Compilation of Records of Surface Waters of the United States, October 1950 to September 1960

Part 13. Snake River Basin

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1737

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Prepared under the direction of E. L. HENDRICKS, *Chief, Surface Water Branch*

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1737

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PREFACE

This report contains summaries of streamflow records in the Snake River basin. It was prepared by the United States Geological Survey in the Water Resources Division, L. B. Leopold, chief, under the general direction of E. L. Hendricks, chief, Surface Water Branch, and F. J. Flynn, chief, Reports Section.

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COMPILATION OF RECORDS OF SURFACE WATERS OF THE SNAKE RIVER BASIN 1951-60

PURPOSE AND SCOPE

This volume is one of a series of reports presenting monthly and yearly summaries of streamflow and reservoir data collected by the Geological Survey during the period October 1, 1950, to September 30, 1960. Included with these data are some records furnished by other Federal, State, and private agencies. This series of reports is a condensation of the detailed streamflow information presented in the annual series of reports known as "Surface Water Supply of the United States" for each of the years 1951 through 1960. The area covered by this report is the Snake River basin.

The purpose of the present series of reports is to make available in summarized form all the surface-water records collected October 1, 1950, to September 30, 1960, and to continue the series of reports known as Water-Supply Papers 1301-19 and 1372 which summarized all surface-water records through September 30, 1950. The present series of reports includes corrections of errors which have been found in the earlier series. Also included are some records collected prior to October 1, 1950, that were omitted from the 1950 compilation series.

The Geological Survey collected the records mainly in cooperation with State, municipal, and other Federal agencies, and published them in detail in the series of annual reports known as "Surface Water Supply of the United States." Some records furnished by other agencies have been included in the annual reports and in the present series of reports; such records are indentified in the station description.

The data presented consist of records of discharge of streams and contents of reservoirs summarized on a monthly and yearly basis. Results of miscellaneous discharge measurements and, in general, stage records have been excluded. Also included is a map of the area showing the location of each station (pl.1). The reports of the present series are generally similar in the type of data they contain and in the form of presentation; moreover, they conform in style with the earlier series of compilation reports so that the entire record for any station up to September 30, 1960, is available in one or two volumes.

All records compiled for these summary reports were examined for major errors. A few revisions were made and the revised figures, noted as such, are included. Some previously unpublished information is included, as well as a few estimates of discharge that were made to fill short gaps in an otherwise complete period of record.

DESCRIPTION OF DATA

The gaging-station records are arranged in downstream order. The order used in this report is the same as that adopted for use in the annual series of reports on surface-water supply beginning with the water year 1951. In a downstream direction along the main stem, all stations on a tributary entering above a main-stem station are listed before that station. If a tributary enters between two main-stem stations, it is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. To indicate the rank of any tributary on which a gaging station is situated and the stream to which it is immediately tributary, each indention in the list-

ing of gaging stations in the table of contents represents one rank. This downstream order and system of indention show which gaging stations are on tributaries between any two stations on a main stem and the rank of the tributary on which each gaging station is situated.

As an added means of identification, each station was assigned a number which is shown on the index map and which is a part of the station name in the heading of the description in the text. The numbers are assigned in downstream order in each part (see explanation of "parts" under the heading "Publications," p. 4) beginning with the most upstream station. The numbers are not consecutive because gaps are left to allow for new stations that may be established.

The data presented for most of the gaging stations comprise a description of the station, a table of monthly discharge in cubic feet per second, a table of monthly discharge in acre-feet, and a yearly summary table. The station description gives the name of the river basin, the station number and name, the location, drainage area, records available, types and datums of gages, average discharge, extremes of discharge, general remarks concerning the data, and a credit statement if records were furnished by another agency.

The location of the gaging station and the drainage area are obtained from the best available maps. When more than one site was used during water years 1951-60 and the difference in drainage areas is significant, the area for the latest site is shown first followed by the areas for other sites in chronological order. In some instances drainage-area figures have not been obtained because of the lack of suitable maps or because the boundaries cannot be defined or the effective drainage area determined.

The paragraph "Records available" lists all periods for which there are published records generally equivalent to those at the present site. If equivalent records have been published under another station name, that fact is also noted.

The gage described first is the present gage or the one used most recently. Information is then given in chronological order for all gages used earlier, giving changes in location, type of gage, or datum. The location or datum of all earlier gages is given with reference to the present or most recently used gage. The datum of the gage is the elevation of the zero of the gage above mean sea level. Where information as to datum is not available, the altitude of the gage is given.

The average discharge for a station is the average of all complete water years and is published only if there are five or more complete water years of record. The years used to determine the average are not necessarily consecutive. The average discharge is not published for some stations because of extensive changes in diversion or storage, or other water development, that have occurred upstream.

In general, the momentary maximum and minimum discharges and stages for the entire period of record are published in the "Extremes" paragraph. These are qualified if necessary according to the type of gage used and the completeness of the record. Maximum and minimum discharges at nonrecording gaging stations are qualified as "observed" unless determined from a graph drawn through actual gage heights which approximates the actual hydrograph.

Under "Remarks" information is given on factors which affect the basin runoff characteristics. These include upstream regulation, diversion, and utilization--a history of

anges in these items during the period 1951-60 is given when known. Also, references are made to the records of storage or diversion upstream and to records concerning quality of water, if published.

When discharge records are furnished by another agency, credit is given under "Cooperation."

The streamflow data summarized in this report generally are contained in two monthly tables and one yearly table. The first monthly table is a tabulation of monthly and yearly mean discharges in cubic feet per second. These figures represent discharge passing the station; they are unadjusted for storage or diversion upstream unless otherwise specified under "Remarks" for the individual station. Each monthly figure is the mean flow for the entire month; generally no record for part of a month is tabulated. Likewise, each yearly figure is the mean flow for a full year, and no figure is shown for a partial year. Usually the months are arranged on a water-year basis. Exceptions to this rule are made in connection with seasonal records wherein the months are grouped to give a complete season for each calendar year.

The second monthly table is a tabulation of monthly and yearly discharge in acre-feet.

The third table contains a yearly summary of the streamflow data. The column headed "WSP" lists the number of the water-supply paper in which the figures of daily and monthly discharge are published. If a part of the record has been revised and the revision published, then reference is made to both the original report and the one containing the revised record; if the daily discharge record for the entire year has been republished to include the revisions, then only the later report is listed. However, there is no reference in this column for revisions published for the first time in this report, as the corresponding revised figures of daily discharge will be published in a water-supply paper which will contain daily records for the period 1961-65. For some stations the third table is omitted; however, the report containing records for any particular year can generally be found by referring to the table given on page 6.

In the third table the momentary maximum discharge for each water year and the date of its occurrence is given if known. For nonrecording gage records, momentary maximums were obtained from graphs drawn through the gage readings. The momentary maximum discharge, however obtained, is not qualified in any way if it is believed to be representative of the absolute maximum for the water year.

The minimum daily discharge for each water year is listed if known. Other data listed in this table are the annual mean discharge and discharge in acre-feet for both water year and the calendar year. The figures listed for the water year are the same as those given in the yearly columns of the preceding tables.

Most canal and diversion records are given in a single table. There are some records for large canals, however, that are published in the same detail as those for streams. Records of reservoirs also are given in a single table which shows the contents at the end of each month.

Revised figures of discharge for water years 1951-60 are not so indicated if they have been published in an annual report, but are noted as "Revised" if they have not been published in an annual report. Revised daily figures which have not been published in annual reports will be published in the water-supply paper containing records for water years

1961-65, except for special cases involving only a few figures which are included in this series of reports. Figures that represent corrections of typographical or computational errors whereas no figures of daily discharge have been revised or changed are indicated as "corrected" in this report. Estimates of discharge made to complete months or years for this report are noted as estimates and as "not previously published."

Revisions or corrections of records published in WSP 1317 are included in this report. For stations operated during at least part of the period 1951-60, the revisions or corrections are published with the rest of the data for the station; for stations not operated since the end of the 1950 water year, the revisions or corrections are published in a special section under the heading "Revisions and corrections to records published in WSP 1317 for stations discontinued prior to September 30, 1950."

PUBLICATIONS

This series of reports comprises 20 volumes of water-supply papers (WSP) as numbered below. The "Part" numbers and the areas covered are the same as those used for the annual series of reports on surface water supply of the United States since 1951. The boundaries of the parts are indicated in figure 1.

Numbers of water-supply papers for 1960 series of compilation reports

WSP	Part	Area
1721	1-A	North Atlantic slope basins, Maine to Connecticut.
1722	1-B	North Atlantic slope basins, New York to York River.
1723	2-A	South Atlantic slope basins, James River to Savannah River.
1724	2-B	South Atlantic slope and eastern Gulf of Mexico basins, Ogeechee River to Pearl River
1725	3-A	Ohio River basin except Cumberland and Tennessee River basins.
1726	3-B	Cumberland and Tennessee River basins.
1727	4	St. Lawrence River basin.
1728	5	Hudson Bay and upper Mississippi River basins.
1729	6-A	Missouri River basin above Sioux City, Iowa.
1730	6-B	Missouri River basin below Sioux City, Iowa.
1731	7	Lower Mississippi River basin.
1732	8	Western Gulf of Mexico basins.
1733	9	Colorado River basin.
1734	10	The Great Basin.
1735	11	Pacific slope basins in California.
1736	12	Pacific slope basins in Washington and upper Columbia River basin.
1737	13	Snake River basin.
1738	14	Pacific slope basins in Oregon and lower Columbia River basin.
1739	-	Hawaii.
1740	-	Alaska.

Records prior to September 30, 1950, were summarized in a series of water-supply papers as listed below. Each of these volumes contains a list of the annual reports from which data prior to 1951 were summarized.

Numbers of water-supply papers for 1950 series of compilation reports

WSP	Part	WSP	Part	WSP	Part
1301	1-A	1308	5	1315-A	11-B
1302	1-B	1309	6-A	1315-B	11-A
1303	2-A	1310	6-B	1316	12
1304	2-B	1311	7	1317	13
1305	3-A	1312	8	1318	14
1306	3-B	1313	9	1319	Hawaii
1307	4	1314	10	1372	Alaska

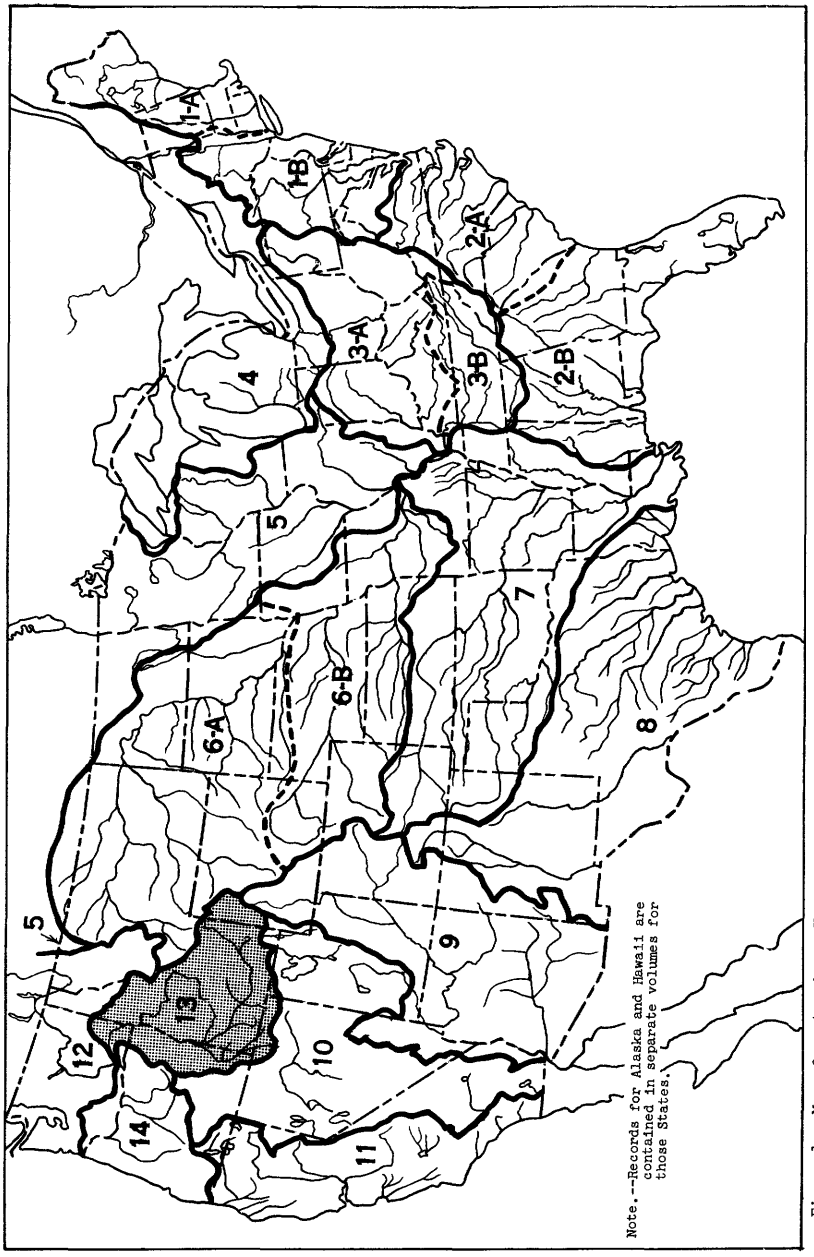

Figure 1.--Map of conterminous United States showing areas covered by 18 of the 20 volumes on surface water supply. The area covered by this report is shaded.

This report is summarized from the following 10 annual reports which contain records of daily discharge for each of the water years from 1951 to 1960.

Annual water-supply papers, Part 13, 1951-60

Water year	WSP	Water year	WSP
1951	1217	1956	1447
1952	1247	1957	1517
1953	1287	1958	1567
1954	1347	1959	1637
1955	1397	1960	1717

In addition to the customary records of discharge collected during the systematic op ation of gaging stations, there is much additional hydrologic information available, bo published and unpublished.

Lists of flood reports and other special reports are contained in the introductory pages of each of the annual reports listed above.

Records for some stations have been analyzed by an electronic computor to give: the number of days in each year that the discharge was between selected limits (duration tables); the lowest and highest mean discharges for selected numbers of consecutive day in each year; and other statistical summaries.

Data on low flow or peak flows or both are available for many sites other than gagin stations.

Specific information on unpublished data available can be obtained by writing direct to the district engineer for the State in which the site or gaging station is located.

HYDROLOGIC CONDITIONS

Streamflow, a residual of precipitation after other demands have been met, varies co siderably from year to year and from place to place. Figure 2 shows yearly discharge f three widely-separated gaging stations in the report area. The pattern of yearly runof shown by these streams is generally representative of hydrologic conditions in their pa of the report area. During December 1955, outstanding floods occurred over most of the central and northern parts of the area. Drought conditions prevailed in the extreme southern part of the area during 1954-55.

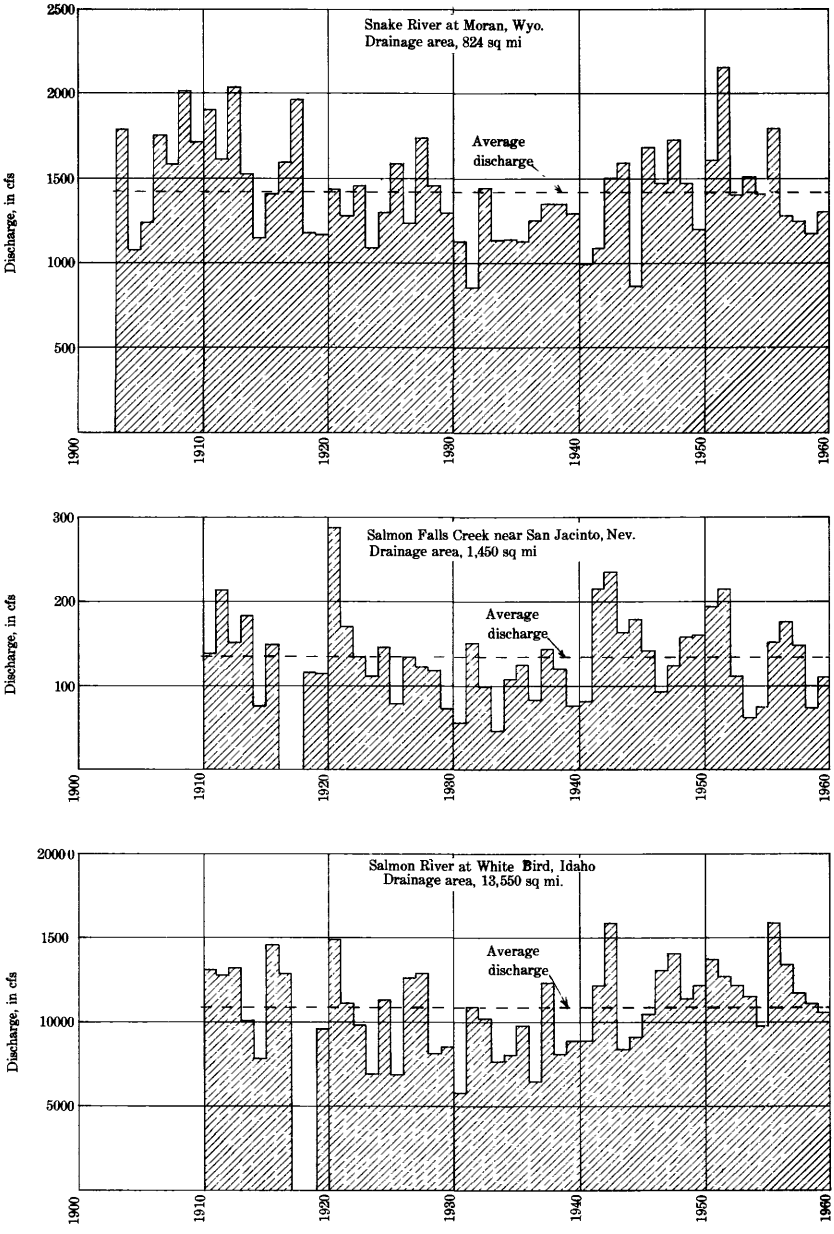

Figure 2.—Yearly discharge at three representative gaging stations

SNAKE RIVER MAIN STEM

105. Jackson Lake at Moran, Wyo.

Location.--Lat 43°51', long 110°35', in sec.18, T.45 N., R.114 W., near left end of spillway over dam on Snake River at Moran.

Drainage area.--824 sq mi.

Records available.--July 1908 to September 1960 (1908-10 fragmentary).

Gage.--Electric-tape gage. Datum of gage is at mean sea level (Bureau of Reclamation datum). Datum of Geological Survey, unadjusted, is 2.19 ft lower. Prior to June 1, 1941, staff gage at site 300 ft upstream at same datum.

Extremes.--1908-60: Maximum contents, 857,220 acre-ft June 23, 1937 (elevation, 6,769.40 ft); no usable contents for several days during period August to October 1919.

Remarks.--Reservoir was formed by log crib dam in 1906 with a usable capacity of 300,000 acre-ft. This dam washed out in July 1910 and was replaced by an earth dam, forming a reservoir with a usable capacity of 380,000 acre-ft. The earth dam was raised in 1916, increasing the usable capacity to 790,000 acre-ft. In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-ft between elevations 6,730 ft (top of baffles to sluices) and 6,769 ft (top of spillway gates). Water is used for irrigation in Snake River Valley, Idaho. Figures given herein represent usable contents.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	606,920	644,560	658,330	649,130	596,200	459,640	439,180	706,090	851,580	823,310	745,540	622,68(
1952	639,510	659,300	690,420	690,180	613,840	520,030	406,320	714,190	850,300	636,380	429,920	281,73(
1953	301,630	317,250	347,300	388,030	416,610	441,910	485,060	589,800	851,070	687,250	431,950	232,43(
1954	252,550	276,700	303,330	341,880	372,080	401,400	449,640	707,320	853,380	745,050	506,320	316,60(
1955	341,010	366,360	390,680	416,840	442,590	473,840	502,630	657,360	850,300	614,320	358,690	192,82(
1956	222,430	255,860	305,660	350,360	379,830	325,190	258,540	503,550	849,280	743,320	527,230	369,65(
1957	400,730	274,820	51,300	84,100	119,590	149,420	185,300	424,960	811,930	773,940	663,420	615,78(
1958	610,740	600,470	609,780	613,130	567,560	490,390	459,190	680,420	843,150	743,320	635,660	497,32(
1959	466,280	471,780	470,870	470,640	480,950	484,850	496,620	620,060	851,580	780,460	641,670	551,32(
1960	540,090	518,170	494,780	483,930	477,050	478,430	514,450	679,940	838,060	734,170	604,770	374,96(

110. Snake River at Moran, Wyo.

Location.--Lat 43°51', long 110°35', in sec.18, T.45 N., R.114 W., on left bank at Moran, 1,000 ft downstream from Jackson Lake Dam.

Drainage area.--824 sq mi. Mean altitude, 8,040 ft.

Records available.--September 1903 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Prior to October 1910, published as South Fork Snake River at Moran.

Gage.--Water-stage recorder. Datum of gage is 6,727.84 ft above mean sea level, unadjusted. Prior to June 13, 1917, staff gage and June 14, 1917, to May 20, 1940, water-stage recorder, at site 1½ miles downstream at different datums.

Average discharge.--57 years (1903-60), 1,427 cfs (1,033,000 acre-ft per year).

Extremes.--1903-60: Maximum discharge, 15,100 cfs June 12, 1918 (gage height, 10.41 ft, site and datum then in use); minimum daily, 2 cfs Nov. 21, 1944, to Apr. 14, 1945, May 13, 1960.
Flood in early June 1894 probably was considerably higher than that of June 12, 1918.

Remarks.--Flow regulated by Jackson Lake (see preceding page).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	34.1	34.0	350	801	1,686	3,053	1,316	552	2,760	3,266	2,655	2,855	1,612
1952	357	120	140	620	2,086	2,220	3,233	264	3,446	5,842	4,450	3,103	2,154
1953	16.1	5.0	5.0	6.0	6.0	7.0	9.1	769	1,805	5,068	5,138	3,921	1,407
1954	20.1	7.0	7.0	7.0	7.0	7.0	12.4	1,344	2,892	4,704	5,052	4,026	1,517
1955	24.4	13.4	7.0	7.0	7.0	11.6	19.9	152	2,089	6,083	5,107	3,275	1,412
1956	19.0	16.0	16.0	16.0	16.0	1,558	2,283	2,375	2,523	4,448	4,812	3,443	1,800
1957	18.0	3,009	4,280	47.1	53.2	166	34.2	29.1	348	3,371	2,631	1,272	1,283
1958	498	540	380	399	1,474	1,801	1,140	912	347	2,518	2,278	2,728	1,250
1959	788	426	409	406	400	420	438	435	2,454	2,876	2,930	2,089	1,177
1960	749	752	728	661	582	423	196	34.5	1,577	2,711	2,617	4,624	1,303

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,100	2,020	21,550	49,230	93,660	187,700	78,290	33,960	164,300	200,800	163,300	169,900	1,167,000
1952	21,950	7,120	8,610	38,120	120,000	136,500	192,400	16,220	205,000	359,200	273,600	184,600	1,563,000
1953	990	298	307	369	333	430	543	47,270	107,400	311,600	315,900	233,300	1,019,000
1954	1,240	417	430	430	389	430	738	82,620	172,100	289,200	310,700	239,600	1,098,000
1955	1,500	795	430	430	389	714	1,190	9,370	124,300	374,000	314,000	194,900	1,022,000
1956	1,170	952	984	984	920	95,820	135,800	146,000	150,100	273,500	295,900	204,900	1,307,000
1957	1,110	179,000	263,200	2,900	2,960	10,200	2,040	1,790	20,720	207,300	161,800	75,670	928,700
1958	30,620	32,100	23,350	24,560	81,860	110,700	67,840	56,070	20,640	154,800	140,100	62,300	904,900
1959	48,460	25,340	25,130	24,960	22,190	25,820	26,070	26,740	146,000	176,800	180,100	124,300	851,900
1960	46,080	44,730	44,730	40,630	33,470	26,000	11,690	2,120	93,820	166,700	160,900	275,100	946,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,237	895,900
1951	1217	5,860	Aug. 20, 1951	34	1,612	1,167,000	1,628	1,179,000
1952	1247	7,690	July 10,11,1952	38	2,154	1,563,000	2,104	1,527,000
1953	1287	7,030	July 30,31,1953	5	1,407	1,019,000	1,408	1,019,000
1954	1347	10,700	June 27, 1954	7	1,517	1,098,000	1,518	1,099,000
1955	1397	7,470	July 19, 1955	7	1,412	1,022,000	1,412	1,022,000
1956	1447	6,250	Aug. 26, 1956	16	1,800	1,307,000	2,407	1,747,000
1957	1517	a7,120	Dec. 4, 1956	13	1,283	928,700	789	571,400
1958	1567	4,400	May 23, 1958	174	1,250	904,900	1,268	917,800
1959	1637	6,810	June 27, 1959	386	1,177	851,900	1,227	888,500
1960	1717	5,270	Sept. 6, 1960	3	1,303	946,000	-	-

a Maximum observed.

115. Pacific Creek near Moran, Wyo.

Location.--Lat 43°51'00", long 110°31'20", in sec.23, T.45 N., R.114 W., on right bank 6 ft upstream from bridge on U. S. Highway 287, half a mile upstream from mouth, and 3 miles southeast of Moran.

Drainage area.--160 sq mi. Mean altitude, 8,160 ft.

Records available.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 6,720 ft (from topographic map). July 31 to Nov. 11, 1906, staff gage at site 0.4 mile downstream at different datum. July 20, 1917, to Sept. 30, 1918, staff gage at site 0.1 mile downstream at different datum. Sept. 23, 1944, to Nov. 13, 1959, at site 100 ft upstream at same datum.

Average discharge.--16 years (1944-60), 265 cfs (191,900 acre-ft per year).

Extremes.--1917-18, 1944-60: Maximum discharge, 3,470 cfs May 21, 1954; maximum gage height, 5.00 ft in gage well, 5.60 ft from outside gage May 28, 1951; minimum daily discharge, 24 cfs Nov. 29, 1952, Jan. 21, 1954, Feb. 20-23, 1955.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	111	95.5	83.3	70.7	55.8	54.8	194	1,197	1,218	483	190	81.0	321
1952	69.8	47.1	49.9	51.0	45.9	44.8	193	1,305	1,345	247	92.5	59.6	296
1953	46.8	32.6	36.3	44.1	38.9	40.1	115	534	1,560	354	91.6	59.1	246
1954	44.6	42.8	37.3	29.2	39.4	43.4	121	1,606	1,393	497	109	61.7	337
1955	55.8	45.9	29.7	29.7	26.6	36.0	73.4	675	1,216	240	80.1	62.1	214
1956	53.4	43.1	65.9	59.6	37.4	40.2	194	1,584	1,702	375	90.7	62.9	359
1957	57.3	49.2	47.2	34.9	36.7	44.4	71.2	1,002	1,466	407	95.7	70.2	282
1958	62.4	47.9	48.4	48.0	47.0	49.7	77.8	962	469	101	50.5	49.3	169
1959	43.1	36.4	34.9	37.7	39.1	43.3	101	579	1,541	261	90.0	80.7	240
1960	71.1	46.6	38.6	36.5	36.3	43.3	137	761	765	119	71.0	55.5	182

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,850	5,680	5,120	4,350	3,100	3,370	11,540	73,570	72,500	29,710	11,660	4,820	232,300
1952	4,290	2,800	3,070	3,140	2,640	2,750	11,460	80,270	80,020	15,190	5,690	3,550	214,900
1953	2,880	1,940	2,230	2,710	2,160	2,470	6,870	32,820	92,830	21,790	5,640	3,520	177,900
1954	2,750	2,550	2,290	1,800	2,190	2,670	7,210	98,770	82,880	30,590	6,700	3,670	244,100
1955	3,430	2,730	1,830	1,830	1,480	2,220	4,370	41,510	72,330	14,730	4,930	3,700	155,100
1956	3,280	2,560	4,050	3,660	2,150	2,470	11,560	97,410	101,300	23,080	5,580	3,740	260,800
1957	3,520	2,930	2,900	2,150	2,040	2,730	4,230	61,640	87,230	25,030	5,880	4,180	240,500
1958	3,840	2,850	2,980	2,950	2,610	3,060	4,630	59,180	27,930	6,190	3,110	2,930	122,300
1959	2,650	2,170	2,140	2,320	2,170	2,660	6,040	35,570	91,680	16,040	5,530	4,800	173,800
1960	4,370	2,770	2,370	2,250	2,090	2,660	8,140	46,810	45,540	7,300	4,370	3,310	132,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	301	25.52	217,800
1951	1217	2,260	May 28, 1951	-	321	2.01	27.23	232,300	310	26.35	224,800
1952	1247	2,530	June 7, 1952	37	296	1.85	25.19	214,900	292	24.83	211,800
1953	1287	2,760	June 15, 1953	24	246	1.54	20.84	177,900	246	20.90	178,400
1954	1347	3,470	May 21, 1954	24	337	2.11	28.59	244,100	338	28.63	244,500
1955	1397	2,290	June 13, 1955	24	214	1.34	18.16	155,100	217	18.39	157,000
1956	1447	3,410	May 22, 1956	31	359	2.24	30.56	260,800	359	30.49	260,300
1957	1517	2,950	June 6, 1957	28	282	1.76	23.95	204,500	283	23.99	204,800
1958	1567	2,370	May 23, 1958	35	169	1.06	14.33	122,300	165	14.01	119,600
1959	1637	3,070	June 7, 1959	27	240	1.50	20.35	173,800	244	20.66	176,300
1960	1717	2,050	May 13, 1960	32	182	1.14	15.46	132,000	-	-	-

120. Buffalo Fork near Moran, Wyo.

Location.--Lat 43°50'10", long 110°30'30", in sec.26, T.45 N., R.114 W., on right bank 0.2 mile above bridge crossing, half a mile upstream from mouth, $2\frac{3}{4}$ miles downstream from Lava Creek, and 4 miles southeast of Moran.

Drainage area.--378 sq mi. Mean altitude, 8,850 ft.

Records available.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 6,720 ft (from topographic map). July 31 to Nov. 20, 1906, staff gage 300 ft upstream from mouth at different datum. July 9, 1917, to Sept. 30, 1918, staff gages at sites within 500 ft upstream from present site at different datums. June 1, 1958, to June 21, 1959, water-stage recorder 0.2 mile upstream at different datum.

Average discharge.--16 years (1944-60), 597 cfs (432,200 acre-ft per year).

Extremes.--1917-18, 1944-60: Maximum discharge, 5,960 cfs June 27, 1954 (gage height, 6.71 ft); minimum, 78 cfs Nov. 20, 1953 (gage height, 0.88 ft), but may have been less during periods of ice effect.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	329	236	194	164	158	154	317	1,664	2,435	2,275	892	383	771
1952	298	207	172	142	140	135	357	1,442	2,755	1,081	401	236	613
1953	188	149	134	125	123	132	224	607	2,657	1,473	369	238	535
1954	194	173	130	117	130	134	251	1,914	2,120	1,889	437	263	650
1955	201	171	142	127	131	141	182	977	2,296	1,210	355	196	512
1956	174	149	154	141	115	121	337	1,854	3,593	1,550	477	264	744
1957	215	178	140	122	121	121	170	1,017	2,751	1,904	491	313	630
1958	224	167	163	153	160	149	178	1,960	1,590	462	235	184	471
1959	169	144	120	114	120	132	218	739	3,059	1,317	440	400	581
1960	249	180	140	116	107	116	364	892	2,196	710	326	209	466

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	20,250	14,030	11,900	10,090	8,750	9,450	18,840	102,300	144,900	139,900	54,850	22,820	558,100
1952	18,350	12,320	10,570	8,710	8,050	8,310	21,220	88,690	163,900	66,460	24,640	14,070	445,300
1953	11,530	8,890	8,230	7,660	6,820	8,130	13,340	37,320	158,100	90,570	22,670	14,140	387,400
1954	11,940	10,270	8,010	7,170	7,240	8,260	14,920	117,700	126,200	116,200	26,870	15,660	470,400
1955	12,390	10,200	8,730	7,790	7,270	8,670	10,840	60,040	136,600	74,380	21,820	11,680	370,400
1956	10,680	8,860	9,470	8,670	6,610	7,460	20,040	114,000	213,800	95,290	29,360	15,720	540,000
1957	13,190	10,610	8,620	7,530	6,690	7,410	10,120	62,530	163,700	117,100	30,160	18,640	456,300
1958	13,790	9,940	10,020	9,430	8,890	9,160	10,570	120,600	94,730	28,440	14,450	10,950	341,000
1959	10,380	8,570	7,380	7,020	6,640	8,110	12,950	45,470	182,000	81,010	27,070	23,800	420,400
1960	15,330	10,730	8,630	7,120	6,170	7,110	21,680	54,860	130,700	43,640	20,040	12,450	338,500

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	730	26.21	528,500
1951	1217	4,210	June 17, 1951	127	771	2.04	27.68	558,100	764	27.43	553,100
1952	1247	4,520	June 7, 1952	120	613	1.62	22.08	445,300	596	21.46	432,700
1953	1287	4,810	June 19, 1953	105	535	1.42	19.20	387,400	537	19.28	339,000
1954	1347	5,960	June 27, 1954	100	650	1.72	23.34	470,400	651	23.39	471,500
1955	1397	3,770	June 25, 1955	110	512	1.35	18.38	370,400	509	18.27	368,100
1956	1447	4,870	June 2, 1956	90	744	1.97	26.79	540,000	748	26.96	543,400
1957	1517	4,460	June 7, 1957	105	630	1.67	22.63	456,300	632	22.69	457,600
1958	1567	4,160	May 26, 1958	135	471	1.25	16.90	341,000	461	16.54	333,600
1959	1637	4,700	June 16, 1959	100	581	1.54	20.86	420,400	592	21.27	428,800
1960	1717	3,840	June 18, 1960	95	466	1.23	16.78	338,500	-	-	-

145. Gros Ventre River at Kelly, Wyo.

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

Drainage area.--622 sq mi. Mean Altitude, 8,850 ft.

Records available.--June to September 1918, October 1944 to September 1958.

Gage.--Staff gage. Altitude of gage is 6,750 ft (from topographic map). June 16 to Sept. 30, 1918, staff gage at site 1 mile upstream at different datum. Oct. 1, 1944, to Aug. 8, 1949, wire-weight gage on bridge at present site and datum. Aug. 9, 1949, to June 25, 1953, staff gage 10 ft upstream at present datum. May 15 to July 23, 1954, May 22 to June 28, 1955, supplementary staff gage 300 ft downstream at datum 1.09 ft higher, and May 20, 1956, to July 10, 1958, supplementary staff gage at site 300 ft dow stream at datum 0.61 ft lower.

Average discharge.--14 years (1944-58), 475 cfs (343,900 acre-ft per year).

Extremes.--1918, 1944-58: Maximum discharge observed, 6,220 cfs June 16, 1918 (gage height, 9.95 ft, site and datum then in use); minimum observed, 101 cfs Mar. 12, 1956 (gage height, 0.27 ft).

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

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	309	228	197	182	178	172	344	1,824	2,321	1,333	608	309	670
1952	268	225	209	185	174	163	370	1,460	1,563	498	261	208	465
1953	178	146	137	148	140	145	217	527	1,765	713	235	157	376
1954	151	164	147	144	141	139	266	1,830	1,283	949	287	213	479
1955	189	169	147	139	132	132	171	846	1,436	476	198	172	351
1956	177	154	161	147	133	140	343	1,930	2,824	1,002	354	213	631
1957	214	198	171	159	161	159	179	962	2,256	1,054	287	247	504
1958	216	172	165	155	160	148	183	1,520	887	260	165	160	351
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	18,990	13,550	12,140	11,170	9,900	10,590	20,500	112,100	138,100	82,270	37,380	18,380	485,100
1952	16,480	13,360	12,840	11,360	9,990	10,030	22,020	89,770	93,000	30,630	16,030	12,400	337,900
1953	10,930	8,660	8,430	9,100	7,760	8,930	12,940	32,430	105,000	43,850	14,480	9,330	271,800
1954	9,290	9,780	9,050	8,870	7,830	8,550	15,840	112,500	76,330	58,360	17,650	12,690	346,700
1955	11,640	10,050	9,030	8,540	7,350	8,110	10,170	52,000	85,460	29,260	12,170	10,220	254,000
1956	10,860	9,180	9,890	9,020	7,620	8,610	20,410	118,600	168,000	61,630	21,780	12,700	458,300
1957	13,130	11,760	10,520	9,750	8,930	9,790	10,660	59,130	134,200	64,840	17,620	14,710	365,000
1958	13,290	10,210	10,130	9,520	8,910	9,110	10,890	93,450	52,760	15,990	10,150	9,550	254,000
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Maximum observed		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	606	13.23	438,800
1951	1217	4,140	May 29, 1951	144	670	1.08	14.63	485,100	667	14.57	483,100
1952	1247	2,960	June 8, 1952	147	465	.748	10.17	337,900	445	9.72	323,200
1953	1287	3,140	June 15, 1953	104	376	.605	8.20	271,800	376	8.20	271,900
1954	1347	3,950	May 22, 1954	116	479	.770	10.45	346,700	483	10.53	349,300
1955	1397	2,160	June 17, 1955	116	351	.564	7.66	254,000	350	7.65	253,200
1956	1447	5,000	June 2, 1956	101	631	1.01	13.83	458,300	639	13.99	463,800
1957	1517	3,810	June 8, 1957	143	504	.810	11.00	365,000	502	10.95	363,300
1958	1567	2,720	May 24, 1958	130	351	.564	7.67	254,000	-	-	-
1959											
1960											

195. Hoback River near Jackson, Wyo.

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

Drainage area.--564 sq mi. Mean altitude, 8,000 ft.

Records available.--July 1917 to September 1918 (published as "near Cheney"), October 1944 to September 1958. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Staff gage. Altitude of gage is 6,040 ft (from topographic map). July 9, 1917, to Sept. 30, 1918, at site 3¾ miles downstream at different datum. Nov. 6, 1944, to May 29, 1956, at site 300 ft upstream at datum 0.92 ft higher.

Average discharge.--14 years (1944-58), 706 cfs (511,100 acre-ft per year).

Extremes.--1917-18, 1944-58: Maximum discharge observed, 6,160 cfs June 16, 1918 (gage height, 13.46 ft, site and datum then in use); minimum observed, 90 cfs Dec. 18, 1946 (gage height, 1.70 ft, site and datum then in use).

Remarks.--Small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	368	307	259	232	229	210	1,104	2,947	2,893	1,959	845	417	985
1952	344	254	238	231	205	200	845	2,632	2,393	985	464	314	760
1953	249	203	198	195	174	195	489	1,058	2,613	1,345	485	287	626
1954	253	228	201	195	196	190	605	2,587	1,963	1,443	485	300	724
1955	242	215	186	188	164	156	261	1,220	1,847	830	383	249	496
1956	240	213	240	217	189	208	1,347	3,396	3,312	1,367	550	328	968
1957	282	229	215	206	202	182	335	1,837	2,724	1,501	522	371	719
1958	289	227	213	210	193	165	302	2,510	1,724	468	281	210	569
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	22,650	18,270	15,920	14,280	12,740	12,920	65,690	181,200	172,100	120,500	51,940	24,830	713,000
1952	21,160	15,120	14,640	14,230	11,820	12,320	50,260	161,800	142,400	60,560	28,510	18,660	551,500
1953	15,310	12,090	12,190	12,010	9,650	12,010	29,070	65,040	155,500	83,270	29,850	17,060	453,000
1954	15,540	13,540	12,380	11,960	10,900	11,660	35,990	159,100	116,800	88,720	29,790	17,860	524,200
1955	14,870	12,790	11,410	11,580	9,130	9,570	15,540	75,010	109,900	51,040	23,540	14,810	359,200
1956	14,760	12,690	14,750	13,360	10,900	12,810	80,140	208,800	197,100	84,070	33,840	19,500	702,700
1957	17,350	13,640	13,250	12,680	11,230	11,170	19,940	122,900	162,100	92,300	32,080	22,100	520,700
1958	17,790	13,530	13,100	12,920	10,700	10,150	17,960	154,300	102,600	28,750	17,270	12,510	411,600
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	921	22.16	666,600
1951	1217	4,730	May 29, 1951	174	985	1.75	23.69	713,000	977	23.49	707,100
1952	1247	3,720	(a)	166	760	1.35	18.32	551,500	744	17.95	540,200
1953	1287	4,080	June 14,19,1953	138	626	1.11	15.07	453,000	628	15.13	454,900
1954	1347	5,900	May 22, 1954	160	724	1.28	17.43	524,200	721	17.35	521,800
1955	1397	2,450	June 16, 1955	137	496	.879	11.93	359,200	500	12.03	362,300
1956	1447	5,800	June 2, 1956	145	968	1.72	23.34	702,700	971	23.41	704,800
1957	1517	4,500	June 7, 1957	150	719	1.27	17.30	520,700	720	17.31	520,900
1958	1567	4,400	May 26, 1958	138	569	1.01	13.70	411,600	-	-	-
1959											
1960											

a May 4, June 7, 1952.

225. Snake River above reservoir, near Alpine, Wyo.

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

Drainage area.--3,465 sq mi.

Records available.--March 1937 to March 1939 (published as "above Greys River near Alpine" July 1953 to September 1960.

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

Average discharge.--8 years (1937-38, 1953-60), 4,398 cfs (3,184,000 acre-ft per year).

Extremes.--1937-39, 1953-60: Maximum discharge, 26,800 cfs June 28, 1954 (gage height, 11.68 ft); minimum, 740 cfs Nov. 16, 1955 (gage height, 2.19 ft).

Remarks.--Flow partly regulated by Jackson Lake (see p. 8). Some diversions from tributaries above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	7,372	5,498	-
1954	1,559	1,380	1,145	1,105	1,095	1,198	2,504	10,980	11,180	11,620	7,534	5,823	4,78
1955	1,593	1,431	1,221	1,175	1,140	1,099	1,506	4,843	10,520	10,060	7,187	4,849	3,90
1956	1,496	1,314	1,575	1,413	1,209	2,661	6,407	14,160	18,570	10,800	7,541	5,366	6,05
1957	1,791	4,244	5,795	1,508	1,316	1,354	1,855	7,358	12,350	10,430	5,054	3,099	4,70
1958	2,121	1,899	1,623	1,535	2,564	2,820	2,820	9,674	7,360	5,058	3,789	4,108	3,78
1959	2,166	1,774	1,563	1,449	1,387	1,477	2,446	4,600	13,590	7,322	5,043	3,696	3,88
1960	2,534	2,176	1,971	1,851	1,678	1,622	2,690	4,649	8,665	5,475	4,236	5,742	3,60

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	453,300	327,200	-
1954	95,840	82,120	70,410	67,930	60,830	73,690	149,000	675,400	665,400	714,500	463,300	346,500	3,465,00
1955	97,940	85,130	75,070	72,200	63,290	67,600	89,610	297,800	625,700	618,300	441,900	288,500	2,823,00
1956	91,990	78,180	96,870	86,880	69,520	163,600	381,300	871,000	1,105,000	664,200	463,700	319,300	4,392,00
1957	110,100	252,500	356,300	92,730	73,070	83,230	110,400	452,400	735,000	641,500	310,700	184,400	3,402,00
1958	130,400	113,000	99,770	94,410	142,400	173,400	167,800	594,800	438,000	311,000	233,000	244,500	2,742,00
1959	133,200	105,600	96,100	89,080	77,020	90,800	145,500	282,800	808,800	450,200	310,100	219,900	2,809,00
1960	155,800	129,500	121,200	113,800	96,520	99,750	160,100	285,900	515,600	336,600	260,500	341,700	2,617,00

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953	1287	-	-	-	-	-	-	-
1954	1347	26,800	June 28, 1954	1,000	4,786	3,465,000	4,800	3,475,00
1955	1397	15,000	June 24, 1955	1,000	3,900	2,823,000	3,912	2,832,00
1956	1447	25,200	June 3, 1956	950	6,050	4,392,000	6,672	4,843,00
1957	1517	19,000	June 6, 1957	1,220	4,700	3,402,000	4,181	3,027,00
1958	1567	18,200	May 23, 1958	1,500	3,788	2,742,000	3,776	2,734,00
1959	1637	18,100	June 16, 1959	1,200	3,880	2,809,000	3,979	2,881,00
1960	1717	12,200	June 18, 1960	1,450	3,605	2,617,000	-	-

230. Greys River above Reservoir, near Alpine, Wyo.

cation.--Lat 43°08'50", long 110°59'20", in SW¼ sec.33, T.37 N., R.118 W., on left bank 2 miles upstream from mouth and 2½ miles southeast of Alpine.
inage area.--451 sq mi. Mean altitude, 8,080 ft.
cords available.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to September 1960. Published as Greys River near Alpine, Idaho, 1917-18 and as Greys River near Alpine, Wyo., 1937-39.
age.--Water-stage recorder. Datum of gage is 5,620.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, staff gage and Mar. 17, 1937, to Mar. 31, 1939, water-stage recorder, at site three-quarters of a mile downstream at different datum.
erage discharge.--8 years (1937-38, 1953-60), 624 cfs (451,800 acre-ft per year).
xtremes.--1917-18, 1937-39, 1953-60: Maximum discharge observed, 5,200 cfs June 14, 1918 (gage height, 4.85 ft, former site and datum); minimum, 118 cfs Dec. 15, 1955 (gage height, 2.62 ft).
emarks.--Less than 500 acres irrigated by diversions from Greys River and tributaries above station.
orrection.--Tables of yearly mean discharge, in cubic feet per second, and monthly and yearly runoff, in thousands of acre-feet, published in WSP 1317 are listed in error. The corrected tables are as follows:

Monthly and yearly mean discharge, in cubic feet per second

ater ear	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
917	-	-	-	-	-	-	-	-	-	‡1,760	698	484	-
918	-	-	-	-	-	-	-	-	‡3,490	1,100	562	412	-
937	-	-	-	-	-	‡184	328	1,605	1,214	575	318	258	-
938	253	209	223	190	182	183	933	1,918	2,000	841	445	357	646
939	311	254	231	216	205	253	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on the basis of records for nearby streams.

Monthly and yearly discharge, in thousands of acre-feet

ater ear	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
917	-	-	-	-	-	-	-	-	-	‡108	42.9	28.8	-
918	-	-	-	-	-	-	-	-	‡208	67.6	34.6	24.5	-
937	-	-	-	-	-	‡11.3	19.54	98.69	72.24	35.33	19.53	15.35	-
938	15.58	12.46	13.71	11.67	10.13	11.27	55.52	118	119	51.69	27.35	21.24	467.6
939	19.1	15.09	14.22	13.26	11.38	15.58	-	-	-	-	-	-	-

‡ Not previously published; partly estimated on the basis of records for nearby streams.

Monthly and yearly mean discharge, in cubic feet per second

ater ear	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
951													
952													
953													
954	280	250	212	212	204	217	650	2,242	1,521	898	444	333	625
955	284	252	201	200	190	180	274	1,214	1,480	619	348	266	460
956	246	229	325	289	215	315	1,263	2,843	2,785	966	506	378	864
957	322	249	224	193	192	215	413	2,012	2,684	1,237	506	368	720
958	323	280	270	231	208	197	342	2,326	1,875	658	376	322	620
959	261	242	230	188	186	191	538	1,335	2,054	708	396	311	554
960	309	233	229	207	195	221	625	1,363	1,477	542	332	267	500

Monthly and yearly discharge, in acre-feet

ter ar	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
51													
52													
53													
54	17,220	14,890	13,020	13,040	11,310	13,350	38,680	137,800	90,530	55,220	27,270	19,790	452,100
55	17,480	15,020	12,330	12,300	10,550	11,070	16,280	74,660	88,050	38,060	21,410	15,830	333,000
56	15,150	13,640	19,990	17,800	12,380	19,340	75,170	174,800	165,700	59,370	31,130	22,470	626,900
57	19,830	14,830	13,750	11,860	10,650	13,240	24,560	123,700	159,700	76,040	31,130	21,870	521,200
58	19,880	16,660	16,610	14,220	11,540	12,110	20,370	143,000	111,600	40,480	23,120	19,130	448,700
59	16,070	14,410	14,120	11,580	10,350	11,750	32,030	82,090	122,200	43,330	24,350	18,500	401,000
60	19,020	13,890	14,060	12,750	11,230	13,600	37,180	83,800	87,880	33,330	20,400	15,900	363,000

Yearly discharge, in cubic feet per second

ar	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
30								
31								
32								
33								
54	1347	4,210	May 22, 1954	175	625	452,100	624	451,800
55	1397	2,010	June 9, 1955	-	460	333,000	465	337,000
56	1447	5,010	May 25, 1956	145	864	626,900	863	626,600
57	1517	4,290	June 7, 1957	180	720	521,200	726	525,900
58	1567	3,720	May 28, 1958	185	620	448,700	608	440,200
59	1637	2,920	June 16, 1959	155	554	401,000	557	403,400
60	1717	2,500	May 13, 1960	-	500	363,000	-	-

235. Snake River below Greys River, at Alpine, Idaho

Location.--Lat 43°10'20", long 111°02'30", in SW¼ sec.19, T.37 N., R.118 W., sixth princ meridian, Wyoming, at State line bridge on U. S. Highway 89, ε quarter of a mile sout Alpine, 1¼ miles upstream from Salt River, and 2 miles downstream from Greys River.

Drainage area.--3,940 sq mi.

Records available.--October 1944 to June 1954.

Gage.--Wire-weight gage. Datum of gage is 5,543.89 ft above mear sea level (levels by Bureau of Reclamation). Prior to Nov. 6, 1944, chain gage at datum 4.29 ft lower.

Average discharge.--9 years (1944-53), 5,477 cfs (3,965,000 acre-ft per year).

Extremes.--1944-54: Maximum discharge, 28,200 cfs June 28, 1954 (gage height, 10.4 ft, from graph based on gage readings); minimum daily, 1,050 cfs Jan. 25-31, 1949; minimum gage height observed, 2.29 ft Mar. 6, Apr. 3, 1945.

Remarks.--Some regulation by Jackson Lake (see p. 8). Diversions for irrigation of abo 91,000 acres above gage.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The yea
1951	2,674	2,359	2,297	2,429	3,276	4,366	5,800	13,380	16,960	12,930	7,577	5,564	6,6
1952	2,841	2,068	1,767	2,168	3,463	3,523	7,099	12,780	15,450	10,350	7,204	5,302	6,1
1953	2,250	1,792	1,535	1,608	1,452	1,567	2,572	5,669	15,280	11,570	7,771	5,959	4,9
1954	1,912	1,736	1,447	1,398	1,381	1,427	3,149	13,530	13,870	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The yea
1951	164,400	140,400	141,200	149,400	181,900	268,500	345,100	822,900	1,009,000	794,900	465,900	331,100	4,815,0
1952	174,700	123,100	108,700	133,300	199,200	216,600	422,400	786,200	919,500	636,300	442,900	315,500	4,478,0
1953	138,400	106,600	94,370	98,880	80,650	96,340	153,000	348,600	909,500	711,300	477,800	354,600	3,570,0
1954	117,600	103,400	88,980	85,960	76,700	87,770	187,400	832,000	765,700	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	5,965	4,318,0
1951	1217	24,500	June 18, 1951	1,800	6,651	4,815,000	6,596	4,775,0
1952	1247	22,600	June 8, 1952	1,600	6,169	4,478,000	6,077	4,411,0
1953	1287	22,100	June 19, 1953	1,240	4,931	3,570,000	4,890	3,541,0
1954	1347	28,200	June 28, 1954	-	-	-	-	-

240. Salt River near Smoot, Wyo.

Location.--Lat 42°36'20", long 110°55'10", in sec.7, T.30 N., R.118 W., on left bank 11 miles south of Smoot, 1½ miles upstream from Willow Creek, and 4 miles upstream from Cottonwood Creek.

Drainage area.--47.8 sq mi.

Records available.--June 1932 to September 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to Apr. 11, 1934, chain gage and Apr. 11 to Sept. 30, 1934, water-stage recorder, at same site at datum 1.00 ft higher.

Average discharge.--25 years (1932-57), 36.2 cfs (26,210 acre-ft per year).

Extremes.--1932-57: Maximum discharge, 460 cfs June 7, 1957 (gage height, 3.83 ft); no flow Jan. 25-28, 1949.

Remarks.--Water rights totaling 58.21 cfs (priorities 1886-1939), for irrigation of about 4,000 acres, adjudicated by Wyoming for diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13.1	12.6	12	11	12	14.6	67.5	204	170	75.3	27.7	19.3	53.4
1952	18.9	13.1	10.9	6.38	6.17	7.51	55.6	192	134	40.2	17.2	13.6	43.1
1953	12.5	10.9	8.28	9.19	9.96	8.86	33.4	75.0	153	56.5	19.6	13.4	34.2
1954	11.3	9.18	7.52	4.70	5.81	7.22	29.5	148	74.2	34.6	11.2	11.1	29.7
1955	8.05	9.76	5.35	4.29	4.28	6.33	13.9	89.2	111	32.7	20.2	11.9	26.5
1956	11.1	9.82	7.42	6.58	4.71	7.03	92.1	227	190	46.6	20.1	14.6	53.1
1957	12.7	9.82	4.54	2.5	4.0	7.0	13.6	203	248	106	16.0	14.3	53.6
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	807	750	738	676	666	897	4,020	12,560	10,090	4,630	1,700	1,150	38,680
1952	1,160	778	671	393	355	462	3,310	11,820	8,000	2,470	1,060	811	31,290
1953	768	651	509	565	553	545	1,990	4,610	9,090	3,470	1,210	795	24,760
1954	694	546	463	289	323	444	1,750	9,120	4,420	2,130	688	662	21,530
1955	495	581	329	264	238	389	825	5,480	6,630	2,010	1,240	706	19,190
1956	685	584	456	405	271	432	5,480	13,990	11,300	2,870	1,240	871	38,580
1957	783	583	279	154	222	430	808	12,460	14,780	6,490	984	853	38,830
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	56.4	40,810
1951	1217	353	May 29, 1951	-	53.4	38,680	53.9	39,000
1952	1247	353	May 2, 1952	5.0	43.1	31,290	42.1	30,610
1953	1287	275	June 15, 1953	7.4	34.2	24,760	33.9	24,530
1954	1347	265	May 22, 1954	3.2	29.7	21,530	29.3	21,230
1955	1397	230	June 12, 1955	3.5	26.5	19,190	27.0	19,510
1956	1447	394	May 24, 1956	3.5	53.1	38,580	53.0	38,500
1957	1517	460	June 7, 1957	-	53.6	38,830	-	-
1958								
1959								
1960								

245. Cottonwood Creek near Smoot, Wyo.

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

Drainage area.--26.3 sq mi.

Records available.--October 1932 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 6,750 ft (from topographic map). Prior to Apr. 8, 1934, staff gage at site 0.3 mile downstream at different datum.

Average discharge.--25 years (1932-57), 44.5 cfs (32,220 acre-ft per year).

Extremes.--1932-57: Maximum discharge, 438 cfs June 2, 1956 (gage height, 3.31 ft); maximum gage height, 4.12 ft June 10, 1957 (backwater from debris); minimum discharge, 6.4 cfs Mar. 11, 1948; minimum gage height, 0.95 ft Jan. 19, 1950.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	26.4	24.5	20.4	18.0	18.0	16.8	34.4	115	214	138	67.3	44.3	61
1952	35.2	26.2	23.7	23.0	20.2	16.0	30.0	116	189	78.3	46.3	28.6	5[illegible]
1953	21.9	19.0	16.2	16.4	15.9	14.3	23.1	42.0	192	108	51.5	33.0	46
1954	24.5	18.8	18.0	13.7	12.0	12.0	18.4	110	109	84.5	43.3	29.4	41
1955	22.8	18.0	15.1	14.0	12.0	8.72	10.9	48.2	133	71.3	37.1	27.1	34
1956	19.5	16.1	15.2	12.7	12.2	13.3	28.7	118	206	79.6	48.2	31.8	50
1957	24.9	19.7	18.0	15.2	14.1	14.0	17.2	83.8	213	160	54.4	34.4	55
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,620	1,460	1,250	1,110	998	1,030	2,050	7,070	12,760	8,500	4,140	2,640	44,6
1952	2,160	1,560	1,460	1,420	1,160	984	1,790	7,140	11,230	4,810	2,850	1,700	38,2
1953	1,340	1,130	996	1,010	883	881	1,370	2,580	11,420	6,620	3,170	1,960	33,3
1954	1,500	1,120	1,110	841	666	738	1,100	6,780	6,510	5,200	2,660	1,750	29,9
1955	1,400	1,070	928	861	665	536	648	2,960	7,900	4,380	2,280	1,610	25,2
1956	1,200	956	936	783	704	815	1,710	7,230	12,240	4,900	2,960	1,890	36,3
1957	1,530	1,170	1,110	936	783	859	1,020	5,150	12,650	9,840	3,340	2,040	40,4
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	53.2	38,5
1951	1217	399	June 18, 1951	14	61.6	44,630	62.8	45,[illegible]
1952	1247	302	June 9, 1952	14	52.7	38,260	50.4	36,5
1953	1287	335	June 17, 1953	13	46.1	33,360	46.4	33,[illegible]
1954	1347	225	May 21, 1954	12	41.4	29,980	40.9	29,[illegible]
1955	1397	171	June 11, 1955	7.3	34.9	25,240	34.5	24,[illegible]
1956	1447	438	June 2, 1956	10	50.0	36,330	51.0	37,[illegible]
1957	1517	318	June 6, 1957	13	55.9	40,430	-	
1958								
1959								
1960								

250. Swift Creek near Afton, Wyo.

Location.--Lat 42°43'30", long 110°54'00", in SE¼ sec.29, T.32 N., R.118 W., on right bank 1 mile upstream from mouth of canyon, 1½ miles east of Afton, and 4½ miles upstream from mouth.

Drainage area.--27.4 sq mi.

Records available.--October 1942 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,420 ft (from topographic map).

Average discharge.--18 years (1942-60), 88.4 cfs (64,000 acre-ft per year).

Extremes.--1942-60: Maximum discharge, 775 cfs June 30, 1957 (gage height, 3.52 ft); minimum daily, 20 cfs Dec. 30, 1958.

Remarks.--Pipeline (adjudication, 2.5 cfs) diverts water above station for town of Afton. Diurnal fluctuation caused by small powerplant and reservoir (adjudication, 48.45 acre-ft per year) a quarter of a mile upstream. No diversion for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	59.1	54.7	49.3	41.6	39.2	37.6	54.1	183	279	231	111	73.3	101
1952	64.3	52.7	50.8	54.4	42.3	35.7	49.8	180	292	134	76.8	62.4	92.1
1953	50.2	48.6	45.1	45.0	36.9	34.6	39.5	62.7	284	210	84.6	56.4	83.3
1954	47.7	43.1	38.9	35.0	35.0	35.0	39.4	177	207	187	76.6	56.4	81.9
1955	48.2	40.9	37.9	40.0	39.8	38.9	37.6	91.1	226	129	68.5	52.2	70.9
1956	44.4	40.6	37.9	34.0	34.1	34.5	50.7	171	357	179	80.5	60.2	93.6
1957	50.3	46.3	41.4	37.8	34.9	36.2	39.4	124	384	300	103	67.3	106
1958	54.4	48.8	43.9	39.7	43.1	45.6	48.7	195	282	133	78.1	53.9	89.1
1959	48.8	45.6	37.6	27.6	27.7	29.6	39.2	61.7	336	185	71.4	52.7	80.3
1960	61.9	51.1	40.7	35.3	33.8	38.0	44.5	89.5	234	92.5	52.9	37.8	67.6

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,630	3,250	3,030	2,560	2,180	2,310	3,220	11,230	16,590	14,210	6,810	4,360	73,380
1952	3,960	3,140	3,120	3,340	2,440	2,190	3,560	11,070	17,400	8,210	4,720	3,710	66,860
1953	3,090	2,890	2,770	2,770	2,050	2,130	2,350	3,860	16,890	12,920	5,200	3,360	60,280
1954	2,940	2,560	2,390	2,150	1,940	2,150	2,340	10,890	12,340	11,520	4,710	3,350	59,280
1955	2,960	2,430	2,330	2,460	2,210	2,390	2,240	5,600	13,460	7,940	4,210	3,110	51,340
1956	2,730	2,420	2,330	2,090	1,960	2,120	3,020	10,500	21,240	10,990	4,950	3,580	67,930
1957	3,090	2,750	2,550	2,320	1,940	2,220	2,340	7,610	22,830	18,420	6,310	4,000	76,380
1958	3,350	2,900	2,700	2,440	2,400	2,800	2,900	11,980	16,790	8,210	4,800	3,210	64,480
1959	3,000	2,720	2,310	1,700	1,540	1,820	2,330	3,790	20,000	11,400	4,390	3,130	58,130
1960	3,810	3,040	2,500	2,170	1,950	2,340	2,650	5,500	13,950	5,680	3,250	2,250	49,090

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	101	73,360
1951	1217	545	May 28, 1951	31	101	73,380	102	73,690
1952	1247	520	June 6, 1952	30	92.1	66,860	90.1	65,390
1953	1287	555	June 19, 1953	31	83.3	60,280	82.1	59,420
1954	1347	426	June 27, 1954	32	81.9	59,280	81.7	59,110
1955	1397	306	June 24, 1955	34	70.9	51,340	70.6	51,100
1956	1447	565	June 3, 1956	27	93.6	67,930	95.1	68,840
1957	1517	775	June 30, 1957	32	106	76,380	106	76,940
1958	1567	518	May 28, 1958	34	89.1	64,480	87.8	63,560
1959	1637	584	June 16, 1959	20	80.3	58,130	82.1	59,450
1960	1717	406	June 4, 1960	28	67.6	49,090	-	-

275. Salt River above reservoir, near Etna, Wyo.

Location.--Lat 43°04'50", long 111°02'15", in NE¼ sec.28, T.36 N., R.119 W., on right bank 3½ miles northwest of Etna and 8 miles upstream from mouth.

Drainage area.--829 sq mi.

Records available.--July to September 1917, June to September 1918, October 1953 to September 1960. Published as Salt River near Alpine, Idaho 1917-18.

Gage.--Water-stage recorder. Datum of gage is 5,675.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. July 1 to Sept. 30, 1917, and June 5 to Sept. 1918, staff gage at site 5 miles downstream at different datum.

Average discharge.--7 years (1953-60), 685 cfs (495,900 acre-ft per year).

Extremes.--1917-18, 1953-60: Maximum discharge, 2,420 cfs Apr. 24, 1956 (gage height, 4.68 ft); minimum, 281 cfs Feb. 4, 1956 (gage height, 1.81 ft).

Remarks.--Water rights totaling 960.63 cfs (priorities 1886 to 1943) for irrigation of about 65,840 acres, 470.10 cfs (priorities 1889 to 1939) for industry and power, and 7.18 cfs (priorities 1887 to 1941) for domestic and municipal supply, adjudicated by Wyoming for diversions above station. Two small reservoirs above station in Wyoming for power and fish culture (total adjudication, 52.22 acre-ft per year).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	534	554	512	452	423	422	852	1,080	735	679	598	586	62
1955	579	554	468	419	397	379	512	944	750	538	545	531	55
1956	534	555	612	552	401	490	1,557	2,138	1,293	815	706	679	86
1957	638	631	545	483	452	463	762	1,870	1,573	1,028	789	764	83
1958	703	656	585	502	485	473	787	1,960	1,029	708	637	642	76
1959	607	585	550	451	415	423	808	995	688	581	549	592	60
1960	604	569	476	422	402	424	899	869	505	485	474	523	55

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	32,830	32,980	31,490	27,780	23,480	25,970	50,720	66,410	43,710	41,780	36,750	34,880	448,80
1955	35,620	32,970	28,780	25,740	22,070	23,290	30,450	58,050	44,650	33,080	33,520	31,590	399,80
1956	32,830	33,000	37,640	33,970	23,040	30,100	92,660	131,500	76,920	50,090	43,410	40,410	625,60
1957	39,250	37,560	33,490	29,670	25,110	28,490	45,330	115,000	93,600	63,210	48,500	45,480	604,70
1958	43,240	39,010	35,970	30,850	26,950	29,100	46,830	120,500	61,230	43,540	39,160	38,230	554,60
1959	37,310	34,790	33,830	27,760	23,040	26,010	48,050	61,160	40,940	35,730	33,730	35,240	437,60
1960	37,150	33,890	29,260	25,970	23,100	26,090	53,490	53,430	30,060	29,830	29,160	31,110	402,50

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954	1347	1,560	May 11, 1954	400	620	448,800	620	448,80
1955	1397	1,280	May 9, 1955	358	552	399,800	561	405,90
1956	1447	2,420	Apr. 24, 1956	294	862	625,600	871	632,40
1957	1517	2,320	May 21, 1957	425	835	604,700	846	612,60
1958	1567	2,260	May 23, 1958	458	766	554,600	749	542,30
1959	1637	1,230	May 2, 1959	395	604	437,600	597	432,00
1960	1717	1,520	Apr. 10, 1960	360	555	402,500	-	-

285. Salt River at Wyoming-Idaho State line

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

Drainage area.--890 sq mi.

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

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

Average discharge.--22 years (1933-55), 702 cfs (508,200 acre-ft per year).

Extremes.--1933-55: Maximum discharge, 3,520 cfs May 6, 1936 (gage height, 4.64 ft); minimum, 217 cfs May 17, 1934 (gage height, 1.30 ft); minimum daily, 220 cfs May 17, 1934.

Remarks.--Some diurnal fluctuation at low flow caused by many small powerplants on tributaries. Water rights totaling 960.63 cfs (priorities 1886-1942) for irrigation of about 66,000 acres, 471.10 cfs (priorities 1889-1939) for industry and power, and 7.18 cfs (priorities 1887-1941) for domestic and municipal supply, adjudicated by Wyoming for diversion above station. Two small reservoirs above station in Wyoming for diversion above station. Two small reservoirs above station in Wyoming for power and fish culture (total adjudication, 52.22 acre-ft per year).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	789	759	635	528	512	460	1,546	2,055	1,404	1,030	969	805	959
1952	739	692	612	527	488	449	1,266	2,467	1,244	870	737	690	900
1953	620	594	520	517	462	443	777	964	1,043	618	644	613	652
1954	584	596	521	454	431	434	937	1,151	777	688	596	601	648
1955	592	554	467	414	392	375	568	1,004	783	541	547	544	566

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	48,530	45,180	39,050	32,480	28,420	28,270	91,991	126,400	83,540	63,320	59,560	47,900	694,600
1952	45,450	41,150	37,640	32,420	28,080	27,600	75,330	151,700	74,030	53,480	45,340	41,070	653,300
1953	38,140	35,330	31,960	31,810	25,660	27,220	46,220	59,300	62,090	38,000	39,600	36,490	471,800
1954	35,940	35,450	32,060	27,930	23,940	26,660	55,740	70,780	46,220	42,320	36,620	35,760	469,400
1955	36,400	32,940	28,720	25,480	21,770	23,070	33,800	61,720	46,620	33,290	33,630	32,370	409,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,025	741,700
1951	1217	2,280	May 12, 1951	429	959	694,600	948	686,100
1952	1247	3,470	May 4, 1952	434	900	653,300	874	634,500
1953	1287	1,430	June 3, 1953	414	652	471,800	649	469,800
1954	1347	1,620	May 11, 1954	410	648	469,400	641	464,000
1955	1397	1,330	May 9, 1955	350	566	409,800	-	-

295. McCoy Creek above reservoir, near Alpine, Idaho

Location.--Lat 43°10'50", long 111°06'55", in SW¼ sec.6, T.3 S., R.46 E., Boise meridian on left bank 1½ miles upstream from mouth and 5 miles west of Alpine.

Drainage area.--108 sq mi. Mean altitude, 6,960 ft.

Records available.--July to September 1917, June to September 1918, May to July 1934, September 1953 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Published as McCoy Creek near Alpine, Idaho, 1917-18, and as McCoy Creek near Alpine, Wyo., 1934.

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

Average discharge.--7 years (1953-60), 85.5 cfs (61,900 acre-ft per year).

Extremes.--1917-18, 1934, 1953-60: Maximum discharge, 1,130 cfs Apr. 21, 1956 (gage height 5.72 ft); minimum, 1 cfs for many days in 1934.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	15.2	16.3	14.6	13.9	15.8	19.8	260	335	147	63.6	27.7	18.8	79
1955	17.0	17.7	13.1	12.2	12.0	11.9	47.6	322	182	55.9	24.8	15.1	61
1956	15.5	17.0	40.7	29.5	22.2	50.2	517	558	191	54.8	25.0	16.5	128
1957	17.0	16.8	14.4	12.1	14.3	18.8	122	606	245	77.7	34.8	22.7	101
1958	19.6	16.9	16.6	15.0	16.2	18.0	145	667	151	47.2	21.9	16.9	96
1959	14.1	18.2	15.3	13.5	12.3	16.5	194	319	201	53.6	27.0	22.6	76
1960	24.2	13.7	9.6	9.2	12.1	25.7	190	228	93.1	33.8	17.5	14.1	55

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	934	968	899	857	875	1,220	15,450	20,610	8,760	4,100	1,710	1,120	57,50
1955	1,050	1,060	807	752	664	732	2,830	19,790	10,840	3,440	1,530	899	44,33
1956	954	1,010	2,500	1,820	1,280	3,090	30,790	34,320	11,340	3,370	1,540	980	92,99
1957	1,050	1,000	885	742	795	1,150	7,260	37,240	14,570	4,780	2,140	1,350	72,97
1958	1,210	1,010	1,020	922	899	1,110	8,630	41,020	8,960	2,900	1,350	1,000	70,02
1959	869	1,080	942	831	682	1,020	11,520	19,600	11,960	3,610	1,660	1,340	55,17
1960	1,490	817	589	567	698	1,580	11,300	14,010	5,540	2,080	1,080	837	40,52

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954	1347	813	Apr. 28, 1954	11	79.4	57,500	79.6	57,62
1955	1397	813	May 6, 1955	11	61.3	44,330	63.5	45,94
1956	1447	1,130	Apr. 21, 1956	13	128	92,930	126	91,40
1957	1517	1,070	May 13, 1957	11	101	72,980	101	73,27
1958	1567	1,060	May 5, 1958	14	96.7	70,030	96.3	69,68
1959	1637	639	Apr. 30, 1959	10	76.1	55,110	76.1	55,17
1960	1717	550	Apr. 9, 1960	7	55.9	40,590	-	-

300. Indian Creek above reservoir, near Alpine, Idaho

Location.--Lat 43°15'35", long 111°04'00", near center of sec.9, T.2 S., R.46 E., on right bank a quarter of a mile downstream from forks of creek, 3 miles upstream from mouth, and 5½ miles north of Alpine.

Drainage area.--36.8 sq mi.

Records available.--July to September 1917, June to September 1918, August 1953 to September 1960. Published as Indian Creek near Blowout 1917-18.

Gage.--Water-stage recorder. Altitude of gage is 5,820 ft (from topographic map). July 14 to Sept. 30, 1917, and June 4 to Sept. 21, 1918, staff gage at site 3 miles dowrstream at different datum.

Average discharge.--7 years (1953-60), 14.3 cfs (10,350 acre-ft per year).

Extremes.--1917-18, 1953-60: Maximum discharge observed, 350 cfs June 14, 1918; no flow for many days.

Remarks.--One small diversion from North Fork for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	0	0	-
1954	0	0	0	0	0	0	3.4	69.5	76.2	51.4	4.3	0	17.2
1955	0	0	0	0	0	0	0	11.5	55.9	13.5	1.9	1.0	6.9
1956	0	0	0	0	0	0	3.4	61.2	163	31.4	2.4	1.5	21.8
1957	.4	0	0	0	0	0	0	19.5	107	41.4	.4	0	14.1
1958	0	0	0	0	0	0	0	60.8	98.9	8.6	0	0	14.0
1959	0	0	0	0	0	0	0	3.3	115	25.4	10.8	5.2	13.3
1960	3.3	1.6	0	0	0	0	3.9	29.5	85.3	19.6	7.1	3.0	12.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	0	0	-
1954	0	0	0	0	0	0	206	4,270	4,530	3,160	262	0	12,430
1955	0	0	0	0	0	0	0	704	3,320	827	115	60	5,030
1956	2	0	0	0	0	0	202	3,760	9,700	1,930	145	89	15,830
1957	22	0	0	0	0	0	0	1,200	6,390	2,540	22	0	10,170
1958	0	0	0	0	0	0	0	3,740	5,880	532	0	0	10,150
1959	0	0	0	0	0	0	0	202	6,860	1,560	662	311	9,600
1960	200	93	0	0	0	0	230	1,820	5,070	1,210	434	179	9,240

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953	-	-	-	-	-	-	-	-
1954	1347	174	(a)	0	17.2	12,430	17.2	12,430
1955	1397	103	June 23, 1955	0	6.9	5,030	7.0	5,030
1956	1447	297	June 13, 1956	0	21.8	15,830	21.8	15,850
1957	1517	233	June 6, 1957	0	14.1	10,170	14.0	10,150
1958	1567	184	May 28, 1958	0	14.0	10,150	14.0	10,150
1959	1637	201	June 14,18,1959	0	13.3	9,600	13.7	9,890
1960	1717	169	June 3, 1960	0	12.7	9,240	-	-

a May 21, June 24, 1954.

305. Elk Creek above reservoir, near Irwin, Idaho

Location.--Lat 43°19'25", long 111°06'40", in NW¼ sec.19, T.1 S., R.46 E., on right bank 2½ miles upstream from mouth and 11 miles southeast of Irwin.

Drainage area.--59.2 sq mi.

Records available.--July to September 1917, June to September 1918, April to July 1934, September 1953 to September 1960. Published as Big Elk Creek near Blowout 1917-18 and as Elk Creek near Irwin 1934.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map). July 1917 to September 1918, April to July 1934, staff gage at site 2½ miles downstream at different datum. September 1953 to August 1957 water-stage recorder at datum 0.41 ft higher.

Average discharge.--7 years (1953-60), 71.8 cfs (51,980 acre-ft per year).

Extremes.--1917-18, 1934, 1953-60: Maximum discharge observed, 870 cfs June 15, 1918; minimum, 5 cfs Dec. 15, 1953.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	39.0	32.5	28.2	25.6	26.5	22.5	44.7	242	206	123	65.3	46.8	75.5
1955	36.8	32.9	32.0	30.0	24.6	23.1	25.9	124	176	72.1	44.6	38.2	55.1
1956	33.0	28.5	30.1	27.4	15.1	18.3	71.5	317	359	126	70.1	54.5	95.9
1957	42.1	35.2	29.8	24.6	23.3	20.3	27.7	175	282	122	73.7	54.1	76.0
1958	42.9	35.5	28.9	25.3	25.4	24.1	37.4	263	217	85.5	58.9	43.4	74.2
1959	34.5	31.2	28.5	25.1	19.7	19.7	41.2	130	264	90.0	56.0	43.9	65.3
1960	41.4	30.2	24.2	21.0	21.5	24.7	51.5	176	186	69.8	45.5	35.5	60.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	2,400	1,940	1,730	1,570	1,470	1,380	2,660	14,880	12,230	7,570	4,020	2,780	54,630
1955	2,260	1,960	1,970	1,840	1,360	1,420	1,540	7,620	10,480	4,430	2,740	2,270	39,890
1956	2,030	1,700	1,850	1,680	869	1,130	4,260	19,490	21,360	7,730	4,310	3,240	69,650
1957	2,590	2,090	1,830	1,510	1,290	1,250	1,650	10,780	16,770	7,490	4,530	3,220	55,000
1958	2,640	2,110	1,780	1,560	1,410	1,480	2,220	16,160	12,900	5,260	3,620	2,580	53,720
1959	2,120	1,860	1,760	1,540	1,090	1,210	2,450	7,980	15,710	5,540	3,440	2,610	47,310
1960	2,540	1,800	1,490	1,290	1,240	1,520	3,070	10,830	11,060	4,290	2,800	2,110	44,040

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953	-	-	-	-	-	-	-	-
1954	1347	505	May 21, 1954	19	75.5	54,630	75.6	54,750
1955	1397	247	June 8, 1955	20	55.1	39,890	54.3	39,280
1956	1447	640	May 31, 1956	11	95.9	69,650	97.2	70,580
1957	1517	578	June 5, 1957	19	76.0	55,000	76.0	55,020
1958	1567	565	May 27, 1958	22	74.2	53,720	73.1	52,930
1959	1637	408	June 15, 1959	18	65.3	47,310	65.5	47,400
1960	1717	370	June 2, 1960	-	60.7	44,040	-	-

320. Bear Creek above reservoir, near Irwin, Idaho

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

Drainage area.--77.1 sq mi. Mean altitude, 7,130 ft.

Records available.--July to September 1917, June to September 1918, May to July 1934, April to October 1935, April to October 1936, August 1953 to September 1960. Published as Bear Creek near Irwin 1917-18, 1934-36.

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

Average discharge.--7 years (1953-60), 72.3 cfs (52,340 acre-ft per year).

Extremes.--1917-18, 1934-36, 1953-60: Maximum discharge observed, 784 cfs May 5, 1936; minimum, about 1.0 cfs Jan. 20, 1954 (gage height, 1.08 ft), result of freezeup.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	-	28.4	-
1954	27.0	22.5	18.1	17.5	17.8	25.9	143	263	141	69.3	41.8	33.1	68.6
1955	26.6	23.1	21.9	19.9	17.5	17.7	31.7	185	150	58.5	36.1	25.9	51.3
1956	23.7	22.6	38.5	35.9	28.7	44.3	290	463	177	71.3	44.8	30.9	106
1957	28.5	24.8	21.6	20.6	20.3	23.8	71.1	374	249	93.5	51.7	39.5	85.4
1958	33.6	32.1	27.6	21.6	21.3	24.4	95.8	430	153	64.0	39.9	31.0	81.7
1959	26.0	25.2	22.0	20.2	18.1	19.7	111	202	155	66.8	39.8	33.0	61.7
1960	27.7	21.8	15.9	15.3	15.5	27.5	129	166	97.1	45.7	29.2	24.4	51.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	-	1,690	-
1954	1,660	1,340	1,110	1,080	988	1,590	8,530	16,160	8,380	4,260	2,570	1,970	49,640
1955	1,640	1,370	1,340	1,220	974	1,090	1,880	11,350	8,900	3,590	2,220	1,540	37,110
1956	1,460	1,340	2,360	2,210	1,650	2,720	17,230	28,440	10,540	4,380	2,760	1,840	76,930
1957	1,760	1,480	1,330	1,270	1,130	1,470	4,220	23,010	14,840	5,750	3,180	2,350	61,790
1958	2,060	1,910	1,700	1,330	1,180	1,500	5,700	26,420	9,090	3,940	2,450	1,850	59,130
1959	1,600	1,500	1,350	1,240	1,010	1,210	6,580	12,440	9,210	4,110	2,440	1,970	44,660
1960	1,700	1,300	976	940	891	1,690	7,670	10,230	5,780	2,810	1,800	1,450	37,240

Yearly discharge, in cubic feet per second

Year	WSP	Water yesr ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953	-	-	-	-	-	-	-	-
1954	1347	487	May 9, 1954	9	68.6	49,640	68.9	49,880
1955	1397	399	May 8, 1955	17	51.3	37,110	52.4	37,920
1956	1447	736	May 19, 1956	20	106	76,930	105	76,340
1957	1517	621	May 12, 1957	18	85.4	61,790	86.9	62,890
1958	1567	606	May 10, 1958	19	81.7	59,130	80.0	57,910
1959	1637	332	May 1, 1959	13	61.7	44,660	61.0	44,190
1960	1717	311	May 12, 1960	10	51.3	37,240	-	-

324.5. Palisades Reservoir near Irwin, Idaho

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

Drainage area.--5,208 sq mi.

Records available.--October 1955 to September 1960.

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

Extremes.--1955-60: Maximum contents, 1,406,000 acre-ft July 6, 7, 1959; minimum observe 565 acre-ft Jan. 31, 1956 (prior to filling of reservoir); minimum after first filling of reservoir in June 1958, 224,000 acre-ft Sept. 24, 25, 1960.

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

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

Contents, in thousands of acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1956	1	1	1	1	1	2	3	58	11	3	2	
1957	1	225	522	552	576	508	415	443	853	913	748	62
1958	651	688	739	768	850	956	1,060	1,276	1,236	934	750	73
1959	764	789	844	874	895	924	1,027	1,036	1,374	1,169	892	64
1960	724	773	852	928	999	1,076	1,285	1,220	1,153	748	349	24

325. Snake River near Irwin, Idaho

Location.--Lat 43°21', long 111°13', in NE¼ sec.7, T.1 S., R.45 E., on right bank at Bureau of Reclamation headquarters, 1½ miles downstream from Palisades dam, 2 miles upstream from Palisades Creek, and 5 miles southeast of Irwin.

Drainage area.--5,225 sq mi.

Records available.--April to August 1934, March to November 1935, April to October 1936, March 1939 to September 1941, May 1949 to September 1960. Published as "at Calamity Point, near Irwin" 1934, 1939-41.

Average discharge.--11 years (1949-60), 6,550 cfs (4,742,000 acre-ft per year).

Gage.--Water-stage recorder. Datum of gage is 5,353.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Apr. 21 to Aug. 4, 1934, and Mar. 30, 1939, to Sept. 30, 1941, water-stage recorder at site 2½ miles upstream at different datum. Mar. 30, 1935, to Oct. 31, 1936, water-stage recorder at site 3½ miles downstream at different datum. May 1, 1949, to Mar. 22, 1950, staff gage at site 1,100 ft downstream at datum 1.9 ft higher.

Extremes.--1934-36, 1939-41, 1949-60: Maximum discharge, 31,800 cfs June 4-6, 1956; maximum gage height, 13.31 ft June 4, 1956; minimum discharge, 19 cfs Nov. 8, 1956 (gage height, 2.43 ft).
Flood in early June 1894 probably was much higher than that of June 4-6, 1956.

Remarks.--Flow partly regulated by Jackson Lake (see p. 8) and Palisades Reservoir (see preceding page). About 93,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,658	3,203	3,039	3,088	4,115	5,162	8,460	16,800	19,580	14,560	9,325	6,857	8,173
1952	4,015	3,066	2,602	2,985	4,243	4,334	9,557	17,440	18,100	12,200	8,631	6,320	7,794
1953	2,725	2,332	2,133	2,181	2,001	2,018	3,776	7,477	17,990	12,810	9,008	6,756	5,947
1954	2,575	2,444	2,114	2,060	1,989	2,001	4,605	15,840	14,430	13,740	8,975	7,029	6,514
1955	2,730	2,500	2,086	1,948	1,941	1,890	2,584	7,847	13,730	11,670	8,445	5,913	5,291
1956	2,506	2,350	2,791	2,473	2,001	3,683	10,260	20,540	25,420	13,350	9,165	6,796	8,450
1957	3,045	1,270	1,703	1,536	1,665	3,323	4,975	12,060	10,970	12,570	9,403	6,717	5,801
1958	2,918	2,423	1,891	1,921	1,917	1,896	2,643	12,150	11,910	11,880	8,031	5,508	5,450
1959	2,696	2,366	1,651	1,789	1,804	1,781	2,566	7,911	11,900	12,530	11,020	8,960	5,602
1960	2,532	2,311	1,498	1,361	1,218	1,188	1,351	8,980	12,840	13,720	11,980	8,697	5,657

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	224.9	190.6	186.8	189.9	228.6	317.4	503.4	1,033	1,165	895.3	573.3	408.0	5,916
1952	246.9	182.4	160.0	183.6	244.1	266.5	568.7	1,073	1,077	750.0	530.7	376.1	5,659
1953	167.5	138.8	131.1	134.1	111.1	124.1	224.7	459.7	1,070	787.8	553.9	402.0	4,305
1954	158.4	145.4	130.0	126.7	110.5	123.0	274.0	974.1	858.8	844.8	551.8	418.2	4,716
1955	167.9	148.8	128.3	119.8	107.8	116.2	153.8	481.5	816.9	717.5	519.2	351.8	3,830
1956	154.1	139.9	171.6	152.1	115.1	226.4	610.3	1,263	1,513	821.0	563.6	404.4	6,134
1957	187.3	75.59	104.7	94.43	92.45	204.3	296.0	741.4	652.8	773.2	578.2	399.7	4,200
1958	179.4	144.2	116.3	118.1	106.5	116.6	157.3	747.1	708.4	730.4	495.8	327.7	3,946
1959	165.8	140.8	101.5	110.0	100.2	109.5	152.7	486.4	707.8	770.5	677.4	533.2	4,056
1960	155.7	137.5	92.11	83.68	70.04	73.06	80.40	552.2	764.2	843.8	736.6	517.5	4,107

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	7,563	5,475,000
1951	1217	28,800	May 29, 1951	2,540	8,173	5,916,000	8,155	5.903,000
1952	1247	25,800	June 8, 1952	2,220	7,794	5,659,000	7,585	5.507,000
1953	1287	26,000	June 19, 1953	1,780	5,947	4,305,000	5,942	4,301,000
1954	1347	31,200	June 28, 1954	1,790	6,514	4,716,000	6,529	4,727,000
1955	1397	18,300	June 17, 1955	1,480	5,291	3,830,000	5,319	3.850,000
1956	1447	31,800	June 4-6, 1956	1,650	8,450	6,134,000	8,315	6,036,000
1957	1517	18,200	June 9,10 1957	19	5,801	4,200,000	5,901	4,272,000
1958	1567	17,900	May 24, 1958	47	5,450	3,946,000	5,406	3,914,000
1959	1637	13,700	(a)	1,470	5,602	4,056,000	5,571	4,033,000
1960	1717	15,300	July 27, 1960	895	5,657	4,107,000	-	-

a Several days in July 1959.

375. Snake River near Heise, Idaho

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

Drainage area.--5,752 sq mi. Mean altitude, 7,770 ft.

Records available.--September 1910 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as South Fork of Snake River near Heise.

Gage.--Water-stage recorder. Datum of gage is 5,015.3 ft above mean sea level, datum of 1929. Prior to July 9, 1913, staff gage and July 9, 1913, to Sept. 29, 1922, water-stage recorder, at datum 2.65 ft higher. Sept. 30, 1922, to Oct. 5, 1933, water-stage recorder at datum 2.0 ft higher.

Average discharge.--50 years (1910-60), 6,830 cfs (4,945,000 acre-ft per year).

Extremes.--1910-60: Maximum discharge, about 60,000 cfs May 19, 1927, result of washing out of landslide on Gros Ventre River (gage height, about 16.0 ft, present datum); minimum, 460 cfs Nov. 10, 12, 1956 (gage height, -0.18 ft).
Flood in early June 1894 was probably as great as flood of May 19, 1927.

