160	47	34	34
18	43	51	48	73	78	60	284	300	149	47	35	34
19	42	49	54	68	62	56	238	316	138	50	34	34
20	41	49	55	*66	57	55	238	367	128	54	34	33
21	49	48	55	62	60	55	268	384	118	50	34	32
22	46	45	55	62	197	71	284	384	118	47	35	33
23	43	48	51	62	128	62	238	384	100	46	43	36
24	40	46	51	63	109	62	210	367	97	45	45	36
25	38	47	49	61	97	67	184	401	90	44	40	36
26	38	55	48	50	238	62	160	436	86	44	38	34
27	40	78	50	b50	197	65	149	489	81	44	37	35
28	41	73	52	b50	160	68	438	389	77	50	36	34
29	42	67	52	b50	138	77	149	454	74	48	35	33
30	43	67	50	b52	-	86	149	401	74	46	34	34
31	43	-	49	54	-	84	-	384	-	43	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,155	50	29	37.3	2,290
November	1,547	78	40	51.6	3,070
December	1,664	70	46	53.7	3,300
Calendar year 1947	23,847	333	25	65.3	47,300
January	3,583	636	48	116	7,110
February	2,454	238	42	84.6	4,870
March	2,175	118	55	70.2	4,310
April	4,665	284	86	156	9,250
May	9,139	489	128	295	18,130
June	6,161	401	74	205	12,220
July	1,638	70	43	52.8	3,250
August	1,171	45	34	37.8	2,320
September	1,005	36	31	33.5	1,990
Water year 1947-48	36,357	636	29	99.3	72,110

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

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 1948.

Extremes.- Maximum discharge during year, 42,000 second-feet May 29 (gage height, 22.4 feet, from floodmark), by slope-area method; minimum, 450 second-feet Sept. 15, 16, 22; minimum gage height, 2.81 feet Sept. 22.

1944-48: Maximum discharge, that of May 29, 1948; minimum daily, 175 second-feet Dec. 12, 1944.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are good. Small diversions to Bitterroot River Basin from headwaters are reported and are shown on maps in T. 32 N., R. 16 E.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	742	1,020	2,420	904	1,200	1,780	1,540	6,570	26,000	5,000	1,720	618
2	802	998	2,260	1,290	1,100	1,650	1,640	5,830	27,500	4,800	1,770	601
3	1,850	1,000	2,130	1,180	1,000	1,500	1,880	5,530	h28,600	4,300	1,670	580
4	1,950	1,000	2,020	1,120	1,000	1,370	1,910	5,800	25,000	3,900	1,540	575
5	1,320	972	1,900	1,100	980	1,250	1,850	5,340	21,000	3,650	1,460	560
6	1,190	966	*1,820	1,190	920	1,280	1,760	5,980	21,500	3,400	1,340	555
7	1,200	1,060	1,710	2,820	900	1,270	1,660	8,440	22,000	3,200	1,280	550
8	1,420	1,520	1,630	3,620	1,100	*1,220	1,560	8,790	22,000	3,000	1,210	540
9	1,680	1,430	1,600	2,780	1,100	1.180	1,620	7,780	20,500	2,800	1,150	530
10	1,430	1,230	1,530	2,240	1,000	986	1,810	7,110	h18,600	2,650	1,170	515
11	1,520	1,260	1,480	2,260	850	934	1,780	7,020	18,000	2,500	1,140	500
12	1,490	1,240	1,440	1,980	800	1,130	1,720	7,210	15,500	2,490	1,080	486
13	1,340	1,180	1,380	1,660	950	1,100	1,680	8,240	15,000	2,340	1,030	481
14	1,240	1,170	1,410	1,500	1,000	1,040	1,730	8,600	13,000	2,200	1,000	468
15	1,150	1,130	1,380	1,450	1,030	1,020	2,210	8,260	12,000	2,080	966	458
16	1,230	1,100	1,320	1,400	992	966	4,120	9,510	11,500	1,960	916	454
17	1,670	1,060	1,320	1,300	998	953	7,170	12,800	10,000	1,880	880	472
18	1,480	1,070	1,340	1,450	1,240	979	8,140	17,100	9,000	1,870	850	486
19	1,420	1,060	1,370	1,350	1,300	953	7,050	18,100	8,500	1,980	820	481
20	1,280	992	1,320	*1,300	1,160	928	7,380	23,500	8,200	2,280	856	468
21	1,280	928	1,270	1,350	1,100	910	8,380	23,700	9,400	2,230	832	468
22	1,270	742	1,230	1,400	1,390	1,005	10,100	26,000	9,600	1,940	784	454
23	1,220	856	1,220	1,420	1,600	1,060	9,290	22,000	8,000	1,770	766	515
24	1,200	1,040	1,180	1,410	1,450	1,060	7,820	21,500	7,400	1,650	844	545
25	1,130	1,100	1,150	1,230	1,370	1,130	6,900	25,000	h7,200	1,560	868	520
26	1,090	2,960	1,070	1,000	2,330	1,150	5,940	27,000	6,600	1,460	832	618
27	1,080	4,200	1,010	800	2,990	1,150	5,270	30,000	6,000	1,420	772	640
28	1,070	2,920	1,240	950	2,420	1,230	4,970	32,500	5,600	1,720	724	555
29	1,060	2,490	1,200	1,200	2,040	1,480	6,460	36,500	5,400	2,420	694	530
30	1,080	2,380	1,080	1,350	-	1,690	7,280	30,000	5,200	2,240	667	505
31	1,060	-	850	1,350	-	1,600	-	27,500	-	1,930	640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	39,944	1,950	742	1,289	0.832	0.96	79,230
November	42,074	4,200	742	1,402	.905	1.01	83,450
December	45,280	2,420	850	1,461	.943	1.09	89,810
Calendar year 1947	1,373,522	29,000	490	3,763	2.43	32.97	2,724,000
January	47,354	3,620	800	1,528	.986	1.14	93,930
February	37,310	2,990	800	1,287	.830	.90	74,000
March	36,954	1,780	910	1,192	.769	.89	74,300
April	132,630	10,110	1,540	4,421	2.85	3.18	263,100
May	489,210	36,500	5,340	15,780	10.2	11.74	970,300
June	423,800	28,600	5,200	14,130	9.12	10.17	840,600
July	78,620	5,000	1,420	2,536	1.64	1.89	155,900
August	32,271	1,770	640	1,041	.672	.77	64,010
September	15,728	640	454	524	.338	.38	31,200
Water year 1947-48	1,421,175	36,500	454	3,883	2.51	34.12	2,819,000

Peak discharge (base, 16,000 sec.-ft.).- May 22 (time and discharge unknown); May 29 (time unknown) 42,000 sec.-ft.

* Winter discharge measurement made on this day.

h Computed from staff-gage reading.

Note.- No gage-height record May 20 to June 2, June 4-9, 11-24, June 26 to July 11; discharge computed on basis of records for station near Lowell. Stage-discharge relation affected by ice Jan. 14-22, Jan. 26 to Feb. 14.

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 1948.

Average discharge.- 19 years (1929-48), 3,403 second-feet.

Extremes.- Maximum discharge during year, 48,900 second-feet May 29 (gage height, 16.04 feet); minimum, 651 second-feet Sept. 22 (gage height, 2.88 feet).
1929-48: Maximum discharge, that of May 29, 1948; minimum, probably less than 100 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent except those for period of ice effect, which are good. Small diversions from head waters.

Revisions.- W 1043: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	907	1,180	3,250	1,150	1,570	2,310	2,110	8,470	31,000	6,370	2,210	898
2	916	1,160	2,990	1,610	1,410	2,120	2,240	7,670	32,200	6,120	2,240	880
3	2,140	1,170	2,780	1,550	1,240	1,930	2,540	7,250	33,600	5,390	2,110	852
4	2,480	1,180	2,580	1,440	1,290	1,740	2,550	7,640	29,900	4,980	1,940	852
5	1,520	1,150	2,400	1,430	1,250	1,610	2,480	7,030	26,200	4,670	1,850	834
6	1,340	1,140	*2,260	1,490	1,100	1,620	2,360	7,910	27,000	4,330	1,730	817
7	1,340	1,260	2,140	3,690	1,080	1,610	2,210	10,900	28,200	4,060	1,670	817
8	1,640	1,880	2,040	5,140	1,290	*1,560	2,080	11,200	28,000	3,790	1,610	808
9	1,980	1,810	1,970	3,860	1,290	1,480	2,150	10,200	26,000	3,540	1,560	791
10	1,660	1,510	1,880	3,030	1,210	1,290	2,360	9,320	24,100	3,360	1,570	774
11	1,730	1,560	1,810	2,960	1,000	1,190	2,360	9,190	23,200	3,220	1,550	748
12	1,710	1,520	1,760	2,580	907	1,420	2,280	9,420	19,800	3,180	1,480	732
13	1,540	1,440	1,690	1,980	1,150	1,410	2,220	10,700	19,100	2,940	1,410	707
14	1,410	1,440	1,720	1,900	1,190	1,340	2,300	11,200	16,800	2,740	1,360	699
15	1,310	1,370	1,690	1,850	1,190	1,330	2,990	10,800	15,000	2,600	1,320	666
16	1,360	1,340	1,630	1,800	1,160	1,260	5,610	12,000	14,500	2,480	1,240	674
17	1,900	1,290	1,600	1,700	1,170	1,240	9,000	15,700	13,000	2,360	1,200	699
18	1,680	1,300	1,670	1,900	1,420	1,290	10,500	20,400	11,300	2,380	1,160	732
19	1,580	1,280	1,680	1,750	1,560	1,280	8,940	21,300	10,800	2,550	1,130	715
20	1,430	1,190	1,640	1,600	1,370	1,240	9,260	28,400	10,400	3,040	1,180	699
21	1,440	1,140	1,600	*1,750	1,330	1,230	10,600	29,000	12,000	2,870	1,150	674
22	1,430	934	1,540	1,860	1,680	1,330	12,800	31,400	12,300	2,420	1,080	666
23	1,370	1,030	1,520	2,000	2,020	1,420	11,800	27,400	10,300	2,190	1,070	774
24	1,340	1,230	1,460	2,080	1,840	1,430	10,100	26,600	9,550	2,050	1,190	808
25	1,260	1,330	1,430	1,820	1,740	1,540	8,880	30,300	9,100	1,930	1,210	774
26	1,220	4,380	1,350	1,330	3,010	1,570	7,850	34,100	8,380	1,840	1,140	944
27	1,210	6,070	1,260	1,050	4,020	1,580	6,920	37,100	7,670	1,810	1,060	975
28	1,200	4,080	1,520	1,290	3,200	1,710	6,600	41,400	7,190	2,430	1,010	817
29	1,210	3,360	1,520	1,510	2,680	2,040	8,380	45,300	6,900	3,450	982	765
30	1,230	3,130	1,380	1,760	-	2,340	9,390	35,900	6,580	2,940	934	740
31	1,220	-	1,120	1,760	-	2,220	-	31,500	-	2,480	907	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	45,703	2,480	907	1,474	0.772	0.89	90,650
November	53,854	6,070	934	1,795	.940	1.05	106,800
December	56,880	3,250	1,120	1,835	.961	1.11	112,800
Calendar year 1947	1,682,522	34,600	628	4,610	2.41	32.78	3,337,000
January	62,620	5,140	1,050	2,020	1.06	1.22	124,200
February	46,367	4,020	907	1,599	.837	.90	91,970
March	48,680	2,340	1,190	1,570	.822	.95	96,560
April	171,860	12,800	2,080	5,729	3.00	3.35	340,900
May	606,700	45,300	7,030	19,570	10.2	11.81	1,203,000
June	530,070	33,600	6,580	17,670	9.25	10.32	1,051,000
July	100,510	6,370	1,810	3,242	1.70	1.96	199,400
August	43,253	2,240	907	1,395	.730	.84	85,790
September	23,331	975	666	778	.407	.45	46,280
Water year 1947-48	1,789,828	45,300	666	4,890	2.56	34.85	3,549,000

Peak discharge (base, 18,000 sec.-ft.).- May 22 (4 a.m.) 33,500 sec.-ft.; May 29 (4 a.m.) 48,900 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Jan. 15-21.

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. Datum of gage is 1,162.52 feet above mean sea level, datum of 1929, supplementary adjustment of 1947.

Drainage area.- 4,850 square miles.

Records available.- August 1910 to September 1948.

Average discharge.- 38 years, 7,974 second-feet.

Extremes.- Maximum discharge during year, 99,000 second-feet May 29 (gage height, 19.22 feet); minimum, 1,320 second-feet Sept. 22; minimum gage height, 3.66 feet Oct. 1. 1910-48: Maximum discharge, that of May 29, 1948; 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 regulation at low stages caused by power plant on South Fork.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,940	2,660	7,460	2,780	3,800	5,730	6,040	21,500	64,200	13,800	4,710	1,850
2	1,960	2,610	7,340	3,550	3,590	5,350	f6,860	19,000	65,400	13,100	4,510	1,820
3	3,100	2,620	6,710	3,940	3,080	4,870	8,060	17,500	68,800	11,700	4,560	1,750
4	4,940	2,680	6,180	3,470	3,120	4,470	7,480	18,900	62,700	10,900	4,210	1,730
5	3,530	2,640	5,660	3,570	3,100	4,110	6,910	17,700	54,500	10,200	3,960	1,730
6	2,910	2,620	5,400	3,510	2,690	4,070	6,800	18,500	52,900	9,520	3,670	1,670
7	2,870	2,800	5,010	9,860	2,540	4,090	6,480	26,700	55,600	8,740	3,490	1,660
8	3,230	4,180	4,750	14,100	2,970	4,200	6,120	31,200	55,900	8,280	3,350	1,640
9	4,200	4,820	4,660	10,500	3,160	4,070	6,230	30,800	52,200	7,740	3,220	1,610
10	3,850	3,840	4,420	8,100	2,980	3,470	7,300	26,700	49,800	7,240	3,280	1,590
11	3,670	3,920	4,270	7,260	2,620	3,160	7,150	26,700	46,800	6,840	3,220	1,560
12	3,710	3,800	4,130	6,510	2,270	3,490	6,620	25,300	42,500	6,710	3,090	1,500
13	3,390	3,590	3,980	5,150	2,590	3,630	6,420	29,500	38,800	6,250	2,920	1,460
14	3,060	3,590	4,030	4,610	2,850	3,650	6,600	31,900	36,100	5,820	2,850	1,430
15	2,820	3,430	4,010	4,720	2,980	3,730	f7,990	29,000	31,600	5,520	2,740	1,400
16	2,750	3,330	4,010	4,470	3,040	3,610	f13,000	30,700	30,500	5,250	2,600	1,370
17	3,820	3,270	3,800	4,270	2,930	3,510	f21,600	36,900	28,300	5,040	2,490	1,380
18	3,860	3,410	4,160	4,610	3,470	3,610	28,000	47,400	24,400	4,970	2,420	1,440
19	3,630	3,430	4,180	4,110	3,960	3,510	23,800	47,800	23,400	5,390	2,380	1,480
20	3,370	3,140	4,050	3,960	3,470	3,350	23,500	59,500	21,800	6,140	2,470	1,430
21	3,330	2,910	3,900	4,160	3,310	3,250	25,600	61,100	24,900	6,140	2,440	1,390
22	3,470	2,620	3,820	4,310	4,130	3,570	31,400	77,800	28,100	5,170	2,300	1,380
23	3,250	2,410	3,710	4,890	4,990	4,050	31,200	66,800	24,000	4,620	2,220	1,570
24	3,180	2,750	3,590	5,600	4,520	4,360	27,200	61,800	21,900	4,320	2,400	1,750
25	2,980	3,040	3,510	4,990	4,360	7,820	24,500	65,600	20,600	4,060	2,550	1,700
26	2,850	6,410	3,290	3,880	6,710	6,970	21,000	72,200	19,000	3,850	2,470	1,850
27	2,760	13,400	3,100	2,930	9,350	6,260	18,300	77,700	17,300	3,790	2,300	2,030
28	2,760	9,120	3,470	3,080	7,760	6,400	16,500	86,800	16,000	5,010	2,140	1,800
29	2,760	7,260	3,940	3,410	6,570	6,850	20,200	94,000	15,200	8,150	2,050	1,640
30	2,820	6,540	3,590	3,730	-	7,490	22,800	77,300	14,200	6,540	1,980	1,550
31	2,780	-	3,000	3,980	-	6,680	-	67,400	-	5,370	1,910	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	99,350	4,940	1,940	3,205	0.661	0.76	197,100
November	122,840	13,400	2,410	4,095	.844	.94	243,600
December	137,130	7,460	3,000	4,424	.912	1.05	272,000
Calendar year 1947	3,452,150	66,200	1,350	9,458	1.95	26.46	6,848,000
January	158,010	14,100	2,780	5,097	1.05	1.21	313,400
February	112,910	9,350	2,270	3,893	.803	.87	224,000
March	143,380	7,820	3,160	4,625	.954	1.10	284,400
April	451,660	31,400	6,040	15,060	3.11	3.46	896,900
May	1,401,700	94,000	17,500	45,220	9.32	10.75	2,780,000
June	1,107,400	68,800	14,200	36,910	7.61	8.49	2,196,000
July	216,170	13,800	3,790	6,973	1.44	1.66	428,800
August	90,900	4,710	1,910	2,932	.605	.70	180,300
September	48,160	2,030	1,370	1,605	.331	.37	95,520
Water year 1947-48	4,089,620	94,000	1,370	11,170	2.30	31.36	8,111,000