Remarks.--Flow partly regulated by Jackson Lake (see p. 8) and Palisades Reservoir (see p. 26). Station is above all irrigation diversions from main river except Riley ditch which diverts 1½ miles upstream from station. About 107,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station. Records of chemical analyses and water temperatures for the period January 1953 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,114	3,681	3,490	3,488	4,485	5,473	9,099	17,970	19,990	15,080	9,784	7,257	8,679
1952	4,425	3,500	3,007	3,327	4,527	4,659	10,270	18,740	18,980	12,580	9,004	6,701	8,314
1953	3,215	2,823	2,508	2,510	2,341	2,332	4,216	8,305	18,640	13,150	9,361	7,221	6,399
1954	2,995	2,766	2,433	2,332	2,235	2,300	5,099	16,690	14,880	14,130	9,202	7,341	6,898
1955	3,130	2,796	2,321	2,158	2,147	2,141	2,910	8,604	14,380	11,960	8,774	6,274	5,651
1956	2,818	2,716	3,135	2,763	2,196	3,899	11,140	21,720	26,340	13,940	9,673	7,407	8,985
1957	3,507	1,691	2,176	1,988	2,069	3,726	5,492	13,530	12,260	13,020	9,990	7,248	6,424
1958	3,404	2,809	2,247	2,300	2,346	2,304	3,200	13,490	12,680	12,410	8,560	5,997	6,007
1959	3,142	2,815	2,036	2,197	2,233	2,161	3,117	8,906	12,880	13,100	11,400	9,454	6,142
1960	2,977	2,722	1,872	1,692	1,570	1,633	1,970	9,695	13,190	14,020	12,451	9,056	6,091

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	253	219	214.6	214.5	249.1	336.5	541.4	1,105	1,190	927.5	601.6	431.8	6,284
1952	272.1	208.3	184.9	204.6	260.4	286.5	611.2	1,152	1,130	773.4	553.6	398.7	6,036
1953	197.7	168.0	154.2	154.4	130.0	143.4	250.9	510.7	1,109	808.9	576.4	429.7	4,633
1954	184.2	164.6	149.6	143.4	124.1	141.4	303.4	1,026	885.4	868.7	565.8	436.8	4,993
1955	192.5	166.4	142.7	132.7	119.2	131.6	173.2	529.0	855.6	735.2	539.5	373.3	4,091
1956	173.3	161.6	192.7	169.9	126.3	239.7	662.8	1,336	1,568	857.3	594.8	440.7	6,523
1957	215.7	100.6	133.8	122.2	114.9	229.1	326.8	831.8	729.5	800.7	614.2	431.3	4,651
1958	209.4	167.1	138.2	141.4	130.3	141.7	190.4	829.7	754.3	763.0	526.3	356.9	4,349
1959	193.2	167.5	125.2	135.1	124.0	132.9	185.5	547.6	766.2	805.4	701.1	562.6	4,446
1960	183.1	162.0	115.1	104.1	90.3	100.4	117.2	596.1	784.9	861.8	768.1	538.8	4,422

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	8,143	5,895,000
1951	1217	30,400	May 29-30, 1951	3,120	8,679	6,284,000	8,650	6,263,000
1952	1247	26,800	June 8, 1952	2,600	8,314	6,036,000	8,114	5,890,000
1953	1287	26,000	June 20, 1953	2,170	6,399	4,633,000	6,369	4,612,000
1954	1347	30,800	June 28, 1954	2,050	6,898	4,993,000	6,902	4,997,000
1955	1397	18,800	June 17, 1955	1,800	5,651	4,091,000	5,687	4,117,000
1956	1447	33,300	June 4, 1956	1,900	8,985	6,523,000	8,878	6,446,000
1957	1517	19,400	June 10, 1957	460	6,424	4,651,000	6,513	4,715,000
1958	1567	19,100	May 25, 1958	540	6,007	4,349,000	5,967	4,320,000
1959	1637	14,800	June 7, 1959	1,870	6,142	4,446,000	6,106	4,421,000
1960	1717	15,100	July 29, 1960	1,360	6,091	4,422,000	-	-

390. Henrys Lake near Lake, Idaho

Location.--Lat 44°36', long 111°21', at dam on Henrys Fork in NW¼ sec.26, T.15 N., R.43 E., 4 miles south of former Lake Post Office.

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

Records available.--June 1923 to September 1960 (fragmentary).

Gage.--Staff gage. Datum of gage is 6,457.16 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--1923-60: Maximum contents observed, 85,100 acre-ft June 14, 1957, May 29, 1958 (gage height, 15.90 ft); minimum observed, 140 acre-ft Nov. 8, 1934 (gage height, 0.03 ft), but may have been less late in the summer of 1889 when it is reported that the outflow from Henrys Lake ceased entirely.

Remarks.--Reservoir is formed on natural lake by concrete dam; storage began Sept. 21, 1922; dam completed in July 1923. Capacity, 79,400 acre-ft between gage heights 0.0 (low water level of Henrys Lake prior to construction of dam) and 15.0 ft (top of 5-foot flashboards on spillway). Part of floodwaters of Dry Creek were diverted into Henrys Lake during most years.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	a71,800	a74,200	a75,600	a76,600	a77,100	a77,400	a79,500	a81,600	a82,000	a79,000	a75,000	a71,400
1952	a70,700	a70,500	a70,300	a69,400	a68,600	a67,800	a71,000	a78,300	82,800	77,700	a67,800	62,700
1953	a64,100	a66,100	a68,400	a70,400	a71,600	a73,000	a75,600	a80,000	a83,100	74,300	a67,700	a65,000
1954	a65,000	a66,700	a68,800	a70,500	a71,700	a72,800	a74,500	a79,500	a80,500	a76,500	a71,600	a67,700
1955	a68,000	a70,000	a72,000	a73,800	a74,700	75,300	a77,800	80,500	a80,400	a72,600	a56,600	a50,400
1956	a51,400	a54,700	a59,100	a61,000	a63,200	a64,600	a68,400	a73,400	a80,000	77,300	a70,700	a68,900
1957	a70,700	a72,700	a74,000	a74,700	a75,600	a76,800	a79,300	a83,500	a83,300	a77,700	a70,400	a68,800
1958	a70,600	a72,900	a75,000	a75,600	a76,200	a77,400	a81,300	a85,100	a83,400	a71,200	a55,800	a54,700
1959	a56,000	a57,500	a59,200	a61,000	a62,800	a63,100	a65,900	a68,800	a73,900	a67,600	a60,000	a63,100
1960	a67,400	a70,700	a73,400	a76,800	a75,800	a75,100	a77,200	a78,100	a76,600	a62,400	a47,600	a45,500

a Interpolated from occasional readings.

395. Henrys Fork near Lake, Idaho

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

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

Records available.--May 1920 to September 1960 (prior to October 1923, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 6,450.62 ft above mean sea level, levels by Bureau of Reclamation (Corps of Engineers bench mark). Prior to September 1922, staff gage at site 3 miles downstream and below mouth of Dry Creek at different datum.

Average discharge.--31 years (1929-60), 47.2 cfs (34,170 acre-ft per year).

Extremes.--1920-60: Maximum discharge, 907 cfs June 13, 1926 (gage height, 5.40 ft); no flow for part of each day Sept. 17, 18, 1952.
Outflow from Henrys Lake was reported to have ceased entirely late in summer of 1889.

Remarks.--Flow regulated by Henrys Lake (see p. 29). Since 1923, floodwaters of Dry (Tyghee) Creek have been diverted at times into Henrys Lake.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	14.9	15.8	18	20	30	32	38.8	59.7	98.8	91.0	106	68.7	49.6
1952	67.5	68.5	65	65	65	65	66.1	67.7	128	150	194	110	92.8
1953	19.9	18.6	17.5	18	20	24.3	26.3	22.9	75.5	177	107	56.2	48.9
1954	12.5	13.0	13.3	16.3	19.6	21.0	21.3	17.8	75.2	110	85.9	56.8	38.7
1955	16.2	8.0	8.2	10.0	12.2	14.7	19.1	31.9	113	172	266	95.0	64.3
1956	12.0	9.0	9.3	11	13	14.5	15.0	14.7	21.0	55.6	115	45.5	28.1
1957	11.6	13	16	20	24.5	29.8	35.6	79.4	19.0	136	125	61.1	62.1
1958	9.2	10	14	19	20.8	24.3	33.4	80.1	153	238	271	32.7	76.1
1959	12.8	13.4	15.0	17	19	21	22	20.9	27.0	108	175	9.7	38.8
1960	4	4	3	15	70	67.5	57.0	55.6	65.7	217	244	42.4	70.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	916	942	1,110	1,230	1,670	1,970	2,310	3,670	5,880	5,600	6,520	4,090	35,910
1952	4,150	4,070	4,000	4,000	3,740	4,000	3,930	4,170	7,620	9,210	11,950	6,530	67,370
1953	1,220	1,100	1,080	1,110	1,110	1,490	1,560	1,410	4,490	10,890	6,580	3,340	35,380
1954	770	774	819	1,000	1,090	1,290	1,270	1,090	4,480	6,770	5,280	3,380	28,010
1955	998	476	504	615	676	906	1,140	1,960	6,720	10,550	16,350	5,650	46,540
1956	738	536	571	676	748	893	893	902	1,250	3,420	7,060	2,710	20,400
1957	716	774	984	1,230	1,360	1,830	2,120	4,880	11,310	8,390	7,700	3,630	44,920
1958	567	595	861	1,170	1,160	1,500	1,990	4,920	9,100	14,610	16,660	1,950	55,080
1959	789	799	924	1,050	1,060	1,290	1,310	1,290	1,610	6,650	10,750	575	28,100
1960	246	238	184	922	4,030	4,150	3,390	3,420	3,910	13,320	14,980	2,520	51,310

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	36.2	26,240
1951	1217	186	July 7, 1951	14	49.6	35,910	62.4	45,160
1952	1247	354	Sept.17, 1952	10	92.8	67,370	80.6	58,550
1953	1287	239	June 30, 1953	12	48.9	35,380	47.4	34,340
1954	1347	168	June 29, 1954	12	38.7	28,010	38.2	27,630
1955	1397	461	Aug. 4, 1955	8	64.3	46,540	64.1	46,410
1956	1447	294	July 25,26,1956	9	28.1	20,400	29.0	21,030
1957	1517	287	June 13, 1957	8	62.1	44,920	61.4	44,470
1958	1567	498	Aug. 18, 1958	9	76.1	55,080	76.7	55,570
1959	1637	445	Aug. 25, 1959	4	38.8	28,100	36.3	26,250
1960	1717	299	Sept. 8, 1960	-	70.7	51,310	-	-

420. Island Park Reservoir near Island Park, Idaho

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

Drainage area.--481 sq mi.

Records available.--November 1938 to September 1960.

Gage.--Electric-tape gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--1938-60: Maximum contents, 140,515 acre-ft May 13, 1957 (elevation, 6,303.65 ft); minimum after first filling of reservoir in May 1939, 12,760 acre-ft Sept. 30, 1960.

Remarks.--Reservoir is formed by earth-fill rock-faced dam. Storage began Nov. 15, 1938. Capacity, 127,265 acre-ft between elevations 6,239 (normal low-water level with outlet gates open) and 6,302 ft (crest of spillway). Natural flow passing through reservoir when outlet gates are open limits withdrawal of storage to elevation 6,230 ft (sill of lower outlet). Dead storage negligible. Water is used for irrigation of lands in Fremont-Madison irrigation district between Ashton and Rexburg. Figures given herein represent usable contents.

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

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	88,215	101,440	111,520	116,630	116,555	115,010	127,421	136,175	134,235	116,410	106,685	86,175
1952	81,725	82,020	81,960	80,485	77,885	74,795	80,900	136,990	136,665	107,455	75,350	62,525
1953	62,760	78,690	103,350	105,360	104,455	102,525	127,110	135,610	135,205	105,080	64,675	33,940
1954	33,970	48,070	65,550	93,740	117,220	132,710	137,475	135,125	135,450	109,515	76,525	45,350
1955	45,350	59,990	81,250	107,810	130,640	132,630	133,750	135,855	135,205	93,545	49,660	27,115
1956	32,375	57,165	71,750	98,405	108,660	110,230	132,870	137,230	133,350	99,145	83,570	80,020
1957	81,960	76,135	95,500	119,010	122,565	122,945	124,780	137,805	135,285	108,660	65,405	50,080
1958	73,970	92,900	99,480	111,810	123,250	127,420	133,750	136,580	125,940	70,480	39,495	17,220
1959	32,735	55,255	72,825	97,740	115,080	126,875	134,475	135,935	134,720	76,080	38,620	19,785
1960	25,880	55,090	65,800	94,390	122,490	134,160	135,200	135,040	120,290	56,860	29,940	12,760

425. Henrys Fork near Island Park, Idaho

Location.--Lat 44°24'59", long 111°23'41", in SW¼ sec.28, T.13 N., R.43 E., on left bank an eighth of a mile downstream from Island Park Dam, a quarter of a mile upstream from Buffalo River, and 1 mile west of Island Park Post Office.

Drainage area.--481 sq mi. Mean altitude, 7,080 ft.

Records available.--January 1933 to September 1960.

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

Average discharge.--27 years (1933-60), 552 cfs (399,600 acre-ft per year).

Extremes.--1933-60: Maximum discharge, 2,770 cfs Apr. 26, 1946 (gage height, 6.15 ft); minimum daily, 1 cfs Nov. 16 to Dec. 7, 1938.

Remarks.--Flow regulated by Henrys Lake (see p.29) and Island Park Reservoir (see preceding page). About 14,000 acres irrigated by diversions above station, a considerable portion of which consists of partly subirrigated meadows.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	480	251	295	359	447	451	462	908	815	896	779	890	587
1952	656	548	562	557	547	546	562	1,102	1,114	1,263	1,256	879	801
1953	549	264	123	461	491	503	144	886	1,033	1,168	1,243	1,072	663
1954	531	266	180	10.4	12.6	187	595	920	820	1,056	1,131	1,050	566
1955	502	236	108	10.3	26.4	342	448	906	872	1,340	1,470	952	606
1956	387	38.3	240	43.1	223	351	346	930	729	1,048	828	562	479
1957	476	616	148	67.1	374	479	493	1,214	1,131	1,104	1,295	830	687
1958	132	163	376	244	250	387	447	987	937	1,593	1,258	919	645
1959	218	50.1	135	10.4	93.6	171	333	712	662	1,588	1,337	952	526
1960	501	7.0	328	10.0	10.4	289	661	696	799	1,719	1,199	838	591

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	29,530	14,910	18,140	22,060	24,830	27,720	27,490	55,820	48,470	55,080	47,920	52,990	425,000
1952	40,370	32,610	34,590	34,250	31,460	33,550	33,440	67,780	66,320	77,660	77,250	52,300	581,600
1953	33,740	15,690	7,550	28,320	27,250	30,900	8,590	54,500	61,440	71,840	76,450	63,800	480,100
1954	32,620	15,810	11,050	637	700	11,490	35,400	56,590	48,780	64,900	69,550	62,460	410,000
1955	30,840	14,050	6,650	631	1,470	21,050	26,640	55,710	51,900	82,420	90,390	56,630	438,400
1956	23,780	2,280	14,750	2,650	12,840	21,580	20,570	57,180	43,350	64,420	50,890	33,450	347,700
1957	29,260	36,660	9,100	4,120	20,760	29,420	29,330	74,630	67,310	67,900	79,660	49,380	497,500
1958	8,100	9,700	23,110	15,000	13,870	23,810	26,620	60,690	55,740	97,940	77,340	54,690	466,600
1959	13,400	2,980	8,290	639	5,200	10,530	19,790	43,780	39,410	97,640	82,180	56,660	380,500
1960	30,790	417	20,150	615	601	17,770	39,350	42,810	47,560	105,700	73,700	49,870	429,300

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	485	351,200
1951	1217	1,260	July 20, 1951	10	587	425,000	649	470,000
1952	1247	2,220	May 21, 1952	11	801	581,600	731	530,100
1953	1287	1,950	July 20, 1953	7	663	480,100	667	482,600
1954	1347	2,170	July 28, 1954	8	566	410,000	555	402,000
1955	1397	2,560	July 18, 1955	6	606	438,400	591	427,700
1956	1447	1,860	July 17, 1956	10	479	347,700	526	382,000
1957	1517	1,700	May 13,14,1957	7	687	497,500	640	463,400
1958	1567	1,820	July 1, 2, 1958	8	645	466,600	622	450,400
1959	1637	2,230	July 11, 1959	6	526	380,500	562	407,200
1960	1717	1,950	July 18, 1960	7	591	429,300	-	-

440. Henrys Fork at Warm River, Idaho

Location.--Lat 44°07', long 111°20', in sec.12, T.9 N., R.43 E., 1,000 ft upstream from Warm River and half a mile northwest of Warm River Railroad siding.

Drainage area.--656 sq mi.

Records available.--September 1910 to March 1915, April 1918 to October 1952. Prior to 1911, published as North Fork Snake River at Warm River.

Gage.--Water-stage recorder. Altitude of gage is 5,257 ft (from river-profile map). Prior to June 29, 1923, staff gage and June 29, 1923, to Sept. 19, 1938, water-stage recorder at site several hundred feet downstream at same datum.

Average discharge.--38 years (1910-14, 1918-52), 998 cfs (722,500 acre-ft per year).

Extremes.--1910-15, 1918-52: Maximum discharge, 3,540 cfs May 18, 1927; maximum gage height, 7.80 ft Apr. 27, 1946; minimum discharge, 217 cfs Dec. 11, 12, 1949 (gage height, 3.12 ft).

Remarks.--Diversion for irrigation upstream of about 18,000 acres of wild hay meadows. Flow regulated by Henrys Lake and Island Park Reservoirs (see elsewhere in this report).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	933	704	715	754	886	905	1,073	1,526	1,277	1,296	1,173	1,277	1,044
1952	1,100	954	965	958	944	951	1,109	2,308	1,748	1,666	1,710	1,292	1,311

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	57,360	41,870	43,960	46,340	49,210	55,630	63,830	93,820	76,010	79,700	72,140	75,970	755,800
1952	67,620	56,770	59,350	58,930	54,300	58,490	65,970	141,900	104,000	102,500	105,100	76,880	951,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	962	696,700
1951	1217	1,920	May 15, 1951	434	1,044	755,800	1,100	796,400
1952	1247	3,400	May 21, 1952	558	1,311	951,800	-	-

460. Henrys Fork near Ashton, Idaho

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

Drainage area.--1,040 sq mi. Mean altitude, 6,710 ft.

Records available.--April 1890 to June 1891, August 1902 to June 1909, April 1920 to September 1960 (seasonal records only 1920-26). Monthly discharge only for some periods, published in WSP 1317. Published as Henry Fork in canyon, above Fall River 1890-91, and as North Fork of Snake River near Ora 1902-9.

Gage.--Water-stage recorder. Altitude of gage is 5,095 ft (from river-profile map). April 1890 to June 1891, staff gage at site 6 miles downstream at different datum. August 1902 to Apr. 15, 1921, staff gage and Apr. 16, 1921, to May 3, 1930, water-stage recorder, at site 1½ miles downstream at different datum.

Average discharge.--40 years (1902-8, 1926-60), 1,360 cfs (984,600 acre-ft per year).

Extremes.--1890-91, 1902-9, 1920-60: Maximum discharge, 6,220 cfs May 7, 1925 (gage height, 3.11 ft, site and datum then in use); minimum, 53 cfs Sept. 20, 1960; minimum daily, 260 cfs Nov. 26, 1958.

Remarks.--Flow regulated by powerplant immediately above station, and by storage in Henrys Lake and Island Park Reservoir (see elsewhere in this report). About 18,000 acres irrigated by diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,238	1,018	1,031	1,047	1,207	1,184	1,640	2,302	1,757	1,728	1,564	1,665	1,450
1952	1,471	1,327	1,302	1,282	1,284	1,283	1,820	3,654	2,424	2,216	2,172	1,725	1,833
1953	1,413	1,040	929	1,306	1,270	1,292	1,149	2,132	2,255	1,941	2,029	1,799	1,548
1954	1,190	969	849	718	729	892	1,689	2,254	1,860	1,793	1,834	1,804	1,385
1955	1,235	975	771	723	700	1,056	1,195	2,204	1,930	1,958	2,185	1,555	1,379
1956	1,036	712	958	741	906	1,068	1,701	2,671	1,722	1,887	1,535	1,272	1,353
1957	1,240	1,393	861	679	1,090	1,236	1,519	3,355	2,313	1,854	2,072	1,571	1,601
1958	868	839	1,118	960	987	1,151	1,370	2,452	1,762	2,254	1,873	1,671	1,446
1959	809	633	760	658	746	848	1,298	1,949	1,568	2,259	2,042	1,878	1,291
1960	1,334	707	1,004	735	733	1,123	1,738	1,898	1,661	2,303	1,989	1,533	1,400

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	76,130	60,550	63,370	64,400	67,020	72,770	97,610	141,600	104,600	106,300	96,160	99,090	1,050,000
1952	90,440	78,960	80,050	78,800	73,880	78,880	108,300	224,700	144,200	136,200	133,600	102,700	1,331,000
1953	86,900	61,870	57,140	80,310	70,550	79,420	68,390	131,100	134,200	119,300	124,800	107,100	1,121,000
1954	73,180	57,690	52,220	44,170	40,470	54,860	100,500	138,600	110,700	110,200	112,700	107,300	1,003,000
1955	75,970	58,010	47,390	44,430	38,850	64,930	71,090	135,500	114,800	120,400	134,400	92,540	998,300
1956	63,700	42,350	58,890	45,530	52,130	65,650	101,200	164,200	102,400	116,000	94,390	75,670	982,100
1957	76,220	82,860	52,950	41,750	60,560	75,990	90,390	206,300	137,600	114,000	127,400	93,460	1,159,000
1958	53,390	49,950	68,760	59,010	54,810	70,780	81,500	150,800	104,800	138,600	115,200	99,450	1,047,000
1959	49,760	37,690	46,710	40,460	41,420	52,160	77,210	119,900	93,300	138,900	125,500	111,700	934,700
1960	82,030	42,050	61,720	45,210	42,130	69,030	103,400	116,700	98,820	141,600	122,300	91,220	1,016,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,362	985,900
1951	1217	3,330	May 7, 1951	718	1,450	1,050,000	1,518	1,099,000
1952	1247	5,040	May 21, 1952	940	1,833	1,331,000	1,773	1,287,000
1953	1287	3,190	June 5, 1953	676	1,548	1,121,000	1,517	1,098,000
1954	1347	3,650	Aug. 29, 1954	545	1,385	1,003,000	1,383	1,001,000
1955	1397	3,400	July 19, 1955	536	1,379	998,300	1,356	981,900
1956	1447	3,240	May 8,9, 1956	510	1,353	982,100	1,418	1,029,000
1957	1517	5,040	May 21, 1957	494	1,601	1,159,000	1,546	1,120,000
1958	1567	3,400	May 12, 1958	570	1,446	1,047,000	1,394	1,009,000
1959	1637	3,300	July 11, 1959	260	1,291	934,700	1,362	986,400
1960	1717	2,680	Aug. 1, 1960	570	1,400	1,016,000	-	-

465. Grassy Lake near Moran, Wyo.

Location.--Lat 44°07'45", long 110°49'05", in NE¼ sec.18, T.48 N., R.116 W., at dam on Grassy Creek, half a mile upstream from mouth and 24 miles northwest of Moran.
Drainage area.--10.4 sq mi, including basin of Cascade Creek, from which water is diverted into Grassy Lake.
Records available.--October 1939 to September 1960.
Gage.--Mercury pressure gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).
Extremes.--1939-60: Maximum contents observed after first storage season in 1940, 15,446 acre-ft July 2, 1943 (elevation, 7,210.85 ft); no contents Oct. 2-5, 1940.
Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Oct. 18, 1939. Capacity, 15,182 acre-ft between elevations 7,135.0 (sill of trashrack) and 7,210.0 ft (crest of spillway).
Cooperation.--Gage-height record and capacity table furnished by Bureau of Reclamation.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	12,280	12,490	12,710	12,910	13,110	13,250	13,460	15,070	15,180	14,520	12,130	12,130
1952	12,300	12,450	12,700	12,920	13,080	13,250	13,440	15,060	15,230	14,610	12,170	12,200
1953	12,100	12,100	12,300	12,600	12,800	12,900	13,000	14,200	15,200	15,100	11,600	11,300
1954	11,300	11,580	12,010	12,570	12,960	13,150	13,400	15,220	15,270	15,020	11,690	11,620
1955	11,530	11,620	11,760	11,890	12,020	12,240	12,330	13,700	15,200	13,940	11,240	11,250
1956	11,410	11,640	12,050	12,360	12,520	12,660	13,000	15,300	15,230	15,180	15,090	13,140
1957	12,900	13,090	13,250	13,420	13,670	13,880	13,950	14,850	15,230	14,560	11,860	11,860
1958	12,060	12,170	12,360	12,510	12,680	12,740	12,870	14,870	15,200	11,800	9,160	9,290
1959	9,570	10,190	10,670	11,070	11,540	11,870	12,370	14,780	15,210	11,140	6,330	6,370
1960	7,020	7,530	7,920	8,410	8,890	9,360	10,010	13,200	15,200	9,650	4,350	4,460

470. Diversions from Falls River above gaging station, near Squirrel, Idaho

Above Squirrel gaging station, two canals divert water from right bank of Falls River for irrigation of 15,700 acres. Records available for part of each irrigation season from 1919 to 1960. Discharge of canals computed from staff-gage readings, or interpolated, and combined to show total diverted flow for period May to September.

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	11.3	150	254	155	19.3
1952	24.0	199	226	164	55.9
1953	18.2	190	231	197	82.7
1954	60.5	180	235	217	98.2
1955	0	129	267	182	90.2
1956	10.7	215	261	210	92.0
1957	0	130	244	237	73.2
1958	8.6	180	249	157	33.5
1959	41.7	216	235	202	85.2
1960	6.2	212	230	155	69.5

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	696	8,910	15,620	9,500	1,150	35,880
1952	1,470	11,860	13,880	10,080	3,320	40,590
1953	1,120	11,300	14,180	12,090	4,920	43,610
1954	3,720	10,720	14,480	13,330	5,840	48,090
1955	0	7,700	16,390	11,210	5,370	40,670
1956	659	12,790	16,060	12,920	5,480	47,910
1957	0	7,720	14,970	14,600	4,360	41,650
1958	532	10,710	15,300	9,650	2,000	38,190
1959	2,560	12,830	14,440	12,400	5,070	47,300
1960	381	12,640	14,170	9,540	4,130	40,860

475. Falls River near Squirrel, Idaho

Location.--Lat 44°04'15", long 111°14'25", in NE¼ sec.34, T.9 N., R.44 E., on right bank a quarter of a mile upstream from road bridge, half a mile downstream from headgates of Marysville Canal, 4 miles northeast of Squirrel, and 10 miles upstream from Conant Creek

Drainage area.--351 sq mi. Mean altitude, 7,520 ft.

Records available.--August 1902 to June 1909 (gage heights only prior to October 1904), May 1918 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Published as Fall River at Wilson's Mill, near Marysville 1902, as Fall River near Marysville 1903, as Fall River at Fremont 1904-9, and as Fall River near Squirrel 1918-59.

Gage.--Water-stage recorder. Datum of gage is 5,589 ft above mean sea level, datum of 1929. Prior to Jan. 1, 1904, staff gage at site 3 miles upstream at different datum. Jan. 1, 1904, to Nov. 6, 1937, staff gage at site 200 ft upstream at different datum. Nov. 7, 1937, to Oct. 7, 1948, staff gage at site 100 ft downstream at datum 0.29 ft lower.

Average discharge.--46 years (1904-8, 1918-60), 753 cfs (545,100 acre-ft per year).

Extremes.--1904-9, 1918-60: Maximum discharge observed, 6,440 cfs June 27, 1927; minimum observed, 72 cfs Feb. 9, 1930.

Remarks.--Flow since October 1939 partly regulated by Grassy Lake (see p. 35). About 16,000 acres irrigated from two diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	603	586	512	446	451	419	882	2,020	1,776	882	720	623	828
1952	637	566	499	463	430	429	794	2,596	2,394	843	618	548	902
1953	484	489	488	479	434	424	690	1,406	2,384	736	508	498	751
1954	509	476	446	423	403	414	822	2,147	1,829	1,033	622	552	809
1955	539	514	495	450	428	373	422	1,487	2,281	787	425	410	718
1956	416	489	514	460	391	403	897	2,474	2,509	900	621	660	895
1957	591	562	497	455	435	435	532	2,241	2,633	1,102	548	560	884
1958	524	489	479	449	436	402	483	2,269	1,507	483	431	440	701
1959	420	465	432	415	379	354	581	1,403	2,214	646	443	488	686
1960	542	490	425	369	387	403	685	1,578	2,252	405	364	342	686

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	37,080	34,840	31,490	27,440	25,060	25,740	52,480	124,200	105,700	54,260	44,250	37,080	599,600
1952	39,190	33,660	30,710	28,490	24,750	26,380	47,220	159,600	142,400	51,820	37,980	32,600	654,800
1953	29,740	29,080	30,000	29,420	24,080	26,060	41,030	86,420	141,900	45,260	31,220	29,600	543,800
1954	31,320	28,320	27,420	26,040	22,390	25,480	48,880	132,000	108,800	63,530	38,270	32,860	585,300
1955	33,130	30,570	30,420	27,670	23,770	22,930	25,110	91,410	135,700	48,380	26,160	24,400	519,600
1956	25,580	29,090	31,590	28,260	22,480	24,800	53,390	152,100	149,300	55,330	38,210	39,290	649,400
1957	36,340	33,440	30,570	27,990	24,150	26,720	31,660	137,800	156,700	67,770	33,690	33,340	640,200
1958	32,240	29,090	29,480	27,630	24,210	24,730	28,730	139,500	89,660	29,670	26,470	26,150	507,600
1959	25,840	27,670	26,550	25,510	21,040	21,760	34,550	86,260	131,700	39,730	27,270	29,050	496,900
1960	33,310	29,150	26,110	22,680	22,280	24,770	40,760	97,000	134,000	24,930	22,360	20,350	497,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	818	592,000
1951	1217	3,200	May 29, 1951	350	828	599,600	828	599,800
1952	1247	3,560	June 9, 1952	405	902	654,800	882	640,100
1953	1287	3,450	June 19, 1953	390	751	543,800	749	542,000
1954	1347	3,450	May 22, 1954	380	809	585,300	818	592,400
1955	1397	3,420	June 23, 1955	350	718	519,600	707	511,800
1956	1447	3,890	June 2, 1956	375	895	649,400	914	663,500
1957	1517	4,080	June 6, 1957	415	884	640,200	871	630,600
1958	1567	3,840	May 26, 1958	389	701	507,600	686	496,800
1959	1637	3,830	June 15, 1959	345	686	496,900	698	505,400
1960	1717	4,750	June 4, 1960	330	686	497,700	-	-

490. Diversions from Falls River between Squirrel and Chester gaging stations, Idaho

Between Squirrel and Chester gaging stations, nine canals divert water from Falls River for irrigation of 22,900 acres of land. Records available for part of each irrigation season from 1919 to 1960. Discharge of canals computed from staff-gage readings, or interpolated, and combined to show total diverted flow during the period May to September.

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	280	720	674	412	234
1952	348	732	587	448	380
1953	424	662	620	466	381
1954	493	692	588	480	454
1955	141	723	612	448	352
1956	395	811	592	474	344
1957	242	695	690	517	434
1958	384	740	513	401	297
1959	447	867	577	465	394
1960	388	735	449	403	366

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	17,210	42,830	41,420	25,340	13,920	140,700
1952	21,420	43,540	36,090	27,530	22,620	151,200
1953	26,080	39,420	38,150	28,650	22,680	155,000
1954	30,290	41,160	36,160	29,520	26,990	164,100
1955	8,660	43,030	37,610	27,530	20,970	137,800
1956	24,280	48,240	36,410	29,140	20,500	158,600
1957	14,860	41,330	42,440	31,810	25,850	156,300
1958	23,600	44,050	31,460	24,660	17,690	141,500
1959	27,510	51,590	35,460	28,610	23,460	166,600
1960	23,860	43,750	27,620	24,770	21,760	141,800

495. Falls River near Chester, Idaho

Location.--Lat 44°01', long 111°34', in sec.13, T.8 N., R.41 E., on right bank 1,000 ft upstream from highway bridge, half a mile upstream from mouth, and 1¼ miles north of Chester.

Drainage area.--520 sq mi, approximately. Mean altitude, 6,970 ft.

Records available.--April 1920 to September 1960 (irrigation seasons only). Published as Fall River near Chester prior to October 1959.

Gage.--Water-stage recorder. Datum of gage is 5,051.9 ft above mean sea level, datum of 1929. Prior to Aug. 9, 1920, staff gage at site 200 ft downstream at same datum. Aug. 1920 to Apr. 28, 1921, staff gage at present site and datum.

Extremes.--1920-60: Maximum discharge recorded, 6,380 cfs June 27, 1927 (gage height, 6.60 ft); minimum recorded, 9 cfs Aug. 7, 1923 (gage height, 1.01 ft).

Remarks.--Flow since October 1939 partly regulated by Grassy Lake (see p. 35). About 42,00 acres of land irrigated by diversions above station. Station is below all diversions from Falls River.

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	2,211	1,280	304	460	457
1952	2,784	1,965	431	289	275
1953	1,176	2,031	253	136	176
1954	1,981	1,350	567	206	198
1955	1,623	1,850	306	95.5	150
1956	2,529	1,916	462	238	395
1957	2,527	2,307	559	142	253
1958	2,246	994	42.1	107	247
1959	1,183	1,634	187	95.3	211
1960	1,411	1,752	27.8	60.2	57.3

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	135,900	76,140	18,720	28,280	27,220	286,300
1952	171,200	116,900	26,500	17,740	16,340	348,700
1953	72,330	120,800	15,560	8,350	10,470	227,500
1954	121,800	80,360	34,850	12,670	11,770	261,500
1955	99,820	110,100	18,790	5,870	8,940	243,500
1956	155,500	114,000	28,440	14,610	23,510	336,100
1957	155,400	137,300	34,370	8,740	15,040	350,800
1958	138,100	59,140	2,590	6,550	14,720	221,100
1959	72,760	97,250	11,500	5,860	12,550	199,900
1960	86,790	104,200	1,710	3,700	3,410	199,800

Yearly discharge, in cubic feet per second

Year	WSP	The season					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	3,030	May 29, 1951	79	-	286,300	-	-
1952	1247	3,830	May 5, 1952	168	-	348,700	-	-
1953	1287	3,120	June 15, 1953	20	-	227,500	-	-
1954	1347	3,440	May 22, 1954	130	-	261,500	-	-
1955	1397	2,460	(a)	21	-	243,500	-	-
1956	1447	3,490	June 2, 1956	130	-	336,100	-	-
1957	1517	3,920	June 6, 1957	60	-	350,800	-	-
1958	1567	3,360	May 26, 1958	21	-	221,100	-	-
1959	1637	3,250	June 15, 1959	18	-	199,900	-	-
1960	1717	4,410	June 5, 1960	15	-	199,800	-	-

a June 4, 13, 23, 1955.

500. 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. Six of these canals furnish water to 23,300 acres of land. The other (Cross-Cut) has diverted water since 1938 from Henrys Fork into Teton River (at point three-quarters of a mile upstream from gaging station near St. Anthony) for diversion by Teton River canals during periods of low flow. Records available each irrigation season from 1919 to 1960. Discharge of canals computed from staff-gage readings, or interpolated, and combined to show total diverted flow during period May to September.

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	970	1,160	1,067	643	470
1952	1,161	996	1,100	939	575
1953	956	998	1,141	1,076	828
1954	1,158	1,139	1,169	1,030	691
1955	978	1,292	1,271	1,016	492
1956	1,089	1,141	1,221	1,026	683
1957	850	1,235	1,232	1,077	638
1958	1,154	1,217	1,419	1,059	752
1959	1,248	1,293	1,381	1,134	813
1960	1,326	1,466	1,484	1,124	810

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	59,620	69,010	65,640	39,550	27,970	261,800
1952	71,410	59,280	67,660	57,750	34,200	290,300
1953	58,760	59,410	70,170	66,160	49,250	303,800
1954	71,180	67,770	71,880	63,360	41,100	315,300
1955	60,120	76,900	78,170	62,450	29,250	306,900
1956	66,970	67,870	75,070	63,090	40,660	313,700
1957	52,290	73,470	75,750	66,220	37,950	305,700
1958	70,950	72,420	87,250	65,100	44,760	340,500
1959	76,760	77,290	84,930	69,720	48,360	357,100
1960	81,510	87,210	91,220	69,120	48,230	377,300

505. Henrys Fork at St. Anthony, Idaho

Location.--Lat 43°58'00", long 111°40'20", in NW¼ sec.6, T.7 N., R.41 E., on right bank half a mile upstream from bridge on main street of St. Anthony and 6 miles downstream from Falls River.

Drainage area.--1,770 sq mi, approximately. Mean altitude, 6,670 ft.

Records available.--March 1919 to September 1960 (irrigation seasons only).

Gage.--Water-stage recorder. Datum of gage is 4,950.7 ft above mean sea level, datum of 1929. March 1919 to May 7, 1922, staff gages and May 8, 1922, to Aug. 14, 1931, water-stage recorder, at site 150 ft downstream at datum 0.08 ft lower.

Extremes.--1919-60: Maximum discharge recorded, 9,030 cfs May 8, 1925 (gage height, 6.78 ft, present datum); minimum daily recorded, 413 cfs July 22, 1931.

Remarks.--Diversions above station for irrigation. Flow regulated by powerplant 17 miles upstream from station and by Henrys Lake (see p. 29), Island Park Reservoir (see p. 31), and Grassy Lake Reservoir (see p. 35).

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	3,735	2,066	1,049	1,604	1,696
1952	5,252	3,405	1,614	1,567	1,506
1953	2,373	3,430	1,186	1,180	1,258
1954	3,171	2,202	1,354	1,154	1,366
1955	2,861	2,618	1,235	1,391	1,208
1956	4,181	2,705	1,230	919	1,144
1957	5,058	3,543	1,369	1,303	1,378
1958	3,667	1,712	1,124	1,192	1,265
1959	1,887	2,090	1,222	1,200	1,291
1960	2,072	1,978	1,047	979	916

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	229,700	122,900	64,480	98,600	100,900	616,600
1952	322,900	202,600	99,240	96,340	89,590	810,700
1953	145,900	204,100	72,910	72,540	74,840	570,300
1954	195,000	131,000	83,270	70,960	81,280	561,500
1955	175,900	155,800	75,950	85,550	71,900	565,100
1956	257,100	160,900	75,630	56,540	68,070	618,200
1957	311,000	200,800	84,150	80,110	82,020	758,100
1958	225,500	101,900	69,120	73,290	75,290	545,100
1959	116,000	124,400	75,140	73,810	76,840	466,200
1960	127,400	117,700	64,360	60,180	54,500	424,100

Yearly discharge, in cubic feet per second

Year	WSP	The season					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	4,870	May 9, 1951	840	-	616,600	-	-
1952	1247	7,970	May 5, 1952	890	-	810,700	-	-
1953	1287	5,040	June 8, 1953	684	-	570,300	-	-
1954	1347	4,840	May 22, 1954	785	-	561,500	-	-
1955	1397	4,200	June 4, 1955	732	-	565,100	-	-
1956	1447	5,520	May 8, 1956	758	-	618,200	-	-
1957	1517	8,070	May 12, 1957	812	-	758,100	-	-
1958	1567	4,950	May 12, 1958	870	-	545,100	-	-
1959	1637	3,770	June 15, 1959	708	-	466,200	-	-
1960	1717	4,200	June 5, 1960	435	-	424,100	-	-

510. Teton River near Victor, Idaho

Location.--Lat 43°33'50", long 111°04'00", on line between secs.19 and 30, T.3 N., R.46 E., on right bank 100 ft downstream from Moose Creek, 200 ft upstream from String Canal, and 3½ miles southeast of Victor.

Drainage area.--47.6 sq mi. Mean altitude, 8,240 ft.

Records available.--May 1946 to October 1952.

Gage.--Water-stage recorder. Altitude of gage is 6,470 ft (from topographic map). Prior to July 29, 1949, at datum 1.54 ft higher.

Average discharge.--6 years (1946-52), 81.9 cfs (59,290 acre-ft per year).

Extremes.--1946-52: Maximum discharge, 445 cfs June 7, 1952 (gage height, 3.64 ft); minimum recorded, 22 cfs Feb. 20, 1947 (gage height, 1.39 ft, present datum).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	52.0	45.6	41.6	35.6	35.8	34.6	46.1	148	261	164	83.8	63.4	84.5
1952	54.3	48.1	44.8	37.9	35.7	31.6	43.2	180	277	118	71.5	54.9	83.0
1953	44.8	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,200	2,710	2,560	2,190	1,990	2,130	2,750	9,100	15,540	10,070	5,150	3,770	61,160
1952	3,340	2,860	2,760	2,330	2,050	1,940	2,570	11,070	16,470	7,230	4,400	3,260	60,280
1953	2,760	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	85.1	24.27	61,590
1951	1217	398	June 17, 1951	30	84.5	1.78	24.09	61,160	85.1	24.27	61,650
1952	1247	445	June 7, 1952	30	83.0	1.74	23.75	60,280	-	-	-

515. Teton Creek near Driggs, Idaho

Location.--Lat 43°45'30", long 110°58'00", in sec.23, T.44 N., R.118 W., on right bank 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 sq mi. Mean altitude, 8,870 ft.

Records available.--June 1946 to October 1952.

Gage.--Water-stage recorder. Altitude of gage is 6,660 ft (from topographic map).

Average discharge.--6 years (1946-52), 110 cfs (79,640 acre-ft per year).

Extremes.--1946-52: Maximum discharge, 1,030 cfs June 6, 1952 (gage height, 3.94 ft); minimum recorded, 6.0 cfs Apr. 7, 1948, Mar. 30, 1949; minimum gage height recorded, -0.06 ft Apr. 7, 1948.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	33.3	22.5	15.7	11.5	9.74	8.44	39.8	285	433	413	119	34.2	119
1952	29.1	19.6	15.0	12.8	9.73	8.60	63.5	359	519	191	46.1	17.5	108
1953	11.0	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,050	1,340	964	704	541	519	2,370	17,500	25,750	25,380	7,300	2,030	86,450
1952	1,790	1,170	924	787	560	529	3,780	22,040	30,870	11,730	2,830	1,040	78,050
1953	676	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP.	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	118	47.54	85,700
1951	1214	941	June 17, 1951	7.9	119	3.52	47.96	86,450	119	47.70	85,980
1952	1244	1,030	June 6, 1952	8.5	108	3.20	43.35	78,050	-	-	-

525. Horseshoe Creek near Driggs, Idaho

Location.--Lat 43°44'00", long 111°15'30", in sec.27, T.5 N., R.44 E., on left bank at mouth of canyon, 90 ft upstream from bridge on old railroad grade, 4 miles upstream from mouth, and 7½ miles west of Driggs.

Drainage area.--11.7 sq mi. Mean altitude, 7,020 ft.

Records available.--May 1946 to September 1952.

Gage.--Water-stage recorder. Altitude of gage is 6,200 ft (from topographic map).

Average discharge.--6 years (1946-52), 12.0 cfs (8,690 acre-ft per year).

Extremes.--1946-52: Maximum discharge, 81 cfs May 3, 1952; maximum gage height, 4.16 ft May 23, 1950; minimum discharge recorded, 0.7 cfs Nov. 12, 1946; minimum gage height observed, 0.96 ft Feb. 11, 1947.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6.66	6.42	4.80	3.74	3.00	3.18	23.5	42.2	25.1	12.0	7.25	3.74	11.8
1952	5.46	4.37	3.73	3.39	2.60	2.07	27.5	61.7	30.6	12.0	4.65	3.60	13.5
1953	3.80	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	409	382	295	230	167	195	1,400	2,600	1,490	738	445	222	8,570
1952	336	260	229	208	149	127	1,640	3,790	1,820	735	286	214	9,790
1953	234	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	15.1	17.51	10,930
1951	1217	65	May 21, 1951	-	11.8	1.01	13.73	8,570	11.5	13.32	8,310
1952	1247	81	May 3, 1952	1.7	13.5	1.15	15.70	9,790	-	-	-

540. Teton River near Tetonia, Idaho

Location.--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.--471 sq mi.

Records available.--October 1929 to December 1932, May to September 1934, July to September 1935-37, May to September 1940, June 1941 to October 1957. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 5,910.3 ft above mean sea level, datum of 1929.

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

Extremes.--Maximum discharge observed, 1,900 cfs June 28, 1945 (gage height, 2.97 ft); minimum observed, 62 cfs Jan. 16, 17, 1943.

Remarks.--Many diversions from tributaries above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	407	350	266	216	241	222	458	653	766	610	749	452	450
1952	425	318	257	250	222	217	570	872	933	582	428	338	451
1953	289	249	225	261	229	304	288	276	756	519	395	291	341
1954	270	256	208	206	195	240	356	524	551	549	426	325	343
1955	298	293	233	208	196	190	304	269	464	424	362	293	295
1956	281	285	310	238	189	299	455	765	1,027	666	462	372	446
1957	348	325	235	190	277	313	414	639	1,177	958	523	426	486
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	25,060	20,850	16,350	13,300	13,390	13,640	27,250	40,170	45,550	37,530	46,050	26,900	326,000
1952	26,130	18,910	15,800	15,380	12,790	13,340	33,900	53,600	55,500	35,780	26,300	20,130	327,600
1953	17,780	14,800	13,840	16,020	12,720	18,690	17,150	17,000	45,010	31,920	24,290	17,320	246,500
1954	16,590	15,230	12,800	12,640	10,850	14,770	21,150	32,230	32,760	33,740	26,180	19,350	248,300
1955	18,310	17,420	14,320	12,760	10,880	11,690	18,100	16,540	27,580	26,070	22,260	17,450	213,400
1956	17,270	16,930	19,090	14,620	10,880	18,400	27,070	47,030	61,120	40,980	28,430	22,130	324,000
1957	21,410	19,350	14,430	11,690	15,390	19,270	24,640	39,260	70,040	58,910	32,170	25,340	351,900
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	456	329,900
1951	1217	1,400	May 30, 1951	150	450	326,000	448	324,600
1952	1247	1,280	June 8, 1952	180	451	327,600	431	313,100
1953	1287	1,420	June 20, 1953	180	341	246,500	330	244,700
1954	1347	1,160	June 28, 1954	170	343	248,300	350	253,700
1955	1397	682	July 16, 1955	150	295	213,400	299	216,600
1956	1447	1,590	June 3, 1956	160	446	324,000	449	325,800
1957	1517	1,800	June 7, 1957	173	486	351,900	-	-
1958	1517	-	-	-	-	-	-	-
1959								
1960								

550. Teton River near St. Anthony, Idaho

Location.--Lat 43°55'40", long 111°36'55", in SW¼ sec.15, T.7 N., R.41 E., on right bank half a mile upstream from railroad bridge and 4 miles southeast of St. Anthony.

Drainage area.--890 sq mi, approximately.

Records available.--January 1890 to September 1893, April 1903 to June 1909, April 1920 to September 1960 (irrigation seasons only 1920-21, 1923-33). Monthly discharge only for some periods, published in WSP 1317. Published as "near Wilford" or "at Chases Ranch" 1890-93.

Gage.--Water-stage recorder. Datum of gage is 4,971.8 ft above mean sea level, datum of 1929. Apr. 5, 1890, to Sept. 30, 1893, staff gage at site 1 mile downstream at different datum. Apr. 23, 1903, to June 30, 1909, staff gage at site three-quarters of a mile upstream at different datum. Apr. 19, 1920, to May 1, 1921, staff gage and May 2, 1921, to Nov. 5, 1933, water-stage recorder, at site 400 ft downstream at different datum.

Average discharge.--27 years (1933-60), 758 cfs (548,800 acre-ft per year).

Extremes.--1890-93, 1903-9, 1920-60: Maximum discharge observed, 5,830 cfs June 13, 1893 (gage height, 6.90 ft, site and datum then in use); minimum, 214 cfs Dec. 15, 1955 (gage height, 1.62 ft).

Remarks.--About 40,000 acres of land irrigated from diversions above station. Water is diverted during irrigation season from Henrys Fork through Cross Cut Canal to Teton River three-quarters of a mile above station.

Flow diverted by Cross Cut Canal

Year	Acre-feet	Year	Acre-feet
1951	1,020	1956	12,700
1952	1,060	1957	4,450
1953	10,180	1958	29,100
1954	11,750	1959	41,600
1955	22,120	1960	49,600

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	648	563	452	397	468	439	880	1,875	1,635	1,145	1,135	711	865
1952	678	547	457	429	402	396	1,098	2,399	1,958	998	699	577	888
1953	519	459	407	453	394	465	543	858	2,022	1,038	704	540	700
1954	460	442	387	365	371	416	671	1,538	1,323	1,057	718	592	697
1955	514	474	382	359	335	322	520	909	1,439	953	672	528	618
1956	482	481	565	398	315	482	881	2,174	2,241	1,198	802	662	891
1957	604	530	422	374	482	518	646	1,769	2,807	1,569	875	669	940
1958	592	517	445	411	444	431	630	1,973	1,427	942	680	595	759
1959	471	479	404	379	347	474	775	978	1,776	1,076	757	694	718
1960	559	463	383	318	323	495	804	1,068	1,388	930	738	621	674

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	39,850	33,490	27,790	24,380	26,010	26,990	52,350	115,300	97,270	70,410	69,820	42,290	626,000
1952	41,710	32,570	28,130	26,360	23,150	24,340	65,310	147,500	116,500	61,390	42,990	34,320	644,300
1953	31,890	27,310	25,000	27,820	21,870	28,590	31,320	52,730	120,300	63,820	43,290	32,160	506,100
1954	28,290	26,290	23,790	22,430	20,620	25,590	39,930	94,540	78,730	65,000	44,130	35,210	504,600
1955	31,620	28,220	23,460	22,080	18,590	19,800	30,970	55,910	85,650	58,590	41,320	31,430	447,600
1956	29,660	28,650	34,720	24,460	18,130	29,620	52,440	133,600	133,300	73,650	49,290	39,420	646,900
1957	37,160	31,540	25,950	22,970	26,750	31,860	38,450	108,800	167,000	96,460	53,810	39,830	680,600
1958	36,390	30,760	27,370	25,270	24,650	26,490	37,480	121,300	84,890	57,920	41,840	35,410	549,800
1959	28,950	28,500	24,840	23,290	19,260	29,180	46,140	60,150	105,700	66,180	46,540	41,300	520,000
1960	34,380	27,560	23,520	19,580	18,570	30,420	47,850	65,690	82,570	57,200	45,390	36,940	489,600

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	873	632,300
1951	1217	3,490	May 29, 1951	280	865	626,000	866	627,200
1952	1247	3,180	May 5, 1952	369	888	644,300	862	626,100
1953	1287	3,270	June 19, 1953	333	700	506,100	692	500,300
1954	1347	2,950	May 22, 1954	286	697	504,600	704	509,500
1955	1397	2,070	June 13, 1955	257	618	447,600	632	457,400
1956	1447	3,790	June 2, 1956	264	891	646,900	893	648,600
1957	1517	4,660	June 6, 1957	350	940	680,600	940	680,400
1958	1567	3,680	May 24, 1958	360	759	549,800	743	537,500
1959	1637	3,790	Apr. 3, 1959	303	718	520,000	723	523,200
1960	1717	2,300	May 13, 1960	285	674	489,600	-	-

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

Between St. Anthony gaging station and mouth, 19 canals divert water from Teton River or irrigation of 30,000 acres of land. Records available for part of each irrigation eason from 1919 to 1960. Discharge of canals computed from staff-gage readings, or inter-olated, and combined to show total diverted flow during period May to September.

Monthly mean discharge, in cubic feet per second

Water Year	May	June	July	Aug.	Sept.
1951	454	1,153	1,066	485	406
1952	851	1,049	959	696	515
1953	693	1,116	1,009	728	553
1954	893	1,130	967	687	584
1955	424	1,056	937	663	565
1956	816	1,230	1,050	716	581
1957	472	1,228	1,204	917	599
1958	758	1,133	948	700	502
1959	880	1,254	973	728	560
1960	737	1,227	867	701	569

Monthly and seasonal discharge, in acre-feet

Water Year	May	June	July	Aug.	Sept.	The period
1951	27,940	68,610	65,550	29,820	24,150	216,100
1952	52,300	62,430	58,960	42,770	30,660	247,100
1953	42,610	66,430	62,070	44,760	32,880	248,800
1954	54,890	67,220	59,490	42,210	34,750	258,600
1955	26,040	62,850	57,580	40,780	33,630	220,900
1956	50,180	73,190	64,580	44,050	34,590	266,600
1957	29,050	73,070	74,040	56,370	35,640	268,200
1958	46,620	67,430	58,260	43,040	29,900	245,200
1959	54,120	74,590	59,800	44,730	33,320	266,600
1960	45,340	73,000	53,300	43,090	33,880	248,600

560. 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 of 21,000 acres of land. Records available for part of each irrigation season from 1919 to 1960. Discharge of canals computed from staff-gage readings, or inter-polated, and combined to show total diverted flow during period May to September.

Monthly mean discharge, in cubic feet per second

Water Year	May	June	July	Aug.	Sept.
1951	884	950	807	514	418
1952	1,061	811	775	695	454
1953	830	851	831	685	512
1954	1,041	864	767	658	480
1955	947	1,046	808	655	492
1956	978	955	844	679	506
1957	904	964	891	768	509
1958	1,103	879	847	699	456
1959	1,102	948	828	727	479
1960	1,091	951	829	704	540

Monthly and seasonal discharge, in acre-feet

Water Year	May	June	July	Aug.	Sept.	The period
1951	54,360	56,520	49,640	31,580	24,870	217,000
1952	65,240	48,270	47,650	42,760	27,020	230,900
1953	51,010	50,630	51,090	42,130	30,480	225,300
1954	64,020	51,410	47,190	40,430	28,590	231,600
1955	58,200	62,210	49,670	40,280	29,250	239,600
1956	60,150	56,840	51,900	41,740	30,110	240,700
1957	55,580	57,360	54,760	47,000	30,270	245,000
1958	67,820	52,320	52,080	42,970	27,110	242,300
1959	67,790	56,420	50,920	44,880	28,500	248,300
1960	67,110	56,600	50,970	43,270	32,160	250,100

565. Henrys Fork near Rexburg, Idaho

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

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

Records available.--April 1909 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Prior to 1911, published as North Fork of Snake River near Rexburg.

Gage.--Water-stage recorder. Datum of gage is 4,807.03 ft above mean sea level, datum of 1929, Pacific Northwest Supplementary Adjustment of 1947. Apr. 13, 1909, to Sept. 28, 1912, staff gage at datum 0.67 ft higher. Sept. 29, 1912, to Apr. 4, 1913, staff gage at present datum.

Average discharge.--51 years (1909-60), 1,903 cfs (1,378,000 acre-ft per year).

Extremes.--1909-60: Maximum daily discharge, 9,490 cfs June 29, 1927; maximum gage height, 9.97 ft May 19, 1927; minimum discharge, 183 cfs Mar. 24-28, 1934[d] (gage height, 1.45 ft).

Remarks.--Flow regulated by operation of powerplant near Ashton and by Henrys Lake, Island Park Reservoir, and Grassy Lake (see elsewhere in this report). Diversions for irrigation of about 172,000 acres above station. Station is downstream from all tributaries except inflow from ground water and irrigation waste. Part of ground-water flow escapes westward beneath the Snake River plains above gaging station. Record of water temperatures for the period October 1953 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,295	2,145	1,925	1,783	2,046	2,042	2,657	4,246	2,311	1,033	2,443	2,061	2,250
1952	2,316	2,312	2,170	2,044	1,978	2,071	3,323	6,168	4,379	1,684	1,654	1,651	2,647
1953	1,624	1,676	1,592	2,235	2,013	1,834	1,359	2,140	4,226	1,168	1,183	1,318	1,860
1954	1,507	1,706	1,617	1,459	1,502	1,466	2,094	3,193	2,170	1,448	1,244	1,430	1,737
1955	1,718	1,628	1,555	1,409	1,311	1,764	1,940	2,576	2,618	1,257	1,399	1,262	1,705
1956	1,539	1,589	2,032	1,577	1,553	1,960	2,689	4,547	3,760	1,451	1,102	1,372	2,098
1957	1,862	2,351	1,732	1,379	1,940	2,032	1,713	5,954	4,807	1,878	1,481	1,642	2,399
1958	1,516	1,658	1,940	1,643	1,784	1,687	1,810	3,988	2,227	1,028	1,195	1,489	1,831
1959	1,380	1,302	1,454	1,307	1,426	1,452	1,489	1,501	2,522	1,402	1,277	1,495	1,499
1960	2,069	1,540	1,646	1,310	1,361	1,870	2,321	1,812	1,883	834	886	900	1,536

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	141,100	127,600	118,300	109,600	113,600	125,600	158,100	261,100	137,500	63,500	150,200	122,700	1,629,000
1952	142,400	137,600	133,400	125,700	113,800	127,300	197,800	379,200	260,600	103,600	101,700	98,260	1,921,000
1953	99,870	99,710	97,880	137,400	111,800	112,800	80,870	131,600	251,500	71,830	72,740	78,470	1,346,000
1954	92,650	101,500	99,430	89,730	83,420	90,150	124,600	196,300	129,100	89,060	76,490	85,090	1,258,000
1955	105,600	96,870	95,620	86,620	72,830	108,400	115,500	158,400	155,800	77,290	86,020	75,090	1,234,000
1956	94,650	94,580	125,000	97,000	89,320	120,500	160,000	279,600	223,700	89,210	67,770	81,640	1,523,000
1957	114,500	139,900	106,500	84,790	107,700	124,900	101,900	366,100	286,100	115,500	91,080	97,690	1,737,000
1958	93,220	98,660	119,300	101,000	99,070	103,700	107,700	245,200	132,500	63,240	73,450	88,620	1,326,000
1959	84,860	77,470	89,400	80,340	79,220	89,300	88,580	92,290	150,000	86,220	78,510	88,980	1,085,000
1960	127,200	91,580	101,200	80,570	78,300	115,000	138,100	111,400	112,000	51,270	54,500	53,570	1,115,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	2,224	1,610,000
1951	1217	5,210	May 14, 1951	705	2,250	1,629,000	2,286	1,655,000
1952	1247	7,820	May 6, 1952	764	2,647	1,921,000	2,487	1,805,000
1953	1287	5,880	June 9, 1953	764	1,860	1,346,000	1,854	1,343,000
1954	1347	5,100	May 23, 1954	645	1,737	1,258,000	1,743	1,262,000
1955	1397	4,000	June 5, 1955	610	1,705	1,234,000	1,727	1,250,000
1956	1447	5,930	May 30, 1956	742	2,098	1,523,000	2,162	1,570,000
1957	1517	8,680	May 22, 1957	1,060	2,399	1,737,000	2,330	1,687,000
1958	1567	5,210	May 27, 1958	808	1,831	1,326,000	1,749	1,266,000
1959	1637	4,070	June 28, 1959	630	1,499	1,085,000	1,593	1,153,000
1960	1717	4,150	Apr. 11, 1960	530	1,536	1,115,000	-	-

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

Between Heise and Shelley gaging stations, 47 canals divert water for irrigation of 266,000 acres of land; of these 36 divert above mouth of Henrys Fork. Records available during each irrigation season from 1919 to 1960. Two canals are equipped with a water-stage recorder, the others with staff gages. Discharge combined to show total diverted flow during period May to September. Records include Riley ditch which each season diverts 4,000 to 5,000 acre-ft of water 1½ miles above Heise gaging station and irrigates 870 acres of land.

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	3,924	8,369	9,267	6,067	5,739
1952	4,743	7,571	9,093	7,890	6,382
1953	4,340	7,035	9,396	7,765	6,650
1954	6,465	7,810	9,089	7,698	6,681
1955	3,132	7,469	8,902	7,635	5,958
1956	5,768	8,910	9,596	7,738	6,455
1957	1,682	7,596	9,935	8,332	6,517
1958	5,297	8,696	9,495	7,179	5,444
1959	6,397	9,396	9,347	8,032	6,361
1960	6,525	9,413	9,467	7,301	6,162

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	241,300	498,000	569,800	373,100	341,500	2,024,000
1952	291,600	450,500	559,100	472,800	379,800	2,154,000
1953	266,900	418,600	577,800	477,500	395,700	2,136,000
1954	397,500	464,700	558,900	473,400	397,600	2,282,000
1955	192,600	444,400	547,300	469,500	354,500	2,008,000
1956	354,700	530,200	590,100	475,800	384,100	2,335,000
1957	102,200	452,000	610,800	512,300	387,800	2,065,000
1958	325,700	517,500	583,800	441,400	324,000	2,192,000
1959	393,300	559,100	574,700	493,900	378,500	2,400,000
1960	401,200	560,100	582,100	448,900	366,600	2,359,000

600. Snake River near Shelley, Idaho

Location.--Lat 43°24'50", long 112°08'05", in SW¼ sec.17, T.1 N., R.37 E., on right bank quarter of a mile southeast of Woodville and 2½ miles north of Shelley.

Drainage area.--9,790 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--March 1915 to September 1960 (prior to October 1931, irrigation seaso only).

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

Average discharge.--29 years (1931-60), 5,197 cfs (3,762,000 acre-ft per year).

Extremes.--1915-60: Maximum discharge, 47,200 cfs June 17, 1918 (gage height, 16.97 ft); minimum, 288 cfs Nov. 5, 1934 (gage height, 2.22 ft).
Maximum discharge known, 75,000 cfs (estimated) June 6, 1894, at former station at Eagle Rock (now Idaho Falls), 7 miles upstream from present site.

Remarks.--Regulation by Jackson Lake, Palisades Reservoir, Island Park Reservoir, Henrys Lake, and Grassy Lake (see elsewhere in this report). Many diversions above station fo irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,583	4,769	4,525	4,035	5,671	6,787	10,840	17,850	15,080	7,936	7,663	4,776	7,88
1952	4,720	4,961	4,149	4,172	5,298	6,041	12,290	20,290	16,880	6,352	4,236	3,208	7,71
1953	2,514	3,226	3,517	4,264	3,753	3,565	4,511	6,739	16,760	5,934	4,012	3,028	5,14
1954	2,498	3,520	3,253	3,148	3,090	3,170	5,812	14,370	10,530	8,034	4,396	3,506	5,45
1955	3,038	3,457	2,823	2,716	2,715	3,252	4,104	8,151	10,060	5,505	3,922	2,655	4,37
1956	2,358	3,401	4,430	4,122	2,816	5,130	12,930	20,270	22,660	7,236	4,585	3,699	7,79
1957	3,437	3,601	3,232	2,256	3,411	5,369	6,428	17,270	10,140	5,539	4,703	3,927	5,79
1958	2,904	3,655	3,741	3,318	3,665	3,488	4,327	12,220	7,529	4,730	3,799	3,203	4,72
1959	1,880	3,058	3,253	3,213	3,290	3,198	3,229	4,725	6,310	6,269	5,895	6,124	4,20
1960	3,063	3,358	3,175	2,510	2,492	3,031	3,565	4,904	6,142	5,913	7,061	4,890	4,18

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	281,800	283,800	278,300	248,100	314,900	417,300	644,900	1,098,000	896,700	491,000	471,200	284,200	5,710,000
1952	290,200	295,200	255,100	256,500	304,700	371,500	731,200	1,248,000	1,004,000	390,500	260,400	190,900	5,598,000
1953	154,600	192,000	216,300	262,200	208,400	219,200	268,400	414,400	997,600	366,700	246,700	180,200	3,727,000
1954	153,600	209,500	200,000	193,600	171,600	194,900	345,800	883,500	626,400	494,000	270,300	208,600	3,952,000
1955	186,800	205,700	173,600	167,000	150,800	200,000	244,200	501,200	598,700	338,500	241,100	158,000	3,166,000
1956	145,000	202,400	272,400	253,400	162,000	315,400	769,600	1,246,000	1,348,000	444,900	281,900	220,100	5,661,000
1957	211,300	214,300	198,700	138,700	189,400	330,100	382,500	1,062,000	603,100	340,600	289,200	233,700	4,194,000
1958	178,600	217,500	230,000	204,000	203,500	214,500	257,500	751,100	448,000	294,500	233,600	190,600	3,423,000
1959	115,600	182,000	200,000	197,500	182,700	196,700	192,200	290,500	375,500	385,500	362,500	364,400	3,045,000
1960	188,300	199,800	195,200	154,400	143,400	186,300	212,200	301,500	365,500	363,600	434,100	291,000	3,035,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	7,471	5,409,000
1951	1217	26,600	May 31, 1951	2,810	7,887	5,710,000	7,882	5,707,000
1952	1247	29,600	May 6, 1952	1,680	7,712	5,598,000	7,329	5,321,000
1953	1287	22,300	June 16, 1953	1,760	5,147	3,727,000	5,148	3,727,000
1954	1347	27,700	June 29, 1954	1,860	5,459	3,952,000	5,463	3,955,000
1955	1397	14,100	June 18, 1955	1,950	4,372	3,166,000	4,447	3,219,000
1956	1447	30,100	May 29, 1956	1,400	7,799	5,661,000	7,805	5,666,000
1957	1517	22,300	May 23, 1957	1,780	5,792	4,194,000	5,794	4,195,000
1958	1567	16,500	May 25, 1958	1,790	4,729	3,423,000	4,551	3,295,000
1959	1637	12,000	June 30, 1959	1,220	4,206	3,045,000	4,325	3,131,000
1960	1717	9,290	Aug. 21, 1960	1,800	4,181	3,035,000	-	-

650. Blackfoot River Reservoir near Henry, Idaho
(Formerly Blackfoot Marsh Reservoir near Henry)

Location.--Lat 43°00'20", long 111°43'00", in sec.12, T.5 S., R.40 E., near spillway at right end of dam, 12 miles northwest of Henry.

Drainage area.--581 sq mi.

Records available.--January 1912 to September 1925, January 1929 to September 1960 (no winter records 1949-59).

Gage.--Staff gage. Datum of gage is at mean sea level (levels by Indian Field Service)..

Extremes.--1912-25, 1929-60: Maximum contents observed, 349,800 acre-ft Apr. 22, 23, 1951 (elevation, 6,120.56 ft); minimum observed, 610 acre-ft Sept. 12-15, 19, 21, 22, 1934; minimum elevation observed, 6,088.59 ft Sept. 22, 1934.

Remarks.--Water diverted from reservoir for irrigation of about 50,000 acres near Pocatello and on Fort Hall Indian Reservation. Capacity is 313,000 acre-ft between elevations 6,086 (bottom of outlet tunnel) and 6,118.5 ft (crest of spillway) with provision for additional storage of 100,000 acre-ft to elevation 6,124 ft by means of flashboards. Storage supplemented by water from Grays Lake beginning May 1924.

Cooperation.--Records for 1951-60 not previously published by Geological Survey, furnished by Bureau of Indian Affairs.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	263,000	-	-	-	-	-	348,000	331,500	331,000	304,600	293,800	279,800
1952	270,600	-	-	-	-	-	289,600	335,000	332,400	302,200	277,600	258,300
1953	260,300	-	-	-	-	-	333,100	335,900	323,900	280,000	246,200	208,900
1954	211,100	-	-	-	-	-	283,800	291,200	294,800	264,300	248,200	220,000
1955	222,100	228,200	-	-	-	-	274,900	294,300	298,400	263,800	217,600	186,400
1956	192,200	-	-	-	-	-	296,500	331,700	334,100	305,800	285,200	276,200
1957	281,800	-	-	-	-	-	342,300	339,100	342,600	305,300	279,600	274,000
1958	276,700	-	-	-	-	-	331,000	342,100	328,500	267,000	212,800	190,500
1959	192,000	-	-	-	-	-	270,500	285,200	269,100	231,800	212,700	205,200
1960	211,400	215,500	219,700	230,200	239,100	246,500	280,800	289,100	266,000	219,700	180,500	150,200

685. Blackfoot River near Blackfoot, Idaho

Location.--Lat 43°07'50", long 112°28'35", at east quarter corner of sec.28, T.3 S., R.34 E., on left bank 125 ft downstream from highway bridge, 2 miles upstream from mou and 8 miles southwest of Blackfoot.

Drainage area.--1,295 sq mi, including that of Sand Creek whose flow is diverted to Blac foot River through the Idaho Canal.

Records available.--July 1913 to September 1960 (prior to October 1931, summer months only). Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--29 years (1931-60), 152 cfs (110,000 acre-ft per year).

Extremes.--1913-60: Maximum discharge, 1,070 cfs Mar. 9, 1960 (gage height, 6.42 ft); no flow for many days.

Remarks.--Flow regulated by Blackfoot River Reservoir (capacity at spillway crest, 312,0 acre-ft, and maximum capacity with flashboards, 413,000 acre-ft). Many diversions above station for irrigation. Most of flow during nonirrigation season and part of t during irrigation season is supplied by waste from Snake River canals.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	468	340	331	184	299	273	549	600	124	53.3	197	102	294
1952	361	517	307	240	250	270	548	502	190	79.4	75.0	85.8	285
1953	149	296	173	193	199	128	184	263	281	39.3	45.3	19.5	164
1954	191	317	168	122	152	122	174	70.4	66.7	25.3	32.8	41.0	123
1955	232	345	191	117	83	78	135	72.5	73.9	38.1	27.2	33.1	119
1956	104	333	233	173	99.6	194	385	106	74.5	22.1	40.7	75.8	153
1957	184	320	157	74.9	167	184	380	902	152	25.4	46.5	72.1	222
1958	158	269	157	76.4	145	121	424	304	66.4	25.9	20.0	49.9	151
1959	86.8	274	116	67.9	77.4	115	269	50.2	30.7	15.2	19.6	56.3	97.
1960	291	223	64.2	40.9	43.2	201	320	74.4	18.3	4.13	10.6	10.9	108

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	28,780	20,240	20,350	11,340	16,610	16,810	32,640	36,910	7,400	3,280	12,120	6,070	212,60
1952	22,170	30,760	18,860	14,760	14,380	16,600	32,600	30,890	11,330	4,880	4,610	5,100	206,90
1953	9,150	17,620	10,610	11,870	11,080	7,870	10,940	16,150	16,740	2,420	2,780	1,160	118,40
1954	11,720	18,870	10,310	7,530	8,410	7,490	10,370	4,330	3,970	1,560	2,020	2,440	89,02
1955	14,240	20,550	11,740	7,190	4,610	4,800	8,020	4,460	4,400	2,340	1,670	1,970	85,99
1956	6,390	19,820	14,320	10,660	5,730	11,950	22,910	6,520	4,430	1,360	2,500	4,510	111,10
1957	11,330	19,030	9,660	4,610	9,290	11,340	22,600	55,440	9,070	1,560	2,860	4,290	161,10
1958	9,700	15,980	9,660	4,700	8,030	7,460	25,250	18,720	3,950	1,590	1,230	2,970	109,20
1959	5,340	16,320	7,140	4,180	4,300	7,100	16,000	3,090	1,830	934	1,200	3,350	70,78
1960	17,890	13,290	3,950	2,520	2,480	12,350	19,050	4,580	1,090	254	651	649	78,75

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	266	206,90
1951	1217	785	May 5, 1951	15	294	212,600	297	215,00
1952	1247	761	May 1, 1952	13	285	206,900	238	172,50
1953	1287	724	June 7, 1953	5	164	118,400	168	121,90
1954	1347	466	Oct. 24, 1953	4	123	89,020	131	94,65
1955	1397	535	Oct. 30, 1954	1	119	85,990	110	79,99
1956	1447	612	Apr. 30, 1956	1	153	111,100	152	110,60
1957	1517	1,040	May 26, 1957	8	222	161,100	216	156,40
1958	1567	1,030	Apr. 30, 1958	4	151	109,200	142	102,70
1959	1637	1,010	Apr. 4, 1959	0	97.7	70,780	107	77,11
1960	1717	1,070	Mar. 9, 1960	0	108	78,750	-	-

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

Between Shelley and Blackfoot gaging stations, 13 canals divert water from Snake River for irrigation of 158,000 acres of land. Records available during each irrigation season from 1919 to 1960. The two largest canals are equipped with recorders, the others with staff gages. Discharges combined to show total diverted flow during the period May to September.

Monthly mean discharge, in cubic feet per second

Water year	May	June	July	Aug.	Sept.
1951	2,354	3,398	3,800	2,721	2,513
1952	2,458	3,141	3,627	3,192	2,352
1953	2,150	2,603	3,794	3,109	2,120
1954	3,237	3,223	3,732	3,298	2,292
1955	2,359	3,376	3,636	2,887	1,926
1956	3,085	3,657	4,078	3,329	2,676
1957	1,131	3,576	3,958	3,486	2,736
1958	2,989	3,618	3,700	2,534	1,864
1959	3,028	3,837	3,887	3,184	2,362
1960	3,097	3,889	3,958	2,694	2,016

Monthly and seasonal discharge, in acre-feet

Water year	May	June	July	Aug.	Sept.	The period
1951	144,800	202,200	233,700	167,300	149,600	897,600
1952	151,100	186,900	223,000	196,200	140,000	897,200
1953	132,200	154,900	233,300	191,200	126,100	837,700
1954	199,100	191,800	229,500	202,800	136,400	959,600
1955	145,000	200,900	223,800	177,500	114,600	861,600
1956	189,700	217,600	250,800	204,700	159,200	1,022,000
1957	69,540	212,800	243,400	214,400	162,800	902,900
1958	183,800	215,300	227,500	155,800	110,900	893,300
1959	186,200	228,300	239,000	195,700	140,500	939,700
1960	190,400	231,400	243,400	165,600	120,000	950,800

695. Snake River near Blackfoot, Idaho

Location.--Lat 43°07'35", long 112°31'25", in SE¼ sec.30, T.3 S., R.34 E., on right bank 1,000 ft downstream from highway bridge, half a mile downstream from Blackfoot River, and 10 miles southwest of Blackfoot.

Drainage area.--11,310 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--June 1910 to September 1960. Monthly discharge only for some periods published in WSP 1317. Published as "at Clough Ranch, near Blackfoot" 1924-45.

Gage.--Water-stage recorder. Datum of gage is 4,400.83 ft above mean sea level, datum of 1929 (preliminary adjustment). Prior to July 6, 1913, staff gages at practically same site and datum.

Average discharge.--34 years (1926-60), 3,970 cfs (2,874,000 acre-ft per year).

Extremes.--1910-60: Maximum discharge, 46,200 cfs June 18, 1918 (gage height, 14.80 ft); minimum, 111 cfs Nov. 10, 1934 (gage height, 0.80 ft).
Late in summer of 1905 there was no flow in Snake River for a distance of 10 miles in vicinity of Blackfoot. Aug. 9, 1905, discharge of Snake River just below mouth of Blackfoot River was 39 cfs, supplied by ground-water inflow a short distance upstream.

Remarks.--Flow regulated by Jackson Lake, Palisades Reservoir, Henrys Lake, Grassy Lake, Island Park Reservoir, and Blackfoot River Reservoir (see elsewhere in this report), having a combined capacity of 2,883,000 acre-ft. About 694,000 acres of land irrigated by diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,479	4,978	4,650	4,005	5,597	6,641	10,670	15,760	12,370	4,485	5,280	2,599	6,79
1952	4,545	5,291	4,190	4,139	5,203	5,980	11,820	18,370	13,920	2,919	1,479	1,179	6,57
1953	1,521	3,293	3,545	4,320	3,698	3,392	3,881	4,622	14,040	2,562	1,152	1,090	3,91
1954	1,907	3,488	3,255	3,133	3,158	3,126	4,787	10,830	7,048	4,773	1,317	1,446	4,02
1955	2,631	3,561	2,854	2,471	2,383	2,935	4,038	5,520	6,715	2,149	1,217	964	3,11
1956	1,703	3,393	4,437	4,180	2,652	4,968	12,590	16,980	18,990	3,378	1,508	1,401	6,33
1957	2,793	3,705	3,179	2,246	3,314	5,177	6,309	16,230	6,718	1,453	1,399	1,494	4,51
1958	2,328	3,677	3,748	3,295	3,667	3,377	4,379	9,217	4,249	1,108	1,309	1,578	3,49
1959	1,116	3,215	3,225	2,989	3,215	3,159	2,763	1,757	2,359	2,418	2,673	4,003	2,73
1960	2,920	3,420	3,108	2,269	2,233	2,929	3,283	1,919	2,311	1,835	4,258	2,835	2,78

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	275,400	296,200	285,900	246,300	310,800	408,400	634,800	968,900	736,200	275,800	324,700	154,600	4,918,00
1952	279,500	314,800	257,600	254,500	299,300	367,700	703,200	1,130,000	828,400	179,500	90,970	70,180	4,776,00
1953	93,540	195,900	218,000	265,600	205,300	208,600	230,900	284,200	835,500	157,500	70,840	64,880	2,831,00
1954	117,300	207,600	200,200	192,600	175,400	192,200	284,800	665,700	419,400	293,500	80,980	86,030	2,916,00
1955	161,800	211,900	175,500	151,900	132,300	180,500	240,300	339,400	399,600	132,100	74,850	57,360	2,258,00
1956	104,700	201,900	272,800	257,000	152,600	305,500	749,100	1,044,000	1,130,000	207,700	94,720	83,380	4,601,00
1957	171,700	220,400	195,500	138,100	184,000	318,300	375,400	998,200	399,700	89,330	86,020	88,910	3,266,00
1958	143,100	218,800	230,400	202,600	203,600	207,600	260,500	566,700	252,800	68,120	80,510	93,920	2,529,00
1959	68,600	191,300	198,300	183,800	178,600	194,200	164,400	108,000	139,200	148,700	164,300	238,200	1,978,00
1960	179,500	203,500	191,100	139,500	128,400	180,100	195,300	118,000	137,500	114,700	261,800	168,700	2,018,00

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	6,404	4,636,00
1951	1217	23,400	May 31, 1951	996	6,793	4,918,000	6,785	4,912,00
1952	1247	28,500	May 7, 1952	270	6,578	4,776,000	6,103	4,431,00
1953	1287	18,800	June 15, 1953	270	3,910	2,831,000	3,935	2,848,00
1954	1347	25,200	June 30, 1954	359	4,027	2,916,000	4,061	2,940,00
1955	1397	10,600	June 19, 1955	348	3,118	2,258,000	3,160	2,288,00
1956	1447	27,300	May 30, 1956	469	6,339	4,601,000	6,350	4,610,00
1957	1517	21,700	May 23, 1957	414	4,511	3,266,000	4,517	3,270,00
1958	1567	13,000	May 13, 1958	337	3,493	2,529,000	3,308	2,395,00
1959	1637	8,860	(a)	150	2,732	1,978,000	2,892	2,094,00
1960	1717	6,330	Aug. 22, 1960	170	2,780	2,018,000	-	-

a June 30, July 1, 1959.

730. Portneuf River at Topaz, Idaho

Location.--Lat 42°37', long 112°05', in sec.23, T.9 S., R.37 E., on right bank 200 ft upstream from Bob Smith Creek, 800 ft downstream from Topaz siding, 1½ miles upstream from diversion dam of Portneuf-Marsh Valley Canal Co., and 4 miles west of Lava Hot Springs.

Drainage area.--570 sq mi, approximately (includes that of Bob Smith Creek). Mean altitude, 6,080 ft.

Records available.--January 1913 to September 1915, July 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,918.00 ft above mean sea level, preliminary, unadjusted. Prior to July 20, 1919, staff gage at site three-eighths of a mile downstream at datum 3.0 ft lower. July 20, 1919, to June 22, 1954, staff gage at site a third of a mile downstream at datum 2.00 ft lower than present datum.

Average discharge.--43 years (1913-15, 1919-60), 193 cfs (139,700 acre-ft per year).

Extremes.--1913-15, 1919-60: Maximum discharge, 1,040 cfs Feb. 25, 1957 (gage height, 5.71 ft); minimum observed, 65 cfs Oct. 9, 1934 (gage height, 0.81 ft, site and datum then in use).

Remarks.--Flow regulated by Portneuf-Marsh Valley Reservoir (capacity, 23,695 acre-ft) and Chesterfield Reservoir on Twenty Four Mile Creek (capacity, 685 acre-ft). Diversions above station for irrigation of about 22,000 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	217	211	190	177	243	230	278	292	251	240	210	152	224
1952	160	180	173	176	188	187	409	510	297	236	207	176	242
1953	145	161	176	217	194	197	198	221	362	244	203	183	208
1954	151	167	165	163	167	219	211	204	206	186	139	96.1	173
1955	116	135	133	132	130	130	160	186	198	131	105	96.3	138
1956	107	126	146	148	134	195	271	237	210	198	167	114	171
1957	112	134	143	127	248	173	169	309	241	207	198	154	184
1958	122	140	149	141	177	195	235	278	222	221	185	136	183
1959	108	135	151	142	145	186	194	207	199	158	92.4	99.5	151
1960	118	121	121	123	130	198	226	203	208	122	81.1	80.1	144

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13,360	12,530	11,700	10,870	13,500	14,160	16,540	17,940	14,910	14,740	12,890	9,070	162,200
1952	9,820	10,720	10,650	10,820	10,790	11,490	24,320	31,360	17,660	14,490	12,740	10,480	175,300
1953	8,930	9,600	10,800	13,370	10,800	12,120	11,780	13,580	21,530	14,990	12,480	10,880	150,900
1954	9,310	9,940	10,120	10,000	9,260	13,500	12,570	12,570	12,280	11,450	8,520	5,720	125,200
1955	7,150	8,010	8,180	8,090	7,230	8,010	9,490	11,410	11,770	8,080	6,480	5,730	99,630
1956	6,560	7,470	8,960	9,120	7,720	12,000	16,120	14,580	12,500	12,190	10,290	6,750	124,300
1957	6,910	8,000	8,780	7,800	13,790	10,670	10,070	19,010	14,320	12,700	12,160	9,150	133,400
1958	7,520	8,340	9,140	8,680	9,830	11,980	14,010	17,100	13,220	13,570	11,390	8,090	132,800
1959	6,620	8,050	9,250	8,730	8,080	11,420	11,520	12,750	11,850	9,710	5,680	5,920	109,600
1960	7,250	7,210	7,430	7,550	7,450	12,160	13,460	12,500	12,400	7,510	4,990	4,770	104,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	277	200,800
1951	1217	434	Feb. 10, 1951	136	224	162,200	215	155,800
1952	1247	668	May 5, 1952	147	242	175,300	239	173,500
1953	1287	469	June 6, 1953	136	208	150,900	208	150,900
1954	1347	332	Apr. 28, 1954	90	173	125,200	165	119,200
1955	1397	276	June 2, 1955	91	138	99,630	137	99,280
1956	1447	438	Mar. 31, 1956	91	171	124,300	172	125,000
1957	1517	*1,040	Feb. 25, 1957	100	184	133,400	186	134,700
1958	1567	346	May 13, 1958	102	183	132,800	182	131,800
1959	1637	276	Mar. 23, 1959	85	151	109,600	149	107,600
1960	1717	486	Mar. 27, 1960	76	144	104,700	-	-

750. Marsh Creek near McCammon, Idaho

Location.--Lat 42°37'50", long 112°13'30", in NE¼ sec.22, T.9 S., R.36 E., near center of downstream side of abandoned highway bridge, 80 ft upstream from highway crossing and 2 miles southwest of McCammon.

Drainage area.--355 sq mi. Mean altitude, 5,630 ft.

Records available.--September 1954 to September 1960.

Gage.--Wire-weight gage. Altitude of gage is 4,610 ft (by barometer).

Average discharge.--6 years (1954-60), 71.7 cfs (51,910 acre-ft per year).

Extremes.--1954-60: Maximum discharge observed, 416 cfs (revised) Feb. 25, 1958 (gage height, 6.72 ft); minimum observed, 27 cfs June 2-4, 1960 (gage height, 2.80 ft); minimum gage height observed, 2.00 ft Feb. 3, 1955 (result of icejam upstream).

Remarks.--Diversions above station for irrigation. Part of Birch Creek (tributary to Marsh Creek) diverted into Devil Creek in Bear River basin.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	75.8	75.3	74.7	66.3	62.1	81.4	74.2	50.5	50.2	37.4	50.0	50.9	62.4
1956	63.0	61.7	71.8	91.5	57.9	122	75.9	52.2	38.5	32.4	39.8	55.0	63.5
1957	67.8	73.7	76.7	58.3	121	91.6	76.5	129	75.6	52.7	59.7	68.3	78.9
1958	88.1	99.2	95.5	80.2	*166	119	111	77.8	56.7	44.1	55.6	66.8	*87.9
1959	83.8	93.2	94.5	73.7	92.5	82.5	70.9	56.7	44.6	50.4	44.2	75.2	71.7
1960	78.5	65.6	64.9	64.9	72.9	156	95.1	40.4	33.2	36.3	45.1	44.8	66.5

* Revised; revised daily figures are available and will be published in a future water-supply paper.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	4,660	4,480	4,590	4,070	3,450	5,010	4,420	3,110	2,990	2,300	3,080	3,030	45,190
1956	3,870	3,670	4,420	5,630	3,330	7,480	4,520	3,210	2,290	1,990	2,450	3,270	46,130
1957	4,170	4,390	4,710	3,580	6,700	5,630	4,550	7,930	4,500	3,240	3,670	4,060	57,130
1958	5,420	5,900	5,870	4,930	*9,310	7,340	6,580	4,790	3,380	2,710	3,420	3,980	*63,630
1959	5,150	5,540	5,810	4,530	5,140	5,070	4,220	3,490	2,650	3,100	2,720	4,480	51,900
1960	4,830	3,900	3,990	3,990	4,190	9,610	5,660	2,480	1,980	2,230	2,770	2,670	48,300

* Revised; see footnote to table above.

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954	1397	-	-	-	-	-	-	-
1955	1397	147	Mar. 13, 1955	29	62.4	45,190	60.0	43,420
1956	1447	280	Mar. 21, 1956	30	63.5	46,130	65.3	47,440
1957	1517	282	Feb. 25, 1957	40	78.9	57,13[illegible]	84.3	61,050
1958	1567	*416	Feb. 25, 1958	39	*87.9	*63,63[illegible]	*86.9	*62,940
1959	1637	167	Mar. 21, 1959	34	71.7	51,90[illegible]	66.5	48,120
1960	1717	321	Mar. 9, 1960	27	66.5	48,30[illegible]	-	-

* Revised.

755. Portneuf River at Pocatello, Idaho

Location.--Lat 42°51'40", long 112°27'25", in NE¼NE¼ sec.34, T.6 S., R.34 E., on right bank 30 ft upstream from Fremont Street Bridge at Pocatello and 2.5 miles upstream from Pocatello Creek.

Drainage area.--1,250 sq mi, approximately. Mean altitude, 5,850 ft.

Records available.--May to September 1897, March 1898 to October 1899, August 1911 to September 1960.

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

Average discharge.--47 years (1912-16, 1917-60), 252 cfs (182,400 acre-ft per year).

Extremes.--1897-99, 1911-60: Maximum discharge, more than 2,000 cfs sometime during period May 13 to June 14, 1917; minimum, 1 cfs July 5, 1960 (gage height, 2.98 ft).

Remarks.--Flow regulated by Portneuf-Marsh Valley Reservoir formed by earth dam completed in 1912 and raised 7 ft in 1950 (capacity, 23,695 acre-ft; 16,410 acre-ft prior to 1950) and Chesterfield Reservoir (capacity, 685 acre-ft). Diversions above station for irrigation of about 33,000 acres (1948 determination).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	305	354	329	292	414	409	521	352	96.7	58.6	126	123	281
1952	228	320	304	289	269	323	699	797	234	105	123	135	318
1953	150	292	326	388	349	375	416	282	341	62.8	80.2	82.5	261
1954	153	264	292	278	313	367	382	119	63.8	44.9	45.7	60.8	198
1955	98.2	171	233	225	230	268	308	167	94.7	39.3	59.6	69.2	163
1956	99.9	232	268	308	261	380	533	290	72.6	27.9	49.5	62.6	215
1957	102	231	252	228	412	391	339	654	301	49.8	62.7	88.3	258
1958	144	262	291	279	425	433	554	463	86.2	41.4	69.3	85.4	260
1959	120	254	300	303	319	364	376	150	69.5	38.2	38.7	95.8	201
1960	163	225	234	225	251	457	461	113	40.7	18.9	54.8	60.3	192

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	18,740	21,040	20,220	17,940	22,980	25,160	31,020	21,660	5,754	3,604	7,765	7,341	203,200
1952	13,870	19,020	18,700	17,740	15,480	19,880	41,580	48,990	13,940	6,440	7,540	8,030	231,200
1953	9,240	17,370	20,020	23,890	19,380	23,080	24,730	17,340	20,290	3,860	4,930	4,910	189,000
1954	9,390	15,700	17,950	17,070	17,400	22,560	22,730	7,290	3,790	2,760	2,810	3,620	143,100
1955	6,040	10,200	14,310	13,810	12,780	16,480	18,350	10,270	5,630	2,410	3,670	4,120	118,100
1956	6,140	13,780	16,500	18,970	15,000	23,370	31,690	17,850	4,320	1,720	3,050	3,720	156,100
1957	6,300	13,730	15,480	14,020	22,860	24,040	20,180	40,180	17,930	3,060	3,860	5,260	186,900
1958	8,850	15,600	17,870	17,170	23,610	26,650	32,960	28,480	5,130	2,540	4,260	5,080	188,200
1959	7,400	15,080	18,430	18,620	17,730	22,390	22,390	9,240	4,140	2,350	2,380	5,700	145,800
1960	10,050	13,390	14,400	13,830	14,440	28,100	27,430	6,950	2,420	1,160	3,370	3,590	139,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	401	290,100
1951	1217	630	Feb. 11, 1951	44	281	203,200	269	194,800
1952	1247	1,050	May 7, 1952	61	318	231,200	312	226,200
1953	1287	622	Jan. 20, 1953	44	261	189,000	256	185,400
1954	1347	508	Mar. 11, 1954	22	198	143,100	180	130,600
1955	1397	376	Apr. 2, 1955	15	163	118,100	171	123,900
1956	1447	660	Apr. 2, 1956	18	215	156,100	214	155,200
1957	1517	970	Feb. 28, 1957	17	258	186,900	268	193,700
1958	1567	763	May 7, 1958	15	260	188,200	258	186,800
1959	1637	512	Apr. 5, 1959	11	201	145,800	197	142,800
1960	1717	760	Mar. 28, 1960	1	192	139,100	-	-

760. Bannock Creek near Pocatello, Idaho

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

Drainage area.--230 sq mi. Mean altitude, 5,670 ft.

Records available.--May 1955 to October 1958.

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

Extremes.--1955-58: Maximum discharge, 675 cfs Feb. 25, 1957 (gage height, 7.00 ft), from rating curve extended above 400 cfs on basis of slope-area measurement of peak flow; minimum, 4.8 cfs Aug. 4, 1957; minimum gage height, 1.94 ft July 10, 1955, July 19, 1958.

Remarks.--Small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	20.0	15.0	9.00	9.57	11.3	-
1956	14.0	16.5	22.3	27.5	19.9	73.4	26.7	20.2	10.1	6.61	7.51	9.18	21.2
1957	13.4	17.6	18.5	15.5	98.9	30.1	26.7	25.3	14.2	8.59	7.63	10.2	23.3
1958	15.3	19.2	19.9	19.7	48.1	39.0	30.4	17.5	11.9	10.4	14.3	15.5	21.6
1959	17.6	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	1,230	894	553	588	673	-
1956	859	980	1,370	1,690	1,150	4,510	1,590	1,240	603	406	462	546	15,410
1957	822	1,050	1,140	954	5,490	1,850	1,590	1,560	847	528	469	608	16,910
1958	942	1,140	1,230	1,210	2,670	2,400	1,810	1,080	707	639	877	922	15,630
1959	1,080	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1955	1397	-	-	-	-	-	-	-
1956	1447	574	Mar. 20, 1956	5.5	21.2	15,410	20.9	15,210
1957	1517	675	Feb. 25, 1957	5.2	23.3	16,910	23.8	17,210
1958	1567	202	Feb. 16, 1958	6.9	21.6	15,630	-	-

764. Michaud Canal at American Falls, Idaho

Location.--Lat 42°46'45", long 112°52'20", in SE¼SE¼ sec.30, T.7 S., R.31 E., 800 ft downstream from dam at American Falls.

Records available.--October 1957 to September 1960.

Gage.--Sparling meter in pipeline at pumping plant.

Extremes.--1957-60: Maximum discharge, 104 cfs July 9-13, 1960; no flow for many days.

Remarks.--Flow controlled by pumping plant which lifts water from American Falls Reservoir to point in NE¼ sec.32. Completed project will irrigate 6,600 acres from this canal and 5,600 acres by pumping from ground water.

Cooperation.--Records of pump operation furnished by Bureau of Reclamation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	0	0	0	0	0	0	0	16.8	30.5	37.6	34.3	26.4	12.2
1959	6.5	0	0	0	0	0	8.1	27.5	65.8	77.5	47.5	32.3	22.2
1960	8.4	0	0	0	0	0	7.2	35.5	76.5	94.5	65.5	32.0	26.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	0	0	0	0	0	0	0	1,030	1,820	2,310	2,110	1,570	8,840
1959	399	0	0	0	0	0	480	1,690	3,900	4,760	2,920	1,920	16,070
1960	516	0	0	0	0	0	426	2,160	4,550	5,810	4,030	1,900	19,410

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1567	42	June 28,29, 1958	0	12.2	8,840	12.8	9,240
1959	1637	89	July 16,17, 1959	0	22.2	16,070	22.4	16,190
1960	1717	104	July 9-13, 1960	0	26.7	19,410	-	-

765. American Falls Reservoir at American Falls, Idaho

Location.--Lat 42°46'45", long 112°52'45", in sec.30, T.7 S., R.31 E., near right end of dam at outlet gates of reservoir on Snake River at American Falls.

Drainage area.--13,580 sq mi, excluding nontributary area on Snake River plains.

Records available.--March 1926 to September 1960.

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

Extremes.--1926-60: Maximum contents, 1,729,000 acre-ft June 26, 1951 (elevation, 4,355.02 ft); minimum since full capacity was attained July 13, 1927, 9,000 acre-ft Sept. 17, 18, 1960 (elevation, 4,298.15 ft).

Remarks.--Reservoir is formed by concrete gravity dam with earth dikes at each end; partia storage began in 1926, full storage in 1927. Capacity, 1,700,000 acre-ft between elevations 4,295.66 (bottom of outlet gate) and 4,354.50 ft (top of spillway radial gates). Small amount of dead storage. Water is used for irrigation by canals diverting from Snake River at Minidoka and Milner Dams. Contents given herein are computed from mean daily elevations; practically all available for release.

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

Contents, in thousands of acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	1,122	1,384	1,563	1,494	1,425	1,389	1,631	1,647	1,722	1,397	1,225	1,021
1952	1,117	1,322	1,498	1,555	1,476	1,391	1,509	1,710	1,719	1,302	842	583
1953	700	973	1,260	1,550	1,644	1,658	1,701	1,584	1,705	1,250	787	488
1954	631	967	1,201	1,402	1,568	1,696	1,699	1,696	1,659	1,369	887	627
1955	796	985	1,164	1,334	1,541	1,706	1,708	1,575	1,439	1,007	555	264
1956	407	717	1,107	1,343	1,389	1,456	1,610	1,719	1,692	1,304	865	623
1957	771	1,005	1,224	1,307	1,518	1,671	1,711	1,718	1,556	1,030	551	293
1958	501	832	1,121	1,312	1,536	1,692	1,717	1,690	1,433	873	402	256
1959	350	573	874	1,153	1,396	1,605	1,607	1,309	928	486	110	90
1960	319	596	889	1,124	1,357	1,617	1,672	1,298	924	392	116	14

770. Snake River at Neeley, Idaho

Location.--Lat 42°46'20", long 112°52'45", in SW¼ sec.31, T.7 S., R.31 E., on right bank 400 ft upstream from fish hatchery buildings and 0.9 mile downstream from American Fall Dam. Records computed to show flow at former site in sec.11, T.8 S., R.30 E., half a mile north of Neeley and 2½ miles downstream from present site, by adding inflow betwee sites.

Drainage area.--13,600 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--March 1906 to September 1960. Monthly discharge only for some periods published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,241.6 ft above mean sea level (levels by Bureau of Reclamation). Prior to Aug. 8, 1910, staff gages and Aug. 8, 1910, to June 6 1930, water-stage recorder, at site 2½ miles downstream at different datum. June 7, 193 to Mar. 19, 1945, water-stage recorder at site 0.4 mile upstream at datum 0.4 ft higher

Average discharge.--34 years (1926-60), 6,721 cfs (4,866,000 acre-ft per year).

Extremes.--1906-60: Maximum daily discharge, 48,400 cfs June 20, 1918 (gage height, 13.5 f site and datum then in use); minimum, 50 cfs Oct. 22, 23, Nov. 14-16, 1941.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,210	3,491	4,628	8,257	10,290	10,130	9,186	18,010	13,620	12,370	10,990	9,035	9,519
1952	5,926	4,652	4,388	6,192	9,637	10,640	12,870	17,940	16,410	12,740	12,120	8,587	10,170
1953	2,696	1,613	1,710	2,597	4,690	5,753	5,758	9,493	14,230	12,5[illegible]	11,830	8,531	6,794
1954	2,556	792	2,331	2,551	2,802	3,889	7,487	13,230	9,812	12,0[illegible]	11,800	8,457	6,511
1955	2,679	3,235	2,707	2,447	1,326	3,057	6,867	10,330	11,480	11,9[illegible]	11,320	8,414	6,347
1956	2,210	1,081	877	3,328	4,453	6,747	12,390	17,250	21,130	12,240	11,140	8,000	8,400
1957	3,240	2,620	2,347	3,595	2,479	5,344	8,025	18,990	12,130	12,730	11,890	8,518	7,700
1958	1,931	1,005	1,922	2,960	2,548	3,545	6,659	12,160	11,280	12,5[illegible]	11,740	6,592	6,271
1959	2,562	2,288	1,315	1,225	1,586	2,269	5,737	9,405	11,100	12,210	11,120	6,865	5,664
1960	2,216	1,543	1,046	1,272	1,055	1,409	5,349	10,900	11,470	12,9[illegible]	11,350	7,147	5,659

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	258.8	207.7	284.6	507.7	571.4	622.6	546.6	1,107	810.2	760.9	675.8	537.6	6,891
1952	364.4	276.8	269.8	380.7	554.3	654.0	765.8	1,103	976.3	783.3	745.4	511.0	7,385
1953	165.8	95.97	105.2	159.7	260.5	352.5	342.6	583.7	846.9	771.4	727.1	507.6	4,919
1954	157.2	47.12	143.4	156.9	155.6	239.1	445.5	813.4	583.8	743.2	725.6	503.2	4,714
1955	164.7	192.5	166.4	150.5	73.67	188.0	408.6	635.5	683.3	734.9	696.2	500.7	4,595
1956	135.9	64.32	53.94	204.6	256.1	414.8	737.0	1,061	1,257	752.5	684.9	476.0	6,097
1957	199.2	155.9	144.3	221.1	137.7	328.6	477.5	1,168	721.6	782.9	730.9	506.8	5,574
1958	118.8	59.83	118.1	182.0	141.5	217.9	396.2	747.5	671.4	772.4	721.8	392.2	4,540
1959	157.5	136.2	80.83	75.31	88.09	139.5	341.4	578.3	660.7	750.7	684.0	408.5	4,101
1960	136.2	91.79	64.35	78.23	60.66	86.61	318.3	670.0	682.5	796.4	697.7	425.3	4,108

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	8,898	6,442,000
1951	1217	22,400	May 15, 1951	195	9,519	6,891,000	9,739	7,051,000
1952	1247	24,000	May 11, 1952	137	10,170	7,385,000	9,423	6,841,000
1953	1287	23,100	June 15, 1953	130	6,794	4,919,000	6,768	4,900,000
1954	1347	22,300	May 25, 1954	126	6,511	4,714,000	6,754	4,890,000
1955	1397	14,400	June 12, 1955	126	6,347	4,595,000	5,975	4,326,000
1956	1447	28,300	June 3, 1956	73	8,400	6,098,000	8,738	6,343,000
1957	1517	25,100	May 20, 1957	74	7,700	5,574,000	7,420	5,372,000
1958	1567	15,800	May 11,12,1958	67	6,271	4,540,000	6,378	4,617,000
1959	1637	13,300	July 29, 1959	62	5,664	4,101,000	5,551	4,019,000
1960	1717	13,800	July 24, 1960	58	5,659	4,108,000	-	-

775. Rock Creek near Rockland, Idaho

Location.--Lat 42°31'40", long 112°51'40", in NE¼NW¼ sec.29, T.10 S., R.31 E., on right bank 10 ft upstream from culvert on private road, 3 miles south of Rockland, and 3¾ miles upstream from East Fork.

Drainage area.--182 sq mi. Mean altitude, 5,670 ft.

Records available.--May 1955 to September 1960.

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

Average discharge.--5 years (1955-60), 5.14 cfs (3,720 acre-ft per year).

Extremes.--1955-60: Maximum discharge, 275 cfs Mar. 6, 1960 (gage height, 6.21 ft), from rating curve extended above 70 cfs on basis of slope-area measurement at gage height 6.10 ft; no flow for long periods in each year.

Remarks.--Practically entire flow diverted for irrigation above station during growing season. Discharge measurements of East Fork made about once a month to supplement this record.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	-	0.21	0.01	0.09	0.06	-
1956	0.02	2.59	7.44	8.53	7.93	30.3	10.4	3.42	.07	0	.006	.02	5.91
1957	.77	4.13	5.49	4.77	45.2	9.99	8.05	4.07	.63	0	.62	.01	6.71
1958	0	.19	6.73	8.01	25.4	9.30	8.29	.12	0	.01	.01	0	4.70
1959	0	.37	3.25	6.08	12.0	9.98	4.04	.01	.01	.02	.003	.003	2.93
1960	0	.03	3.16	6.37	15.7	31.2	7.73	1.11	.007	0	.006	.12	5.44

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	-	12	0.8	5.6	3.6	-
1956	1	154	457	524	456	1,860	617	210	4	0	.4	1.2	4,280
1957	48	246	337	294	2,510	614	479	250	38	0	38	.8	4,850
1958	0	11	414	492	1,410	572	493	7.5	0	.6	.4	0	3,400
1959	0	22	200	374	669	614	241	.8	.6	1.2	.2	.2	2,120
1960	0	1.6	194	392	904	1,920	460	68.0	.4	0	.4	7.3	3,950

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954								
1955	1397	-	-	-	-	-	-	-
1956	1447	140	Mar. 17, 1956	0	5.91	4,280	5.93	4,300
1957	1517	244	Feb. 23, 1957	0	6.71	4,850	6.42	4,650
1958	1567	178	Feb. 16, 1958	0	4.70	3,400	4.42	3,200
1959	1637	63	Feb. 17, 1959	0	2.93	2,120	2.89	2,100
1960	1717	275	Mar. 6, 1960	0	5.44	3,950	-	-

777. George Creek near Yost, Utah

Location.--Lat 41°55'10", long 113°28'50", in SW¼SW¼ sec.20, T.14 N., R.14 W., on right bank 1,000 ft upstream from section corner and boundary of Sawtooth National Forest, 4½ miles southeast of Yost, 5 miles south of Utah-Idaho State line, and 16 miles southwest of Strevell, Idaho.

Drainage area.--7.84 sq mi (revised).

Records available.--July 1959 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 7,000 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 45 cfs May 12, 1960 (gage height, 1.46 ft); minimum recorded, 1.3 cfs Dec. 6, 1959.

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	4.24	1.94	2.02	-
1960	2.30	1.93	1.59	1.64	1.60	2.15	5.68	14.4	13.6	2.85	1.74	1.47	4.25

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	261	119	120	-
1960	141	115	98	101	92	132	338	888	811	175	107	87	3,090

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1717	-	-	-	-	-	-	-
1960	1717	45	May 12, 1960	1.4	4.25	3,090	-	-

780. Raft River at Peterson Ranch, near Bridge, Idaho

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

Drainage area.--412 sq mi. Mean altitude, 6,300 ft.

Records available.--September 1946 to December 1953, May 1955 to September 1960.

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

Average discharge.--12 years (1946-53, 1955-60), 19.1 cfs (13,830 acre-ft per year).

Extremes.--1946-53, 1955-60: Maximum discharge, 1,090 cfs Feb. 5, 1951 (gage height, 4.52 ft), from rating curve extended above 200 cfs on basis of slope-area measurement of peak flow; minimum, 1.2 cfs Jan. 13, 1950 (gage height, 0.90 ft), caused by ice jam upstream.

Remarks.--Many small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	8.24	12.1	19.1	16.3	82.0	37.7	74.6	87.0	37.5	9.46	9.30	9.48	33.2
1952	11.1	17.6	15.7	17.5	22.4	30.7	104	130	35.1	9.34	9.67	9.55	34.4
1953	11.4	14.2	15.6	22.5	19.2	24.6	32.1	32.0	39.3	8.71	16.0	9.11	20.4
1954	9.90	8.81	10.0	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	12.2	10.0	10.6	11.1	7.41	-
1956	7.71	9.03	9.95	14.0	10.6	27.9	27.7	28.5	14.4	6.76	6.13	6.49	14.1
1957	6.68	7.52	12.3	8.98	20.0	12.8	17.6	33.1	34.1	7.95	6.12	6.21	14.4
1958	7.84	12.4	13.2	13.0	30.1	16.1	41.9	49.9	20.4	7.67	5.81	5.93	18.6
1959	6.21	7.59	11.5	12.5	13.8	10.4	21.9	11.5	7.99	4.68	3.91	5.15	9.72
1960	6.85	7.44	7.45	8.54	12.6	17.9	15.5	8.98	6.47	3.92	3.77	4.37	8.63

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	506	719	1,170	1,000	4,550	2,320	4,440	5,350	2,230	582	572	563	24,000
1952	684	1,050	966	1,070	1,290	1,890	6,170	8,000	2,090	574	595	568	24,950
1953	700	847	960	1,380	1,070	1,510	1,910	1,970	2,340	535	986	542	14,750
1954	609	524	616	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	753	597	654	682	441	-
1956	474	537	612	862	610	1,720	1,650	1,750	856	416	377	386	10,250
1957	411	447	755	552	1,110	785	1,050	2,030	2,030	489	376	370	10,400
1958	482	738	810	800	1,670	990	2,490	3,070	1,210	472	357	353	13,440
1959	382	452	705	769	768	641	1,300	710	475	288	240	306	7,040
1960	421	443	458	525	723	1,100	922	552	385	241	232	260	6,260

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	18.9	13,670
1951	1217	1,090	Feb. 5, 1951	7.7	33.2	24,000	33.6	24,310
1952	1247	224	May 17, 1952	6.4	34.4	24,950	34.1	24,750
1953	1287	183	Aug. 3, 1953	7.7	20.4	14,750	19.3	13,990
1954	1287	-	-	-	-	-	-	-
1955	1397	107	Aug. 26, 1955	-	-	-	-	-
1956	1447	112	May 28, 1956	5.4	14.1	10,250	14.1	10,240
1957	1517	77	June 11, 1957	4.9	14.4	10,400	14.9	10,820
1958	1567	183	Feb. 17, 1958	4.9	18.6	13,440	17.9	12,950
1959	1637	30	Apr. 4, 1959	3.5	9.72	7,040	9.42	6,820
1960	1717	112	Mar. 8, 1960	2.9	8.63	6,260	-	-

790. Clear Creek near Naf, Idaho

Location.--Lat 41°58'00", long 113°17'05", in NW¼SW¼ sec.1, T.14 N., R.13 W., Salt Lake meridian, on right bank 2 miles south of Utah-Idaho State line, 3 miles south of Naf, and 20 miles upstream from mouth.

Drainage area.--20.2 sq mi (revised).

Records available.--January 1910 to June 1911, June to December 1912 (gage heights only), October 1944 to September 1960. Monthly discharge only for October and November 1944, published in WSP 1317.

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

Average discharge.--16 years (1944-60), 9.16 cfs (6,630 acre-ft per year).

Extremes.--1910-11, 1944-60: Maximum discharge, 220 cfs May 25, 1958 (gage height, 2.12 ft); minimum, 0.1 cfs several times in summers of 1952-54, 1956, 1959-60.

Remarks.--Three small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2.23	2.54	1.86	2	2	2.12	7.57	41.5	36.9	12.8	4.81	1.60	9.87
1952	1.93	1.84	1.73	1.5	1.5	2.0	8.75	49.9	42.4	9.04	2.43	1.22	10.4
1953	1.21	1.05	.96	1.56	1.48	2.16	4.42	10.6	54.3	15.6	3.81	1.35	8.18
1954	1.33	1.68	1.25	1.42	1.48	1.93	3.15	19.3	9.92	3.62	.83	.40	3.88
1955	1.10	1.33	.99	1.0	.91	.96	2.13	15.7	37.3	6.94	2.21	.94	5.95
1956	1.09	1.20	2.02	1.67	1.7	1.81	4.45	42.5	41.1	6.89	1.97	.89	8.95
1957	1.39	1.18	1.20	1.10	1.20	1.39	2.17	29.2	64.5	10.5	2.77	1.88	9.86
1958	2.19	1.95	1.71	1.42	1.74	2.14	4.02	67.1	46.3	9.91	3.21	1.63	12.2
1959	1.42	1.90	1.75	1.6	1.6	1.79	4.02	16.7	30.9	6.11	2.33	1.58	5.97
1960	2.10	1.36	1.24	1.0	1.14	2.52	6.68	24.7	22.1	3.90	1.46	.88	5.75

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	137	151	115	123	111	131	450	2,550	2,200	789	296	95	7,150
1952	118	109	106	92	86	123	521	3,070	2,520	556	150	72	7,520
1953	74	62	59	96	82	133	263	650	3,230	957	234	80	5,920
1954	82	100	77	87	82	119	187	1,190	590	223	51	24	2,810
1955	68	79	61	61	50	59	127	964	2,220	426	136	56	4,310
1956	67	72	124	103	98	111	265	2,610	2,450	424	121	53	6,500
1957	85	70	74	68	67	86	129	1,800	3,840	644	170	112	7,140
1958	135	116	105	87	97	132	239	4,120	2,870	610	198	97	8,810
1959	87	113	107	98	89	110	239	1,030	1,840	376	143	94	4,330
1960	129	81	76	61	65	155	397	1,520	1,310	240	90	53	4,180

Yearly discharge, in cubic feat per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	11.1	8,010
1951	1217	112	May 28, 1951	-	9.87	7,150	9.77	7,080
1952	1247	91	May 29, 1952	0.7	10.4	7,520	10.2	7,380
1953	1287	107	June 13, 1953	-	8.18	5,920	8.27	5,980
1954	1347	47	May 21, 1954	-	3.88	2,810	3.81	2,760
1955	1397	73	June 9, 1955	-	5.95	4,310	6.03	4,360
1956	1447	124	May 25, 1956	.5	8.95	6,500	8.90	6,460
1957	1517	126	June 4, 1957	-	9.86	7,140	10.0	7,270
1958	1567	220	May 25, 1958	.7	12.2	8,810	12.1	8,760
1959	1637	61	June 7, 1959	.3	5.97	4,330	5.94	4,300
1960	1717	118	May 13, 1960	.3	5.75	4,180	-	-

792. Cassia Creek near Elba, Idaho

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

Drainage area.--84 sq mi, approximately. Mean altitude, 6,430 ft.

Records available.--November 1956 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,910 ft (by barometer).

Extremes.--1956-60: Maximum discharge, 233 cfs May 14, 1957 (gage height, 4.61 ft); minimum, 1.8 cfs Nov. 13, 1959 (gage height, 1.39 ft), but may have been less during period of backwater from beaver dam.

Remarks.--Numerous diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	-	-	12.7	8.90	17.3	22.7	33.7	110	87.9	24.9	8.17	6.83	-
1958	8.53	10.1	11.7	11.8	31.6	36.3	57.8	108	65.8	14.1	7.86	6.36	30.7
1959	6.12	8.03	11.2	11.5	12.4	16.9	20.8	30.5	33.4	10.4	4.06	4.66	14.1
1960	7.24	5.37	6.05	7.94	9.62	21.8	25.4	26.2	24.3	7.19	3.31	3.16	12.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	-	-	779	547	962	1,400	2,010	6,790	5,230	1,530	503	407	-
1958	524	599	717	726	1,760	2,230	3,440	6,610	3,920	865	483	378	22,250
1959	376	478	691	708	686	1,040	1,240	1,870	1,990	637	250	277	10,240
1960	445	319	372	488	553	1,340	1,510	1,610	1,450	442	204	188	8,920

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1957	1517	233	May 14, 1957	4.2	-	-	29.3	21,220
1958	1567	150	May 27, 1958	6.0	30.7	22,250	30.3	21,960
1959	1637	80	May 14, 1959	3.4	14.1	10,240	13.6	9,830
1960	1717	160	July 31, 1960	2.8	12.3	8,920	-	-

800. North Side Minidoka Canal near Minidoka, Idaho

Location.--Lat 42°40', long 113°29', in sec.1, T.9 S., R.25 E., on left bank 600 ft downstream from headgates at Minidoka Dam and 6 miles south of Minidoka.

Records available.--April 1908 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,180.33 ft above mean sea level (Bureau of Reclamation bench mark). April to November 1910 at datum 0.03 ft higher.

Average discharge.--19 years (1941-60), 618 cfs (447,400 acre-ft per year).

Extremes.--1908-60: Maximum discharge, 1,810 cfs July 9, 1953, May 14, 1960; no flow in winters.

Remarks.--Flow controlled by headgates. Canal diverts water from Lake Walcott at right end of Minidoka Dam for irrigation of 64,000 acres under North Side Minidoka project. Diversion began in June 1907.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	392	0	0	0	0	0	686	1,160	1,419	1,634	1,282	1,006	635
1952	398	47.9	11.2	0	0	0	198	1,519	1,346	1,635	1,523	964	640
1953	487	22.0	12.8	0	0	0	319	1,228	974	1,740	1,485	943	606
1954	427	0	14.4	21.7	0	0	509	1,496	1,024	1,592	1,506	948	633
1955	391	0	0	0	0	0	96.1	1,289	1,293	1,605	1,419	947	591
1956	361	0	0	0	0	0	667	1,312	1,348	1,686	1,413	777	633
1957	361	0	0	0	0	0	255	1,145	1,420	1,719	1,428	985	614
1958	349	0	0	0	0	0	249	1,650	1,359	1,663	1,483	889	642
1959	402	0	0	0	0	0	720	1,134	1,566	1,688	1,442	748	646
1960	177	0	0	0	0	0	459	1,452	1,510	1,731	1,380	941	640

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	24,080	0	0	0	0	0	40,800	71,400	84,440	100,500	78,800	59,880	459,900
1952	24,470	2,850	688	0	0	0	11,770	93,400	80,090	100,600	93,620	57,390	464,900
1953	29,950	1,310	785	0	0	0	18,960	75,400	57,970	107,000	91,340	56,090	438,800
1954	26,230	0	883	1,330	0	0	30,290	91,970	60,950	97,880	92,630	56,440	458,600
1955	24,020	0	0	0	0	0	5,720	79,240	76,910	98,700	87,250	56,320	428,200
1956	22,180	0	0	0	0	0	39,700	80,700	80,200	103,700	86,880	46,250	459,600
1957	22,210	0	0	0	0	0	15,180	70,390	84,470	105,700	87,830	58,630	444,400
1958	21,490	0	0	0	0	0	14,790	101,500	80,840	102,200	91,200	52,930	465,000
1959	24,700	0	0	0	0	0	42,850	69,750	93,180	103,800	88,680	44,530	467,500
1960	10,890	0	0	0	0	0	27,300	89,290	89,850	106,500	84,840	56,020	464,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	601	435,400
1951	1217	1,700	July 10-13, 1951	0	635	459,900	641	463,800
1952	1247	1,710	July 27, 1952	0	640	464,900	646	468,900
1953	1287	1,810	July 9, 1953	0	606	438,800	599	433,900
1954	1347	1,750	July 15, 1954	0	633	458,600	629	455,500
1955	1397	1,780	July 19, 1955	0	591	428,200	589	426,300
1956	1447	1,780	July 2-5, 1956	0	633	459,600	633	459,600
1957	1517	1,800	July 7, 1957	0	614	444,400	613	443,700
1958	1567	1,790	July 19, 1958	0	642	465,000	647	468,200
1959	1637	1,790	June 7, 1959	0	646	467,500	627	453,700
1960	1717	1,810	May 14, 1960	0	640	464,700	-	-

805. South Side Minidoka Canal near Minidoka, Idaho

Location.--Lat 42°40', long 113°29', in sec.12, T.9 S., R.25 E., on right bank 900 ft downstream from headgates at Minidoka Dam and 6 miles south of Minidoka.

Records available.--April 1908 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--19 years (1941-60), 486 cfs (351,800 acre-ft per year).

Extremes.--1908-60: Maximum discharge, 1,430 cfs July 7, 1959; maximum gage height, 6.15 ft July 18, 1960 (backwater from aquatic growth); no flow for long periods during nonirrigation seasons.

Remarks.--Flow controlled by headgates. Canal diverts water from Lake Walcott at left end of Minidoka Dam for irrigation of 54,000 acres under South Side Minidoka project. Diversion began in April 1908.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	336	0	0	0	0	0	436	768	1,174	1,295	1,023	865	494
1952	345	0	0	0	0	0	133	1,145	1,159	1,308	1,253	849	519
1953	499	0	0	0	0	0	300	852	847	1,337	1,245	785	493
1954	440	0	0	0	0	0	350	1,131	917	1,244	1,221	852	517
1955	370	0	0	0	0	0	138	1,028	1,098	1,251	1,133	852	493
1956	360	0	0	0	0	0	504	1,105	1,139	1,286	1,167	752	528
1957	296	0	0	0	0	0	166	759	1,188	1,291	1,211	846	483
1958	208	0	0	0	0	0	125	1,172	1,149	1,281	1,232	727	495
1959	323	0	0	0	0	0	532	801	1,225	1,289	1,141	684	502
1960	143	0	0	0	0	0	314	1,189	1,255	1,320	1,181	890	526

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	20,650	0	0	0	0	0	25,950	47,200	69,880	79,620	62,930	51,470	357,700
1952	21,180	0	0	0	0	0	7,890	70,430	68,940	80,450	77,040	50,490	376,400
1953	30,660	0	0	0	0	0	17,860	52,370	50,410	82,200	76,580	46,690	356,800
1954	27,070	0	0	0	0	0	20,830	69,560	54,570	76,520	75,070	50,720	374,300
1955	22,780	0	0	0	0	0	8,230	63,210	65,350	76,950	69,650	50,670	356,800
1956	22,120	0	0	0	0	0	30,010	67,960	67,750	79,060	71,760	44,760	383,400
1957	18,220	0	0	0	0	0	9,870	46,680	70,710	79,400	74,480	50,370	349,700
1958	12,810	0	0	0	0	0	7,410	72,090	68,360	78,740	75,730	43,270	358,400
1959	19,850	0	0	0	0	0	31,630	49,260	72,880	79,260	70,140	40,700	363,700
1960	8,790	0	0	0	0	0	18,680	73,110	74,700	81,160	72,610	52,980	382,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	512	370,700
1951	1217	1,370	May 25, 1951	0	494	357,700	495	358,200
1952	1247	1,370	June 9, 1952	0	519	376,400	532	385,900
1953	1287	1,410	July 12, 1953	0	493	356,800	488	353,200
1954	1347	1,320	May 21, 1954	0	517	374,300	511	370,000
1955	1397	1,410	July 19, 1955	0	493	356,800	492	356,200
1956	1447	1,360	July 18, 1956	0	528	383,400	523	379,500
1957	1517	1,360	July 12, 1957	0	483	349,700	476	344,300
1958	1567	1,360	July 19, 1958	0	495	358,400	505	365,400
1959	1637	1,430	July 7, 1959	0	502	363,700	487	352,700
1960	1717	1,400	July 22,23,1960	0	526	382,000	-	-

810. Lake Walcott near Minidoka, Idaho

Location.--Lat 42°40', long 113°29', in sec.1, T.9 S., R.25 E., on south wall in powerhouse at Minidoka Dam on Snake River, 6 miles southeast of Minidoka.

Drainage area.--15,700 sq mi, approximately, excluding nontributary area on Snake River plain.

Records available.--April 1909 to September 1960. Fragmentary records prior to December 1915.

Gage.--Staff gage and glass tubes connected to lake through pipes. Datum of gage is 4,200 ft above datum of Bureau of Reclamation, which is 49.52 ft below mean sea level. Prior to Feb. 1, 1941, hook gages at approximately same site at same datum.

Extremes.--1909-60: Maximum contents, 110,740 acre-ft Aug. 8, 1922 (gage height, 46.28 ft); minimum, -101,410 acre-ft Nov. 17, 1941 (gage height, 15.19 ft).

Remarks.--Reservoir is formed by rock-fill dam with concrete core; storage began in 1906. Capacity, 107,240 acre-ft between gage heights 36.00 (sill of powerhouse penstock) and 46.00 ft (top of flashboards). Dead storage below gage height 36.00 ft, about 115,000 acre-ft. Water used for power development and irrigation on Minidoka project of Bureau of Reclamation. Contents given herein are above gage height 36.0 ft. Figures of daily contents computed from mean or twice-daily readings.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	83,430	66,770	66,990	78,350	89,360	89,250	97,840	95,550	94,370	95,550	94,490	94,020
1952	95,670	87,270	69,630	75,420	77,110	79,030	87,030	96,270	96,390	96,390	93,790	91,920
1953	45,880	77,230	78,350	79,820	88,660	93,790	88,900	96,390	94,250	95,790	94,020	91,230
1954	96,510	66,330	70,290	68,090	69,630	97,110	96,750	99,040	94,490	95,180	93,790	89,130
1955	40,910	68,750	71,940	70,070	69,630	73,170	94,140	96,390	94,490	97,960	96,630	93,550
1956	86,330	93,790	70,950	68,530	72,380	95,910	95,180	97,350	92,860	95,430	94,250	94,490
1957	77,790	79,030	65,670	75,080	71,390	102,170	95,180	96,630	96,870	95,430	95,430	92,160
1958	74,970	67,650	60,850	74,290	66,110	81,060	94,720	95,670	94,020	96,630	90,760	21,270
1959	3,620	63,480	59,130	65,450	67,210	93,320	94,950	94,490	98,800	92,160	81,510	95,180
1960	96,590	83,090	68,310	68,530	67,980	88,310	93,790	93,900	90,990	96,630	92,740	32,800

815. Snake River near Minidoka, Idaho

Location.--Lat 42°40', long 113°30', in sec.2, T.9 S., R.25 E., on right bank 1 mile downstream from Minidoka Dam and 6 miles south of Minidoka.

Drainage area.--15,700 sq mi, approximately, excluding nontributary area on Snake River plains.

Records available.--August 1895 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Published as "below Minidoka dam, at Howell's Ferry" in 1911. Records for August 1895 to Apr. 20, 1910, at site 6 miles downstream "at Montgomery Ferry."

Gage.--Water-stage recorder. Datum of gage is 4,132.2 ft above mean sea level (river-profile survey). Prior to Apr. 21, 1910, staff gage at site 6 miles downstream at different datum. Apr. 21, 1910, to Aug. 28, 1911, staff gage at present site and datum.

Average discharge.--34 years (1926-60), 5,687 cfs (4,117,000 acre-ft per year).

Extremes.--1895-1960: Maximum discharge, 47,500 cfs May 29, 30, 1897 (gage height, 12.6 ft, former site and datum); minimum, 58 cfs Dec. 2, 1951 (gage height, 1.93 ft).

Remarks.--Flow regulated by American Falls Reservoir (see p. 57), Lake Walcott (see p. 66), and other reservoirs, having a combined usable capacity of about 4,700,000 acre-ft; many diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,767	4,007	4,811	8,073	10,740	10,210	8,066	16,200	11,230	9,540	8,769	7,150	8,539
1952	5,135	4,844	4,795	6,176	9,683	10,600	12,260	15,130	13,900	9,954	9,322	6,881	9,049
1953	2,535	1,248	1,877	2,840	4,737	5,858	5,509	7,770	12,640	9,506	9,071	6,904	5,877
1954	1,642	1,439	2,497	2,877	2,894	3,375	6,627	10,460	8,024	9,192	9,028	6,848	5,426
1955	2,928	2,699	2,771	2,623	1,487	3,015	6,227	7,979	9,083	8,968	8,691	6,748	5,289
1956	1,672	1,061	1,481	3,488	4,580	6,611	11,200	14,670	18,840	9,149	8,512	6,471	7,304
1957	3,003	2,768	2,811	3,643	2,952	5,032	7,706	17,010	9,521	9,630	9,087	6,786	6,692
1958	1,811	1,324	2,151	2,897	2,935	3,405	6,217	9,275	8,845	9,560	9,053	6,371	5,336
1959	2,345	1,411	1,390	1,271	1,668	1,863	4,512	7,410	8,234	9,266	8,493	5,470	4,462
1960	1,947	1,883	1,334	1,343	1,172	1,158	4,548	8,197	8,580	9,750	8,718	6,557	4,609

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	231,600	238,500	295,800	496,400	596,300	627,900	479,900	996,100	668,200	586,600	539,200	425,400	6,182,000
1952	315,700	288,200	294,800	379,700	557,000	651,400	729,700	930,500	827,100	612,100	573,200	409,400	6,569,000
1953	155,900	74,230	115,400	174,600	263,100	360,200	327,800	477,800	752,300	584,500	557,800	410,800	4,254,000
1954	101,000	85,610	153,500	176,900	160,700	207,500	394,400	643,400	477,400	565,200	555,100	407,500	3,928,000
1955	180,000	160,600	170,400	161,300	82,590	185,400	370,600	490,600	540,500	551,400	534,400	401,500	3,829,000
1956	102,800	63,120	91,080	214,500	263,400	406,500	666,400	901,800	1,121,000	562,600	523,400	385,100	5,302,000
1957	184,600	164,700	172,800	224,000	163,900	309,400	458,600	1,046,000	566,500	592,100	558,800	403,800	4,845,000
1958	111,400	78,780	132,200	178,100	163,000	209,400	369,900	570,300	526,300	587,800	556,700	379,100	3,863,000
1959	144,200	83,980	85,490	78,170	92,650	114,600	268,500	455,800	490,000	569,800	522,200	325,500	3,231,000
1960	119,700	112,100	82,000	82,550	67,400	71,230	270,600	504,000	510,500	599,500	536,100	390,200	3,346,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	7,989	5,784,000
1951	1217	21,300	May 15, 1951	3,450	8,539	6,182,000	8,723	6,315,000
1952	1247	21,200	May 12, 1952	2,070	9,049	6,569,000	8,286	6,016,000
1953	1287	21,500	June 9, 1953	366	5,877	4,254,000	5,869	4,249,000
1954	1347	18,000	May 26, 1954	882	5,426	3,928,000	5,662	4,099,000
1955	1397	10,500	May 22, 1955	1,140	5,289	3,829,000	4,938	3,575,000
1956	1447	27,100	May 31, 1956	901	7,304	5,302,000	7,669	5,567,000
1957	1517	24,900	May 21, 1957	2,640	6,692	4,845,000	6,416	4,645,000
1958	1567	12,600	May 13, 1958	1,240	5,336	3,863,000	5,324	3,854,000
1959	1637	10,600	July 7, 1959	1,090	4,462	3,231,000	4,462	3,231,000
1960	1717	10,300	July 23, 1960	1,050	4,609	3,346,000	-	-

825. Goose Creek above Trapper Creek, near Oakley, Idaho

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

Drainage area.--633 sq mi. Mean altitude, 6,030 ft.

Records available.--April 1911 to September 1916, March 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 4,770 ft (by barometer). Prior to Aug. 1912, at site 200 ft downstream at different datum.

Average discharge.--46 years (1911-16, 1919-60), 44.8 cfs (32,430 acre-ft per year).

Extremes.--1911-16, 1919-60: Maximum discharge, 1,670 cfs Jan. 23 or Feb. 24, 1943 (gage height, 7.6 ft, from floodmark), from rating curve extended above 600 cfs by logarithmi 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.--Decreed water rights are reported to apply to about 2,700 acres above station. Diversions for irrigation are made as flow permits to a major part of this acreage. Flow of artesian well, completed in 1935, enters below station. Practically entire flo passing station is stored in Oakley Reservoir (see p. 70).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	16.4	24.0	31.1	24.7	144	86.9	166	216	62.0	13.3	17.4	8.96	66.
1952	17.7	20.5	18.3	18.3	21.5	43.9	183	298	86.3	28.1	22.1	13.3	64.
1953	18.0	21.0	22.4	37.8	33.0	43.2	83.5	129	107	21.7	21.0	10.9	45.
1954	16.7	22.3	20.6	22.4	33.1	41.5	53.2	27.7	11.1	4.27	2.68	5.41	21.
1955	14.2	19.4	15.9	16.5	19.9	33.9	39.7	63.1	26.1	14.1	9.24	5.79	23.
1956	13.7	20.8	32.2	44.2	26.1	109	123	131	30.9	7.24	5.26	4.02	45.
1957	13.6	19.6	26.9	18.0	63.6	57.8	76.1	213	77.0	12.9	8.21	7.04	49.
1958	15.8	22.6	24.2	23.2	115	57.3	110	229	62.4	15.9	12.6	8.58	57.
1959	15.3	22.5	26.7	27.5	32.6	36.6	58.6	34.6	16.5	7.75	4.32	9.29	24.
1960	20.2	18.8	15.1	16.2	20.8	57.4	74.5	49.8	11.7	5.66	4.38	5.78	25.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,010	1,430	1,910	1,520	7,970	5,350	9,870	13,280	3,690	820	1,070	533	48,45
1952	1,090	1,220	1,130	1,120	1,240	2,700	10,910	18,290	5,140	1,730	1,360	789	46,72
1953	1,110	1,250	1,380	2,330	1,830	2,660	4,970	7,940	6,360	1,340	1,290	650	33,11
1954	1,030	1,330	1,270	1,380	1,840	2,550	3,170	1,700	662	263	165	322	15,68
1955	871	1,160	975	1,020	1,100	2,080	2,360	3,880	1,550	867	568	345	16,78
1956	845	1,240	1,980	2,720	1,500	6,680	7,340	8,030	1,840	445	324	239	33,18
1957	838	1,170	1,650	1,110	3,530	3,550	4,530	13,100	4,580	731	505	419	35,77
1958	972	1,340	1,490	1,430	6,410	3,520	6,550	14,100	3,720	976	774	511	41,79
1959	942	1,340	1,640	1,690	1,810	2,250	3,490	2,130	979	477	266	553	17,57
1960	1,240	1,120	926	996	1,200	3,530	4,430	3,060	696	348	269	344	18,16

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	43.8	31,680
1951	1217	858	Feb. 7 or 8, 1951	6.5	66.9	48,450	65.7	47,540
1952	1247	412	May 6, 1952	11	64.3	46,720	64.8	47,020
1953	1287	245	Aug. 2, 1953	8.1	45.7	33,110	45.6	33,000
1954	1347	165	Sept. 2, 1954	1.4	21.6	15,680	20.8	15,060
1955	1397	83	May 13, 1955	2.1	23.2	16,780	24.6	17,840
1956	1447	349	Mar. 19, 1956	2.3	45.7	33,180	45.1	32,780
1957	1517	319	May 23, 1957	4.5	49.4	35,770	49.6	35,920
1958	1567	557	Feb. 17, 1958	5.8	57.7	41,790	57.9	41,910
1959	1637	89	Apr. 7, 1959	1.0	24.3	17,570	23.4	16,930
1960	1717	183	Mar. 7, 1960	2.5	25.0	18,160	-	-

830. Trapper Creek near Oakley, Idaho

Location.--Lat 42°10', long 113°59', in sec.34, T.14 S., R.21 E., on left bank 4 miles upstream from Oakley Dam and 7 miles southwest of Oakley.

Drainage area.--53.7 sq mi. Mean altitude, 6,360 ft.

Records available.--May 1911 to September 1916, March 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,820 ft (by barometer). Prior to Sept. 1, 1912, water-stage recorder at approximately present site at different datum. Sept. 1, 1912, to Apr. 7, 1913, staff gage at site three-quarters of a mile downstream at different datum. Apr. 8, 1913, to Sept. 30, 1916, and Mar. 28, 1919, to Aug. 15, 1931, water-stage recorder at site 1 mile upstream from present site at different datum.

Average discharge.--46 years (1911-16, 1919-60), 14.7 cfs (10,640 acre-ft per year).

Extremes.--1911-16, 1919-60: Maximum discharge recorded, 270 cfs Aug. 17, 1941 (gage height, 6.99 ft), from rating curve extended above 100 cfs on basis of velocity-area studies and peak flow over weir (a higher flow may have occurred Aug. 15, 1931); minimum recorded, 2.3 cfs Feb. 22, 1949, result of freezeup.

Remarks.--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 (see p. 70).

Correction.--In WSP 1317, the average discharge for the period (1911-16, 1919-50) is listed in error; it should be 14.7 cfs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	10.3	10.9	12.3	11.5	16.8	15.1	33.3	44.9	25.1	13.2	11.4	10.1	17.9
1952	11.9	11.8	12.3	11.6	12.7	13.7	31.5	60.8	31.5	15.7	11.6	11.5	19.7
1953	11.9	11.9	12.0	13.1	13.3	14.7	20.0	30.5	32.4	16.5	11.9	11.2	16.6
1954	11.2	11.9	11.9	11.3	12.1	13.5	15.9	16.9	12.2	8.97	8.39	9.13	11.9
1955	9.91	10.7	10.1	10.1	10.6	11.0	12.4	19.1	16.7	11.5	9.80	9.72	11.8
1956	9.77	9.73	10.6	12.0	11.0	14.5	20.9	28.4	19.4	10.5	9.04	8.71	13.7
1957	10.2	10.7	11.6	9.77	14.2	13.1	17.0	34.0	20.9	11.2	9.35	9.54	14.3
1958	10.2	10.5	11.3	12.0	14.9	13.3	19.6	34.2	19.6	11.6	9.55	10.2	14.7
1959	10.4	11.4	11.3	11.5	11.3	11.7	14.9	16.5	11.9	9.19	8.47	9.80	11.5
1960	10.4	10.1	10.1	11.5	11.7	16.1	21.4	18.7	13.0	9.38	8.12	7.60	12.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	633	650	758	706	930	930	1,980	2,760	1,490	811	698	599	12,940
1952	732	699	759	710	732	843	1,870	3,740	1,880	964	714	684	14,330
1953	730	709	739	807	740	906	1,190	1,880	1,930	1,010	730	668	12,040
1954	686	706	733	696	672	831	948	1,040	726	552	516	543	8,650
1955	610	635	624	621	586	676	736	1,170	996	707	602	579	8,540
1956	601	579	651	736	634	891	1,240	1,750	1,160	645	556	518	9,960
1957	626	639	712	601	787	807	1,010	2,090	1,250	689	575	568	10,350
1958	627	625	694	736	827	815	1,170	2,100	1,170	716	588	610	10,680
1959	637	678	692	707	627	720	887	1,020	706	565	521	583	8,340
1960	641	601	623	706	675	990	1,270	1,150	776	577	499	452	8,960

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	16.2	11,740
1951	1217	52	May 11, 1951	6.2	17.9	12,940	18.1	13,090
1952	1247	80	May 16, 1952	7.0	19.7	14,330	19.7	14,320
1953	1287	44	June 5, 1953	8.5	16.6	12,040	16.6	11,990
1954	1347	62	Sept. 2, 1954	8.0	11.9	8,650	11.6	8,390
1955	1397	160	Aug. 25, 1955	6.2	11.8	8,540	11.7	8,500
1956	1447	34	Mar. 18, 1956	5.5	13.7	9,960	13.9	10,110
1957	1517	72	Dec. 11, 1956	6.6	14.3	10,350	14.3	10,320
1958	1567	52	May 12, 1958	7.9	14.7	10,680	14.8	10,740
1959	1637	24	Feb. 13, 1959	7.2	11.5	8,340	11.3	8,200
1960	1717	34	Mar. 7, 1960	6.6	12.3	8,960	-	-

835. Oakley Reservoir near Oakley, Idaho

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

Drainage area.--729 sq mi.

Records available.--October 1912 to September 1960.

Gage.--Staff gage below 54.5 ft and wire-weight gage above. Altitude of gage is 4,630 ft (by barometer). Prior to Apr. 15, 1954, staff gage only.

Extremes.--1912-60: Maximum contents observed, 74,600 acre-ft June 15, 1921 (gage height 136.2 ft); reservoir drained at close of irrigation season in 1915, 1919-20, 1926, 1933, 1950, and 1959.

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

Monthly contents, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	a1,920	4,110	6,810	9,120	18,400	24,300	33,000	41,500	36,400	24,000	19,400	14,800
1952	16,100	17,700	19,400	20,800	a22,800	26,100	37,700	49,200	45,900	34,600	27,800	23,200
1953	24,400	25,600	27,200	30,000	32,000	34,700	a38,100	39,500	39,200	27,000	21,500	17,200
1954	18,400	20,100	21,600	23,300	25,200	28,400	29,600	22,600	19,400	11,000	a5,070	a1,330
1955	2,970	a4,850	6,380	7,980	a9,640	a12,300	15,200	14,000	10,700	6,060	3,170	a765
1956	2,160	3,960	6,480	a9,750	11,800	19,300	a25,000	25,900	20,500	10,600	6,220	a1,430
1957	3,140	4,960	7,180	8,650	a12,600	16,500	20,800	30,600	29,000	14,700	8,750	a1,670
1958	3,490	5,530	7,500	9,360	16,000	19,700	26,100	31,700	a26,800	14,900	8,930	a5,420
1959	6,880	8,610	10,600	13,100	a15,200	18,000	a20,700	17,400	11,800	a5,400	2,760	a(
1960	2,240	4,120	5,580	7,300	9,360	13,400	a18,300	16,300	9,220	3,880	2,020	a794

a Observed contents; other figures based on readings made 1 to 5 days from end of month.

DIVERSIONS FROM SNAKE RIVER BETWEEN GOOSE CREEK AND SNAKE RIVER AT MILNER

855. Minidoka North Side Pump Canal near Burley, Idaho

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

Records available.--October 1956 to September 1960.

Gage.--Sparling meter at pumping plant.

Extremes.--1956-60: Maximum daily discharge, 267 cfs June 26 to July 25, 1958; no flow for many days in nonirrigation season.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	0	0	0	0	0	0	0	41.9	173	239	181	119	63.3
1958	11.8	0	0	0	0	0	6.0	130	216	264	214	119	80.7
1959	27.8	0	0	0	0	0	30.1	107	208	232	198	85.4	74.6
1960	0	0	0	0	0	0	25.1	146	204	243	189	101	76.0

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	0	0	0	0	0	0	0	2,580	10,290	14,720	11,150	7,100	45,840
1958	728	0	0	0	0	0	357	8,010	12,850	16,240	13,170	7,070	58,420
1959	1,710	0	0	0	0	0	1,790	6,590	12,400	14,270	12,200	5,080	54,040
1960	0	0	0	0	0	0	1,490	9,000	12,120	14,960	11,640	6,000	55,210

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1957	1517	244	July 10-25, 1957	0	63.3	45,840	64.3	46,570
1958	1567	267	(a)	0	80.7	58,420	82.1	59,410
1959	1637	245	July 22-26, 1959	0	74.6	54,040	72.2	52,330
1960	1717	248	(b)	0	76.0	55,210	-	-

a June 26 to July 25, 1958.
b July 5-7, 12, 13, 1960.

858. P. A. lateral near Milner, Idaho

Location.--Lat 42°32', long 114°01', in sec.22, T.10 S., R.21 E., on left bank 600 ft downstream from pumping station and 2½ miles northeast of Milner.

Records available.--October 1915 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Staff gage and concrete rating flume. Altitude of gage is 4,196 ft (river survey).

Average discharge.--12 years (1948-60), 26.0 cfs (18,820 acre-ft per year).

Extremes.--1915-60: Maximum discharge observed, 76 cfs July 19, 1960 (gage height, 1.58 ft); no flow for many days in nonirrigation season.

Remarks.--Flow regulated by pumping plant which lifts water 65.3 ft from Snake River for irrigation on North Side Twin Falls tract.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	3.3	54.8	64.3	69.8	68.4	45.1	25.6
1952	0	0	0	0	0	0	1.5	52.0	64.2	71.1	69.0	53.3	26.0
1953	0	0	0	0	0	0	2.3	59.9	58.6	71.8	74.1	49.2	26.5
1954	0	0	0	0	0	0	7.6	65.0	61.3	66.4	71.2	47.0	26.7
1955	0	0	0	0	0	0	0	48.1	64.0	68.0	71.3	57.3	25.9
1956	0	0	0	0	0	0	5.8	65.1	67.3	73.7	72.9	46.3	27.7
1957	0	0	0	0	0	0	0	50.1	61.2	70.7	70.2	43.9	24.9
1958	0	0	0	0	0	0	0	57.3	65.8	70.3	65.1	44.4	25.4
1959	0	0	0	0	0	0	6.3	59.7	64.3	65.8	64.8	37.7	25.1
1960	0	0	0	0	0	0	4.5	59.2	63.8	69.8	69.2	42.7	25.9

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	194	3,370	3,830	4,290	4,200	2,680	18,560
1952	0	0	0	0	0	0	87	3,200	3,820	4,370	4,240	3,170	18,890
1953	0	0	0	0	0	0	135	3,680	3,490	4,420	4,560	2,930	19,220
1954	0	0	0	0	0	0	454	4,000	3,650	4,080	4,380	2,800	19,360
1955	0	0	0	0	0	0	0	2,960	3,810	4,180	4,380	3,410	18,740
1956	0	0	0	0	0	0	345	4,000	4,000	4,530	4,480	2,760	20,120
1957	0	0	0	0	0	0	0	3,080	3,640	4,350	4,320	2,610	18,000
1958	0	0	0	0	0	0	0	3,530	3,910	4,320	4,000	2,640	18,400
1959	0	0	0	0	0	0	373	3,670	3,830	4,040	3,980	2,240	18,130
1960	0	0	0	0	0	0	266	3,640	3,800	4,290	4,250	2,540	18,790

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	26.2	18,930
1951	1217	73	(a)	0	25.6	18,560	25.6	18,560
1952	1247	74	July 10-15, 1952	0	26.0	18,890	26.0	18,890
1953	1287	75	Aug. 24-31, 1953	0	26.5	19,220	26.5	19,220
1954	1347	74	May 26-28, 1954	0	26.7	19,360	26.7	19,360
1955	1397	73	(a)	0	25.9	18,740	25.9	18,740
1956	1447	75	(a)	0	27.7	20,120	27.7	20,120
1957	1517	74	Aug. 6-9, 1957	0	24.9	18,000	24.9	18,000
1958	1567	72	Aug. 7-13, 1958	0	25.4	18,400	25.4	18,400
1959	1637	73	(b)	0	25.1	18,130	25.1	18,130
1960	1717	76	July 19, 1960	0	25.9	18,790	-	-

a On many days.
b July 29 to Aug. 6, 1959.

860. Milner low-lift canal near Milner, Idaho

Location.--Lat 42°31', long 114°01', in sec.32, T.10 S., R 21 E., at head of canal, 1 mile south of Milner.

Records available.--October 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Prior to October 1922, published as Murtaugh canal near Milner.

Gage.--Rated pumps. Prior to May 1, 1945, water-stage recorder at site 600 ft downstream.

Average discharge.--16 years (1944-60), 79.0 cfs (57,190 acre-ft per year).

Extremes.--1919-60: Maximum daily discharge, 272 cfs July 24, 25, 1960; no flow for many days.

Remarks.--Flow controlled by pumping plant which lifts water from Snake River above Milner Dam for irrigation of 12,600 acres of land in Milner low-lift irrigation district. Pumps rated by current-meter measurements.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	38.0	145	172	194	166	152	72.6
1952	0	0	0	0	0	0	5.0	162	180	197	192	163	75.2
1953	0	0	0	0	0	0	4.8	168	160	210	214	165	77.4
1954	0	0	0	0	0	0	19.9	214	206	237	244	152	90.2
1955	0	0	0	0	0	0	0	148	210	221	208	166	79.9
1956	0	0	0	0	0	0	53.4	209	189	225	221	163	88.7
1957	0	0	0	0	0	0	2.6	177	209	219	242	163	85.0
1958	0	0	0	0	0	0	7.6	216	211	251	234	135	88.5
1959	0	0	0	0	0	0	51.8	171	214	250	232	130	88.0
1960	0	0	0	0	0	0	26.5	200	208	257	230	133	88.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	2,260	8,900	10,210	11,960	10,200	9,040	52,570
1952	0	0	0	0	0	0	298	9,940	10,710	12,120	11,810	9,680	54,560
1953	0	0	0	0	0	0	286	10,320	9,550	12,910	13,130	9,810	56,010
1954	0	0	0	0	0	0	1,190	13,170	12,270	14,600	15,020	9,030	65,280
1955	0	0	0	0	0	0	0	9,120	12,510	13,570	12,800	9,850	57,850
1956	0	0	0	0	0	0	3,180	12,870	11,260	13,850	13,590	9,670	64,420
1957	0	0	0	0	0	0	153	10,910	12,450	13,450	14,860	9,680	61,500
1958	0	0	0	0	0	0	454	13,260	12,560	15,400	14,360	8,060	64,050
1959	0	0	0	0	0	0	3,080	10,520	12,730	15,370	14,260	7,770	63,730
1960	0	0	0	0	0	0	1,580	12,300	12,370	15,810	14,140	7,910	64,110

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	73.2	52,970
1951	1217	a212	Sept.27, 1951	0	72.6	52,570	72.6	52,570
1952	1247	218	July 23-31, 1952	0	75.2	54,560	75.2	54,560
1953	1287	216	Aug. 6-7, 1953	0	77.4	56,010	77.4	56,010
1954	1347	256	July 25-31, 1954	0	90.2	65,280	90.2	65,280
1955	1397	237	May 27-29, 1955	0	79.9	57,850	79.9	57,850
1956	1447	236	May 25-27, 1956	0	88.7	64,420	88.7	64,420
1957	1517	254	(b)	0	85.0	61,500	85.0	61,500
1958	1567	264	July 14-28, 1958	0	88.5	64,050	88.5	64,050
1959	1637	264	July 21-25, 1959	0	88.0	63,730	88.0	63,730
1960	1717	272	July 24,25, 1960	0	88.3	64,110	-	-

a Momentary maximum.
b July 25 to Aug. 3, 1957.

865. Gooding Canal at Milner, Idaho

Location.--Headgates of canal, lat 42°31', long 114°01', in sec.28, T.10 S., R.21 E., at Milner Dam; A lateral in sec.19, T.10 S., R.31 E.; Milner-Gooding Canal in sec.18, T.10 S., R 21 E.; North Side Canal Co. diversion in NE¼ sec.13, T.10 S., R 20 E.

Records available.--October 1929 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--25 years (1935-60), total 998 cfs (722,500 acre-ft per year); Milner-Gooding project, 574 cfs; North Side Canal Co. project, 424 cfs.

Extremes.--1930-60: Maximum daily discharge, 2,740 cfs Aug. 2, 1953; no flow for many days.

Remarks.--Gooding Canal diverts water from Snake River for Milner-Gooding project of Bureau of Reclamation and in part for project of North Side Canal Co. The latter project also receives water through the North Side Twin Falls canal and P. A. lateral. Discharge of canal is computed by combining the discharge of Milner-Gooding diversion and that of North Side Canal Co. diversions below their division point and adding 35 cfs to that sum for loss between headgates and division point.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	744	2,160	2,543	2,598	2,485	2,208	1,067
1952	463	10.7	0	0	0	0	0	1,960	2,424	2,496	2,534	2,096	1,003
1953	0	0	0	0	0	0	702	2,143	2,164	2,598	2,500	2,053	1,019
1954	0	0	0	0	0	0	860	2,444	2,401	2,516	2,451	2,247	1,082
1955	401	160	0	0	0	0	629	2,276	2,542	2,510	2,454	2,072	1,093
1956	507	178	0	0	0	0	619	2,285	2,346	2,573	2,395	2,074	1,085
1957	95.8	668	56.5	0	0	0	272	2,174	2,461	2,585	2,414	2,171	1,080
1958	427	301	0	0	0	0	515	2,099	2,490	2,565	2,453	2,146	1,089
1959	273	430	0	0	0	0	827	2,018	2,178	2,409	2,207	1,897	1,025
1960	163	218	0	0	0	0	580	2,137	2,503	2,599	2,404	1,956	1,049

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	44,290	132,800	151,300	159,700	152,800	131,400	772,300
1952	28,480	635	0	0	0	0	0	120,600	144,300	153,500	155,800	124,700	728,000
1953	0	0	0	0	0	0	41,750	131,800	128,700	159,730	153,700	122,200	737,900
1954	0	0	0	0	0	0	51,170	150,300	142,900	154,700	150,700	133,700	783,500
1955	24,670	9,540	0	0	0	0	37,410	139,900	151,300	154,300	150,900	123,300	791,300
1956	31,180	10,590	0	0	0	0	36,850	140,500	139,600	158,200	147,300	123,400	787,600
1957	5,890	39,770	3,470	0	0	0	16,210	133,700	146,400	159,000	148,400	129,200	782,000
1958	26,260	17,910	0	0	0	0	30,660	129,100	148,200	157,700	150,800	127,700	788,300
1959	16,800	25,570	0	0	0	0	49,210	124,100	129,600	148,100	135,700	112,900	742,000
1960	10,010	13,000	0	0	0	0	34,490	131,400	148,900	159,800	147,800	116,400	761,800

Monthly and yearly distribution, in acre-feet, of Gooding Canal to Milner-Gooding project

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	22,750	73,090	93,440	96,850	90,880	72,730	449,700
1952	0	0	0	0	0	0	0	65,220	83,820	92,250	94,690	72,180	408,200
1953	0	0	0	0	0	0	33,020	80,110	79,320	98,220	93,920	74,240	458,800
1954	0	0	0	0	0	0	32,150	87,570	86,060	94,790	94,080	80,510	475,200
1955	0	0	0	0	0	0	13,800	79,680	93,600	96,810	96,200	78,740	458,800
1956	0	0	0	0	0	0	22,180	83,050	85,170	98,880	89,890	72,160	451,330
1957	0	0	0	0	0	0	10,950	73,650	87,650	98,960	91,060	74,780	437,000
1958	0	0	0	0	0	0	23,390	77,970	90,880	99,070	93,900	76,360	461,600
1959	0	0	0	0	0	0	26,720	77,990	81,880	93,320	84,810	67,540	432,300
1960	0	0	0	0	0	0	21,100	88,520	90,800	99,470	88,620	63,350	451,900

865. Gooding Canal at Milner, Idaho--Continued

Monthly and yearly distribution, in acre-feet, of Gooding Canal to North Side Canal Co. project

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	21,540	59,720	57,900	62,900	61,940	58,630	322,600
1952	28,480	635	0	0	0	0	0	55,360	60,440	61,210	61,130	52,560	319,800
1953	0	0	0	0	0	0	8,730	51,670	49,430	61,510	59,780	47,920	279,000
1954	0	0	0	0	0	0	19,020	62,700	56,830	59,940	58,630	53,200	308,300
1955	24,670	9,540	0	0	0	0	23,600	60,260	57,660	57,500	54,700	44,530	332,500
1956	31,180	10,590	0	0	0	0	14,680	57,480	54,450	59,310	57,360	51,250	336,300
1957	5,890	39,770	3,470	0	0	0	5,260	60,020	58,790	60,000	57,340	54,410	345,000
1958	26,260	17,910	0	0	0	0	7,280	51,090	57,300	58,650	58,950	51,310	326,800
1959	16,800	25,570	0	0	0	0	22,490	46,120	47,740	54,780	50,900	45,340	309,700
1960	10,010	13,000	0	0	0	0	13,390	42,860	58,140	60,360	59,170	53,060	310,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,024	741,400
1951	1217	2,660	(a)	0	1,067	772,300	1,107	801,400
1952	1247	2,630	Aug.3-4, 1952	0	1,003	728,000	1,003	728,000
1953	1287	2,740	Aug. 2, 1953	0	1,019	737,900	1,019	737,900
1954	1347	2,610	(b)	0	1,082	783,500	1,129	817,700
1955	1397	2,680	June 15, 1955	0	1,093	791,300	1,103	798,800
1956	1447	2,620	July 16,18,1956	0	1,085	787,600	1,095	795,000
1957	1517	2,660	July 7, 1957	0	1,080	782,000	1,073	777,100
1958	1567	2,590	(c)	0	1,089	788,300	1,086	786,500
1959	1637	2,530	July 14, 1959	0	1,025	742,000	998	722,600
1960	1717	2,680	July 29, 1960	0	1,049	761,800	-	-

a Maximum recorded on several days.
b July 14, 15, 20, 1954.
c July 5, 19, 20, 1958.

870. North Side Twin Falls Canal at Milner, Idaho

Location.--Lat 42°32', long 114°01', in sec.20, T.10 S., R.21 E., on right bank half a mile north of Milner and three-quarters of a mile downstream from headgates at Milner Dam.

Records available.--May 1909 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,123.4 ft above mean sea level, datum of 1929. Prior to Apr. 1, 1916, staff gages at two sites within half a mile of present site at slightly different datum.

Average discharge.--25 years (1935-60), 1,261 cfs (912,900 acre-ft per year).

Extremes.--1909-60: Maximum daily discharge, 3,200 cfs for several days in 1921, 1928-29; no flow at times when headgates were closed.

Remarks.--Flow controlled by headgates. Water diverted by this canal and by P. A. lateral and part of that diverted by Gooding Canal, all at Milner, is used for irrigation of 160,000 acres of land under the North Side Canal Co. system. Diversions began in April 1908.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	755	638	555	507	411	380	1,049	1,893	2,535	2,719	2,523	1,829	1,321
1952	267	581	522	468	454	424	703	2,337	2,701	2,742	2,715	1,988	1,328
1953	803	590	487	433	423	340	1,129	2,276	2,297	2,821	2,737	2,111	1,377
1954	720	627	484	449	433	418	1,153	2,450	2,271	2,701	2,711	2,037	1,377
1955	407	414	523	397	390	386	157	2,007	2,787	2,791	2,824	2,265	1,285
1956	49.7	405	456	439	373	336	1,134	2,387	2,562	2,797	2,647	1,933	1,296
1957	575	0	388	329	324	299	878	2,124	2,531	2,855	2,762	2,009	1,263
1958	286	180	466	405	336	309	905	2,490	2,566	2,935	2,749	1,917	1,302
1959	554	203	490	390	435	324	1,398	2,131	2,512	2,848	2,735	1,578	1,305
1960	212	340	412	291	290	234	1,051	2,400	2,423	2,846	2,649	1,918	1,259

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	46,440	37,940	34,150	31,190	22,800	23,340	62,410	116,400	150,900	167,200	155,100	108,800	956,700
1952	16,390	34,570	32,120	28,760	26,120	26,070	41,830	143,700	160,700	168,600	166,900	118,300	964,100
1953	49,400	35,130	29,950	26,620	23,510	20,910	67,180	139,900	136,700	173,400	168,300	125,600	986,600
1954	44,300	37,300	29,730	27,600	24,050	25,670	68,600	150,600	135,200	166,100	166,700	121,200	987,000
1955	25,010	24,630	32,190	24,410	21,660	23,750	9,330	123,400	165,900	171,600	173,600	134,800	930,300
1956	3,060	24,120	28,040	27,000	21,440	20,650	67,480	146,800	152,400	172,000	162,800	115,000	940,800
1957	35,380	0	23,870	20,220	18,020	18,360	52,260	130,600	150,600	175,600	169,900	119,500	914,300
1958	17,600	10,700	28,660	24,920	18,670	19,010	53,840	153,100	152,700	180,400	169,000	114,000	942,600
1959	34,060	12,080	30,120	23,980	24,140	19,910	83,140	131,000	149,500	175,100	168,100	93,930	945,100
1960	13,020	20,210	25,320	17,860	16,680	14,400	62,530	147,600	144,200	175,000	162,900	114,100	913,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,349	976,500
1951	1217	2,830	July 10, 1951	0	1,321	956,700	1,272	921,200
1952	1247	2,880	Aug. 4, 1952	0	1,328	964,100	1,371	995,500
1953	1287	2,960	Aug. 3, 1953	0	1,377	996,600	1,372	993,400
1954	1347	2,820	July 14, 1954	0	1,377	997,000	1,336	967,600
1955	1397	2,990	Aug. 5, 1955	0	1,285	930,300	1,248	903,700
1956	1447	2,880	July 25, 1956	0	1,296	940,800	1,301	944,800
1957	1517	2,920	July 10, 1957	0	1,263	914,300	1,260	912,000
1958	1567	3,040	July 30, 1958	0	1,302	942,600	1,329	961,900
1959	1637	2,990	July 31, 1959	0	1,305	945,100	1,281	927,400
1960	1717	3,020	July 25, 1960	0	1,259	913,800	-	-

875. South Side Twin Falls Canal at Milner, Idaho

Location.--Lat 42°31', long 114°01', in sec.29, T.10 S., R.21 E., on right bank 30 ft upstream from highway bridge and 700 ft downstream from headgates at Milner Dam.

Records available.--May 1909 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,121.5 ft above mean sea level, datum of 1929. Prior to May 13, 1913, staff gage and May 13, 1913, to Apr. 24, 1914, water-stage recorder near present site, and Apr. 25, 1914, to May 13, 1960, water-stage recorder at site 50 ft upstream, all at same datum.

Average discharge.--34 years (1926-60), 1,754 cfs (1,270,000 acre-ft per year).

Extremes.--1909-60: Maximum daily discharge, 4,600 cfs Aug. 12, 1918, including about 1,200 cfs wasted through spillway below station and returned to river; maximum discharg for irrigation use, 3,880 cfs May 14, 1960 (gage height, 10.55 ft); no flow Sept. 20, 1920, Oct. 14-17, 1956.

Remarks.--Flow controlled by headgates. Diversions began in March 1905 when 30,000 acres were reported as irrigated. By 1912 this had increased to 147,000 acres and during recent years the irrigated area has been reported as 202,000 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	974	564	537	508	486	453	1,437	3,075	3,366	3,603	3,426	2,819	1,778
1952	1,177	442	497	488	430	466	988	3,491	3,557	3,686	3,732	2,900	1,82[illegible]
1953	1,330	561	504	501	462	446	1,746	3,324	3,096	3,697	3,647	2,808	1,85[illegible]
1954	1,137	561	490	517	479	478	1,806	3,545	3,144	3,565	3,595	2,747	1,84[illegible]
1955	958	548	566	382	391	326	676	3,039	3,409	3,571	3,664	2,855	1,70[illegible]
1956	869	494	428	451	401	243	1,748	3,365	3,321	3,654	3,459	2,595	1,75[illegible]
1957	849	492	436	412	435	298	1,021	3,131	3,301	3,665	3,537	2,646	1,694
1958	814	459	449	448	344	316	1,424	3,395	3,302	3,659	3,495	2,415	1,719
1959	1,170	453	454	425	409	398	1,979	3,013	3,191	3,609	3,458	2,152	1,738
1960	559	486	511	445	443	324	1,591	3,373	3,376	3,696	3,494	2,681	1,75[illegible]

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	59,910	33,560	33,000	31,230	26,970	27,830	85,520	189,000	200,300	221,500	210,700	167,700	1,287,00[illegible]
1952	72,360	26,320	30,540	30,020	24,730	28,660	58,800	214,700	211,700	226,700	229,500	172,600	1,327,00[illegible]
1953	81,770	33,400	31,010	30,800	25,670	27,430	103,900	204,400	184,200	227,300	224,300	167,100	1,341,00[illegible]
1954	69,890	33,370	30,140	31,760	26,590	29,390	107,500	218,000	187,100	219,200	221,100	163,500	1,338,00[illegible]
1955	58,930	32,600	34,810	23,480	21,710	20,020	40,200	186,900	202,800	219,600	225,300	169,900	1,236,00[illegible]
1956	53,450	29,380	26,290	27,740	23,090	14,920	104,000	206,900	197,600	224,700	212,700	154,400	1,275,00[illegible]
1957	52,190	29,270	26,800	25,340	24,170	18,340	60,730	192,500	196,400	225,400	217,500	157,500	1,226,00[illegible]
1958	50,020	27,330	27,600	26,530	19,100	19,450	84,740	208,700	196,500	225,000	214,900	143,700	1,245,00[illegible]
1959	71,940	29,340	27,950	26,110	21,720	24,450	117,800	185,200	189,900	221,900	212,600	128,000	1,257,00[illegible]
1960	34,380	28,940	31,400	27,380	25,490	19,940	94,650	207,400	200,900	227,200	214,800	159,500	1,272,00[illegible]

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,750	1,267,000
1951	1217	3,720	July 25, 1951	26	1,778	1,287,000	1,782	1,290,000
1952	1247	3,810	July 21, 1952	59	1,827	1,327,000	1,851	1,344,000
1953	1287	3,810	July 24, 1953	39	1,853	1,341,000	1,835	1,328,000
1954	1347	3,790	May 20, 1954	29	1,847	1,338,000	1,838	1,330,000
1955	1397	3,810	July 27, 1955	48	1,708	1,236,000	1,684	1,219,000
1956	1447	3,760	July 2, 1956	25	1,757	1,275,000	1,755	1,274,000
1957	1517	3,790	July 9, 1957	0	1,694	1,226,000	1,689	1,223,000
1958	1567	3,800	July 19, 1958	37	1,719	1,245,000	1,753	1,269,000
1959	1637	3,690	July 28,29,1959	22	1,738	1,257,000	1,690	1,222,000
1960	1717	3,880	May 14, 1960	43	1,752	1,272,000	-	-

880. Snake River at Milner, Idaho

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

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

Records available.--May 1909 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 4,062.9 ft above mean sea level, datum of 1929. Prior to May 28, 1919, staff gages at slightly different sites and datums.

Average discharge.--34 years (1926-60), 1,992 cfs (1,442,000 acre-ft per year).

Extremes.--1909-60: Maximum discharge, 40,000 cfs June 21, 1918 (gage height, 19.9 ft, site and datum then in use); minimum, 2 cfs Mar. 17-28, 1936 (gage height, 1.18 ft).

Remarks.--Flow regulated by American Falls Reservoir, Lake Walcott, and other reservoirs having a combined usable capacity of about 4,700,000 acre-ft. About 1,340,000 acres of land irrigated by diversion from river and its tributaries above station, from which the return flow in large part enters Snake River between Milner and King Hill stations. Flow includes some stored water released for use downstream by Idaho Power Co.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,831	3,168	4,069	7,118	10,040	9,620	4,677	9,044	2,868	467	594	661	4,571
1952	4,056	4,045	3,992	5,309	8,911	9,730	10,670	7,365	5,313	1,048	357	288	5,070
1953	1,249	260	1,003	2,058	3,949	5,131	2,092	167	5,194	301	315	157	1,804
1954	319	555	1,717	2,017	2,154	2,659	2,858	1,912	412	394	324	151	1,285
1955	1,774	2,187	1,859	2,015	908	2,496	4,819	712	409	197	17.0	8.0	1,450
1956	619	368	775	2,810	4,069	6,106	7,683	6,734	10,960	239	261	293	3,391
1957	2,150	1,797	2,130	3,120	2,427	4,643	5,803	9,695	1,037	174	283	273	2,803
1958	978	593	1,416	2,199	2,589	3,197	3,259	933	291	220	211	207	1,334
1959	885	647	656	702	974	1,086	283	98.0	14.4	15.3	61.1	225	468
1960	1,702	857	660	795	646	536	1,356	18.5	30.1	252	208	252	609

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	174,000	188,500	250,200	437,700	557,900	591,500	278,300	556,100	170,600	28,720	36,530	39,310	3,309,000
1952	249,400	240,700	245,500	326,500	512,500	598,300	635,200	452,800	316,100	64,410	21,980	17,140	3,681,000
1953	76,810	15,450	61,700	126,500	219,300	315,500	124,500	10,290	309,000	18,520	19,370	9,350	1,306,000
1954	19,620	33,030	105,600	124,000	119,600	163,500	170,100	117,500	24,540	24,200	19,930	8,960	930,600
1955	109,100	130,200	114,300	123,900	50,430	153,500	286,800	43,770	24,320	12,130	1,050	476	1,050,000
1956	38,080	21,910	47,670	172,800	234,100	375,500	457,200	414,100	652,200	14,690	16,030	17,420	2,462,000
1957	132,200	106,900	130,700	191,800	134,800	285,500	345,300	596,100	61,680	10,690	17,410	16,250	2,029,000
1958	60,140	35,300	87,070	135,200	143,800	196,600	194,000	57,370	17,340	13,500	12,950	12,350	965,600
1959	54,450	38,490	40,330	43,150	54,070	66,770	16,860	6,030	857	940	3,750	13,410	339,100
1960	104,600	51,010	40,580	48,910	36,150	32,960	80,680	1,140	1,790	15,470	12,790	14,970	442,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	4,074	2,950,000
1951	1217	14,800	May 15,16, 1951	116	4,571	3,309,000	4,741	3,432,000
1952	1247	14,700	May 10, 1952	97	5,070	3,681,000	4,269	3,099,000
1953	1287	16,100	June 9, 1953	3	1,804	1,306,000	1,810	1,311,000
1954	1347	9,680	May 28, 1954	35	1,285	930,600	1,555	1,126,000
1955	1397	6,550	Apr. 17, 1955	5	1,450	1,050,000	1,111	804,000
1956	1447	18,900	May 30, 1956	132	3,391	2,462,000	3,752	2,724,000
1957	1517	18,600	May 21, 1957	39	2,803	2,029,000	2,544	1,842,000
1958	1567	7,620	Apr. 7, 1958	98	1,334	965,600	1,266	916,400
1959	1637	4,190	Oct. 15, 1958	8	468	339,100	555	402,000
1960	1717	5,080	Apr. 17, 1960	8	609	442,000	-	-

895. Devils Washbowl Spring near Kimberly, Idaho

Location.--Lat 42°35', long 114°21', in SE¼ sec.4, T.10 S., R.18 E., 400 ft downstream from Devils Washbowl Spring, half a mile upstream from mouth, which is half a mile upstream from Twin Falls of Snake River, and 3½ miles north of Kimberly.

Records available.--April 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,540 ft (from river-profile map). Prior to May 16, 1953, at datum 0.83 ft lower.

Average discharge.--9 years (1950-59), 22.1 cfs (16,000 acre-ft per year).

Extremes.--1950-59: Maximum daily discharge, 27.5 cfs Oct. 3, 4, 1951; minimum daily, 17.5 cfs May 3-5, 11, May 25 to June 2, June 5-8, 1958.

Remarks.--No regulation or diversion above station. Discharge affected by variable surface waste from irrigation and occasional runoff from snowmelt, which flows over rimrocks to enter springs above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	24.1	23.4	22.0	21.8	21.4	21.1	21.0	20.1	21.5	22.2	23.1	25.4	22.3
1952	25.5	24.2	22.5	22.7	21.6	22.0	21.7	20.7	21.9	22.1	24.3	24.5	22.8
1953	25.7	25.8	23.0	23.2	22.8	21.3	20.8	21.6	21.2	21.4	22.6	24.8	22.8
1954	25.2	24.9	23.7	23.0	22.8	22.1	21.8	20.7	22.4	22.0	23.6	23.8	23.0
1955	24.1	23.5	22.1	21.7	21.7	21.9	19.9	19.1	19.2	20.5	20.7	22.9	21.4
1956	22.7	22.5	21.6	19.9	20.2	19.5	18.9	19.6	21.1	20.5	21.2	22.8	20.9
1957	23.4	22.0	20.7	21.0	20.8	19.1	19.3	20.0	21.6	25.0	24.7	25.5	21.9
1958	25.2	25.1	24.3	23.9	23.1	21.2	19.4	17.8	18.7	21.0	22.2	25.2	22.3
1959	24.6	23.0	21.6	21.2	20.5	20.2	21.2	20.3	19.4	19.2	20.7	22.2	21.2
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,480	1,390	1,350	1,340	1,190	1,300	1,250	1,240	1,280	1,360	1,420	1,510	16,110
1952	1,570	1,440	1,380	1,400	1,240	1,350	1,290	1,270	1,300	1,360	1,490	1,460	16,550
1953	1,580	1,530	1,420	1,420	1,260	1,310	1,240	1,330	1,260	1,310	1,390	1,470	16,520
1954	1,550	1,480	1,450	1,410	1,270	1,360	1,290	1,270	1,340	1,350	1,450	1,420	16,640
1955	1,480	1,400	1,360	1,330	1,200	1,340	1,180	1,180	1,140	1,260	1,270	1,360	15,500
1956	1,390	1,340	1,330	1,220	1,160	1,200	1,130	1,210	1,260	1,260	1,310	1,360	15,170
1957	1,440	1,310	1,270	1,290	1,160	1,180	1,150	1,230	1,290	1,540	1,520	1,520	15,900
1958	1,550	1,500	1,500	1,470	1,280	1,310	1,160	1,100	1,110	1,290	1,360	1,500	16,130
1959	1,510	1,370	1,330	1,300	1,140	1,240	1,260	1,250	1,150	1,190	1,270	1,320	15,330
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	27	Sept.22,25,1951	19.5	22.3	16,110	22.5	16,280
1952	1247	27.5	Oct. 3, 4, 1951	20	22.8	16,550	23.0	16,690
1953	1287	27	Oct. 5-9, 1952	20	22.8	16,520	22.8	16,470
1954	1347	26	Oct. 1-4, 1953	20	23.0	16,640	22.7	16,400
1955	1397	25	Oct. 1-5, 1954	19	21.4	15,500	21.2	15,320
1956	1447	24.5	(a)	18.5	20.9	15,170	20.8	15,130
1957	1517	26.5	Sept.18,19,1957	19	21.9	15,900	22.7	16,430
1958	1567	27	Sept.26,27,1958	17.5	22.3	16,130	21.8	15,790
1959	1637	25.5	(b)	19.0	21.2	15,330	-	-
1960								

a Oct. 7, 8, 1955, Sept. 23-25, 27-30, 1956.
b Oct. 1-2, 5-9, 12, 1958.

900. Snake River near Kimberly, Idaho

Location.--Lat 42°36', long 114°22', in NW¼ sec.4, T.10 S., R.18 E., on left bank 1,200 ft downstream from Twin Falls powerplant, 2¼ miles upstream from Shoshone Falls, and 4 miles north of Kimberly.

Records available.--July 1923 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,362.67 ft above mean sea level (levels by Idaho Power Co.). Prior to Aug. 31, 1938, at site 2,000 ft downstream at different datum.

Average discharge.--37 years (1923-60), 2,493 cfs (1,805,000 acre-ft per year).

Extremes.--1923-60: Maximum discharge, 27,200 cfs July 4, 1927 (gage height, 14.76 ft, site and datum then in use), from rating curve extended above 20,000 cfs; minimum recorded, 10 cfs May 17, 1944 (gage height, 1.15 ft); minimum daily recorded, 110 cfs Apr. 6, 1959.

Remarks.--Flow regulated by Twin Falls powerplant and several reservoirs above station. At times practically entire flow is diverted at Milner during irrigation season; no diversions between Milner and Kimberly.

Monthly and yearly mean discharge, in cubic feet per second

Water Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,166	3,515	4,389	7,562	10,600	9,977	4,940	9,334	3,277	892	1,152	1,144	4,969
1952	4,443	4,646	4,598	5,839	9,461	10,230	11,000	7,752	5,620	1,526	801	734	5,534
1953	1,735	736	1,417	2,466	4,247	5,415	2,446	590	5,585	735	795	695	2,221
1954	815	1,035	2,174	2,424	2,481	2,914	3,204	2,211	903	822	793	659	1,699
1955	2,155	2,558	2,192	2,420	1,314	2,748	4,995	1,158	814	610	449	471	1,823
1956	1,061	824	1,182	3,208	4,435	6,402	7,825	7,006	11,570	674	719	805	3,790
1957	2,540	2,247	2,544	3,337	2,778	4,811	6,087	9,825	1,516	556	745	772	3,155
1958	1,445	1,038	1,841	2,600	2,923	3,426	3,487	1,317	702	618	664	713	1,724
1959	1,353	1,109	1,110	1,141	1,338	1,419	675	477	386	384	465	693	875
1960	2,020	1,259	1,036	1,150	987	872	1,642	343	354	593	606	685	960

Monthly and yearly discharge, in acre-feet

Water Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	194,700	209,100	269,900	465,000	588,700	613,400	294,000	573,900	195,000	54,850	70,820	68,080	3,597,000
1952	273,200	276,400	282,700	359,000	544,200	628,900	654,700	476,600	334,400	93,800	49,220	43,700	4,017,000
1953	106,700	43,810	87,120	151,700	235,900	333,000	145,600	36,260	332,300	45,170	48,850	41,380	1,608,000
1954	50,110	61,560	133,700	149,000	137,800	179,200	190,600	135,900	53,750	50,520	48,740	39,230	1,230,000
1955	132,500	152,200	134,800	148,800	73,000	168,900	297,200	71,200	48,410	37,500	27,610	28,030	1,320,000
1956	65,240	49,060	72,700	197,300	255,100	393,700	465,600	430,800	688,400	41,470	44,210	47,880	2,751,000
1957	156,200	133,700	156,400	205,200	154,300	295,800	362,200	604,100	90,200	34,220	45,840	45,960	2,284,000
1958	88,870	61,750	113,200	159,900	162,300	210,600	207,500	80,960	41,760	38,020	40,800	42,440	1,248,000
1959	83,170	66,010	68,250	70,130	74,330	87,220	40,180	29,310	31,750	23,590	28,570	41,230	633,700
1960	124,200	74,930	63,700	70,710	56,770	53,630	97,710	21,060	21,070	36,440	37,270	39,550	697,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	4,443	3,217,000
1951	1217	14,700	May 16, 1951	569	4,969	3,597,000	5,188	3,756,000
1952	1247	14,800	May 10, 1952	529	5,534	4,017,000	4,714	3,422,000
1953	1287	16,200	June 9, 1953	278	2,221	1,608,000	2,231	1,616,000
1954	1347	9,660	May 29, 1954	428	1,699	1,230,000	1,940	1,404,000
1955	1397	6,710	Apr. 18, 1955	402	1,823	1,320,000	1,502	1,088,000
1956	1447	19,800	May 31, 1956	515	3,790	2,751,000	4,147	3,011,000
1957	1517	19,200	May 21, 1957	370	3,155	2,284,000	2,903	2,102,000
1958	1567	7,770	Apr. 8, 1958	389	1,724	1,248,000	1,660	1,202,000
1959	1637	4,720	Oct. 16, 1958	110	875	633,700	938	679,100
1960	1717	5,000	Apr. 17, 1960	217	960	697,000	-	-

910. Blue Lakes Spring near Twin Falls, Idaho

Location.--Lat 42°37', long 114°28', in N½SE¼ sec.28, T.9 S., R.17 E., on left bank at outlet of upper Blue Lake, 1.4 miles northwest of Perrine Memorial Bridge and 3½ miles north of Twin Falls.

Records available.--April 1950 to September 1960.

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

Average discharge.--10 years (1950-60), 228 cfs (165,100 acre-ft per year).

Extremes.--1950-60: Maximum daily discharge, 256 cfs Nov. 10, 11, 1951, Oct. 24 to Nov. 1 1952, Sept. 29, 30, 1953, Oct. 23, 24, 1957; minimum daily, 199 cfs June 22, Aug. 11-13 1960.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	245	242	243	235	226	229	230	227	224	223	236	242	23
1952	245	249	240	237	232	224	218	215	216	224	233	239	23
1953	252	251	239	232	235	235	231	226	223	228	240	249	23
1954	250	248	241	232	227	227	225	226	229	231	233	238	23
1955	245	240	235	228	224	218	217	211	211	221	226	239	22
1956	248	239	227	218	219	219	217	212	216	226	231	236	22
1957	242	239	226	221	222	217	213	213	215	214	227	238	22
1958	247	244	235	233	229	224	214	209	211	220	223	234	22
1959	231	223	214	214	207	205	217	221	223	220	229	232	22
1960	228	243	229	218	235	233	221	210	203	204	204	222	22

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	15,030	14,380	14,940	14,430	12,550	14,070	13,710	13,950	13,330	13,740	14,510	14,410	169,00
1952	15,080	14,830	14,760	14,600	13,330	13,790	13,000	13,190	12,850	13,790	14,330	14,230	167,80
1953	15,500	14,960	14,710	14,300	13,070	14,440	13,730	13,880	13,270	14,030	14,730	14,830	171,40
1954	15,360	14,750	14,820	14,270	12,610	13,970	13,390	13,880	13,610	14,220	14,350	14,150	169,40
1955	15,060	14,300	14,460	14,000	12,460	13,380	12,940	13,000	12,560	13,600	13,890	14,230	163,90
1956	15,230	14,240	13,930	13,430	12,600	13,480	12,880	13,020	12,840	13,900	14,200	14,080	163,80
1957	14,880	14,230	13,910	13,610	12,320	13,340	12,660	13,080	12,650	13,190	13,930	14,150	162,00
1958	15,190	14,530	14,460	14,320	12,740	13,770	12,760	12,850	12,560	13,510	13,730	13,920	164,30
1959	14,190	13,300	13,160	13,190	11,490	12,620	12,890	13,610	13,280	13,520	14,070	13,810	159,10
1960	14,020	14,480	14,100	13,420	13,500	14,350	13,150	12,910	12,060	12,520	12,530	13,230	160,30

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	248	(a)	220	234	169,000	234	169,400
1952	1247	256	Nov.10-11,1951	212	231	167,800	232	168,300
1953	1287	256	(b)	220	237	171,400	236	171,200
1954	1347	252	(c)	224	234	169,400	232	168,300
1955	1397	248	(d)	208	226	163,900	226	163,500
1956	1447	248	Oct.3-31, 1955	208	226	163,800	225	163,400
1957	1517	248	(e)	212	224	162,000	225	163,100
1958	1567	256	Oct.23,24, 1957	208	227	164,300	222	160,800
1959	1637	240	(f)	202	220	159,100	222	161,100
1960	1717	248	Nov. 3-9, 1959	199	221	160,300	-	-

a Sept. 19, 20, 1951, Oct. 15-17, 27, 1950.
b Oct. 24 to Nov. 13, 1952, Sept. 29-30, 1953.
c Oct. 1-9, 14-18, 1953.
d Oct. 21-20, Nov. 2, 1954.
e Oct. 22, 23, 30, 31, 1956.
f Aug. 30 to Sept. 7, 1959.