Peak discharge (base, 28,200 sec.-ft.).- Apr. 22 (4 p.m.) 32,600 sec.-ft.; May 8 (11 p.m.) 33,800 sec.-ft.; May 22 (2 p.m.) 86,500 sec.-ft.; May 29 (8 a.m.) 99,000 sec.-ft.

f Computed from partly estimated gage-height record.

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 1948.

Average discharge.- 22 years, 14,390 second-feet.

Extremes.- Maximum discharge during year, 177,000 second-feet May 29 (gage height, 23.76 feet); minimum discharge, 2,830 second-feet Sept. 17; minimum gage height, 3.04 feet Oct. 1.

1926-48: Maximum discharge, that of May 29, 1948; maximum gage height, 25.6 feet Jan. 5, 1928 (present site and datum), from floodmark (ice jam); minimum discharge probably less than 500 second-feet Jan. 9, 1937, during period of ice effect.

Remarks.- Records excellent except those for period of ice effect, which are good. Small diversions from tributaries; slight diurnal fluctuation at times caused by power plant on South Fork.

Rating table, water year 1947-48, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 16 to Sept. 30)

3.0	2,880	8.0	20,500	18.0	107,000
3.4	3,680	10.0	32,200	20.0	131,000
4.0	5,040	12.0	47,000	22.8	165,000
5.0	7,870	14.0	64,300		
6.5	13,400	16.0	84,700		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,110	5,990	15,000	6,500	8,620	17,600	17,200	42,600	118,000	22,300	9,470	3,830
2	3,390	5,630	16,300	7,230	7,800	15,600	19,700	37,700	116,000	21,200	9,050	3,740
3	4,260	5,550	14,800	8,720	6,600	13,800	26,800	34,500	119,000	19,600	9,090	3,660
4	8,720	5,550	13,800	8,260	6,600	12,200	22,200	37,400	115,000	18,000	8,490	3,550
5	7,200	5,600	12,500	7,750	6,600	11,700	21,400	37,000	99,900	16,800	7,750	3,550
6	5,770	5,550	11,700	8,490	5,600	10,400	19,800	36,700	92,700	15,800	7,320	3,510
7	6,130	5,710	10,700	35,800	5,500	10,400	18,200	50,000	93,600	14,800	6,930	3,450
8	5,930	10,900	10,100	48,900	6,600	10,500	17,000	65,300	94,100	14,200	6,670	3,430
9	7,870	14,400	9,780	32,600	7,000	10,200	17,000	73,700	89,100	13,400	6,380	3,390
10	7,470	10,200	9,330	24,100	6,600	8,720	19,000	63,600	85,600	12,500	6,270	3,350
11	7,020	9,470	8,950	19,800	6,000	7,410	19,300	57,600	81,000	12,000	6,380	3,270
12	7,440	9,640	8,620	17,200	5,300	7,840	18,100	54,200	76,400	11,600	6,180	3,170
13	6,670	8,950	8,360	14,100	5,800	8,680	17,000	58,900	65,200	11,100	5,820	3,090
14	5,900	8,920	8,590	11,900	6,500	8,720	17,300	64,800	64,200	10,300	5,580	3,030
15	5,390	8,490	8,780	11,400	6,800	8,920	19,700	57,600	54,900	9,820	5,550	2,960
16	5,390	8,030	8,920	10,700	7,000	8,590	30,600	56,500	55,200	9,440	5,240	2,880
17	8,360	7,650	9,440	9,820	6,800	*8,520	46,000	64,700	50,300	9,020	4,990	2,840
18	9,360	8,030	11,900	10,400	8,000	8,920	60,600	80,300	43,900	8,650	4,850	2,880
19	10,700	8,160	13,400	*9,720	*10,500	8,820	52,700	82,800	41,500	9,050	4,730	2,990
20	9,050	7,530	11,800	8,880	9,930	8,320	50,800	105,000	38,200	11,000	4,870	3,050
21	8,220	6,930	10,500	9,540	8,990	8,030	54,000	113,000	40,400	11,700	5,020	2,960
22	8,750	6,580	10,000	9,780	18,600	9,330	64,600	142,000	46,400	9,890	4,750	2,900
23	7,810	5,660	9,400	10,100	19,600	11,400	66,900	142,000	41,100	8,720	4,560	2,940
24	7,410	5,820	8,880	12,000	15,800	11,600	58,000	124,000	36,300	8,090	4,610	3,430
25	6,900	6,240	8,450	11,500	14,500	16,800	53,100	124,000	33,800	7,620	5,220	3,700
26	6,410	10,700	8,000	9,160	29,200	19,400	46,800	131,000	31,700	7,290	5,220	3,510
27	6,100	25,100	7,560	8,900	33,800	17,200	39,200	138,000	29,600	7,080	4,850	3,780
28	5,990	20,000	7,620	6,160	26,800	17,200	34,700	150,000	27,100	9,440	4,470	4,110
29	5,850	14,800	9,020	6,840	21,000	19,700	39,200	166,000	25,200	19,000	4,260	3,780
30	6,040	13,000	8,390	7,750	-	21,900	44,900	145,000	23,600	14,600	4,090	3,430
31	6,380	-	7,170	8,650	-	19,200	-	127,000	-	11,100	3,930	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	210,990	10,700	3,110	6,808	0.711	0.82	418,500
November	274,780	25,100	5,550	9,159	.957	1.07	545,000
December	317,760	16,300	7,170	10,250	1.07	1.23	630,300
Calendar year 1947	6,335,250	108,000	2,560	17,360	1.81	24.62	12,570,000
January	410,650	48,900	6,160	13,250	1.38	1.60	814,500
February	328,440	33,800	5,300	11,330	1.18	1.28	651,500
March	377,620	21,900	7,410	12,180	1.27	1.47	749,000
April	1,031,800	66,900	17,000	34,390	3.59	4.01	2,047,000
May	2,662,900	166,000	34,500	85,900	8.98	10.35	5,282,000
June	1,929,000	119,000	23,600	64,300	6.72	7.50	3,826,000
July	385,110	22,300	7,080	12,420	1.30	1.50	763,900
August	182,590	9,470	3,930	5,890	.615	.71	362,200
September	100,160	3,830	2,840	3,339	.349	.39	198,700
Water year 1947-48	8,211,800	166,000	2,840	22,440	2.34	31.93	16,290,000

Peak discharge (base, 51,000 sec.-ft.).- Jan. 8 (1 a.m.) 56,000 sec.-ft.; Apr. 22 (9 p.m.) 69,500 sec.-ft.; May 9 (1:30 a.m.) 78,600 sec.-ft.; May 22 (8 p.m.) 171,000 sec.-ft.; May 29 (3 p.m.) 177,000 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Feb. 2-19.

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, October 1929 to September 1948.

Average discharge.- 19 years (1929-48), 2,566 second-feet.