920. Rock Creek near Rock Creek, Idaho

Location.--Lat 42°22', long 114°18', in sec.25, T.12 S., R.18 E., on right bank 0.1 mile downstream from road bridge, three-quarters of a mile downstream from West Fork Rock Creek, 5 miles south of Rock Creek settlement, and 12 miles south of Hansen.

Drainage area.--80 sq mi, approximately. Mean altitude, 6,330 ft.

Records available.--November 1909 to August 1913, November 1938 to July 1939, November 1943 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,340 ft (by barometer). Nov. 28, 1909, to Aug. 16, 1913, staff gage at site 2 miles downstream at different datum. Nov. 23, 1938, to July 21, 1939, staff gage at present site at datum 1.25 ft higher.

Average discharge.--18 years (1910-12, 1944-60), 33.6 cfs (24,330 acre-ft per year).

Extremes.--1909-13, 1938-39, 1943-60: Maximum discharge observed, 429 cfs May 21, 1912 (gage height, 10.4 ft, site and datum then in use); minimum observed, 3.6 cfs Aug. 7-12, 1910 (gage height, 0.3 ft, site and datum then in use).

Remarks.--Small ranch diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	9.87	12.4	21.6	17.4	51.4	28.2	129	194	54.5	18.7	11.0	8.67	46.3
1952	11.0	11.6	11.9	11.9	15.1	17.3	111	202	64.4	20.2	11.2	8.85	41.4
1953	9.29	11.2	12.7	17.7	17.3	25.9	73.5	125	105	22.4	11.1	8.65	36.6
1954	9.42	11.3	11.5	11.8	12.5	18.5	42.3	38.6	17.0	8.61	6.31	6.50	16.2
1955	8.22	9.56	8.36	9.00	9.69	11.9	25.5	97.9	46.1	15.6	6.43	6.53	21.3
1956	7.68	8.94	13.6	24.8	15.8	28.5	83.2	97.2	37.6	12.1	7.39	7.53	28.7
1957	10.2	11.9	15.4	11.0	17.8	35.6	57.1	213	58.5	18.0	9.24	8.37	39.1
1958	10.2	11.1	11.6	12.3	28.6	23.9	64.3	171	40.3	14.3	8.47	7.44	33.7
1959	8.62	10.6	10.6	11.6	11.5	13.9	38.4	46.5	24.6	8.42	5.17	7.35	16.4
1960	10.2	9.83	10.0	9.81	10.9	30.1	74.8	67.0	22.0	8.24	6.04	6.10	22.1

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	607	738	1,330	1,070	2,850	1,730	7,660	11,950	3,240	1,150	676	516	33,520
1952	673	688	731	734	871	1,070	6,590	12,400	3,830	1,240	689	527	30,040
1953	571	667	782	1,090	960	1,590	4,380	7,700	6,220	1,370	682	515	26,530
1954	579	670	708	723	692	1,140	2,520	2,370	1,010	529	388	387	11,720
1955	505	569	514	553	538	732	1,520	6,020	2,740	961	396	389	15,440
1956	472	532	836	1,530	910	1,750	4,950	5,980	2,240	744	454	448	20,850
1957	629	709	950	678	989	2,190	3,400	13,120	3,480	1,100	568	498	28,310
1958	625	660	715	756	1,590	1,470	3,820	10,540	2,400	878	521	443	24,420
1959	530	632	653	712	636	853	2,280	2,860	1,460	518	318	437	11,890
1960	628	585	616	603	626	1,850	4,450	4,120	1,310	506	371	363	16,030

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	38.0	27,480
1951	1217	265	May 11, 1951	7.6	46.3	33,520	45.5	32,930
1952	1247	300	May 4, 1952	6.0	41.4	30,040	41.3	29,970
1953	1287	205	Apr. 28, 1953	8.0	36.6	26,530	36.6	26,460
1954	1347	80	Apr. 28, 1954	5.6	16.2	11,720	15.7	11,350
1955	1397	165	May 9, 1955	4.7	21.3	15,440	21.7	15,690
1956	1447	152	Apr. 24, 1956	6.0	28.7	20,850	29.3	21,290
1957	1517	315	May 20, 1957	7.0	39.1	28,310	38.7	28,020
1958	1567	294	May 12, 1958	6.8	33.7	24,420	33.5	24,230
1959	1637	70	May 1, 1959	4.5	16.4	11,890	16.5	11,900
1960	1717	119	Apr. 10, 1960	4.9	22.1	16,030	-	-

935. Cedar Draw near Filer, Idaho

Location.--Lat 42°37'25", long 114°39'05", in SW¼SW¼ sec.24, T.9 S., R.15 E., on left bank just upstream from county road bridge, 2¾ miles upstream from mouth and 4½ miles northwest of Filer.

Records available.--July 1955 to July 1958.

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

Extremes.--1955-58: Maximum discharge, 433 cfs May 18, 1957 (gage height, 3.57 ft), from rating curve extended above 210 cfs by logarithmic plotting; minimum, 14 cfs Apr. 5, 1958; minimum gage height, 0.37 ft Apr. 3, 1957.

Remarks.--Flow is principally waste and return flow from irrigation and stock water delivered to adjacent lands by Twin Falls Canal Co., and is affected by operation of laterals and canals upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	-	-	46.8	65.5	-
1956	58.0	43.0	36.0	30.8	27.5	26.6	83.0	81.9	103	49.5	55.0	75.1	55.7
1957	79.3	44.9	41.8	35.8	38.4	33.6	51.2	140	109	47.1	58.2	107	65.7
1958	95.5	58.7	36.3	41.9	30.9	24.5	76.1	47.3	134	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	-	-	2,880	3,900	-
1956	3,560	2,560	2,210	1,890	1,580	1,640	4,940	5,040	6,110	3,040	3,380	4,470	40,420
1957	4,880	2,670	2,570	2,200	2,130	2,070	3,050	8,630	6,500	2,900	3,580	6,380	47,560
1958	5,870	3,490	2,230	2,570	1,720	1,500	4,530	2,910	7,990	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1955	1397	-	-	-	-	-	-	-
1956	1447	216	June 17,18, 1956	21	55.7	40,420	58.1	42,210
1957	1517	433	May 18, 1957	20	65.7	47,560	67.7	49,030
1958	1567	260	June 13, 1958	-	-	-	-	-

NIAGARA SPRINGS BASIN

937. Niagara Springs near Buhl, Idaho

Location.--Lat 42°39'48", long 114°40'25", in NE¼NE¼ sec.10, T.9 S., R.15 E., in spring outlet channel 300 ft upstream from mouth, 700 ft downstream from source, and 6 miles northeast of Buhl.

Records available.--October 1958 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 3,005 ft (from topographic map).

Extremes.--1958-60: Maximum daily discharge, 355 cfs (estimated) Oct. 1-10, 1958; minimum daily, 240 cfs May 8-13, 1960.

Remarks.--Several diversions between head of springs and gage; adjusted figures include diversions.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	351	331	322	308	297	289	268	258	270	280	294	313	29
1960	326	308	294	291	279	266	253	245	263	276	274	294	28

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	21,570	19,720	19,780	18,930	16,480	17,770	15,950	15,840	16,040	17,220	18,090	18,610	216,00
1960	20,060	18,330	18,080	17,910	16,030	16,330	15,060	15,090	15,680	16,990	16,820	17,520	203,90

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year			
		Observed					Adjusted		Observed		Adjusted	
		Maximum day		Minimum day	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet	Mean	Runoff in acre-feet	Mean	Runoff in acre-fee
		Discharge	Date									
1959	1637	355	Oct.1-10, 1958	252	298	216,000	327	236,940	292	211,400	323	233,90
1960	1717	332	Oct.1,6-12, 1959	240	281	203,900	316	229,500	-	-	-	-

940. Snake River near Buhl, Idaho

Location.--Lat 42°40', long 114°43', in NW¼ sec.9, T.9 S., R.15 E., on left bank 2 miles downstream from Niagara Springs, 3¾ miles upstream from outlet of Clear Lakes, and 6 miles northeast of Buhl.

Records available.--December 1946 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,952.9 ft above mean sea level (stadia levels). Prior to Jan. 17, 1947, staff gage at same site and datum.

Average discharge.--13 years (1947-60), 4,629 cfs (3,351,000 acre-ft per year).

Extremes.--1946-60: Maximum discharge, 23,100 cfs June 13, 1947 (gage height, 10.34 ft); minimum, 1,720 cfs May 10, 1960 (gage height, 0.13 ft).

Remarks.--Flow regulated by Twin Falls and Shoshone Falls powerplants and several reservoirs above station. No diversion except by small ranch ditches between this station and station at Milner, where at times practically entire flow is diverted during irrigation seasons.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,135	5,341	6,056	8,886	11,820	11,250	6,630	11,090	5,240	2,670	3,093	3,235	6,679
1952	6,522	6,313	6,179	7,312	11,010	11,650	12,570	9,477	7,546	3,491	2,771	2,946	7,294
1953	3,917	2,658	3,173	4,177	5,795	6,940	4,218	2,520	7,627	2,499	2,673	2,847	4,070
1954	2,891	2,907	3,889	4,034	4,011	4,396	4,871	3,881	3,079	2,676	2,715	2,803	3,510
1955	4,212	4,485	3,954	4,047	2,910	4,174	6,488	2,908	2,823	2,464	2,398	2,626	3,607
1956	3,043	2,692	2,870	4,804	5,879	7,668	9,363	8,676	13,250	2,506	2,703	3,003	5,519
1957	4,537	4,040	4,205	4,873	4,301	6,198	7,697	11,700	3,529	2,367	2,677	2,982	4,935
1958	3,517	2,895	3,618	4,438	4,730	5,188	5,387	3,089	2,694	2,489	2,659	2,910	3,627
1959	3,442	2,947	2,816	2,850	2,963	2,982	2,399	2,369	2,257	2,266	2,455	2,941	2,723
1960	3,985	2,969	2,657	2,656	2,435	2,203	3,175	1,970	2,154	2,375	2,544	2,721	2,654

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	315,700	317,800	372,400	546,400	656,500	691,400	394,500	682,100	311,800	164,200	190,200	192,500	4,836,000
1952	401,000	375,600	379,900	449,600	633,400	716,000	747,800	582,700	449,000	214,700	170,400	175,300	5,295,000
1953	240,800	158,200	195,100	256,800	321,800	426,700	251,000	154,900	453,800	153,700	164,400	169,400	2,947,000
1954	177,800	173,000	239,100	248,100	222,800	270,300	289,900	238,600	183,200	164,600	166,900	166,800	2,541,000
1955	259,000	265,700	243,100	248,800	161,600	256,600	386,100	178,800	156,100	151,500	147,400	156,200	2,611,000
1956	187,100	160,200	176,500	295,400	338,200	471,500	557,100	533,500	788,200	154,100	166,200	178,700	4,007,000
1957	279,000	240,400	258,500	299,600	238,900	381,100	458,000	719,600	210,000	145,500	164,600	177,500	3,573,000
1958	216,300	172,300	222,500	272,900	262,700	319,000	320,600	190,000	160,300	153,000	163,500	163,500	2,626,000
1959	211,700	175,300	173,200	175,200	164,600	183,400	142,700	145,700	134,300	139,400	151,000	175,000	1,972,000
1960	245,000	176,600	163,400	163,300	140,100	135,500	188,900	121,100	128,200	146,000	156,400	161,900	1,926,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	6,181	4,475,000
1951	1217	16,200	May 16, 1951	2,410	6,679	4,836,000	6,887	4,986,000
1952	1247	16,200	May 10, 1952	2,580	7,294	5,295,000	6,520	4,733,000
1953	1287	18,100	June 10, 1953	2,050	4,070	2,947,000	4,064	2,942,000
1954	1347	11,400	May 29, 1954	2,260	3,510	2,541,000	3,756	2,719,000
1955	1397	8,270	Apr. 17, 1955	2,340	3,607	2,611,000	3,270	2,367,000
1956	1447	20,900	May 30, 1956	2,380	5,519	4,007,000	5,869	4,261,000
1957	1517	21,000	May 22, 1957	2,150	4,935	3,573,000	4,704	3,406,000
1958	1567	9,650	Apr. 8, 1958	2,110	3,627	2,626,000	3,557	2,575,000
1959	1637	6,450	Oct. 16, 1958	1,880	2,723	1,972,000	2,757	1,996,000
1960	1717	6,540	Apr. 18, 1960	1,770	2,654	1,926,000	-	-

950. Deep Creek near Buhl, Idaho

Location.--Lat 42°37'05", long 114°50'40", in SE¼NW¼ sec.29, T.9 S., R.14 E., on right b
0.2 mile downstream from Twin Falls Canal Co. diversion dam, a quarter of a mile
upstream from U. S. Highway 30, 4½ miles northwest of Buhl, and 8 miles upstream from
mouth.

Records available.--July 1955 to July 1958.

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

Extremes.--1955-58: Maximum discharge, 389 cfs Dec. 11, 1956; maximum gage height, 2.90
Nov. 27, 1955; minimum daily discharge, 1 cfs several days in April, May, and July 19

Remarks.--Flow is waste from irrigation and stock water delivered to adjacent lands by
Twin Falls Canal Co. and is completely controlled by gates 0.2 mile upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	-	-	21.7	84.1	-
1956	108	213	247	260	255	126	60.5	57.8	85.1	30.4	38.7	122	1
1957	158	236	234	217	263	175	114	89.5	60.9	143	29.7	118	1
1958	153	220	231	255	205	187	108	15.2	85.9	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The yea
1955	-	-	-	-	-	-	-	-	-	-	1,330	5,000	-
1956	6,620	12,680	15,200	15,980	14,660	7,750	3,600	3,550	5,060	1,870	2,380	7,230	96,5
1957	9,740	14,020	14,390	13,320	14,630	10,750	6,760	5,500	3,620	877	1,820	7,030	102,5
1958	9,430	13,070	14,190	15,650	11,360	11,480	6,430	934	5,110	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1955	1397	-	-	-	-	-	-	-
1956	1447	363	Nov. 27, 1956	1.3	133	96,580	138	100,20
1957	1517	389	Dec. 11, 1957	2	142	102,500	140	101,00
1958	1567	363	Jan. 3, 1958	-	-	-	-	-

955. Box Canyon Springs near Wendell, Idaho

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

Records available.--April 1950 to September 1960.

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

Average discharge.--10 years (1950-60), 416 cfs (301,200 acre-ft per year).

Extremes.--1950-60: Maximum daily discharge, 480 cfs Sept. 29, 1950; minimum daily, 372 cfs Apr. 12, 1951, Mar. 23-27, 1956, and many days in April, May 1960.

Remarks.--No regulation or surface diversion above station. Discharge slightly affected by variable surface waste from irrigation, which flows over rimrocks into springs above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	450	438	428	410	402	388	378	388	409	415	432	446	415
1952	452	452	433	425	416	412	397	404	429	433	446	459	430
1953	454	442	424	408	405	403	396	407	429	421	432	449	423
1954	447	436	429	432	408	400	393	399	415	428	443	464	425
1955	451	428	415	406	398	393	390	389	407	425	436	447	415
1956	449	435	412	401	393	380	377	397	428	440	439	449	417
1957	454	430	417	408	398	394	383	393	411	418	430	441	415
1958	451	432	416	407	403	394	384	394	412	420	426	447	416
1959	448	423	400	395	408	404	399	393	396	409	420	432	410
1960	424	408	416	405	393	382	373	376	386	390	409	425	399

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	27,680	26,060	26,330	25,210	22,330	23,880	22,510	23,860	24,330	25,490	26,550	26,520	300,800
1952	27,780	26,910	26,600	26,120	23,950	25,350	23,640	24,830	25,550	26,590	27,410	27,340	312,100
1953	27,930	26,320	26,040	25,100	22,480	24,780	23,560	25,040	25,520	25,860	26,570	26,690	305,900
1954	27,460	25,910	26,380	26,560	22,680	24,610	23,390	24,540	24,700	26,320	27,260	27,610	307,400
1955	27,710	25,490	25,510	24,930	22,110	24,140	23,220	23,910	24,190	26,130	26,780	26,600	300,700
1956	27,600	25,900	25,350	24,680	22,620	23,380	22,450	24,430	25,450	27,080	27,010	26,730	302,700
1957	27,920	25,590	25,640	25,070	22,100	24,240	22,820	24,190	24,470	25,710	26,430	26,250	300,400
1958	27,730	25,720	25,560	25,040	22,410	24,220	22,830	24,250	24,530	25,850	26,200	26,600	300,900
1959	27,540	25,150	24,610	24,290	22,640	24,840	23,760	24,140	23,550	25,130	25,820	25,690	297,200
1960	26,060	24,290	25,590	24,880	22,590	23,470	22,210	23,150	22,960	23,980	25,160	25,280	289,600

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	472	Oct. 1, 1950	372	415	300,800	417	302,000
1952	1247	466	Oct. 12, 1951	393	430	312,100	429	311,100
1953	1287	458	Oct. 1-5, 1952	393	423	305,900	422	305,400
1954	1347	472	Sept.29-30,1954	390	425	307,400	423	306,400
1955	1397	466	Oct. 1-4, 1954	384	415	300,700	416	300,900
1956	1447	458	Sept.26-30,1956	372	417	302,700	417	303,000
1957	1517	458	(a)	374	415	300,400	415	300,300
1958	1567	458	Oct.12-14,1957	380	416	300,900	413	299,200
1959	1637	456	Oct.5,8,11,1958	384	410	297,200	409	295,800
1960	1717	437	Oct. 11, 1959	372	399	289,600	-	-

a Oct. 1-5, 7-15, 1956.

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

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

Drainage area.--461 sq mi, approximately. Mean altitude, 6,760 ft.

Records available.--May 1914 to July 1915, October 1948 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,570 ft (by barometer). May 17, 1914, to July 25, 1915, at site three-quarters of a mile downstream at different datum.

Average discharge.--12 years (1948-60), 89.1 cfs (64,510 acre-ft per year).

Extremes.--1914-15, 1948-60: Maximum discharge, 1,170 cfs May 4, 1952 (gage height, 4.82 ft); minimum, 6.8 cfs Dec. 26, 1954 (gage height, 0.93 ft).

Remarks.--Many diversions above and below station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	27.4	33.2	40.4	34.7	81.1	88.4	339	425	156	36.7	24.8	22.1	109
1952	27.8	32.3	31.7	32.5	34.8	47.9	408	705	343	80.1	29.9	22.2	150
1953	25.6	28.6	30.0	34.7	36.3	56.2	108	161	279	60.5	22.0	19.5	71.7
1954	23.5	27.7	29.2	27.5	33.8	49.0	91.5	118	52.7	20.8	17.3	16.7	42.4
1955	20.4	23.9	21.8	21.5	23.6	29.3	45.3	142	166	40.8	19.6	18.3	47.8
1956	22.7	26.5	38.1	47.1	35.1	111	275	437	202	33.6	20.4	18.8	106
1957	24.9	27.0	31.4	23.6	54.2	62.3	158	470	285	52.7	21.5	20.1	103
1958	25.2	28.9	30.0	28.7	46.4	50.9	149	483	182	42.1	24.5	21.1	93.0
1959	23.6	31.3	33.4	33.3	33.1	49.7	91.4	118	102	28.0	18.0	20.5	48.5
1960	29.3	30.0	27.1	25.5	30.0	94.5	237	262	156	27.5	18.5	19.8	79.6

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,690	1,980	2,490	2,140	4,510	5,440	20,180	26,100	9,260	2,260	1,530	1,320	78,900
1952	1,710	1,920	1,950	2,000	2,000	2,950	24,300	43,330	20,390	4,930	1,840	1,320	108,800
1953	1,570	1,700	1,840	2,130	2,020	3,460	6,420	9,890	16,620	3,720	1,350	1,160	51,880
1954	1,450	1,650	1,790	1,690	1,860	3,010	5,440	7,280	3,140	1,270	1,060	996	30,660
1955	1,250	1,420	1,340	1,320	1,310	1,800	2,700	8,750	9,880	2,510	1,210	1,090	34,580
1956	1,400	1,580	2,340	2,890	2,020	6,830	16,380	26,850	12,040	2,070	1,250	1,120	76,770
1957	1,530	1,610	1,930	1,450	3,010	3,830	9,390	28,910	16,970	3,240	1,320	1,190	74,380
1958	1,550	1,720	1,850	1,770	2,580	3,130	8,870	29,690	10,800	2,590	1,510	1,250	67,310
1959	1,450	1,860	2,050	2,050	1,840	3,050	5,440	7,280	6,050	1,720	1,110	1,220	35,120
1960	1,800	1,790	1,660	1,570	1,720	5,810	14,090	16,090	9,270	1,690	1,140	1,180	57,810

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	114	82,460
1951	1217	571	May 12, 1951	20	109	78,900	108	78,320
1952	1247	1,170	May 4, 1952	18	150	108,600	149	108,200
1953	1287	437	June 15, 1953	18	71.7	51,880	71.4	51,660
1954	1347	191	May 12, 1954	15	42.4	30,660	41.1	29,780
1955	1397	323	June 16, 1955	16	47.8	34,580	49.6	35,890
1956	1447	872	May 25, 1956	17	106	76,770	105	76,520
1957	1517	625	May 19, 1957	16	103	74,380	103	74,430
1958	1567	670	May 23-24,1958	19	93.0	67,310	93.3	67,550
1959	1637	224	June 7, 1959	15	48.5	35,120	48.4	35,010
1960	1717	556	May 13, 1960	16	79.6	57,810	-	-

1050. Salmon Falls Creek near San Jacinto, Nev.

Location.--Lat 41°57', long 114°42', in sec.23, T.47 N., R.64 E., on right bank in canyon, 600 ft downstream from bridge on U. S. Highway 93, 750 ft downstream from Shoshone Creek, and 5 miles north of San Jacinto.

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

Records available.--September 1909 to June 1910 (gage heights only), June 1910 to September 1916, October 1918 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

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

Average discharge.--48 years (1910-16, 1918-60), 133 cfs (96,290 acre-ft per year).

Extremes.--1909-16, 1918-60: Maximum discharge, between 2,060 and 2,420 cfs Feb. 24, 1943 (gage height exceeded range of recorder, 10.20 ft, but was not more than 1.2 ft higher), from rating curve extended above 1,400 cfs; minimum 2.8 cfs Nov. 13, 1947 (gage height, 2.05 ft), during channel improvement work upstream.
Note.--The momentary maximum discharge for 1911 water year has been determined to be 1,060 cfs Jan. 31, 1911.

Remarks.--Many diversions above station for irrigation. Salmon Dam of Salmon River Canal Co., 15 miles below station, forms a reservoir having a capacity of 182,650 acre-ft (see following page).

Correction.--In WSP 1317, the average discharge for the period 1910-16, 1918-50, and the figures of acre-feet for April 1921 and January 1946 are listed in error; they should be 133 cfs, 38,100, and 4,280 acre-ft, respectively.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	432	59.7	80.0	71.1	257	199	611	691	206	47.0	33.5	22.7	193
1952	44.4	57.1	63.5	61.2	75.5	97.1	642	889	466	109	38.6	30.1	214
1953	41.3	44.4	56.7	66.3	67.4	118	218	244	354	73.7	21.4	25.2	111
1954	35.1	43.8	51.5	52.0	64.4	97.3	141	129	60.5	27.2	10.2	21.4	61.1
1955	35.2	44.7	39.8	38.0	44.4	55.5	94.7	263	189	52.8	20.6	23.7	75.2
1956	37.6	45.0	71.5	111	77.6	212	434	518	240	39.3	14.6	25.3	152
1957	43.4	50.1	66.3	45.5	172	144	297	774	396	62.7	17.2	30.8	175
1958	455	51.0	52.0	55.5	121	128	337	649	225	48.0	21.5	28.9	147
1959	40.0	51.3	56.9	64.3	67.5	103	162	152	101	30.9	13.5	31.4	72.7
1960	49.3	54.5	50.2	52.2	60.9	150	362	310	165	29.5	14.8	27.1	110

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,660	3,550	4,920	4,370	14,270	12,250	36,330	42,470	12,260	2,890	2,060	1,350	139,400
1952	2,730	3,400	3,900	3,760	4,340	5,970	38,220	54,670	27,720	6,680	2,370	1,790	155,600
1953	2,540	2,640	3,490	4,080	3,740	7,260	12,960	14,980	21,040	4,530	1,320	1,500	80,080
1954	2,160	2,600	3,160	3,200	3,570	5,980	8,410	7,940	3,600	1,670	627	1,270	44,190
1955	2,160	2,660	2,450	2,340	2,470	3,410	5,640	16,160	11,220	3,250	1,270	1,410	54,440
1956	2,310	2,680	4,400	6,850	4,460	13,010	25,800	31,820	14,270	2,420	898	1,500	110,400
1957	2,670	2,980	4,080	2,790	9,520	8,850	17,690	47,600	23,570	3,850	1,060	1,830	126,500
1958	2,790	3,040	3,200	3,410	6,730	7,900	20,030	39,900	13,400	2,950	1,320	1,720	106,400
1959	2,460	3,050	3,500	3,950	3,750	6,320	9,650	9,340	6,000	1,900	828	1,870	52,620
1960	3,030	3,240	3,080	3,210	3,500	9,220	21,560	19,060	9,820	1,810	907	1,610	80,050

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	160	115,900
1951	1217	1,220	Feb. 8, 1951	19	193	139,400	191	138,300
1952	1247	1,430	Apr. 30, 1952	20	214	155,600	212	154,200
1953	1287	480	June 15, 1953	11	111	80,080	110	79,330
1954	1347	200	Apr. 29, 1954	8.7	61.1	44,190	60.2	43,540
1955	1397	370	May 10, 1955	11	75.2	54,440	78.1	56,560
1956	1447	859	May 26, 1956	5.5	152	110,400	153	110,800
1957	1517	1,230	May 20, 1957	8.3	175	126,500	174	125,800
1958	1567	872	May 13, 1958	12	147	106,400	147	106,400
1959	1637	305	Apr. 6, 7, 1959	8.2	72.7	52,620	73.2	52,960
1960	1717	629	Apr. 11, 1960	8.2	110	80,050	-	-

1060. Salmon River Canal Co. canal near Rogersor, Idaho

Location.--Lat 42°15', long 114°45', in sec.7, T.14 S., R.15 E., on left bank half a mile downstream from Salmon River Canal Co. reservoir and 7 miles west of Rogerson.

Records available.--April 1937 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,940 ft (by barometer). Oct. 1, 1953, to Sept. 30, 1954, staff gage at same site and datum.

Average discharge.--23 years (1937-60), 103 cfs (74,570 acre-ft per year).

Extremes.--1937-60: Maximum daily discharge, 660 cfs July 21-24, 1944; no flow for long periods in each year.

Remarks.--Canal diverts from Salmon River Canal Co. reservoir for irrigation of land in Salmon River Canal Co. project.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	613	0	0	0	0	0	15,950	25,510	33,340	21,600	2,500	99,510
1952	0	553	0	0	0	0	0	19,490	23,460	32,010	23,900	3,160	102,600
1953	821	0	0	0	0	0	0	10,440	13,460	30,710	20,980	2,220	78,630
1954	651	0	0	0	0	0	0	12,410	5,980	9,670	6,540	0	35,250
1955	1,010	0	0	0	0	0	0	2,910	14,020	12,590	7,380	0	37,910
1956	623	0	0	0	0	0	0	20,490	25,010	24,510	16,320	317	87,270
1957	623	0	0	0	0	0	0	4,990	25,390	30,040	24,960	3,450	89,450
1958	615	0	0	0	0	0	0	23,390	19,400	26,590	18,140	0	88,140
1959	823	0	0	0	0	0	0	3,480	14,530	15,960	6,370	0	41,160
1960	0	627	0	0	0	0	0	13,880	18,000	19,930	9,080	2.8	61,520

1065. Salmon River Canal Co. reservoir near Rogerson, Idaho

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

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

Records available.--January 1922 to September 1960.

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

Extremes.--1922-60: Maximum contents observed, 123,700 acre-ft May 30, 31, 1922 (gage height, 61.1 ft); minimum observed, 125 acre-ft Sept. 21 to Oct. 5, 1934 (gage height, 0.1 ft).

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

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

Monthly contents, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	10,620	12,500	16,050	19,100	31,700	41,500	71,460	90,500	74,450	39,100	18,300	15,1[illegible]
1952	16,200	17,550	19,740	22,860	25,580	30,680	63,040	98,950	95,330	65,390	40,950	36,8[illegible]
1953	36,140	36,700	37,440	38,730	39,840	45,200	56,400	58,300	62,820	35,770	13,660	10,7[illegible]
1954	10,620	11,640	13,800	16,350	19,260	24,390	31,700	25,580	21,500	11,490	3,720	3,7[illegible]
1955	3,580	4,930	6,280	8,160	10,300	13,130	17,600	29,300	24,000	13,100	4,800	4,4[illegible]
1956	4,710	6,550	10,260	16,580	20,000	31,190	53,600	61,400	48,500	24,000	7,280	6,6[illegible]
1957	7,650	9,820	13,300	15,100	23,200	31,500	45,900	81,800	75,800	47,900	21,600	17,5[illegible]
1958	18,200	20,100	22,300	24,500	30,100	36,300	55,100	67,500	59,300	33,400	14,600	14,6[illegible]
1959	14,600	16,600	19,000	21,900	24,600	29,300	36,800	40,800	30,800	14,200	6,350	7,1[illegible]
1960	8,950	10,300	12,000	14,000	17,000	25,200	44,500	47,200	36,900	16,400	6,480	6,4[illegible]

1070. Cedar Creek near Roseworth, Idaho

Location.--Lat 42°15', long 114°52', in SW¼ sec.31, T.13 S., R.14 E., on right bank 21 ft upstream from stock bridge, 1.7 miles downstream from Cedar Creek Dam, and 8¾ miles south of Roseworth.

Drainage area.--130 sq mi, approximately.

Records available.--May 1909 to December 1914, February to June 1916, May 1957 to September 1960.

Gage.--Water-stage recorder and artificial control. Altitude of gage is 5,050 ft (by barometer). Prior to May 1957, staff gage at site 1.8 miles upstream at different datum.

Average discharge.--5 years (1909-14), 27.7 cfs (20,050 acre-ft per year).

Extremes.--1909-16, 1957-60: Maximum daily discharge, 200 cfs (estimated) Mar. 1, 1910 (gage submerged); no flow for long periods in 1957-60 during nonirrigation seasons.

Remarks.--Flow completely regulated by Cedar Creek Reservoir since 1920. Several diversions for irrigation above station. Since 1920, water has been diverted from Deadwood Creek (tributary of East Fork Bruneau River) and Devil Creek to House Creek, which enters Cedar Creek Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	-	-	-	-	-	-	-	30.8	69.9	77.4	63.4	24.1	-
1958	4.80	2.70	2.63	.56	3.91	1.15	2.29	57.1	58.9	75.2	52.9	29.0	24.4
1959	3.03	2.69	.16	1.5	0	1.40	7.58	60.6	56.0	64.4	55.5	17.8	22.8
1960	2.92	2.69	0	0.98	0	2.96	2.72	53.3	60.5	65.9	39.7	19.5	21.0

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	-	-	-	-	-	-	-	1,890	4,160	4,760	3,900	1,430	-
1958	295	161	161	35	217	71	136	3,510	3,510	4,620	3,250	1,730	17,700
1959	186	160	10	91	0	86	451	3,720	3,330	3,960	3,420	1,060	16,470
1960	180	160	0	60	0	182	162	3,270	3,600	4,050	2,440	1,160	15,260

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1957	1517	88	(a)	-	-	-	-	-
1958	1567	82	July 16, 1958	0	24.4	17,700	24.1	17,440
1959	1637	93	July 31, 1959	0	22.8	16,470	22.7	16,460
1960	1717	85	July 16, 1960	0	21.0	15,260	-	-

a July 27, 28, 29, 30, 31, Aug. 1, 2, 1957.

1080. Salmon Falls Creek near Buhl, Idaho

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

Drainage area.--2,100 sq mi, approximately.

Records available.--July 1955 to August 1958.

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

Extremes.--1955-58: Maximum discharge, 298 cfs Feb. 15, 1957 (gage height, 2.89 ft), from rating curve extended above 150 cfs on basis of conveyance study and logarithmic plotting; minimum, 56 cfs Mar. 7, 1956 (gage height, 1.48 ft).

Remarks.--Only leakage passes Salmon River Canal Co. dam, where flow is diverted for irrigation. Flow at station is derived from seepage past dam, underground flow from adjacent irrigated land, and surface waste over rim of canyon. Diversion by pumping below Salmon River Canal Co. dam and above station for irrigation of 2,400 acres in project of Magic Water Company, Inc.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	-	-	110	127	-
1956	118	106	104	97.5	86.8	101	113	136	122	83.0	95.5	103	106
1957	117	103	96.1	90.8	104	89.9	115	150	114	77.7	94.6	118	106
1958	120	116	111	101	112	100	119	108	110	81.8	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	-	-	6,740	7,550	-
1956	7,270	6,280	6,360	6,000	4,990	6,210	6,750	8,370	7,290	5,100	5,870	6,110	76,600
1957	7,180	6,130	5,910	5,580	5,790	5,530	6,860	9,220	6,760	4,780	5,820	7,020	76,580
1958	7,350	6,920	6,800	6,200	6,230	6,160	7,090	6,620	6,570	5,030	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1955	1397	-	-	-	-	-	-	-
1956	1447	193	May 14, 1956	73	106	76,600	105	75,910
1957	1517	298	Feb. 15, 1957	71	106	76,580	108	78,430
1958	1567	174	June 13, 1958	-	-	-	-	-

1085. Camas Creek at Eighteenmile shearing

Location.--Lat 44°18', long 111°52', in sec.7, T.11 N
on county road at Eighteenmile shearing corral, ju
7 miles south of Kilgore and 18½ miles northeast o

Drainage area.--210 sq mi, approximately.

Records available.--May 1937 to October 1953 (no wint

Gage.--Water-stage recorder. Altitude of gage is 5,
Sept. 23, 1938, at datum 1.21 ft higher.

Average discharge.--7 years (1946-53), 72.8 cfs (52,

Extremes.--1937-53: Maximum discharge, 2,030 cfs Ma
from floodmark), from rating curve extended above
in February 1949.

Remarks.--Diversions above and below station for irr

Monthly and yearly mean discharge, in

1120. Camas Creek at Camas, Idaho

Location.--Lat 44°00', long 112°13', in E½SE¼ sec.21, T.8 N., R.36 E., on left bank 150 ft upstream from Oregon Short Line Railroad bridge at Camas and half a mile upstream from Beaver Creek.

Drainage area.--404 sq mi, approximately. Mean altitude, 6,450 ft.

Records available.--April 1925 to September 1960.

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

Average discharge.--34 years (1926-60), 28.0 cfs (20,270 acre-ft per year).

Extremes.--1925-60: Maximum discharge, 1,220 cfs May 2 or 3, 1952 (gage height, 6.53 ft), from rating curve extended above 510 cfs by logarithmic plotting; no flow during periods in many years.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	8.19	13.0	12.5	7.9	7.0	6.7	254	83.5	40.0	9.45	8.43	4.81	37.8
1952	10.8	11.6	10.8	5.0	3.0	2.0	96.0	536	125	25.1	17.1	8.32	71.4
1953	9.64	11.4	7.5	9.6	10.8	15.9	89.6	133	177	17.7	11.3	7.28	41.7
1954	8.48	10.2	10.5	11.9	12.0	15.4	85.6	72.8	55.9	9.72	8.49	5.00	25.5
1955	1.48	5.33	5.23	3.2	.3	.3	18.1	166	95.2	14.9	7.57	4.10	26.9
1956	7.17	6.59	35.8	18.2	11.6	51.1	173	99.6	24.5	6.51	2.02	0	36.4
1957	.27	.34	.20	.30	2.43	6.77	45.5	395	102	12.5	.12	1.67	47.7
1958	3.16	5.42	6.71	2.74	4.45	6.06	61.2	299	77.8	14.8	4.46	5.71	41.3
1959	8.34	10.5	5.37	2.42	3.92	8.85	68.4	72.1	27.5	8.47	0	1.50	18.1
1960	1.82	2.94	2.21	0	0	2.06	122	36.6	5.05	0	0	0	14.2

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	504	772	770	484	389	413	15,100	5,140	2,380	581	518	286	27,340
1952	665	689	664	305	173	123	5,710	32,960	7,410	1,550	1,050	495	51,790
1953	593	680	464	593	601	980	5,330	8,190	10,530	1,090	697	433	30,180
1954	521	607	645	730	666	946	5,090	4,480	3,320	597	522	298	18,420
1955	91	317	321	196	16	20	1,080	10,180	5,670	914	465	244	19,510
1956	441	392	2,200	1,120	668	3,140	10,310	6,130	1,460	400	124	0	26,380
1957	16	20	12	18	135	417	2,710	24,290	6,050	769	7.3	100	34,540
1958	195	323	413	169	247	373	3,640	18,410	4,630	910	275	340	29,920
1959	513	623	330	149	218	544	4,070	4,440	1,640	521	0	89	13,140
1960	112	175	136	0	0	127	7,230	2,250	301	0	0	0	10,330

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	36.8	26,660
1951	1217	650	Apr. 9, 1951	2.3	37.8	27,340	37.7	27,310
1952	1247	1,220	May 2 or 3, 1952	-	71.4	51,790	71.0	51,510
1953	1287	461	June 4, 1953	3.3	41.7	30,180	41.7	30,220
1954	1347	317	Apr. 30, 1954	2.0	25.5	18,420	24.0	17,380
1955	1397	474	May 7, 1955	0	26.9	19,510	30.1	21,820
1956	1447	534	Apr. 19, 1956	0	36.4	26,380	32.2	23,400
1957	1517	778	May 21, 1957	0	47.7	34,540	48.9	35,430
1958	1567	693	May 13, 1958	0	41.3	29,920	42.1	30,460
1959	1637	230	May 3, 1959	0	18.1	13,140	16.7	12,090
1960	1717	530	Apr. 12, 1960	0	14.2	10,330	-	-

1130. Beaver Creek at Spencer, Idaho

Location.--Lat 44°21', long 112°11', in NE¼ sec.23, T.12 N., R.36 E., on right bank at highway bridge, 0.4 mile southeast of Spencer Post Office and 2½ miles upstream from Rattlesnake Creek.

Drainage area.--120 sq mi, approximately.

Records available.--October 1940 to November 1952 (no winter records since October 1941).

Gage.--Staff gage. Altitude of gage is 5,850 ft (by barometer).

Extremes.--1940-52: Maximum discharge observed, 549 cfs Apr. 27, 1952 (gage height, 7.5 ft); minimum observed, 0.5 cfs Jan. 26, 1942, Feb. 22, 1944.

Remarks.--Several ranch diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13.0	16.7	14.7	-	-	-	92.5	37.0	21.0	6.50	8.32	4.84	-
1952	10.4	9.50	-	-	-	-	156	243	72.8	23.3	13.1	11.7	-
1953	14.3	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	799	996	906	-	-	-	5,500	2,270	1,250	400	512	288	-
1952	637	565	-	-	-	-	9,250	14,950	4,330	1,430	807	698	-
1953	881	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	341	Apr. 7, 1951	-	-	-	-	-
1952	1247	549	Apr. 27, 1952	-	-	-	-	-
1953	1247	-	-	-	-	-	-	-

1135. Beaver Creek at Dubois, Idaho

Location.--Lat 44°11', long 112°14', in NW¼ sec.21, T.10 N., R.36 E., on left bank half a mile north of Dubois.

Drainage area.--220 sq mi, approximately. Mean altitude, 6,760 ft.

Records available.--April 1921 to September 1960 (no winter records 1925-28, 1930).

Gage.--Water-stage recorder. Datum of gage is 5,158.87 ft above mean sea level, datum of 1929. Prior to May 8, 1927, staff gage at site 175 ft downstream at datum 1.16 ft lower. May 8, 1927, to Sept. 15, 1957, at same site at datum 0.92 ft higher.

Average discharge.--33 years (1921-24, 1928-29, 1931-60), 16.8 cfs (12,160 acre-ft per year).

Extremes.--1921-60: Maximum discharge, 858 cfs Apr. 7, 1930 (gage height, 4.77 ft); no flow for long periods in each year.

Remarks.--Diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2.03	4.61	3.73	2.1	5.9	6.5	73.8	20.1	9.41	0.31	0.63	0	10.7
1952	.75	.58	1.5	0	.3	.5	133	230	77.4	19.4	8.20	3.37	39.6
1953	5.61	6.37	4.76	6.0	8.14	12.4	53.2	73.4	102	11.7	3.12	.12	23.8
1954	1.52	4.75	4.02	5.19	9.0	11.6	42.5	17.4	16.1	1.25	0	0	9.38
1955	0	0	0	0	0	0	10.4	52.2	21.0	1.31	0	0	7.13
1956	0	0	23.5	0	0	41.8	60.7	11.2	.48	0	0	0	11.5
1957	0	0	0	0	.56	.40	16.4	148	54.9	.11	0	0	18.5
1958	0	.27	0	.06	.76	.58	51.2	179	78.9	15.9	6.11	8.44	28.6
1959	8.75	9.24	3.88	1.35	3.45	10.8	52.0	35.1	16.9	4.11	0	.15	12.1
1960	0	1.22	0	0	0	9.4	51.5	6.24	0	0	0	0	5.64

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	125	274	229	127	325	403	4,390	1,240	560	19	39	0	7,730
1952	46	35	91	0	16	32	7,900	14,110	4,610	1,190	504	200	28,730
1953	345	379	293	371	452	760	3,160	4,510	6,060	717	192	6.9	17,250
1954	93	283	247	319	500	712	2,530	1,070	960	77	0	0	6,790
1955	0	0	0	0	0	0	619	3,210	1,250	80	0	0	5,160
1956	0	0	1,450	0	0	2,570	3,610	686	29	0	0	0	8,340
1957	0	0	0	0	31	25	974	9,090	3,270	6.9	0	0	13,400
1958	0	16	0	4.0	42	36	3,050	11,010	4,690	980	376	502	20,710
1959	538	550	238	83	192	664	3,090	2,160	1,010	253	0	8.9	8,790
1960	0	72.4	0	0	0	575	3,070	384	0	0	0	0	4,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	18.9	13,700
1951	1217	257	Apr. 7, 1951	0	10.7	7,730	10.0	7,280
1952	1247	635	Apr. 27, 1952	0	39.6	28,730	40.7	29,580
1953	1287	214	June 3, 1953	0	23.8	17,250	23.3	16,850
1954	1347	94	Apr. 18, 1954	0	9.38	6,790	8.52	6,170
1955	1397	136	May 6, 1955	0	7.13	5,160	9.13	6,610
1956	1447	789	(a)	0	11.5	8,340	9.50	6,900
1957	1517	420	May 20, 1957	0	18.5	13,400	18.5	13,410
1958	1567	377	May 12, 1958	0	28.6	20,710	30.4	22,020
1959	1637	130	Apr. 5, 6, 1959	0	12.1	8,790	10.4	7,530
1960	1717	283	Apr. 6, 1960	0	5.64	4,100	-	-

a Dec. 23 or 24, 1955.

1140. Beaver Creek at Camas, Idaho

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

Drainage area.--510 sq mi, approximately. Mean altitude, 6,190 ft.

Records available.--April 1921 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer). Prior to Dec. 22, 1949, staff gages at nearby sites at present datum.

Average discharge.--39 years (1921-60), 4.04 cfs (2,920 acre-ft per year).

Extremes.--1921-60: Maximum discharge, 186 cfs Apr. 28, 1952 (gage height, 3.48 ft); no flow for long periods in each year; no flow for entire water years 1929, 1931-37, 1940.

Remarks.--Flow affected by irrigation diversions above Dubois, 14 miles above station, and by heavy channel losses below Dubois.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	26.8	0	0	0	0	0	2.21
1952	0	0	0	0	0	0	55.2	123	25.1	.32	0	0	17.0
1953	0	0	0	0	0	0	14.1	25.9	50.8	0	0	0	7.53
1954	0	0	0	0	0	0	3.07	0	0	0	0	0	.25
1955	0	0	0	0	0	0	0	4.73	0	0	0	0	.40
1956	0	0	3.77	0	0	23.3	24.1	0	0	0	0	0	4.27
1957	0	0	0	0	0	0	0	63.7	12.8	0	0	0	6.46
1958	0	0	0	0	0	0	18.4	90.5	27.6	0	0	0	11.5
1959	0	0	0	0	0	0	15.7	2.43	0	0	0	0	1.49
1960	0	0	0	0	0	0	20.7	0	0	0	0	0	1.69

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	1,600	0	0	0	0	0	1,600
1952	0	0	0	0	0	0	3,280	7,580	1,490	20	0	0	12,370
1953	0	0	0	0	0	0	840	1,590	3,020	0	0	0	5,450
1954	0	0	0	0	0	0	182	0	0	0	0	0	182
1955	0	0	0	0	0	0	0	291	0	0	0	0	291
1956	0	0	232	0	0	1,430	1,440	0	0	0	0	0	3,100
1957	0	0	0	0	0	0	0	3,920	761	0	0	0	4,680
1958	0	0	0	0	0	0	1,100	5,570	1,640	0	0	0	8,310
1959	0	0	0	0	0	0	933	149	0	0	0	0	1,080
1960	0	0	0	0	0	0	1,230	0	0	0	0	0	1,230

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum dsy	Mean	Acre-feet	Mean	Acre-feet
		Dischsrge	Date					
1950	-	-	-	-	-	-	4.88	3,540
1951	1217	135	Apr. 8, 1951	0	2.21	1,600	2.21	1,600
1952	1247	186	Apr. 28, 1952	0	17.0	12,370	17.0	12,370
1953	1287	106	June 3, 1953	0	7.53	5,450	7.53	5,450
1954	1347	27	Apr. 18, 1954	0	.25	182	.25	182
1955	1397	32	May 6, 1955	0	.40	291	.72	523
1956	1447	173	Mar. 27, 1956	0	4.27	3,100	3.95	2,870
1957	1517	132	May 21, 1957	0	6.46	4,680	6.46	4,680
1958	1567	138	May 13, 1958	0	11.5	8,310	11.5	8,310
1959	1637	80	Apr. 8, 1959	0	1.49	1,080	1.49	1,080
1960	1717	139	Apr. 7, 1960	0	1.69	1,230	-	-

1150. Mud Lake near Terreton, Idaho

Location.--Lat 43°54', long 112°21', in NE¼SE¼ sec.32, T.7 N., R.35 E., 670 ft north of mouth of Camas Creek, 4.4 miles northeast of First Owsley pumphouse, and 5½ miles northeast of Terreton.

Drainage area.--1,130 sq mi, approximately, not including Medicine Lodge Creek.

Records available.--April 1921 to September 1960.

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

Extremes.--1921-60: Maximum contents observed, 61,660 acre-ft May 5, 1923 (gage height, 9.20 ft); practically no contents Oct. 1 to Nov. 15, 1937, due to bypassing Camas Creek (see Remarks).

Remarks.--Mud Lake is a perched body of water confined by earth dikes and fed by ground water and surface tributaries augmented by well flows and surface inflow from North Lake. 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. Other irrigation diversions are made by various means from adjacent lakes and wells and Camas Creek above lake. Area of Mud Lake is varied from time to time by changes in dikes. Figures given herein represent contents above gage height -4.0 ft. Capacity table prepared from surveys made by Geological Survey and adjusted for changes in dikes. High winds are frequent, and stage at recorder during wind does not usually represent the mean for the lake. For complete description of Mud Lake region, see WSP 818.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	6,860	12,600	19,100	25,200	30,500	34,600	35,900	21,800	11,200	6,750	7,740	7,100
1952	5,410	10,600	17,100	23,000	28,600	33,100	38,200	43,000	29,700	14,400	7,450	5,230
1953	4,170	10,800	17,700	24,700	30,300	34,700	37,700	31,900	30,200	12,300	6,080	8,140
1954	4,450	8,920	14,800	20,200	24,800	29,600	31,400	19,000	14,700	5,780	3,550	5,050
1955	4,010	8,000	13,500	18,900	22,800	26,200	30,400	27,400	15,900	5,950	4,580	5,510
1956	4,150	6,350	11,000	16,200	20,500	24,600	30,000	18,900	7,520	3,500	3,610	3,860
1957	4,090	5,950	9,620	13,900	17,000	19,900	22,100	29,600	15,500	4,430	4,730	6,200
1958	4,640	6,640	10,300	14,200	17,400	20,900	23,900	21,100	15,100	4,860	6,330	8,120
1959	5,700	7,430	11,100	14,900	18,100	21,000	22,600	18,200	7,260	4,190	4,290	5,340
1960	3,860	6,250	10,300	14,300	18,200	20,900	25,000	20,500	11,000	4,580	5,300	6,480

1160. Medicine Lodge Creek at Ellis Ranch, near Argora, Idaho

Location.--Lat 44°17', long 112°30', in sec.7, T.11 N., R.34 E., on left bank 4 miles upstream from Middle Creek, 6½ miles southeast of Argora, and 17 miles northwest of Dubois.

Drainage area.--165 sq mi. Mean altitude, 7,520 ft.

Records available.--October 1940 to September 1960.

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

Average discharge.--19 years (1941-60), 42.0 cfs (30,410 acre-ft per year).

Extremes.--1940-60: Maximum discharge, 229 cfs June 9, 1944 (gage height, 4.23 ft), from rating curve extended above 120 cfs by logarithmic plotting; minimum, 4.0 cfs Feb. 15, 1953, Nov. 28, 1954 (gage height, 1.24 ft).

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	27.8	27.9	36.8	24.6	36.1	37.1	24.7	49.0	50.1	41.5	37.2	29.2	35.2
1952	30.5	22.6	23.4	30.9	31.4	36.6	45.6	42.3	64.4	60.2	52.3	43.7	40.3
1953	37.5	28.6	31.7	42.4	24.5	41.4	22.7	44.4	44.0	58.2	50.5	42.0	39.2
1954	37.0	29.6	29.7	37.6	40.9	34.4	19.6	49.9	51.3	44.4	36.1	29.2	36.6
1955	26.0	12.5	20.0	31.3	23.7	31.1	27.9	47.6	55.2	48.5	38.8	31.7	32.9
1956	30.5	23.9	27.9	34.9	28.6	43.0	17.7	45.7	51.8	38.5	29.3	25.7	33.2
1957	26.0	22.3	24.7	24.5	28.8	20.7	11.5	61.4	72.3	64.7	57.5	48.8	38.7
1958	39.3	28.7	33.2	35.4	38.9	40.9	43.7	68.8	98.9	72.2	64.9	54.9	51.7
1959	46.2	36.8	41.7	35.6	38.1	39.7	21.0	49.8	48.0	39.3	36.6	36.2	39.1
1960	41.3	27.7	33.8	33.3	34.7	42.9	19.7	46.2	38.2	27.1	28.5	25.8	33.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,710	1,660	2,270	1,510	2,000	2,280	1,470	3,010	2,980	2,550	2,290	1,740	25,470
1952	1,870	1,350	1,440	1,900	1,800	2,250	2,720	2,600	3,830	3,700	3,220	2,600	29,280
1953	2,310	1,700	1,950	2,610	1,360	2,550	1,350	2,730	2,620	3,580	3,100	2,500	28,360
1954	2,280	1,760	1,830	2,310	2,270	2,110	1,160	3,070	3,050	2,730	2,220	1,740	26,530
1955	1,600	746	1,230	1,930	1,320	1,910	1,660	2,930	3,280	2,980	2,380	1,890	23,860
1956	1,880	1,420	1,720	2,150	1,640	2,640	1,050	2,810	3,080	2,360	1,800	1,530	24,080
1957	1,600	1,330	1,520	1,510	1,600	1,270	685	3,780	4,300	3,980	3,530	2,910	28,020
1958	2,420	1,710	2,040	2,180	2,160	2,520	2,600	4,230	5,880	4,440	3,990	3,270	37,440
1959	2,840	2,190	2,560	2,190	2,120	2,440	1,250	3,060	2,860	2,410	2,250	2,150	28,320
1960	2,540	1,650	2,080	2,040	1,990	2,640	1,170	2,840	2,270	1,660	1,750	1,540	24,170

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	41.4	29,950
1951	1217	65	Mar. 18, 1951	11	35.2	25,470	33.8	24,490
1952	1247	100	June 27, 1952	12	40.3	29,280	42.1	30,580
1953	1287	74	July 15, 1953	6	39.2	28,360	39.0	28,270
1954	1347	66	June 10, 1954	7.1	36.6	26,530	33.5	24,240
1955	1397	78	Apr. 8, 1955	5.4	32.9	23,860	34.9	25,300
1956	1447	138	Mar. 24, 1956	9.7	33.2	24,080	32.4	23,510
1957	1517	98	May 20, 1957	9.3	38.7	28,020	41.1	29,740
1958	1567	131	June 14, 1958	15	51.7	37,440	53.7	38,860
1959	1637	71	Mar. 15, 1959	10	39.1	28,320	37.3	27,000
1960	1717	67	Mar. 11, 1960	13	33.3	24,170	-	-

1170. Birch Creek near Reno, Idaho

Location.--Lat 44°12', long 112°57', in sec.13, T.10 N., R.29 E., on left bank 200 ft west of State Highway 28, 2.6 miles south of the Lemhi-Clark County line, 5 miles southeast of former Reno Post Office, and 35 miles west of Dubois.

Drainage area.--320 sq mi, approximately. Mean altitude, 7,580 ft.

Records available.--September 1910 to June 1912 (published as "near Kaufman"), April 1921 to January 1923, October 1950 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (by barometer). Prior to Oct. 1, 1950, staff gage at site half a mile downstream at different datum.

Average discharge.--12 years (1910-11, 1921-22, 1950-60), 79.3 cfs (57,410 acre-ft per year).

Extremes.--1910-12, 1921-23, 1950-60: Maximum discharge, 111 cfs Mar. 24, 1956 (gage height, 1.96 ft); maximum gage height observed, 2.76 ft Jan. 19, 1957 (backwater from ice); minimum discharge recorded, 61 cfs Jan. 29, 1951; minimum gage height, 1.47 ft Jan. 30, 1956, Mar. 22, 23, 1959.

Revisions.--The observed maximum discharges for the water years 1911-12, published in WSP 1317, have been revised to 110 cfs Oct. 13, 1910, and 103 cfs Apr. 11, 12, 1912 respectively.

Remarks.--Small diversions for stock ranches and hay meadows above station.

Revisions.--Some periods for the water years 1911-12 were revised in WSP 1447, The resulting revised records as summarized herewith supersede those published in WSP 1317.

Month	Mean	Acre-feet
March 1911	92.2	5,670
April	88.5	5,270
May	87.1	5,350
July	83.2	5,120
August	83.3	5,120
Water year 1910-11	88.6	64,130
Calendar year 1911	89.0	64,470
January 1912	95.9	5,900
February	96.6	5,550
March	96.3	5,920
Water year 1911-12	-	-

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	74.3	75.8	77.9	76.3	80.0	79.0	79.0	79.2	74.8	74.9	77.2	77.5	77.1
1952	78.3	76.9	77.3	82.2	81.4	79.3	82.2	80.3	76.6	74.4	71.1	73.1	77.7
1953	75.1	74.0	76.3	79.2	80.1	75.3	79.1	80.3	80.0	73.0	70.5	72.0	76.2
1954	72.9	74.8	81.1	80.5	82.4	80.9	83.5	80.5	82.4	80.0	77.0	75.8	79.3
1955	72.7	76.6	76.3	76.6	74.9	74.6	75.2	82.5	76.9	74.4	76.7	74.2	76.0
1956	75.1	76.2	75.6	76.5	75.4	72.5	76.5	79.6	80.2	77.8	73.7	73.8	76.1
1957	75.7	76.9	75.1	73.4	76.0	76.4	76.7	77.7	74.0	72.1	72.7	76.8	75.3
1958	77.9	77.3	75.9	76.6	75.3	81.7	79.9	77.6	76.7	73.8	72.8	74.8	76.7
1959	76.5	78.2	79.7	79.3	77.2	73.4	79.2	82.0	80.1	79.6	82.1	86.4	79.5
1960	84.5	81.0	79.1	81.4	85.3	89.1	87.6	89.4	87.1	79.6	83.6	84.1	84.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,570	4,510	4,790	4,690	4,440	4,860	4,700	4,870	4,450	4,610	4,740	4,610	55,840
1952	4,810	4,580	4,750	5,060	4,680	4,880	4,890	4,940	4,560	4,570	4,370	4,350	56,440
1953	4,620	4,410	4,690	4,870	4,450	4,630	4,710	4,940	4,760	4,490	4,340	4,280	55,190
1954	4,480	4,450	4,990	4,950	4,580	4,970	4,970	4,950	4,900	4,920	4,730	4,510	57,400
1955	4,470	4,560	4,690	4,710	4,160	4,590	4,470	5,070	4,570	4,580	4,720	4,420	55,010
1956	4,620	4,540	4,650	4,710	4,340	4,460	4,550	4,900	4,770	4,780	4,530	4,390	55,240
1957	4,650	4,580	4,620	4,510	4,220	4,700	4,560	4,780	4,400	4,430	4,470	4,570	54,490
1958	4,790	4,600	4,670	4,710	4,180	5,020	4,760	4,770	4,560	4,540	4,480	4,450	55,530
1959	4,700	4,650	4,900	4,880	4,290	4,510	4,710	5,040	4,770	4,900	5,050	5,140	57,540
1960	5,190	4,820	4,870	5,000	4,910	5,480	5,210	5,500	5,180	4,900	5,140	5,000	61,200

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Cslendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	99	Mar. 11, 1951	65	77.1	55,840	77.5	56,110
1952	1247	107	Apr. 18, 1952	70	77.7	56,440	77.2	56,020
1953	1287	92	June 2, 1953	70	76.2	55,190	76.5	55,390
1954	1347	100	Mar. 2, 1954	72	79.3	57,400	79.0	57,200
1955	1397	103	Aug. 14, 1955	71	76.0	55,010	76.1	55,100
1956	1447	111	Mar. 24, 1956	69	76.1	55,240	76.2	55,280
1957	1517	89	May 14, 1957	70	75.3	54,490	75.6	54,700
1958	1567	102	Mar. 24, 1958	71	76.7	55,530	77.0	55,720
1959	1637	93	Aug. 2, 1959	71	79.5	57,540	80.3	58,170
1960	1717	93	Mar. 6, 7, 1960	78	84.3	61,200	-	-

1187. Little Lost River below Wet Creek, near Howe, Idaho

Location.--Lat 44°08'20", long 113°14'40", in NW¼SE¼ sec.4, T.9 N., R.27 E., on right bank at Clyde school, a quarter of a mile downstream from Wet Creek and 27 miles northwest of Howe.

Drainage area.--440 sq mi, approximately.

Records available.--January 1958 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,880 ft (from topographic map).

Extremes.--1958-60: Maximum discharge recorded, 432 cfs May 26, 1958, but may have been more during period of doubtful gage-height record (gage height, 3.72 ft); minimum daily, 13 cfs Jan. 17, 18, 1960.

Remarks.--A few small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	29.0	33.2	44.5	72.2	252	231	83.7	57.3	54.1	-
1959	48.3	40.9	25.8	23.8	27.8	45.7	56.2	75.5	133	66.1	51.7	50.4	53.8
1960	53.1	26.5	19.5	16.5	19.0	25.6	65.6	80.5	80.7	35.7	34.6	30.9	40.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	1,780	1,840	2,740	4,290	15,510	13,770	5,150	3,520	3,220	-
1959	2,970	2,430	1,580	1,470	1,540	2,810	3,340	4,640	7,900	4,060	3,180	3,000	38,920
1960	3,260	1,570	1,200	1,020	1,090	1,570	3,900	4,950	4,800	2,200	2,130	1,840	29,530

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1637	a432	May 26, 1958	-	-	-	81.2	58,800
1959	1637	b175	June 15, 1959	21	53.8	38,920	52.5	37,970
1960	1717	165	May 13, 1960	13	40.7	29,530	-	-

a Maximum recorded.
b Maximum daily.

1190. Little Lost River near Howe, Idaho

Location.--Lat 43°53', long 113°06', in sec.3, T.6 N., R.28 E., on left bank a quarter of mile upstream from diversion dam of Blaine County Investment Co. and 7 miles northwest of Howe.

Drainage area.--703 sq mi. Mean altitude, 7,370 ft.

Records available.--April 1921 to September 1960 (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,020 ft (by barometer). Prior to Sept. 2, 1938, staff gage at site 120 ft downstream at datum 1.39 ft higher.

Average discharge.--20 years (1940-60), 69.7 cfs (50,460 acre-ft per year).

Extremes.--1921-60: Maximum discharge, about 450 cfs Aug. 11, 1936 (gage height, 3.1 ft, datum then in use, from floodmark), from rating curve extended above 220 cfs; maximum gage height observed, 6.63 ft Jan. 23, 1957 (ice jam); minimum discharge observed, 4.1 cfs Dec. 12, 1940.

Remarks.--Diversions above and below station for irrigation of about 11,900 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	59.7	39.9	33.3	26.2	35.1	38.1	90.4	128	132	94.7	86.3	75.5	70.1
1952	78.2	35.5	30.7	25.8	40.0	40.0	76.2	159	158	103	84.5	75.7	75.6
1953	75.3	53.0	34.0	43.4	51.1	68.4	83.5	109	160	120	78.8	71.8	79.2
1954	69.9	55.2	31.1	33.7	39.5	66.0	84.9	106	109	81.2	64.5	56.8	66.7
1955	54.0	56.4	25.8	16.7	27.5	34.8	40.4	85.4	121	79.2	57.3	51.4	54.2
1956	50.1	30.5	26.6	27.9	25.8	48.4	83.8	128	162	84.5	60.4	54.0	65.2
1957	54.8	29.7	27.5	19.5	31.5	42.0	61.4	149	190	102	76.0	67.8	71.0
1958	71.0	50.7	31.9	30.9	34.8	65.0	79.1	177	189	97.0	78.6	83.6	82.6
1959	75.0	57.9	40.4	35.6	39.2	63.8	89.8	103	132	81.9	71.4	76.4	72.4
1960	84.3	47.7	38.6	34.4	38.7	47.2	91.2	110	105	60.2	54.4	51.9	63.6

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,670	2,370	2,050	1,610	1,950	2,340	5,380	7,890	7,840	5,820	5,310	4,490	50,720
1952	4,810	2,110	1,890	1,590	2,300	2,460	4,530	9,790	9,380	6,350	5,200	4,500	54,910
1953	4,630	3,150	2,090	2,670	2,840	4,210	4,970	6,730	9,550	7,390	4,850	4,270	57,350
1954	4,300	3,280	1,910	2,070	2,200	4,060	5,050	6,540	6,510	4,990	3,970	3,380	48,260
1955	3,320	3,360	1,580	1,030	1,530	2,140	2,400	5,250	7,180	4,870	3,520	3,060	39,240
1956	3,080	1,820	1,640	1,720	1,480	2,980	4,990	7,880	9,660	5,200	3,710	3,210	47,370
1957	3,370	1,770	1,690	1,200	1,750	2,580	3,650	9,150	11,300	6,260	4,670	4,040	51,430
1958	4,360	3,020	1,960	1,900	1,930	3,990	4,710	10,900	11,270	5,970	4,830	4,970	59,810
1959	4,610	3,440	2,490	2,190	2,180	3,930	5,340	6,360	7,880	5,030	4,390	4,540	52,380
1960	5,180	2,840	2,370	2,110	2,230	2,900	5,430	6,760	6,240	3,700	3,350	3,090	46,200

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	66.4	48,110
1951	1217	185	July 29, 1951	15	70.1	50,720	71.0	51,440
1952	1247	202	Aug. 2, 1952	-	75.6	54,910	77.1	55,970
1953	1287	185	June 22, 1953	20	79.2	57,350	78.7	56,970
1954	1347	234	Sept. 3, 1954	28	66.7	48,260	65.0	47,030
1955	1397	228	Aug. 14, 1955	13	54.2	39,240	51.8	37,520
1956	1447	291	June 2, 1956	18	65.2	47,370	65.7	47,660
1957	1517	230	June 11, 1957	15	71.0	51,430	74.5	53,940
1958	1567	230	May 31, 1958	28	82.6	59,810	84.3	61,010
1959	1637	169	June 20, 1959	29	72.4	52,380	72.2	52,230
1960	1717	153	Apr. 7, 1960	26	63.6	46,200	-	-

1195. Blaine County Investment Co.'s canal near Howe, Idaho

Location.--Lat 43°53', long 113°05', in NW¼NW¼ sec.11, T.6 N., R.23 E., on left end of weir, 900 ft downstream from headgates and 7 miles northwest of Howe.

Records available.--April 1924 to September 1960 (prior to 1938, irrigation seasons only).

Gage.--Staff gage and Cippoletti weir. Prior to June 26, 1927, staff gage at site 700 ft upstream at different datum. June 26, 1927, to May 6, 1945, staff gage at site 180 ft upstream at present datum.

Extremes.--1924-60: Maximum daily discharge, 102 cfs June 9, 1958; no flow for long periods in each year.

Remarks.--Canal diverts from Little Lost River in sec.2, T.6 N., R.28 E., for irrigation of lands in project of Blaine County Investment Co.

Monthly and yearly diversion, in acre-feet, of Blaine County Investment Co.'s canal near Howe, Idaho

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	541	96.2	0	0	0	0	1,090	1,990	2,490	1,060	998	718	8,980
1952	822	0	0	0	0	0	1,260	3,690	3,590	1,440	580	641	12,020
1953	807	81	0	0	20	133	1,720	1,740	4,090	2,010	451	472	11,520
1954	706	1,510	0	0	0	379	805	1,440	1,380	647	122	34	7,020
1955	650	871	0	0	0	0	272	955	2,280	782	159	209	6,180
1956	449	24	6.0	0	0	0	1,430	2,330	3,570	805	364	294	9,270
1957	411	8.1	0	0	.8	6.1	635	3,520	4,900	1,150	333	299	11,260
1958	370	401	0	0	0	0	1,360	4,660	5,070	1,120	564	413	13,960
1959	476	9.5	0	0	0	26	1,820	1,340	2,550	543	222	419	7,410
1960	624	0	0	0	0	-	-	1,140	1,130	320	445	175	-

1200. Big Lost River at Wild Horse, near Chilly, Idaho

Location.--Lat 43°56', long 114°07', in sec.17, T.7 N., R.20 E., on right bank a quarter of a mile upstream from East Fork Big Lost River, 2 miles downstream from Wild Horse damsite, and 16 miles southwest of Chilly.

Drainage area.--114 sq mi. Mean altitude, 8,540 ft.

Records available.--March 1944 to September 1960.

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

Average discharge.--16 years (1944-60), 99.8 cfs (72,250 acre-ft per year).

Extremes.--1944-60: Maximum discharge, 1,270 cfs May 24, 1956 (gage height, 6.18 ft); minimum, 7.1 cfs Mar. 2, 1957 (gage height, 1.08 ft).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	44.6	43.3	30.4	27.9	25.4	16.5	124	394	407	264	113	46.6	129
1952	41.1	31.1	28.6	25.5	23.7	22.4	105	504	533	230	86.6	40.9	140
1953	32.3	26.8	24.8	25.5	23.2	23.8	64.1	150	467	278	72.4	41.6	103
1954	32.1	29.3	22.5	20.6	21.3	20.5	71.4	331	283	189	51.7	30.5	92.4
1955	25.6	23.3	18.7	18.7	19.4	15.1	17.2	148	353	162	55.4	31.9	74.1
1956	26.9	23.4	32.9	23.4	20.3	25.8	94.4	488	589	218	69.8	39.1	138
1957	34.6	28.6	23.7	20.0	19.1	18.3	27.4	302	521	203	61.0	40.6	109
1958	41.7	30.0	24.6	23.2	20.8	19.9	34.8	584	397	161	74.7	40.7	122
1959	30.5	27.1	22.7	19.7	19.4	18.2	41.8	102	296	94.5	42.9	53.2	63.9
1960	42.4	32.3	22.9	22.0	20.6	23.6	69.6	150	263	76.8	37.1	25.3	65.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,740	2,580	1,870	1,720	1,410	1,010	7,380	24,200	24,230	16,200	6,970	2,770	93,080
1952	2,530	1,850	1,760	1,570	1,360	1,370	6,230	30,970	31,710	14,170	5,330	2,430	101,300
1953	1,980	1,590	1,520	1,570	1,290	1,460	3,810	9,250	27,810	17,090	4,450	2,480	74,300
1954	1,980	1,740	1,380	1,270	1,180	1,260	4,250	20,350	16,840	11,610	3,180	1,810	66,850
1955	1,570	1,390	1,150	1,150	1,080	928	1,030	9,080	21,030	9,960	3,400	1,900	53,670
1956	1,650	1,390	2,020	1,440	1,170	1,580	5,620	30,000	35,020	13,390	4,290	2,320	99,890
1957	2,130	1,700	1,460	1,230	1,060	1,120	1,630	18,600	31,020	12,510	3,750	2,410	78,620
1958	2,570	1,790	1,520	1,430	1,160	1,220	2,070	35,890	23,600	9,920	4,600	2,420	88,190
1959	1,870	1,610	1,400	1,210	1,080	1,120	2,490	6,270	17,590	5,810	2,640	3,160	46,250
1960	2,610	1,920	1,410	1,350	1,190	1,450	4,140	9,210	15,640	4,720	2,280	1,500	47,420

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	94.9	11.30	68,680
1951	1217	807	May 28, 1951	11	129	1.13	15.31	93,080	127	15.14	92,030
1952	1247	1,080	June 7, 1952	20	140	1.23	16.67	101,300	138	16.50	100,200
1953	1287	859	June 13, 1953	20	103	.904	12.22	74,300	103	12.20	74,310
1954	1347	879	June 26, 1954	18	92.4	.811	11.00	66,850	91.0	10.84	65,860
1955	1397	543	June 12, 1955	14	74.1	.650	8.83	53,670	75.4	8.98	54,620
1956	1447	1,270	May 24, 1956	17	138	1.21	16.42	99,890	138	16.46	100,100
1957	1517	1,100	June 5, 1957	17	109	.956	12.93	78,620	109	13.02	79,210
1958	1567	1,200	May 22, 1958	18	122	1.07	14.49	88,190	120	14.33	87,190
1959	1637	462	June 14, 1959	16	63.9	.561	7.60	46,250	65.5	7.78	47,310
1960	1717	433	June 3, 1960	16	65.3	.573	7.81	47,420	-	-	-

1205. Big Lost River at Howell Ranch, near Chilly, Idaho

Location.--Lat 44°00', long 114°02', in sec.30, T.8 N., R.21 E., on left bank at Howell Ranch, 1¼ miles downstream from Burnt Creek, 6 miles downstream from East Fork, 9 miles southwest of Chilly, and 21 miles northwest of Mackay.

Drainage area.--450 sq mi. Mean altitude, 8,590 ft.

Records available.--April 1904 to November 1914, May 1920 to September 1960 (no winter records 1904, 1906-14, 1920-48).

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

Average discharge.--13 years (1904-5, 1948-60), 295 cfs (213,600 acre-ft per year).

Extremes.--1904-14, 1920-60: Maximum discharge, 3,960 cfs June 26, 1954 (gage height, 6.00 ft), caused by cloudburst on Wild Horse Creek; minimum observed, 19 cfs Dec. 12, 1939 (discharge measurement).

Remarks.--No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 cfs) diverts a quarter of a mile downstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	116	112	115	100	95.4	70.6	343	1,047	1,065	692	338	145	355
1952	143	108	98.5	85.0	77.4	77.9	301	1,361	1,499	695	289	131	406
1953	107	89.1	87.7	91.5	82.1	80.3	171	435	1,355	863	204	117	307
1954	104	94.1	71.3	66.5	71.6	71.8	205	958	812	537	154	91.2	271
1955	81.5	72.3	54.8	53.0	51.9	53.3	63.8	374	1,047	486	157	84.1	215
1956	77.5	65.1	91.1	64.2	55.2	71.4	311	1,405	1,784	630	209	114	407
1957	107	89.0	70.6	62.7	65.2	71.6	89.6	876	1,802	691	189	124	354
1958	134	101	82.8	79.6	78.3	79.1	115	1,700	1,413	556	237	137	395
1959	110	95.1	74.5	66.7	65.1	65.0	122	279	893	262	115	153	191
1960	124	89.9	70.0	73.3	72.4	81.7	177	407	770	197	97.8	71.9	186

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	7,110	6,690	7,060	6,150	5,300	4,340	20,390	64,360	63,360	42,530	20,790	8,650	256,700
1952	8,770	6,420	6,060	5,230	4,450	4,790	17,920	83,690	89,210	42,730	17,770	7,790	294,800
1953	6,560	5,300	5,400	5,620	4,560	4,930	10,200	26,720	80,630	53,050	12,550	6,960	222,500
1954	6,370	5,600	4,390	4,090	3,980	4,420	12,180	58,920	48,300	32,990	9,470	5,430	196,100
1955	5,010	4,300	3,490	3,260	2,880	3,280	3,790	22,970	62,320	29,870	9,630	5,000	155,800
1956	4,770	3,870	5,600	3,950	3,180	4,390	18,490	86,390	106,200	38,760	12,830	6,800	295,200
1957	6,590	5,300	4,340	3,860	3,620	4,400	5,330	53,840	107,200	42,490	11,640	7,380	256,000
1958	8,270	6,020	5,090	4,900	4,350	4,860	6,830	104,500	84,100	34,300	14,550	8,150	285,900
1959	6,750	5,660	4,580	4,100	3,610	4,000	7,270	17,130	53,130	16,110	7,050	9,110	138,500
1960	7,620	5,350	4,310	4,500	4,160	5,030	10,550	25,050	45,800	12,090	6,020	4,280	134,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	269	194,600
1951	1217	2,210	May 28, 1951	-	355	256,700	355	257,100
1952	1247	2,960	June 7, 1952	-	406	294,800	401	298,800
1953	1287	2,400	June 19, 1953	70	307	222,500	306	221,600
1954	1347	3,960	June 26, 1954	60	271	196,100	266	192,600
1955	1397	1,740	June 12, 1955	48	215	155,800	217	157,200
1956	1447	3,410	May 24, 1956	44	407	295,200	409	297,200
1957	1517	3,570	June 6, 1957	55	354	256,000	358	259,200
1958	1567	3,280	May 24, 1958	60	395	285,900	392	283,500
1959	1637	1,670	June 14, 1959	-	191	138,500	192	138,800
1960	1717	1,550	June 3, 1960	58	186	134,800	-	-

1235. Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho

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

Records available.--May 1919 to November 1959.

Gage.--Water-stage recorder. Datum of gage is 6,061.80 ft above mean sea level, unadjusted. Prior to Sept. 22, 1934, at site 550 ft upstream at different datum (datum raised 1 ft Apr. 20, 1920). Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--40 years (1919-59), 72.1 cfs (52,200 acre-ft per year).

Extremes.--1919-59: Maximum discharge, 1,360 cfs June 7, 8, 1952; maximum gage height, 5.97 ft July 2, 1957 (backwater from Mackay Reservoir); no flow for long periods in many years.

Remarks.--Diversions above station for irrigation. See page 107 for sum of surface inflow to Mackay Reservoir. Zollinger ditch sometimes carries water on left bank past station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	7.3	7.1	6.4	5.4	5.0	6.2	54.6	313	436	306	166	37.5	113
1952	25.2	24.0	16.8	9.16	7.86	4.97	39.8	644	784	321	124	24.7	169
1953	15.0	12.3	10.7	8.2	6.2	4.9	4.8	38.6	550	431	61.9	17.0	97.0
1954	10.9	7.9	3.8	2.1	1.7	2.2	2.0	172	196	115	21.6	8.0	45.5
1955	6.4	2.9	1.1	0	0	0	0	4.2	193	101	11.6	2.4	26.9
1956	3.6	2.6	.7	0	0	.4	34.1	483	840	232	48.5	9.7	138
1957	8.3	3.5	1.3	0	0	.2	1.7	226	632	302	44.4	15.9	103
1958	12.3	9.73	5.65	3.48	3.00	2.32	3.47	509	494	203	78.3	30.1	113
1959	20.8	12.2	9.13	2.57	2.24	2.20	2.30	.44	254	24.1	2.43	4.02	27.8
1960	4.73	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	446	422	397	329	278	383	3,250	19,240	25,920	18,820	10,230	2,230	81,940
1952	1,550	1,430	1,030	563	452	305	2,370	39,620	46,630	19,770	7,600	1,470	122,800
1953	922	730	660	502	343	301	292	2,380	32,740	26,530	3,800	1,010	70,210
1954	672	472	232	129	93	137	119	10,580	11,660	7,080	1,330	478	32,940
1955	391	175	67	0	0	0	0	256	11,460	6,240	714	141	19,440
1956	222	157	46	0	0	22	2,030	29,670	50,000	14,250	2,980	577	99,950
1957	510	208	81	0	0	12	99	13,910	37,580	18,570	2,730	944	74,640
1958	758	579	347	214	167	143	206	31,290	29,370	12,460	4,820	1,790	82,140
1959	1,280	724	561	158	124	135	137	27	15,120	1,480	149	239	20,130
1960	291	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	57.7	41,810
1951	1217	730	June 17, 1951	3	113	81,940	117	84,690
1952	1247	1,360	June 7,8, 1952	1	169	122,800	167	121,100
1953	1287	1,060	June 19, 1953	3	97.0	70,210	95.7	69,270
1954	1347	1,110	June 27, 1954	0	45.5	32,940	44.5	32,200
1955	1397	404	June 13, 1955	0	26.9	19,440	26.6	19,240
1956	1447	1,330	June 1, 1956	0	138	99,950	138	100,300
1957	1517	1,220	June 5, 1957	0	103	74,640	104	75,530
1958	1567	1,000	May 25, 1958	0	113	82,140	115	83,020
1959	1637	604	June 14, 1959	0	27.8	20,130	-	-
1960	1637	-	-	-	-	-	-	-

1240. Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho

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

Records available.--May 1919 to November 1959.

Gage.--Water-stage recorder. Datum of gage is 6,062.38 ft above mean sea level, unadjusted. Prior to May 14, 1938, water-stage recorder at site 200 ft upstream at different datums. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from Mackay Reservoir.

Average discharge.--40 years (1919-59), 58.5 cfs (42,350 acre-ft per year).

Extremes.--1919-59: Maximum discharge, 1,200 cfs (estimated) about June 12, 1921 (gage height, 4.45 ft, from floodmark, site and datum then in use); maximum gage height, 5.61 ft July 2, 1957 (backwater from Mackay Reservoir); minimum discharge, 3.8 cfs Mar. 9, 1956 (gage height, 1.73 ft).

Remarks.--Diversions above station for irrigation. See page 107 for sum of surface inflow to Mackay Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	39.9	38.8	35.1	31.8	30.1	30.2	46.8	169	197	126	79.4	42.4	72.5
1952	40.5	39.4	38.5	34.9	30.2	25.0	31.7	191	222	101	54.2	36.9	70.6
1953	35.5	33.3	29.2	28.1	26.9	25.4	24.4	35.1	225	137	37.2	27.1	55.4
1954	27.7	24.5	21.6	19.9	18.1	17.1	17.7	140	164	124	18.5	17.2	51.1
1955	15.6	13.1	11.5	9.77	8.33	7.57	7.08	8.82	206	98.5	11.7	9.11	33.9
1956	9.71	8.11	6.65	5.45	4.25	4.35	7.46	213	363	81.8	24.2	14.9	61.9
1957	15.5	12.4	10.6	8.77	8.22	8.35	8.72	48.4	422	110	22.8	19.9	57.7
1958	20.4	18.0	14.4	12.0	11.1	10.2	11.3	360	417	89.4	42.2	24.6	86.1
1959	25.6	23.0	18.3	14.9	12.9	11.3	11.0	10.3	116	31.4	17.9	19.4	25.9
1960	22.7	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,460	2,310	2,160	1,960	1,670	1,860	2,780	10,390	11,700	7,780	4,880	2,520	52,470
1952	2,490	2,340	2,370	2,140	1,740	1,540	1,890	11,769	13,200	6,230	3,330	2,190	51,220
1953	2,180	1,980	1,800	1,730	1,490	1,560	1,450	2,160	13,400	8,450	2,290	1,610	40,100
1954	1,710	1,460	1,330	1,220	1,010	1,050	1,050	8,620	9,760	7,600	1,140	1,030	36,980
1955	962	778	704	601	463	465	421	542	12,280	6,060	721	542	24,540
1956	597	483	409	335	244	268	444	13,110	21,630	5,030	1,490	885	44,920
1957	954	740	653	539	456	514	519	2,980	25,120	6,730	1,400	1,190	41,800
1958	1,260	1,070	887	740	617	628	674	22,110	24,790	5,500	2,590	1,480	62,330
1959	1,570	1,370	1,130	914	716	692	657	635	6,910	1,930	1,100	1,160	18,790
1960	1,400	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	54.4	39,370
1951	1217	389	May 29, 1951	26	72.5	52,470	72.9	52,740
1952	1247	467	June 7, 1952	21	70.6	51,220	68.8	49,980
1953	1287	438	June 20, 1953	21	55.4	40,100	53.4	38,640
1954	1347	626	June 27, 1954	12	51.1	36,980	48.2	34,920
1955	1397	405	June 13, 1955	6.6	33.9	24,540	32.6	23,580
1956	1447	734	June 2, 1956	4.0	61.9	44,920	63.1	45,780
1957	1517	770	June 5, 1957	7.8	57.7	41,800	58.9	42,660
1958	1567	908	May 28, 1958	9.9	86.1	62,330	87.3	63,180
1959	1637	230	June 14, 1959	9.0	25.9	18,790	-	-
1960	1637	-	-	-	-	-	-	-

1245. Warm Spring Creek (east channel) near Mackay, Idaho

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

Records available.--May 1919 to November 1959.

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

Average discharge.--40 years (1919-59), 32.2 cfs (23,310 acre-ft per year).

Extremes.--1919-59: Maximum discharge, 285 cfs May 24, 1958; maximum gage height, 4.38 ft June 27, 1954; minimum discharge, 5.2 cfs Apr. 16, 1955 (gage height, 1.35 ft).

Remarks.--Major portion of flow is return from irrigation, seepage from river channel upstream, and discharge of large spring. See page 107 for sum of surface inflow to Mackay Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	39.3	38.7	38.1	31.3	29.4	31.3	34.2	80.2	80.1	55.9	48.5	30.4	44.9
1952	33.4	32.8	34.3	31.7	29.9	28.7	29.5	79.7	94.6	54.4	36.4	31.1	43.1
1953	32.6	34.8	29.5	28.9	27.0	26.6	22.5	24.1	95.4	71.7	37.5	34.0	38.7
1954	37.4	32.8	30.2	27.2	26.8	26.2	22.7	67.8	82.7	76.1	29.5	21.9	40.2
1955	14.1	9.81	8.76	7.87	7.49	8.70	7.99	11.0	84.2	54.4	15.1	14.3	20.3
1956	17.4	18.5	15.3	13.0	12.8	15.6	18.6	81.3	139	72.5	44.6	44.3	41.0
1957	54.2	53.4	51.0	49.0	48.6	46.6	41.6	62.4	143	69.5	41.6	45.3	58.8
1958	55.2	52.7	50.2	46.9	45.7	46.7	45.8	141	145	58.4	43.8	40.5	64.4
1959	39.2	41.1	42.5	41.5	38.9	38.0	35.4	34.1	69.3	37.1	33.3	33.4	40.3
1960	35.2	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,410	2,300	2,340	1,920	1,630	1,920	2,040	4,930	4,770	3,440	2,990	1,810	32,500
1952	2,050	1,950	2,110	1,950	1,720	1,770	1,750	4,900	5,630	3,340	2,240	1,850	31,260
1953	2,010	2,070	1,810	1,780	1,500	1,640	1,340	1,480	5,680	4,410	2,300	2,020	28,040
1954	2,300	1,950	1,860	1,670	1,490	1,610	1,350	4,170	4,920	4,680	1,820	1,300	29,120
1955	865	584	539	484	416	535	475	676	5,010	3,350	930	849	14,710
1956	1,070	1,100	940	801	738	958	1,110	5,000	8,250	4,460	2,740	2,640	29,810
1957	3,330	3,180	3,130	3,010	2,700	2,860	2,470	3,840	8,490	4,270	2,560	2,700	42,540
1958	3,390	3,130	3,090	2,880	2,540	2,870	2,730	8,670	8,630	3,590	2,690	2,410	46,620
1959	2,410	2,450	2,610	2,550	2,160	2,330	2,110	2,100	4,120	2,280	2,050	1,990	29,160
1960	2,160	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	38.6	27,940
1951	1217	180	May 28, 1951	26	44.9	32,500	43.6	31,560
1952	1247	185	June 7, 1952	24	43.1	31,260	42.8	31,040
1953	1287	177	June 19, 1953	18	38.7	28,040	39.0	28,260
1954	1347	250	June 27, 1954	18	40.2	29,120	34.5	25,000
1955	1397	137	June 13, 1955	5.8	20.3	14,710	21.9	15,840
1956	1447	222	June 5, 1956	12	41.0	29,810	50.0	36,340
1957	1517	278	June 6, 1957	31	58.8	42,540	58.7	42,510
1958	1567	285	May 24, 1958	39	64.4	46,620	61.4	44,480
1959	1637	103	June 14, 1959	31	40.3	29,160	-	-
1960	1637	-	-	-	-	-	-	-

1250. Warm Spring Creek (west channel) near Mackay, Idaho

Location.--Lat 43°58'00", long 113°44'30", in NW¼ sec.4, T.7 N., R 23 E., on right bank 500 ft upstream from confluence with east channel and 7½ miles northwest of Mackay.

Records available.--May 1919 to November 1959.

Gage.--Water-stage recorder. Datum of gage is 6,064.46 ft above mean sea level, unadjusted. Prior to May 4, 1920, at datum 0.54 ft lower. May 4, 1920, to Dec. 2, 1938, at datum 0.46 ft higher. Staff gage on Mackay Reservoir is used as an auxiliary gage during periods of backwater from reservoir.

Average discharge.--40 years (1919-59), 96.6 cfs (69,940 acre-ft per year).

Extremes.--1919-59: Maximum discharge, 600 cfs (estimated) Aug. 11, 1936 (gage height, 4.88 ft, present datum, from floodmark); minimum, 49 cfs Apr. 27, 1935 (gage height, 1.08 ft, present datum).

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	92.7	91.5	91.5	90.8	86.1	86.0	84.1	145	163	129	113	90.1	105
1952	91.6	96.5	99.2	97.7	90.9	88.6	94.6	163	177	131	95.9	92.0	110
1953	91.8	97.3	98.8	99.5	98.5	94.6	76.1	75.7	182	154	93.5	88.7	104
1954	101	108	112	107	106	104	86.7	145	172	159	91.9	98.7	116
1955	124	135	132	119	114	113	101	87.6	180	173	105	106	124
1956	111	121	118	115	117	119	111	169	233	132	92.3	94.0	128
1957	102	93.4	90.6	88.5	83.4	84.0	82.6	90.9	191	121	83.2	91.7	100
1958	99.3	99.3	98.2	95.0	93.8	90.3	90.0	196	218	119	101	96.5	116
1959	108	111	108	105	102	99.0	84.8	74.2	140	101	94.6	105	103
1960	125	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,700	5,450	5,630	5,590	4,780	5,290	5,000	8,930	9,720	7,940	6,950	5,360	76,340
1952	5,630	5,740	6,100	6,010	5,320	5,450	5,630	10,000	10,510	8,060	5,900	5,480	79,740
1953	5,640	5,790	6,080	6,120	5,470	5,820	4,530	4,650	10,810	9,480	5,750	5,280	75,420
1954	6,230	6,430	6,890	6,560	5,870	6,370	5,160	8,940	10,260	9,760	5,650	5,880	84,000
1955	7,600	8,040	8,130	7,330	6,300	6,940	5,990	5,390	10,720	10,630	6,450	6,280	89,800
1956	6,820	7,190	7,280	7,040	6,700	7,340	6,620	10,390	13,880	8,130	5,680	5,590	92,660
1957	6,270	5,560	5,570	5,440	4,630	5,160	4,910	5,590	11,340	7,420	5,120	5,460	72,470
1958	6,100	5,910	6,040	5,840	5,210	5,550	5,410	12,080	12,960	7,300	6,210	5,740	84,350
1959	6,630	6,600	6,620	6,460	5,670	6,090	5,050	4,560	8,310	6,200	5,820	6,240	74,250
1960	7,660	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	89.2	64,580
1951	1217	287	May 29, 1951	69	105	76,340	106	77,030
1952	1247	276	June 7, 1952	82	110	79,740	110	79,780
1953	1287	267	June 19, 1953	60	104	75,420	107	77,460
1954	1347	413	June 27, 1954	70	116	84,000	122	88,220
1955	1397	242	June 13, 1955	77	124	89,800	121	87,320
1956	1447	324	June 3, 1956	84	128	92,660	122	88,770
1957	1517	346	June 5,6, 1957	60	100	72,470	101	73,120
1958	1567	368	May 24, 1958	86	116	84,350	119	86,150
1959	1637	191	June 14, 1959	73	103	74,250	-	-
1960	1637	-	-	-	-	-	-	-

1255. Surface inflow to Mackay Reservoir, near Mackay, Idaho

Location.--Lat 43°58', long 113°44', in sec.4, T.7 N., R.23 E., is the location of four gaging stations on tributaries to Mackay Reservoir, 7½ miles northwest of Mackay.

Drainage area.--766 sq mi.

Records available.--May 1919 to November 1959. Prior to October 1952, published with records of Big Lost River (west channel) above Mackay Reservoir, near Mackay.

Average discharge.--40 years (1919-59), 260 cfs (188,200 acre-ft per year).

Extremes.--1919-59: Maximum daily discharge, 2,760 cfs June 12, 1921; minimum daily, 75 cfs May 10-12, 1935.

Remarks.--Records are the sum of discharges obtained at gaging stations on Big Lost River (east and west channels) and Warm Spring Creek (east and west channels) above Mackay Reservoir, near Mackay. Channels are interconnected above respective gaging stations, and combined flow represents practically the entire surface flow which enters Mackay Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	179	176	171	159	151	154	220	708	876	618	407	200	336
1952	191	193	189	173	159	147	196	1,078	1,276	608	310	185	393
1953	175	178	168	165	159	152	128	174	1,052	794	230	167	295
1954	177	173	168	156	152	149	129	525	615	473	162	146	253
1955	160	161	153	137	129	129	116	112	663	427	143	131	205
1956	142	150	141	133	133	140	171	946	1,576	518	210	163	368
1957	180	163	154	146	140	139	135	428	1,387	602	192	173	320
1958	187	180	168	157	154	149	152	1,206	1,273	469	265	192	380
1959	193	187	178	164	156	150	134	119	579	193	148	162	197
1960	187	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11,010	10,480	10,530	9,790	8,360	9,450	13,070	43,510	52,110	37,980	25,050	11,920	243,300
1952	11,720	11,470	11,610	10,660	9,140	9,050	11,640	66,300	75,950	37,400	19,070	10,990	285,000
1953	10,760	10,570	10,350	10,120	8,810	9,320	7,610	10,670	62,620	48,850	14,150	9,920	213,800
1954	10,910	10,310	10,310	9,580	8,450	9,170	7,680	32,300	36,620	29,100	9,940	8,680	183,000
1955	9,820	9,580	9,440	8,400	7,180	7,930	6,890	6,860	39,470	26,270	8,820	7,810	148,500
1956	8,710	8,930	8,680	8,190	7,680	8,590	10,200	58,180	93,750	31,870	12,890	9,690	267,400
1957	11,070	9,690	9,440	9,000	7,770	8,540	8,010	26,300	82,540	37,000	11,810	10,280	231,400
1958	11,510	10,690	10,360	9,680	8,530	9,190	9,010	74,140	75,740	28,840	16,310	11,410	275,400
1959	11,890	11,140	10,920	10,080	8,670	9,240	7,940	7,320	34,460	11,890	9,110	9,620	142,300
1960	11,510	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	240	173,700
1951	1217	1,500	May 29, 1951	146	336	243,300	340	246,000
1952	1247	2,200	June 7, 1952	133	393	285,000	388	281,900
1953	1287	1,860	June 19, 1953	105	295	213,800	295	213,600
1954	1347	1,830	June 27, 1954	105	253	183,000	249	180,400
1955	1397	1,100	June 13, 1955	92	205	148,500	202	146,000
1956	1447	2,500	June 1, 1956	128	368	267,400	374	271,200
1957	1517	2,530	June 5, 1957	100	320	231,400	323	233,800
1958	1567	2,450	May 25, 1958	136	380	275,400	382	276,800
1959	1637	1,040	June 15, 1959	115	197	142,300	-	-
1960	1637	-	-	-	-	-	-	-

1260. Mackay Reservoir near Mackay, Idaho

Location.--Lat 43°57', long 113°40', in sec.12, T.7 N., R.23 E., on gate-control tower of dam on Big Lost River, 4 miles northwest of Mackay.
Drainage area.--788 sq mi.
Records available.--January 1919 to September 1960.
Gage.--Water-stage recorder. Datum of gage is 6,000 ft above mean sea level, Utah Construction Co. datum, or 6,000.4 ft above mean sea level, datum of 1929, Pacific Northwest supplementary adjustment of 1947. Prior to Oct. 15, 1959, staff gage at same site and datum.
Extremes.--1919-60: Maximum contents observed, 44,710 acre-ft June 28, 1957 (gage height, 66.75 ft); no available contents during periods in 1919-20, 1924, 1926, 1929, 1931-35; minimum gage height observed, 6.3 ft Aug. 5, 1934.
Remarks.--Reservoir is formed by earth- and rock-fill dam, which was reconstructed in 1917-18; storage impounded by original dam not recorded. Crest of spillway was raised 5 ft in September 1956. Capacity is 44,370 acre-ft between gage heights 7.0 and 66.5 ft (crest of spillway). Dead storage reported to be about 125 acre-ft. Water is used for irrigation of about 33,000 acres in Big Lost River irrigation district. About 9,000 acres irrigated from Big Lost River and tributaries above reservoir. Considerable seepage around dam because of its porous foundation, but the greater part of this water returns to Big Lost River between reservoir and station below reservoir, near Mackay. Prior to Oct. 1, 1959, contents below 1,000 acre-ft may be in error at times as readings at gage were too low because of fall in outlet channel. Figures given herein represent usable contents.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	14,010	20,780	27,080	31,440	34,430	36,950	38,830	41,230	39,290	33,820	29,640	27,680
1952	32,890	38,050	38,930	38,660	36,870	34,590	34,480	37,540	39,910	31,940	17,950	22,710
1953	28,170	33,590	37,750	37,140	37,420	38,300	38,060	27,620	38,130	28,820	11,300	9,301
1954	15,020	21,850	27,740	32,150	34,990	37,290	36,500	34,390	40,030	24,700	10,080	3,760
1955	2,790	11,210	17,460	21,960	24,590	26,780	28,090	24,720	23,630	19,830	3,125	448
1956	631	8,210	14,790	19,480	22,660	26,120	30,770	41,710	42,270	25,430	11,290	10,090
1957	15,660	22,250	27,520	31,340	34,030	36,370	37,800	40,650	44,340	30,290	10,840	15,440
1958	20,400	25,470	29,490	32,170	34,180	35,670	36,250	38,320	38,320	23,710	12,120	6,970
1959	6,380	15,660	22,730	27,730	31,280	34,240	34,250	20,790	16,950	4,220	392	444
1960	5,590	14,050	20,480	24,890	28,250	31,070	31,940	26,000	17,210	2,050	569	615

1265. Sharp ditch near Mackay, Idaho

Location.--Lat 43°57', long 113°39', in sec.7, T.7 N., R.24 E., on left bank 1,600 ft downstream from head of ditch, three-quarters of a mile downstream from Mackay Reservoir, and 3½ miles northwest of Mackay.
Records available.--June 1912 to October 1914, March 1919 to September 1960 (seasonal records only 1912-14, 1919-20, 1923-26, 1930, 1937).
Gage.--Water-stage recorder and broad-crested weir. Datum of gage is 5,989.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1936, and June 24, 1938, to Apr. 24, 1939, staff gage, and Oct. 1, 1936, to June 23, 1938, water-stage recorder, at several sites 1,300 to 1,600 ft upstream at various datums.
Extremes.--1912-14, 1919-60: Maximum daily discharge, 46 cfs May 30, 1951; no flow at times in most years.
Remarks.--Sharp ditch diverts from east side of Big Lost River in SE¼ sec.12, T.7 N., R.23 E., half a mile downstream from Mackay Reservoir and 1 mile upstream from station on Big Lost River below Mackay Reservoir, near Mackay. Water used for irrigation northwest of Mackay and above Streeter ditch. Hintze ditch, which diverts from Sharp ditch upstream from station, carried the following yearly flow:

Year	Acre-feet	Year	Acre-feet
1951	176	1956	121
1952	101	1957	219
1953	115	1958	334
1954	174	1959	65
1955	60	1960	122

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	85	107	0	0	0	0	408	1,090	1,610	1,960	1,350	881	7,490
1952	558	86	31	0	15	42	48	530	1,850	1,850	1,820	558	7,390
1953	488	212	15	4.0	0	0	284	565	1,190	2,040	1,320	879	7,000
1954	449	250	36	0	0	4.6	328	712	1,090	1,340	896	600	5,710
1955	634	232	7.1	0	0	13	412	358	936	976	1,320	780	5,670
1956	302	45	31	37	42	41	283	730	1,660	1,800	1,030	598	6,600
1957	176	67	24	8.9	2.2	0	15	26	1,460	1,610	1,280	987	5,660
1958	958	203	3.0	0	0	0	6.7	273	1,830	1,570	1,360	407	6,610
1959	274	12.3	8.1	0	0	0	609	565	1,230	1,150	1,030	420	5,300
1960	213	74	31	31	15	.6	203	360	1,050	884	673	541	4,080

1270. Big Lost River below Mackay Reservoir, near Mackay, Idaho

Location.--Lat 43°56', long 113°38', in sec.18, T.7 N., R.24 E., on left bank 1 mile downstream from head of Sharp ditch, 1½ miles downstream from Mackay Reservoir, and 2½ miles northwest of Mackay.

Drainage area.--813 sq mi.

Records available.--December 1903 to August 1906 and May 1912 to March 1915 (published as "near Mackay"), January 1919 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 5,946.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to May 12, 1912, and June 5, 1912, to Apr. 28, 1913, staff gages at sites within 1 mile upstream at different datums. May 12 to June 4, 1912, staff gages at site 1½ miles upstream (upstream from Sharp ditch) at different datums. Apr. 29, 1913, to Mar. 15, 1915, staff gage at site 1 mile downstream (downstream from Streeter ditch) at different datum.

Average discharge.--44 years (1904-5, 1912-14, 1919-60), 281 cfs (203,400 acre-ft per year).

Extremes.--1903-6, 1912-15, 1919-60: Maximum discharge, 2,990 cfs June 10, 1921 (gage height, 5.79 ft); minimum, 18 cfs Nov. 1, 1934; minimum gage height, 1.22 ft Oct. 4, 1959.

Remarks.--Sharp ditch (see p. 108) is the only diversion between station and Mackay Reservoir; about 9,000 acres of land are irrigated by diversions from river and tributaries upstream from reservoir. Flow regulated by Mackay Reservoir (see p. 108).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	59.5	82.3	93.6	109	118	125	199	683	928	722	513	263	326
1952	124	116	181	200	208	206	239	1,023	1,249	749	573	129	417
1953	105	115	126	192	167	151	148	346	872	933	532	232	328
1954	106	75.5	91.5	104	114	125	150	586	534	752	424	277	280
1955	212	45.1	69.8	90.5	105	111	106	178	717	514	440	214	234
1956	171	53.7	63.0	81.9	93.3	104	112	789	1,571	828	486	209	381
1957	123	75.2	87.4	103	113	121	124	400	1,320	829	550	119	331
1958	120	118	125	135	145	150	165	1,193	1,265	715	483	312	412
1959	241	55.3	83.1	104	115	125	145	355	658	427	238	189	229
1960	135	55.3	80.9	100	111	116	120	277	699	420	197	167	207

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,660	4,900	5,760	6,720	6,570	7,670	11,860	42,020	55,240	44,420	31,560	15,650	236,000
1952	7,590	6,900	11,120	12,300	11,950	12,650	14,240	62,900	74,320	46,080	35,220	7,700	303,000
1953	6,450	6,850	7,760	11,780	9,280	9,310	8,800	21,300	51,870	57,380	32,710	13,810	237,300
1954	6,550	4,490	5,620	6,370	6,320	7,670	8,900	36,050	31,750	46,240	26,040	16,480	202,500
1955	13,050	2,680	4,290	5,570	5,820	6,800	6,330	10,970	42,670	31,620	27,020	12,760	169,600
1956	10,540	3,190	3,870	5,040	5,270	6,390	6,680	48,500	93,500	50,880	29,900	12,410	276,300
1957	7,550	4,470	5,370	6,340	6,260	7,450	7,350	24,620	78,520	50,960	33,830	7,110	239,800
1958	7,370	7,030	7,670	8,300	8,050	9,250	9,840	73,330	75,290	43,970	29,670	18,570	298,300
1959	14,850	3,290	5,110	6,410	6,380	7,670	8,640	21,840	39,160	26,230	14,610	11,270	165,500
1960	8,310	3,290	4,980	6,160	6,400	7,130	7,130	17,060	41,590	25,800	12,120	9,940	149,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	246	178,300
1951	1217	1,790	May 30, 1951	49	326	236,000	342	247,300
1952	1247	2,130	June 8, 1952	78	417	303,000	411	298,400
1953	1287	1,730	June 21, 22, 1953	90	328	237,300	322	232,900
1954	1347	1,860	June 27, 1954	59	280	202,500	284	205,400
1955	1397	1,130	June 14, 1955	37	234	169,600	231	167,200
1956	1447	2,530	June 3, 1956	43	381	276,300	380	276,100
1957	1517	2,400	June 8, 1957	69	331	239,800	338	244,500
1958	1567	2,520	May 26, 1958	96	412	298,300	414	299,500
1959	1637	1,110	June 14, 1959	42	229	165,500	219	158,800
1960	1717	1,070	June 7, 1960	23	207	149,900	-	-

1325. Big Lost River near Arco, Idaho

Location.--Lat 43°35', long 113°16', near line between secs.17 and 20, T.3 N., R.27 E., on right bank a quarter of a mile downstream from head of box canyon, 0.4 mile downstream from slough entering from left bank, and 4 miles southeast of Arco.

Drainage area.--1,410 sq mi, approximately.

Records available.--August 1946 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,240 ft (by barometer). Prior to Oct. 14 1952, at site 800 ft upstream at datum 3.08 ft higher.

Average discharge.--14 years (1946-60), 68.4 cfs (49,520 acre-ft per year).

Extremes.--1946-60: Maximum discharge, 1,190 cfs June 1, 1958 (gage height, 6.59 ft); no flow for many days May to September 1960.

Remarks.--Station is downstream from all large diversions for irrigation in Big Lost River Valley. Flow regulated by Mackay Reservoir (see p. 108). About 42,000 acres of land irrigated by diversions from river and tributaries upstream from station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	22.4	22.6	21.7	14.8	12.7	12.8	20.6	46.6	59.5	30.8	118	90.3	39.6
1952	103	109	91.6	87.6	104	123	220	447	428	194	67.5	80.0	171
1953	49.3	81.6	102	125	161	128	98.7	34.2	86.8	50.4	28.6	30.7	80.8
1954	44.2	52.8	72.1	76.9	57.9	45.9	29.1	12.7	19.6	24.9	17.1	20.5	39.4
1955	27.4	33.6	31.5	21.9	19.5	17.5	12.8	7.32	5.69	10.9	5.82	9.28	16.9
1956	10.4	12.9	49.0	18.6	13.4	126	85.6	116	485	37.1	34.3	37.6	85.1
1957	47.2	66.7	53.9	35.1	38.7	42.8	36.2	212	391	87.6	29.2	63.9	91.9
1958	72.4	87.7	101	92.4	104	112	120	499	675	117	70.3	125	181
1959	221	109	111	98.6	94.3	88.9	24.3	13.7	14.2	8.56	2.54	3.81	65.8
1960	15.1	17.8	14.6	10.9	11.8	11.5	8.41	.94	0	.26	0	0	7.60

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,380	1,350	1,340	908	704	787	1,230	2,870	3,540	1,890	7,280	5,370	28,650
1952	6,340	6,490	5,640	5,390	5,990	7,570	13,100	27,500	25,450	11,930	4,150	4,760	124,300
1953	3,030	4,850	6,300	7,690	8,940	7,840	5,870	2,100	5,170	3,100	1,760	1,820	58,470
1954	2,720	3,140	4,430	4,730	3,210	2,820	1,730	782	1,170	1,530	1,050	1,220	28,530
1955	1,680	2,000	1,930	1,350	1,080	1,080	761	450	338	669	358	552	12,250
1956	642	766	3,010	1,150	770	7,760	5,090	7,100	28,830	2,280	2,110	2,240	61,750
1957	2,900	3,970	3,310	2,160	2,150	2,630	2,150	13,020	23,240	5,390	1,800	3,800	66,520
1958	4,450	5,220	6,190	5,680	5,760	6,870	7,120	30,710	40,190	7,220	4,320	7,420	131,200
1959	13,560	6,460	6,810	6,070	5,240	5,460	1,440	844	842	527	156	227	47,640
1960	925	1,060	897	672	678	708	501	58	0	16	0	0	5,520

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	24.0	17,350
1951	1217	272	Aug. 6, 1951	259	39.6	28,650	59.5	43,050
1952	1247	698	June 11, 1952	39	171	124,300	165	120,000
1953	1287	251	June 17, 1953	16	80.8	58,470	75.4	54,580
1954	1347	85	Jan. 23, 1954	6.4	39.4	28,530	33.0	23,850
1955	1397	54	Oct. 27, 31, 1954	.5	16.9	12,250	15.3	11,060
1956	1447	1,050	Mar. 23, 1956	4.8	85.1	61,750	93.0	67,510
1957	1517	909	June 11, 1957	22	91.9	66,520	99.7	72,200
1958	1567	1,190	June 1, 1958	33	181	131,200	196	142,100
1959	1637	366	Oct. 14, 1958	1.0	65.8	47,640	32.7	23,690
1960	1717	26	Oct. 15, 1959	0	7.60	5,520	-	-

1330. Riley Creek Springs near Hagerman, Idaho

Location.--Lat 42°45'40", long 114°51'30", in SW¼NE¼ sec.6, T.8 S., R.14 E., on right bank 50 ft upstream from junction with Lewis Spring, 300 ft downstream from U. S. Fish Hatchery, and 5 miles southeast of Hagerman.

Records available.--March 1950 to June 1951.

Gage.--Water-stage recorder. Altitude of gage is 2,960 ft (from topographic map).

Extremes.--1950-51: Maximum daily discharge, 42 cfs many days in January, February, March, May, and June 1951; minimum daily, 29 cfs Mar. 1-15, 1950.

Remarks.--Small domestic diversion above station. Some intermingling with Lewis Spring water above station through fish hatchery. Amount of Lewis Spring water passing station increased beginning Nov. 21, 1950. Slight regulation from filling and emptying of fish ponds above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	30.2	32.3	39.1	39.3	41.4	41.6	38.9	41.2	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,860	1,920	2,400	2,420	2,300	2,560	2,310	2,530	-	-	-	-	-

1335. Brailsford ditch near Hagerman, Idaho

Location.--Lat 42°46'00", long 114°51'50", in N½NW¼ sec.6, T.8 S., R.14 E., on left bank 250 ft upstream from road bridge, 0.5 mile downstream from point of diversion at Lewis Spring, and 4.2 miles southeast of Hagerman.

Records available.--June 1951 to December 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,000 ft (from topographic map).

Average discharge.--8 years (1951-59), 8.18 cfs (5,920 acre-ft per year).

Extremes.--1951-59: Maximum daily discharge, 16 cfs June 23-26, July 19-26, 30, Aug. 19, 20, 1951; no flow at times during March, April, September, and October 1952.

Remarks.--Brailsford ditch diverts from Lewis Spring for irrigation.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	-	-	-	-	-	897	837	819	-
1952	488	370	327	294	238	6.0	306	618	670	717	649	419	5,100
1953	358	115	112	138	160	131	626	845	730	752	762	732	5,460
1954	472	64	46	43	41	58	457	823	732	684	780	817	5,020
1955	424	150	158	148	182	261	550	766	792	743	666	525	5,360
1956	506	489	301	156	144	252	452	698	544	808	801	746	5,900
1957	571	379	379	506	456	485	487	722	705	630	754	633	6,710
1958	549	626	552	399	313	338	539	714	695	731	809	623	6,890
1959	603	548	513	526	417	162	585	652	686	843	724	692	6,950
1960	263	135	135	-	-	-	-	-	-	-	-	-	-

1340. Riley Creek below Lewis Spring, near Hagerman, Idaho

Location.--Lat 42°45'50", long 114°51'30", in SE¼NW¼ sec.6, T.8 S., R.14 E., on left bank 560 ft downstream from confluence of Riley Creek springs and Lewis Spring, an eighth of mile downstream from U. S. Fish Hatchery, and 4 miles southeast of Hagerman.

Records available.--June 1951 to December 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,955 ft (from topographic map). Prior to June 17, 1955, at site 1,200 ft downstream at different datum.

Average discharge.--8 years (1951-59), 62.2 cfs (45,030 acre-ft per year), excluding diversion from Bickel Spring.

Extremes.--1951-59: Maximum daily discharge, 78 cfs Nov. 14, 15, 20-23, 1953; minimum dai 49 cfs July 28, 1959.

Remarks.--Flow at this station plus flow of Brailsford ditch (see p. 111) gives total flow from Riley and Lewis Springs plus small intervening inflow. Flow diverted from Lewis Spring to Brailsford ditch for irrgation. Slight regulation by ponds at fish hatchery. Beginning about Aug. 30, 1957, water was diverted from Bickel Spring through Bickel ditch to Riley Creek upstream from station.

Figures given herein do not include flow from Bickel ditch which entered upstream fro station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	-	-	-	-	-	59.5	60.9	62.7	-
1952	70.9	71.6	68.1	64.3	68.3	75.0	66.3	61.7	62.3	62.6	62.5	64.7	66.5
1953	66.5	70.0	70.4	69.5	68.1	67.6	61.9	59.9	60.2	59.4	60.7	68.3	65.2
1954	70.8	76.8	72.4	71.3	71.7	71.9	65.7	61.1	62.7	65.8	65.1	63.0	68.3
1955	70.6	73.3	70.2	69.0	68.1	65.5	60.9	56.3	53.1	54.5	58.0	60.7	63.3
1956	58.6	58.5	60.7	61.1	60.8	61.2	59.1	56.0	55.6	51.6	53.8	53.2	57.1
1957	56.6	61.0	62.2	59.2	57.2	57.6	59.5	56.6	54.8	56.4	55.7	59.9	58.0
1958	56.9	59.5	62.0	64.0	64.6	64.3	61.3	56.4	56.1	56.1	53.3	64.1	59.
1959	60.7	61.3	60.3	54.2	54.5	59.9	55.0	56.6	56.9	48.8	52.0	56.9	56.4
1960	64.8	64.8	67.5	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	-	-	-	-	-	3,630	3,750	3,730	-
1952	4,360	4,260	4,190	3,950	3,930	4,610	3,950	3,790	3,710	3,850	3,840	3,850	48,290
1953	4,090	4,170	4,330	4,270	3,780	4,160	3,690	3,680	3,580	3,650	3,730	4,060	47,190
1954	4,350	4,570	4,450	4,390	3,980	4,420	3,910	3,750	3,730	4,050	4,000	3,750	49,350
1955	4,340	4,360	4,320	4,240	3,780	4,030	3,620	3,460	3,160	3,350	3,570	3,610	45,840
1956	3,610	3,480	3,730	3,760	3,500	3,760	3,520	3,450	3,310	3,170	3,310	3,170	41,770
1957	3,480	3,630	3,820	3,640	3,180	3,540	3,540	3,480	3,260	3,470	3,420	3,560	42,020
1958	3,500	3,540	3,810	3,940	3,590	3,950	3,650	3,470	3,340	3,450	3,280	3,810	43,330
1959	3,730	3,650	3,710	3,330	3,030	3,680	3,270	3,480	3,390	3,000	3,200	3,390	40,860
1960	3,980	3,860	4,150	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	-	-	-	-	-	-	-
1952	1247	77	Mar.21-23,1952	60	66.5	48,290	66.2	48,07
1953	1287	71	(a)	58	65.2	47,190	66.3	47,97
1954	1347	78	(b)	60	68.2	49,350	67.7	49,00
1955	1397	75	Oct. 23, 1954	51	63.3	45,840	60.3	43,64
1956	1447	65	Apr.11,12,1956	50	57.5	41,770	57.7	41,88
1957	1517	67	(c)	50	58.0	42,020	57.9	41,94
1958	1567	67	Feb.26,27,1958	49	59.9	43,330	60.2	43,57
1959	1637	65	Dec. 5, 6, 1958	45	56.4	40,860	57.7	41,76
1960	1637	-	-	-	-	-	-	-

a Occurred on several days in October, November, December 1952 and January 1953.
b Nov. 14, 15, 20-23, 1953.
c Mar. 31, Apr. 4-8, 1957.

1350. Snake River below Lower Salmon Falls, near Hagerman, Idaho

Location.--Lat 42°50'55", long 114°54'02", in lot 3, sec.2, T.7 S., R.13 E., on right bank half a mile downstream from Lower Salmon Falls powerplant, 1 mile upstream from Big Wood River, and 2¼ miles north of Hagerman.

Records available.--October 1937 to September 1960. Monthly discharge only for October 1937, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,727.7 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, by stadia levels. Prior to Jan. 3, 1950, at site 340 ft upstream at same datum.

Extremes.--1937-60: Maximum discharge, 29,800 cfs June 27, 1950 (gage height, 15.60 ft); minimum, probably less than 100 cfs Jan. 10, 11, 1950, when river was below intake pipes; minimum daily, 3,970 cfs July 8, 1951.

Remarks.--Flow regulated by Lower Salmon Falls powerplant and many reservoirs upstream from station. At times, practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	9,789	9,895	10,740	13,510	16,270	15,590	11,030	15,440	9,685	6,795	7,442	7,885	11,150
1952	11,430	11,160	10,680	11,560	15,670	16,300	17,080	13,570	11,830	7,653	7,137	7,570	11,780
1953	8,599	7,312	7,860	8,815	10,140	11,180	8,385	6,931	12,250	6,565	6,942	7,458	8,518
1954	7,724	7,766	8,669	8,667	8,594	8,793	9,145	7,848	7,429	6,827	6,967	7,621	7,999
1955	9,108	9,299	8,626	8,450	7,192	8,349	10,720	7,045	6,674	6,641	6,591	7,210	7,994
1956	7,675	7,355	7,324	9,290	10,350	11,940	13,590	12,840	18,180	6,615	7,167	7,782	9,988
1957	9,534	8,910	8,878	9,302	8,699	10,550	11,900	16,250	7,898	6,526	7,071	7,679	9,444
1958	8,289	7,590	8,179	8,686	8,808	9,267	9,168	6,988	6,957	6,559	6,961	7,558	7,911
1959	8,093	7,578	7,293	7,112	7,156	7,078	6,363	6,340	6,134	6,089	6,581	7,778	6,965
1960	8,882	7,804	7,376	6,991	6,690	6,394	7,063	5,763	6,138	6,378	6,762	7,141	6,949

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	601.9	588.8	660.2	830.5	903.7	958.8	656.6	949.7	576.3	417.8	457.6	469.2	8,071
1952	702.5	663.8	656.7	710.9	901.5	1,002	1,016	834.7	703.9	470.6	438.9	450.5	8,552
1953	528.7	435.1	483.3	542.0	563.2	687.2	498.9	426.1	728.7	403.7	426.9	442.6	6,166
1954	474.9	462.1	533.1	532.9	477.3	540.7	544.2	482.4	442.1	419.8	428.4	453.5	5,791
1955	560.0	553.3	530.4	519.6	399.5	513.3	638.2	433.2	397.2	408.4	405.3	429.0	5,787
1956	471.9	437.6	450.3	571.2	595.5	734.1	808.4	789.4	1,082	406.8	440.7	463.0	7,251
1957	586.2	530.2	545.9	571.9	483.1	649.0	708.3	999.5	470.0	401.3	434.8	457.0	6,837
1958	509.7	451.7	502.9	534.1	489.2	569.8	545.5	429.7	414.0	403.3	428.0	449.8	5,728
1959	497.6	450.9	448.4	437.3	397.4	435.2	378.6	389.9	365.0	374.4	404.6	462.8	5,042
1960	546.1	464.4	453.5	429.9	384.8	393.2	420.3	354.4	365.2	392.2	415.8	424.9	5,045

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	10,530	7,624,000
1951	1217	23,400	May 16, 1951	3,970	11,150	8,071,000	11,390	8,243,000
1952	1247	27,100	Mar. 19, 1952	6,450	11,780	8,552,000	10,990	7,976,000
1953	1287	27,300	June 10, 1953	5,910	8,518	6,166,000	8,549	6,189,000
1954	1347	18,100	May 29, 1954	5,950	7,999	5,791,000	8,239	5,965,000
1955	1397	18,200	Oct. 14, 1954	5,790	7,994	5,787,000	7,602	5,504,000
1956	1447	28,100	Mar. 31, 1956	5,720	9,988	7,251,000	10,400	7,553,000
1957	1517	29,100	May 22, 1957	5,920	9,444	6,837,000	9,170	6,639,000
1958	1567	17,900	(a)	5,740	7,911	5,728,000	7,818	5,660,000
1959	1637	18,100	Jan. 10, 1959	5,560	6,965	5,042,000	7,057	5,109,000
1960	1717	14,900	Dec. 12, 1959	5,250	6,949	5,045,000	-	-

a Jan. 13, Apr. 9, 1958.

1355. Big Wood River near Ketchum, Idaho

Location.--Lat 43°48', long 114°26', in sec.4, T.5 N., R.17 E., on left bank half a mile upstream from North Fork and 8 miles northwest of Ketchum.

Drainage area.--137 sq mi. Mean altitude, 8,120 ft.

Records available.--May 1948 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map). Prior to Nov. 7, 1950, staff gage at site 560 ft upstream at different datum.

Average discharge.--12 years (1948-60), 166 cfs (120,200 acre-ft per year).

Extremes.--1948-60: Maximum discharge, 1,620 cfs May 24, 1956 (gage height, 6.44 ft); minimum recorded, 14 cfs sometime during period Jan. 1-22, 1951 (gage height, 1.52 ft).

Remarks.--Minor diversions for nonconsumptive uses on Boulder Creek. About 97 acre-ft of storage in ponds on Prairie Creek.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	87.6	74.7	56.9	54.4	53.1	52.0	290	627	589	339	150	91.9	206
1952	85.6	72.7	64.1	55.2	52.5	50.6	234	797	719	266	117	81.8	217
1953	70.2	54.2	58.7	53.5	42.7	49.8	167	282	554	315	116	79.2	154
1954	68.5	61.5	50.3	49.0	50.0	48.2	187	564	384	256	98.1	69.8	158
1955	62.7	56.2	44.5	44.7	39.6	37.8	45.6	271	469	176	83.5	60.7	116
1956	57.8	65.5	57.9	49.1	44.2	51.9	258	818	808	294	125	84.1	226
1957	78.0	68.2	55.4	47.3	46.1	46.5	98.6	612	708	245	105	76.3	183
1958	77.3	63.5	59.2	59.2	53.8	48.0	82.3	916	696	241	123	83.8	210
1959	73.9	71.8	59.1	49.0	50.6	49.0	133	235	441	138	71.7	84.9	121
1960	79.8	61.1	41.9	47.3	42.4	55.0	160	250	336	95.5	57.2	51.4	106

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,390	4,440	3,500	3,340	2,950	3,200	17,240	38,530	35,070	20,840	9,220	5,470	149,200
1952	5,270	4,330	3,940	3,400	3,020	3,110	13,920	49,020	42,800	16,360	7,180	4,870	157,200
1953	4,320	3,230	3,610	3,290	2,370	3,060	9,940	17,320	32,940	19,360	7,160	4,710	111,300
1954	4,210	3,660	3,090	3,010	2,780	2,970	11,140	34,680	22,820	15,730	6,030	4,160	114,300
1955	3,860	3,340	2,740	2,750	2,200	2,320	2,710	16,650	27,890	10,810	5,140	3,610	84,020
1956	3,550	3,900	3,560	3,020	2,540	3,190	15,330	50,300	48,080	18,060	7,720	5,000	164,200
1957	4,800	4,060	3,410	2,910	2,560	2,860	5,870	37,610	42,160	15,050	6,450	4,540	132,300
1958	4,750	3,780	3,640	3,640	2,990	2,950	4,900	56,350	41,390	14,750	7,540	4,990	151,700
1959	4,540	4,270	3,640	3,010	2,810	3,010	7,900	14,430	26,220	8,470	4,410	5,050	87,760
1960	4,910	3,640	2,580	2,910	2,440	3,380	9,500	15,390	19,990	5,870	3,510	3,060	77,180

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	157	15.60	114,00
1951	1217	946	May 28, 1951	39	206	1.50	20.42	149,200	206	20.44	149,40
1952	1247	1,240	June 6, 1952	35	217	1.58	21.52	157,200	213	21.19	154,80
1953	1287	833	June 19, 1953	27	154	1.12	15.23	111,300	153	15.21	111,10
1954	1347	978	May 21, 1954	27	158	1.15	15.65	114,300	156	15.51	113,30
1955	1397	703	June 12, 1955	26	116	.847	11.50	84,020	118	11.65	85,09
1956	1447	1,620	May 24, 1956	30	226	1.65	22.48	164,200	228	22.66	165,50
1957	1517	1,200	June 4, 1957	29	183	1.34	18.11	132,300	183	18.09	132,20
1958	1567	1,540	May 21, 1958	33	210	1.53	20.75	151,700	210	20.78	152,00
1959	1637	647	June 14, 1959	18	121	.883	12.00	87,760	119	11.82	86,44
1960	1717	611	May 12, 1960	28	106	.774	10.56	77,180	-	-	-

1365. Warm Springs Creek at Guyer Hot Springs, near Ketchum, Idaho

Location.--Lat 43°41', long 114°25', in NE¼ sec.15, T.4 N., R.17 E., on left bank at Guyer Hot Springs, 2.1 miles upstream from mouth and 2.2 miles west of Ketchum.

Drainage area.--96 sq mi, approximately. Mean altitude, 7,560 ft.

Records available.--November 1940 to April 1959.

Gage.--Water-stage recorder. Datum of gage is 5,901.7 ft above mean sea level (river-profile survey). Prior to Mar. 7, 1942, staff gage at same site and datum.

Average discharge.--17 years (1941-58), 87.4 cfs (63,270 acre-ft per year).

Extremes.--1940-59: Maximum discharge, 961 cfs May 21, 1958 (gage height, 4.18 ft); minimum, 6 cfs Feb. 29, 1944 (gage height, 0.55 ft), result of ice jam upstream; minimum gage height, -0.13 ft Jan. 3, 1959; minimum daily, 17 cfs Dec. 17, 1946.

Remarks.--Diversions above station for irrigation of about 200 acres (1950 determination). Small diversion from Guyer Hot Springs for recreational purposes bypasses station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	39.0	40.4	35.9	33.7	35.1	37.2	198	392	250	102	55.3	41.1	105
1952	43.1	36.3	34.8	33.5	31.9	32.2	169	487	330	104	56.6	45.2	117
1953	41.7	37.3	38.2	37.1	31.6	40.7	123	165	266	107	49.2	39.7	81.3
1954	36.8	33.5	29.9	29.2	31.3	33.5	121	266	139	75.8	39.3	34.6	72.8
1955	34.0	29.5	30.6	27.8	26.5	28.1	37.9	144	178	60.8	35.3	29.3	55.2
1956	30.8	35.3	48.0	34.6	28.3	42.1	206	453	344	92.9	48.0	38.8	117
1957	41.0	38.3	33.7	29.9	29.2	32.0	77.3	336	291	85.8	46.9	40.0	90.4
1958	39.7	34.3	35.5	33.7	32.4	29.6	60.4	524	289	93.0	58.5	45.3	107
1959	39.9	39.5	38.7	35.2	36.0	32.3	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,400	2,410	2,210	2,070	1,950	2,290	11,760	24,120	14,880	6,290	3,400	2,450	76,230
1952	2,650	2,160	2,140	2,060	1,830	1,980	10,080	29,930	19,660	6,380	3,480	2,690	85,040
1953	2,560	2,220	2,350	2,280	1,750	2,500	7,310	10,150	15,820	6,550	3,030	2,360	58,880
1954	2,260	2,000	1,840	1,800	1,740	2,060	7,210	16,380	8,300	4,660	2,410	2,060	52,720
1955	2,090	1,760	1,880	1,710	1,470	1,730	2,260	8,860	10,580	3,740	2,170	1,750	40,000
1956	1,890	2,100	2,950	2,130	1,630	2,590	12,280	27,880	20,450	5,710	2,950	2,310	84,870
1957	2,520	2,280	2,070	1,840	1,620	1,970	4,600	20,680	17,340	5,270	2,880	2,380	65,450
1958	2,440	2,040	2,190	2,070	1,800	1,820	3,600	32,190	17,190	5,720	3,600	2,690	77,350
1959	2,450	2,350	2,380	2,170	2,000	1,990	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	79.8	57,750
1951	1217	634	May 28, 1951	25	105	76,230	105	76,160
1952	1247	636	May 26, 1952	21	117	85,040	117	85,220
1953	1287	387	June 13, 1953	21	81.3	58,880	79.9	57,850
1954	1347	417	May 20, 1954	23	72.8	52,720	72.3	52,350
1955	1397	289	June 9, 1955	21	55.2	40,000	56.9	41,210
1956	1447	883	May 25, 1956	20	117	84,870	117	84,800
1957	1517	635	May 19, 1957	25	90.4	65,450	90.1	65,250
1958	1567	961	May 21, 1958	25	107	77,350	105	77,860
1959	1637	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-

1390. Big Wood Slough at Hailey, Idaho

Location.--Lat 43°31'00", long 114°19'30", in sec.9, T.2 N., R.18 E., on left bank 40 ft upstream from bridge on State Highway 22, an eighth of a mile northeast of Big Wood River at Hailey gaging station, and an eighth of a mile southwest of Hailey.

Drainage area.--See Big Wood River at Hailey on following page.

Records available.--June 1915 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 5,301.17 ft above mean sea level, unadjusted. Prior to Apr. 12, 1936, staff gages at or near highway bridge, at same datum.

Extremes.--1915-60: Maximum discharge observed, 419 cfs June 6, 1921, from rating curve extended above 280 cfs; maximum gage height, 5.55 ft (top of ice in well) Jan. 20-23, 1937; no flow at times in several years.

Remarks.--Flow controlled at inoperative powerplant half a mile upstream to meet the requirements of irrigation diversion and sewage dilution. Big Wood Slough is a natural channel of Big Wood River and its discharge plus the discharge of Big Wood River at Hailey (see p. 117) is total discharge of river at this point.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4.53	33.0	53.9	8.30	5.74	4.55	21.8	40.0	31.0	43.1	16.4	33.9	24.8
1952	53.5	37.3	30.6	31.0	27.1	27.8	44.1	20.5	44.2	32.9	15.7	8.56	31.1
1953	5.23	8.95	9.05	10.1	8.03	10.5	28.2	36.0	39.2	28.3	24.8	10.5	18.3
1954	14.7	13.8	10.3	10.7	11.1	12.6	36.5	15.4	22.8	22.6	35.2	19.3	18.8
1955	28.7	29.4	25.7	23.7	21.8	20.2	27.9	20.1	19.1	13.2	16.7	19.9	22.2
1956	18.9	3.37	16.3	8.92	7.09	8.91	24.6	35.8	37.0	32.5	18.9	9.44	18.5
1957	17.3	16.1	12.2	8.54	9.37	12.6	32.2	39.3	39.1	34.4	22.1	16.9	21.6
1958	22.0	23.1	21.4	20.0	18.5	18.9	21.6	64.7	29.2	17.1	5.34	3.88	22.2
1959	16.0	24.5	20.9	17.4	17.2	18.4	24.1	27.9	24.9	12.9	18.6	22.5	20.4
1960	21.2	18.5	16.3	15.5	13.9	15.9	12.2	8.05	18.2	19.3	22.6	21.2	16.9

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	279	1,960	3,310	511	319	280	1,300	2,460	1,840	2,650	1,010	2,020	17,940
1952	3,290	2,220	1,880	1,900	1,560	1,710	2,620	1,260	2,630	2,020	963	510	22,560
1953	322	522	557	620	446	647	1,680	2,210	2,330	1,740	1,520	626	13,230
1954	904	819	632	659	617	774	2,170	945	1,360	1,390	2,160	1,150	13,580
1955	1,770	1,750	1,580	1,460	1,210	1,240	1,660	1,240	1,140	812	1,020	1,180	16,060
1956	1,160	200	1,000	548	408	548	1,460	2,200	2,200	2,000	1,160	562	13,450
1957	1,060	958	753	525	520	778	1,920	2,410	2,320	2,110	1,360	944	15,660
1958	1,350	1,380	1,320	1,230	1,030	1,160	1,290	3,980	1,740	1,050	328	231	16,090
1959	983	1,460	1,280	1,070	956	1,130	1,440	1,720	1,480	793	1,140	1,340	14,790
1960	1,130	1,100	1,000	956	797	978	723	495	1,080	1,190	1,390	1,260	12,280

Yearly discharge, in cubic feet per second

Year	WSP	Wster year ending Sept. 30					Cslendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Dischsrge	Date					
1950	-	-	-	-	-	-	25.5	18,450
1951	1217	73	June 25, 1951	-	24.8	17,940	27.3	19,780
1952	1247	98	Apr. 7, 1952	4.4	31.1	22,560	22.9	16,580
1953	1287	89	Apr. 22, 1953	4.4	18.3	13,230	19.6	14,170
1954	1347	73	Apr. 15, 1954	4.3	18.8	13,580	22.5	16,320
1955	1397	57	May 6, 1955	3.5	22.2	16,060	18.4	13,320
1956	1447	90	May 24, 1956	1.0	18.5	13,450	19.1	13,860
1957	1517	68	(a)	7.0	21.6	15,660	23.4	16,940
1958	1567	217	May 24, 1958	3.5	22.2	16,090	21.8	15,760
1959	1637	60	Apr. 18, 1959	3.3	20.4	14,790	20.0	14,480
1960	1717	35	Aug. 1, 1960	4.2	16.9	12,280	-	-

a May 1, July 24, 1957.

1395. Big Wood River at Hailey, Idaho

Location.--Lat 43°31', long 114°20', in SW¼ sec.9, T.2 N., R.18 E., on left bank 35 ft downstream from bridge on State Highway 22, a quarter of a mile southwest of Hailey, and three-eighths of a mile upstream from Croy Creek.

Drainage area.--640 sq mi, approximately (total area above river and slough stations). Mean altitude, 7,620 ft.

Records available.--July to December 1889, June 1915 to September 1960. Published as Wood River at Hailey, 1889.

Gage.--Water-stage recorder. Datum of gage is 5,298.00 ft above mean sea level, unadjusted. July to December 1889 staff gage at nearby site at different datum. June 11, 1915, to Nov. 15, 1934, staff gages at bridge 35 ft upstream at different datum.

Average discharge.--45 years (1915-60), 336 cfs (243,300 acre-ft per year).

Extremes.--1889, 1915-60: Maximum discharge, 4,640 cfs May 24, 1956, and May 28, 1958; maximum gage height, 8.66 ft, June 12, 1921, present datum; no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.

Remarks.--Water diverted around station through Big Wood Slough (see p. 116). Total flow of river at Hailey (combined flow of Big Wood River and Big Wood Slough) is given on page 118. Diversions above station for irrigation of about 12,000 acres (1950 determination) of which about 1,800 acres is below station. Storage above station is negligible.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	217	203	137	152	172	172	910	1,791	1,454	820	374	203	552
1952	207	189	154	156	145	140	926	2,710	2,079	859	351	260	680
1953	218	185	190	199	164	200	585	755	1,507	927	276	178	449
1954	187	169	142	149	149	157	548	1,287	908	617	191	143	389
1955	150	134	110	108	105	99.2	137	694	1,174	489	193	124	293
1956	121	156	202	178	138	180	941	2,288	2,132	747	291	215	633
1957	227	190	183	143	147	161	336	1,601	1,900	683	255	184	500
1958	189	169	159	144	146	145	386	2,862	1,951	692	327	240	621
1959	191	183	163	148	147	146	371	520	938	308	135	207	288
1960	220	166	129	125	115	169	546	659	752	213	101	101	274

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13,340	12,110	8,400	9,330	9,560	10,550	54,140	110,100	86,510	50,430	22,970	12,090	399,500
1952	12,700	10,050	9,440	9,570	8,340	8,630	55,080	166,600	123,700	52,800	21,570	15,500	494,000
1953	13,410	10,980	11,700	12,220	9,090	12,320	34,810	46,430	89,690	57,000	16,980	10,480	325,100
1954	11,510	10,060	8,750	9,160	8,280	9,650	32,660	79,140	54,040	37,940	11,760	8,520	281,500
1955	9,200	7,940	6,740	6,620	5,850	6,100	8,160	42,680	69,830	30,060	11,850	7,380	212,400
1956	7,460	9,280	12,440	10,970	7,960	11,060	56,000	140,700	126,900	45,940	17,910	12,810	459,400
1957	13,930	11,330	10,000	8,810	8,150	9,920	20,020	98,420	113,100	42,020	15,680	10,940	362,300
1958	11,610	10,080	9,750	8,850	8,120	8,940	22,950	176,000	116,100	42,570	20,080	14,300	449,400
1959	11,750	10,920	10,000	9,100	8,170	8,970	22,060	31,990	55,790	18,950	8,310	12,310	208,300
1960	13,550	9,900	7,920	7,720	6,590	10,390	32,470	40,540	44,720	13,080	6,210	6,020	199,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	410	293,800
1951	1217	2,970	May 28, 1951	100	552	399,500	550	397,900
1952	1247	3,820	May 4, 1952	105	680	494,000	686	497,900
1953	1287	2,480	June 19, 1953	125	449	325,100	441	319,300
1954	1347	3,050	June 27, 1954	104	389	281,500	380	275,000
1955	1397	1,870	June 12, 1955	86	293	212,400	301	217,700
1956	1447	4,640	May 24, 1956	89	633	459,400	641	465,500
1957	1517	3,930	June 5, 1957	123	500	362,300	495	358,500
1958	1567	4,640	May 28, 1958	120	621	449,400	622	450,600
1959	1637	1,540	June 14, 1959	112	288	208,300	286	207,000
1960	1717	1,720	May 13, 1960	82	274	199,100	-	-

1395.1. Combined discharge of Big Wood River and Big Wood Slough at Hailey, Idaho

Location.--Lat 43°31', long 114°20', in sec.9, T.2 N., R.18 E., is the location of two gaging stations near Hailey, used for this combined record.

Drainage area.--640 sq mi, approximately. Mean altitude, 7,620 ft.

Records available.--July to December 1889, July 1915 to September 1960.

Average discharge.--45 years (1915-60), 426 cfs (308,400 acre-ft per year).

Extremes.--1889, 1915-60: Maximum daily discharge, 4,520 cfs May 25, 1958; minimum daily 15 cfs Dec. 27, 1921.

Remarks.--Diversions above stations for irrigation of about 12,000 acres of which about 1,800 acres is below stations. Storage above station is negligible.

Combined discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	221	236	190	160	178	176	932	1,831	1,485	834	390	237	57
1952	260	206	184	187	172	168	970	2,731	2,124	892	366	269	71
1953	223	194	199	209	172	211	613	791	1,547	956	301	187	46
1954	202	183	153	160	160	170	585	1,303	931	639	226	162	40
1955	178	163	135	131	127	119	165	714	1,193	502	209	144	31
1956	140	159	219	187	145	189	965	2,324	2,169	730	310	225	65
1957	244	206	175	152	156	174	369	1,640	1,940	718	277	200	52
1958	211	193	180	164	165	164	407	2,926	1,980	710	332	244	64
1959	207	208	184	165	164	164	395	548	963	321	154	229	30
1960	242	185	145	141	128	185	558	667	770	232	124	122	29

Combined discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13,610	14,070	11,710	9,840	9,880	10,830	55,440	112,600	88,370	53,100	23,980	14,110	417,50
1952	15,990	12,270	11,320	11,470	9,890	10,340	57,730	167,900	126,400	54,830	22,530	16,010	516,70
1953	13,730	11,520	12,250	12,840	9,530	12,970	36,470	48,640	92,030	58,730	18,510	11,110	338,40
1954	12,420	10,880	9,380	9,820	8,900	10,430	34,830	80,100	55,420	39,330	13,920	9,670	295,10
1955	10,970	9,690	8,320	8,080	7,060	7,340	9,820	43,930	70,970	30,870	12,880	8,560	228,50
1956	8,620	9,480	13,440	11,520	8,360	11,610	57,440	142,900	129,100	47,930	19,080	13,380	472,90
1957	14,990	12,280	10,750	9,330	8,670	10,700	21,940	100,800	115,400	44,120	17,040	11,890	377,90
1958	12,970	11,460	11,070	10,080	9,150	10,100	24,240	179,900	117,800	43,630	20,400	14,530	465,30
1959	12,730	12,370	11,290	10,160	9,130	10,100	23,490	33,700	57,290	19,740	9,460	13,650	223,10
1960	14,860	11,010	8,920	8,670	7,380	11,370	33,180	41,040	45,800	14,270	7,600	7,280	211,40

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum day		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	435	315,200
1951	1217	2,900	May 28, 1951	122	577	417,500	577	417,700
1952	1247	3,620	May 4, 1952	125	712	516,700	709	514,600
1953	1287	2,340	June 19, 1953	131	467	338,400	461	333,500
1954	1347	2,300	May 21, 1954	111	408	295,100	402	291,400
1955	1397	1,760	June 12, 1955	105	316	228,500	319	231,000
1956	1447	4,340	May 24, 1956	99	651	472,900	660	479,400
1957	1517	3,750	June 6, 1957	132	522	377,900	519	375,400
1958	1567	4,520	May 25, 1958	139	643	465,300	644	466,200
1959	1637	1,450	June 14, 1959	130	308	223,100	306	221,500
1960	1717	1,560	May 13, 1960	100	291	211,400	-	-

1410. Big Wood River near Bellevue, Idaho

Location.--Lat 43°19'30", long 114°19'30", in SE¼NW¼ sec.21, T.1 S., R.18 E., on right bank 2½ miles upstream from flow line of Magic Reservoir, 3⅝ miles upstream from Camas Creek, and 10 miles southwest of Bellevue.

Drainage area.--823 sq mi.

Records available.--July 1911 to September 1960 (no winter records prior to 1943 except 1916, 1921-22, 1940-41).

Gage.--Water-stage recorder. Altitude of gage is 4,820 ft (by barometer). Prior to July 8, 1921, at site 1.1 miles downstream at different datum. July 8, 1921, to Oct. 5, 1954, at site three-quarters of a mile downstream at different datum.

Average discharge.--22 years (1915-16, 1921-22, 1939-41, 1942-60), 285 cfs (206,300 acre-ft per year).

Extremes.--1911-60: Maximum discharge, 4,130 cfs May 25, 1956; maximum gage height, 6.43 ft May 12, 1958; minimum discharge recorded, 7 cfs Apr. 14, 1932 (gage height, 1.10 ft, site and datum then in use).

Remarks.--Diversions for irrigation of about 36,400 acres (1950 determination) above station. Storage above station is negligible.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	107	170	153	79.5	89.2	102	861	1,391	930	492	175	103	389
1952	144	142	e8.6	58.7	55.3	73.4	1,005	2,366	1,578	498	131	106	521
1953	109	132	110	139	120	151	480	355	890	464	109	81.4	261
1954	72.7	91.2	75.0	62.1	92.2	116	403	761	516	320	90.8	67.6	223
1955	77.2	72.6	61.7	44.5	37.6	36.9	56.4	385	627	154	78.1	68.0	142
1956	57.2	65.5	147	136	53.9	117	855	1,813	1,697	402	111	104	463
1957	141	114	65.4	52.7	62.2	103	195	1,358	1,324	344	108	90.8	332
1958	75.6	75.9	105	69.4	98.2	111	268	2,088	1,544	321	123	96.5	416
1959	84.3	96.8	121	91.5	89.7	97.6	216	126	310	88.9	75.0	79.2	123
1960	117	102	65.2	44.0	37.0	66.1	429	247	254	69.3	66.5	49.9	129

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,610	10,090	9,430	4,890	4,950	6,300	51,220	85,500	55,350	30,220	10,780	6,120	281,500
1952	8,840	8,460	5,450	3,610	3,180	4,510	59,820	145,500	93,880	30,590	8,070	6,330	378,200
1953	6,700	7,860	6,740	8,530	6,660	9,260	28,560	21,830	52,960	28,540	6,710	4,840	189,200
1954	4,470	5,420	4,610	3,820	5,120	7,110	23,990	46,810	30,680	19,650	5,590	4,020	161,300
1955	4,740	4,320	3,790	2,730	2,090	2,270	3,360	23,660	37,330	9,490	4,800	4,050	102,600
1956	3,510	3,900	9,060	8,370	3,100	7,180	50,890	111,500	101,000	24,730	6,850	6,210	336,300
1957	8,640	6,810	4,020	3,240	4,560	6,310	11,610	83,500	78,810	21,140	6,610	5,400	240,600
1958	4,650	4,510	6,470	4,260	5,450	6,810	15,950	128,400	91,880	19,730	7,550	5,740	301,400
1959	5,180	5,760	7,460	5,620	4,980	6,000	12,880	7,740	18,470	5,470	4,610	4,710	88,880
1960	7,210	6,050	4,010	2,700	2,130	4,070	25,510	15,170	15,130	4,260	4,090	2,970	93,300

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	258	186,700
1951	1217	2,150	May 29, 1951	55	389	281,500	384	278,100
1952	1247	3,160	May 5, 1952	54	521	378,200	519	376,800
1953	1287	1,700	June 14, 1953	59	261	189,200	252	182,400
1954	1347	1,870	June 27, 1954	46	223	161,300	221	159,600
1955	1397	1,160	June 12, 1955	32	142	102,800	147	106,200
1956	1447	4,130	May 25, 1956	33	463	336,300	467	339,300
1957	1517	3,360	June 5, 1957	45	332	240,600	327	236,800
1958	1567	3,870	May 25, 1958	51	416	301,400	420	304,200
1959	1637	650	June 15, 1959	37	123	88,880	121	87,750
1960	1717	929	May 13, 1960	28	129	93,300	-	-

1415. Camas Creek near Blaine, Idaho

Location.--Lat 43°20', long 114°33', in sec.15, T.1 S., R.16 E., on left bank a quarter of a mile north of Macon siding on Hill City branch of Oregon Short Line Railroad, three-eighths of a mile downstream from Willow Creek, 2¼ miles upstream from backwater of Magic Reservoir, and 4 miles southeast of Blaine.

Drainage area.--648 sq mi. Mean altitude, 5,600 ft.

Records available.--May 1912 to September 1921 and April 1923 to October 1925 (fragmentary) March 1926 to September 1944 (no winter records), October 1944 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,870 ft (by barometer).

Average discharge.--16 years (1944-60), 179 cfs (129,600 acre-ft per year).

Extremes.--1912-60: Maximum discharge recorded, 9,780 cfs Apr. 8, 1943; maximum gage height, 15.48 ft about Apr. 18, 1938, from floodmark; minimum discharge recorded, 1.2 cfs Aug. 11, 12, 1959; minimum gage height, 1.20 ft Aug. 13, 1960.

Remarks.--Water diverted for irrigation of about 9,300 acres above station (1950 determination). Flow regulated by Twin Lakes Reservoir on Lake Creek (capacity, 31,240 acre-ft) and three minor reservoirs (combined capacity, 580 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	12.3	28.8	36.5	25.0	47.3	75.7	1,898	645	162	29.1	14.8	5.19	247
1952	13.7	23.0	28.4	25.0	24.2	28.2	3,312	1,406	306	85.2	16.2	10.4	437
1953	12.9	24.8	25.0	42.4	70.4	378	939	309	210	26.2	6.68	4.60	170
1954	7.41	13.0	21.5	19.2	32.2	167	830	236	55.8	20.7	4.32	3.72	117
1955	5.84	11.0	11.3	13.3	13.7	23.1	210	227	73.5	10.4	3.37	3.03	50.5
1956	4.56	8.41	66.4	99.2	66.8	184	2,173	591	187	15.8	4.80	3.88	281
1957	9.51	14.7	56.8	18.0	240	889	761	558	202	17.5	4.90	4.11	231
1958	7.91	11.2	14.4	19.9	32.8	93.5	1,363	849	255	27.4	5.16	6.76	223
1959	10.1	13.4	27.4	24.1	27.6	93.7	512	137	20.1	4.73	3.10	10.7	73.4
1960	9.20	10.2	12.7	15.1	30.2	44.2	1,144	243	37.0	5.47	2.75	3.37	128

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	754	1,720	2,240	1,540	2,630	4,650	112,900	39,660	9,610	1,790	912	309	178,700
1952	844	1,370	1,750	1,540	1,390	1,740	197,100	86,470	18,180	5,240	996	620	317,200
1953	793	1,480	1,540	2,600	3,910	23,230	55,870	18,980	12,490	1,610	411	274	123,200
1954	456	771	1,320	1,180	1,790	10,300	49,400	14,490	3,320	1,270	266	221	84,780
1955	359	655	697	815	760	1,420	12,470	13,970	4,370	640	207	180	36,540
1956	281	500	4,080	6,100	3,840	11,310	129,300	36,310	11,160	963	295	231	204,400
1957	585	875	3,490	1,110	13,360	54,640	45,270	34,280	12,010	1,070	301	245	167,200
1958	486	666	883	1,230	1,820	5,750	81,080	52,230	15,160	1,690	317	402	161,700
1959	620	798	1,680	1,480	1,530	5,760	30,460	8,450	1,200	295	191	638	53,100
1960	566	610	781	926	1,740	2,720	68,080	14,930	2,200	337	169	201	93,260

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	232	167,800
1951	1217	7,470	Apr. 9, 1951	4.4	247	178,700	246	178,000
1952	1247	9,420	Apr. 20, 1952	5.0	437	317,200	437	317,100
1953	1287	2,530	Apr. 5, 1953	4.1	170	123,200	168	121,900
1954	1347	2,610	Apr. 7, 1954	3.2	117	84,780	116	83,950
1955	1397	552	Apr. 13, 1955	2.7	50.5	36,540	54.8	39,690
1956	1447	4,410	Apr. 11, 1956	3.1	281	204,400	282	204,500
1957	1517	2,570	Mar. 31, 1957	3.2	231	167,200	227	164,300
1958	1567	3,620	Apr. 16, 1958	3.9	223	161,700	225	162,800
1959	1637	1,150	Apr. 7, 1959	1.4	73.4	53,100	71.8	51,960
1960	1717	5,280	Apr. 10, 1960	2.4	128	93,260	-	-

1420. Magic Reservoir near Richfield, Idaho

Location.--Lat 43°15', long 114°22', in NE¼SE¼ sec.18, T.2 S., R.18 E., at dam on Pig Wood River, 18 miles northwest of Richfield.

Drainage area.--1,600 sq mi, approximately.

Records available.--February to April 1909 (gage heights only), April 1909 to September 1960.

Gage.--Staff gage. Datum of gage is 4,800 ft above datum of Idaho Irrigation Co., which is reported to be about 137 ft below mean sea level. Prior to Apr. 1, 1937, tape or staff gages at dam. Datum of gages prior to Oct. 1, 1942, was 4,800 ft lower.

Extremes.--1909-60: Maximum contents observed, 194,200 acre-ft Apr. 30, 1951 (gage height, 135.7 ft); no storage for several days in 1909, 1919-20, 1924, 1928, 1935.

Remarks.--Reservoir is formed by earth- and rock-fill dam, completed in 1909, and raised 5 ft in 1917. Capacity, 191,500 acre-ft between gage heights 21.4 (2.9 ft above bottom of outlet pipe) and 135.0 ft (top of 5-foot flashboards). Dead storage unknown. Water is used for irrigation of lands in Carey Act project of Big Wood Canal Co. Figures given herein represent usable contents including bank storage.

Cooperation.--Gage readings and capacity table furnished by Water District 7 AB.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	115,000	124,400	-	-	149,700	128,000	194,200	192,700	191,900	170,100	141,000	116,800
1952	126,000	129,900	138,000	144,700	105,300	44,670	186,100	191,100	192,700	169,700	132,200	105,500
1953	112,600	119,000	128,000	140,700	152,000	179,600	188,800	178,500	169,500	167,200	129,400	102,300
1954	107,300	110,300	117,100	122,500	130,500	150,700	191,100	188,400	179,600	150,100	111,400	81,370
1955	87,290	89,770	94,380	98,650	102,000	106,500	124,700	137,100	130,800	94,850	55,480	24,740
1956	29,640	32,330	52,100	72,420	81,160	77,980	187,200	191,100	191,100	163,700	126,300	103,000
1957	112,600	118,700	126,600	131,100	150,400	181,900	189,900	191,100	186,100	154,900	113,900	86,400
1958	91,600	93,920	102,300	108,800	117,600	133,100	186,400	190,700	189,900	157,300	120,300	92,060
1959	97,930	102,000	112,400	120,000	127,200	140,700	176,300	153,300	125,200	82,450	42,070	19,840
1960	30,220	35,960	41,220	45,380	50,800	59,320	155,600	143,500	112,400	64,210	22,340	2,000

1425. Big Wood River below Magic Dam, near Richfield, Idaho

Location.--Lat 43°14', long 114°22', in sec. 18, T.2 S., R.18 E., on right bank half a mile downstream from Magic Dam and 18 miles northwest of Richfield.

Drainage area.--1,600 sq mi, approximately.

Records available.--April 1911 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,665 ft (by barometer).

Average discharge.--48 years (1912-60), 432 cfs (312,800 acre-ft per year).

Extremes.--1911-60: Maximum discharge, 10,000 cfs Apr. 26, 1952 (gage height, 15.68 ft, from floodmark); no flow Feb. 3, 1915.

Remarks.--Water diverted for irrigation of about 47,100 acres above station (1950 determination). Flow regulated by Magic Reservoir (see p. 121), Twin Lakes Reservoir on tributary of Camas Creek (capacity, 31,240 acre-ft), and minor reservoirs having combined capacity of about 680 acre-ft.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	15.4	60.7	12.2	12.7	13.0	595	1,835	2,077	1,084	849	661	528	648
1952	12.0	123	11.2	12.5	798	1,090	2,370	3,806	2,028	977	764	561	1,045
1953	10.4	84.1	10.3	11.3	11.6	146	1,285	879	972	873	753	537	465
1954	13.9	67.4	9.36	9.22	9.29	9.79	581	1,099	736	824	731	590	392
1955	10.6	58.6	8.39	9.15	9.75	11.0	11.0	438	821	747	724	570	286
1956	6.16	46.1	4.69	5.70	7.24	477	1,366	2,403	1,973	897	743	511	704
1957	12.8	54.2	9.09	9.70	10.2	520	877	2,038	1,630	917	780	553	621
1958	10.0	57.9	8.63	8.37	9.36	9.08	932	3,169	1,862	909	737	576	694
1959	10.5	99.1	8.97	9.84	10.6	11.4	156	662	828	821	731	504	319
1960	4.10	50.7	5.16	5.31	5.78	6.84	33.0	693	815	863	712	422	303

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	944	3,610	752	781	722	36,600	109,200	127,700	64,490	52,180	40,630	31,440	469,000
1952	736	7,340	688	770	45,900	67,040	141,000	234,000	120,700	60,050	46,960	33,360	758,500
1953	637	5,000	633	692	647	8,980	76,480	54,020	57,860	53,680	46,290	31,950	336,900
1954	853	4,010	575	567	516	602	34,590	67,550	43,800	50,700	44,940	35,110	283,800
1955	650	3,480	516	563	541	676	655	26,930	48,850	45,930	44,520	33,890	207,200
1956	379	2,740	288	350	417	29,350	81,280	147,700	117,400	55,180	45,710	30,410	511,200
1957	787	3,220	559	597	569	31,950	52,210	125,300	96,990	56,390	47,970	32,910	449,500
1958	617	3,440	531	515	520	558	55,430	194,900	110,800	55,890	45,340	34,260	502,800
1959	647	3,520	552	605	589	698	9,290	40,710	49,260	50,480	44,970	30,000	231,300
1960	252	3,020	317	326	333	421	1,970	42,590	48,520	53,080	43,760	25,140	219,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	466	322,700
1951	1217	4,230	Apr. 12, 1951	-	648	469,000	653	472,500
1952	1247	10,000	Apr. 26, 1952	5	1,045	758,500	1,042	756,000
1953	1287	2,400	Apr. 7, 1953	8	465	336,900	464	336,000
1954	1347	1,730	May 22, 1954	8.5	392	283,800	391	283,000
1955	1397	1,370	June 11, 1955	7.1	286	207,200	285	206,000
1956	1447	4,500	June 2, 1956	3.6	704	511,200	706	512,400
1957	1517	3,680	May 20, 1957	8.2	621	449,500	621	449,500
1958	1567	4,490	May 25, 1958	6.8	694	502,800	695	502,900
1959	1637	913	July 17, 1959	8.2	319	231,300	318	230,200
1960	1717	1,020	July 23, 1960	3.1	303	219,700	-	-

1479. Little Wood River above High Five Creek, near Carey, Idaho

Location.--Lat 43°29'30", long 114°03'15", about center of sec.22, T.2 N., R.20 E., on left bank above maximum flow line of Little Wood Reservoir, 0.4 mile downstream from Copper Creek, 0.6 mile upstream from High Five Creek, and 13.5 miles northwest of Carey.

Drainage area.--248 sq mi. Mean altitude, 7,220 ft.

Records available.--October 1958 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,320 ft (by barometer).

Extremes.--1958-60: Maximum discharge, 822 cfs Apr. 9, 1960; minimum, 20 cfs Aug. 21, 22, Sept. 10, 11, 1960 (gage height, 1.40 ft).

Remarks.--Diversions above station for irrigation of about 5,250 acres (1950 determination).

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	57.1	56.2	51.9	49.5	49.0	51.4	145	138	209	60.5	28.6	52.9	78.9
1960	56.6	49.8	41.0	43.5	41.4	75.1	†256	185	178	43.7	26.1	23.3	84.8

† Corrected.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	3,510	3,350	3,190	3,040	2,720	3,160	8,610	8,480	12,450	3,720	1,760	3,150	57,140
1960	3,480	2,960	2,500	2,670	2,380	4,620	15,250	11,380	10,620	2,690	1,600	1,390	61,540

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1637	508	Apr. 5, 1959	22	78.9	57,140	77.4	56,030
1960	1717	822	Apr. 9, 1960	22	84.8	61,540	-	-

1480. Little Wood River at Campbell Ranch, near Carey, Idaho

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

Drainage area.--267 sq mi. Mean altitude, 7,160 ft.

Records available.--February 1920 to September 1926 (published as Little Wood River near Carey), March 1941 to December 1942, April 1944 to September 1958 (no winter records except 1921-24, 1926). Records for other years published as Little Wood River near Carey are at site 6 miles downstream and are not equivalent owing to diversion, inflow, and regulation.

Gage.--Water-stage recorder. Altitude of gage is 5,250 ft (by barometer). Prior to Apr. 5, 1944, at site 650 ft downstream at datum 3.50 ft lower.

Average discharge.--5 years (1920-24, 1925-26), 152 cfs (110,000 acre-ft per year).

Extremes.--1920-26, 1941-42, 1944-58: Maximum discharge, 3,110 cfs Dec. 22, 1955 (gage height, 6.34 ft, from floodmark), from rating curve extended above 1,800 cfs; minimum recorded, 14 cfs Aug. 29, 30, 1926.

Remarks.--Flow slightly regulated by Campbell Reservoir (capacity, 125 acre-ft; 2,700 acre-ft prior to failure of dam in 1938) on tributary. Diversions above station (1950 determination) for irrigation of about 5,250 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	56.6	67.7	59.9	-	-	79.1	451	534	295	159	77.7	50.0	-
1952	62.2	56.2	-	-	-	59.8	851	1,083	502	203	79.7	49.1	-
1953	53.4	55.9	-	-	-	101	339	294	406	192	53.3	42.3	-
1954	46.2	54.5	-	-	-	75.8	248	302	202	101	39.1	32.8	-
1955	43.0	51.8	-	-	-	-	96.3	230	274	110	35.5	28.0	-
1956	34.6	47.2	-	-	-	-	638	610	467	156	62.8	46.9	-
1957	57.2	60.8	-	-	-	79.8	213	651	474	157	53.9	47.3	-
1958	61.6	57.4	-	-	-	-	378	1,061	464	160	70.5	55.7	-
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,480	4,030	3,680	-	-	4,870	26,830	32,830	17,570	9,750	4,780	2,970	-
1952	3,820	3,340	-	-	-	3,680	50,620	66,610	29,870	12,500	4,900	2,920	-
1953	3,280	3,330	-	-	-	6,200	20,180	18,110	24,180	11,810	3,270	2,520	-
1954	2,840	3,240	-	-	-	4,660	14,740	18,600	12,010	6,240	2,400	1,950	-
1955	2,640	3,080	-	-	-	-	5,730	14,130	16,290	6,750	2,180	1,670	-
1956	2,130	2,810	-	-	-	-	37,980	37,520	27,790	9,620	3,860	2,790	-
1957	3,520	3,620	-	-	-	4,910	12,670	40,030	28,210	9,680	3,320	2,810	-
1958	3,790	3,420	-	-	-	-	22,460	65,270	27,600	9,860	4,330	3,310	-
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	1,000	Apr. 29, 1951	-	-	-	-	-
1952	1247	2,350	Apr. 27, 1952	-	-	-	-	-
1953	1287	672	Apr. 28, 1953	-	-	-	-	-
1954	1347	1,160	June 26, 1954	-	-	-	-	-
1955	1397	454	June 10, 1955	-	-	-	-	-
1956	1447	3,110	Dec. 22, 1955	-	-	-	-	-
1957	1517	1,400	May 19, 1957	-	-	-	-	-
1958	1567	1,680	May 12, 1958	-	-	-	-	-
1959								
1960								

1482. Little Wood Reservoir near Carey, Idaho

Location.--Lat 43°25'30", long 114°01'30", in NW¼NW¼ sec.13, T.1 N., R.20 E., at gate-control structure near right end of dam on Little Wood River, 8½ miles northwest of Carey.

Drainage area.--279 sq mi.

Records available.--October 1955 to September 1960.

Gage.--Staff gage. Datum of gage is 5,100 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--1955-60: Maximum contents observed, 30,200 acre-ft May 13, 1960 (gage height, 137.72 ft); minimum observed, 66 acre-ft Aug. 17, 1959 (gage height, 30.22 ft), but may have been less during period Aug. 14 to Sept. 13, 1959.

Remarks.--Reservoir is formed by earth- and rock-fill dam constructed in 1939 and raised 39.9 ft in 1959. Capacity of reservoir is 29,960 acre-ft between gage heights 27.4 (0.4 ft below bottom of outlet gates) and 137.3 ft (spillway crest). Water is used for irrigation of land near Carey.

Cooperation.--Gage readings furnished by Little Wood Reservoir Co. and Water District No. 11 C. Capacity curve furnished by Bureau of Reclamation.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1956	-	a940	10,380	7,712	6,616	10,510	12,400	12,530	12,290	5,852	1,069	a122
1957	a840	a2,020	a2,560	5,463	8,795	12,310	12,410	12,500	12,420	a5,620	a1,430	a1,040
1958	a1,510	a1,440	1,596	4,071	7,403	11,120	a11,600	a12,000	12,340	a6,360	a84	a90
1959	a1,090	a70	3,561	6,807	9,765	12,270	a12,000	11,130	9,790	2,418	a67	78
1960	b68	a1,380	3,763	6,576	9,210	14,200	29,700	25,540	16,580	4,662	928	929

a Estimated on basis of nearest gage reading, or interpolated.
b Estimated from nearest gage reading; new capacity table put in use Oct. 1, 1959; contents on Sept. 30, 1959, from new capacity table, 80 acre-ft.

1484. Little Wood River below reservoir, near Carey, Idaho

Location.--Lat 43°25'30", long 114°01'30", in N½ sec.13, T.1 N., R.20 E., on left bank a quarter of a mile downstream from Little Wood River Dam, three-quarters of a mile upstream from Little Fish Creek, and 8½ miles northwest of Carey.

Drainage area.--280 sq mi.

Records available.--October 1955 to October 1958.

Gage.--Water-stage recorder. Datum of gage is 5,107.33 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--1955-58: Maximum discharge, 1,960 cfs May 12, 1958 (gage height, 5.95 ft), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum observed, 0.9 cfs Jan. 25, 1957 (gage height, 0.73 ft).

Remarks.--Diversions for irrigation of about 5,250 acres above station. Flow regulated by Little Wood Reservoir (see above) and Campbell Reservoir on South Fork Muldoon Creek (capacity, 125 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1956	34.8	32.9	52.8	121	77.6	74.4	625	609	469	264	134	61.7	213
1957	44.5	40.9	37.9	1.32	1.55	28.4	211	640	481	274	125	55.2	163
1958	59.4	62.8	49.0	18.6	1.99	12.1	352	1,092	491	264	169	54.4	220
1959	39.3	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1956	2,140	1,960	3,240	7,410	4,460	4,570	37,170	37,420	27,890	16,240	8,270	3,670	154,400
1957	2,740	2,430	2,330	81	86	1,740	12,580	39,350	28,620	16,850	7,700	3,290	117,800
1958	3,650	3,740	3,010	1,150	110	742	20,920	67,160	29,200	16,280	10,410	3,240	159,600
1959	2,420	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1956	1447	1,090	May 24, 1956	10	213	154,400	213	154,600
1957	1517	1,580	May 19, 1957	.9	163	117,800	167	120,700
1958	1567	1,960	May 12, 1958	1.7	220	159,600	-	-
1959	1567	-	-	-	-	-	-	-

1485. Little Wood River near Carey, Idaho

Location.--Lat 43°23', long 114°00', in E½ sec.30, T.1 N., R.21 E., on right bank a third of a mile upstream from West Canal, 1 1/3 miles upstream from East Canal, 2 miles downstream from Little Fish Creek, 3 miles downstream from Little Wood Reservoir, and 6 miles northwest of Carey.

Drainage area.--312 sq mi.

Records available.--April 1904 to May 1905 (gage heights and discharge measurements only), September 1926 to November 1942, April 1943 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Records for February 1920 to September 1926 at site 6 miles upstream not equivalent owing to diversion and inflow.

Gage.--Water-stage recorder. Datum of gage is 4,990.59 ft above mean sea level, unadjusted (levels by Bureau of Reclamation). Apr. 28, 1904, to May 31, 1905, staff gage, Sept. 20, 1926, to Apr. 22, 1938, water-stage recorder, and Apr. 23 to Aug. 17, 1938, staff gage, all at datum 0.74 ft higher.

Average discharge.--33 years (1926-42, 1943-60), 135 cfs (97,740 acre-ft per year).

Extremes.--1904-5, 1926-60: Maximum discharge, 6,000 cfs (due to failure of reservoirs on Little Fish Creek) Apr. 20, 1938 (gage height, 12.81 ft, present datum, from flood-mark), from rating curve extended above 1,800 cfs by logarithmic plotting; minimum, 1 cfs Jan. 26, 1945, Jan. 20, 1948.

Remarks.--Diversions above station for irrigation of about 6,450 acres (1950 determination). Flow partly regulated by Little Wood Reservoir (see p. 125) and Campbell, Cameron, and Howard Reservoirs on South Fork Muldoon and Little Fish Creeks (combined capacity, 690 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	87.2	70.2	29.9	3.0	6.1	75.3	470	560	303	223	131	85.4	171
1952	48.1	45.0	56.1	69.0	53.9	64.5	905	1,095	508	238	183	89.7	280
1953	67.4	63.1	67.9	59.8	13.4	21.9	309	316	418	261	148	63.4	151
1954	66.7	52.8	42.9	3.3	5.2	10.8	233	309	204	190	115	63.8	109
1955	42.5	48.2	17.8	6.7	2.0	2.9	41.0	234	271	177	144	42.9	86.3
1956	34.3	33.6	88.4	130	81.7	95.3	650	600	458	263	134	60.0	219
1957	44.8	41.6	38.7	27.9	10.2	38.6	223	656	477	274	124	58.3	167
1958	53.9	55.7	50.0	20.7	4.75	21.6	382	1,045	474	268	171	58.2	219
1959	43.3	75.2	3.71	3.00	3.52	20.5	152	154	237	182	65.6	54.0	83.0
1960	59.4	29.6	1.77	2.65	3.77	9.34	24.9	265	343	254	90.5	23.0	92.5

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,360	4,180	1,840	184	339	4,630	27,980	34,440	18,060	13,730	8,050	5,080	123,900
1952	2,960	2,680	3,450	4,240	3,100	3,970	53,830	67,340	30,240	14,630	11,280	5,340	203,100
1953	4,140	3,750	4,180	3,480	742	1,340	18,410	19,410	24,860	16,060	9,090	3,770	109,500
1954	4,100	3,140	2,640	204	288	662	13,870	19,010	12,130	11,670	7,060	3,790	78,560
1955	2,610	2,870	1,090	411	111	177	2,440	14,360	16,140	10,900	8,840	2,560	62,510
1956	2,110	2,000	5,430	7,990	4,700	5,860	38,690	36,910	27,240	16,180	8,230	3,570	158,900
1957	2,760	2,470	2,380	171	589	2,380	13,290	40,360	28,390	16,860	7,610	3,470	120,700
1958	3,320	3,320	3,070	1,270	264	1,330	22,730	64,270	28,220	16,490	10,520	3,460	158,300
1959	2,660	4,470	228	184	196	1,260	9,060	9,460	14,090	11,210	4,030	3,210	60,060
1960	3,650	1,760	109	163	217	574	1,480	16,270	20,390	15,640	5,560	1,370	67,180

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	168	121,400
1951	1217	1,090	Apr. 29, 1951	3	171	123,900	168	121,600
1952	1247	2,680	Apr. 27, 1952	43	280	203,100	284	206,000
1953	1287	686	Apr. 28, 1953	7	151	109,500	148	107,300
1954	1347	730	June 27, 1954	3	109	78,560	104	75,250
1955	1397	434	June 10, 1955	2	86.3	62,510	90.4	65,480
1956	1447	1,070	May 24, 1956	9	219	158,900	216	157,000
1957	1517	1,630	May 19, 1957	2.1	167	120,700	170	122,800
1958	1567	2,000	May 12, 1958	3.0	219	158,300	215	155,900
1959	1637	425	Apr. 6, 1959	2.3	83.0	60,060	80.4	58,220
1960	1717	513	May 13, 1960	1.5	92.5	67,180	-	-

1505. Silver Creek near Picabo, Idaho

Location.--Lat 43°17', long 114°01', in sec. 1, T.2 S., R.20 E., on left bank 1½ miles downstream from drain ditch of Blaine County Drainage District No. 1 and 3 miles southeast of Picabo.

Drainage area.--88 sq mi, approximately.

Records available.--May 1920 to September 1960 (1923-35, irrigation seasons only).

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer).

Average discharge.--27 years (1920-22, 1935-60), 154 cfs (111,500 acre-ft per year).

Extremes.--1920-60: Maximum discharge recorded, 357 cfs Dec. 24, 1955 (gage height, 3.70 ft); maximum gage height recorded, 4.57 ft Jan. 22, 1950 (ice jam); minimum discharge, 26 cfs June 2, 1920 (gage height, 0.48 ft).

Remarks.--Diversions for irrigation of about 9,000 acres (1950 determination) above station. Two small canals bypass station. Records of discharge do not include water bypassed around station at times by slough on right bank from which there is some diversion for irrigation. Silver Creek receives considerable return flow resulting from Big Wood River irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	201	204	187	162	171	174	196	141	136	181	213	208	181
1952	216	198	186	164	170	169	234	161	192	219	185	208	192
1953	209	194	170	184	177	198	167	116	159	158	169	178	173
1954	189	190	174	158	164	191	150	102	148	167	151	149	161
1955	165	176	153	135	139	146	179	121	93.3	114	111	122	138
1956	155	153	184	162	148	176	186	109	124	175	165	186	160
1957	204	198	176	132	192	210	172	187	121	147	138	165	170
1958	181	196	173	160	165	189	183	115	132	166	159	173	166
1959	203	209	185	164	154	180	140	102	98.1	112	103	122	148
1960	160	151	142	141	142	167	190	104	91.0	99.0	89.9	91.3	131

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	12,340	12,160	11,470	9,980	9,490	10,720	11,650	8,680	8,110	11,160	13,110	12,370	131,200
1952	13,300	11,810	11,470	10,060	9,780	10,410	13,930	9,920	11,410	13,490	11,380	12,400	139,400
1953	12,850	11,540	10,460	11,330	9,850	12,190	9,960	7,110	9,450	9,740	10,370	10,600	125,400
1954	11,630	11,310	10,700	9,690	9,090	11,720	8,900	6,250	8,820	10,270	9,280	8,880	116,500
1955	10,130	10,480	9,420	8,310	7,730	8,990	10,640	7,430	5,550	7,030	6,820	7,290	99,820
1956	9,560	9,110	11,340	9,960	8,490	10,800	11,040	6,710	7,360	10,770	10,150	11,050	116,300
1957	12,540	11,790	10,800	8,120	10,660	12,930	10,250	11,480	7,220	9,030	8,470	9,800	123,100
1958	11,160	11,680	10,610	9,860	9,150	11,610	10,910	7,100	7,840	10,230	9,790	10,310	120,200
1959	12,510	12,410	11,400	10,080	8,540	11,050	8,360	6,240	5,840	6,860	6,320	7,290	106,900
1960	9,860	8,960	8,740	8,680	8,170	10,260	11,310	6,410	5,410	6,090	5,530	5,430	94,850

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	169	122,700
1951	1217	278	Apr. 6, 1951	84	181	131,200	182	131,800
1952	1247	317	Apr. 15, 1952	120	192	139,400	190	137,600
1953	1287	268	Mar. 26, 1953	93	173	125,400	172	124,200
1954	1347	274	Mar. 10, 1954	87	161	116,500	156	112,900
1955	1397	247	Apr. 2, 1955	87	138	99,820	138	99,800
1956	1447	357	Dec. 24, 1955	63	160	116,300	167	121,500
1957	1517	320	Feb. 27, 1957	88	170	123,100	168	121,400
1958	1567	269	Apr. 2, 1958	62	166	120,200	170	123,100
1959	1637	250	Nov. 18, 1958	89	148	106,900	136	98,130
1960	1717	274	Apr. 5, 1960	82	131	94,850	-	-

1510. Little Wood River near Richfield, Idaho

Location.--Lat 43°03', long 114°08', in sec.30, T.4 S., R.20 E., on right bank half a mile upstream from Byrns Slough and heading of Dietrich Canal, 1 mile east of railroad station at Richfield, and 14 miles downstream from Silver Creek.

Drainage area.--570 sq mi, approximately.

Records available.--January 1911 to September 1960 (irrigation seasors only prior to 1955 except 1913, 1921).

Gage.--Water-stage recorder. Altitude of gage is 4,270 ft (by barometer). Prior to Sept. 5, 1918, staff gage at site 500 ft downstream at datum 0.92 ft lower. Sept. 5, 1918, to Apr. 13, 1920, staff gage and Apr. 14, 1920, to May 20, 1954, water-stage recorder, at site 500 ft downstream at datum 0.08 ft higher than present datum.

Average discharge.--8 years (1912-13, 1920-21, 1954-60), 149 cfs (107,900 acre-ft per year).

Extremes.--1911-60: Maximum discharge recorded, 868 cfs May 3, 1938 (gage height, 3.97 ft, site and datum then in use); maximum gage height recorded, 8.60 ft Feb. 21, 1956 (ice jam); minimum discharge recorded, 7.6 cfs June 24, 25, 1920 (gage height, 0.52 ft, site and datum then in use).

Remarks.--Diversions for irrigation of about 38,300 acres (1950 determination) above station. Flow partly regulated by Little Wood Reservoir (see p. 125), Fish Creek Reservoir (capacity, 13,700 acre-ft), and three small reservoirs on tributaries (combined capacity, 690 acre-ft). River above Silver Creek is dry a large part of the time because of channel losses and irrigation diversions above Carey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	171	193	191	-	-	-	251	221	103	134	152	166	-
1952	194	193	-	-	-	-	391	486	293	216	135	173	-
1953	187	182	-	-	-	191	195	123	192	126	136	150	-
1954	175	186	-	-	-	-	152	71.1	107	127	110	117	-
1955	145	169	144	122	122	138	175	98.3	65.0	77.3	73.4	86.9	118
1956	114	128	165	148	134	181	333	233	192	122	106	129	165
1957	161	172	157	118	191	191	168	364	157	104	90.8	126	167
1958	148	175	164	145	158	172	259	421	203	120	114	128	184
1959	168	202	176	152	140	160	134	71.0	63.6	72.4	69.6	97.5	125
1960	131	127	123	122	126	154	163	†79.5	54.9	59.8	54.0	59.0	104

† Corrected.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	10,510	11,510	1,890	-	-	-	14,930	13,570	6,130	8,210	9,330	9,890	-
1952	11,900	11,470	-	-	-	-	23,250	29,880	17,450	13,260	8,310	10,280	-
1953	11,490	10,850	-	-	-	11,730	11,610	7,550	11,450	7,750	8,380	8,950	-
1954	10,760	11,050	-	-	-	-	9,030	4,370	6,350	7,810	6,780	6,950	-
1955	8,890	10,060	8,880	7,490	6,780	8,480	10,440	6,040	3,870	4,750	4,510	5,170	85,360
1956	7,030	7,640	10,130	9,110	7,700	11,120	19,790	14,320	11,450	7,530	6,500	7,700	120,000
1957	9,880	10,230	9,680	7,280	10,620	11,720	9,990	22,360	9,350	6,420	5,590	7,510	120,600
1958	9,080	10,430	10,070	8,950	8,800	10,600	15,420	25,860	12,060	7,360	7,020	7,620	133,300
1959	10,320	12,030	10,830	9,330	7,790	9,820	7,980	4,370	3,780	4,450	4,280	5,800	90,780
1960	8,040	7,560	7,590	7,490	7,260	9,470	9,700	4,890	3,270	3,680	3,320	3,510	75,780

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	374	(a)	-	-	-	-	-
1952	1247	766	May 5, 1952	-	-	-	-	-
1953	1287	360	June 8, 1953	-	-	-	-	-
1954	1347	211	Nov. 20, 1954	-	-	-	-	-
1955	1397	246	Apr. 3, 1955	60	118	85,360	114	82,330
1956	1447	508	May 30, 1956	60	165	120,000	172	125,000
1957	1517	652	May 21, 1957	80	167	120,600	166	120,400
1958	1567	630	May 14, 1958	99	184	133,300	189	136,900
1959	1637	304	Nov. 11, 1958	57	125	90,780	112	89,790
1960	1717	220	Apr. 5, 1960	43	104	75,780	-	-

a Apr. 30 to May 1, 1951.