Extremes.- Maximum discharge during year, 34,600 second-feet May 29 (gage height, 13.62 feet), from rating curve extended above 25,000 second-feet; minimum, 418 second-feet Sept. 22 (gage height, 1.81 feet).

1929-48: Maximum discharge, 34,800 second-feet June 10, 1933 (gage height, 13.44 feet), from rating curve extended above 25,000 second-feet; minimum, probably less than 100 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent except those for Apr. 17 to May 17, which are good. No diversion.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	663	1,030	2,330	1,000	1,250	1,920	1,790	7,600	21,900	4,120	1,410	599
2	680	1,000	2,140	1,250	1,160	1,830	1,940	6,910	22,400	3,830	1,450	583
3	1,300	995	2,000	1,240	1,040	1,670	2,290	6,700	23,100	3,490	1,510	560
4	1,570	1,000	1,870	1,190	1,060	1,520	2,260	7,630	20,800	3,250	1,370	567
5	1,160	975	1,740	1,130	965	1,410	2,180	7,170	18,400	3,050	1,260	545
6	1,100	965	1,680	1,410	877	1,430	2,140	7,840	17,800	2,840	1,160	530
7	1,080	1,150	1,570	4,280	906	1,440	1,990	10,100	18,600	2,690	1,110	523
8	1,410	1,900	1,510	4,460	1,050	1,430	1,940	f9,570	18,500	2,540	1,060	523
9	1,450	1,530	1,490	3,400	1,070	1,330	2,000	f8,700	17,600	2,390	1,030	508
10	1,300	1,350	1,430	2,750	1,030	1,110	2,080	f8,360	16,900	2,260	1,040	493
11	1,430	1,470	1,410	2,540	915	1,120	2,090	8,200	15,700	2,160	995	479
12	1,400	1,350	1,350	2,230	839	1,240	2,050	8,360	14,100	2,070	955	465
13	1,230	1,270	1,340	1,790	915	1,260	2,020	f9,880	13,200	1,950	896	458
14	1,100	1,260	1,350	1,760	965	1,250	2,080	10,900	11,700	1,850	886	452
15	1,020	1,200	1,350	1,770	1,100	1,230	2,820	10,000	10,200	1,760	858	431
16	1,140	1,130	1,320	1,590	1,000	1,180	4,480	10,900	9,700	1,670	811	431
17	1,640	1,120	1,310	1,580	1,020	1,150	f7,080	13,600	9,080	1,610	775	438
18	1,490	1,120	1,420	1,610	1,350	1,190	8,630	15,900	7,940	1,610	757	472
19	1,520	1,100	1,380	1,460	1,340	1,190	7,890	16,100	7,450	1,650	748	465
20	1,380	1,040	1,320	1,450	1,220	1,160	8,280	20,200	7,120	1,860	784	445
21	1,440	935	1,280	1,470	1,180	1,140	9,260	22,000	8,100	1,810	766	431
22	1,380	830	1,240	1,510	1,640	1,320	11,100	24,800	8,430	1,570	722	438
23	1,320	868	1,230	1,740	1,690	1,330	10,700	21,900	7,120	1,430	705	545
24	1,260	995	1,190	1,720	1,550	1,340	f8,860	21,300	6,520	1,350	811	523
25	1,180	1,060	1,190	1,490	1,510	1,490	f8,130	23,500	6,180	1,270	858	493
26	1,110	3,040	1,120	1,150	2,970	1,500	f7,150	25,700	5,850	1,210	811	591
27	1,100	3,600	1,080	1,020	3,070	1,490	f6,520	27,600	5,360	1,220	739	560
28	1,080	2,600	1,240	1,150	2,510	1,550	6,460	30,000	4,960	1,940	688	523
29	1,110	2,210	1,250	1,220	2,160	1,820	7,840	31,900	4,660	2,440	663	493
30	1,110	2,120	1,140	1,270	-	2,050	8,180	24,800	4,380	1,900	630	472
31	1,080	-	935	1,280	-	1,900	-	22,400	-	1,580	606	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	38,233	1,640	663	1,233	1.04	1.20	75,830
November	42,213	3,600	830	1,407	1.19	1.33	83,730
December	44,205	2,330	935	1,426	1.21	1.39	87,680
Calendar year 1947	1,216,379	22,900	452	3,333	2.82	38.34	2,413,000
January	54,910	4,460	1,000	1,771	1.50	1.73	108,900
February	39,352	3,070	839	1,357	1.15	1.24	78,050
March	43,990	2,050	1,110	1,419	1.20	1.39	87,250
April	152,230	11,100	1,790	5,074	4.30	4.80	301,900
May	480,520	31,900	6,700	15,500	13.1	15.14	953,100
June	363,750	23,100	4,380	12,120	10.3	11.46	721,500
July	66,370	4,120	1,210	2,141	1.81	2.09	131,600
August	28,864	1,510	606	931	.789	.91	57,250
September	15,036	599	431	501	.425	.47	29,820
Water year 1947-48	1,369,673	31,900	431	3,742	3.17	43.15	2,717,000

Peak discharge (base, 12,000 sec.-ft.).- May 29 (5:30 a.m.) 34,600 sec.-ft.

f Computed from partly estimated gage-height record.

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 1948.

Extremes.- Maximum discharge observed during year, 3,700 second-feet May 29 (gage height, 13.06 feet); minimum observed, 38 second-feet Sept. 22 (gage height, 7.66 feet).
1944-48: Maximum discharge observed, that of May 29, 1948; 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 or no gage-height record, which are poor. No diversion or regulation above station except for mining operations.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	50	193	70	a100	140	135	1,070	2,060	446	a135	60
2	62	a50	165	85	a90	130	133	a950	1,800	448	120	56
3	120	51	127	85	a80	125	133	898	1,760	367	106	55
4	88	53	104	a85	a80	120	a160	898	1,620	a350	99	54
5	a65	54	*103	80	a80	115	149	860	1,430	329	93	a54
6	59	54	93	85	a70	116	154	881	a1,400	312	93	54
7	58	55	a90	60	a65	*135	154	1,660	1,250	277	86	54
8	93	88	90	230	a80	114	152	1,560	1,150	265	a84	54
9	110	a110	83	170	a75	114	157	a1,450	1,130	240	83	54
10	70	95	81	140	a70	100	167	1,370	1,040	230	86	50
11	85	88	78	a140	a60	100	a165	1,330	1,050	a225	90	50
12	a80	85	76	110	a55	103	149	1,340	925	219	88	a49
13	69	85	75	*95	a65	95	152	1,430	a800	200	86	46
14	56	78	a78	90	a65	a94	157	1,620	700	193	88	48
15	55	78	80	85	a65	92	254	1,530	640	184	a80	45
16	59	a78	83	80	a65	92	520	a1,700	640	179	72	43
17	99	78	83	80	a80	92	952	2,200	645	176	62	43
18	74	76	83	a85	a85	92	a1,100	2,540	545	a190	62	43
19	a65	75	80	80	a85	88	991	2,240	545	206	63	a43
20	58	74	80	65	65	85	1,140	2,810	a520	281	68	40
21	70	74	a79	85	75	a85	1,350	2,800	892	209	63	40
22	80	74	78	95	a95	85	1,790	3,390	930	149	a66	38
23	66	a70	78	110	95	88	1,580	a3,000	876	112	68	54
24	62	74	78	130	95	101	1,330	2,700	710	86	70	62
25	56	75	74	a120	95	116	a1,150	2,620	670	a85	69	64
26	a55	226	62	95	110	137	974	2,820	660	85	69	a65
27	56	390	63	a70	150	157	870	2,900	a600	88	69	64
28	53	170	a90	a70	160	a146	860	2,750	550	181	69	59
29	53	90	90	a80	a150	135	1,210	3,700	500	308	a69	54
30	53	a80	80	a95	-	131	1,280	a2,750	460	173	69	50
31	50	-	50	a100	-	142	-	2,250	-	147	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,149	120	50	69.3	0.266	0.31	4,260
November	2,778	390	50	92.6	.355	.40	5,510
December	2,747	193	50	88.6	.339	.39	5,450
Calendar year 1947	102,356	1,970	30	280	1.07	14.81	203,000
January	3,050	230	60	98.4	.377	.43	6,050
February	2,505	160	55	86.4	.331	.36	4,970
March	3,465	157	85	112	.429	.49	6,870
April	19,468	1,790	133	649	2.49	2.77	38,610
May	62,017	3,700	860	2,001	7.67	8.84	123,000
June	28,498	2,060	460	950	3.64	4.06	56,520
July	6,938	446	85	224	.858	.99	13,760
August	2,493	135	62	80.4	.308	.36	4,940
September	1,547	65	38	51.6	.198	.22	3,070
Water year 1947-48	137,655	3,700	38	376	1.44	19.62	273,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Grangeville.
Note.- Stage-discharge relation affected by ice Dec. 24 to Mar. 5, Mar. 10, 11.