1515. Little Wood River at Shoshone, Idaho

Location.--Lat 42°56', long 114°24', in sec.2, T.6 S., R.17 E., on left bank just upstream from dam used prior to 1955 for diversion of town water supply, 400 ft upstream from highway bridge in Shoshone.

Drainage area.--620 sq mi, approximately.

Records available.--April 1922 to December 1959 (irrigation seasons only prior to 1955).

Gage.--Water-stage recorder. Datum of gage is 3,956.99 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 18, 1954, at datum 1.98 ft higher.

Extremes.--1922-59: Maximum discharge recorded, 697 cfs May 13, 1958 (gage height, 4.78 ft); maximum gage height, 9.42 ft Feb. 27, 1957 (ice jam); no flow July 29, 1931, Oct. 3, 1938.

Remarks.--Diversions for irrigation of about 52,200 acres (1950 determination) above station. Flow affected by operation of Milner-Gooding canal, which diverts from Snake River and crosses Little Wood River above station, by operation of five reservoirs above Carey (see Remarks for station near Richfield), and by Big Wood River water deliveries through Byrns Slough to Dietrich Canal which diverts from left bank of Little Wood River at Richfield.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	58.9	81.9	-	-	-	-	276	464	520	505	496	446	-
1952	65.1	157	-	-	-	-	371	477	538	493	472	453	-
1953	86.9	96.8	-	-	-	161	269	439	472	478	467	420	-
1954	50.0	81.1	-	-	-	154	278	491	510	507	485	463	-
1955	49.8	80.5	124	96.6	88.8	134	190	432	492	496	475	433	259
1956	24.2	93.4	146	136	126	231	284	481	524	515	480	438	290
1957	73.8	130	142	102	215	188	144	537	519	506	491	435	291
1958	51.6	125	146	136	149	149	268	580	597	506	501	455	306
1959	53.0	136	148	143	149	100	241	463	452	496	477	438	275
1960	47.1	51.4	94.6	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,620	4,880	-	-	-	-	16,450	28,500	30,930	31,030	30,470	26,570	-
1952	4,000	9,330	-	-	-	-	22,050	29,320	33,110	30,290	29,000	26,960	-
1953	5,350	5,760	-	-	-	9,900	16,030	27,020	28,070	29,380	28,730	24,990	-
1954	3,070	4,820	-	-	-	9,480	16,550	30,170	30,360	31,150	29,840	27,530	-
1955	3,060	4,790	7,640	5,940	4,930	8,260	11,280	26,590	29,290	30,500	29,230	25,770	187,300
1956	4,190	5,560	9,000	8,380	7,220	14,180	16,890	29,550	31,210	31,660	29,520	26,070	210,700
1957	4,540	7,750	8,710	6,280	11,940	11,560	8,560	33,010	30,860	31,140	30,210	25,900	210,500
1958	3,170	7,420	9,000	8,390	8,250	9,130	15,930	35,660	35,540	31,100	30,780	27,070	221,400
1959	3,260	8,090	9,090	8,760	8,260	6,180	14,310	28,470	26,920	30,530	29,360	26,050	199,300
1960	2,900	3,060	5,820	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	549	Aug.14,15, 1951	-	-	-	-	-
1952	1247	673	Apr. 28, 1952	-	-	-	-	-
1953	1287	518	May 31, 1953	-	-	-	-	-
1954	1347	559	June 9, 1954	-	-	-	-	-
1955	1397	554	May 15, 1955	7.5	259	187,300	259	187,800
1956	1447	586	June 3, 1956	13	290	210,700	297	215,700
1957	1517	676	May 22, 1957	30	291	210,500	289	209,000
1958	1567	697	May 13, 1958	23	306	221,400	307	222,300
1959	1637	535	May 18, 1959	30	275	199,300	263	190,600
1960	1717	-	-	-	-	-	-	-

1525. Big Wood River near Gooding, Idaho

Location.--Lat 42°53'10", long 114°48'10", in NE¼SW¼ sec.21, T.6 S., R.14 E., on right bank at Hudson Ranch, 2 miles downstream from bridge on Bliss-Gooding highway, 3½ miles downstream from Little Wood River, 5 miles upstream from diversion dam for King Hill project, and 6 miles southwest of Gooding.

Drainage area.--2,990 sq mi, approximately.

Records available.--March 1916 to September 1960 (fragmentary October 1923 to September 1926; no winter records for water years 1923, 1936-37, 1942; irrigation seasons only for water years 1927-35). October 1950 to September 1959 published as Malad River near Gooding.

Gage.--Water-stage recorder. Altitude of gage is 3,345 ft (from topographic map). Prior to Apr. 13, 1921, staff gage at same site and datum.

Average discharge.--28 years (1916-22, 1937-41, 1942-60), 234 cfs (169,400 acre-ft per year).

Extremes.--1916-60: Maximum discharge, 6,500 cfs Apr. 27, 1952 (gage height, 10.67 ft); no flow at times in many years.

Remarks.--Diversions for irrigation of about 155,000 acres (1950 determination) above station. Flow regulated by Magic Reservoir (see p. 121) and by several smaller reservoirs on tributaries and affected by deliveries from canals diverting from Snake River at Milner.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	101	149	172	115	408	492	1,484	1,282	364	79.1	86.2	135	404
1952	53.7	195	93.5	66.4	531	1,083	2,129	2,668	1,035	197	82.0	137	688
1953	41.2	68.0	191	289	176	201	996	300	366	51.9	57.1	102	235
1954	39.1	91.8	105	175	160	164	329	147	202	49.3	52.1	131	136
1955	56.5	86.5	127	79.9	76.2	154	204	182	103	67.5	49.9	97.7	107
1956	25.5	117	245	214	101	588	979	1,009	912	75.6	101	147	376
1957	52.0	243	198	105	467	406	676	1,116	716	67.3	98.1	167	358
1958	35.0	59.5	184	164	212	130	870	1,772	845	71.0	78.3	173	383
1959	43.2	149	169	153	217	181	167	182	77.6	49.0	80.5	304	147
1960	62.5	133	119	94.0	158	312	195	68.6	80.7	39.1	76.8	34.0	114

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,220	8,860	10,560	7,080	22,650	30,260	88,290	78,830	21,680	4,860	5,300	8,050	292,600
1952	3,300	11,600	5,750	4,080	30,520	66,600	126,700	164,100	61,560	12,110	5,040	8,150	499,500
1953	2,530	4,050	11,740	17,790	9,790	12,360	59,250	18,450	21,780	3,190	3,510	6,050	170,500
1954	2,410	5,460	6,460	10,770	8,910	10,060	19,550	9,010	12,000	3,030	3,200	7,790	98,650
1955	3,470	5,150	7,810	4,920	4,230	9,460	12,160	11,200	6,120	4,150	3,070	5,810	77,550
1956	1,570	6,970	15,060	13,180	5,790	36,180	58,250	62,060	54,270	4,650	6,210	8,730	272,900
1957	3,200	14,480	12,180	6,450	25,960	24,970	40,250	68,650	42,630	4,140	6,030	9,960	258,900
1958	2,150	3,540	11,290	10,060	11,750	8,010	51,770	109,000	50,270	4,360	4,810	10,320	277,300
1959	2,660	8,890	10,380	9,440	12,100	11,110	9,940	11,160	4,620	3,010	4,950	18,110	106,400
1960	3,840	7,940	7,310	5,780	9,080	19,170	11,600	4,220	4,800	2,410	4,720	2,020	82,890

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	221	†159,900
1951	1217	3,410	Apr. 13, 1951	11	404	292,600	397	287,600
1952	1247	6,500	Apr. 27, 1952	0	688	499,500	685	497,200
1953	1287	2,240	Apr. 8, 1953	1	235	170,500	230	166,500
1954	1347	1,630	Jan. 30, 1954	3.1	136	98,650	139	100,800
1955	1397	738	May 17, 1955	.3	107	77,550	117	84,720
1956	1447	2,750	May 29, 1956	0	376	272,900	385	279,200
1957	1517	2,930	Feb. 26, 1957	4.0	358	258,900	340	246,000
1958	1567	3,010	Apr. 23, 1958	1.7	383	277,300	390	282,300
1959	1637	752	Sept.26, 1959	.4	147	106,400	143	103,500
1960	1717	3,190	Mar. 8, 1960	5.8	114	82,890	-	-

† Corrected.

1530. King Hill Canal near Hagerman, Idaho

Location.--Lat 42°52', long 114°55', in SW¼ sec.27, T.6 S., R.13 E., on left bank above entrance to inverted siphon crossing Snake River, half a mile west of highway bridge over Big Wood River and 3½ miles north of Hagerman.

Records available.--March 1930 to September 1960 (irrigation seasons only 1930-37, 1940-46).

Gage.--Water-stage recorder. Altitude of gage is 2,850 ft (by barometer). Prior to Apr. 1, 1948, staff gage at site 400 ft upstream at datum 1.95 ft higher. Apr. 1, 1948, to May 22, 1951, staff gages at present site at different datum prior to Apr. 12, 1949; at present datum thereafter. Supplementary gage, 500 ft downstream from siphon efflux, used June 1, 1949, to May 22, 1951.

Extremes.--1930-60: Maximum daily discharge, 348 cfs July 2, 1956; no flow or minor leakage at headgate during nonirrigation seasons and other periods when gates are closed.

Remarks.--This canal, which is operated by King Hill Irrigation District to provide water for irrigation of about 10,000 acres, diverts from Idaho Power Co.'s canal, which diverts from Big Wood River (Malad Springs water).

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,390	0	0	0	0	0	9,920	18,330	17,260	19,050	17,380	17,170	101,500
1952	3,740	0	0	0	0	0	8,530	17,980	18,750	18,230	18,290	17,310	102,800
1953	5,940	0	0	0	2.0	2,460	14,100	17,660	17,560	19,200	18,330	16,910	112,200
1954	5,370	0	0	0	0	4,440	14,180	20,050	18,490	17,980	17,300	14,660	112,500
1955	284	0	0	0	0	10	14,330	19,000	17,190	17,270	18,890	17,910	104,900
1956	10,060	0	0	0	0	18	14,700	19,950	17,730	20,320	17,920	18,820	119,500
1957	5,700	0	0	0	0	865	14,330	20,180	17,480	20,170	18,510	19,120	116,400
1958	8,650	0	0	0	0	2,350	12,240	20,180	17,460	19,530	17,760	19,050	117,200
1959	6,070	0	0	0	0	3,340	17,800	20,300	17,070	19,220	17,740	19,340	120,900
1960	5,510	0	0	0	0	1,020	15,890	20,900	17,490	16,440	19,940	18,670	115,900

CLOVER CREEK BASIN

1540. Clover Creek near Bliss, Idaho

Location.--Lat 43°01'30", long 115°00'20", in NE¼ sec.3, T.5 S., R.12 E., just downstream from Calf Creek, 6½ miles northwest of Bliss.

Drainage area.--140 sq mi. Mean altitude, 4,700 ft.

Records available.--April 1938 to October 1943, August 1957 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,119.97 ft, datum of 1929 (levels by Bureau of Reclamation). April 1938 to October 1943 at site 3 miles downstream at different datum.

Average discharge.--8 years (1938-43, 1957-60), 30.3 cfs (21,940 acre-ft per year).

Extremes.--1938-43, 1957-60: Maximum discharge, 2,700 cfs Mar. 7, 1960 (gage height, 7.57 ft), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; no flow for many days in 1938-40, 1942.
Flood in December 1955 reached a stage of 10.2 ft, site and datum used in 1943, from floodmarks.

Remarks.--Many diversions above and below station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	-	-	-	-	-	-	-	-	-	-	-	0.60	-
1958	3.53	3.96	4.14	5.85	146	77.3	87.1	17.1	7.26	1.07	0.83	.97	28.7
1959	2.48	3.76	4.77	8.47	24.7	27.8	27.0	2.03	1.33	.71	.61	1.36	8.62
1960	3.56	3.85	3.84	4.61	50.8	211	41.9	3.57	.84	.69	.51	.64	27.2

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	-	-	-	-	-	-	-	-	-	-	-	36	-
1958	217	236	254	360	8,100	4,750	5,180	1,050	432	66	51	58	20,750
1959	152	224	294	521	1,370	1,710	1,610	125	79	43	37	81	6,250
1960	219	229	236	283	2,920	12,970	2,490	219	50	43	31	38	19,730

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1957	1517	-	-	-	-	-	-	-
1958	1567,1717	1,360	Apr. 3, 1958	0.6	28.7	20,750	28.6	20,720
1959	1637,1717	875	Mar. 31, 1959	.1	8.62	6,250	8.64	6,260
1960	1717	2,700	Mar. 7, 1960	.4	27.2	19,730	-	-

1545. Snake River at King Hill, Idaho

Location.--Lat 43°00'10", long 115°12'05", in SW¼ sec.7, T.5 S., R.11 E., on right bank 300 ft east of railroad station at King Hill and 20 miles downstream from Big Wood River.

Drainage area.--35,800 sq mi, approximately. Mean altitude, 6,040 ft.

Records available.--May 1909 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,492.3 ft above mean sea level, by stadia levels. May 13, 1909, to Mar. 1, 1910, staff gage on left bank at present site at datum 2.20 ft higher. Mar. 7 to Aug. 16, 1910, staff gage three-quarters of a mile upstream at different datum. Aug. 17, 1910, to Oct. 7, 1928, staff gage at present site and datum.

Extremes.--1909-60: Maximum discharge observed, 47,200 cfs June 22, 1918 (gage height, 16.3 ft), from rating curve extended above 30,000 cfs; minimum observed, 1,250 cfs Jan. 10, 1950 (gage height, 1.75 ft); minimum daily, 4,760 cfs July 7-9, Aug. 15, 16, 1910.

Remarks.--Flow regulated by powerplants at Lower Salmon Falls and near Bliss and by many reservoirs above station. Practically entire flow at Milner diverted at times during some irrigation seasons; flow at King Hill is then derived largely from springs and seepage entering below Milner. Diversions for irrigation of about 1,590,000 acres above station. Records of chemical analyses and water temperatures for the period March 1951 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11,400	11,610	12,480	15,120	19,080	18,320	14,340	18,020	11,440	8,158	9,023	9,487	13,170
1952	13,190	12,850	12,400	13,160	17,500	19,040	21,510	17,610	14,280	9,348	8,558	9,185	14,030
1953	10,390	9,137	9,617	10,990	12,010	13,140	10,830	8,508	14,310	7,938	8,381	8,968	10,330
1954	9,358	9,517	10,390	10,300	10,360	10,400	10,420	8,727	8,864	7,910	8,169	8,888	9,434
1955	10,620	10,870	10,050	10,070	8,731	9,911	12,260	8,403	8,089	8,038	7,907	8,493	9,455
1956	9,154	9,156	9,536	11,310	12,010	14,380	15,850	14,780	20,250	7,840	8,477	9,098	11,800
1957	10,900	10,630	10,570	10,840	10,900	12,420	13,910	18,210	9,845	7,737	8,417	9,214	11,140
1958	9,887	9,330	9,861	10,370	10,920	10,960	11,510	9,968	9,102	7,930	8,418	9,112	9,772
1959	9,873	9,592	9,278	8,853	8,806	8,809	7,887	7,846	7,675	7,612	8,162	9,481	8,655
1960	10,400	9,364	8,833	8,707	8,653	8,730	8,483	6,676	7,144	7,401	7,724	8,318	8,368

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	700.9	691.0	767.2	929.5	1,060	1,126	853.1	1,108	680.5	501.6	554.8	564.5	9,537
1952	811.0	764.4	762.2	809.5	1,006	1,171	1,280	1,083	849.5	574.8	526.2	546.5	10,180
1953	638.7	543.7	591.4	675.8	667.2	807.7	644.6	523.1	851.4	488.1	515.3	533.6	7,481
1954	575.4	566.3	638.8	633.4	575.2	639.8	619.8	536.6	527.4	486.3	502.3	528.9	6,830
1955	653.1	647.0	618.0	618.9	484.9	609.4	729.7	516.7	481.3	494.2	486.2	505.4	6,845
1956	562.9	544.8	586.3	695.5	690.6	884.0	943.1	908.6	1,205	482.0	521.3	541.3	8,565
1957	670.5	632.7	650.2	666.6	605.2	763.4	827.9	1,120	585.8	475.7	517.5	548.3	8,064
1958	608.0	555.2	606.3	637.9	606.5	673.6	685.1	612.9	541.6	487.6	517.6	542.2	7,074
1959	607.1	570.8	570.5	544.4	489.1	541.6	469.3	482.4	456.7	468.0	501.8	564.2	6,266
1960	639.3	557.2	543.1	535.4	497.7	536.8	504.8	410.5	425.1	455.1	474.9	494.9	6,075

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	12,150	8,796,000
1951	1217	25,600	Apr. 16, 1951	5,270	13,170	9,537,000	13,420	9,716,000
1952	1247	27,800	May 10, 1952	8,040	14,030	10,180,000	13,250	9,620,000
1953	1287	27,900	June 11, 1953	7,500	10,330	7,481,000	10,340	7,487,000
1954	1347	19,100	May 30, 1954	6,740	9,434	6,830,000	9,625	6,968,000
1955	1397	18,400	Apr. 2, 1955	7,140	9,455	6,845,000	9,145	6,621,000
1956	1447	29,400	June 4, 1956	7,040	11,800	8,565,000	12,160	8,825,000
1957	1517	30,300	May 22, 1957	7,120	11,140	8,064,000	10,880	7,880,000
1958	1567	19,000	Apr. 25, 1958	7,430	9,772	7,074,000	9,743	7,053,000
1959	1637	16,400	Oct. 16, 1958	6,700	8,655	6,266,000	8,643	6,257,000
1960	1717	15,300	Mar. 7, 1960	6,070	8,368	6,075,000	-	-

1605. Mountain Home feeder canal near Mountain Home, Idaho

Location.--Lat 43°13', long 115°42', in sec.36, T.2 S., R.6 E., on right bank 40 ft downstream from point of diversion from Canyon Creek and 5 miles north of Mountain Home.

Records available.--April 1924 to September 1929, April 1931 to September 1960 (irrigation seasons only 1924-29, 1931-35, 1938-45).

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,330 ft (by barometer). Prior to May 4, 1924, staff gage and May 4, 1924, to Sept. 30, 1929, water-stage recorder, at site 30 ft downstream at datum 0.07 ft lower.

Extremes.--1924-29, 1931-60: Maximum daily discharge, 182 cfs Jan. 1, 1943; no flow at times in most years.

Remarks.--Canal diverts from Canyon Creek in sec.36, T.2 S., R.6 E., and delivers water to Mountain Home cooperative canal, which heads in Mountain Home feeder canal half a mile below station, for irrigation of about 5,000 acres in Mountain Home Irrigation District. During nonirrigation season and at times when there is a surplus of water for irrigation, canal feeds directly into Mountain Home Reservoir. No diversion from canal above station. Flow regulated by headgates in Canyon Creek and by Long Tom and Little Camas Reservoirs.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	155	112	1,600	1,590	1,880	1,330	3,710	5,300	4,080	3,610	2,780	2,140	28,290
1952	108	136	1,150	766	1,410	1,520	2,540	5,640	4,080	4,260	3,490	2,330	27,430
1953	85	161	131	1,940	1,800	1,580	1,990	3,470	3,720	4,630	3,040	2,320	24,870
1954	148	107	318	388	1,160	1,520	1,430	4,890	3,220	3,910	2,840	2,070	22,000
1955	93	79	87	116	120	324	2,500	3,460	3,820	1,840	332	53	12,820
1956	84	89	1,920	2,510	990	2,560	4,940	4,390	3,580	4,440	3,290	2,400	31,190
1957	898	115	470	480	2,520	4,050	2,810	4,560	3,940	4,200	3,450	2,720	30,210
1958	588	104	3.6	300	3,600	2,720	3,300	5,920	4,350	3,870	3,020	2,280	30,010
1959	1,170	113	287	608	1,070	1,280	2,180	3,330	3,770	3,970	2,740	1,370	21,890
1960	329	222	185	218	1,050	3,980	3,740	2,910	3,580	4,020	2,970	1,610	24,810

1625. East Fork Jarbidge River near Three Creek, Idaho

Location.--Lat 42°02', long 115°22', in SE¼SE¼ sec.14, T.16 S., R.9 E., on left bank a quarter of a mile downstream from Murphy Hot Springs, 2 miles upstream from mouth, and 11 miles southwest of Three Creek.

Drainage area.--89 sq mi, approximately. Mean altitude, 7,600 ft.

Records available.--October 1928 to March 1933, September 1953 to September 1960. Monthly discharge only for October 1928, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to Sept. 23, 1953, at same site at datum about 1.6 ft higher.

Average discharge.--11 years (1928-32, 1953-60), 51.2 cfs (37,070 acre-ft per year).

Extremes.--1928-33, 1953-60: Maximum discharge, 614 cfs June 5, 1957 (gage height, 5.11 ft); minimum, 1.4 cfs Dec. 31, 1957 (gage height, 1.95 ft).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	8.18	8.82	10.4	9.17	13.6	24.2	63.8	155	89.2	29.0	7.76	5.05	35.4
1955	6.05	6.46	6.53	6.86	6.30	8.17	24.8	106	193	57.0	14.5	8.36	37.0
1956	6.93	8.98	23.6	19.5	11.2	34.2	90.9	245	230	60.3	16.0	9.17	63.0
1957	10.5	10.6	12.0	8.65	15.0	26.7	74.5	284	364	122	23.9	12.8	80.5
1958	12.0	11.0	9.36	9.33	16.4	15.1	48.8	250	146	43.1	15.9	9.93	49.2
1959	8.84	9.99	12.3	9.91	8.62	14.7	51.9	121	206	35.6	12.3	15.1	42.2
1960	29.2	14.7	9.27	8.79	12.0	46.6	106	192	251	39.3	13.4	7.52	60.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	503	525	637	564	757	1,490	3,800	9,510	5,310	1,780	477	301	25,650
1955	372	384	401	422	350	502	1,470	6,500	11,480	3,500	889	497	26,770
1956	426	534	1,450	1,200	642	2,100	5,410	15,050	13,680	3,710	982	546	45,730
1957	644	632	736	532	834	1,640	4,430	17,460	21,630	7,480	1,470	762	58,250
1958	736	653	576	604	908	930	2,910	15,390	8,710	2,650	978	591	35,640
1959	543	594	754	609	479	902	3,090	7,430	12,270	2,190	756	898	30,520
1960	1,790	873	570	541	690	2,870	6,280	11,810	14,960	2,420	821	447	44,070

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953	-	-	-	-	-	-	-	-
1954	1347	247	May 17,21,1954	4	35.4	25,650	34.7	25,150
1955	1397	350	June 8, 1955	3.6	37.0	26,770	38.7	28,020
1956	1447	548	May 24, 1956	3.8	63.0	45,730	62.4	45,330
1957	1517	614	June 5, 1957	6.5	80.5	58,250	80.4	58,200
1958	1567	422	May 22, 1958	3.9	49.2	35,640	49.1	35,560
1959	1637	324	June 7, 1959	4.8	42.2	30,520	44.0	31,860
1960	1717	515	June 3, 1960	4.6	60.7	44,070	-	-

1670. East Fork Bruneau River below Three Creek, near Three Creek, Idaho

Location.--Lat 42°10', long 115°13', in NE¼ sec.31, T.14 S., R.11 E., on left bank 1 mile downstream from Three Creek and 7 miles northwest of Three Creek Post Office.

Drainage area.--210 sq mi, approximately.

Records available.--May to September 1953, November 1953 to November 1954, January 1955, March 1955 to September 1960 (fragmentary May, August, November 1953, June to November 1954, January, March, June to August 1955).

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to Aug. 30, 1955, staff gage at Salls Ranch 3 miles downstream at different datum.

Average discharge.--5 years (1955-60), 28.9 cfs (20,920 acre-ft per year).

Extremes.--1953-60: Maximum discharge recorded, 451 cfs May 19, 1957 (gage height, 7.43 ft); minimum recorded, 1.1 cfs Sept. 11, 12, 13, 1955 (gage height, 2.32 ft).

Remarks.--Diversions for irrigation above and below station. Water diverted from Deadwood Creek, tributary of the East Fork, to Cedar Creek Reservoir in Salmon Falls Creek basin for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	67.8	9.06	-	4.10	-
1954	-	-	8.56	9.37	11.6	11.8	15.1	9.05	-	-	-	-	-
1955	-	-	-	-	-	-	14.9	20.0	-	-	-	2.25	-
1956	4.60	7.05	8.97	11.1	10.4	21.3	41.6	86.4	50.6	7.57	5.75	4.87	21.7
1957	7.65	9.24	11.1	8.92	21.0	29.7	69.6	299	115	22.7	12.8	11.3	51.8
1958	13.1	18.6	15.4	15.8	24.1	17.2	30.3	85.7	41.3	8.74	6.84	6.04	23.6
1959	8.36	10.5	9.26	10.5	10.4	10.5	24.9	50.6	33.3	7.45	5.20	4.29	15.4
1960	8.53	8.22	7.44	7.87	10.2	44.6	87.4	129	53.8	11.9	9.00	8.14	32.2

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	-	-	-	-	-	-	-	-	4,030	557	-	244	-
1954	-	-	527	576	647	728	901	557	-	-	-	-	-
1955	-	-	-	-	-	-	889	1,230	-	-	-	134	-
1956	283	420	552	685	599	1,310	2,480	5,310	3,010	466	354	290	15,760
1957	470	550	682	548	1,170	1,830	4,140	18,400	6,860	1,400	787	674	37,510
1958	805	1,110	946	970	1,340	1,060	1,800	5,270	2,460	538	421	359	17,080
1959	514	625	570	648	576	648	1,480	3,110	1,980	458	320	255	11,180
1960	524	489	457	484	586	2,750	5,200	7,930	3,200	733	554	484	23,390

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952	-	-	-	-	-	-	-	-
1953	1397	-	-	-	-	-	-	-
1954	1397	-	-	-	-	-	-	-
1955	1397	-	-	-	-	-	-	-
1956	1447	185	May 28, 1956	2.1	21.7	15,760	22.3	16,210
1957	1517	451	May 19, 1957	4.4	51.8	37,510	53.4	38,670
1958	1567	130	Feb. 16, 1958	4.3	23.6	17,080	22.0	15,930
1959	1637	89	May 28, 1959	3.2	15.4	11,180	15.1	10,940
1960	1717	254	May 13, 1960	6.7	32.2	23,390	-	-

1675. East Fork Bruneau River near Hot Spring, Idaho

Location.--Lat 42°33'25", long 115°30'35", in SW¼NW¼ sec.15, T.10 S., R.8 E., on right bank at Winter Camp Ranch, 10 miles upstream from mouth and 20 miles southeast of Hot Spring.

Drainage area.--620 sq mi, approximately.

Records available.--August 1910 to November 1914, February to April 1915, December 1948 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,864.7 ft, datum of 1929, supplementary adjustment of 1947. Prior to Dec. 10, 1948, staff gage at approximately present site at different datum.

Average discharge.--15 years (1910-14, 1949-60), 30.7 cfs (22,230 acre-ft per year).

Extremes.--1910-15, 1948-60: Maximum discharge recorded, 463 cfs May 20, 1957 (gage height, 7.12 ft), but may have been more during period of ice effect Mar. 7, 8, 1911; maximum gage height observed, 10.8 ft Mar. 8, 1911, datum then in use (ice jam); no flow for long periods during irrigation seasons in 1954, 1955, and shorter periods in 1959.

Maximum stage known, 16.9 ft, from floodmark, datum then in use, during spring of 1910.

Remarks.--Diversions for irrigation above station. Water diverted from Deadwood Creek, tributary of East Fork, to Cedar Creek Reservoir in Salmon Falls Creek basin for irrigation.

Note.--The monthly mean discharge and runoff figures for December 1948, not previously published, have been computed as 11.7 cfs and 720 acre-ft, respectively.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11.3	15.7	17.4	12.3	34.0	27.7	76.1	112	35.5	3.34	4.59	2.63	29.3
1952	5.64	9.32	7.54	7.8	10.8	18.0	115	162	77.2	20.7	7.77	6.74	37.3
1953	9.08	12.0	14.0	12.4	9.89	12.2	19.3	28.6	69.5	8.83	.90	1.37	16.5
1954	4.13	7.70	8.76	9.8	12.7	12.2	13.6	9.91	13.6	.58	0	0	7.70
1955	.37	2.68	4.81	5.06	6.21	9.70	14.1	17.8	29.2	10.6	.59	0	8.41
1956	1.32	5.61	9.34	12.4	11.5	24.7	40.3	75.4	53.3	5.24	1.71	1.27	20.2
1957	5.57	9.97	12.7	8.56	24.1	33.3	66.8	283	134	19.1	7.58	8.98	51.3
1958	14.8	18.6	16.4	15.7	28.4	20.0	28.3	79.2	41.5	5.25	2.71	2.82	22.8
1959	5.25	7.78	8.99	9.40	8.69	10.2	21.0	42.0	31.0	4.34	.33	1.55	12.5
1960	6.01	6.22	4.93	5.61	8.30	43.9	85.7	128	46.9	7.60	4.48	3.67	29.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	696	936	1,070	758	1,890	1,700	4,530	6,860	2,110	205	282	157	21,190
1952	347	555	463	478	623	1,110	6,820	9,950	4,590	1,270	478	401	27,080
1953	558	712	861	761	549	752	1,150	1,760	4,140	543	55	81	11,920
1954	254	458	539	601	706	750	810	610	812	36	0	0	5,580
1955	23	159	296	311	345	596	837	1,090	1,740	651	36	0	6,080
1956	81	334	574	764	663	1,520	2,400	4,630	3,170	322	105	76	14,640
1957	343	593	780	527	1,340	2,040	3,980	17,400	7,980	1,180	466	534	37,160
1958	908	1,110	1,010	963	1,580	1,230	1,690	4,870	2,470	323	167	168	16,490
1959	323	463	553	578	482	630	1,250	2,580	1,840	267	20	92	9,080
1960	369	370	303	345	478	2,700	5,100	7,870	2,790	467	276	219	21,290

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	37.2	26,940
1951	1217	160	May 14, 1951	-	29.3	21,190	27.4	19,860
1952	1247	222	May 6, 1952	0.8	37.3	27,080	38.4	27,850
1953	1287	172	June 6, 1953	.2	16.5	11,920	15.2	11,040
1954	1347	44	June 11, 1954	0	7.70	5,580	6.63	4,800
1955	1397	83	June 17, 1955	0	8.41	6,080	9.11	6,600
1956	1447	145	May 29, 1956	0	20.2	14,640	21.2	15,370
1957	1517	463	May 20, 1957	.7	51.3	37,160	53.1	38,480
1958	1567	123	May 24, 1958	1.4	22.8	16,490	20.4	14,800
1959	1637	81	May 29, 1959	0	12.5	9,080	12.1	8,780
1960	1717	239	May 14, 1960	2.0	29.3	21,290	-	-

1680. Bruneau River near Winter Camp Ranch, Idaho

Location.--Lat 42°38', long 115°42', in sec.13, T.9 S., R.6 E., on right bank at Roberson Trail crossing, 6 miles downstream from East Fork, 11 miles northwest of Winter Camp Ranch, and 11 miles south of Hot Spring.

Drainage area.--1,890 sq mi, approximately.

Records available.--November 1946 to September 1951.

Gage.--Water-stage recorder. Datum of gage is 3,015.68 ft above mean sea level, datum of 1929.

Extremes.--1946-51: Maximum discharge, 3,290 cfs May 17, 1949 (gage height, 5.23 ft); minimum daily, 24 cfs Jan. 28, 1948; minimum gage height, 0.48 ft Sept. 16, 1948.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	64.3	11.5	236	135	443	384	1,216	1,346	657	174	74.1	45.2	406

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,950	6,820	14,520	8,300	24,610	23,590	72,380	82,750	39,090	10,670	4,550	2,690	293,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	452	327,000
1951	1217	1,800	May 28, 1951	38	406	293,900	-	-

1685. Bruneau River near Hot Spring, Idaho

Location.--Lat 42°46'17", long 115°43'10", in SE¼ sec.34, T.7 S., R.6 E., on right bank at Dunham Ranch, 1 mile downstream from Hot Creek, 1½ miles south of Hot Spring Post Office, 9 miles southeast of Bruneau, and 19 miles downstream from East Fork.

Drainage area.--2,630 sq mi, approximately. Mean altitude, 5,600 ft.

Records available.--July 1909 to March 1915, October 1943 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,598.5 ft above mean sea level, datum of 1929. Prior to Mar. 12, 1910, staff gage at site a quarter of a mile upstream at different datum. Mar. 12, 1910, to Mar. 15, 1915, staff gage at present site and datum.

Average discharge.--22 years (1909-14, 1943-60), 391 cfs (283,100 acre-ft per year).

Extremes.--1909-15, 1943-60: Maximum discharge, 6,500 cfs Mar. 1, 1910 (gage height, 13.0 ft, from floodmark, present site and datum), from rating curve extended above 1,200 cfs; minimum observed, 32 cfs Jan. 4, 1959 (gage height, 3.30 ft).

Remarks.--Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 8,500 acres. Records of chemical analyses for the period December 1958 to October 1959 are published in reports of Geological Survey.

Revisions.--The momentary maximum discharge observed for the water year 1910, published in WSP 1317, has been revised to 6,500 cfs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	104	161	274	165	475	420	1,268	1,390	701	222	115	76.9	446
1952	94.6	120	129	134	159	179	1,882	2,347	1,373	395	133	94.1	586
1953	105	110	128	166	157	243	547	747	1,467	417	106	79.4	355
1954	87.1	109	112	119	157	240	375	480	275	113	67.6	60.9	183
1955	69.0	79.8	76.7	93.1	98.9	119	240	600	608	190	75.9	63.3	193
1956	70.3	89.1	158	315	157	387	818	1,299	868	199	83.8	66.6	376
1957	86.8	107	149	90.5	347	396	666	1,997	1,398	342	97.5	81.8	480
1958	105	126	124	121	243	237	794	1,594	761	191	90.6	70.5	372
1959	76.2	105	118	111	108	148	287	425	542	137	58.5	71.6	182
1960	112	89.2	73.4	92.7	117	413	716	852	684	139	74.3	60.8	285

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,420	9,590	16,850	10,160	26,390	25,810	75,480	85,450	41,720	13,680	7,070	4,580	323,200
1952	5,820	7,110	7,930	8,240	9,120	11,010	112,000	144,300	81,700	24,260	8,160	5,600	425,200
1953	6,460	6,520	7,860	10,180	8,720	14,930	32,540	45,900	87,290	25,640	6,490	4,720	257,200
1954	5,360	6,500	6,900	7,350	8,740	14,740	22,290	29,540	16,350	6,950	4,160	3,620	132,500
1955	4,240	4,750	4,720	5,730	5,490	7,300	14,300	36,880	36,170	11,670	4,670	3,770	139,700
1956	4,320	5,300	9,730	19,340	9,020	23,820	48,670	79,900	51,680	12,230	5,150	3,960	273,100
1957	5,340	6,390	9,190	5,570	19,300	24,360	39,650	122,800	83,160	21,010	5,990	4,870	347,600
1958	6,480	7,490	7,630	7,430	13,510	14,570	47,230	98,000	45,310	11,750	5,570	4,190	269,200
1959	4,690	6,260	7,240	6,830	5,980	9,100	17,080	26,160	32,270	8,430	3,590	4,260	131,900
1960	6,900	5,310	4,510	5,700	6,710	25,420	42,630	52,360	40,670	8,520	4,570	3,620	206,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	462	334,500
1951	1217	1,820	May 28, 1951	55	446	323,200	430	311,200
1952	1247	3,670	Apr. 27, 1952	55	586	425,200	586	425,200
1953	1287	2,150	May 30, 1953	65	355	257,200	352	255,200
1954	1347	920	Mar. 10, 1954	60	183	132,500	176	127,400
1955	1397	1,010	June 10, 1955	51	193	139,700	201	145,300
1956	1447	2,570	Jan. 16, 1956	56	376	273,100	378	274,700
1957	1517	4,080	May 20, 1957	49	480	347,600	481	348,300
1958	1567	2,130	May 23, 1958	63	372	269,200	367	265,800
1959	1637	924	June 7, 1959	51	182	131,900	180	130,400
1960	1717	1,570	May 13, 1960	43	285	206,900	-	-

1715. C. J. Strike Reservoir near Grand View, Idaho

Location.--Lat 42°56'45", long 115°58'35", in SW¼ sec.34, T.5 S., R.4 E., at dam on Snake River, 1 mile downstream from Bruneau River and 7 miles southeast of Grand View.

Records available.--March 1952 to September 1960.

Gage.--Remote registering water-stage recorder in channel leading to Grand View Irrigation District Canal. Datum of gage is at mean sea level (levels by Idaho Power Co.).

Extremes.--1952-60: Maximum month-end contents, 253,700 acre-ft Mar. 31, 1956 (elevation, 2,455.49 ft); minimum since reservoir first filled, 225,400 acre-ft Dec. 31, 1955 (elevation, 2,451.59 ft).

Remarks.--Reservoir is formed by earth-fill and rock-faced dam. Storage began in February 1952. Total capacity, 350,000 acre-ft at elevation 2,455 ft (top of spillway gates), of which about 50,000 acre-ft is controlled storage. Water is used for power generation in plant of Idaho Power Co. Figures given herein represent total contents.

Cooperation.--Water elevations and area-elevation curve furnished by Idaho Power Co.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951												
1952	-	-	-	-	-	219,400	216,700	242,600	249,300	250,000	247,800	239,700
1953	242,600	246,300	242,600	226,900	246,300	247,800	248,500	253,000	251,900	247,400	247,400	242,200
1954	245,200	243,800	244,200	247,200	249,000	244,100	239,700	251,200	246,100	246,900	247,000	249,300
1955	248,900	250,200	248,700	250,500	247,200	237,200	242,700	248,400	249,600	250,200	244,200	241,500
1956	244,100	248,700	225,400	243,400	246,600	253,700	252,200	252,600	242,700	248,700	244,600	248,300
1957	238,400	242,800	249,900	236,800	251,000	251,500	245,700	253,000	247,800	248,000	246,100	244,200
1958	243,200	240,400	237,200	238,800	234,500	241,600	234,200	244,100	243,300	244,800	244,800	242,700
1959	245,700	247,600	248,800	247,400	248,000	248,500	246,100	245,000	245,900	247,000	238,400	248,300
1960	245,000	245,800	244,700	245,400	240,100	248,000	245,400	246,700	243,300	246,400	243,500	241,700

1725. Snake River near Murphy, Idaho

Location.--Lat 43°17'30", long 116°25'12", in SE¼ sec.35, T.1 S., R.1 W., on right bank 4½ miles downstream from Swan Falls powerplant and 7½ miles northeast of Murphy.

Drainage area.--41,900 sq mi, approximately.

Records available.--August to October 1912, August 1913 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,271.17 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 7, 1914, staff gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder, at site 3½ miles upstream at datum 9.79 ft higher.

Extremes.--1912-60: Maximum discharge, 47,300 cfs June 22, 1918 (gage height, 13.95 ft, site and datum then in use); minimum recorded, 3,900 cfs July 9, 1949 (gage height, 2.53 ft); minimum daily, 5,440 cfs Aug. 4, 1914.

Remarks.--Flow regulated by many reservoirs upstream. Between this station and station at King Hill, flow is regulated at Swan Falls powerplant and C. J. Strike Reservoir (see preceding page) and by gravity and pumping diversions. Diversions for irrigation of about 1,630,000 acres above station.

Revisions.--The maximum discharge for the water year 1933 has been revised to 16,300 cfs May 10, 1933 (gage height, 5.35 ft), superseding figure published in WSP 753 and 1317.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11,680	12,450	13,190	15,440	19,930	18,700	15,970	19,030	12,100	8,090	9,004	9,576	13,730
1952	13,570	13,500	12,990	13,480	14,660	18,700	24,640	20,250	15,110	9,993	8,627	9,306	14,560
1953	10,620	9,695	9,966	11,740	11,920	13,320	11,500	9,031	15,290	8,153	8,249	9,117	10,700
1954	9,441	9,699	10,460	10,410	10,630	10,720	10,980	8,623	9,345	7,907	8,070	8,869	9,586
1955	10,820	11,290	10,570	10,210	9,059	10,470	12,360	8,488	7,927	7,682	7,644	8,483	9,584
1956	9,351	9,548	10,540	11,740	12,510	14,780	16,950	15,700	21,410	7,594	8,243	9,128	12,270
1957	11,260	11,230	11,090	11,390	11,480	13,340	14,970	19,650	11,520	7,716	8,151	9,325	11,760
1958	10,310	9,779	10,220	10,650	11,580	11,180	12,480	11,350	6,662	7,595	8,246	9,110	10,170
1959	10,040	9,865	9,516	9,321	9,448	9,435	8,404	7,924	6,951	7,212	7,881	9,236	8,847
1960	10,660	9,424	8,961	8,713	8,780	9,268	9,467	7,317	7,540	7,043	7,541	8,208	8,574

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	718.2	740.8	810.8	949.5	1,107	1,150	950.2	1,170	720.0	497.5	553.6	569.8	9,937
1952	834.2	803.1	798.7	829.1	843.5	1,150	1,466	1,245	899.3	614.4	530.4	553.8	10,570
1953	652.9	576.9	612.8	722.0	662.1	818.8	684.4	555.3	910.1	501.3	507.2	542.5	7,746
1954	580.5	577.2	642.9	639.8	590.5	659.1	653.6	530.2	556.1	486.2	496.2	527.8	6,940
1955	665.3	671.9	649.7	627.7	503.1	643.9	735.7	521.9	471.7	472.3	470.0	504.8	6,938
1956	574.9	568.1	648.0	721.9	719.6	908.5	1,008	956.6	1,274	466.9	506.9	543.2	8,906
1957	692.5	668.0	681.7	700.1	637.4	820.4	891.0	1,209	685.3	474.5	501.2	554.9	8,516
1958	634.0	581.9	628.1	654.7	643.1	687.6	742.7	698.0	574.9	467.0	507.0	542.1	7,361
1959	617.1	587.0	585.1	573.1	524.7	580.1	500.1	487.2	473.1	443.4	484.6	549.6	6,405
1960	655.2	560.8	551.0	535.8	505.1	569.9	563.3	449.9	448.6	443.1	463.7	488.4	6,225

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	12,840	9,293,000
1951	1217	26,100	May 17, 1951	6,330	13,730	9,937,000	13,960	10,100,000
1952	1247	35,900	Apr. 29, 1952	8,200	14,560	10,570,000	13,740	9,974,000
1953	1287	28,700	June 11, 1953	7,510	10,700	7,746,000	10,640	7,704,000
1954	1347	16,000	May 31, 1954	7,060	9,586	6,940,000	9,843	7,126,000
1955	1397	15,400	Apr. 5, 1955	6,980	9,584	6,938,000	9,313	6,742,000
1956	1447	36,100	June 5, 1956	7,100	12,270	8,906,000	12,610	9,157,000
1957	1517	34,700	May 23, 1957	7,130	11,760	8,516,000	11,490	8,318,000
1958	1567	19,500	Apr. 28, 1958	6,990	10,170	7,361,000	10,090	7,306,000
1959	1637	15,300	May 5, 1959	6,940	8,847	6,405,000	8,817	6,383,000
1960	1717	18,300	Oct. 13, 1959	6,770	8,574	6,225,000	-	-

1740. Wild Horse Reservoir near Gold Creek, Nev.

Location.--Lat 41°41'10", long 115°51'20", in NE¼NW¼ sec.25, T.44 N., R.54 E., at Wild Horse Dam on Owyhee River, 8 miles west of Gold Creek and 12 miles southeast of Mountain City.

Drainage area.--209 sq mi.

Records available.--March 1938 to September 1960. Month-end contents for some periods, published in WSP 1317.

Gage.--Gage readings from reference point on dam. Datum of gage is 6,109.18 ft above mean sea level (levels by Bureau of Indian Affairs).

Extremes.--1938-60: Maximum contents observed, 35,630 acre-ft Apr. 29, 1952 (gage height, 81.56 ft); no contents at times in each year 1938-41.

Remarks.--Reservoir is formed by concrete-arch dam; storage began Mar. 18, 1938. Capacity, 32,690 acre-ft between gage heights 20.0 (sill of outlet gate) and 80.0 ft (spillway crest). No dead storage. Water is used for irrigation on Duck Valley project.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	10,920	11,200	13,440	14,500	18,450	25,500	33,940	33,010	26,170	18,120	12,970	9,480
1952	8,880	9,340	9,700	10,100	11,000	12,530	35,480	33,770	33,040	30,440	24,680	19,540
1953	17,110	16,760	16,890	17,880	19,170	22,790	29,500	34,550	32,690	26,360	20,380	17,130
1954	15,290	14,750	15,600	15,900	16,640	19,500	22,370	15,370	10,750	6,290	4,110	3,430
1955	2,860	2,510	2,400	2,290	2,590	3,220	5,480	8,410	7,380	2,870	1,490	1,010
1956	644	382	1,160	3,600	4,900	10,690	26,240	32,790	30,070	23,420	20,170	17,700
1957	16,600	16,890	17,680	18,550	25,120	31,160	33,680	33,380	30,800	24,380	20,210	17,090
1958	16,340	16,690	17,250	18,000	19,360	21,650	34,190	33,400	32,670	28,770	24,450	21,190
1959	20,340	20,040	20,650	21,400	22,090	24,490	25,100	20,070	15,540	12,740	9,680	8,550
1960	8,380	8,430	8,640	9,030	9,610	13,000	23,840	27,090	22,160	17,200	14,240	13,080

Note.--Contents generally interpolated from gage readings obtained before and after last day of month.

1745. Owyhee River near Gold Creek, Nev.

Location.--Lat 41°41'10", long 115°51'30", in NW¼NW¼ sec.25, T.44 N., R.54 E., on right bank 500 ft downstream from Wild Horse Dam, 8 miles west of Gold Creek, and 12 miles southeast of Mountain City.

Drainage area.--209 sq mi.

Records available.--March to November 1916, April 1917 to September 1925, October 1936 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,130 ft (from topographic map). Prior to Oct. 1, 1936, at site a quarter of a mile upstream at different datum.

Average discharge.--32 years (1917-25, 1936-60), 42.3 cfs (30,620 acre-ft per year), unadjusted.

Extremes.--1916-25, 1936-60: Maximum discharge, 1,810 cfs May 5, 1922 (gage height, 10.11 ft, site and datum then in use), from rating curve extended above 400 cfs; no flow at times when reservoir gates were closed.

Remarks.--Small diversions for irrigation above station. Flow regulated by Wild Horse Reservoir (see preceding page) beginning Mar. 18, 1938.

Monthly and yearly mean discharge, in cubic feet per sedond

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	21.5	7.77	0	0	0	0	190	135	135	128	82.6	61.7	63.5
1952	13.2	0	0	0	0	0	208	500	93.0	45.2	83.4	80.4	85.6
1953	40.4	15.3	9.12	3.62	0	0	0	49.1	153	97.5	84.6	46.4	41.8
1954	28.4	14.9	.1	.1	.1	.1	.07	119	85.0	68.2	32.9	9.86	30.2
1955	9.68	8.56	5.75	5.56	1.28	0	0	0	24.1	71.4	22.7	11.4	13.5
1956	10.5	8.44	0	0	0	0	0	2.55	52.4	103	40.7	34.9	21.1
1957	18.0	0	0	0	0	0	152	198	91.2	95.3	51.7	42.6	54.3
1958	12.3	0	0	0	0	0	119	270	63.8	46.9	58.4	40.9	51.3
1959	15.2	8.85	0	0	0	0	14.5	101	84.9	35.5	41.0	21.1	27.0
1960	1.60	0	0	0	0	0	0	0	85.9	70.5	38.5	12.2	17.4

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,320	462	0	0	0	0	11,290	8,290	8,010	7,890	5,080	3,670	46,010
1952	812	0	0	0	0	0	12,390	30,720	5,530	2,780	5,130	4,780	62,140
1953	2,480	912	561	223	0	0	0	3,020	9,130	5,990	5,200	2,760	30,280
1954	1,750	885	6.1	6.1	5.6	6.1	4.0	7,310	5,060	4,200	2,020	587	21,840
1955	595	509	353	342	71	0	0	0	1,440	4,390	1,400	680	9,780
1956	646	502	0	0	0	0	0	157	3,120	6,330	2,500	2,080	15,340
1957	1,110	0	0	0	0	0	9,040	12,190	5,420	5,860	3,180	2,530	39,330
1958	756	0	0	0	0	0	7,080	16,620	3,800	2,880	3,590	2,430	37,160
1959	936	527	0	0	0	0	865	6,230	5,050	2,180	2,520	1,260	19,570
1960	98	0	0	0	0	0	0	0	5,110	4,330	2,370	724	12,630

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	48.4	35,070
1951	1217	353	Apr. 19, 1951	0	63.5	46,010	62.2	45,040
1952	1247	1,210	Apr. 29, 1952	0	85.6	62,140	89.9	65,280
1953	1287	464	June 1, 1953	0	41.8	30,280	40.0	28,970
1954	1347	182	May 15, 1954	0	30.2	21,840	28.5	20,660
1955	1397	134	July 7-9, 1955	0	13.5	9,780	13.1	9,470
1956	1447	136	(b)	0	21.1	15,340	21.1	15,300
1957	1517	a352	May 20, 1957	0	54.3	39,330	53.9	38,980
1958	1567	552	Apr. 23, 1958	0	51.3	37,160	52.3	37,860
1959	1637	a111	(c)	0	27.0	19,570	25.1	18,200
1960	1717	a120	June 17-24,1960	0	17.4	12,630	-	-

a Maximum daily.
b June 28 to July 15, 1956.
c May 5, 6, 9, 13-26, 1959.

1760. Owyhee River above China diversion dam, near Owyhee, Nev.

Location.--Lat 41°55'20", long 116°04'10", in NW¼ sec.6, T.46 N., R.53 E., on right bank 1,000 ft downstream from Skull Creek, 1 mile upstream from China diversion dam, and 2 miles southeast of Owyhee.

Drainage area.--458 sq mi.

Records available.--March 1939 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 5,425 ft above mean sea level, unadjusted. Prior to Oct. 1, 1939, at datum 1.48 ft higher.

Average discharge.--21 years (1939-60), 141 cfs (102,100 acre-ft per year).

Extremes.--1939-60: Maximum discharge, 2,710 cfs May 3 or 4, 1952 (gage height, 10.07 ft); minimum daily, 2 cfs Sept. 15-18, 1940.

Remarks.--Numerous diversions for irrigation above station. Flow partly regulated by Wild Horse Reservoir (see p. 141).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	38.2	37.9	85.2	50.1	208	148	724	566	228	140	83.5	63.7	197
1952	31.2	24.2	26.5	30.1	32.2	74.9	964	1,396	439	111	93.4	85.6	276
1953	53.1	37.4	35.4	59.9	44.2	74.2	214	421	659	148	99.9	57.1	159
1954	43.7	36.9	22.1	21	27.6	78.2	128	187	112	78.0	35.7	11.5	65.3
1955	21.1	23.4	19.3	18	18	26.2	83.6	222	98.7	88.7	24.2	12.7	55.0
1956	17.1	21.2	67.3	131	74.4	172	324	396	183	123	49.8	38.7	133
1957	37.4	21.6	35.3	17.0	107	183	478	861	299	124	58.9	52.1	190
1958	30.7	23.4	23.0	23.7	123	97.1	482	899	240	80.6	66.5	53.9	179
1959	31.8	31.8	22.9	29.7	27.8	37.4	80.9	153	108	41.3	41.3	29.5	53.0
1960	13.8	11.1	10	11	14	172	243	185	138	78.0	42.9	17.7	78.1

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,350	2,260	5,240	3,080	11,540	9,120	43,110	34,800	13,540	8,610	5,130	3,790	142,600
1952	1,920	1,440	1,630	1,850	1,850	4,600	57,370	85,820	26,140	6,820	5,740	5,100	200,300
1953	3,260	2,230	2,180	3,690	2,450	4,560	12,740	25,910	39,200	9,100	6,140	3,400	114,900
1954	2,690	2,200	1,360	1,290	1,530	4,810	7,590	11,500	6,640	4,790	2,190	682	47,270
1955	1,300	1,390	1,190	1,110	1,000	1,610	4,980	13,660	5,870	5,460	1,490	757	39,820
1956	1,050	1,260	4,140	8,040	4,280	10,580	19,300	24,370	10,920	7,570	3,060	2,300	96,670
1957	2,300	1,290	2,170	1,050	5,970	11,280	28,420	52,930	17,810	7,640	3,620	3,100	137,600
1958	1,890	1,390	1,420	1,460	6,850	5,970	28,670	55,270	14,280	4,970	4,210	3,210	129,600
1959	1,950	1,890	1,410	1,830	1,540	2,300	4,810	9,390	6,440	2,540	2,540	1,750	38,390
1960	849	660	615	676	805	10,600	14,450	11,390	8,210	4,790	2,640	1,050	56,740

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	167	120,900
1951	1217	1,040	Apr. 19, 1951	27	197	142,600	190	137,700
1952	1247	2,710	May 3or4, 1952	15	276	200,300	280	203,000
1953	1287	1,570	June 2, 1953	23	159	114,900	157	113,400
1954	1347	350	Mar. 9, 1954	7.9	65.3	47,270	62.0	44,900
1955	1397	356	May 9, 1955	9.7	55.0	39,820	58.5	42,390
1956	1447	904	Jan. 16, 1956	15	133	96,670	132	96,180
1957	1517	1,450	May 19, 1957	10	190	137,600	189	136,500
1958	1567	1,280	May 12, 1958	-	179	129,600	180	130,140
1959	1637	235	May 27,28, 1959	16	53.0	38,390	48.7	35,260
1960	1717	437	Apr. 7, 1960	6.9	78.1	56,740	-	-

1772. South Fork Owyhee River at Spanish Ranch, near Tuscarora, Nev.

Location.--Lat 41°25'40", long 116°10'40", in NW¼NW¼ sec.30, T.41 N., R.52 E., on left bank 0.2 mile downstream from Hot Creek, 2¾ miles west of Spanish Ranch headquarters, and 8 miles north of Tuscarora.

Drainage area.--330 sq mi, approximately.

Records available.--August 1959 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,550 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 158 cfs May 21, 1960 (gage height, 3.67 ft); minimum, 2.1 cfs Aug. 28, 1959.

Remarks.--Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	9.78	-
1960	15.8	15.2	14.1	16	18.9	62.4	70.0	69.9	47.4	20.4	9.77	3.76	30.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	582	-
1960	974	904	869	984	1,090	3,830	4,170	4,300	2,820	1,250	601	224	22,020

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1717	-	-	-	-	-	-	-
1960	1717	158	May 21, 1960	2.6	30.3	22,020	-	-

1778. South Fork Owyhee River near Whiterock, Nev.

Location.--Lat 41°48', long 116°29', in NE¼ sec.16, T.45 N., R.49 E., on left bank 500 ft downstream from Rye Grass Creek, 1¾ miles upstream from Chimney Creek, and 17 miles northwest of Whiterock.

Drainage area.--1,080 sq mi, approximately.

Records available.--October 1955 to September 1960.

Gage.--Water-stage recorder.

Average discharge.--5 years (1955-60), 143 cfs (103,500 acre-ft per year).

Extremes.--1955-60: Maximum discharge, 3,420 cfs May 20, 1957 (gage height, 7.17 ft); no flow Oct. 1-12, 1955, part of Sept. 17, 28, 1960.

Remarks.--Diversions for irrigation above station. Flow partly regulated by four small reservoirs (total capacity, about 16,100 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1956	2.78	10.3	66.2	210	90.0	283	277	490	167	48.7	13.9	10.6	140
1957	17.4	34.5	56.9	26.0	127	354	550	1,282	423	89.5	19.1	8.01	250
1958	39.4	43.2	36.0	37.9	361	250	744	779	340	85.1	28.0	22.5	229
1959	31.9	50.5	48.8	59.7	61.4	57.4	24.5	25.6	16.4	7.58	3.55	5.99	32.6
1960	15.1	19.3	18	22	27	247	160	168	57.6	11.0	6.14	1.39	62.8

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1956	171	615	4,072	12,940	5,180	17,380	16,480	30,130	9,950	3,000	856	631	101,400
1957	1,070	2,050	3,500	1,600	7,060	21,790	32,730	78,830	25,180	5,500	1,170	476	181,000
1958	2,420	2,570	2,210	2,330	20,030	15,360	44,260	47,920	20,230	5,230	1,720	1,340	165,600
1959	1,960	3,000	3,000	3,670	3,410	3,530	1,460	1,570	977	466	219	356	23,620
1960	931	1,150	1,110	1,350	1,550	15,210	9,520	10,200	3,430	677	378	83	45,590

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1956	1447	1,580	Jan. 16, 1956	0	140	101,400	142	103,200
1957	1517	3,420	May 20, 1957	2.0	250	181,000	251	181,500
1958	1567	1,690	Apr. 22, 1958	15	229	165,600	230	166,400
1959	1637	a84	Feb. 20, 1959	1.0	32.6	23,620	26.0	18,850
1960	1717	1,200	Mar. 21, 1960	.2	62.8	45,590	-	-

a Maximum recorded (but may have been higher during periods of ice effect).

1780. Jordan Creek above Lone Tree Creek, near Jordan Valley, Oreg.

Location.--Lat 42°52', long 116°57', in SE¼NE¼ sec.29, T.6 S., R.5 W., on right bank half a mile downstream from proposed damsite, 0.6 mile upstream from Morgan Ranchhouse, 1 mile downstream from Williams Creek, 4 miles upstream from Lone Tree Creek, 4 miles east of the Idaho-Oregon State line, and 9 miles southeast of Jordan Valley.

Drainage area.--440 sq mi, approximately. Mean altitude, 5,780 ft. At site prior to April 1955, 450 sq mi, approximately.

Records available.--October 1945 to January 1953, April 1955 to September 1960. October 1945 to January 1953 at site 2 miles downstream, records equivalent except during late summer months when considerable difference may result from irrigation and return flow between sites.

Gage.--Water-stage recorder. Datum of gage is 4,501.98 ft above mean sea level (levels by Bureau of Reclamation). Prior to June 14, 1952, water-stage recorder and June 14, 1952, to Jan. 31, 1953, staff gage, at site 2 miles downstream at datum 30.45 ft lower.

Average discharge.--12 years (1945-52, 1955-60), 199 cfs (144,100 acre-ft per year).

Extremes.--1945-53, 1955-60: Maximum discharge, 3,250 cfs Apr. 14, 1952 (gage height, 5.57 ft, site and datum then in use); no flow part of each day Oct. 4, 5, 1948.

Remarks.--Diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11.0	40.1	155	144	638	390	1,216	572	129	19.8	5.45	4.29	273
1952	14.1	26.5	49.3	44.5	106	225	2,098	1,534	382	74.5	12.4	5.96	380
1953	10.5	19.2	24.4	116	-	-	-	-	-	-	-	-	-
1954													
1955	-	-	-	-	-	-	368	754	194	26.8	3.4	2.1	-
1956	3.92	17.1	174	287	135	632	1,060	728	180	21.4	5.36	3.04	271
1957	16.2	36.3	81.0	30.9	385	548	744	978	224	24.3	4.62	3.71	255
1958	12.2	22.3	30.3	36.9	305	192	826	1,020	222	27.4	7.82	2.99	225
1959	6.19	17.6	28.3	40.7	47.4	93.9	334	184	61.9	7.01	1.65	6.66	68.9
1960	32.9	19.6	15.2	19.6	78.3	522	612	295	83.7	6.63	2.08	1.77	141

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	676	2,390	9,510	8,850	35,460	23,950	72,380	35,200	7,680	1,220	335	255	197,900
1952	865	1,580	3,030	2,730	6,090	13,860	124,800	94,330	22,760	4,590	761	355	275,800
1953	644	1,140	1,500	7,110	-	-	-	-	-	-	-	-	-
1954													
1955	-	-	-	-	-	-	21,910	46,350	11,510	1,650	208	127	-
1956	241	1,020	10,720	17,660	7,750	38,870	63,080	44,790	10,690	1,320	329	181	196,700
1957	994	2,160	4,980	1,900	21,380	33,710	44,260	60,140	13,340	1,490	284	221	184,900
1958	752	1,320	1,860	2,270	16,960	11,820	49,140	62,870	13,230	1,690	481	178	162,600
1959	381	1,050	1,740	2,500	2,630	5,780	19,890	11,290	3,680	431	101	396	49,870
1960	2,020	1,170	936	1,210	4,500	32,120	36,420	18,170	4,980	407	128	105	102,200

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	183	132,800
1951	1217	2,930	Feb. 8, 1951	3.2	273	197,900	264	190,800
1952	1247	3,250	Apr. 14, 1952	3.9	380	275,800	377	273,600
1953	1287	-	-	-	-	-	-	-
1954								
1955	1397	1,430	May 9, 1955	-	-	-	-	-
1956	1447	3,100	Mar. 25, 1956	-	271	196,700	266	192,800
1957	1517	2,870	Feb. 23, 1957	3.0	255	184,900	250	180,700
1958	1567	2,000	Apr. 22, 1958	2.5	225	162,600	223	161,800
1959	1637	901	Apr. 6, 1959	.9	68.9	49,870	70.2	50,820
1960	1717	2,740	Mar. 7, 1960	1.1	141	102,200	-	-

1810. Owyhee River near Rome, Oreg.

Location.--Lat 42°52', long 117°39' (revised), in NE¼ sec.14, T.31 S., R.41 E., on right bank half a mile downstream from Jordan Creek and 2½ miles north of Rome.

Drainage area.--About 8,000 sq mi.

Records available.--October 1949 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,344.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Feb. 10, 1960, at datum 0.24 ft lower

Average discharge.--11 years (1949-60), 908 cfs (657,400 acre-ft per year).

Extremes.--1949-60: Maximum discharge, 27,800 cfs Apr. 14, 1952 (gage height, 15.36 ft, present datum); minimum, 42 cfs Aug. 12, 1954.
Flood of Apr. 14, 1952, is highest since at least 1882, from information by local resident.

Remarks.--Flow regulated by Antelope Reservoir (capacity, 55,000 acre-ft, storage increase 18,400 acre-ft in 1959), Wild Horse Reservoir (see p. 141), and numerous small reservoirs. Diversions above station for irrigation. Records of chemical analyses for the period October 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	144	206	919	488	3,496	2,357	3,973	1,748	422	168	120	105	1,160
1952	150	185	229	228	447	1,388	16,960	6,490	1,582	416	204	186	2,357
1953	190	183	190	555	467	514	747	1,005	2,579	280	165	137	582
1954	145	163	221	222	817	980	598	245	204	103	63.7	64.3	315
1955	85.3	107	104	114	129	357	1,919	1,330	284	152	80.5	62.5	394
1956	86.0	112	1,019	2,329	645	3,378	2,877	2,000	624	182	93.5	92.6	1,125
1957	120	196	507	154	2,385	2,912	2,491	4,173	1,264	313	123	92.8	1,220
1958	152	181	198	217	2,860	1,816	5,637	3,263	1,080	263	155	134	1,312
1959	149	177	198	201	201	363	557	220	159	76.4	69.5	94.9	205
1960	146	126	119	131	388	3,772	1,908	469	185	97.2	90.3	76.7	627

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	8,840	12,280	56,500	30,030	194,200	145,000	236,400	107,500	25,080	10,300	7,390	6,240	839,800
1952	9,240	10,990	14,080	14,020	25,710	85,370	1,009,000	399,100	94,120	25,610	12,550	11,080	1,711,000
1953	11,680	10,860	11,710	34,130	25,910	31,620	44,470	61,770	153,500	17,220	10,130	8,150	421,200
1954	8,920	9,710	13,580	13,660	45,360	60,230	35,590	15,040	12,120	6,310	3,920	3,820	228,300
1955	5,240	6,370	6,360	6,990	7,180	21,940	114,200	81,750	16,910	9,360	4,950	3,720	285,000
1956	5,290	6,670	62,650	143,200	37,090	207,700	171,200	123,000	37,160	11,210	5,750	5,510	816,400
1957	7,390	11,640	31,160	9,490	132,400	179,000	148,200	256,600	75,190	19,260	7,550	5,520	883,400
1958	9,370	10,780	12,150	13,350	158,800	111,800	335,400	200,600	64,250	16,150	9,520	7,950	950,100
1959	9,170	10,540	12,200	12,370	11,160	22,320	33,130	13,540	9,460	4,700	4,270	5,650	148,500
1960	8,960	7,500	7,340	8,030	22,290	231,900	113,500	28,810	11,000	5,980	5,550	4,570	455,400

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	764	552,900
1951	1217	13,000	Feb. 11, 1951	86	1,160	839,800	1,100	796,400
1952	1247	27,800	Apr. 14, 1952	108	2,357	1,711,000	2,357	1,711,000
1953	1287	5,400	June 6, 1953	114	582	421,200	579	419,100
1954	1347	8,100	Mar. 10, 1954	53	315	228,300	296	214,000
1955	1397	5,200	Apr. 11, 1955	47	394	285,000	472	341,600
1956	1447	23,000	Jan. 16, 1956	74	1,125	816,400	1,091	792,000
1957	1517	16,200	Feb. 27, 1957	83	1,220	883,400	1,196	865,500
1958	1567	11,400	Apr. 18, 1958	109	1,312	950,100	1,312	949,700
1959	1637	2,110	Apr. 2, 1959	59	205	148,500	194	140,400
1960	1717	10,400	Mar. 24, 1960	68	627	455,400	-	-

1815. Crooked Creek near Rome, Oreg.

Location.--Lat 42°48', long 117°44', in sec.6, T.32 S., R.41 E., on right bank 25 ft downstream from highway bridge, 6 miles southwest of Rome, and 9 miles upstream from mouth.
Drainage area.--About 1,700 sq mi, much of which is probably noncontributing.
Records available.--October 1949 to September 1952.
Gage.--Water-stage recorder; destroyed by flood Apr. 30, 1952, caused by failure of dam on Rattlesnake Creek. Altitude of gage is 3,540 ft (from road profile by State Highway Department).
Extremes.--1949-52: Maximum discharge, about 3,000 cfs Apr. 30, 1952 (gage height, 12.4 ft, from floodmark), from rating curve extended above 210 cfs on basis of slope-area measurement by Corps of Engineers); minimum, 22 cfs Sept. 9, 10, 1950, at times during period January to March 1951, and sometime between Jan. 5 to Feb. 14, 1952.
Remarks.--Some regulation by several small reservoirs with combined capacity of 7,600 cfs prior to May 1, 1952; less regulation after failure of dam on Rattlesnake Creek. Numerous diversions for irrigation of 2,600 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	24.0	25.4	25.5	22.6	22.1	28.8	24.4	25.6	25.1	26.0	25.8	24.3	25.0
1952	25.1	26.0	26.0	25.2	23.8	50.6	132	58.3	24.1	24.0	23.0	23.9	38.5

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,480	1,510	1,560	1,390	1,230	1,770	1,450	1,580	1,490	1,600	1,580	1,450	18,090
1952	1,550	1,550	1,600	1,550	1,370	3,110	7,880	3,580	1,430	1,480	1,420	1,420	27,940

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	24.6	17,790
1951	1217	70	Mar. 22, 1951	22	25.0	18,090	25.2	18,240
1952	1247	a3,000	Apr. 30, 1952	23	38.5	27,940	-	-

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1820. Owyhee River above Lake Owyhee, Oreg.
(Formerly published as Owyhee River above Owyhee Reservoir)

Location.--Lat 43°12', long 117°30', in SE¼ sec.18, T.27 S., R.43 E., on left bank 3 miles upstream from flow line of Lake Owyhee and 26 miles northeast of Rome.
Drainage area.--10,400 sq mi, approximately.
Records available.--April 1929 to September 1951. Monthly discharge only for some periods, published in WSP 1317.
Gage.--Water-stage recorder. Altitude of gage is 2,690 ft (levels by Bureau of Reclamation).
Average discharge.--22 years (1929-51), 851 cfs (616,100 acre-ft per year).
Extremes.--1929-51: Maximum discharge, 16,000 cfs Mar. 20, 1932, Apr. 19, 1936; maximum gage height, 12.95 ft Mar. 20, 1932; minimum discharge, 99 cfs Dec. 18, 1948 (gage height, 3.45 ft).
Remarks.--For regulation and diversion above station, see Remarks for station near Rome (see p.) and for Crooked Creek near Rome (see preceding station).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	234	294	959	570	3,554	2,393	3,978	1,801	528	253	199	195	1,228

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	14,410	17,480	58,980	35,060	197,400	147,100	236,700	110,700	31,420	15,550	12,240	11,590	888,600

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	824	596,800
1951	1217	11,400	Feb. 9, 1951	174	1,228	888,600	-	-

1825. Lake Owyhee near Nyssa, Oreg.
(Formerly published as Owyhee Reservoir at Owyhee Dam, near Nyssa)

Location.--Lat 43°38'30", long 117°14'40", in sec.20, T.22 S., R.45 E., near left abutmen on Owyhee Dam on Owyhee River, 21 miles southwest of Nyssa.

Drainage area.--11,160 sq mi, approximately.

Records available.--October 1932 to September 1960. Prior to October 1958, published as Owyhee Reservoir at Owyhee Dam, near Nyssa.

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

Extremes.--1932-60: Maximum contents observed, 1,140,000 acre-ft Apr. 15, 1952 (elevatio 2,671.40 ft); minimum observed since full capacity was attained on May 7, 1936, 462,70 acre-ft Oct. 10, 1955 (elevation, 2,599.44 ft).

Remarks.--Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,122,000 acre-ft between elevations 2,367.5 (bottom of sluice gates) and 2,670.0 ft (top of spillway gate), 715,000 acre-ft betwee elevations 2,590.2 (diversion tunnel) and 2,670.0 ft. Dead storage below elevation 2,367.5 ft negligible. Figures given herein are contents above elevation 2,367.5 ft. Reservoir generally will not be drawn below elevation 2,590.2 ft. Water is released through diversion tunnel to South Canal for irrigation of lands west of Snake River in vicinity of Homedale, Idaho, 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.

Contents, in thousands of acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	752	767.8	828.2	858.0	1,058	1,120	1,122	1,113	1,050	956.4	864.2	797.
1952	799.5	811.6	833.1	852.6	885.5	938.1	1,108	1,120	1,097	1,027	937.9	867.
1953	849.3	859.6	879	918.5	952.6	979.5	962.4	946.1	1,056	964	873.5	795.
1954	775.8	791.1	809.7	826	873.4	938.9	912.2	832.3	774.4	682.6	597.6	538.
1955	537.2	550.7	562.4	576.3	588.7	612.4	728.2	746.7	678.9	603.6	525.9	474.
1956	470.4	482.6	549.9	698	748.8	947.8	1,067	1,108	1,063	970.9	877.8	814.
1957	809.7	825.5	860.1	876.1	1,019	1,105	1,122	1,123	1,085	990.5	894.5	819.
1958	819.6	834.1	851.8	871.5	1,038	1,044	1,075	1,126	1,099	1,006	914.9	851
1959	840.7	854.9	873.8	891.6	908.3	930	894.3	837.6	762.8	675	600.7	576.
1960	590.7	602.1	615.5	630.6	660.6	865.3	928.4	882	807.5	713.9	638.4	582.

1830. Owyhee River below Owyhee Dam, Oreg.

Location.--Lat 43°39'10", long 117°15'00", in SW¼ sec.17, T.22 S., R.45 E., on left bank 0.8 mile downstream from Owyhee Dam and 20 miles southwest of Nyssa.

Drainage area.--11,160 sq mi, approximately.

Records available.--February 1929 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,343.67 ft above mean sea level (levels by Bureau of Reclamation).

Average discharge.--28 years (1932-60), 353 cfs (255,600 acre-ft per year).

Extremes.--1929-60: Maximum discharge, 22,900 cfs Apr. 15, 1952 (gage height, 15.7 ft); no flow for part of Aug. 8, 9, 1932, when temporary diversion tunnel at Owyhee Dam was closed.

Remarks.--Flow regulated by Lake Owyhee (formerly Owyhee Reservoir) since October 1932 (see preceding station), by Wild Horse Reservoir since March 1938 (see p. 141), and by many smaller reservoirs. About 450,000 acre-ft diverted annually from Lake Owyhee for irrigation of lands below station and outside the basin. Many smaller diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	39.0	8.0	8.0	8.0	187	1,480	3,380	687	161	141	134	109	527
1952	18.1	4.0	4.0	4.0	4.0	1,000	12,560	4,864	483	184	187	126	1,610
1953	53.2	1.0	3.6	4.0	4.0	4.0	114	129	97.2	164	130	125	69.5
1954	38.5	4.0	4.0	4.0	4.0	4.0	102	141	86.9	58.2	47.6	29.0	43.9
1955	2.80	2.8	2.80	2.25	2.0	2.0	28.2	39.5	61.8	57.5	48.1	16.3	22.3
1956	3.3	2	2.0	2	2	3	122	144	163	175	154	83.9	71.5
1957	16.8	4	4	5	6	1,969	2,062	3,166	367	180	175	118	679
1958	15.7	4	4	4.5	5	1,873	4,491	1,010	164	188	149	105	667
1959	37.7	4.0	4	4	4	4	112	68.8	94.4	78.2	53.4	30.6	41.4
1960	3.0	3	3	3	3	3	74.4	85.6	70.6	84.8	67.9	96.1	41.4

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,400	476	492	492	10,380	90,970	201,100	42,240	9,580	8,660	8,270	6,480	381,500
1952	1,110	238	246	246	230	61,460	747,100	299,000	28,750	11,310	11,500	7,520	1,169,000
1953	3,270	60	222	246	222	246	6,810	7,960	5,780	10,060	7,980	7,460	50,320
1954	2,370	238	246	246	222	246	6,080	8,690	5,170	3,580	2,930	1,730	31,750
1955	172	167	172	138	111	123	1,680	2,430	3,680	3,540	2,960	972	16,140
1956	204	119	123	123	115	184	7,270	8,830	9,670	10,780	9,480	4,990	51,890
1957	1,040	238	246	307	333	121,100	122,700	194,700	21,860	11,090	10,750	7,040	491,400
1958	964	238	246	278	278	115,200	266,700	62,080	9,760	11,570	9,150	6,250	482,700
1959	2,320	238	246	246	222	246	6,670	4,230	5,620	4,810	3,280	1,820	29,950
1960	184	179	184	184	173	184	4,430	5,260	4,200	5,210	4,170	5,720	30,080

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	63.8	46,210
1951	1217	7,170	Apr. 5, 1951	8	527	381,500	525	379,800
1952	1247	22,900	Apr. 15, 1952	4	1,610	1,169,000	1,613	1,171,000
1953	1287	218	May 19, 1953	1	69.5	50,320	68.5	49,620
1954	1347	373	Aug. 31, 1954	4	43.9	31,750	40.6	29,400
1955	1397	310	Aug. 16, 1955	1.7	22.3	16,140	22.2	16,080
1956	1447	236	Apr. 3, 1956	-	71.5	51,890	73.0	52,970
1957	1517	7,460	May 21, 1957	-	679	491,400	679	491,400
1958	1567	7,580	Apr. 19, 1958	-	667	482,700	668	484,000
1959	1637	214	Apr. 17, 1959	-	41.4	29,950	38.2	27,690
1960	1717	272	Sept.12, 1960	-	41.4	30,080	-	-

1850. Boise River near Twin Springs, Idaho

Location.--Lat 43°40', long 115°44', in sec.27, T.4 N., R.6 E., on right bank a quarter of a mile upstream from Birch Creek, 1½ miles upstream from maximum flow line of Arrowrock Reservoir, 4 miles downstream from Twin Springs, and 13 miles upstream from Arrowrock.

Drainage area.--830 sq mi, approximately. Mean altitude, 6,350 ft.

Records available.--March 1911 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,251.08 ft above mean sea level, unadjusted Prior to Apr. 4, 1915, staff gage at same site and datum.

Average discharge.--49 years (1911-60), 1,181 cfs (855,000 acre-ft per year).

Extremes.--1911-60: Maximum discharge, 11,200 cfs May 24, 1956 (gage height, 8.76 ft); maximum gage height, 9.59 ft Feb. 3, 1956 (ice jam); minimum discharge, 109 cfs Dec. 10 1944; minimum gage height, 1.56 ft Dec. 15, 16, 1935.

Remarks.--No regulation or diversion. Records of chemical analyses for the period October 1958 to September 1959 and of water temperatures for the periods March 1955 to January 1957 and October 1958 to September 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	512	657	596	464	746	713	3,366	4,828	3,555	1,653	612	400	1,510
1952	609	512	617	454	504	562	3,689	5,637	3,970	1,330	555	393	1,569
1953	341	314	390	570	549	713	2,138	3,068	5,050	2,243	577	371	1,360
1954	337	405	375	409	622	898	2,818	4,806	3,187	1,650	523	378	1,370
1955	359	363	325	327	303	345	785	3,272	3,902	1,230	441	323	1,000
1956	372	555	1,510	994	571	1,135	3,862	6,132	4,720	1,563	571	402	1,867
1957	447	441	502	373	613	917	2,252	5,593	4,188	1,200	464	364	1,449
1958	401	367	414	386	691	632	1,665	6,737	4,069	1,107	502	377	1,450
1959	352	493	610	516	486	580	2,002	2,613	3,402	932	418	501	1,074
1960	699	503	395	395	385	1,026	2,264	2,831	3,016	693	387	328	1,076

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	31,510	39,100	36,650	28,530	41,430	43,860	200,300	296,900	211,500	101,700	37,620	23,780	1,093,000
1952	37,440	30,440	37,940	27,900	28,980	34,580	219,500	346,600	236,200	81,790	34,110	23,410	1,139,000
1953	20,980	18,660	23,960	35,040	30,490	43,860	127,200	188,600	300,500	137,900	35,450	22,100	984,700
1954	20,700	24,120	23,030	25,130	34,570	55,190	167,700	295,500	189,600	101,500	32,170	22,480	991,700
1955	22,060	21,620	19,990	20,130	16,820	21,190	46,730	201,200	232,200	75,620	27,130	19,190	723,900
1956	22,870	33,050	92,840	61,130	32,830	69,800	229,800	377,100	280,900	96,100	35,130	23,930	1,355,000
1957	27,460	26,260	30,890	22,960	34,070	56,380	134,000	343,900	249,200	73,790	28,540	21,640	1,049,000
1958	24,630	21,820	25,470	23,710	38,380	38,890	99,060	414,200	242,100	68,090	30,900	22,400	1,050,000
1959	21,650	30,310	37,480	31,750	25,900	35,650	119,100	160,700	202,500	57,300	25,700	29,800	777,800
1960	42,970	29,910	24,300	24,270	22,170	63,070	134,700	174,000	179,500	42,590	23,770	19,520	780,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30						Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff	Mean	Runoff	
		Discharge	Date				Inches / Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	1,466	23.98	1,061,000
1951	1217	7,290	May 28, 1951	306	1,510	1.82	24.69 / 1,093,000	1,508	24.67	1,091,000
1952	1247	9,210	Apr. 28, 1952	343	1,569	1.89	25.74 / 1,139,000	1,511	24.77	1,097,000
1953	1287	9,090	June 13, 1953	220	1,360	1.64	22.24 / 984,700	1,366	22.34	989,000
1954	1347	8,560	May 21, 1954	244	1,370	1.65	22.41 / 991,700	1,364	22.32	987,500
1955	1397	6,270	June 10, 1955	160	1,000	1.20	16.36 / 723,900	1,117	18.29	809,000
1956	1447	11,200	May 24, 1956	270	1,867	2.25	30.63 / 1,355,000	1,779	29.17	1,291,000
1957	1517	8,730	May 19, 1957	280	1,449	1.75	23.70 / 1,049,000	1,432	23.42	1,036,000
1958	1567	10,700	May 21, 1958	272	1,450	1.75	23.74 / 1,050,000	1,474	24.13	1,067,000
1959	1637	5,160	June 14, 1959	257	1,074	1.29	17.57 / 777,800	1,085	17.75	785,600
1960	1717	6,280	May 13, 1960	270	1,076	1.30	17.63 / 780,800	-	-	-

1860. South Fork Boise River near Featherville, Idaho

Location.--Lat 43°29'40", long 115°18'20", in lot 6, NE¼ sec.19, T.2 N., R.10 E., on right bank 2½ miles upstream from Deer Creek and 8 miles southwest of Featherville.

Drainage area.--635 sq mi. Mean altitude, 6,840 ft.

Records available.--April 1945 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,220 ft (from topographic map of Bureau of Reclamation).

Average discharge.--15 years (1945-60), 806 cfs (583,500 acre-ft per year).

Extremes.--1945-60: Maximum discharge, 7,580 cfs May 24, 1956 (gage height, 8.62 ft); minimum, 30 cfs Feb. 10, 1949 (gage height, 0.60 ft), result of snowslide upstream.

Remarks.--No regulation. Small ranch diversions above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	310	402	309	265	335	359	2,351	3,753	2,538	1,064	404	254	1,030
1952	315	280	296	279	260	285	2,101	4,407	2,950	859	340	228	1,051
1953	222	211	229	266	243	388	1,356	1,778	3,024	1,272	327	219	795
1954	205	235	207	231	272	376	1,461	3,142	1,785	826	278	208	771
1955	212	214	184	192	177	192	409	1,658	2,311	608	212	172	546
1956	206	262	445	355	270	464	2,526	4,378	3,291	889	329	229	1,137
1957	263	250	249	218	261	366	1,061	3,460	2,991	754	268	213	865
1958	244	220	232	229	269	289	890	4,875	2,821	703	314	232	948
1959	229	268	303	256	233	288	1,209	1,597	1,996	471	226	284	613
1960	348	262	203	220	202	394	1,269	1,748	1,703	360	201	190	591

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	19,060	23,950	19,000	16,310	18,620	22,100	139,900	230,700	151,000	65,240	24,820	15,090	745,800
1952	19,360	16,680	18,220	17,140	14,950	17,520	125,000	271,000	175,600	52,840	20,920	13,580	762,800
1953	13,640	12,560	14,110	16,380	13,470	23,830	80,710	109,300	179,900	78,180	20,080	13,010	575,200
1954	12,580	13,960	12,720	14,190	15,090	23,140	86,960	193,200	106,200	50,800	17,070	12,390	558,300
1955	13,020	12,750	11,330	11,830	9,840	11,810	24,350	101,900	137,500	37,370	13,060	10,230	395,000
1956	12,690	15,580	27,390	21,830	15,500	28,510	150,300	269,200	195,800	54,660	20,230	13,630	825,300
1957	16,150	14,850	15,280	13,400	14,500	22,510	63,150	212,700	178,000	46,370	16,500	12,690	626,100
1958	14,990	13,080	14,280	14,080	14,940	17,740	52,970	299,700	167,800	43,210	19,320	13,820	685,900
1959	14,110	15,960	18,620	15,730	12,920	17,730	71,970	98,180	118,700	28,970	13,880	16,880	443,600
1960	21,380	15,600	12,480	13,550	11,620	24,250	75,540	107,500	101,300	22,170	12,340	11,290	429,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	425	19.77	669,400
1951	1217	5,340	May 28, 1951	180	1,030	1.62	22.02	745,800	1,020	21.79	738,000
1952	1247	5,530	Apr. 28, 1952	185	1,051	1.66	22.52	762,800	1,031	22.11	748,900
1953	1287	4,640	June 13, 1953	140	795	1.25	16.97	575,200	793	16.94	574,100
1954	1347	5,380	May 21, 1954	142	771	1.21	16.49	558,300	768	16.42	556,100
1955	1397	3,890	June 10, 1955	106	546	.860	11.66	395,000	571	12.21	413,600
1956	1447	7,580	May 24, 1956	130	1,137	1.79	24.36	825,300	1,124	24.09	815,900
1957	1517	5,880	June 6, 1957	170	865	1.36	18.48	626,100	859	18.36	622,200
1958	1567	7,560	May 22, 1958	156	948	1.49	20.26	685,900	956	20.45	692,300
1959	1637	3,130	June 7, 1959	151	613	.965	13.10	443,600	614	13.12	444,400
1960	1717	4,440	May 13, 1960	150	591	.931	12.65	429,000	-	-	-

1865. Lime Creek near Bennett, Idaho

Location.--Lat 43°25', long 115°16', in SW¼NE¼ sec.16, T.1 N., R.10 E., on right bank 0.4 mile upstream from flow line of Anderson Ranch Reservoir, 2 miles upstream from mouth, and 12 miles northeast of Bennett.

Drainage area.--131 sq mi. Mean altitude, 6,140 ft.

Records available.--June 1945 to October 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,250 ft (from topographic map of Bureau of Reclamation).

Average discharge.--11 years (1945-56), 89.8 cfs (65,010 acre-ft per year).

Extremes.--1945-56: Maximum discharge, 1,180 cfs Apr. 19, 1946, Apr. 27, 1952; maximum gage height, 8.02 ft Feb. 15, 1949 (backwater from snowslide); minimum discharge, 2.5 c Feb. 11, 1949 (gage height, 1.67 ft), result of snowslide upstream.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	29.2	39.7	38.4	36.8	64.7	65.6	489	403	142	50.8	32.4	26.1	118
1952	39.7	39.5	42.2	40.5	41.2	48.1	460	639	210	67.1	31.8	28.5	141
1953	27.2	28.8	35.1	43.5	40.9	72.9	251	215	182	47.4	24.2	21.2	82.3
1954	23.5	30.4	30.3	35.4	43.3	64.0	280	264	80.8	36.1	21.5	20.1	77.5
1955	24.5	26.8	23.9	25.3	23.4	27.7	81.0	203	106	29.5	12.9	13.6	50.0
1956	17.7	25.0	77.5	63.9	49.1	95.6	516	440	155	43.0	26.9	24.1	128
1957	31.7	-	-	-	-	-	-	-	-	-	-	-	-
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,790	2,360	2,360	2,260	3,590	4,030	29,080	24,780	8,480	3,120	1,990	1,560	85,400
1952	2,440	2,350	2,600	2,490	2,370	2,960	27,350	39,310	12,500	4,130	1,960	1,700	102,200
1953	1,670	1,720	2,160	2,670	2,270	4,480	14,910	31,210	10,840	2,910	1,490	1,260	59,590
1954	1,450	1,810	1,860	2,180	2,410	3,930	16,690	16,260	4,810	2,220	1,320	1,200	56,140
1955	1,510	1,590	1,470	1,550	1,300	1,710	4,820	12,490	6,310	1,820	795	807	36,170
1956	1,090	1,490	4,770	3,930	2,820	5,880	30,720	27,080	9,250	2,650	1,650	1,430	92,760
1957	1,950	-	-	-	-	-	-	-	-	-	-	-	-
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30						Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff	Mean	Runoff	
		Discharge	Date				Inches / Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	- / -	108	11.03	76,950
1951	1217	917	Apr. 14, 1951	23	118	0.901	12.23 / 85,400	119	12.35	86,280
1952	1247	1,180	Apr. 27, 1952	21	141	1.08	14.62 / 102,200	138	14.36	100,300
1953	1287	676	Apr. 28, 1953	18	82.3	.628	8.52 / 59,590	81.7	8.46	59,160
1954	1347	523	Apr. 18, 1954	17	77.5	.592	8.04 / 56,140	76.8	7.96	55,590
1955	1397	310	May 8, 1955	10	50.0	.382	5.18 / 36,170	53.8	5.57	38,950
1956	1447	858	Apr. 22, 1956	13	128	.977	13.27 / 92,730	-	-	-
1957	1447	-	-	-	-	-	- / -	-	-	-
1958										
1959										
1960										

1870. Fall Creek near Anderson Ranch Dam, Idaho

Location.--Lat 43°26'00", long 115°23'10", in SE¼ sec.9, T.1 N., R.9 E., on right bank 1½ miles downstream from Mill Creek and 6 miles northeast of Anderson Ranch Dam.