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 1948.

Average discharge.- 29 years (1912-16, 1923-48), 831 second-feet.

Extremes.- Maximum discharge observed during year, 12,600 second-feet May 29 (gage height, 12.50 feet); minimum, 3 second-feet Oct. 10 (gage height, 1.75 feet); minimum daily, 199 second-feet Sept. 15, 16.

1910-16, 1923-48: Maximum discharge observed, that of May 29, 1948; no flow part of day Aug. 27, 1947; minimum daily, 41 second-feet Nov. 22, 1931.

Remarks.- Records good except those for periods of ice effect, which are fair. Considerable diurnal fluctuation at low stages 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.

Revisions.- W 633: Drainage area.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	239	243	834	328	451	526	666	3,020	7,960	2,360	666	250
2	246	280	784	385	399	500	712	2,660	7,880	2,190	627	246
3	408	307	689	380	349	456	866	2,540	8,580	1,980	589	250
4	408	268	638	372	372	418	784	2,840	7,410	1,860	552	261
5	261	246	*573	367	341	385	771	2,470	6,640	1,680	552	254
6	236	257	552	390	307	418	771	2,960	6,450	1,520	500	250
7	261	276	475	730	276	*413	700	4,820	6,450	1,430	480	239
8	320	521	480	1,020	330	403	678	4,700	6,450	1,350	461	239
9	461	552	466	784	320	399	718	4,410	6,000	1,260	451	236
10	291	446	427	632	300	303	777	4,120	5,600	1,120	505	232
11	328	432	418	627	260	307	784	4,040	5,410	1,050	500	219
12	315	413	385	505	235	390	747	4,160	4,890	1,010	480	202
13	284	390	403	403	280	372	724	4,820	4,890	946	441	212
14	261	362	408	*400	280	376	790	5,340	4,300	886	418	216
15	239	349	399	380	280	371	1,020	5,020	3,850	840	403	199
16	236	354	390	360	270	394	1,900	5,410	3,850	802	380	199
17	390	332	390	350	328	390	3,380	6,580	3,590	759	358	206
18	328	341	403	370	358	422	4,200	7,440	3,240	840	345	219
19	276	336	427	330	358	413	3,460	7,320	3,210	940	341	229
20	257	307	403	270	268	403	3,560	8,130	2,980	1,100	372	212
21	284	291	372	350	320	403	4,010	8,340	4,600	892	345	209
22	345	261	362	400	399	432	4,850	10,200	4,820	759	311	202
23	307	254	358	480	403	422	4,560	10,200	4,200	683	324	295
24	288	324	362	550	399	441	3,940	9,800	3,900	632	345	336
25	272	354	336	500	403	583	3,590	9,850	3,630	600	354	320
26	236	1,040	280	360	475	578	2,900	10,100	3,280	573	332	380
27	261	1,590	284	300	605	573	2,540	10,300	2,980	583	284	390
28	268	933	403	300	616	600	2,380	10,600	2,730	1,030	288	284
29	261	695	403	350	589	724	3,460	11,300	2,520	1,430	280	261
30	284	689	362	410	-	784	3,290	9,300	2,350	899	264	254
31	272	-	232	441	-	724	-	8,580	-	747	257	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	9,123	461	236	294	0.340	0.39	18,100
November	13,443	1,590	243	448	.518	.58	26,660
December	13,698	834	232	442	.511	.59	27,170
Calendar year 1947	344,499	5,660	140	944	1.09	14.82	683,300
January	13,824	1,020	270	446	.516	.59	27,420
February	10,571	616	235	365	.422	.45	20,970
March	14,323	784	303	462	.534	.62	28,410
April	63,528	4,850	666	2,118	2.45	2.73	126,000
May	201,170	11,300	2,470	6,489	7.50	8.65	399,000
June	144,640	8,580	2,350	4,821	5.57	6.22	286,900
July	34,751	2,360	573	1,121	1.30	1.49	68,930
August	12,805	666	257	413	.477	.55	25,400
September	7,501	390	199	250	.289	.32	14,880
Water year 1947-48	539,377	11,300	199	1,474	1.70	23.18	1,070,000

* Winter discharge measurement made on this day.

Note.- Discharge computed on basis of twice-daily staff-gage readings Nov. 5-10, Jan. 18 to May 17, June 1 to July 9, and on basis of graph based on gage readings May 28-31. Stage-discharge relation affected by ice Jan. 14-30, Feb. 8-16. Figures of daily discharge for May 1-17 supersede those published in Water-Supply Paper 1080, "Floods of May-June 1948 in Columbia River Basin."

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 mouth of 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 1948.

Extremes.- Maximum discharge during year, 27,400 second-feet May 29 (gage height, 11.13 feet); minimum, 680 second-feet Oct. 1 or 2 when clock was stopped (gage height, 2.72 feet).

1944-48: Maximum discharge, that of May 29, 1948; minimum daily, 350 second-feet Dec. 12, 1944.

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

Cooperation.- Water-stage recorder inspected by U. S. Forest Service ranger at Bungalow ranger station.

Rating table, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 14 to Sept. 30)

2.8	760	4.8	4,500	8.0	15,300
3.2	1,230	5.4	6,270	9.0	19,000
3.6	1,850	6.0	8,210	10.5	24,900
4.2	3,030	7.0	11,600		