Drainage area.--55.3 sq mi. Mean altitude, 6,070 ft.

Records available.--April 1945 to October 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,350 ft (from topographic map of Bureau of Reclamation).

Average discharge.--11 years (1945-56), 72.7 cfs (52,630 acre-ft per year).

Extremes.--1945-56: Maximum discharge, 1,150 cfs (revised) Apr. 27, 1952 (gage height, 6.25 ft); minimum, 1.6 cfs Feb. 9, 1949 (gage height, 1.94 ft), result of snowslide upstream.

Revisions.--The momentary maximum for the water year 1952, published in WSP 1247, has been revised to 1,150 cfs.

Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	20.9	33.4	31.8	28.3	42.0	36.7	318	284	120	40.3	19.5	15.3	82.4
1952	20.0	19.2	21.9	20.2	21.4	24.8	299	486	207	52.1	24.4	17.6	101
1953	17.5	18.0	18.2	25.0	26.8	44.5	188	205	190	54.2	20.8	15.5	68.6
1954	15.4	19.5	18.7	20.5	29.3	54.3	236	230	93.8	36.2	16.2	12.8	65.2
1955	12.7	14.7	13.4	13.9	14.8	16.0	53.1	193	111	31.2	13.5	12.4	41.7
1956	13.6	22.6	62.3	50.1	33.0	61.6	377	438	198	46.3	20.7	16.4	112
1957	18.4	-	-	-	-	-	-	-	-	-	-	-	-
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,280	1,990	1,960	1,740	2,330	2,260	18,910	17,480	7,150	2,480	1,200	910	59,690
1952	1,230	1,140	1,340	1,240	1,230	1,520	17,770	29,870	12,330	3,210	1,500	1,050	73,430
1953	1,080	1,070	1,120	1,540	1,490	2,740	11,160	12,630	11,340	3,330	1,280	924	49,700
1954	948	1,160	1,150	1,260	1,630	3,340	14,020	14,130	5,580	2,220	998	760	47,200
1955	781	875	821	857	819	984	3,160	11,850	6,590	1,920	833	736	30,230
1956	837	1,340	3,830	3,080	1,900	3,790	22,440	26,910	11,760	2,850	1,270	978	80,980
1957	1,130	-	-	-	-	-	-	-	-	-	-	-	-
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	79.1	19.41	57,290
1951	1217	516	Apr. 14, 1951	14	82.4	1.49	20.23	59,690	80.3	19.73	58,170
1952	1247	*1,150	Apr. 27, 1952	15	101	1.83	24.93	73,430	101	24.77	73,000
1953	1287	516	Apr. 28, 1953	13	68.6	1.24	16.83	49,700	68.6	16.82	49,690
1954	1347	468	Apr. 17, 1954	12	65.2	1.18	15.99	47,200	64.1	15.73	46,420
1955	1397	438	May 8, 1955	10	41.7	.754	10.24	30,230	46.6	11.44	33,760
1956	1447	794	Apr. 21, 1956	11	112	2.03	27.45	80,980	-	-	-
1957	1447	-	-	-	-	-	-	-	-	-	-
1958											
1959											
1960											

* Revised.

1890. Little Camas Canal at heading, near Bennett, Idaho

Location.--Lat 43°21'30", long 115°23'00", in sec.9, T.1 S., R.9 E., on right bank 400 ft downstream from Little Camas Reservoir, 4 miles northeast of Bennett, and 22 miles northeast of Mountain Home.

Records available.--June to November 1917, October 1923 to September 1960.

Gage.--Staff gage. Datum of gage is 4,926 ft above mean sea level (datum of Mountain Home Irrigation District). June 1 to Nov. 29, 1917, water-stage recorder and Apr. 16 to May 11, 1924, staff gage, at datum 6.00 ft lower. May 12, 1924, to Sept. 30, 1929, water-stage recorder at present datum.

Extremes.--1917, 1923-60: Maximum daily discharge, 77 cfs Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.--Canal is an interbasin diversion from Little Camas Reservoir (South Fork Boise River drainage) in sec.9, T.1 S., R.9 E., and discharges into Long Tom Creek basin, where water is stored in Long Tom Reservoir for irrigation of 5,000 acres of land near Mountain Home. No diversion above station. Flow regulated by Little Camas Reservoir.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	0	0	0	0	0	0	0	1,370	1,610	3,110	3,070	758	9,920
1952	0	0	0	0	0	0	0	0	853	3,150	2,990	1,140	8,130
1953	0	0	0	0	0	0	1,470	3,630	1,980	3,250	2,950	1,170	14,450
1954	0	0	0	0	0	0	1,940	3,640	3,370	3,400	3,330	655	16,340
1955	0	0	0	0	0	0	69	2,580	2,820	365	0	0	5,830
1956	0	0	0	0	0	0	260	1,370	3,350	2,820	3,460	1,650	12,910
1957	0	0	0	0	0	0	0	1,460	2,150	3,080	2,970	1,190	10,850
1958	0	0	0	0	0	0	139	3,640	1,770	3,550	3,720	1,240	14,060
1959	0	0	0	0	0	0	2,200	3,700	3,750	3,520	3,590	0	16,760
1960	0	0	0	0	0	0	0	1,850	3,060	2,990	3,660	710	12,270

1900. Anderson Ranch Reservoir at Anderson Ranch Dam, Idaho

Location.--Lat 43°21'30", long 115°27'10", in SE¼ sec.1, T.1 S., R.8 E., on inlet structure of outlet works of dam on South Fork Boise River, 1½ miles downstream from Canas Creek, and 3 miles northwest of Bennett (Dixie Store).

Drainage area.--980 sq mi, approximately.

Records available.--December 1945 to September 1960.

Gage.--Staff gage or supplementary pressure gage in powerhouse. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--1945-60: Maximum contents observed, 472,800 acre-ft June 1, 1956 (elevation, 4,197.81 ft); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 145,000 acre-ft Mar. 23, 1956 (elevation, 4,103.22 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft between elevations 3,992 and 4,196 ft (top of spillway gates). Elevation of spillway crest, 4,174 ft, and top of dam, 4,206 ft. Dead storage below 3,992 ft is 28,980 acre-ft. Figures given herein represent usable contents. Water is used for irrigation in Boise Valley and for power production.

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

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	258,300	287,400	299,600	302,100	312,900	329,800	427,000	436,700	466,100	449,200	412,800	344,600
1952	312,900	262,300	215,000	171,200	149,000	70,340	236,700	454,800	468,900	445,000	390,800	307,100
1953	250,500	245,400	219,200	210,800	224,200	251,800	348,500	414,800	463,900	441,100	370,100	314,400
1954	286,500	287,700	245,400	223,300	231,900	257,300	339,300	465,900	467,900	439,300	365,600	283,200
1955	232,500	241,900	237,300	231,800	224,200	234,300	264,200	319,900	439,200	410,800	332,800	273,200
1956	252,500	251,300	249,500	225,100	175,100	155,300	309,900	472,200	464,900	457,400	418,300	402,200
1957	413,800	383,000	320,900	249,700	225,300	248,000	300,800	438,500	464,100	428,000	356,500	366,000
1958	374,900	334,100	303,600	238,100	233,500	207,100	254,500	445,000	464,400	425,900	356,500	313,300
1959	322,400	338,100	335,400	334,700	343,400	331,900	373,900	454,100	462,600	406,300	383,700	388,000
1960	398,600	404,900	385,600	365,400	349,300	363,900	458,800	464,500	455,700	407,000	344,700	308,900

1905. South Fork Boise River at Anderson Ranch Dam, Idaho

Location.--Lat 43°20', long 115°29', in SW¼ sec.11, T.1 S., R.8 E., on right bank 600 ft upstream from Dixie Creek, 1½ miles downstream from Anderson Ranch Reservoir, and 2¼ miles northwest of Bennett (Dixie Store).

Drainage area.--982 sq mi.

Records available.--April 1943 to September 1960 (includes flow of Dixie Creek prior to October 1946 and excludes Dixie Creek thereafter).

Gage.--Water-stage recorder. Altitude of gage is 3,850 ft (from topographic map of Bureau of Reclamation).

Average discharge.--17 years (1943-60), 992 cfs (718,200 acre-ft per year).

Extremes.--1943-60: Maximum discharge, 9,850 cfs May 25, 1956 (gage height, 10.56 ft); minimum, 0.1 cfs Nov. 13, 1959; minimum gage height, 0.99 ft Feb. 16, 1950.

Remarks.--Flow of Little Camas Creek is stored in Little Camas Reservoir (no spill most years) and diverted out of basin through Little Camas Canal (see p. 154) for irrigation of about 5,000 acres of land in vicinity of Mountain Home. Flow regulated by Anderson Ranch Reservoir (see preceding page) beginning Dec. 15, 1945.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	476	14.4	247	331	333	238	1,991	4,584	2,454	1,446	1,039	1,483	1,224
1952	915	1,210	1,173	1,113	741	1,671	691	3,000	3,248	1,461	1,300	1,741	1,524
1953	1,183	401	739	571	119	127	413	1,321	2,699	1,842	1,610	1,234	1,027
1954	696	338	1,005	671	235	192	765	1,759	2,065	1,436	1,563	1,647	1,036
1955	1,037	142	328	335	429	121	124	1,310	572	1,191	1,521	1,164	694
1956	570	381	850	990	1,333	1,145	1,279	3,035	3,927	1,168	1,063	515	1,353
1957	160	919	1,415	1,519	845	276	804	2,209	2,997	1,497	1,492	542	1,185
1958	181	989	870	1,391	540	890	737	3,273	2,920	1,484	1,553	1,022	1,326
1959	105	103	469	380	178	638	936	616	2,066	1,490	5,999	274	656
1960	245	245	570	618	594	362	441	2,199	2,155	1,281	1,249	832	901

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	29,250	855	15,160	20,370	18,480	14,650	118,500	281,900	146,000	88,890	63,870	88,220	886,100
1952	56,280	72,000	72,130	68,470	42,620	102,700	41,110	184,400	193,300	89,810	79,960	103,600	1,106,000
1953	72,720	23,840	45,440	35,080	6,600	7,840	24,580	81,210	160,600	113,200	99,000	73,420	743,500
1954	42,770	20,090	61,820	41,260	13,060	11,790	45,510	108,100	122,900	88,300	96,080	98,020	749,700
1955	63,750	8,420	20,200	20,580	23,800	7,450	7,390	80,550	34,050	73,210	93,520	69,260	502,200
1956	35,040	22,680	52,240	60,900	76,650	70,410	76,130	186,600	233,700	71,840	65,340	30,670	982,200
1957	9,850	54,660	87,030	93,380	46,910	16,980	47,860	135,800	178,400	92,050	91,720	3,220	857,900
1958	11,130	58,680	53,470	85,540	29,990	54,710	43,840	201,300	173,800	91,240	95,480	60,790	960,000
1959	6,460	6,130	28,860	23,410	9,900	39,260	55,670	37,900	122,900	91,600	368,40	16,280	475,200
1960	15,070	14,600	35,020	38,030	34,140	22,270	26,240	135,200	128,300	78,740	76,770	49,510	653,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	880	637,400
1951	1217	6,500	May 24, 1951	0.9	1,224	886,100	1,438	1,041,000
1952	1247	8,590	May 27, 1952	129	1,524	1,106,000	1,444	1,048,000
1953	1287	6,480	June 15, 1953	99	1,027	743,500	1,003	726,200
1954	1347	3,460	May 24, 1954	97	1,036	749,700	991	717,400
1955	1307	2,420	Oct. 2, 1954	4	694	502,200	715	519,800
1956	1447	9,850	May 25, 1956	13	1,353	982,200	1,410	1,024,000
1957	1517	5,840	June 5, 1957	5.0	1,185	857,900	1,146	829,600
1958	1567	7,510	May 20, 1958	18	1,326	960,000	1,213	878,100
1959	1637	3,820	June 14,15, 1959	1.4	656	475,200	689	498,400
1960	1717	5,260	May 11, 1960	.8	901	653,900	-	-

1940. Arrowrock Reservoir at Arrowrock, Idaho

Location.--Lat 43°36', long 115°55', in E½ sec.13, T.3 N., R.4 E., at dam on Boise River at Arrowrock, 14 miles east of Boise.

Drainage area.--2,210 sq mi, approximately.

Records available.--October 1917 to September 1960.

Gage.--Staff gage graduated on face of Arrowrock dam. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--1917-60: Maximum contents observed, 301,200 acre-ft May 29, 1948 (elevation, 3,219.1 ft); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

Remarks.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft in 1937; storage began in 1915. Present capacity, 286,600 acre-ft between elevations 2,974 (9.5 ft above sluice gate sill) and 3,216 ft (highest position of movable crest of spillway). Silt deposition at dam has raised the lower storage level and decreased the capacity of the original reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Water is used for irrigation in Boise valley.

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

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	11,200	37,380	102,600	161,300	222,600	172,700	186,900	280,100	293,500	225,000	103,300	41,070
1952	110,500	199,300	264,200	214,800	147,800	23,380	75,660	170,700	287,600	211,000	84,950	34,810
1953	a61,500	94,410	169,000	260,100	277,500	231,200	225,200	230,600	287,500	236,600	132,000	35,890
1954	33,920	76,800	161,800	237,900	259,800	221,300	199,100	251,800	294,000	217,900	101,000	15,820
1955	32,800	69,120	116,000	162,600	206,500	216,600	262,700	288,800	132,600	45,370	91,010	21,100
1956	30,080	90,670	262,100	227,000	248,100	182,600	164,900	285,400	290,000	188,600	29,220	9,870
1957	56,430	142,400	237,900	232,200	290,300	276,300	237,900	252,600	282,300	164,500	22,730	38,140
1958	23,400	111,100	192,400	224,100	254,000	123,700	118,400	290,600	289,400	173,600	21,550	53,200
1959	61,890	103,600	180,800	247,300	273,000	275,100	279,600	254,900	279,000	117,100	5,800	30,800
1960	100,200	149,800	212,800	217,100	213,000	274,500	263,200	251,200	262,400	86,500	5,800	5,300

a New capacity table put in use Oct. 1, 1952; contents Sept. 30, 1952, from new capacity table, 29,840 acre-ft.

1945. Boise River at Dowling Ranch, near Arrowrock, Idaho

Location.--Lat 43°35', long 115°58', in sec.15, T.3 N., R.4 E., at Dowling Ranch, three-quarters of a mile upstream from Mores (formerly Moore) Creek and 4 miles downstream from Arrowrock.

Drainage area.--2,220 sq mi, approximately.

Records available.--March 1911 to April 1955.

Gage.--Water-stage recorder. Altitude of gage is 2,890 ft (from Corps of Engineers topography of Lucky Peak Reservoir). Prior to Mar. 18, 1915, staff gages at same site and datum.

Average discharge.--43 years (1911-54), 2,311 cfs (1,673,000 acre-ft per year).

Extremes.--1911-55: Maximum discharge, 18,800 cfs Apr. 20, 1943 (gage height, 9.93 ft); minimum, 1 cfs Jan. 3, 1945, Jan. 13, 1948, Dec. 17, 18, 1954; minimum gage height, 0.62 ft Nov. 21, 22, 1935; minimum daily discharge, 2 cfs for many days in 1935-36, 1942, 1954.

Remarks.--Flow regulated by Arrowrock Reservoir (see above) and Anderson Ranch Reservoir (see p. 154). Small diversions from tributaries above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,121	370	12.3	13.1	532	2,144	5,996	8,405	6,024	4,360	3,614	2,846	2,964
1952	519	322	952	2,467	2,755	4,669	5,500	8,051	5,834	4,205	3,885	2,942	3,511
1953	1,122	271	12.3	20.0	714	1,963	3,003	4,515	6,993	5,009	3,941	3,232	2,573
1954	1,187	179	115	12.0	857	2,087	4,317	5,991	4,675	4,501	4,155	3,429	2,634
1955	1,265	3.5	4.3	6.1	12.6	448	420	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	68,940	22,040	756	805	29,530	131,800	356,800	516,800	358,500	268,100	222,200	169,300	2,146,000
1952	31,920	19,190	58,540	151,700	158,500	287,100	327,300	495,000	347,100	258,500	238,800	175,100	2,549,000
1953	68,980	16,100	754	1,230	39,630	120,700	178,700	277,600	416,100	308,000	242,300	192,300	1,862,000
1954	72,960	10,660	7,040	736	47,610	128,300	256,900	368,400	278,200	276,800	255,500	204,000	1,907,000
1955	77,800	208	264	377	698	27,540	24,970	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	2,514	1,820,000
1951	1217	10,200	May 29-31, 1951	10	2,964	2,146,000	2,988	2,163,000
1952	1247	9,470	May 15, 1952	11	3,511	2,549,000	3,478	2,525,000
1953	1287	10,700	June 22, 1953	9	2,573	1,862,000	2,579	1,867,000
1954	1347	8,930	May 20, 1954	8	2,634	1,907,000	2,617	1,895,000
1955	1397	-	-	-	-	-	-	-

1965. Bannock Creek near Idaho City, Idaho

Location.--Lat 43°48'30", long 115°46'30", in SE¼SW¼ sec.32, T.6 N., R.6 E., on right bank three-quarters of a mile upstream from West Fork, 2¼ miles upstream from mouth, and 3 miles southeast of Idaho City.

Drainage area.--5.75 sq mi. Mean altitude, 5,240 ft.

Records available.--January 1939 to November 1941, October 1950 to September 1960.

Gage.--Water-stage recorder and broad-crested wooden control with V-notch for low stages. Altitude of gage is 4,090 ft (from topographic map).

Average discharge.--12 years (1939-41, 1950-60), 2.30 cfs (1,670 acre-ft per year).

Extremes.--1939-41, 1950-60: Maximum discharge, 34 cfs May 12, 1958; maximum gage height, 2.03 ft Feb. 6, 1952 (backwater from ice); minimum discharge, 0.07 cfs Aug. 23, 1940; minimum gage height, 0.06 ft Nov. 29, 1952 (result of siphon action at weir).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	‡0.80	‡1.10	1.13	0.82	1.88	1.64	9.51	9.47	3.81	1.53	1.03	0.62	‡2.77
1952	1.17	1.03	1.16	.88	1.05	1.28	14.3	11.3	2.99	1.10	.58	.50	3.11
1953	.50	.59	.76	1.47	1.66	1.86	5.97	6.78	7.21	1.60	.74	.59	2.48
1954	.58	.90	.83	1.00	1.36	2.45	7.77	5.11	3.02	1.65	.83	.58	2.17
1955	.52	.68	.65	.71	.69	.83	2.10	6.35	1.95	.65	.32	.26	1.31
1956	.47	.71	4.20	3.61	1.37	2.92	11.6	7.70	3.63	1.31	.67	.61	3.23
1957	.95	1.01	1.02	.83	1.50	3.36	9.40	16.1	4.07	1.14	.57	.48	3.38
1958	.83	.86	1.08	.88	1.92	2.38	10.4	16.7	3.61	1.44	.66	.59	3.45
1959	.64	.85	.91	1.02	1.07	1.41	4.21	4.13	2.14	.71	.43	.76	1.52
1960	.93	.77	.78	.75	.68	1.72	6.89	4.74	1.95	.54	.36	.41	1.71

‡ Not previously published; estimated on basis of records for nearby streams.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	‡49	‡65	69	50	104	101	566	582	227	94	63	37	‡2,010
1952	72	61	72	54	60	79	852	695	178	67	36	30	2,260
1953	31	35	47	90	92	114	355	417	435	98	45	35	1,790
1954	36	53	51	61	76	151	463	314	180	102	51	34	1,570
1955	32	40	40	44	38	51	125	391	116	40	19	16	952
1956	29	42	258	222	79	179	689	473	216	80	41	36	2,340
1957	58	60	62	51	83	206	559	992	242	70	35	29	2,450
1958	51	51	66	54	107	147	618	1,030	215	89	37	35	2,500
1959	39	51	56	63	60	87	250	254	128	43	27	45	1,100
1960	57	46	48	46	39	106	410	291	116	33	22	24	1,240

‡ Not previously published; estimated on basis of records for nearby streams.

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	-	-	-
1951	1217	a14	Apr. 29, 1951	0.4	‡2.77	‡0.482	‡6.56	‡2,010	2.80	6.62	2,030
1952	1247	33	Apr. 26, 1952	.5	3.11	.541	7.37	2,260	2.98	7.07	2,160
1953	1287	16	Apr. 28, 1953	.5	2.48	.431	5.84	1,790	2.52	5.94	1,820
1954	1347	14	Apr. 18, 1954	.5	2.17	.377	5.13	1,570	2.13	5.03	1,540
1955	1397	9.0	May 8, 1955	.2	1.31	.228	3.09	952	1.61	3.81	1,170
1956	1447	31	Dec. 23, 1955	.3	3.23	.562	7.64	2,340	3.03	7.15	2,200
1957	1517	24	May 12, 1957	.4	3.38	.588	7.98	2,450	3.37	7.95	2,440
1958	1567	34	May 12, 1958	.5	3.45	.600	8.15	2,500	3.41	3.06	2,480
1959	1637	6.2	May 15, 1959	.3	1.52	.264	3.59	1,100	1.53	3.62	1,110
1960	1717	14	Apr. 8,9, 1960	.3	1.71	.297	4.05	1,240	-	-	-

‡ Not previously published.
a Maximum daily.

2000. Mores Creek above Robie Creek, near Arrowrock, Idaho

Location.--Lat 43°38'45", long 115°58'45", in SE¼ sec.28, T.4 N., R.4 E., on left bank at State roadside park, 1.7 miles upstream from Robie Creek, 5 miles northwest of Arrowrock, and 5.8 miles upstream from mouth.

Drainage area.--399 sq mi.

Records available.--October 1950 to September 1960. Prior to October 1958, published as Moore Creek above Robie Creek, near Arrowrock.

Gage.--Water-stage recorder. Altitude of gage is 3,120 ft (from topographic map).

Average discharge.--10 years (1950-60), 327 cfs (236,700 acre-ft per year).

Extremes.--1950-60: Maximum discharge, 5,440 cfs Dec. 23, 1955 (gage height, 9.55 ft); minimum, 16 cfs Sept. 2-11, 1955; minimum gage height, 1.74 ft Aug. 16, 1959.

Remarks.--Diversions above station and from Robie Creek for irrigation of about 900 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	65.8	113	153	112	373	356	1,443	879	407	121	53.5	43.4	341
1952	108	105	185	113	183	271	2,183	1,385	523	149	51.0	42.6	440
1953	47.5	54.8	74.8	244	291	375	896	783	828	184	52.8	37.1	321
1954	48.4	98.0	95.3	143	283	522	1,014	669	358	123	43.8	37.4	285
1955	48.8	68.9	54.3	65.0	64.8	99.7	426	751	384	102	27.2	24.8	177
1956	46.1	105	618	445	243	707	1,689	1,145	551	133	55.5	46.3	482
1957	80.6	102	155	94.2	252	660	1,326	1,325	578	113	37.8	36.2	396
1958	64.1	69.6	95.4	104	337	396	1,196	1,452	622	129	51.5	45.2	379
1959	53.9	94.9	137	142	156	248	671	510	287	64.0	33.5	72.6	205
1960	102	81.3	74.1	77.7	138	459	945	613	314	57.7	35.6	34.5	244

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,040	6,720	9,430	6,900	20,700	21,880	85,850	54,030	24,190	7,470	3,290	2,580	247,100
1952	6,620	6,240	11,360	6,960	10,540	16,680	130,000	85,150	31,140	9,180	3,130	2,540	319,500
1953	2,920	3,260	4,600	15,020	16,140	23,030	53,300	48,130	49,290	11,320	3,250	2,210	232,500
1954	2,980	5,830	5,860	8,760	15,710	32,090	60,350	41,160	21,300	7,580	2,700	2,230	206,600
1955	3,000	4,100	3,340	3,990	3,600	6,130	25,320	46,200	22,860	6,280	1,670	1,480	128,000
1956	2,840	6,260	37,970	27,380	13,980	43,470	100,500	70,370	32,770	8,190	3,420	2,750	349,900
1957	4,960	6,060	9,310	5,790	14,000	40,580	78,890	81,500	34,390	6,920	2,320	2,150	286,900
1958	3,940	4,140	5,860	6,410	18,730	24,330	71,180	89,280	36,980	7,900	3,170	2,690	274,600
1959	3,310	5,640	8,430	8,730	8,670	15,240	39,930	31,360	17,100	3,940	2,060	4,320	148,700
1960	6,260	4,840	4,560	4,780	7,940	28,220	56,260	37,720	18,690	3,550	2,190	2,050	177,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30						Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff	Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	-	-	-
1951	1217	2,270	Apr. 8, 1951	40	341	0.855	11.60	247,100	347	11.78	251,100
1952	1247	3,620	Apr. 27, 1952	40	440	1.10	15.00	319,500	421	14.38	306,100
1953	1287	1,930	Apr. 28, 1953	32	321	.805	10.92	232,500	326	11.10	236,400
1954	1347	1,910	Mar. 10, 1954	33	285	.714	9.71	206,600	279	9.51	202,300
1955	1397	1,170	May 9, 1955	16	177	.444	6.02	128,000	227	7.73	164,600
1956	1447	5,440	Dec. 23, 1955	33	482	1.21	16.43	349,900	445	15.18	323,200
1957	1517	2,210	Apr. 6, 1957	28	396	.992	13.49	286,900	387	13.20	280,500
1958	1567	2,320	May 12, 1958	37	379	.950	12.92	274,600	384	13.09	278,000
1959	1637	1,210	Apr. 6, 1959	23	205	.514	7.00	148,700	203	6.90	147,000
1960	1717	2,010	Apr. 7, 1960	24	244	.612	8.31	177,100	-	-	-

2005. Robie Creek near Arrowrock, Idaho

Location.--Lat 43°37'30", long 115°59'45", in N½ sec.5, T.3 N., R.4 E., on left bank 0.5 mile upstream from mouth and 5 miles northwest of Arrowrock.

Drainage area.--15.8 sq mi. Mean altitude, 4,960 ft.

Records available.--October 1950 to September 1960.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,080 ft (from topographic map).

Average discharge.--10 years (1950-60), 9.21 cfs (6,670 acre-ft per year).

Extremes.--1950-60: Maximum discharge, 163 cfs Dec. 23, 1955 (gage height, 2.67 ft); minimum, 0.1 cfs several days in August and September 1955, Aug. 2, 3, 1959; minimum gage height, 0.58 ft Aug. 11, 30, 31, 1955.

Remarks.--Small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1.92	3.68	7.03	4.94	23.2	17.2	42.1	18.7	6.23	1.57	0.68	0.97	10.6
1952	3.50	4.32	7.25	5.17	11.4	18.8	86.0	39.2	8.09	3.00	1.29	1.75	15.7
1953	2.25	2.90	3.22	13.7	14.9	11.6	19.9	14.1	13.6	2.81	.92	1.45	8.37
1954	1.90	3.77	4.14	4.85	8.74	13.4	16.2	5.05	4.09	.98	.55	.80	5.34
1955	1.68	2.27	2.02	2.37	2.41	4.30	14.3	15.6	2.75	.86	.17	.45	4.10
1956	1.75	3.55	12.3	12.1	8.41	26.5	42.1	17.8	5.48	1.55	1.05	1.30	11.1
1957	3.07	3.76	5.48	3.24	9.74	27.4	40.7	24.2	6.41	1.59	.82	1.25	10.6
1958	2.73	3.10	4.26	4.45	17.5	21.9	54.3	41.6	9.74	2.83	1.03	1.45	13.7
1959	2.71	4.99	5.82	6.32	6.52	9.13	14.2	7.29	1.90	.35	.30	1.72	5.09
1960	3.44	3.18	2.87	3.17	6.32	25.0	30.2	11.6	2.15	.54	.65	.57	7.46

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	118	219	432	304	1,290	1,060	2,510	1,150	371	97	42	58	7,650
1952	215	257	446	318	658	1,150	5,120	2,410	482	185	79	104	11,420
1953	138	173	198	843	828	710	1,180	868	807	173	56	86	6,060
1954	117	225	254	299	486	826	965	310	244	60	34	47	3,870
1955	104	135	124	146	134	264	852	958	163	53	11	27	2,970
1956	108	211	754	743	484	1,630	2,500	1,090	326	95	65	77	8,080
1957	189	224	337	199	541	1,690	2,420	1,490	382	98	50	74	7,690
1958	168	184	262	274	971	1,350	3,230	2,560	580	174	63	86	9,900
1959	167	297	358	389	362	561	846	448	113	22	18	102	3,680
1960	211	189	177	195	363	1,530	1,800	712	128	33	40	34	5,410

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950											
1951	1217	72	(a)	0.4	10.6	0.671	9.08	7,650	10.8	9.26	7,800
1952	1247	116	Apr.7 or 8, 1952	1.0	15.7	.994	13.55	11,420	15.2	13.07	11,020
1953	1287	118	Jan. 18, 1953	.7	8.37	.530	7.21	6,060	8.49	7.31	6,150
1954	1347	40	Mar. 10, 1954	.4	5.34	.338	4.60	3,870	5.02	4.32	3,630
1955	1397	56	Apr. 22, 1955	.1	4.10	.259	3.51	2,970	5.08	4.35	3,680
1956	1447	163	Dec. 23, 1955	.8	11.1	.703	9.60	8,080	10.7	9.22	7,760
1957	1517	92	Apr. 5, 1957	.7	10.6	.671	9.12	7,690	10.4	8.96	7,560
1958	1567	91	Apr. 18, 1958	.7	13.7	.867	11.76	9,900	14.0	12.00	10,110
1959	1637	29	Sept.26, 1959	.1	5.09	.322	4.36	3,680	4.75	4.07	3,440
1960	1717	73	Mar. 7, 1960	.4	7.46	.472	6.41	5,410	-	-	-

a Apr. 6, 7, or 8, 1951.

2010. Mores Creek near Arrowrock, Idaho
(Formerly published as Moore Creek near Arrowrock, Idaho)

Location.--Lat 43°35', long 115°59', in sec.21, T.3 N., R.4 E., on right bank 150 ft downstream from bridge on Boise-Arrowrock highway, a quarter of a mile upstream from mouth, and 3 miles southwest of Arrowrock.

Drainage area.--426 sq mi. Mean altitude, 4,960 ft.

Records available.--October 1914 to November 1915 (discharge measurements only), December 1915 to March 1955.

Gage.--Staff gage. Datum of gage is 2,896.11 ft above mean sea level, unadjusted. Prior to July 15, 1921, staff gage at site 1,100 ft upstream at different datum. July 15 to Oct. 24, 1921, staff gage at site 400 ft upstream at datum 0.87 ft higher. Oct. 25, 1921, to Sept. 30, 1948, staff gages at site 200 ft upstream at datum 0.50 ft higher prior to Aug. 3, 1935, and at datum 0.23 ft higher thereafter.

Average discharge.--38 years (1916-54), 302 cfs (218,600 acre-ft per year).

Extremes.--1915-55: Maximum discharge, 6,610 cfs Apr. 8, 1943 (gage height, 7.1 ft, site and datum then in use, from floodmark); minimum observed, 7.9 cfs Aug. 13-15, 17, 18, 1924.

Remarks.--Diversions for irrigation of about 900 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	68.1	127	170	125	429	385	1,525	937	426	126	55.0	45.1	366
1952	112	113	204	123	204	307	2,349	1,499	552	161	52.8	45.5	475
1953	52.0	65.8	83.7	280	323	390	927	804	847	189	54.4	39.6	337
1954	51.4	109	104	153	304	556	1,052	685	373	128	45.0	38.8	299
1955	51.2	72.7	59.9	70.7	71.3	114	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,190	7,540	10,480	7,670	23,850	23,650	90,720	57,620	25,360	7,730	3,380	2,680	264,900
1952	6,860	6,750	12,520	7,570	11,740	18,850	139,800	92,180	32,840	9,880	3,240	2,710	344,900
1953	3,200	3,910	5,150	17,220	17,940	23,960	55,170	49,450	50,420	11,630	3,350	2,350	243,800
1954	3,160	6,460	6,420	9,420	16,870	34,170	62,590	42,090	22,220	7,840	2,770	2,310	216,300
1955	3,150	4,320	3,680	4,350	3,960	7,040	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	359	11.43	259,800
1951	1217	2,480	Apr. 8, 1951	40	366	0.859	11.66	264,900	371	11.84	268,800
1952	1247	4,040	Apr. 27, 1952	40	475	1.12	15.18	344,900	456	14.57	331,100
1953	1287	2,060	Apr. 28, 1953	36	337	.791	10.73	243,800	342	10.89	247,500
1954	1347	2,020	Mar. 10, 1954	34	299	.702	9.51	216,300	292	9.30	211,400
1955	1397	-	-	-	-	-	-	-	-	-	-

2015. Lucky Peak Reservoir near Boise, Idaho

Location.--Lat 43°32', long 116°04', in SW¼NW¼ sec.12, T.2 N., R.3 E., at outlet control tower at dam on Boise River, 2 miles upstream from diversion dam for New York Canal, 7 miles downstream from Mores Creek, and 9 miles southeast of Boise.

Drainage area.--2,680 sq mi, approximately.

Records available.--October 1954 to September 1960.

Gage.--Remote registering water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 13, 1955, staff gage at same site and datum.

Extremes.--1954-60: Maximum contents, 305,130 acre-ft June 25, 1955 (elevation, 3,059.32 ft); minimum since near-full capacity was attained on June 25, 1955, 29,250 acre-ft Oct. 15, 1955 (elevation, 2,905.69 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft between elevations 2,827.0 (sill of outlet gates) and 3,060.0 ft (spillway crest). Minimum proposed operating level, 2,905.0 ft (28,770 acre-ft), but all storage can be released. Water is stored for flood control and irrigation of lands in Boise valley.

Cooperation.--Gage-height record and capacity table furnished by Corps of Engineers.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1955	906	5,520	9,460	14,300	12,960	10,420	27,110	130,040	295,610	251,620	107,430	52,800
1956	32,050	39,420	79,260	260,900	158,790	59,870	97,790	137,180	296,000	293,250	282,920	148,290
1957	98,710	105,830	144,410	271,170	283,270	212,650	197,370	250,520	292,400	290,020	271,280	62,760
1958	57,580	58,370	62,200	115,210	142,090	223,470	207,850	226,720	299,770	292,210	289,040	136,200
1959	118,280	117,520	127,140	137,810	116,400	211,130	205,900	209,410	259,880	293,080	211,980	147,950
1960	148,390	150,470	152,120	216,680	234,480	262,370	273,250	283,780	293,500	294,130	212,280	68,370

2020. Boise River near Boise, Idaho

Location.--Lat 43°32', long 116°04', in NE¼ sec.11, T.2 N., R.3 E., at gate-control house at outlet works of Lucky Peak Reservoir, 1.8 miles upstream from diversion dam for New York Canal, 7½ miles downstream from mouth of Mores Creek, and 9 miles southeast of Boise.

Drainage area.--2,680 sq mi, approximately. Mean altitude, 5,910 ft.

Records available.--January 1895 to September 1916 (no winter records 1904-5, 1907), November 1950 to September 1954 (discharge measurements only), October 1954 to September 1960. Published as "near Highland" 1905-15, and as "below Moore Creek, near Arrowrock" 1916.

Gage.--Remote gate-opening recorder and staff gage on each of six slide gates, recorder and dial gage on hollow-jet valve, and water-stage recorder on Lucky Peak Reservoir. Elevation of sills of six slide gates, 2,827.0 ft (levels by Corps of Engineers). Prior to Mar. 18, 1905, staff gages at sites about 1 mile downstream at different datums. Mar. 18, 1905, to Mar. 20, 1915, staff gages, and Mar. 21, 1915, to Sept. 30, 1916, water-stage recorders, at sites 5 to 7 miles upstream at different datums.

Average discharge.--23 years (1895-96, 1897-1903, 1905-6, 1907-16, 1954-60), 3,018 cfs (2,185,000 acre-ft per year).

Extremes.--1895-1916, 1954-60: Maximum discharge observed, 35,500 cfs June 14, 1896; no flow for several days in 1954-55, 1957-59, when gates were closed.

Remarks.--Daily discharge computed from gate ratings. Flow regulated by Lucky Peak Reservoir (see p. 160), Arrowrock Reservoir (see p. 157), and Anderson Ranch Reservoir (see p. 154). Small diversions from tributaries upstream for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	1,296	0	0	0	115	639	622	3,532	4,759	4,501	3,832	3,646	1,923
1956	1,308	1.0	1.0	465	3,883	6,690	7,651	8,556	6,976	4,829	4,462	3,661	4,035
1957	945	1.0	1.0	1.0	942	4,030	6,083	8,873	6,998	4,948	4,565	3,852	3,448
1958	1,058	75.0	62.5	593	1,428	3,165	5,015	9,226	6,642	4,895	4,584	3,576	3,371
1959	835	118	1.4	1.0	1,079	137	3,978	4,446	4,744	4,743	4,203	1,723	2,171
1960	113	50	50	64.9	1,177	1,239	4,626	6,061	5,519	5,059	4,431	3,889	2,689

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	79,720	0	0	0	6,380	39,300	37,020	217,200	283,200	276,700	235,600	216,900	1,392,000
1956	80,400	60	61	28,580	223,400	411,400	455,200	526,100	415,100	296,900	274,300	217,800	2,929,000
1957	58,140	60	61	61	52,300	247,800	362,000	545,600	416,400	304,200	280,700	229,200	2,497,000
1958	65,030	4,460	3,840	36,490	79,330	194,600	298,400	567,300	395,200	301,000	281,800	212,800	2,440,000
1959	51,370	7,040	85	61	59,910	8,440	236,700	273,400	282,300	291,600	258,400	102,500	1,572,000
1960	6,960	2,980	3,070	3,990	67,710	76,190	275,200	372,700	328,400	311,000	272,400	231,400	1,952,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954								
1955	1397	9,860	June 23, 1955	0	1,923	1,392,000	1,924	1,393,000
1956	1447	9,490	June 10, 1956	1	4,035	2,929,000	4,005	2,907,000
1957	1517	10,600	June 6-10,1957	1	3,448	2,497,000	3,469	2,512,000
1958	1567	10,000	May 21-28,1958	0	3,371	2,440,000	3,350	2,425,000
1959	1637	5,390	Apr.23,26,1959	0	2,171	1,572,000	2,108	1,526,000
1960	1717	8,200	May 15, 1960	1	2,689	1,952,000	-	-

2035. Lake Lowell near Caldwell, Idaho

Location.--Lat 43°35', long 116°45', in SE¼ sec.19, T.3 N., R.3 W., on outlet structure at lower embankment, 5½ miles southwest of Caldwell; and lat 43°34', long 116°39', in NW¼ sec.36, T.3 N., R.3 W., on outlet structure at upper embankment 5 miles west of Nampa.

Records available.--October 1917 to September 1960. Prior to October 1945, published as Deer Flat Reservoir near Caldwell.

Gage.--Staff gages. Datum of gages is 2,500.5 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--1917-60: Maximum contents observed, 178,900 acre-ft Apr. 27, 28, 1922, Apr. 24, 1932 (gage height, 30.18 ft); minimum observed, 5,390 acre-ft Oct. 22, 1924 (gage height, 3.27 ft, upper pool; 0.85 ft, lower pool).

Remarks.--Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-ft, between gage heights 0.0 (sill of outlet gates) and 30.0 ft (maximum operating level). Dead storage, about 13,000 acre-ft. Below gage height 12.0 ft, reservoir divides into two pools. In addition to water received from local drainage, reservoir receives water from Boise River through New York Canal of Boise project. Water is used for irrigation of lower project lands.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	64,120	91,600	94,620	96,440	117,800	155,800	167,400	159,000	147,900	94,770	52,230	53,200
1952	66,550	91,460	94,840	97,470	106,400	148,200	172,300	150,000	126,400	86,300	43,860	50,650
1953	71,390	91,170	93,900	97,540	132,100	162,000	168,800	177,400	162,600	100,300	50,090	52,010
1954	68,760	82,020	94,620	96,880	120,300	158,900	160,500	126,100	143,600	82,020	48,880	74,190
1955	98,130	101,800	104,500	106,700	111,100	142,000	160,900	149,800	95,060	58,460	18,920	46,800
1956	77,900	81,750	86,160	89,320	114,300	151,300	153,700	151,600	130,100	79,040	45,450	74,260
1957	93,610	97,250	101,300	103,700	146,500	151,200	173,900	168,100	115,800	65,550	27,030	64,860
1958	89,460	93,680	98,350	128,700	161,300	160,200	173,900	158,600	147,300	106,100	75,700	96,520
1959	100,600	104,100	108,000	110,500	163,000	162,400	166,000	174,300	136,500	83,050	40,140	29,790
1960	20,540	23,360	23,200	24,930	86,510	150,300	162,200	165,800	128,300	76,230	52,630	87,700

2045. Diversions from Boise River between near Boise and at Boise gaging stations, Idaho

Between near Boise and at Boise gaging stations, six principal canals and several small farm laterals divert water from Boise River for irrigation. Records show summation of discharge for these diversions for the irrigation season April to September. Field data and records summarized under direction of the watermaster for Boise River.

Records of total diversion for each canal during period April to September 1919-46, combined daily diversion during period April to September 1947-60, and daily flow of New York Canal February 1939 to October 1948, are published in reports of Geological Survey. Records of daily diversion during irrigation seasons for each canal from 1916-60 are on file in the office of the Idaho State Reclamation Engineer.

Monthly and seasonal discharge, in acre-feet

Water year							Apr.	May	June	July	Aug.	Sept.	The period
1951							132,700	192,200	198,100	204,400	180,900	141,400	1,050,000
1952							93,180	209,200	204,500	202,000	195,400	149,200	1,053,000
1953							158,300	188,000	116,100	214,700	194,600	162,100	1,034,000
1954							157,600	218,100	189,000	206,900	206,000	181,200	1,159,000
1955							33,990	162,800	203,000	218,300	175,400	182,200	975,700
1956							159,300	201,900	203,100	216,200	213,700	183,100	1,177,000
1957							53,770	180,300	206,400	221,900	215,800	193,600	1,072,000
1958							39,440	131,300	122,800	135,500	124,800	87,830	641,700
1959							165,900	199,800	203,400	212,200	194,200	81,070	1,057,000
1960							130,400	226,100	222,900	227,900	207,000	185,000	1,199,000

2055. Boise River at Boise, Idaho

Location.--Lat 43°36'33", long 116°12'27" (revised), in SW¼ sec.10, T.3 N., R.2 E., on right bank at Capital Boulevard Bridge at Boise.

Drainage area.--2,760 sq mi, approximately.

Records available.--March 1938 to September 1939 (gage heights only), February 1940 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,675.46 ft above mean sea level (datum of Corps of Engineers, Boise River surveys). Prior to Apr. 30, 1943, at site 1 mile upstream at datum 13.69 ft higher. Apr. 30 to July 10, 1943, at site 400 ft downstream at present datum.

Extremes.--1940-60: Maximum discharge, 21,000 cfs Apr. 20, 1943 (gage height, 10.00 ft, site and datum then in use); minimum, 1.3 cfs Feb. 3, 1955 (gage height, 2.21 ft); minimum daily, 4.8 cfs Jan. 3, 1959.

Remarks.--Flow regulated by Arrowrock Reservoir (see p. 156), Anderson Ranch Reservoir (see p. 154), and Lucky Peak Reservoir (see p. 160). New York, Ridenbaugh, and four smaller canals (see p. 162) divert between station near Boise and this station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	506	99.3	187	150	567	1,969	5,330	6,162	3,254	1,307	895	606	1,756
1952	251	111	1,208	2,732	2,849	4,238	6,255	6,095	2,931	1,124	831	564	2,430
1953	204	63.1	112	347	378	1,677	1,371	2,611	6,123	1,856	910	645	1,359
1954	243	91.4	122	175	648	1,899	2,755	3,209	2,002	1,333	863	574	1,162
1955	231	13.9	12.5	9.68	15.3	22.9	100	910	1,367	1,008	962	604	441
1956	166	13.9	16.6	450	3,330	6,098	4,954	5,322	3,629	1,326	986	599	2,234
1957	196	15.7	11.1	740	112	3,949	5,149	5,990	3,457	1,341	1,064	588	1,832
1958	397	88.5	75.2	72.5	658	3,122	3,641	5,869	3,479	1,205	1,062	666	1,700
1959	246	134	15.1	7.04	26.5	14.7	1,097	1,210	1,236	1,210	973	418	551
1960	76.6	61.5	60.9	44.3	72.8	81.3	2,233	2,364	1,656	1,201	980	756	800

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	31,110	5,910	11,510	9,220	31,490	121,100	317,100	378,900	193,600	80,370	55,010	36,060	1,271,000
1952	15,430	6,620	74,280	168,000	163,900	260,600	372,200	374,800	174,400	69,110	51,100	33,590	1,764,000
1953	12,560	3,760	6,880	21,330	21,020	103,100	81,580	160,500	364,400	114,100	55,940	38,400	983,600
1954	14,960	5,440	7,480	10,770	36,000	116,700	163,900	197,300	119,100	81,980	53,090	34,180	840,900
1955	14,190	823	766	595	851	1,400	5,950	55,940	81,320	62,000	59,150	35,950	318,900
1956	10,200	829	1,020	27,700	191,600	375,000	294,800	327,200	216,000	81,540	60,600	35,650	1,622,000
1957	12,040	936	682	455	6,220	242,800	306,400	368,300	205,700	82,470	65,450	34,980	1,326,000
1958	24,420	5,270	4,620	4,460	36,560	192,000	216,700	360,900	207,000	74,120	65,280	39,620	1,231,000
1959	15,130	7,940	931	433	1,470	902	65,250	74,390	73,540	74,420	59,810	24,870	399,100
1960	4,710	3,660	3,740	2,720	4,190	5,000	132,900	145,400	98,540	73,860	60,240	45,560	580,500

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,376	996,300
1951	1217	7,560	May 14, 1951	35	1,756	1,271,000	1,822	1,319,000
1952	1247	7,920	Apr. 17, 1952	37	2,430	1,764,000	2,329	1,691,000
1953	1287	8,270	June 19, 1953	30	1,359	983,600	1,365	988,200
1954	1347	6,080	May 22, 1954	64	1,162	840,900	1,145	828,800
1955	1397	1,880	Aug. 1, 1955	6.8	441	318,900	435	315,200
1956	1447	7,010	Mar. 10, 1956	1.0	2,234	1,622,000	2,237	1,624,000
1957	1517	6,910	June 8, 1957	6.0	1,832	1,326,000	1,861	1,347,000
1958	1567	6,620	May 13, 1958	16	1,700	1,231,000	1,686	1,221,000
1959	1637	1,830	Apr. 16, 1959	4.8	551	339,100	535	387,200
1960	1717	5,840	Apr. 10, 1960	7.0	800	580,500	-	-

2070. Spring Valley Creek near Eagle, Idaho

Location.--Lat 43°44'20", long 116°18'00", on right bank in SE¼ sec.26, T.5 N., R.1 E., half a mile upstream from mouth and 4 miles northeast of Eagle.

Drainage area.--20.9 sq mi.

Records available.--June 1954 to September 1959.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,721.70 ft above mean sea level, unadjusted.

Average discharge.--5 years (1954-59), 3.21 cfs (2,320 acre-ft per year).

Extremes.--1954-59: Maximum discharge, 244 cfs Feb. 26, 1957 (gage height, 2.85 ft); no flow for long periods in each year.

Remarks.--Diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	-	-	-	-	-	-	-	-	-	0	0	0	-
1955	0	0	0.33	0.51	0.89	3.51	8.34	5.40	0.02	0	0	0	1.58
1956	0	0	3.11	6.86	6.55	11.2	2.71	1.48	.42	.003	0	0	2.69
1957	.03	.11	.80	.42	14.0	26.0	14.8	20.1	4.09	.07	0	0	6.66
1958	.03	.42	1.41	2.95	16.9	10.9	14.5	7.23	2.42	0	0	0	4.63
1959	0	.03	.22	1.16	2.17	1.13	.89	.48	.15	0	0	0	.51
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	-	-	-	-	-	-	-	-	-	0	0	0	-
1955	0	0	20	31	49	216	496	332	1.4	0	0	0	1,150
1956	0	0	191	422	377	687	161	91	25	.2	0	0	1,950
1957	1.8	6.5	49	26	779	1,600	879	1,240	244	4.6	0	0	4,830
1958	2.0	25	87	181	940	668	861	444	144	0	0	0	3,350
1959	0	1.8	14	71	120	69	53	30	8.7	0	0	0	368
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954	1397	-	-	0	-	-	-	-
1955	1397	60	Apr. 22, 1955	0	1.58	1,150	1.82	1,320
1956	1447	54	Dec. 23, 1955	0	2.69	1,950	2.51	1,820
1957	1517	244	Feb. 26, 1957	0	6.66	4,830	6.74	4,890
1958	1567	136	Feb. 13, 1958	0	4.63	3,350	4.50	3,320
1959	1637	8.4	Mar. 30, 1959	0	.51	368	-	-
1960								

2075. Dry Creek near Eagle, Idaho

Location.--Lat 43°43'55", long 116°18'15", in NW¼ sec.35, T.5 N., R.1 E., on left bank 80 ft downstream from State Highway 15, 500 ft downstream from Spring Valley Creek, and 3.6 miles northeast of Eagle.

Drainage area.--59.4 sq mi.

Records available.--June 1954 to September 1960.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,692.80 ft above mean sea level, unadjusted.

Average discharge.--6 years (1954-60), 10.6 cfs (7,670 acre-ft per year).

Extremes.--1954-60: Maximum discharge, 339 cfs Feb. 26, 1957 (gage height, 4.70 ft); no flow at times in August and September 1959.

Remarks.--Diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	-	-	-	-	-	-	-	-	-	0.33	0.23	0.21	-
1955	0.33	1.74	2.82	2.24	3.84	9.16	23.8	18.6	0.37	.22	.27	.31	5.30
1956	.78	1.48	13.2	22.9	18.4	35.9	15.5	8.33	1.65	.37	.29	.21	9.92
1957	1.13	1.77	3.93	2.14	35.7	77.1	58.7	71.7	16.7	.42	.33	.17	22.4
1958	.94	2.41	5.38	8.08	50.1	28.3	54.1	29.0	10.1	.51	.97	.21	15.6
1959	.98	1.59	3.75	5.07	8.27	7.09	5.58	.75	.31	.18	.08	.47	2.81
1960	2.00	1.75	1.94	3.94	19.6	43.1	14.3	2.63	.69	.17	.15	.61	7.54

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954	-	-	-	-	-	-	-	-	-	20	14	13	-
1955	20	104	174	137	213	564	1,410	1,140	22	13	17	18	3,830
1956	48	88	809	1,410	1,060	2,210	922	512	98	23	18	13	7,210
1957	69	105	242	132	1,980	4,740	3,490	4,410	990	26	20	9.9	16,210
1958	58	144	331	497	2,810	1,740	3,220	1,780	625	31	60	13	11,310
1959	60	95	231	312	459	436	332	46	18	11	5.0	28	2,030
1960	123	104	119	242	1,130	2,650	849	161	41	11	9.1	36	5,480

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954	1397	-	-	-	-	-	-	-
1955	1397	149	Apr. 22, 1955	0.1	5.30	3,830	6.20	4,480
1956	1447	156	Dec. 23, 1955	.2	9.92	7,210	9.19	6,680
1957	1517	339	Feb. 26, 1957	.1	22.4	16,210	22.6	16,330
1958	1567	189	May 12, 1958	.1	15.6	11,310	15.4	11,160
1959	1637	19	Feb. 19, 1959	0	2.81	2,030	2.75	1,990
1960	1717	316	Mar. 7, 1960	.1	7.54	5,480	-	-

2080. Dry Creek at Eagle, Idaho

Location.--Lat 43°41'45", long 116°22'05", in SW¼ sec.8, T.4 N., R.1 E., 40 ft downstream from State Highway 44, 0.4 mile upstream from mouth, and 0.7 mile west of Eagle.

Drainage area.--66.4 sq mi.

Records available.--June 1954 to January 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,545.82 ft above mean sea level, unadjusted.

Extremes.--1954-57: Maximum discharge, 149 cfs Dec. 23, 1955; maximum gage height, 4.86 ft May 14, 1956; no flow for long periods.

Remarks.--Diversions upstream for irrigation. Canals waste water into creek above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1954	-	-	-	-	-	-	-	-	-	6.76	6.82	5.77	-
1955	2.95	0.35	0.29	0.10	0.46	3.70	18.1	21.8	6.25	8.97	5.05	4.68	6.09
1956	1.72	.08	9.43	18.4	31.6	35.5	25.5	37.3	35.8	14.1	11.2	17.2	18.3
1957	7.03	.29	1.35	.09	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1954	-	-	-	-	-	-	-	-	-	416	419	343	-
1955	182	21	18	6.3	25	228	1,080	1,340	372	551	310	279	4,410
1956	106	4.6	580	1,130	787	2,190	1,520	2,300	2,130	866	689	1,030	13,330
1957	432	17	83	†5.4	-	-	-	-	-	-	-	-	-

† Corrected.

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1954	1347	-	-	-	-	-	-	-
1955	1397	136	Apr. 22, 1955	0	6.09	4,410	6.74	4,880
1956	1447	149	Dec. 23, 1955	0	18.3	13,330	18.1	13,170
1957	1517	-	-	-	-	-	-	-

2120. Diversions from Boise River between at 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 show summation of discharge for these diversions for the irrigation season April to September. Field data obtained and records summarized under direction of the watermaster for Boise River.

Records of total diversions for each canal during the period April to September 1919-46, and combined daily diversion covering period April to September 1947-60 are published in reports of Geological Survey. Records of daily diversion for each canal during irrigation seasons from 1916-60 are on file in the office of the Idaho State Reclamation Engineer.

Monthly and seasonal discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The period
1951							64,550	119,900	124,000	135,200	116,900	90,090	650,600
1952							32,980	135,400	131,500	134,200	117,300	89,340	640,700
1953							69,280	119,200	82,480	144,200	121,700	96,910	633,800
1954							78,620	149,300	117,000	142,100	119,200	93,600	699,800
1955							18,720	94,240	141,700	137,000	130,300	97,790	619,800
1956							79,170	125,700	126,400	139,600	122,600	89,630	683,100
1957							23,060	108,800	132,000	140,500	129,500	87,510	621,400
1958							82,950	202,900	193,400	225,100	214,000	173,700	1,092,000
1959							90,300	122,600	130,300	131,600	123,700	59,600	658,100
1960							60,020	137,000	141,900	140,647	122,000	93,100	694,700

2125. Boise River at Notus, Idaho

Location.--Lat 43°43'21", long 116°47'34", in SE¼ sec.34, T.5 N., R.4 W., on right bank 1,100 ft upstream from county road bridge, a quarter of a mile southeast of Notus, and 7 miles northwest of Caldwell.

Drainage area.--3,820 sq mi, approximately.

Records available.--April 1920 to September 1960 (irrigation seasons only 1923-24).

Gage.--Water-stage recorder. Datum of gage is 2,288.55 ft above mean sea level (datum of Corps of Engineers, Boise River surveys). Prior to Aug. 26, 1936, staff gage at site 1,100 ft downstream at same datum.

Extremes.--1920-60: Maximum discharge, 20,500 cfs Apr. 20, 1943 (gage height, 10.43 ft); minimum observed, 10 cfs Aug. 18, 21, 1920.

Remarks.--Diversions above station for irrigation of about 309,300 acres (1946 determination). Diversions between station and mouth for irrigation of about 5,300 acres (1946 determination). Flow regulated by Arrowrock Reservoir (see p. 156), Anderson Ranch Reservoir (see p. 154), and Lucky Peak Reservoir (see p. 160). Records of chemical analyses and water temperatures for the period November 1950 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,049	734	768	671	1,348	2,675	5,114	5,534	2,673	381	213	290	1,787
1952	893	675	1,763	3,411	3,484	4,887	6,508	5,390	2,305	356	138	547	2,525
1953	585	734	676	963	1,012	2,208	1,052	2,271	5,982	846	179	355	1,402
1954	703	738	668	625	1,097	2,526	2,154	2,216	1,594	381	180	375	1,104
1955	720	670	563	511	464	458	255	166	209	161	111	348	386
1956	680	691	645	1,034	3,769	6,305	4,225	4,670	2,970	365	350	460	2,173
1957	871	761	618	523	888	4,722	5,473	5,740	2,603	343	301	483	1,948
1958	1,109	767	707	631	1,434	3,754	3,650	4,902	3,012	320	380	637	1,775
1959	788	844	621	527	514	431	274	749	250	253	494	798	546
1960	786	705	614	602	700	633	1,756	1,911	680	244	472	567	805

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	64,480	43,680	47,240	41,280	74,860	164,400	304,300	340,300	159,100	23,430	13,100	17,250	1,293,000
1952	54,890	40,150	108,400	209,700	200,400	300,500	387,300	331,400	137,100	21,920	8,490	32,540	1,833,000
1953	35,970	43,650	41,580	59,210	56,190	135,800	62,620	139,700	356,000	52,040	11,010	21,130	1,015,000
1954	43,200	43,930	41,090	38,460	60,940	155,300	128,200	136,300	94,860	23,430	11,050	22,320	799,100
1955	44,280	39,840	34,620	31,440	25,800	28,190	15,180	10,220	12,420	9,900	6,830	20,690	279,400
1956	41,820	41,100	39,680	63,590	216,800	387,700	251,400	287,100	176,700	22,450	21,500	27,380	1,577,000
1957	53,540	45,270	37,990	32,140	49,320	290,300	325,700	353,000	154,900	21,070	18,480	28,750	1,410,000
1958	68,190	45,620	43,490	38,780	79,610	230,800	217,200	301,400	179,200	19,690	23,340	37,930	1,285,000
1959	48,450	50,250	38,210	32,400	28,570	26,500	16,330	46,060	14,880	15,570	30,350	47,500	395,100
1960	48,340	41,930	37,770	36,990	40,250	38,920	104,500	117,500	40,490	15,010	29,010	33,750	584,500

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,304	944,300
1951	1217	7,840	May 14, 1951	80	1,787	1,293,000	1,853	1,341,000
1952	1247	8,460	Apr. 15, 1952	94	2,525	1,833,000	2,411	1,761,000
1953	1287	7,690	June 3, 1953	48	1,402	1,015,000	1,411	1,022,000
1954	1347	5,340	Mar. 14, 1954	83	1,104	799,100	1,091	789,600
1955	1397	1,600	Oct. 16, 1954	15	386	279,400	391	283,300
1956	1447	6,960	Mar. 11, 1956	239	2,173	1,577,000	2,192	1,591,000
1957	1517	7,400	May 19, 1957	131	1,948	1,410,000	1,976	1,431,000
1958	1567	7,100	May 12, 1958	128	1,775	1,285,000	1,747	1,265,000
1959	1637	2,900	Sept.15, 1959	66	546	395,100	533	386,200
1960	1717	5,620	Apr. 11, 1960	30	805	584,500	-	-

2140. Malheur River near Drewsey, Oreg.

Location.--Lat 43°47', long 118°20', in SE¼ sec.31, T.20 S., R.36 E., on left bank 300 ft downstream from bridge on U. S. Highway 20, half a mile downstream from Cottonwood Creek, and 3 miles southeast of Drewsey.

Drainage area.--910 sq mi, approximately.

Records available.--June 1920 to September 1921, November, December 1921, March, April 1922, April to September 1923, June 1926 to September 1960. Monthly discharge only for some periods, published in WSP 1317. March to September 1914 at site 13 miles upstream; records not equivalent owing to inflow from several creeks.

Gage.--Water-stage recorder. Datum of gage is 3,479.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Apr. 27, 1923, water-stage recorder or staff gage at site half a mile downstream at different datum. Apr. 27, 1923, to June 6, 1939, water-stage recorder at site 7 miles downstream at different datum.

Average discharge.--34 years (1926-60), 175 cfs (126,700 acre-ft per year).

Extremes.--1920-23, 1926-60: Maximum discharge, 10,700 cfs Feb. 24, 1957 (gage height, 13.20 ft), from rating curve extended above 3,500 cfs on basis of contracted-opening measurement of peak flow; no flow at times.

Remarks.--Slight regulation by 13 small reservoirs above station (combined capacity, 5,700 acre-ft). Diversions for irrigation of about 13,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	35.6	67.9	126	96.1	520	411	858	272	†66.3	4.44	1.64	2.63	202
1952	49.8	65.5	109	63.9	162	899	2,290	680	164	39.8	11.5	19.7	378
1953	24.0	44.6	64.7	445	322	292	703	530	436	63.7	21.6	12.4	245
1954	33.2	71.1	91.8	118	219	259	415	183	109	17.2	6.17	8.94	127
1955	34.6	62.1	54.0	49.8	60.5	89.4	209	275	85.0	25.3	7.17	5.31	79.8
1956	32.3	60.7	247	281	223	860	1,033	528	141	21.2	12.9	10.4	288
1957	56.6	81.8	89.1	54.6	846	664	777	523	137	13.3	5.33	6.98	267
1958	54.6	62.4	61.1	96.2	690	597	1,544	1,136	243	46.1	17.9	18.7	377
1959	45.8	67.5	80.0	101	104	135	318	106	42.6	9.90	1.56	17.1	85.2
1960	55.9	59.7	53.9	54.7	88.9	705	778	203	101	7.01	3.15	7.25	176

† Corrected.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,190	4,040	7,760	5,910	28,880	25,260	51,080	16,720	3,940	273	101	157	146,300
1952	3,060	3,900	6,710	3,930	9,300	55,260	136,300	41,830	9,740	2,450	705	1,170	274,400
1953	1,480	2,650	3,980	27,330	17,860	17,930	41,810	32,610	25,940	3,920	1,330	740	177,600
1954	2,040	4,230	5,640	7,260	12,140	15,930	24,700	11,240	6,510	1,060	379	532	91,660
1955	2,130	3,700	3,320	3,060	3,360	5,490	12,440	16,920	5,060	1,560	441	316	57,800
1956	1,990	3,610	15,200	17,310	12,800	52,890	61,440	32,490	8,370	1,300	795	620	208,800
1957	3,480	4,870	5,480	3,360	46,980	40,850	46,250	32,130	8,180	815	327	415	193,100
1958	3,360	3,710	3,760	5,920	38,350	36,740	91,890	69,850	14,470	2,830	1,100	1,110	273,100
1959	2,820	4,020	4,920	6,190	5,780	8,320	18,900	6,500	2,530	609	96	1,010	61,700
1960	3,440	3,550	3,310	3,360	5,110	43,350	46,310	12,480	6,020	431	194	432	128,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	152	110,100
1951	1217	2,260	Feb. 8, 1951	0.9	202	146,300	202	146,000
1952	1247,1517	9,030	Mar. 25, 1952	4.2	378	274,400	370	268,800
1953	1287	3,190	Jan. 19, 1953	4.6	245	177,600	251	181,400
1954	1347	710	Mar. 10, 1954	2.0	127	91,660	123	88,900
1955	1397	509	May 7, 1955	3.7	79.8	57,800	95.9	69,450
1956	1447	2,440	Mar. 26, 1956	6.4	288	208,800	278	201,800
1957	1517	10,700	Feb. 24, 1957	2.0	267	193,100	263	190,100
1958	1567	2,980	Feb. 25, 1958	5.8	377	273,100	378	274,000
1959	1637	734	Apr. 6, 1959	1.0	85.2	61,700	83.2	60,240
1960	1717	1,860	Mar. 26, 1960	1.7	176	128,000	-	-

2145. Warmsprings Reservoir near Riverside, Oreg.

Location.--Lat 43°35', long 118°12', in SE¼ sec.8, T.23 S., R.37 E., near right end of dam on Malheur River, 3 miles northwest of Riverside and 4 miles upstream from South Fork.

Drainage area.--1,100 sq mi, approximately.

Records available.--January 1920 to October 1929, December 1929 to September 1960.

Gage.--Wire-weight gage. Datum of gage is 3,327.0 ft above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level.

Extremes.--1920-60: Maximum contents observed, 196,100 acre-ft Apr. 16, May 13, 1958 (elevation, 3,407.10 ft); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935, Sept. 18 to Oct. 11, 1950.

Remarks.--Reservoir is formed by concrete-arch dam; capacity, 191,000 acre-ft between elevations 3,327.0 (bottom of outlet tunnel) and 3,406.0 ft (top of flashboards). Dead storage, 1,400 acre-ft below elevation 3,327.0 ft, not included in records. Storage began in 1919. Water used to irrigate lands on both sides of river between Namorf and Ontario.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	2,370	6,900	15,230	21,650	54,840	82,550	120,800	111,400	92,130	58,660	27,840	5,200
1952	7,200	10,800	18,000	21,600	31,700	93,380	188,300	192,800	178,000	147,300	117,600	98,650
1953	91,000	93,500	97,160	128,300	146,500	164,000	194,200	192,400	187,000	147,500	113,800	93,700
1954	92,260	96,750	102,100	110,000	121,900	139,900	143,700	115,900	100,000	63,580	35,350	14,240
1955	12,100	15,730	19,280	23,130	27,520	33,730	46,400	42,840	22,590	5,480	24	55
1956	2,320	6,440	22,280	42,780	58,250	115,100	174,800	190,300	174,300	134,800	105,000	87,300
1957	88,260	93,660	99,900	103,400	157,400	193,200	192,400	191,000	163,100	125,500	97,300	75,790
1958	76,900	80,540	86,020	94,100	142,000	181,000	192,800	193,000	180,100	144,500	118,000	92,600
1959	102,100	106,500	112,300	119,600	126,000	133,800	136,400	122,000	97,990	59,610	25,380	16,300
1960	19,940	23,800	27,400	31,550	40,000	89,900	130,700	124,900	100,300	62,640	29,980	13,580

2150. Malheur River below Warmsprings Reservoir, near Riverside, Oreg.

Location.--Lat 43°34', long 118°12', in SW¼ sec.17, T.23 S., R.37 E., on left bank 1 mile downstream from Warmsprings Dam, 3 miles upstream from South Fork, and 4 miles northwest of Riverside.

Drainage area.--1,100 sq mi, approximately.

Records available.--January 1906 to March 1907 and December 1908 (gage heights only), January 1909 to September 1910, December 1914 to July 1917, March 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Figures of discharge for January 1906 to March 1907, published in WSP 272 and 370, have been found to be unreliable and should not be used. Published as Middle Fork of Malheur River at Riverside 1906-7, as Middle Fork of Malheur River above South Fork, at Riverside 1909-10, as Malheur River above South Fork, at Riverside in WSP 370, 1906-10, and as Malheur River at Warmsprings Reservoir site, near Riverside 1914-17.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,305 ft (by barometer). Jan. 3, 1906, to May 25, 1910, staff or chain gages at several sites about 3 miles downstream and 200 ft upstream from South Fork at various datums. Dec. 9, 1914, to July 24, 1917, water-stage recorder and Mar. 18, 1919, to Apr. 27, 1920, staff gage, at sites about 1 mile upstream at different datums. Apr. 28, 1920, to Sept. 28, 1949, staff or hook gages at sites within 80 ft of present site at present datum.

Average discharge.--41 years (1919-60), 171 cfs (123,800 acre-ft per year).

Extremes.--1909-10, 1915-17, 1919-60: Maximum discharge observed, 7,200 cfs Mar. 1, 1910 (gage height, 10.7 ft, site and datum then in use), from rating curve extended above 820 cfs by logarithmic plotting; no flow at times.

Remarks.--Flow completely regulated since November 1919 by Warmsprings Reservoir (see preceding station). Diversions for irrigation of about 13,000 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	17.5	0.5	0.5	0.5	0.5	0.5	239	381	332	452	428	339	184
1952	9.5	.3	.3	.3	.3	.3	809	611	384	465	427	296	250
1953	138	2.4	2.0	2.8	3.0	3.5	281	600	558	627	509	318	255
1954	53.7	2.0	2.0	2.0	2.0	2.0	374	589	355	523	420	339	223
1955	52.5	0	0	0	0	.05	.1	344	383	296	68.7	4.6	96.5
1956	2.39	.2	.2	.36	.5	.5	124	284	365	589	434	242	171
1957	32.8	.1	.1	.2	1.20	142	823	559	534	521	396	302	277
1958	32.3	.2	.3	.4	.73	1.6	1,389	1,162	449	538	400	230	351
1959	38.2	.5	.6	.7	.8	.9	276	308	405	539	471	145	183
1960	.1	.1	.2	.5	.8	1	165	279	463	555	469	255	183

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,070	30	31	31	28	31	14,220	23,420	19,750	27,770	26,330	20,170	132,900
1952	584	18	18	18	17	18	48,160	37,570	22,840	28,610	26,250	17,590	181,700
1953	8,460	141	123	175	169	218	16,720	36,870	33,170	38,560	31,300	18,900	184,800
1954	3,300	119	123	123	111	123	22,250	36,190	21,140	32,140	25,800	20,160	161,600
1955	3,230	0	0	0	0	3.2	6.0	21,170	22,810	18,180	4,220	274	69,890
1956	147	12	12	22	29	31	7,390	17,460	21,710	36,220	26,700	14,380	124,100
1957	2,020	6.0	6.1	12	66	8,710	48,980	34,400	31,770	32,030	24,340	17,990	200,300
1958	1,990	12	18	25	41	95	82,640	71,420	26,690	33,100	24,610	13,680	254,300
1959	2,350	30	37	43	44	55	16,420	18,970	24,100	33,120	28,950	8,610	132,700
1960	6.1	6.0	12	31	46	61	9,920	17,180	27,570	34,150	28,810	15,190	133,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	142	102,600
1951	1217	515	Apr. 26, 27, 1951	-	184	132,900	183	132,400
1952	1247	2,110	Apr. 20, 21, 1952	-	250	181,700	261	189,800
1953	1287	1,400	Apr. 30, 1953	1	255	184,800	248	179,600
1954	1347	740	May 11, 1954	-	223	161,600	223	161,300
1955	1397,1447	530	May 13, 1955	0	96.5	69,890	92.3	66,830
1956	1447	660	July 7, 1956	.2	171	124,100	174	126,000
1957	1517	1,280	Apr. 14, 1957	-	277	200,300	277	200,300
1958	1567	2,610	Apr. 22, 1958	-	351	254,300	352	254,700
1959	1637	600	June 18, 1959	-	183	132,700	180	130,300
1960	1717	605	July 12, 1960	-	183	133,000	-	-

2165. North Fork Malheur River above Agency Valley Reservoir, near Beulah, Oreg.

Location.--Lat 43°57', long 118°10', in NE¼ sec.4, T.19 S., R.37 E., on left bank 500 ft upstream from Agency Valley Reservoir, 2½ miles upstream from Warm Springs Creek, and 3½ miles northwest of Beulah.

Drainage area.--355 sq mi.

Records available.--January to September 1914, June 1936 to September 1960. Published as "at Scott's Ranch, near Beulah" 1914.

Gage.--Water-stage recorder. Datum of gage is 3,351 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, based on levels to high-water marks at Agency Valley Reservoir. Jan. 1 to Sept. 30, 1914, staff gage and June 10, 1936, to Oct. 14, 1958, water-stage recorder, at site 0.5 mile upstream at different datums.

Average discharge.--24 years (1936-60), 128 cfs (92,670 acre-ft per year).

Extremes.--1914, 1936-60: Maximum discharge, 1,600 cfs Feb. 24, 1957 (gage height, 3.50 ft, site and datum then in use), from rating curve extended above 620 cfs by logarithmic plotting; maximum gage height, 4.60 ft Mar. 26, 1940, site and datum then in use; minimum discharge determined, 12 cfs Jan. 27, 1948, Jan. 3, 1959.

Remarks.--Diversions for irrigation of about 900 acres above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	60.3	54.0	63.4	55.7	123	139	435	228	94.9	48.7	38.9	41.1	115
1952	56.5	55.8	56.6	58.4	80.8	275	906	478	192	72.2	47.7	45.7	194
1953	47.2	43.3	54.3	164	138	174	385	357	388	104	58.1	52.9	164
1954	63.1	65.9	57.8	74.5	107	129	284	227	118	58.1	47.4	51.2	107
1955	50.9	50.3	44.8	47.7	53.4	59.7	111	207	127	57.2	38.7	44.1	74.4
1956	44.8	57.1	105	90.2	97.6	332	503	354	146	64.7	45.5	50.2	157
1957	59.3	60.1	62.3	51.0	266	224	328	353	154	47.2	42.4	39.0	139
1958	59.6	54.5	56.3	60.2	241	237	659	656	208	86.8	53.7	47.4	201
1959	56.6	56.9	61.8	64.5	66.7	95.7	223	160	95.9	48.1	39.9	46.5	84.6
1960	55.8	52.1	42.0	48.1	52.8	215	406	214	134	51.5	41.8	40.4	113

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,710	3,220	3,900	3,430	6,820	8,560	25,860	14,050	5,640	3,000	2,390	2,440	83,020
1952	3,480	3,320	3,480	3,590	4,650	16,920	53,920	29,410	11,420	4,400	2,930	2,720	140,300
1953	2,900	2,580	3,340	10,080	7,670	10,700	22,920	21,980	23,120	6,420	3,570	3,150	118,400
1954	3,880	3,920	3,550	4,580	5,960	7,910	16,890	13,970	7,010	3,570	2,910	3,050	77,200
1955	3,130	2,990	2,760	2,930	2,970	3,670	6,600	12,750	7,580	3,510	2,380	2,630	53,900
1956	2,750	3,400	6,490	5,540	5,610	20,390	29,910	21,780	8,690	3,980	2,800	2,990	114,300
1957	3,640	3,570	3,830	3,140	14,780	13,750	19,520	21,730	9,160	2,900	2,600	2,320	100,900
1958	3,670	3,240	3,460	3,700	13,360	14,590	39,240	40,330	12,370	5,340	3,300	2,820	145,400
1959	3,480	3,390	3,800	3,970	3,710	5,890	13,290	9,830	5,710	2,960	2,460	2,760	61,250
1960	3,430	3,100	2,580	2,960	3,030	13,240	24,270	13,150	7,980	3,170	2,570	2,410	81,890

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	120	87,050
1951	1217	662	Apr. 14, 1951	30	115	83,020	114	82,470
1952	1247	1,300	Mar. 25, 1952	30	194	140,300	191	138,800
1953	1287	1,130	Jan. 18, 1953	34	164	118,400	167	121,000
1954	1347	460	Apr. 19, 1954	40	107	77,200	103	74,730
1955	1397	348	Apr. 25, 1955	33	74.4	53,900	79.6	57,660
1956	1447	1,080	Mar. 26, 1956	24	157	114,300	155	112,700
1957	1517	1,600	Feb. 24, 1957	35	139	100,900	139	100,300
1958	1567	1,350	Feb. 25, 1958	38	201	145,400	201	145,700
1959	1637	461	Apr. 6, 1959	25	84.6	61,250	82.4	59,690
1960	1717	1,000	Apr. 6, 1960	30	113	81,890	-	-

2170. Agency Valley Reservoir at Beulah, Oreg.

Location.--Lat 43°55', long 118°09', in SE¼ sec.15, T.19 S., R.37 E., in control house at dam on North Fork Malheur River, a quarter of a mile northwest of Beulah.

Drainage area.--440 sq mi, approximately.

Records available.--December 1935 to September 1960.

Gage.--Pressure gage with mercury column. Datum of gage is at mean sea level (levels by Bureau of Reclamation); add 7.49 ft to obtain mean sea level elevation, datum of 1929, supplementary adjustment of 1947.

Extremes.--1935-60: Maximum contents observed, 62,770 acre-ft May 3, 1941 (elevation, 3,341.50 ft); no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Oct. 4, 1955.

Remarks.--Reservoir is formed by earthfill, rock-faced dam. Storage began in December 1935. Capacity, 59,920 acre-ft between elevations 3,263.21 (bottom of outlet of tunnel) and 3,340.0 ft (top of spillway gates); with gates open the capacity is 32,220 acre-ft. No dead storage. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	2,160	6,010	10,210	13,750	22,130	32,850	50,210	50,820	35,570	18,910	9,050	2,460
1952	4,770	8,130	11,870	15,680	20,510	38,710	60,110	59,450	51,350	36,190	17,730	6,480
1953	6,040	9,010	12,680	24,820	34,810	46,570	60,020	60,200	58,600	44,740	29,480	13,290
1954	8,850	13,010	17,100	22,280	29,220	38,820	46,660	46,620	44,250	27,180	15,150	10,000
1955	10,500	13,790	16,900	20,400	23,620	27,680	33,270	31,910	25,050	12,320	0	0
1956	2,220	5,740	12,640	19,290	25,420	49,430	59,170	59,210	48,910	34,600	20,980	11,690
1957	12,440	16,260	20,510	23,860	41,600	58,700	60,050	60,070	51,520	33,930	15,080	7,410
1958	10,160	13,440	17,900	22,220	42,060	57,210	59,540	59,920	56,560	41,910	22,800	12,360
1959	11,390	14,820	19,230	23,940	28,250	34,460	41,700	38,900	28,380	18,440	10,500	6,630
1960	10,100	13,260	16,130	19,680	23,200	39,460	56,120	52,230	41,440	25,230	14,340	7,970

2175. North Fork Malheur River at Beulah, Oreg.

Location.--Lat 43°54', long 118°09', in NW¼NE¼ sec.22, T.19 S., R.37 E., on left bank at Beulah, a quarter of a mile downstream from Agency Valley Dam and 12 miles northwest of Juntura.

Drainage area.--440 sq mi, approximately.

Records available.--June 1926 to September 1960. Published as "near Beulah" 1926-35.

Gage.--Water-stage recorder. Datum of gage is 3,262.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. June 26, 1926, to Apr. 24, 1936, water-stage recorder at site 1 mile downstream at different datum. Apr. 25, 1936, to Sept. 30, 1949, staff gage at site 20 ft downstream at present datum.

Average discharge.--25 years (1935-60), 136 cfs (98,460 acre-ft per year).

Extremes.--1926-60: Maximum discharge, 7,000 cfs May 7, 1942 (gage height, 8.4 ft, from floodmark), from rating curve extended above 1,000 cfs on basis of computation of peak flow over dam, caused by failure of gates at Agency Valley Dam; no flow at times.

Remarks.--Flow regulated by Agency Valley Reservoir since December 1935 (see preceding station). Diversions for irrigation of 2,400 acres above station. Prior to Apr. 25, 1936, station was downstream from intake of diversions for irrigation of about 120 acres below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	25.6	0.13	0.15	0.10	0.19	0.05	156	234	352	298	203	158	119
1952	22.8	.37	.50	.4	.10	1.79	789	515	335	326	343	244	215
1953	58.5	.21	.28	.21	.17	1.15	203	392	482	329	303	322	175
1954	134	.34	.20	.14	.31	.92	146	216	172	326	233	136	115
1955	43.4	.23	.21	.20	.40	.41	23.5	224	244	266	236	37.2	90.5
1956	10.0	0	.05	.44	.76	19.2	393	380	310	290	257	201	155
1957	44.6	0	.10	.32	1.02	47.9	342	378	309	332	342	176	165
1958	17.3	.62	.20	.20	1.39	82.0	856	785	269	310	350	233	243
1959	79.6	.86	.45	.42	.18	.57	116	212	266	201	161	116	96.7
1960	1.31	1.35	1.12	.92	.91	1.08	140	275	316	296	203	146	116

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,570	7.5	9.1	6.1	11	3.4	9,280	14,420	20,920	18,320	12,470	9,390	86,410
1952	1,400	22	31	25	5.6	110	46,940	31,670	19,930	20,070	21,080	14,550	155,800
1953	3,600	12	17	13	9.3	71	12,060	24,130	28,660	20,220	18,650	19,170	126,600
1954	8,250	20	12	8.7	17	57	8,690	13,260	10,250	20,050	14,340	8,100	83,050
1955	2,670	14	13	12	22	25	1,400	13,760	14,530	16,340	14,490	2,210	65,490
1956	615	0	3.2	27	44	1,180	23,370	23,370	18,440	17,830	15,780	11,980	112,600
1957	2,740	0	6.1	19	57	2,950	20,370	23,230	18,400	20,410	21,030	10,490	119,700
1958	1,070	37	12	12	77	5,040	50,930	48,260	16,020	19,080	21,500	13,870	175,900
1959	4,900	51	27	26	9.9	35	6,910	13,020	15,840	12,380	9,910	6,890	70,000
1960	81	80	69	57	52	66	8,340	16,920	18,820	18,210	12,460	8,710	83,860

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	137	99,170
1951	1217	422	June 20, 1951	0	119	86,410	119	86,270
1952	1247	1,240	Apr. 27,28,1952	0	215	155,800	218	158,000
1953	1287	864	Apr. 28, 1953	.1	175	126,600	181	131,300
1954	1347	358	June 27-30, 1954	.1	115	83,050	107	77,470
1955	1397	358	July 19, 1955	.2	90.5	65,490	87.6	63,410
1956	1447	677	Apr. 21, 1956	0	155	112,600	158	114,800
1957	1517	464	May 5, 1957	0	165	119,700	163	118,100
1958	1567	1,550	Apr. 18, 1958	.2	243	175,900	248	179,800
1959	1637	366	June 23,24,1959	.1	96.7	70,000	90.1	65,250
1960	1717	400	July 6, 1960	.8	116	83,860	-	-

2200. Malheur River at Little Valley, near Hope, Oreg.

Location.--Lat 43°54', long 117°30', in SE¼ sec.24, T.19 S., R.42 E., on right bank 500 ft downstream from highway bridge at Little Valley, 8 miles southwest of Hope, and 14 miles southwest of Vale.

Drainage area.--3,010 sq mi, approximately.

Records available.--April 1949 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,424.03 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--11 years (1949-60), 219 cfs (158,500 acre-ft per year).

Extremes.--1949-60: Maximum discharge, 12,300 cfs Feb. 24, 1957 (gage height, 11.5 ft, from floodmark), from rating curve extended above 5,500 cfs on basis of slope-area measurement of peak flow; minimum, 12 cfs Oct. 27, 1955.
The two greatest floods known occurred in March 1894 and March 1910, on basis of records for former station near Namorf.

Remarks.--Flow regulated by Warmsprings and Agency Valley Reservoirs (see p. 169, 172). Vale-Oregon Canal diverts as much as 610 cfs on left bank at Namorf in sec.31, T.20 S., R.41 E., for irrigation of about 31,000 acres, largely below the station. Many small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	29.9	31.4	58.2	83.6	705	286	196	171	192	218	137	87.0	179
1952	41.9	41.1	48.3	48.3	198	858	1,924	678	212	214	192	122	380
1953	59.6	43.9	43.9	158	112	58.5	167	563	767	297	222	157	221
1954	50.8	50.4	50.3	59.0	80.0	48.3	161	217	131	250	147	96.4	112
1955	44.8	49.7	42.2	44.3	41.6	48.6	32.3	143	135	125	41.3	21.5	64.4
1956	18.0	39.4	81.1	284	252	327	230	261	195	283	191	126	191
1957	75.3	72.1	58.1	39.5	887	809	1,158	795	276	276	186	130	393
1958	62.2	49.2	51.1	121	840	230	2,143	1,478	241	244	186	121	476
1959	54.7	43.1	45.9	51.6	46.9	35.8	128	136	165	202	170	135	101
1960	43.5	37.3	41.8	40.2	178	590	142	148	187	244	178	118	163

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,840	1,870	3,580	5,140	39,170	17,590	11,640	10,520	11,450	13,410	8,400	5,180	129,800
1952	2,580	2,440	2,970	2,970	11,380	52,740	114,500	41,670	12,630	13,150	11,810	7,260	276,100
1953	3,670	2,610	2,700	9,730	6,250	3,600	9,920	34,630	45,670	18,270	13,680	9,330	160,000
1954	3,130	3,000	3,090	3,630	4,440	2,970	9,600	13,340	7,800	15,380	9,060	5,730	81,170
1955	2,760	2,960	2,590	2,720	2,310	2,990	1,920	8,800	8,010	7,720	2,540	1,280	46,600
1956	1,100	2,340	4,990	17,490	14,490	20,130	13,690	16,050	11,590	17,370	11,750	7,490	138,500
1957	4,630	4,290	3,570	2,430	49,260	49,710	68,930	48,850	16,410	16,990	11,460	7,720	284,200
1958	3,820	2,930	3,140	7,450	46,650	14,170	127,500	90,870	14,330	15,030	11,460	7,200	344,600
1959	3,370	2,560	2,820	3,170	2,600	2,200	7,610	8,330	9,790	12,420	10,470	8,030	73,370
1960	2,670	2,220	2,570	2,470	10,270	36,260	8,420	9,130	11,140	15,030	10,960	7,000	118,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	128	92,340
1951	1217	6,070	Feb. 8, 1951	20	179	129,800	180	130,500
1952	1247	*7,720	Mar. 26, 1952	29	380	276,100	382	277,100
1953	1287	1,690	May 1, 1953	27	221	160,000	221	160,300
1954	1347	343	July 14, 1954	21	112	81,170	111	80,260
1955	1397	271	May 17, 1955	13	64.4	46,600	64.5	46,720
1956	1447	3,530	Feb. 23, 1956	13	191	138,500	196	142,500
1957	1517	12,300	Feb. 24, 1957	30	393	284,200	389	281,600
1958	1567	4,960	Feb. 16, 1958	38	476	344,600	474	343,400
1959	1637	1,670	Sept.14, 1959	17	101	73,370	99.6	72,080
1960	1717	3,910	Mar. 8, 1960	34	163	118,100	-	-

* Revised.

2270. Bully Creek near Vale, Oreg.

Location.--Lat 43°57'30", long 117°20'30", in SW¼ sec.33, T.18 S., R.44 E., on right bank 5 miles southwest of Vale and 7 miles upstream from mouth.

Drainage area.--570 sq mi (revised), approximately.

Records available.--May 1933 to September 1934, November 1934, March 1935, March and April 1936, June 1937 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,313 ft (by levels to reference point furnished by Union Pacific Railroad). Prior to Mar. 15, 1937, water-stage recorder or staff gage at site 2 miles upstream at different datum. Mar. 15, 1937, to Jan. 1, 1940, water-stage recorder at present site at datum 0.38 ft higher.

Average discharge.--24 years (1933-34, 1937-60), 42.0 cfs (30,410 acre-ft per year).

Extremes.--1933-34, 1937-60: Maximum discharge, 8,980 cfs Feb. 24, 1957 (gage height, 10.5 ft, from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area measurement of peak flow; no flow at times.