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	700	1,200	1,830	1,100	1,300	2,090	2,010	7,520	17,800	3,530	1,520	848
2	725	1,160	1,680	1,200	1,100	1,940	2,300	6,800	17,600	3,340	1,710	826
3	1,400	1,140	1,620	1,100	1,100	1,750	3,070	6,770	17,900	3,140	1,580	815
4	1,500	1,150	1,500	1,040	1,100	1,570	2,920	7,550	16,500	2,990	1,430	837
5	970	1,140	1,460	1,030	920	1,500	2,760	6,960	14,900	2,880	1,380	826
6	1,100	1,130	1,400	3,190	920	1,570	2,550	7,980	14,200	2,740	1,310	815
7	1,200	1,220	1,340	6,100	1,100	1,550	2,330	10,200	14,000	2,630	1,270	815
8	1,150	2,050	1,310	5,000	1,300	1,490	2,220	9,940	13,800	2,530	1,230	804
9	1,050	1,650	1,290	3,000	1,200	1,430	2,320	9,020	13,000	2,410	1,220	793
10	1,200	1,460	1,230	2,600	1,100	1,130	2,370	8,410	12,800	2,280	1,260	782
11	1,350	1,490	1,220	2,400	1,000	1,370	2,350	8,240	12,400	2,240	1,220	771
12	1,300	1,360	1,180	2,200	1,050	1,520	2,280	8,470	11,000	2,110	1,140	760
13	1,100	1,340	1,190	2,000	1,200	1,420	2,220	10,200	9,800	1,990	1,110	750
14	1,000	1,330	1,190	1,900	1,250	1,370	2,320	10,300	9,020	1,920	1,160	740
15	940	1,240	1,190	1,800	1,250	1,330	3,580	9,760	8,110	1,870	1,080	720
16	1,200	1,190	1,130	1,600	1,250	1,300	5,900	10,300	7,850	1,820	1,040	730
17	2,000	1,150	1,360	1,700	1,500	1,290	8,210	12,500	7,250	1,750	1,020	740
18	2,100	1,160	1,360	1,500	1,900	1,330	8,710	13,800	6,580	1,710	992	780
19	2,400	1,110	1,310	1,450	1,700	1,300	8,140	14,100	6,210	1,990	1,040	750
20	1,730	1,080	1,230	1,500	1,500	1,270	8,810	17,400	6,020	2,220	1,110	730
21	1,850	969	1,180	1,600	1,890	1,240	9,830	19,000	6,300	1,890	1,000	710
22	1,660	969	1,160	1,650	2,280	1,570	11,200	19,900	5,840	1,680	969	740
23	1,550	1,050	1,110	1,710	2,370	1,550	10,400	17,600	5,360	1,550	958	870
24	1,480	1,060	1,110	1,600	2,090	1,520	9,320	17,800	5,010	1,480	1,160	815
25	1,370	1,150	1,050	1,300	1,990	1,630	8,470	19,100	4,870	1,430	1,140	760
26	1,310	2,780	969	1,100	3,250	1,600	7,420	20,600	4,700	1,400	1,040	859
27	1,270	2,320	1,090	1,100	3,340	1,600	6,580	22,900	4,500	1,460	989	815
28	1,230	1,900	1,230	*1,250	2,740	1,780	6,520	24,800	4,150	2,490	914	782
29	1,310	1,710	1,090	1,300	2,350	2,260	8,210	25,200	3,900	2,670	903	740
30	1,370	1,750	936	1,500	-	2,350	8,240	20,300	3,700	1,820	881	710
31	1,270	-	870	1,400	-	2,120	-	18,700	-	1,580	859	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	41,785	2,400	700	1,348	1.35	1.56	82,880
November	41,408	2,780	969	1,380	1.39	1.55	82,130
December	38,815	1,830	870	1,252	1.26	1.45	76,990
Calendar year 1947	1,088,223	18,400	600	2,981	2.99	40.64	2,158,000
January	58,920	6,100	1,030	1,901	1.91	2.20	116,900
February	47,040	3,340	920	1,622	1.63	1.76	93,300
March	48,740	2,350	1,130	1,572	1.58	1.82	96,670
April	163,560	11,200	2,010	5,452	5.47	6.11	324,400
May	421,920	25,200	6,770	13,610	13.7	15.75	836,900
June	285,070	17,900	3,700	9,502	9.54	10.64	565,400
July	67,540	3,530	1,400	2,179	2.19	2.52	134,000
August	35,615	1,710	859	1,149	1.15	1.33	70,640
September	23,413	870	710	780	.783	.87	46,440
Water year 1947-48	1,273,826	25,200	700	3,480	3.49	47.56	2,527,000

Peak discharge (base, 9,000 sec.-ft.).- Apr. 22 (12:30 a.m.) 11,800 sec.-ft.; May 21 (11:30 p.m.) 21,900 sec.-ft.; May 29 (1:30 a.m.) 27,400 sec.-ft.

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 2-19, Jan. 7-14, June 7-13; discharge computed on basis of weather records and records for North Fork Clearwater River near Ahsahka and Lochsa River near Lowell Lowell.

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 1948.

Average discharge.- 22 years, 5,358 second-feet.

Extremes.- Maximum discharge during year, 55,600 second-feet May 29 (gage height, 25.79 feet); minimum, 1,320 second-feet Oct. 1 (gage height, 3.04 feet).
1926-48: 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 Feb. 19 to Mar. 17, which are good. No diversion or regulation above station.

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,360	2,860	5,420	2,540	3,350	6,030	5,990	15,500	38,200	6,830	3,610	1,730
2	1,380	2,740	5,280	3,020	3,100	5,620	7,100	13,800	35,200	6,490	3,870	1,710
3	3,070	2,850	4,950	3,260	2,660	5,000	10,700	13,000	35,800	6,020	3,690	1,690
4	3,450	2,630	4,600	3,020	2,640	4,480	9,900	15,200	34,600	5,750	3,310	1,660
5	2,250	2,620	4,280	2,850	2,650	4,030	8,600	14,200	30,300	5,490	3,080	1,660
6	2,560	2,610	4,090	3,380	2,220	4,120	7,800	15,100	27,800	5,230	2,910	1,630
7	2,810	2,840	3,830	15,200	2,230	4,060	6,980	21,100	27,600	5,020	2,840	1,610
8	2,710	6,980	3,670	18,600	2,700	4,030	6,400	23,200	27,000	4,860	2,720	1,610
9	3,510	6,300	3,550	12,100	2,890	a4,100	8,510	21,700	25,600	4,600	2,630	1,580
10	2,850	4,470	3,380	9,260	2,870	a3,500	6,790	20,000	25,100	4,390	2,650	1,560
11	3,100	4,430	3,300	8,000	2,480	a3,100	6,840	18,700	24,400	4,270	2,720	1,530
12	3,010	4,130	3,180	6,870	2,310	a3,300	6,790	18,300	21,700	4,130	2,570	1,510
13	2,550	3,930	3,110	5,640	2,510	h3,520	6,510	21,600	19,100	3,930	2,420	1,480
14	2,290	3,950	3,210	5,040	2,790	a3,500	6,510	22,500	18,000	3,750	2,430	1,460
15	2,140	3,710	3,260	4,840	2,930	a3,500	8,350	19,800	15,800	3,640	2,410	1,440
16	3,080	3,450	3,200	4,470	3,040	a3,300	12,800	20,800	15,000	3,570	2,250	1,420
17	4,950	3,280	3,290	4,150	2,980	h3,090	18,600	24,100	14,000	3,430	2,170	1,430
18	5,380	3,260	4,120	4,280	3,590	3,240	21,000	27,700	12,600	3,320	2,110	1,440
19	6,000	3,210	4,630	3,850	4,780	3,250	18,600	27,100	12,000	3,570	2,100	1,470
20	4,780	3,020	4,150	3,710	4,130	3,090	19,400	33,800	11,200	4,780	2,250	1,450
21	4,460	2,860	3,830	3,910	3,670	3,060	21,400	37,400	11,600	4,360	2,190	1,430
22	4,420	2,820	3,640	4,060	4,720	3,590	26,000	43,200	11,300	3,570	2,050	1,420
23	3,860	2,570	3,470	4,210	6,840	4,240	24,600	40,700	10,300	3,240	2,040	1,650
24	3,650	2,660	3,280	4,450	5,960	4,150	21,100	39,400	9,540	3,110	2,060	1,780
25	3,320	2,680	3,180	4,040	5,230	5,040	20,300	41,000	9,100	2,960	2,390	1,590
26	3,110	5,460	3,010	3,160	7,110	5,410	17,200	42,800	8,840	2,840	2,270	1,630
27	3,000	7,740	2,870	2,560	10,000	5,040	14,600	45,300	8,670	2,840	2,070	1,750
28	2,890	5,810	3,070	2,640	8,700	5,190	13,300	49,500	7,960	5,460	1,940	1,730
29	2,840	5,020	3,380	2,860	7,070	6,190	16,400	52,000	7,500	8,100	1,870	1,580
30	3,060	4,640	3,000	3,120	-	6,930	17,000	43,200	7,220	5,120	1,840	1,480
31	3,120	-	2,550	3,450	-	6,400	-	39,500	-	4,040	1,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	100,960	6,000	1,360	3,257	1.33	1.54	200,300
November	115,130	7,740	2,610	3,838	1.57	1.75	228,400
December	113,780	5,420	2,550	3,670	1.50	1.73	225,700
Calendar year 1947	2,304,940	34,900	1,190	6,315	2.59	35.13	4,571,000
January	162,540	18,600	2,540	5,243	2.15	2.48	322,400
February	118,170	10,000	2,220	4,075	1.67	1.80	234,400
March	133,100	6,930	3,060	4,294	1.76	2.03	264,000
April	394,070	26,000	5,990	13,140	5.39	6.01	781,600
May	881,200	52,000	13,000	28,430	11.7	13.43	1,748,000
June	561,030	36,200	7,220	18,700	7.66	8.55	1,113,000
July	138,710	8,100	2,840	4,475	1.83	2.11	275,100
August	77,230	3,870	1,770	2,491	1.02	1.18	153,200
September	47,110	1,780	1,420	1,570	.643	.72	93,440
Water year 1947-48	2,843,030	52,000	1,360	7,768	3.18	43.33	5,640,000

Peak discharge (base, 18,000 sec.-ft.).- Jan. 7 (8:30 p.m.) 22,600 sec.-ft.; Apr. 22 (10:30 a.m.) 26,800 sec.-ft.; May 29 (12 m.) 55,600 sec.-ft.

a No gage-height record; discharge computed on basis of records for Clearwater River at Kamiah and at Spalding.

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 1948.
Extremes.- Maximum discharge during year, 13,000 second-feet Feb. 26 (gage height, 12.6 feet, from floodmarks), by slope-area method; minimum observed, 15 second-feet Oct. 2 (gage height, 3.72 feet).
1945-48: Maximum discharge observed, that of Feb. 26, 1948; minimum observed, 4.3 second-feet Aug. 25; minimum gage height observed, 3.28 feet Oct. 12-16, 1945.
Remarks.- Records fair except those for periods of ice effect, which are poor. Gage read once or twice daily. No diversion or regulation.
Revisions (water years).- W 1093: 1946(M).

Rating tables, water year 1947-48, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 30 to Apr. 29, Sept. 7-30)

Oct. 1 to Feb. 25						Feb. 26 to Sept. 30					
3.8	19	4.7	128	6.6	1,460	4.6	20	5.3	129	7.1	1,050
3.9	24	4.9	188	7.4	2,450	4.7	28	5.5	178	7.6	1,600
4.1	39	5.2	308	8.4	3,930	4.8	38	5.8	280	8.2	2,560
4.3	58	5.5	465	9.5	5,850	4.9	50	6.1	406	9.0	4,120
4.5	85	6.0	836	10.5	7,930	5.1	83	6.6	679	10.5	7,750

Discharge, in second-feet, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	78	827	313	360	1,140	1,400	759	867	156	164	29
2	15	64	911	346	300	1,010	1,660	673	660	125	128	26
3	20	62	701	477	270	780	3,970	594	617	116	125	25
4	21	59	717	484	260	594	2,200	660	654	101	103	26
5	40	65	554	342	250	554	1,820	679	480	107	91	26
6	37	74	515	836	220	516	1,520	617	444	101	70	25
7	33	84	408	7,930	230	554	1,310	773	379	99	65	24
8	50	1,400	*361	4,930	300	532	1,220	2,880	323	87	65	26
9	55	632	322	2,840	300	543	1,210	5,280	288	87	65	25
10	64	414	295	1,870	280	353	1,700	3,720	250	83	50	26
11	55	431	290	1,750	180	336	1,520	2,650	269	76	56	22
12	68	436	264	1,040	190	374	1,370	2,410	588	89	53	22
13	58	332	273	700	250	392	1,150	2,460	340	64	52	20
14	43	366	332	600	280	361	1,120	1,950	323	60	46	22
15	34	342	361	500	300	430	1,220	1,370	265	56	44	20
16	33	313	382	400	459	430	1,730	1,030	435	53	38	20
17	41	299	490	300	717	490	2,270	959	397	52	38	20
18	80	366	1,870	250	1,210	559	2,480	874	288	45	37	19
19	188	408	2,280	*220	1,340	490	2,080	801	402	60	39	20
20	126	290	1,380	250	1,100	464	1,700	2,940	425	167	40	21
21	131	236	758	350	1,030	454	1,600	1,760	411	156	43	20
22	175	188	733	521	5,850	889	1,610	3,800	464	83	35	20
23	121	169	588	581	3,460	1,140	1,700	4,490	388	65	39	23
24	91	150	490	1,220	2,260	1,150	1,350	4,080	296	65	40	23
25	82	153	471	883	2,020	1,600	1,360	1,780	262	58	40	26
26	68	2,260	366	600	*7,750	1,350	1,360	1,330	229	53	44	34
27	59	1,680	356	250	3,910	1,260	1,030	992	203	52	46	35
28	54	792	398	250	2,050	1,480	822	837	190	93	39	34
29	54	527	477	300	1,370	2,050	759	1,920	150	444	35	37
30	59	403	304	320	-	2,360	852	1,430	156	307	30	35
31	74	-	282	340	-	1,730	-	1,110	-	197	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	2,046	188	15	66	0.143	0.17	4,060
November	13,073	2,260	59	436	.948	1.06	25,930
December	18,756	2,280	264	605	1.32	1.52	37,200
Calendar year 1947	131,984.9	3,200	5.0	361.6	.786	10.69	261,800
January	31,993	7,930	220	1,032	2.24	2.59	63,460
February	38,496	7,750	180	1,327	2.88	3.11	76,360
March	26,365	2,360	336	850	1.85	2.13	52,290
April	47,093	3,970	759	1,570	3.41	3.81	93,410
May	57,608	5,280	594	1,858	4.04	4.66	114,300
June	11,443	867	150	381	.828	.93	22,700
July	3,359	444	45	108	.235	.27	6,660
August	1,796	164	28	57.9	.126	.15	3,560
September	751	37	19	25.0	.054	.06	1,490
Water year 1947-48	252,779	7,930	15	691	1.50	20.46	501,400

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Jan. 13-21, Jan. 26 to Feb. 15.

Measurements of streamflow 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 1947 to September 1948

Snake River main stem

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 13	Snake River.....	Columbia River....	SW¼ sec. 16, T. 1 S., R. 45 E., at site of former gaging station, 400 feet above Bear Creek, 5,600 feet above Calamity Point dam site, and 7½ miles southeast of Irwin, Idaho.	3,010
13	....do.....	....do.....	NE¼ sec. 4, T. 1 N., R. 43 E., at Swan Valley Bridge about 1 mile below former station near Lyon, Idaho.	3,160
July 28	....do.....	....do.....	SW¼ sec. 5, T. 3 S., R. 35 E., 1 mile southwest of Blackfoot, Idaho.	300
Oct. 7	....do.....	....do.....	SE¼ sec. 35, T. 9 N., R. 30 E., at highway bridge 2½ miles east of Pasco, Wash.	24,400
July 29	....do.....	....do.....	....do.....	28,800
Sept.10	....do.....	....do.....	....do.....	19,400

Henrys Fork Basin, Idaho

July 6	Big Springs Creek..	Henrys Fork.....	Sec. 32, T. 14 N., R. 44 E., at site of former gaging station half a mile southeast of Big Springs railroad station and ¼ mile below road bridge.	182

Salmon Falls Creek Basin, Nev.

Oct. 15	Salmon Falls Creek.	Snake River.....	Sec. 30, T. 45 N., R. 64 E., at bridge on U. S. Highway 93, 1.4 miles south of Contact.	29.8
Dec. 15	....do.....	....do.....	....do.....	36.8
Jan. 22	....do.....	....do.....	....do.....	35.4
Mar. 1	....do.....	....do.....	....do.....	43.4
Apr. 17	....do.....	....do.....	....do.....	101
May 15	....do.....	....do.....	....do.....	212
June 3	....do.....	....do.....	....do.....	370
16	....do.....	....do.....	....do.....	212
July 15	....do.....	....do.....	....do.....	60.1
Aug. 12	....do.....	....do.....	....do.....	19.7

Tributaries and diversions between Big Wood River and Bruneau River, Idaho

Oct. 20	Ake lateral No. 2..	Mountain Home feeder canal.	Sec. 36, T. 2 S., R. 6 E., at head, 5 miles north of Mountain Home.	1.84
Jan. 29	....do.....	....do.....	....do.....	*.15
30	....do.....	....do.....	....do.....	.13
Feb. 26	....do.....	....do.....	....do.....	*.20
Apr. 21	....do.....	....do.....	....do.....	6.14
Sept.28	....do.....	....do.....	....do.....	2.36

* Estimated.

Malheur River Basin, Oreg.

Oct. 16	Warmsprings Creek..	North Fork Malheur River.	Near line between secs. 1 and 2, T. 19 S., R. 37 E., near Beulah.	*2
Dec. 13	....do.....	....do.....	....do.....	*.8
Feb. 10	....do.....	....do.....	....do.....	*2
May 28	....do.....	....do.....	....do.....	*2
Aug. 15	....do.....	....do.....	....do.....	*1

* Estimated.

Weiser River Basin, Idaho

Oct. 14	Johnson Creek.....	Weiser River.....	SE¼ sec. 36, T. 17 N., R. 3 W., above Johnson Park Creek and 10 miles northwest of Council.	1.18
Apr. 19	....do.....	....do.....	....do.....	4.11
June 3	....do.....	....do.....	....do.....	59.6
Aug. 21	....do.....	....do.....	....do.....	1.57
Oct. 14	Johnson Park Creek.	Johnson Creek.....	SE¼ sec. 36, T. 17 N., R. 3 W., at mouth, and 10 miles northwest of Council.	.61
June 3	....do.....	....do.....	....do.....	77.5
July 8	....do.....	....do.....	....do.....	1.08

Burnt River Basin, Oreg.

May 29	Burnt River.....	Snake River.....	Sec. 25, T. 11 S., R. 42 E., at private road bridge, 3 miles west of Durkee.	442

Powder River Basin, Oreg.

In May or June	Eagle Creek.....	Powder River.....	Above Skull Creek, near Newbridge....	†3,150

† Flow at crest stage; computed by slope-area method.

Miscellaneous discharge measurements in Snake River Basin during water year October 1947 to September 1948--Continued

Imnaha River Basin, Oreg.

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Aug. 16	Imnaha River.....	Snake River.....	T. 5 S., R. 47 E., at Coverdale forest guard station.	134

Salmon River Basin, Idaho

May 29	Salmon River.....	Snake River.....	SE¼ sec. 29, T. 24 N., R. 8 E., ¼ mile above stock bridge, 1¼ miles above South Fork Salmon River, and 12 miles south of Dixie.	†55,000
Oct. 18	Idaho Power Co. Canal.	Lemhi River.....	NW¼ sec. 5, T. 21 N., R. 22 E., ¼ mile above Salmon plant of Idaho Power Co. at north edge of Salmon City.	265
Probably May 28	South Fork Salmon River.	Salmon River.....	NE¼ sec. 28, T. 19 N., R. 6 E., 0.9 mile above Krassel ranger station, 47 miles above East Fork of South Fork Salmon River, and 11½ miles west of Yellow Pine.	†5,200
Probably May 28	....do.....	....do.....	SE¼ sec. 15, T. 21 N., R. 7 E., 700 feet below Elk Creek, 1½ miles above road bridge across South Fork Salmon River, and 8 miles southeast of Warren.	‡23,000
Probably May. 28	East Fork of South Fork Salmon River	South Fork Salmon River.	N½ sec. 10, T. 19 N., R. 6 E., 1 mile above mouth and 11 miles west of Yellow Pine.	†10,400
Probably June 3	Warren Creek.....	Salmon River.....	S½ sec. 15, T. 23 N., R. 6 E., 500 feet below Schissler Creek and 5 miles northwest of Warren.	†1,700
Oct. 15	Fall Creek.....	....do.....	Sec. 8, T. 24 N., R. 4 E., 100 feet above mouth, 2½ miles northeast of French Creek post office, and 16 miles east of Riggins.	2.92
About June 1	Little Salmon River	....do.....	NW¼SW¼ sec. 2, T. 20 N., R. 1 E., 1.2 miles above Round Valley Creek and 10 miles north of New Meadows.	†3,300
Probably June 1	....do.....	....do.....	E½ sec. 21, T. 24 N., R. 1 E., 1.2 miles above mouth and 1½ miles southwest of Riggins.	†9,200
Probably May 29	Rapid River.....	Little Salmon River	SW¼ sec. 6, T. 23 N., R. 1 E., ¼ mile below Shingle Creek, 2 miles above mouth, and 5½ miles southwest of Riggins.	†1,600
About June 1	Slate Creek.....	Salmon River.....	Sec. 32, T. 27 N., R. 2 E., 2.8 miles east of Slate Creek and 3 miles above mouth.	†2,600
May 22	Whitebird Creek....	....do.....	SE¼ sec. 15, T. 3 N., R. 1 E., ¼ mile southwest of Whitebird, and ¾ mile above mouth.	†3,500

† Flow at crest stage; computed by slope-area method.
‡ Flow at crest stage; computed from floodmarks and rating curve extended above 11,000 second-feet by logarithmic plotting.

Grande Ronde River Basin, Oreg.

About May 27	Little Creek.....	Catherine Creek....	3 miles east of Union.....	†330

† Flow at crest stage; computed by slope-area method.

Clearwater River Basin

About May 28	Selway River.....	Clearwater River...	SW¼ sec. 34, T. 28 N., R. 14 E., 0.4 mile below bridge at mouth of Deep Creek, 0.9 mile downstream from Magruder ranger station, and 45 miles southwest of Hamilton, Mont.	†3,700
29	White Sand Creek...	Lochsa River.....	NW¼ sec. 35, T. 37 N., R. 14 E., ½ mile above confluence with Crooked Fork, 2½ miles east of Powell ranger station, and 40 miles southwest of Missoula, Mont.	†8,100
29	Crooked Fork.....	....do.....	SE¼ sec. 27, T. 37 N., R. 14 E., ¼ mile above confluence with White Sand Creek, 2 miles east of Powell ranger station, and 40 miles southwest of Missoula, Mont.	†5,700
29	South Fork Clearwater River.	Clearwater River...	NE¼ sec. 36, T. 29 N., R. 6 E., 0.2 mile below Fall Creek, 2 miles above Golden and 3.8 miles below Newsome Creek, Idaho.	†6,600
29	Orofino Creek.....	....do.....	NE¼NE¼ sec. 8, T. 36 N., R. 2 E., at small log dam 1.6 miles above Helgeson Hotel in Orofino, Idaho.	††3,600
28 or 29	North Fork Clearwater River.	....do.....	SW¼ sec. 18, T. 39 N., R. 10 E., 0.3 mile above Kelly Creek and 13¼ miles northeast of Bungalow ranger station, Idaho.	†9,900

† Flow at crest stage; computed by slope-area method.
†† Flow at crest stage; computed by computation of flow over dam.

Miscellaneous discharge measurements in Snake River Basin during water year October 1947 to September 1948--Continued

Clearwater River Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
May 29	North Fork Clearwater River.	Clearwater River...	SE¼ sec. 6, T. 40 N., R. 5 E., 400 feet above road bridge, 2 miles upstream from Little North Fork Clearwater River, and 14½ miles north of Headquarters, Idaho.	†37,000
28 or 29	Kelly Creek.....	North Fork Clearwater River.	Sec. 18, T. 39 N., R. 10 E., 0.7 mile upstream from mouth and 13½ miles northeast of Bungalow ranger station, Idaho.	†13,000
Probably May 29	Little North Fork Clearwater River.	....do.....	NE¼ sec. 2, T. 40 N., R. 4 E., 1¼ miles above mouth and 15¾ miles northwest of Headquarters, Idaho.	†14,000
22	Lapwai Creek.....	Clearwater River...	SW¼ sec. 2, T. 35 N., R. 4 W., 400 feet above railroad depot at Lapwai, Idaho.	†3,800
22	Mission Creek.....	Lapwai Creek.....	NE¼ sec. 24, T. 33 N., R. 3 W., 4 miles southwest of Winchester, Idaho.	‡‡400

† Flow at crest stage; computed by slope-area method.
‡‡ Flow at crest stage; computed from floodmarks and rating curve extended above 90 second-feet by logarithmic plotting.

Palouse River Basin, Wash.

Feb. 26	Palouse River.....	Snake River.....	Sec. 26, T. 15 N., R. 37 E., about 1 mile above Hooper.	†24,700
27	South Fork Palouse River.	Palouse River.....	Sec. 5, T. 14 N., R. 45 E., at highway bridge near railroad depot in Pullman.	4,000
26	....do.....	....do.....	Sec. 13, T. 16 N., R. 43 E., 0.6 mile below railroad crossing and about 1.7 miles above Colfax.	†8,800
26	Paradise Creek.....	South Fork.....	SE¼ sec. 3, T. 14 N., R. 45 E., about 2.4 miles above mouth.	†1,200
27	....do.....	....do.....	....do.....	1,200
26	Missouri Flat Creek	....do.....	Sec. 32, T. 15 N., R. 45 E., about 0.9 mile above mouth.	†1,500
26	Pine Creek.....	Rock Creek.....	Sec. 34, T. 21 N., R. 43 E., ¼ mile above North Pine Creek and 2.7 miles below Rosalia.	†5,600

† Flow at crest stage; computed by slope-area method.

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