Remarks.--Occasional fluctuations caused by releases from Vale-Oregon Canal which diverts water from Malheur River for irrigation of lands west of Vale; considerable return flow at times enters Bully Creek above station. Diversions for irrigation of about 7,000 acres above station. Records of suspended sediment loads and water temperatures for the period August 1958 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13.7	8.2	11.4	10.8	188	55.6	38.6	17.4	18.2	14.7	14.7	17.3	32.9
1952	15.5	8.8	8.7	10.3	31.5	301	426	37.4	38.5	29.9	37.8	32.0	81.2
1953	17.3	14.8	14.2	154	103	71.1	68.1	73.6	207	22.7	20.1	21.8	65.2
1954	18.9	11.2	15.1	41.0	53.1	12.0	16.2	14.0	20.3	16.0	14.6	14.2	20.3
1955	13.6	7.65	6.21	7.43	7.21	5.48	4.93	8.19	7.43	6.63	5.77	3.49	7.01
1956	2.17	3.06	43.1	54.7	71.1	235	26.2	17.3	19.9	17.0	18.7	24.3	44.5
1957	28.7	29.3	19.4	16.5	374	297	87.8	64.4	33.2	19.0	25.0	20.5	82.6
1958	22.1	11.9	12.6	16.4	360	163	284	38.8	37.6	25.7	24.8	23.0	82.7
1959	19.8	14.6	13.2	15.9	18.3	11.1	7.99	11.6	16.3	13.9	14.1	25.1	15.1
1960	12.9	10.2	9.27	9.21	12.8	197	63.9	13.0	19.2	21.3	16.7	15.1	33.6

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	845	490	702	662	10,430	3,420	2,290	1,070	1,080	902	902	1,030	23,820
1952	956	524	536	635	1,810	18,520	25,320	2,300	2,290	1,840	2,320	1,910	58,960
1953	1,070	883	871	9,470	5,710	4,370	4,050	4,520	12,300	1,400	1,230	1,300	47,170
1954	1,160	668	926	2,520	2,950	740	963	863	1,210	986	899	845	14,730
1955	836	455	382	457	400	337	294	504	442	408	355	207	5,080
1956	133	182	2,650	3,360	4,090	14,450	1,560	1,060	1,190	1,050	1,150	1,450	32,320
1957	1,770	1,750	1,190	1,020	20,750	18,260	5,220	3,960	1,970	1,170	1,540	1,220	59,820
1958	1,360	710	778	1,010	20,010	10,000	16,890	2,380	2,240	1,580	1,520	1,370	59,850
1959	1,220	867	813	976	1,020	681	476	710	970	855	869	1,490	10,950
1960	795	609	570	566	734	12,140	3,800	796	1,140	1,310	1,030	899	24,390

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	25.3	17,100
1951	1217	2,550	Feb. 8, 1951	7	32.9	23,820	32.9	23,800
1952	1247	2,890	Mar. 26, 1952	7	81.2	58,960	82.3	59,770
1953	1287	952	Jan. 19, 1953	11	65.2	47,170	65.1	47,100
1954	1347	366	Jan. 30, 1954	2.6	20.3	14,730	18.8	13,650
1955	1397	53	May 23, 1955	1.6	7.01	5,080	8.80	6,370
1956	1447	810	Feb. 23, 1956	1.7	44.5	32,320	46.9	34,070
1957	1517	8,980	Feb. 24, 1957	12	82.6	59,820	80.0	57,960
1958	1567	2,460	Feb. 21, 1958	10	82.7	59,850	82.7	59,900
1959	1637	155	Sept.13, 1959	6.0	15.1	10,950	13.8	10,020
1960	1717	1,320	Mar.21or22,1960	6.0	33.6	24,390	-	-

2350. South Fork Payette River at Lowman, Idaho

Location.--Lat 44°05'00", long 115°37'30", in SW¼ sec.27, T.9 N., R.7 E., on right bank 1,200 ft upstream from Rock Creek, half a mile northwest of Lowman, and 4,100 ft downstream from Clear Creek.

Drainage area.--456 sq mi. Mean altitude, 6,780 ft.

Records available.--May 1941 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 3,790 ft (from river-profile map). Prior to Dec. 18, 1941, staff gage at site 900 ft upstream at different datum.

Average discharge.--19 years (1941-60), 886 cfs (641,400 acre-ft per year).

Extremes.--1941-60: Maximum discharge, 7,050 cfs May 24, 1956 (gage height, 7.45 ft); minimum, 148 cfs Dec. 9, 1944 (gage height, 2.40 ft).

Remarks.--No regulation. Several small diversions above station for irrigation and placer mining have return flow above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	483	507	420	337	422	390	1,536	2,779	2,743	1,570	691	426	1,027
1952	511	398	394	330	321	321	1,462	3,085	3,079	1,243	558	380	1,007
1953	320	283	287	336	320	377	964	1,551	3,288	1,963	629	391	894
1954	328	337	312	304	368	472	1,248	2,957	2,574	1,626	589	396	962
1955	325	299	265	271	253	254	384	1,611	2,737	1,175	474	339	700
1956	324	384	678	466	365	517	1,670	3,673	3,953	1,458	640	425	1,213
1957	394	389	356	298	339	424	870	2,902	3,136	1,109	498	377	926
1958	369	316	314	297	347	333	729	3,701	2,898	961	487	365	930
1959	324	404	412	358	339	361	971	1,483	2,652	926	450	439	759
1960	546	412	325	300	277	468	987	1,542	2,358	702	398	326	719

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	29,720	30,180	25,840	20,720	23,410	23,960	91,420	170,900	163,200	96,510	42,460	25,360	743,700
1952	31,410	23,680	24,250	20,300	18,490	19,750	86,990	189,700	183,200	76,410	34,290	22,630	731,100
1953	19,690	16,830	17,640	20,650	17,800	23,200	57,350	95,350	195,700	120,700	38,690	23,280	646,900
1954	20,160	20,080	19,170	18,690	20,450	29,020	74,260	181,800	153,200	99,970	36,200	23,550	696,600
1955	19,990	17,780	16,320	16,660	14,060	15,630	22,860	99,030	162,900	72,240	29,120	20,190	506,800
1956	19,930	22,840	41,710	28,630	21,000	31,780	99,400	225,800	235,200	89,630	39,340	25,290	880,600
1957	24,220	23,120	21,910	18,330	18,820	26,080	51,740	178,400	186,700	68,220	30,620	22,440	670,600
1958	22,710	18,820	19,300	18,280	19,290	20,470	43,390	227,600	172,400	59,120	29,930	21,730	673,000
1959	19,950	24,040	25,330	22,030	18,810	22,190	57,770	91,200	157,800	56,920	27,670	26,130	549,800
1960	33,560	24,510	19,960	18,430	15,950	28,750	58,700	94,810	140,300	43,160	24,450	19,420	522,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	993	29.55	718,900
1951	1217	4,570	May 28, 1951	210	1,027	2.25	30.58	743,700	1,018	30.32	737,300
1952	1247	4,860	June 6, 1952	262	1,007	2.21	30.05	731,100	972	29.02	705,900
1953	1287	5,030	June 13, 1953	182	894	1.96	26.60	646,900	901	26.82	652,100
1954	1347	5,450	May 21, 1954	234	962	2.11	28.65	696,600	955	28.42	691,200
1955	1397	4,060	June 13, 1955	180	700	1.54	20.84	506,800	742	22.10	537,200
1956	1447	7,050	May 24, 1956	242	1,213	2.66	36.23	880,600	1,192	35.60	865,300
1957	1517	5,840	June 5, 1957	220	926	2.03	27.57	670,600	915	27.21	662,200
1958	1567	5,820	May 27, 1958	252	930	2.04	27.65	673,000	941	28.01	681,500
1959	1637	3,800	June 14, 1959	210	759	1.66	22.61	549,800	772	22.97	558,600
1960	1717	3,700	June 4, 1960	230	719	1.56	21.47	522,000	-	-	-

2365. Deadwood River below Deadwood Reservoir, near Lowman, Idaho

Location.--Lat 44°17'30", long 115°38'30", in NE¼ sec.17, T.11 N., R.7 E., on right bank 300 ft upstream from Wilson Creek, a quarter of a mile downstream from Deadwood Dam at lower end of Deadwood basin, 15 miles north of Lowman, and 18 miles upstream from mouth.

Drainage area.--112 sq mi. Mean altitude, 6,630 ft.

Records available.--October 1926 to September 1960. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

Gage.--Water-stage recorder. Datum of gage is 5,180.52 ft above mean sea level (levels by Bureau of Reclamation). Geological Survey datum (1952, preliminary) is 22.8 ft higher. Prior to June 22, 1935, water-stage recorder at site 600 ft upstream at datum 5.85 ft higher. June 22 to Sept. 30, 1935, staff gage at site 20 ft upstream at datum 2.00 ft higher. Oct. 1, 1935, to Aug. 3, 1955, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--34 years (1926-60), 224 cfs (162,200 acre-ft per year).

Extremes.--1926-60: Maximum discharge, 2,580 cfs July 14, 1953; maximum gage height, 8.93 ft June 7, 1956; no flow or small amount of leakage from reservoir for long periods in 1934-37 when gates in dam were closed.

Remarks.--Flow regulated by Deadwood Reservoir since Nov. 2, 1930 (capacity, 160,400 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	662	5.8	29.9	177	5.2	5.5	347	305	723	908	1,424	661	441
1952	56.0	2.0	1.5	1.2	1.0	1.0	3.3	3.5	447	282	334	1,359	206
1953	356	2.0	2.0	2.0	2.0	2.0	3.2	4.1	512	872	426	986	265
1954	127	2.0	2.0	2.0	2.0	2.0	258	401	388	405	981	960	295
1955	4.1	2.9	2.0	2.0	2.0	2.0	2.0	3.2	4.2	368	1,114	581	176
1956	167	1.60	3.15	3.63	3.09	3.39	59.2	198	961	302	649	1,435	358
1957	1.91	2.02	2.13	2.02	2.00	2.26	3.37	113	770	768	251	955	239
1958	560	115	2.36	2.41	2.43	2.51	2.98	2.95	699	422	891	577	274
1959	591	2.47	2.56	2.83	2.68	2.76	43.1	4.30	240	227	900	90.5	263
1960	2.82	2.20	2.34	2.52	2.64	2.63	73.9	20.6	22.2	482	699	892	200

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	40,680	345	1,840	10,880	292	335	20,630	18,770	43,000	55,810	87,530	39,320	319,400
1952	3,450	117	95	75	58	61	198	212	26,580	17,340	20,520	80,880	149,600
1953	21,880	119	123	123	111	123	192	252	30,440	53,640	26,210	58,700	191,900
1954	7,800	119	123	123	111	123	15,370	24,650	23,090	24,870	60,350	57,130	213,900
1955	254	173	123	123	111	123	119	198	252	22,640	68,510	34,550	127,200
1956	10,270	95	194	223	178	208	35,240	12,180	57,210	18,540	39,940	85,400	259,700
1957	118	120	131	124	111	139	200	6,960	45,850	47,240	15,430	56,810	173,200
1958	34,450	6,830	145	148	135	155	177	181	41,620	25,960	54,770	34,330	198,900
1959	36,320	147	157	174	149	170	2,570	264	14,260	75,440	55,340	5,390	190,400
1960	174	131	144	155	152	161	4,390	1,270	13,200	29,630	42,980	53,070	145,500

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	254	184,200
1951	1217	1,890	July 22, 1951	5	441	319,400	387	280,200
1952	1247	2,020	June 7, 1952	1	206	149,600	231	168,000
1953	1287	2,580	July 14, 1953	2	265	191,900	246	177,800
1954	1347	2,220	July 27, 1954	2	295	213,900	285	206,400
1955	1397	1,620	Aug. 9, 1955	2	176	127,200	189	137,200
1956	1447	2,160	June 7, 1956	.5	358	259,700	344	249,500
1957	1517	2,040	July 24, 1957	-	239	173,200	296	214,300
1958	1567	1,820	Aug. 11, 1958	.4	274	198,900	268	194,100
1959	1637	1,850	July 27, 1959	2.0	263	190,400	213	154,200
1960	1717	2,020	Aug. 30, 1960	.2	200	145,500	-	-

2370. Deadwood River near Lowman, Idaho

Location.--Lat 44°05', long 115°40', in sec.29, T.9 N., R.7 E., on left bank 700 ft upstream from mouth and 2½ miles west of Lowman.

Drainage area.--230 sq mi, approximately. Mean altitude, 6,250 ft.

Records available.--August 1921 to January 1953.

Gage.--Water-stage recorder. Altitude of gage is 3,680 ft (from topographic map).

Average discharge.--31 years (1921-52), 390 cfs (282,300 acre-ft per year).

Extremes.--1921-53: Maximum discharge, 4,230 cfs May 9, 1928 (gage height, 5.17 ft), from rating curve extended above 3,200 cfs; minimum recorded, 28 cfs Nov. 4, 1935; minimum gage height, 0.82 ft Dec. 8, 1951; minimum daily discharge, 34 cfs Nov. 4, 1935.

Remarks.--Flow regulated by Deadwood Reservoir since Nov. 2, 1930 (capacity, 160,400 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	771	108	121	271	110	106	903	1,214	1,221	1,059	1,469	757	680
1952	154	75.7	83.8	60.9	69.5	75.4	511	1,224	1,064	451	420	1,451	469
1953	422	55.1	57.4	89.3	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	47,430	6,420	7,440	16,670	6,100	6,510	53,720	74,630	72,650	65,150	90,350	45,060	492,100
1952	9,480	4,500	5,160	3,750	4,000	4,640	30,390	75,260	63,290	27,730	25,830	86,320	340,400
1953	25,930	3,280	3,530	5,490	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	502	363,500
1951	1217	2,110	May 27, 1951	65	680	492,100	622	450,000
1952	1247	2,880	June 7, 1952	35	469	340,400	488	354,000
1953	1287	-	-	-	-	-	-	-

2375. South Fork Payette River near Garden Valley, Idaho

Location.--Lat 44°03'40", long 115°55'10", in E½NE¼ sec.1, T.8 N., R.4 E., on right bank at Garden Valley ranger station, 300 ft upstream from Station Creek, 2.7 miles southeast of Garden Valley, and 5.9 miles upstream from Middle Fork.

Drainage area.--779 sq mi. Mean altitude, 6,400 ft.

Records available.--May 1921 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 3,090 ft (from river-profile map). Prior to Aug. 3, 1926, staff gage at datum 0.98 ft higher. Aug. 3, 1926, to Dec. 5, 1933, staff gage at present datum.

Average discharge.--39 years (1921-60), 1,306 cfs (945,500 acre-ft per year).

Extremes.--1921-60: Maximum discharge observed, 10,600 cfs May 26, 1928 (gage height, 8.0 ft); minimum, 75 cfs Dec. 15, 1935, Jan. 26, 1936 (gage height, 0.70 ft), from rating curve extended below 280 cfs; minimum daily, 196 cfs Dec. 10, 1944.

Remarks.--Small diversions above station. Since Nov. 2, 1930, flow has been partly regulated by Deadwood Reservoir (capacity, 160,400 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,302	672	606	675	633	593	2,734	4,407	4,434	2,857	2,331	1,240	1,880
1952	716	534	559	463	461	481	2,357	4,594	4,353	1,778	1,063	1,899	1,604
1953	787	351	369	504	496	579	1,480	2,442	4,974	3,173	1,200	1,511	1,490
1954	568	464	406	427	563	744	2,253	4,713	3,659	2,320	1,722	1,491	1,615
1955	429	406	358	357	337	348	643	2,387	3,472	1,795	1,684	1,085	1,111
1956	617	550	1,143	700	518	842	3,158	5,602	5,923	2,135	1,440	1,992	2,051
1957	542	515	487	384	496	725	1,470	4,521	4,867	2,190	872	1,442	1,545
1958	1,034	549	431	404	566	539	1,176	5,409	4,399	1,601	1,469	1,090	1,561
1959	1,003	521	534	498	439	478	1,500	2,367	3,667	2,371	1,507	710	1,303
1960	711	535	415	394	400	717	1,604	2,416	3,230	1,409	1,214	1,333	1,197

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	80,040	40,040	37,260	41,490	35,140	36,480	162,700	271,000	263,900	175,700	143,300	73,800	1,361,000
1952	44,040	31,750	34,400	28,460	26,540	29,600	140,200	282,500	259,000	109,300	65,340	113,000	1,164,000
1953	48,390	20,910	22,700	30,980	27,540	35,600	88,050	150,100	296,000	195,100	73,800	89,910	1,079,000
1954	34,920	27,620	24,950	26,240	31,250	45,740	134,100	289,800	217,700	142,600	105,900	88,710	1,170,000
1955	26,370	24,160	21,990	21,950	18,690	21,390	38,240	146,800	206,600	110,400	103,500	64,560	804,600
1956	37,950	32,750	70,310	43,070	29,770	51,750	187,900	344,400	352,400	131,300	88,530	118,500	1,489,000
1957	33,340	30,670	29,930	23,600	27,530	44,600	87,470	278,000	289,600	134,700	53,610	85,800	1,119,000
1958	63,580	32,680	26,520	24,810	31,450	33,150	69,950	332,600	261,800	98,470	90,330	64,880	1,130,000
1959	61,700	31,010	32,810	30,640	24,390	29,380	89,240	145,500	218,200	145,800	92,690	42,270	943,600
1960	43,710	31,860	25,530	24,210	23,030	44,080	95,420	148,500	192,200	86,620	74,630	79,330	869,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,638	1,186,000
1951	1217	7,350	May 28, 1951	394	1,880	1,361,000	1,815	1,314,000
1952	1247	7,700	June 7, 1952	360	1,604	1,164,000	1,579	1,146,000
1953	1287	7,060	June 18, 1953	220	1,490	1,079,000	1,484	1,075,000
1954	1347	7,520	May 21, 1954	268	1,615	1,170,000	1,595	1,155,000
1955	1397	5,160	June 13, 1955	220	1,111	804,600	1,206	873,100
1956	1447	9,980	May 24, 1956	330	2,051	1,489,000	1,986	1,442,000
1957	1517	8,790	June 5, 1957	290	1,545	1,119,000	1,585	1,148,000
1958	1567	8,480	May 21, 1958	304	1,561	1,130,000	1,565	1,133,000
1959	1637	4,820	June 7, 1959	300	1,303	943,600	1,270	919,200
1960	1717	4,860	May 13, 1960	315	1,197	869,100	-	-

2380. Payette River near Banks, Idaho
(Published as South Fork Payette River near Banks)

Location.--Lat 44°05'30", long 116°06'00", in sec.28, T.9 N., R.3 E., on right bank 1 mile upstream from North Fork Payette River and 1½ miles northeast of Banks.

Drainage area.--1,200 sq mi, approximately. Mean altitude, 6,020 ft.

Records available.--August 1921 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 2,805 ft (from river-profile map). Prior to Sept. 12, 1922, staff gage at same site and datum.

Average discharge.--39 years (1921-60), 1,766 cfs (1,279,000 acre-ft per year).

Extremes.--1921-60: Maximum discharge, 13,800 cfs May 17, 1927 (gage height, 10.6 ft, from floodmarks); minimum, 225 cfs Dec. 15, 1935, Jan. 26, 1936, Dec. 26, 1939.

Remarks.--Small diversions above station for irrigation. Flow partly regulated by Deadwood Reservoir (capacity, 160,400 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,482	882	837	866	1,061	987	4,364	6,002	5,179	3,117	2,463	1,382	2,390
1952	991	781	915	689	768	857	4,529	7,273	5,580	2,149	1,199	2,032	2,312
1953	916	517	557	860	917	1,061	2,628	3,958	6,775	3,641	1,371	1,618	2,069
1954	708	662	622	681	979	1,344	3,696	6,342	4,510	2,679	1,904	1,634	2,151
1955	595	581	507	518	480	526	1,040	3,555	4,518	2,073	1,741	1,138	1,443
1956	742	750	1,981	1,267	862	1,491	5,150	7,928	7,142	2,478	1,576	2,073	2,786
1957	713	709	724	581	899	1,448	2,860	6,945	6,208	2,507	995	1,555	2,182
1958	1,144	668	611	546	1,018	987	2,286	8,032	5,642	1,938	1,604	1,210	2,146
1959	1,143	733	798	796	739	867	2,540	3,487	4,542	2,633	1,646	896	1,738
1960	940	727	591	535	578	1,276	2,839	3,749	4,305	1,628	1,353	1,468	1,664

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	91,130	52,500	51,460	53,270	58,950	60,700	259,700	369,100	308,200	191,700	151,500	82,260	1,730,000
1952	60,960	46,470	56,270	42,350	44,190	52,690	269,500	447,200	332,100	132,100	73,720	120,900	1,678,000
1953	56,310	30,780	34,240	52,870	50,950	65,250	156,400	243,400	403,200	223,900	84,280	96,260	1,498,000
1954	43,560	39,420	38,270	41,890	54,380	82,640	219,900	390,000	268,400	164,700	117,100	97,230	1,557,000
1955	36,600	34,570	31,180	31,880	26,680	32,340	61,890	218,600	268,800	127,400	107,100	67,730	1,045,000
1956	45,610	44,660	121,800	77,930	49,580	91,650	306,400	487,500	425,000	152,400	96,920	123,400	2,023,000
1957	43,840	42,200	44,540	35,750	49,940	89,060	170,200	427,100	369,400	154,200	61,170	92,510	1,580,000
1958	70,360	39,770	37,540	33,590	56,530	60,670	136,000	493,900	335,700	119,200	98,630	71,980	1,554,000
1959	70,310	43,590	49,060	48,950	41,030	53,340	151,100	214,400	270,200	161,900	101,200	53,290	1,258,000
1960	57,790	43,240	36,310	32,890	33,250	78,460	168,900	230,500	256,100	100,100	83,180	87,370	1,208,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	2,205	1,596,000
1951	1217	8,820	May 28, 1951	452	2,390	1,730,000	2,347	1,699,600
1952	1247	10,500	Apr. 28, 1952	530	2,312	1,678,000	2,254	1,636,000
1953	1287	9,320	June 13, 1953	362	2,069	1,498,000	2,069	1,498,000
1954	1347	9,810	May 21, 1954	424	2,151	1,557,000	2,125	1,539,000
1955	1397	6,760	June 13, 1955	343	1,443	1,045,000	1,595	1,154,000
1956	1447	13,400	May 24, 1956	420	2,786	2,023,000	2,674	1,941,000
1957	1517	11,200	June 5, 1957	420	2,182	1,580,000	2,206	1,597,000
1958	1567	12,500	May 21, 1958	365	2,146	1,554,000	2,167	1,569,000
1959	1637	6,110	June 7, 1959	324	1,738	1,258,000	1,703	1,233,000
1960	1717	6,980	May 13, 1960	459	1,664	1,208,000	-	-

2390. North Fork Payette River at McCall, Idaho

Location.--Lat 44°54'30", long 116°07'30", in sec.8, T.18 N., R.3 E., on left bank at McCall, a quarter of a mile downstream from outlet of Payette Lake.

Drainage area.--144 sq mi. Mean altitude, 6,520 ft.

Records available.--September 1908 to June 1917, May 1919 to September 1960. Prior to October 1942, published as "at Lardo."

Gage.--Water-stage recorder. Altitude of gage is 4,970 ft (by barometer). Prior to Oct. 14, 1908, staff gage at site 1 mile downstream at different datum. Oct. 14, 1908, to Dec. 18, 1923, staff gages at sites near present gage at present datum.

Average discharge.--49 years (1908-16, 1919-60), 358 cfs (259,200 acre-ft per year).

Extremes.--1908-17, 1919-60: Maximum discharge, 4,260 cfs June 10, 1933, June 4, 1948; maximum gage height, 7.71 ft June 4, 1948; no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

Remarks.--Flow partly regulated by gates at outlet of Payette Lake and by several smaller lakes upstream. Fish hatchery diversion bypasses station and is returned below gage (see following page).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	138	382	170	149	153	132	610	1,556	1,069	481	37.9	70.2	413
1952	229	158	149	128	108	80.6	374	2,077	1,809	458	233	38.3	488
1953	107	8.20	30.8	73.0	71.8	57.9	225	1,080	1,870	609	72.9	22.7	353
1954	15.0	321	73.9	59.8	76.6	84.9	317	1,818	1,407	509	30.4	25.0	396
1955	16.0	8.0	333	62.2	45.2	45.9	71.7	579	1,655	392	50.5	27.0	274
1956	366	145	240	257	140	120	490	2,028	1,692	268	23.5	37.0	485
1957	368	82.4	57.9	56.1	60.9	97.3	185	1,777	1,642	234	25.5	77.4	390
1958	301	684	30.3	52.8	75.3	88.2	208	2,034	1,390	122	100	13.8	376
1959	304	113	95.1	117	127	95.2	280	1,077	1,625	202	53.6	242	361
1960	564	201	112	95.0	93.2	97.0	431	1,049	1,511	100	154	245	387

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	8,500	22,750	10,430	9,140	8,500	8,090	36,270	95,660	63,600	29,560	2,330	4,180	299,000
1952	14,070	9,410	9,150	7,840	6,220	4,950	22,250	127,700	107,700	28,190	14,330	2,280	354,100
1953	6,550	488	1,900	4,490	3,980	3,560	13,370	66,620	111,300	37,440	4,480	1,350	255,500
1954	920	19,120	4,540	3,680	4,250	5,220	18,860	111,800	83,740	31,320	1,870	1,490	286,800
1955	982	474	20,500	3,820	2,510	2,820	4,270	35,610	98,460	24,120	3,100	1,610	198,300
1956	22,520	8,620	14,730	15,790	8,060	7,350	29,180	124,700	100,700	16,510	1,450	2,200	351,800
1957	22,630	4,910	3,560	3,450	3,380	5,980	11,030	109,300	97,720	14,410	1,570	4,600	282,500
1958	18,500	4,070	1,860	3,240	4,180	5,420	12,390	125,100	82,680	7,520	6,170	821	272,000
1959	18,710	6,710	5,850	7,200	7,080	5,850	16,680	66,190	96,670	12,410	3,300	14,420	261,100
1960	34,680	11,980	6,900	5,840	5,360	5,960	25,630	64,490	89,900	6,150	9,480	14,590	281,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	438	317,300
1951	1217	2,400	May 28, 1951	16	413	299,000	401	290,000
1952	1247	3,130	June 8, 1952	22	488	354,100	455	330,400
1953	1287	2,660	June 15, 1953	7	353	255,500	375	271,200
1954	1347	3,220	May 21, 1954	8	396	286,800	393	284,200
1955	1397	2,820	June 14, 1955	7	274	198,300	307	222,200
1956	1447	3,550	June 1, 1956	17	485	351,800	464	337,000
1957	1517	3,100	June 6, 1957	12	390	282,500	381	275,900
1958	1567	3,540	May 25, 1958	10	376	272,000	385	278,800
1959	1637	2,490	June 15, 1959	8.5	361	261,100	391	283,400
1960	1717	2,740	June 5, 1960	26	387	281,000	-	-

2395. Fish hatchery diversion at McCall, Idaho

Location.--Lat 44°54'30", long 116°07'20", 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 February 1953.

Gage.--Staff gage and Parshall flume. Altitude of gage is 4,980 ft (from topographic map).

Extremes.--1942-53: Maximum daily discharge, 4.8 cfs several days during April, May, and July 1943; no flow Sept. 22 to Nov. 7, 1943.

Remarks.--Flow diverted from outlet of Payette Lake or North Fork Payette River in sec.8, T.18 N., R.3 E., is regulated by fish hatchery. Diversion bypasses gaging station North Fork Payette River at McCall.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	122	105	100	104	100	111	114	215	184	190	168	141	1,650
1952	144	101	128	125	106	89	122	151	176	180	144	66	1,530
1953	17	41	60	58	60	-	-	-	-	-	-	-	-

2400. Lake Fork Payette River above Jumbo Creek, near McCall, Idaho

Location.--Lat 44°55', long 115°59', in NE¼ sec.8, T.18 N., R.4 E., on left bank 200 ft upstream from bridge at abandoned powerplant, a quarter of a mile upstream from Jumbo Creek, 3½ miles upstream from Lake Fork Reservoir dam, and 5½ miles east of McCall.

Drainage area.--48.9 sq mi. Mean altitude, 6,950 ft.

Records available.--October 1945 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,140 ft (from topographic map). Prior to Nov. 10, 1945, staff gage at site 200 ft downstream at different datum.

Average discharge.--15 years (1945-60), 150 cfs (108,600 acre-ft per year).

Extremes.--1945-60: Maximum discharge, 2,600 cfs June 3, 1948 (gage height, 9.19 ft), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum, 5.5 cfs Nov. 9, 1952 (gage height, 1.62 ft).

Remarks.--No diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	66.0	96.1	61.3	43.9	46.9	39.0	228	556	468	170	30.5	16.0	152
1952	75.6	56.0	54.1	37.6	32.3	29.5	243	714	626	172	29.4	14.4	174
1953	10.1	9.82	10.2	22.6	23.6	24.4	142	385	739	313	36.6	15.6	144
1954	12.9	17.9	18.0	17.5	24.9	36.5	176	651	536	252	33.5	18.6	150
1955	15.7	15.9	12.7	12.7	13.8	14.6	23.6	308	667	163	26.6	19.7	108
1956	24.7	60.8	115	65.9	39.2	41.6	254	819	643	130	27.6	14.8	186
1957	19.0	24.9	24.5	20.0	29.4	39.8	100	760	666	118	21.7	13.0	153
1958	22.8	19.0	19.3	19.4	28.4	32.3	97.8	830	526	81.4	22.1	17.0	144
1959	16.6	55.7	56.0	48.6	39.2	31.2	158	390	646	116	25.2	68.4	137
1960	149	67.3	40.8	25.7	24.2	45.1	192	416	611	91.0	26.1	15.2	142

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,060	5,720	3,770	2,700	2,600	2,400	13,560	34,170	27,840	10,450	1,870	954	110,100
1952	4,650	3,330	3,330	2,310	1,860	1,810	14,490	43,880	37,270	10,590	1,810	855	126,200
1953	618	584	628	1,390	1,310	1,500	8,480	23,670	43,980	19,270	2,250	930	104,600
1954	793	1,060	1,100	1,080	1,380	2,240	10,460	40,040	31,900	15,520	2,060	1,100	108,700
1955	964	944	781	780	766	900	1,400	18,920	39,700	10,010	1,640	1,170	77,980
1956	1,520	3,620	7,100	4,050	2,260	2,560	15,090	50,340	38,250	8,000	1,700	879	135,400
1957	1,170	1,480	1,510	1,230	1,630	2,450	5,960	46,710	39,630	7,230	1,340	774	111,100
1958	1,400	1,130	1,180	1,190	1,570	1,990	5,820	51,040	31,310	5,000	1,360	1,010	104,000
1959	1,020	3,320	3,440	2,990	2,180	1,920	9,430	23,990	38,470	7,130	1,550	4,070	99,510
1960	9,150	4,000	2,510	1,580	1,390	2,780	11,450	25,600	36,360	5,600	1,600	902	102,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	161	44.75	116,700
1951	1217	1,080	May 28, 1951	12	152	3.11	42.23	110,100	149	41.37	107,900
1952	1247	1,260	June 4, 1952	11	174	3.56	48.38	126,200	161	44.74	116,700
1953	1287	1,660	June 13, 1953	7	144	2.94	40.11	104,600	146	40.54	105,700
1954	1347	1,640	May 20, 1954	11	150	3.07	41.68	108,700	150	41.58	108,500
1955	1397	1,440	June 11, 1955	10	108	2.21	29.90	77,980	121	33.56	87,530
1956	1447	1,950	May 24, 1956	12	186	3.80	51.90	135,400	175	48.81	127,300
1957	1517	1,800	June 2, 1957	10	153	3.13	42.61	111,100	153	42.43	110,700
1958	1567	1,920	May 20, 1958	11	144	2.94	39.88	104,000	149	41.44	108,100
1959	1637	1,310	June 13, 1959	12	137	2.80	38.15	99,510	148	41.17	107,400
1960	1717	944	June 15, 1960	11	142	2.90	39.42	102,900	-	-	-

2410. Lake Fork Reservoir near McCall, Idaho

Location.--Lat 44°54', long 116°03', in NW¼NW¼ sec.13, T.18 N., R.3 E., at outlet gate near center of dam on Lake Fork Payette River, 3 miles east of McCall.

Drainage area.--64 sq mi, approximately.

Records available.--April 1926 to September 1960 (fragmentary).

Gage.--Staff gage and graduations on concrete gate-control structure of dam. Datum of gage is at mean sea level (levels by Lake Irrigation District).

Extremes.--1926-60: Maximum contents observed, 20,140 acre-ft June 24, 25, 1958, June 25, 30, July 5, 6, 1959, June 25-28, 1960 (elevation, 5,119.00 ft); no storage above elevation 5,101.0 ft for long periods in fall and winter of most years.

Remarks.--Reservoir is formed by earth-and rock-fill dam completed in 1926. Capacity, 16,940 acre-ft between elevations 5,101.0 (lower limit of capacity table, 4.0 ft above gate sill of outlet) and 5,117.0 ft (top of flashboards, 5.0 ft above spillway crest). Dead storage unknown. Water is used for irrigation of about 6,800 acres of land near McCall and Norwood. Figures given herein represent contents above 5,101.0 ft. There is some usable storage below elevation 5,101.0 ft, but natural flow passing through reservoir when outlet gates are operating prevents withdrawal of storage to elevation of sill of gates.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	-	-	-	-	-	-	-	a14,080	18,960	13,620	5,182	1,050
1952	-	-	-	-	-	-	-	14,310	18,460	13,540	a4,080	785
1953	-	-	-	-	-	-	a4,950	-	18,050	a14,770	5,290	a990
1954	a500	235	-	-	-	-	-	17,110	18,810	14,740	4,970	a1,610
1955	-	-	-	-	-	-	a700	a14,250	18,850	14,890	3,570	a608
1956	-	-	-	-	-	-	a8,500	17,030	19,140	12,560	3,800	a1,400
1957	-	-	-	-	-	-	a3,000	15,000	19,350	12,290	2,790	a381
1958	-	-	-	-	-	-	a1,450	17,000	19,490	10,850	3,110	a1,100
1959	a620	-	-	-	-	-	-	a14,170	20,140	13,080	3,290	a4,000
1960	-	-	-	-	-	-	9,240	a15,250	19,850	10,670	3,130	a1,100

a Interpolated or estimated.

2420. Lake Irrigation District Canal near McCall, Idaho

Location.--Lat 44°54', long 116°03', in SW¼ sec.13, T.18 N., R.3 E., on right bank 600 ft downstream from head of canal, half a mile south of Lake Fork Reservoir, and 3 miles southeast of McCall.

Records available.--May 1926 to September 1960 (irrigation seasons only 1927-34, 1942, 1946).

Gage.--Staff gage. Altitude of gage is 5,090 ft (from topographic map). Prior to May 1947, staff gage at same site at different datum.

Extremes.--1926-60: Maximum daily discharge, 205 cfs July 18, 1953; no flow or small amount of leakage through headgate during nonirrigation seasons.

Remarks.--No diversions between headgate and station. Canal diverts from right bank of Lake Fork Payette River in SW¼ sec.13, T.18 N., R.3 E., for irrigation of 6,800 acres near McCall and Norwood, in the Lake Irrigation District project.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	194	0	0	0	0	0	0	309	6,650	10,050	6,080	1,890	25,170
1952	228	0	0	0	0	0	0	436	8,540	10,090	7,380	2,130	28,800
1953	631	0	0	0	0	0	0	0	2,920	11,430	7,550	2,840	25,370
1954	216	0	0	0	0	0	0	2,130	7,560	10,240	7,900	2,730	30,780
1955	75	133	0	0	0	0	0	0	7,280	9,770	8,710	2,610	28,580
1956	446	58	61	0	0	0	0	1,880	9,450	10,360	6,810	1,390	30,460
1957	125	0	0	0	0	0	36	193	7,730	9,900	6,400	2,350	26,730
1958	480	0	0	0	0	0	0	1,610	9,560	9,050	5,850	1,920	28,470
1959	478	149	0	0	0	0	0	1,390	8,610	9,680	6,720	2,290	29,320
1960	835	9.9	0	0	0	0	0	256	7,920	9,790	5,600	1,540	25,950

2425. Lake Fork Payette River below Lake Irrigation District Canal, near McCall, Idaho

Location.--Lat 44°54', long 116°03', in SW¼ sec.13, T.18 N., R.3 E., on right bank 300 ft downstream from diversion dam for Lake Irrigation District Canal, half a mile downstream from Lake Fork Reservoir, and 3 miles southeast of McCall.

Drainage area.--64 sq mi, approximately.

Records available.--October 1940 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 5,080 ft (from topographic map).

Average discharge.--20 years (1940-60), 129 cfs (93,390 acre-ft per year).

Extremes.--1940-60: Maximum discharge, 2,120 cfs June 3, 1948 (gage height, 7.09 ft), from rating curve extended above 1,200 cfs by logarithmic plotting; mirimum, 0.4 cfs Mar. 27, 28, 1944; minimum gage height, 1.76 ft Mar. 28, 1944.

Remarks.--Flow regulated by McDowell Reservoir (capacity, about 600 acre-ft) and by Lake Fork Reservoir (see p.183). Lake Irrigation District Canal (see preceding page) diverts above station for irrigation of about 6,800 acres of land near McCall and Norwood.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	87.9	138	73.6	52.0	53.8	46.6	198	476	287	99.9	62.9	50.9	136
1952	85.3	90.4	70.8	47.2	41.0	39.3	169	744	501	107	65.3	35.0	166
1953	14.9	22.5	15.1	30.1	35.4	29.7	93.0	248	758	195	64.0	35.7	128
1954	18.2	26.1	36.6	24.1	29.9	43.5	147	479	450	158	57.6	32.6	126
1955	39.8	27.4	19.6	15.4	16.0	16.6	7.30	138	529	85.0	62.7	36.8	82.6
1956	28.8	69.9	111	110	50.0	44.3	146	685	469	74.8	57.0	28.1	156
1957	28.2	67.6	34.2	27.7	25.7	50.1	91.2	610	499	77.6	58.9	22.7	133
1958	36.0	24.9	23.1	25.1	30.4	41.4	103	621	376	70.2	52.0	21.1	119
1959	16.3	71.2	65.8	55.7	49.2	38.4	86.3	275	475	77.3	61.1	32.0	108
1960	104	182	67.1	35.5	28.8	35.8	98.7	355	471	88.2	54.3	27.9	129

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,410	8,220	4,530	3,200	2,990	2,870	11,800	29,270	17,060	6,140	3,870	3,030	98,390
1952	5,240	5,380	4,350	2,900	2,360	2,420	10,030	45,740	29,780	6,560	4,020	2,080	120,900
1953	918	1,340	928	1,850	1,970	1,830	5,540	15,250	45,130	12,000	3,940	2,130	92,830
1954	1,120	1,550	2,250	1,480	1,660	2,680	8,760	29,440	26,750	9,720	3,540	1,940	90,890
1955	2,450	1,630	1,210	944	889	1,020	434	8,520	31,450	5,220	3,860	2,190	59,820
1956	1,770	4,160	6,840	6,770	2,870	2,720	8,670	42,100	27,880	4,600	3,500	1,670	113,600
1957	1,730	4,020	2,100	1,710	1,430	3,080	5,420	37,500	29,710	4,770	3,620	1,350	96,440
1958	2,220	1,480	1,420	1,540	1,690	2,540	6,120	38,160	22,370	4,320	3,200	1,260	86,320
1959	1,000	4,240	4,050	3,420	2,740	2,360	5,130	16,890	28,260	4,750	3,760	1,910	78,510
1960	6,390	10,800	4,130	2,180	1,650	2,200	5,880	21,820	28,040	5,420	3,340	1,660	93,510

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	148	107,200
1951	1217	942	May 28, 1951	42	136	98,390	131	95,200
1952	1247	1,050	May 29, 1952	13	166	120,900	150	109,100
1953	1287	1,300	June 13, 1953	11	128	92,830	131	94,560
1954	1347	1,460	May 21, 1954	15	126	90,890	126	91,260
1955	1397	1,100	June 12, 1955	23	82.6	59,820	93.0	67,300
1956	1447	1,430	May 25, 1956	9.4	156	113,600	150	108,600
1957	1517	1,290	June 3, 1957	13	133	96,440	129	93,710
1958	1567	1,390	May 23, 1958	14	119	86,320	125	90,490
1959	1637	1,020	June 14, 1959	3.7	108	78,510	125	90,540
1960	1717	980	June 6, 1960	21	129	93,510	-	-

2445. Cascade Reservoir at Cascade, Idaho

Location.--Lat 44°31'30", long 116°03'05", in NE¼NE¼ sec.26, T.14 N., R.3 E., in gate control structure at south end of Cascade dam on North Fork Payette River, half a mile downstream from Willow Creek and three-quarters of a mile northwest of Cascade.

Drainage area.--620 sq mi. Mean altitude, 5,960 ft.

Records available.--January to December 1948 (fragmentary), January 1949 to September 1960.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Nov. 7, 1958, staff gage on left bank at same datum.

Extremes.--1948-60: Maximum contents observed, 727,000 acre-ft June 10, 11, 1957 (elevation, 4,828.89 ft); no contents at times during March and September 1948.

Remarks.--Reservoir is formed by earth-fill dam completed in May 1949. Storage began Nov. 7, 1947. Capacity, 703,200 acre-ft between elevations 4,766 (4.0 ft above sill of outlet tunnel) and 4,828 ft (top of spillway gates). Figures given herein represent contents above elevation 4,766 ft. The Bureau of Reclamation attempts to limit withdrawal to elevation 4,787.5 ft retaining 50,000 acre-ft capacity as dead storage. Contents table computed from tables furnished by Bureau of Reclamation (revised 1950). Water is used for irrigation of lands in the Payette Division of the Boise project and for power at Black Canyon powerplant near Emmett.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	92,790	84,460	90,700	97,860	114,000	50,930	90,970	173,300	173,000	117,400	92,240	65,930
1952	94,250	89,990	108,900	129,500	145,600	160,800	177,200	342,900	351,100	244,000	126,700	87,200
1953	83,330	83,650	85,070	113,400	131,300	148,800	230,400	374,600	398,100	391,900	288,400	214,300
1954	145,100	141,400	126,200	121,600	138,400	163,700	190,500	324,600	403,900	357,600	278,900	211,700
1955	138,000	133,100	137,600	120,900	113,300	114,600	137,800	260,900	401,000	378,900	282,800	184,500
1956	163,000	187,700	257,800	302,800	315,900	260,800	262,800	446,800	565,400	521,200	408,800	360,300
1957	336,100	344,700	356,000	358,900	375,200	408,800	497,500	643,600	703,200	659,700	508,500	424,300
1958	412,800	374,000	348,100	327,200	338,300	341,400	369,600	613,600	702,900	627,500	518,700	412,600
1959	412,000	436,900	458,100	467,300	494,500	455,400	505,000	609,700	699,500	655,800	539,500	469,200
1960	511,200	523,000	482,600	481,800	486,300	497,300	607,000	666,600	705,300	587,300	466,900	394,200

2450. North Fork Payette River at Cascade, Idaho

Location.--Lat 44°31'30", long 116°02'45", in NW¼ sec.25, T.14 N., R.3 E., on right bank 500 ft downstream from Cascade Dam and half a mile northwest of Cascade.

Drainage area.--620 sq mi. Mean altitude, 5,960 ft.

Records available.--May 1941 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 4,735.25 ft above mean sea level (preliminary, unadjusted levels of U. S. Coast and Geodetic Survey). Prior to Jan. 28, 1947, staff gage and Jan. 28, 1947, to Nov. 5, 1958, water-stage recorder, at site 1.7 miles downstream at different datum. Supplemental gage is same as that used Jan. 28, 1947, to Nov. 5, 1958.

Average discharge.--19 years (1941-60), 1,026 cfs (742,800 acre-ft per year).

Extremes.--1941-60: Maximum discharge recorded, 7,320 cfs May 10, 1947 (gage height, 6.29 ft, site and datum then in use); minimum, 2 cfs or less in January 1948 when stage was below intake.

Remarks.--Flow regulated by Cascade Reservoir (see p. 185), Payette Lake, and Lake Fork Reservoir (see p. 183). Diversions above station for irrigation of about 37,000 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	433	1,093	521	346	377	1,456	1,797	2,220	2,479	1,660	578	672	1,138
1952	338	697	438	167	172	163	2,077	2,598	3,716	2,623	2,191	792	1,332
1953	297	171	208	189	214	172	201	293	4,230	1,268	1,886	1,334	870
1954	1,254	732	617	423	200	254	1,910	1,715	1,704	1,637	1,417	1,275	1,099
1955	1,353	330	441	551	345	256	254	250	1,017	1,182	1,606	1,764	782
1956	927	259	349	283	389	1,549	2,331	1,634	1,754	1,184	1,946	922	1,129
1957	1,052	287	214	243	318	278	102	2,131	2,769	1,087	2,513	1,489	1,045
1958	758	927	653	626	354	494	1,079	675	1,793	1,571	1,954	1,821	1,078
1959	416	174	201	231	417	1,063	627	738	1,632	942	1,982	1,825	855
1960	372	461	1,024	380	316	417	112	1,753	2,234	2,028	2,168	1,545	1,071

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	26,640	65,040	32,040	21,290	20,930	89,540	106,900	136,500	147,500	102,100	35,520	40,020	824,000
1952	20,800	41,490	26,910	10,290	9,910	10,020	123,600	159,700	221,100	161,300	134,700	47,160	967,000
1953	18,260	10,160	12,780	11,640	11,910	10,580	11,980	17,990	251,700	77,940	115,900	79,360	630,200
1954	77,120	43,530	37,910	26,010	11,080	15,600	113,600	105,400	101,400	100,600	87,110	75,890	795,200
1955	83,170	19,610	27,130	33,880	19,170	15,750	15,090	15,380	60,500	72,660	98,760	105,000	566,100
1956	57,030	15,410	21,480	17,420	22,370	95,220	138,700	100,500	104,400	72,810	119,600	54,870	819,800
1957	64,660	17,070	13,160	14,930	17,640	17,080	6,060	131,000	164,800	66,840	154,500	88,620	756,400
1958	46,630	55,140	52,420	38,470	19,690	30,400	64,190	41,530	106,700	96,590	120,200	108,400	780,400
1959	25,570	10,350	12,330	14,190	23,150	65,360	37,300	45,370	97,110	57,910	121,900	108,600	619,100
1960	22,900	27,460	62,940	23,380	18,160	25,620	6,670	107,800	132,900	124,700	133,300	91,930	777,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,083	783,900
1951	1217	2,840	July 22, 1951	158	1,138	824,000	1,091	789,500
1952	1247	4,280	June 14, 1952	147	1,332	967,000	1,266	919,000
1953	1287	5,230	June 20, 1953	26	870	630,200	1,033	747,600
1954	1347	4,010	June 28, 1954	67	1,099	795,200	1,059	766,600
1955	1397	3,150	Aug. 2, 1955	158	782	566,100	732	530,100
1956	1447	4,990	June 8, 1956	172	1,129	819,800	1,131	820,800
1957	1517	5,430	June 11, 1957	14	1,045	756,400	1,127	815,700
1958	1567	3,060	July 30, 1958	56	1,078	780,400	931	674,400
1959	1637	3,000	Sept. 4, 1959	4.2	855	619,100	945	684,200
1960	1717	4,180	May 19, 1960	3.8	1,071	777,800	-	-

2460. North Fork Payette River near Banks, Idaho

Location.--Lat 44°06'50", long 116°06'25", in SE¼ sec.16, T.9 N., R.3 E., on right bank 40 ft downstream from highway bridge, 2½ miles north of Banks, and 3 miles upstream from confluence with South Fork.

Drainage area.--933 sq mi. Mean altitude, 5,800 ft.

Records available.--April 1947 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,081.13 ft above mean sea level, unadjusted.

Average discharge.--13 years (1947-60), 1,364 cfs (987,500 acre-ft per year).

Extremes.--1947-60: Maximum discharge, 8,830 cfs May 11, 1947 (gage height, about 13.5 ft), estimated on basis of records for station near Smiths Ferry; minimum recorded, 36 cfs Dec. 31, 1947 (gage height, 3.01 ft).

Remarks.--Flow regulated by Payette Lake, Lake Fork Reservoir (see p. 183), Cascade Reservoir (see p. 185), and occasionally by milldam at Cascade. Many diversions from tributaries above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	507	1,256	695	478	642	1,698	2,831	3,215	2,998	1,809	616	692	1,454
1952	496	817	630	284	290	300	3,295	4,303	4,517	2,796	2,227	885	1,737
1953	337	224	283	383	462	385	1,008	1,249	5,286	1,563	1,954	1,392	1,208
1954	1,302	841	727	542	379	547	2,961	2,769	2,226	1,894	1,475	1,310	1,418
1955	1,435	421	494	622	406	324	566	1,027	1,530	1,295	1,657	1,816	969
1956	1,025	392	825	597	565	1,849	3,373	3,035	2,478	1,410	2,009	980	1,547
1957	1,244	422	353	330	543	698	1,090	3,818	3,605	1,194	2,559	1,554	1,456
1958	860	990	967	759	546	725	2,190	2,419	2,707	1,680	2,029	1,936	1,486
1959	483	287	339	433	552	1,172	1,329	1,371	2,167	1,031	2,017	1,973	1,097
1960	575	566	1,106	455	407	715	1,085	2,571	2,865	2,057	2,235	1,589	1,355

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	31,150	74,750	42,760	29,410	35,630	104,400	168,500	197,700	178,400	111,200	37,870	41,180	1,053,000
1952	30,490	48,600	38,710	17,470	16,670	18,420	196,000	264,600	268,800	171,900	136,900	52,650	1,261,000
1953	20,730	13,310	17,400	23,580	25,690	23,700	60,000	76,770	314,500	96,080	120,100	82,820	874,700
1954	80,070	50,070	44,680	33,350	21,060	33,630	176,200	170,200	132,400	116,500	90,720	77,930	1,027,000
1955	88,250	25,030	30,350	38,220	22,550	19,890	33,690	63,160	91,040	79,620	101,900	108,100	701,800
1956	63,050	23,340	50,730	36,700	32,490	113,700	200,700	186,600	147,400	86,680	123,500	58,340	1,123,000
1957	76,510	25,090	21,710	20,270	30,140	42,900	64,880	234,700	214,500	73,440	157,300	92,490	1,054,000
1958	52,880	58,890	59,430	46,690	30,320	44,560	130,300	148,700	161,100	103,300	124,700	115,200	1,076,000
1959	29,690	17,070	20,840	26,610	30,650	72,050	79,100	84,290	128,900	63,420	124,000	117,400	794,000
1960	35,330	33,700	67,990	27,990	23,400	43,970	64,570	158,100	170,500	126,500	137,400	94,530	984,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	1,393	1,009,000
1951	1217	3,810	Apr. 29, 1951	242	1,454	1,053,000	1,412	1,022,000
1952	1247	5,190	Apr. 27, 1952	257	1,737	1,261,000	1,646	1,195,000
1953	1287	6,370	June 17,18, 1953	163	1,208	874,700	1,379	998,100
1954	1347	4,540	Apr. 13, 1954	186	1,418	1,027,000	1,375	995,600
1955	1397	2,940	June 25, 1955	238	969	701,800	960	695,300
1956	1447	5,480	June 8, 1956	175	1,547	1,123,000	1,528	1,109,000
1957	1517	6,390	May 24, 1957	240	1,456	1,054,000	1,522	1,102,000
1958	1567	4,020	June 9, 1958	385	1,486	1,076,000	1,343	972,500
1959	1637	3,540	Apr. 6, 1959	82	1,097	794,000	1,193	863,400
1960	1717	4,870	May 21, 1960	244	1,355	984,000	-	-

2475. Payette River near Horseshoe Bend, Idaho

Location.--Lat 43°56'30", long 116°12'00", in SE¼ sec.15, T.7 N., R.2 E., on left bank 300 ft upstream from bridge on State Highway 15, half a mile downstream from Porter Creek, and 2 miles north of Horseshoe Bend.

Drainage area.--2,230 sq mi, approximately. Mean altitude, 5,850 ft.

Records available.--February 1906 to September 1916, July 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,625.61 ft above mean sea level, unadjusted. Prior to Nov. 23, 1912, staff gage at site 1¼ miles upstream at different datum. Nov. 23, 1912, to Apr. 16, 1953, water-stage recorder at site 1,000 ft downstream at datum 2.1 ft lower.

Average discharge.--51 years (1906-16, 1919-60), 3,209 cfs (2,323,000 acre-ft per year).

Extremes.--1906-16, 1919-60: Maximum discharge, 22,100 cfs June 9, 1921 (gage height, 9.57 ft, site and datum then in use); minimum, 350 cfs Dec. 17, 1935 (gage height, 0.26 ft, site and datum then in use), from rating curve extended below 600 cfs.

Remarks.--Flow regulated by Deadwood Reservoir, Payette Lake, Lake Fork Reservoir (see p. 183), and Cascade Reservoir (see p. 185). Diversions from tributaries above station for irrigation of about 50,000 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,016	2,182	1,555	1,364	1,846	2,783	7,555	9,675	8,366	5,014	3,100	2,113	3,970
1952	1,507	1,641	1,585	994	1,142	1,272	8,630	11,980	10,200	5,055	3,485	2,936	4,201
1953	1,305	776	882	1,373	1,497	1,527	3,853	5,420	12,680	5,261	3,346	3,026	3,410
1954	2,035	1,531	1,375	1,273	1,433	2,010	6,855	9,308	6,839	4,624	3,397	2,965	3,645
1955	2,053	1,027	1,011	1,173	914	903	1,745	4,879	6,094	3,421	3,427	2,984	2,477
1956	1,782	1,185	2,985	2,004	1,527	3,510	8,883	11,180	9,917	3,983	3,632	3,113	4,477
1957	2,015	1,183	1,178	952	1,576	2,468	4,412	11,350	10,040	3,801	3,562	3,130	3,814
1958	2,032	1,666	1,576	1,333	1,672	1,795	4,652	10,530	8,458	3,632	3,648	3,152	3,687
1959	1,694	1,072	1,176	1,282	1,349	2,121	4,050	5,032	6,816	3,683	3,671	2,936	2,911
1960	1,555	1,322	1,743	1,077	1,129	2,244	4,121	6,376	7,129	3,685	3,620	3,065	3,091

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	124,000	129,900	95,580	83,860	102,500	171,100	449,500	594,900	497,800	308,300	190,600	125,800	2,874,000
1952	92,650	97,650	97,430	61,110	65,700	78,230	513,500	736,700	607,200	310,800	214,300	174,700	3,050,000
1953	80,250	46,160	54,200	84,430	83,150	93,910	229,300	333,200	754,700	323,500	205,700	180,100	2,469,000
1954	125,100	91,100	84,580	78,300	79,600	123,600	407,900	572,300	406,900	284,300	208,900	176,400	2,639,000
1955	126,200	61,110	62,150	72,110	50,750	55,510	103,800	300,000	362,600	210,400	210,700	177,600	1,793,000
1956	109,600	70,600	183,500	123,200	87,830	215,800	528,600	687,600	590,100	244,900	223,300	185,200	3,250,000
1957	123,900	70,400	72,440	58,560	87,530	151,800	262,500	697,600	597,700	233,700	219,000	186,200	2,761,000
1958	124,900	99,130	96,890	81,990	92,890	110,300	276,800	647,600	503,300	223,300	224,300	187,500	2,669,000
1959	104,200	63,800	72,330	78,840	74,920	130,400	241,000	309,400	405,600	226,500	225,700	174,700	2,107,000
1960	95,640	78,670	107,200	66,210	64,930	138,000	245,200	392,100	424,200	226,600	222,600	182,400	2,244,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	3,675	2,661,000
1951	1217	13,400	May 28, 1951	720	3,970	2,874,000	3,884	2,812,000
1952	1247	16,600	Apr. 28, 1952	784	4,201	3,050,000	4,054	2,943,000
1953	1287	16,700	June 13, 1953	550	3,410	2,469,000	3,576	2,589,000
1954	1347	12,800	May 10, 1954	780	3,645	2,639,000	3,574	2,588,000
1955	1397	8,030	May 22, 1955	630	2,477	1,793,000	2,634	1,907,000
1956	1447	19,200	Dec. 23, 1955	680	4,477	3,250,000	4,344	3,153,000
1957	1517	15,400	June 5, 1957	700	3,814	2,761,000	3,889	2,816,000
1958	1567	14,900	May 22, 1958	896	3,687	2,669,000	3,575	2,588,000
1959	1637	8,870	June 14, 1959	680	2,911	2,107,000	2,968	2,149,000
1960	1717	10,100	June 4, 1960	827	3,091	2,244,000	-	-

2495. Payette River near Emmett, Idaho

Location.--Lat 43°55'50", long 116°26'30", in sec.22, T.7 N., R.1 W., on right bank three-eighths of a mile downstream from Black Canyon Dam and 5 miles northeast of Emmett.

Drainage area.--2,680 sq mi, approximately.

Records available.--June 1925 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 2,400 ft (from topographic map).

Average discharge.--35 years (1925-60), 2,994 cfs (2,168,000 acre-ft per year).

Extremes.--1925-60: Maximum discharge, 22,800 cfs May 1, 1938; maximum gage height, 12.98 ft Dec. 22, 1955; minimum daily discharge, 0.7 cfs Jan. 7, 1957 (gage height, -1.49 ft), when gates in dam were closed.

Remarks.--Diversions above station for irrigation of about 135,000 acres of which about 79,000 acres are below station (1952 determination). Flow regulated by diversion at and operation of gates in Black Canyon Dam, and by Cascade Reservoir (see p. 185), Deadwood Reservoir, Payette Lake, and Lake Fork Reservoir (see p. 183). Records of chemical analyses and water temperatures for the period October 1958 to September 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,786	2,272	1,765	1,627	2,539	3,204	7,809	9,133	7,513	3,508	1,819	1,187	3,678
1952	1,451	1,819	2,410	1,113	1,815	1,671	10,100	12,010	9,671	3,642	2,112	1,973	4,142
1953	1,016	792	892	1,969	1,972	1,721	3,806	5,007	12,870	4,073	1,874	1,909	3,150
1954	1,756	1,702	1,429	1,541	1,822	2,436	6,619	8,499	6,068	3,188	1,904	1,884	3,240
1955	1,746	1,066	1,021	1,193	956	1,110	2,089	4,360	4,999	1,900	1,857	1,809	2,011
1956	1,706	1,301	3,589	2,623	1,804	4,098	8,837	10,680	8,936	2,302	1,922	1,874	4,140
1957	1,857	1,313	1,420	793	2,128	3,474	5,122	11,910	9,235	2,114	1,893	1,922	3,602
1958	1,849	1,785	1,763	1,606	2,629	2,181	5,136	10,430	7,716	2,058	2,013	1,984	3,428
1959	1,290	1,094	1,272	1,479	1,644	2,223	3,364	3,916	5,581	2,049	2,082	2,205	2,348
1960	1,611	1,397	1,827	1,198	1,564	2,944	4,162	5,558	6,010	2,052	2,040	1,816	2,680

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	109,800	135,200	108,500	100,000	141,000	197,000	464,700	561,500	447,100	215,700	111,800	70,630	2,663,000
1952	89,200	108,200	148,200	68,450	104,400	102,700	600,900	738,400	575,500	224,000	129,800	117,400	3,007,000
1953	62,450	47,140	54,820	121,000	109,500	105,800	226,500	307,900	766,100	250,500	115,200	113,600	2,281,000
1954	108,000	101,300	87,880	94,770	101,200	149,800	393,900	522,600	361,100	196,000	117,100	112,100	2,346,000
1955	107,400	63,460	62,760	73,380	53,070	68,280	123,100	268,100	297,500	116,800	114,200	107,600	1,456,000
1956	104,900	77,400	220,700	161,300	103,800	252,000	525,900	656,800	531,700	141,600	118,200	111,500	3,006,000
1957	114,200	78,150	87,330	48,780	118,200	213,600	304,800	732,400	549,500	130,000	116,400	114,400	2,608,000
1958	113,700	106,200	108,400	98,740	146,000	134,100	305,600	641,300	459,200	126,600	123,800	118,100	2,482,000
1959	79,330	65,090	78,210	90,940	91,300	136,700	200,200	240,800	332,100	126,000	128,000	131,200	1,700,000
1960	99,070	83,130	112,400	73,630	89,980	181,000	247,600	341,700	357,600	126,200	125,500	108,100	1,946,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	3,413	2,471,000
1951	1217	12,700	May 27, 1951	811	3,678	2,663,000	3,668	2,655,000
1952	1247	18,400	Apr. 28, 1952	20	4,142	3,007,000	3,893	2,826,000
1953	1287	17,800	June 13, 1953	349	3,150	2,281,000	3,333	2,413,000
1954	1347	12,900	May 20, 1954	831	3,240	2,346,000	3,152	2,282,000
1955	1397	7,740	June 14, 1955	434	2,011	1,456,000	2,245	1,625,000
1956	1447	22,700	Dec. 22, 1955	4	4,140	3,006,000	3,970	2,882,000
1957	1517	18,200	May 19, 1957	.7	3,602	2,608,000	3,669	2,656,000
1958	1567	15,600	May 21, 1958	1,020	3,428	2,482,000	3,282	2,373,000
1959	1637	12,800	June 25, 1959	688	2,348	1,700,000	2,447	1,772,000
1960	1717	10,400	June 3, 1960	774	2,680	1,946,000	-	-

2500. Payette River near Letha, Idaho

Location.--Lat 43°53', long 116°37', in NE¼ sec.6, T.6 N., R.2 W., on right bank one mile upstream from Bissell Creek and 1⅝ miles east of Letha.

Drainage area.--2,760 sq mi, approximately.

Records available.--July to November 1952, March to November 1953.

Gage.--Water-stage recorder. Altitude of gage is 2,280 ft (from topographic map). Aug. 13 to Nov. 3, 1953, supplementary water-stage recorder 180 ft upstream at same datum.

Extremes.--1952-53: Maximum discharge, 16,400 cfs June 13, 1953 (gage height, 8.08 ft); minimum recorded, 152 cfs Oct. 28 (gage height, 1.43 ft).

Remarks.--Many diversions above station for irrigation above and below station. Flow regulated by Black Canyon Dam and affected by storage reservoirs on tributary streams.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1952	-	-	-	-	-	-	-	-	-	-	1,136	1,152	-
1953	489	-	-	-	-	-	3,445	4,460	12,080	3,088	839	1,010	-
1954	1,107	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1952	-	-	-	-	-	-	-	-	-	-	69,830	68,540	-
1953	30,050	-	-	-	-	-	205,000	274,200	718,800	189,900	51,570	60,100	-
1954	68,080	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1952	1247	-	-	-	-	-	-	-
1953	1287	16,400	June 13, 1952	-	-	-	-	-
1954	1287	-	-	-	-	-	-	-

2505. Payette River near New Plymouth, Idaho

Location.--Lat 43°57', long 116°43', in SE¼ sec.8, T.7 N., R.3 W., on right bank 17 ft upstream from right abutment of old steel road bridge north of Falk and 4.7 miles east of New Plymouth.

Drainage area.--2,850 sq mi, approximately.

Records available.--July to November 1952, March to November 1953.

Gage.--Water-stage recorder. Altitude of gage is 2,190 ft (from topographic map).

Extremes.--1952-53: Maximum discharge, 16,600 cfs June 13, 1953 (gage height, 8.44 ft); minimum recorded, 266 cfs Oct. 29, 1952 (gage height, 1.84 ft).

Remarks.--Many diversions above station for irrigation above and below station. Flow regulated by Black Canyon Dam and affected by storage reservoirs on tributary streams.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1952	-	-	-	-	-	-	-	-	-	-	1,514	1,564	-
1953	772	-	-	-	-	-	3,647	4,685	12,300	3,388	1,199	1,399	-
1954	1,467	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1952	-	-	-	-	-	-	-	-	-	-	93,100	93,040	-
1953	47,450	-	-	-	-	-	217,000	286,800	731,900	208,300	73,730	83,250	-
1954	90,190	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1952	1247	-	-	-	-	-	-	-
1953	1287	16,600	June 13, 1953†	-	-	-	-	-
1954	1287	-	-	-	-	-	-	-

† Corrected.

2510. Payette River near Payette, Idaho

Location.--Lat 44°02'30", long 116°55'30", in SW¼ sec.10, T.8 N., R.5 W., on right bank just upstream from bridge on U. S. Highway 95, 1¾ miles south of Payette.

Drainage area.--3,240 sq mi, approximately.

Records available.--August 1935 to September 1960. Records for January 1895 to July 1897 (published as "at Payette" in 18th and 19th Annual Reports) have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 2,138.44 ft above mean sea level, unadjusted. Aug. 1, 1935, to Aug. 7, 1939, wire-weight gage at site 50 ft downstream at present datum.

Average discharge.--25 years (1935-60), 3,129 cfs (2,265,000 acre-ft per year).

Extremes.--1935-60: Maximum discharge, 23,400 cfs May 2, 1938; maximum gage height, 12.75 ft Dec. 23, 1955; minimum discharge, 180 cfs Oct. 13, 20, 1935 (gage height, 2.04 ft); minimum daily, 220 cfs Oct. 5, 1935.

Remarks.--Diversions above station for irrigation of about 188,000 acres (1952 determination). Flow regulated by Black Canyon Dam and reservoirs on tributary streams.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,032	2,679	2,055	1,873	2,857	3,461	7,694	8,921	7,175	3,119	1,542	1,159	3,710
1952	1,725	1,987	2,628	1,465	2,287	2,299	10,520	11,930	9,287	3,429	1,748	1,933	4,262
1953	1,259	1,105	1,209	2,481	2,345	2,174	3,769	4,758	12,730	3,411	1,569	1,796	3,206
1954	1,943	2,038	1,793	1,867	2,104	2,577	6,373	8,180	5,865	2,754	1,605	1,867	3,248
1955	1,945	1,468	1,365	1,529	1,292	1,513	2,456	4,132	4,448	1,471	1,427	1,696	2,063
1956	1,893	1,623	3,967	2,980	2,114	4,230	8,426	10,300	8,568	1,873	1,660	1,814	4,121
1957	2,188	1,719	1,781	1,057	2,808	4,001	5,422	11,650	8,662	1,637	1,493	1,866	3,690
1958	2,168	2,085	2,084	1,910	3,111	2,386	5,357	10,090	7,548	1,529	1,621	1,914	3,478
1959	1,470	1,415	1,557	1,740	1,929	2,385	3,150	3,625	5,245	1,549	1,681	2,351	2,337
1960	1,902	1,631	2,038	1,484	2,231	3,320	4,123	5,107	5,564	1,567	1,811	1,710	2,704

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	124,900	159,400	126,300	115,100	158,700	212,800	457,800	548,500	426,900	191,800	94,790	68,990	2,686,000
1952	106,100	118,200	161,600	90,060	131,500	141,300	625,900	733,300	552,600	210,800	107,500	115,000	3,094,000
1953	77,410	65,760	74,360	152,500	130,200	133,700	224,300	292,500	757,200	209,800	96,460	106,900	2,321,000
1954	119,500	121,300	110,200	114,800	116,900	158,500	379,200	503,000	349,000	169,300	98,660	111,100	2,351,000
1955	119,600	87,370	83,910	94,000	71,740	93,000	146,100	254,100	264,700	90,470	87,750	100,900	1,494,000
1956	116,400	96,560	243,900	183,200	121,600	260,100	501,400	633,400	509,900	115,200	102,100	107,900	2,992,000
1957	134,600	102,300	109,500	64,980	155,900	246,000	322,700	716,500	515,400	100,700	91,810	111,000	2,671,000
1958	133,300	124,100	128,100	117,500	172,800	146,700	318,800	620,200	449,200	94,020	99,670	113,900	2,518,000
1959	90,390	84,180	95,720	107,000	107,100	146,600	187,500	222,900	312,100	95,230	103,300	139,900	1,692,000
1960	116,900	97,070	125,300	91,220	128,400	204,100	245,300	314,000	331,100	96,340	111,400	101,800	1,963,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30				Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	3,396	2,459,000
1951	1217	11,800	May 28, 1951	1,000	3,710	2,686,000	3,676	2,661,000
1952	1247,1397	17,300	Apr. 29, 1952	310	4,262	3,094,000	4,030	2,925,000
1953	1287,1397	17,900	June 14, 1953	653	3,206	2,321,000	3,390	2,455,000
1954	1347,1397	11,700	May 10, 1954	1,050	3,248	2,351,000	3,165	2,291,000
1955	1397	7,030	May 22, 1955	800	2,063	1,494,000	2,292	1,660,000
1956	1447	21,900	Dec. 23, 1955	335	4,121	2,992,000	3,969	2,881,000
1957	1517	17,700	May 19, 1957	243	3,690	2,671,000	3,744	2,710,000
1958	1567	14,500	May 13, 1958	1,350	3,478	2,518,000	3,317	2,403,000
1959	1637	7,700	Apr. 6, 1959	886	2,337	1,692,000	2,432	1,761,000
1960	1717	13,100	Feb. 9, 1960	1,090	2,704	1,963,000	-	-

2513. West Branch Weiser River near Tamarack, Idaho

Location.--Lat 45°01'30", long 116°26'00", in SE¼SE¼ sec.34, T.20 N., R.1 W., on left bank at Price Valley guard station, 0.1 mile upstream from East Branch Weiser River, and 5¼ miles northwest of Tamarack.

Drainage area.--3.96 sq mi.

Records available.--August 1959 to September 1960.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,200 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 32 cfs Apr. 8, 1960 (gage height, 3.77 ft); minimum daily, 0.8 cfs Sept. 10, 12, 1959, Jan. 3-6, 1960.

Remarks.--No regulation or diversion above station. Records of water temperatures for the period August 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	1.02	1.20	-
1960	1.38	1.21	1.00	0.95	1.08	4.99	19.3	14.4	3.89	1.45	1.12	1.01	4.31

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	62	71	-
1960	85	72	61	59	62	307	1,150	888	232	89	69	60	3,130

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1959	1717	-	-	-	-	-	-	-	-	-	-
1960	1717	32	Apr. 8, 1960	0.8	4.31	1.09	14.82	3,130	-	-	-

2515. Weiser River at Tamarack, Idaho

Location.--Lat 44°56'50", long 116°22'50", in NW¼NE¼ sec.31, T.19 N., R.1 E., on left bank 43 ft upstream from railroad bridge, 0.65 mile south of Tamarack, and 1½ miles upstream from Beaver Creek.

Drainage area.--36.5 sq mi. Mean altitude, 4,690 ft.

Records available.--September 1936 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 4,080 ft (by barometer). Prior to Oct. 8, 1949, staff gage at site a quarter of a mile upstream at different datum.

Average discharge.--24 years (1936-60), 43.7 cfs (31,640 acre-ft per year).

Extremes.--1936-60: Maximum discharge, 1,320 cfs Dec. 22, 1955 (gage height, 7.17 ft), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; minimum, 0.5 cfs Sept. 21, 1958 (gage height, 0.89 ft).

Remarks.--No diversion above station. Diurnal fluctuation caused by millpond at Tamarack. Small flow from Boulder Creek in Salmon River basin enters Weiser River above station through transmountain diversion during late irrigation season.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11.5	15.1	19.3	13.8	25.8	45.5	294	92.1	21.0	8.67	6.96	6.10	46.4
1952	13.9	18.0	61.8	18.6	16.6	18.8	368	229	24.8	11.1	7.65	7.11	66.1
1953	5.79	6.37	6.72	16.9	25.8	45.3	241	147	65.1	12.5	7.75	6.59	48.7
1954	6.70	8.72	8.52	10.7	29.9	81.5	273	89.7	27.8	11.1	7.86	7.38	46.7
1955	6.35	7.14	5.68	5.84	5.46	6.48	62.2	193	30.9	9.00	5.14	5.74	28.8
1956	11.2	15.1	128	39.8	19.4	76.0	293	128	23.0	9.50	7.90	6.45	63.1
1957	8.87	9.02	8.96	6.73	24.4	91.6	233	139	21.0	8.65	6.31	5.37	46.8
1958	7.48	6.88	8.66	7.85	32.3	57.1	233	183	30.5	12.1	8.36	5.91	43.3
1959	5.15	8.52	7.98	13.6	13.5	30.5	181	94.3	16.3	8.88	6.96	9.67	33.0
1960	10.3	7.99	6.16	5.94	6.98	66.6	197	99.5	22.1	7.88	7.18	5.89	36.9

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	709	900	1,190	849	1,430	2,800	17,470	5,660	1,250	533	428	363	33,580
1952	856	1,070	3,800	1,140	954	1,160	21,890	14,090	1,480	681	470	423	48,010
1953	356	379	413	1,040	1,430	2,790	14,320	9,020	3,880	768	477	392	35,260
1954	412	519	524	660	1,660	5,010	16,260	5,510	1,650	684	484	439	33,810
1955	390	425	349	359	303	398	3,700	11,870	1,840	554	316	341	20,840
1956	691	897	7,850	2,450	1,120	4,680	17,450	7,880	1,370	584	486	384	45,840
1957	545	537	551	414	1,350	5,630	13,870	8,520	1,250	532	388	320	33,910
1958	460	409	533	483	1,790	3,510	13,870	11,240	1,810	743	514	351	35,710
1959	317	507	487	836	750	1,880	10,780	5,800	967	546	428	575	23,870
1960	632	475	379	365	401	4,100	11,740	6,120	1,310	485	441	350	26,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	46.1	33,400
1951	1217	474	Apr.6 or 7,1951	5.7	46.4	33,580	50.4	36,510
1952	1247	771	Apr. 26, 1952	6.0	66.1	48,010	59.8	43,440
1953	1287	520	Apr. 28, 1953	4.8	48.7	35,260	49.1	35,570
1954	1347	524	Apr. 14, 1954	5.6	46.7	33,810	46.3	33,520
1955	1397	392	May 5, 1955	3.1	28.8	20,840	40.2	29,120
1956	1447	1,320	Dec. 22, 1955	6.0	63.1	45,840	52.4	38,040
1957	1517	434	Apr. 14, 1957	4.4	46.8	33,910	46.5	33,680
1958	1567	640	Apr. 18, 1958	.8	49.3	35,710	49.2	35,620
1959	1637	371	Apr. 6, 1959	.6	33.0	23,870	33.2	24,050
1960	1717	511	Apr. 7, 1960	1.5	36.9	26,800	-	-

2545. Lost Creek near Tamarack, Idaho

Location.--Lat 44°57'20", long 116°27'55", in SE¼NW¼ sec.28, T.19 N., R.1 W., on right bank a quarter of a mile downstream from dam of Lost Valley Reservoir, 4 miles west of Tamarack, and 16 miles north of Council.

Drainage area.--29.4 sq mi. Mean altitude, 5,460 ft.

Records available.--January 1910 to August 1914, May 1920 to September 1921 and May 1924 to November 1929 (fragmentary), March 1930 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 4,729.6 ft above mean sea level (river-profile survey). Prior to Apr. 1, 1912, staff gage at same site and datum.

Average discharge.--30 years (1930-60), 39.3 cfs (28,450 acre-ft per year).

Extremes.--1910-14, 1920-21, 1924-60: Maximum discharge, 688 cfs May 17, 18, 1921 (gage height, 4.29 ft); no flow at times when gates in dam were closed.

Remarks.--No diversion above station; practically entire flow diverted below station during irrigation season. Flow regulated since 1910 by Lost Valley Reservoir.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	31.5	7.80	7.77	7.82	7.98	8.26	112	127	18.9	43.3	68.0	39.0	40.1
1952	10.2	8.99	9.43	10.0	10.0	10.5	161	312	49.8	26.2	53.5	41.2	58.8
1953	15.2	4.52	3.62	3.49	3.47	3.37	93.2	190	96.2	30.1	59.6	44.0	45.7
1954	22.8	6.35	6.00	6.00	6.01	6.00	145	139	37.7	33.8	58.4	42.5	42.6
1955	52.4	13.5	4.63	5.45	5.23	5.00	6.10	81.9	49.8	43.1	79.3	74.0	35.3
1956	18.8	11.6	5.50	5.50	5.50	8.62	207	162	39.6	47.0	61.5	50.2	51.9
1957	39.2	8.04	.19	6.38	7.13	7.88	76.8	236	7.33	49.4	60.8	36.6	45.1
1958	8.21	.07	.32	4.20	4.41	4.71	77.0	295	49.6	41.1	63.2	43.6	49.8
1959	24.6	15.3	10.5	11.0	11.0	11.5	20.7	123	27.9	72.5	68.9	44.0	37.1
1960	.10	.10	.1	.1	.1	.1	92.7	105	37.7	59.9	62.2	47.8	33.8

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,940	464	478	481	443	508	6,680	7,780	1,120	2,660	4,180	2,320	29,050
1952	626	535	580	615	575	647	9,580	19,210	2,960	1,610	3,290	2,450	42,680
1953	932	269	223	214	193	207	5,540	11,670	5,720	1,850	3,660	2,620	33,100
1954	1,400	378	369	369	334	369	8,630	8,520	2,240	2,080	3,590	2,530	30,810
1955	3,220	804	285	335	291	307	363	5,030	2,960	2,650	4,870	4,410	25,520
1956	1,150	690	338	338	316	530	12,350	9,960	2,360	2,890	3,780	2,990	37,690
1957	2,410	479	12	392	396	485	4,570	14,520	436	3,040	3,740	2,180	32,660
1958	505	4.2	20	258	245	290	4,580	18,160	2,950	2,520	3,890	2,590	36,010
1959	1,520	908	645	676	611	704	1,230	7,560	1,660	4,460	4,240	2,620	26,830
1960	6.1	6.0	6.1	6.1	5.8	6.1	5,520	6,450	2,240	3,630	3,820	2,850	24,550

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	39.2	28,360
1951	1217	267	Apr. 30, 1951	7.4	40.1	29,050	38.6	27,910
1952	1247	585	Apr. 27, 1952	8.7	58.8	42,680	58.4	42,360
1953	1287	425	Apr. 28, 1953	1.2	45.7	33,100	46.7	33,820
1954	1347	280	May 11-12,1954	6.0	42.6	30,810	45.5	32,870
1955	1397	264	May 23, 1955	3.6	35.3	25,520	32.3	23,390
1956	1447	392	Apr. 24, 1956	5.0	51.9	37,690	52.9	38,420
1957	1517	352	May 4, 1957	.1	45.1	32,660	41.8	30,290
1958	1567	513	May 12, 1958	0	49.8	36,010	53.2	38,560
1959	1637	172	May 3, 1959	.2	37.1	26,830	32.9	23,780
1960	1717	176	Apr. 12, 1960	-	33.8	24,550	-	-

2560. Weiser River near Council, Idaho

Location (revised).--Lat 44°41'30", long 116°28'10", in SW¼ sec.28, T.16 N., R.1 W., on left bank 0.7 mile downstream from Cottonwood Creek, 2 miles upstream from Middle Fork, and 3¼ miles southwest of Council.

Drainage area.--390 sq mi.

Records available.--April 1937 to March 1953.

Gage.--Water-stage recorder. Altitude of gage is 2,850 ft (by barometer). Prior to Oct. 28, 1938, staff gage 370 ft downstream at datum 0.58 ft higher. Oct. 28, 1938, to Apr. 21, 1939, staff gage at present site and datum.

Average discharge.--15 years (1937-52), 423 cfs (306,200 acre-ft per year).

Extremes.--1937-53: Maximum discharge, 6,700 cfs Mar. 16 or 17, 1938 (gage height, 7.6 ft, from floodmark, site and datum then in use), from rating curve extended above 3,500 cfs; minimum, 22 cfs June 29, 1940.

Remarks.--Flow partly regulated by Lost Valley Reservoir and other reservoirs. Diversions above station for irrigation of about 7,000 acres (1948 determination).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	109	117	190	155	408	505	1,506	923	272	82.6	69.0	55.3	364
1952	143	221	599	234	274	455	3,064	2,151	559	162	79.7	73.6	667
1953	55.2	65.9	78.8	639	435	529	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,700	6,960	11,690	9,530	22,650	31,060	89,610	56,760	16,190	5,080	4,240	3,290	263,800
1952	8,800	13,140	36,820	14,390	15,750	27,990	182,300	132,200	33,240	9,960	4,900	4,380	483,900
1953	3,400	3,920	4,840	39,290	24,180	32,510	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	418	302,400
1951	1217	2,210	Apr. 7, 1951	29	364	263,800	410	297,200
1952	1247	4,330	Apr. 28, 1952	49	667	483,900	602	437,300
1953	1287	3,600	Jan. 18, 1953	-	-	-	-	-

2565. Mesa Orchards Canal near Mesa, Idaho

Location.--Lat 44°38'10", long 116°25'30", in sec.14, T.15 N., R.1 W., on left side of flume 1,500 ft from lower end, 1½ miles northeast of Mesa, and 3 miles downstream from headgates.

Records available.--1924, 1928-55 (irrigation seasons only prior to 1947).

Gage.--Staff gage. Prior to 1938, staff gages in flume at sites within 600 ft of present site at different datums.

Extremes.--1924, 1928-55: Maximum daily discharge, 42 cfs July 20, 21, 1952; no flow during nonirrigation seasons.

Remarks.--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.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	431	0	0	0	0	0	72	761	1,860	2,230	1,830	1,200	8,380
1952	207	0	0	0	0	0	0	584	1,650	2,360	2,210	1,510	8,520
1953	669	12	0	0	0	0	557	958	920	1,940	1,980	1,390	8,420
1954	855	198	0	0	0	0	195	1,650	1,810	2,110	1,960	1,390	10,170
1955	446	159	0	0	0	0	0	889	1,780	1,990	1,810	1,230	8,300

2585. Weiser River near Cambridge, Idaho

Location.--Lat 44°34'45", long 116°38'20", in NE¼ sec.1, T.14 N., R.3 W., on left bank 100 ft upstream from road bridge, 2¼ miles northeast of Cambridge, and 2½ miles upstream from Rush Creek.

Drainage area.--605 sq mi. Mean altitude, 4,650 ft.

Records available.--March 1939 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,652.00 ft (levels by Bureau of Reclamation). Prior to Apr. 23, 1939, staff gage and Apr. 23, 1939, to Dec. 21, 1955, water-stage recorder at site 35 ft downstream from road bridge at different datum. Dec. 22, 1955, to Aug. 28, 1956, wire-weight gage at bridge 2½ miles downstream at different datum.

Average discharge.--21 years (1939-60), 659 cfs (477,100 acre-ft per year).

Extremes.--1939-60: Maximum discharge, 10,100 cfs Dec. 22, 1955 (gage height, 13.9 ft, from floodmark, site and datum then in use); minimum, 8.0 cfs Nov. 16, 1958 (gage height, 1.12 ft, ice jam upstream).

Remarks.--Flow partly regulated by Lost Valley Reservoir and other reservoirs. Diversions above station for irrigation of about 9,200 acres (1948 determination).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	154	175	299	245	761	861	2,234	1,703	605	136	68.6	66.8	606
1952	253	422	926	377	479	845	4,542	3,429	1,132	281	90.7	86.5	1,070
1953	75.4	95.7	116	1,068	717	684	1,526	1,761	1,815	319	87.5	67.5	692
1954	81.9	133	198	545	964	934	1,854	1,678	706	190	74.6	68.5	615
1955	113	114	85.4	93.8	101	299	1,241	1,788	1,033	215	78.5	92.2	439
1956	99.7	189	1,489	834	562	1,180	2,183	2,001	858	192	81.6	89.3	814
1957	203	204	272	142	736	1,494	2,025	2,801	923	156	73.4	61.3	757
1958	94.1	101	271	243	1,501	1,304	1,942	2,850	1,172	183	91.6	81.2	791
1959	84.4	125	142	453	574	576	1,300	1,230	664	137	74.1	144	457
1960	192	132	103	98.4	255	1,474	1,654	1,472	808	106	81.7	68.6	537

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	9,470	10,410	18,360	15,050	42,270	52,930	132,900	104,700	35,980	8,340	4,220	3,970	438,600
1952	15,580	25,120	56,960	23,150	27,570	51,940	270,200	210,800	67,370	17,250	5,580	5,150	776,700
1953	4,640	5,690	7,120	65,700	39,830	42,040	90,820	108,300	108,000	19,600	5,380	4,020	501,100
1954	5,040	7,900	12,170	33,490	53,540	57,440	110,300	103,200	42,000	11,660	4,590	4,080	445,400
1955	6,920	6,800	5,250	5,770	5,590	18,380	73,840	110,000	61,450	13,220	4,830	5,490	317,500
1956	6,130	11,230	91,560	51,290	32,340	72,540	129,900	123,100	51,080	11,820	5,020	5,310	591,300
1957	12,450	12,120	16,700	8,740	40,900	91,860	120,500	172,200	54,950	9,610	4,510	3,650	548,200
1958	5,790	6,030	16,680	14,970	83,360	63,550	115,600	175,200	69,720	11,250	5,630	4,830	572,600
1959	5,190	7,440	8,730	27,870	31,850	35,420	77,330	75,640	39,530	8,400	4,560	8,590	330,600
1960	11,800	7,850	6,340	6,050	14,690	90,640	98,420	90,520	48,080	6,500	5,020	4,080	390,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	664	480,600
1951	1217	3,060	Apr. 7, 1951	40	606	438,600	688	498,000
1952	1247	5,970	Dec. 2, 1951	53	1,070	776,700	959	696,500
1953	1287	4,820	Jan. 18, 1953	51	692	501,100	703	508,800
1954	1347	4,600	Jan. 17, 1954	47	615	445,400	607	439,300
1955	1397	3,300	Apr. 22, 1955	45	439	317,500	563	407,500
1956	1447	10,100	Dec. 22, 1955	60	814	591,300	721	523,700
1957	1517	7,600	Feb. 26, 1957	52	757	548,200	740	535,400
1958	1567	7,260	Feb. 25, 1958	67	791	572,600	781	565,500
1959	1637	2,210	Apr. 6, 1959	40	457	330,600	463	335,200
1960	1717	4,440	Mar. 30, 1960	56	537	390,000	-	-

2600. Pine Creek near Cambridge, Idaho

Location.--Lat 44°35'23", long 116°44'12", in SE¼ sec.31, T.15 N., R.3 W., on right bank 300 ft upstream from West Fork and 3.2 miles northwest of Cambridge.

Drainage area.--54 sq mi, approximately. Mean altitude, 4,730 ft.

Records available.--April 1938 to September 1960.

Gage.--Staff gage. Altitude of gage is 2,800 ft (by barometer). Prior to Mar. 7, 1951, staff gages at nearby sites at present datum.

Average discharge.--22 years (1938-60), 39.4 cfs (28,520 acre-ft per year).

Extremes.--1938-60: Maximum discharge observed, 850 cfs Feb. 25, 1958 (gage height, 4.5 ft, from floodmark), from rating curve extended above 300 cfs on basis of slope-area measurement of peak flow; minimum observed, 0.7 cfs Aug. 3, 1949, July 13, 14, 1954; minimum gage height observed, 0.29 ft Aug. 5, 1952.

Remarks.--Several diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	7.24	13.5	16.8	14.9	29.9	39.1	90.9	109	47.3	9.48	4.35	3.94	32.1
1952	10.5	16.4	30.3	21.4	33.9	64.8	289	175	107	27.6	7.64	8.05	65.7
1953	8.41	10.1	12.9	70.2	54.1	55.7	90.8	106	141	37.0	5.76	5.39	49.6
1954	8.87	11.3	13.2	22.7	44.4	46.4	48.7	87.9	42.4	6.66	2.31	3.66	28.1
1955	5.75	9.41	9.68	10.8	11.4	15.7	49.8	63.9	78.9	13.1	2.48	3.89	22.9
1956	5.58	10.9	58.5	45.7	37.2	96.2	99.4	147	69.8	12.1	3.69	2.79	49.1
1957	9.32	13.4	11.9	9.47	36.3	83.4	82.8	147	84.7	9.89	2.52	2.47	41.1
1958	9.69	11.0	14.1	15.8	99.1	84.3	123	271	108	18.8	5.95	5.55	63.6
1959	9.75	12.2	13.4	20.8	30.1	35.6	51.3	61.1	56.5	6.80	2.15	8.61	25.6
1960	15.8	16.2	11.2	10.2	11.7	93.0	84.2	79.0	69.2	4.89	3.13	3.00	33.5

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	445	801	1,030	918	1,660	2,400	5,410	6,670	2,810	583	268	234	23,230
1952	646	978	1,860	1,310	1,950	3,980	17,180	10,760	6,350	1,700	470	479	47,660
1953	517	600	793	4,320	3,000	3,430	5,400	6,490	8,370	2,280	354	321	35,880
1954	546	670	809	1,400	2,470	2,850	2,900	5,400	2,520	410	142	218	20,340
1955	354	560	595	666	633	966	2,960	3,930	4,960	806	152	232	16,540
1956	343	649	3,600	2,810	2,140	5,910	5,910	9,020	4,160	743	227	166	35,680
1957	573	797	729	582	2,020	5,130	4,930	9,020	5,040	608	155	147	29,730
1958	596	652	867	972	5,500	5,180	7,330	16,650	6,430	1,150	366	330	46,020
1959	600	726	821	1,280	1,670	2,190	3,050	3,760	3,360	418	132	512	18,520
1960	971	966	692	626	673	5,720	5,010	4,860	4,120	300	192	179	24,310

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-		-	-	-	37.7	27,250
1951	1217	156	May 22, 1951	2.2	32.1	23,230	33.8	24,440
1952	1247	370	Apr. 19, 1952	6.1	65.7	47,660	63.5	46,090
1953	1287	208	Jan. 19, 1953	4.0	49.6	35,880	49.7	35,990
1954	1347	151	May 19, 1954	.7	28.1	20,340	27.4	19,820
1955	1397	199	June 11, 1955	1.2	22.9	16,540	27.1	19,630
1956	1447	420	Dec. 22, 1955	1.8	49.1	35,680	45.7	33,180
1957	1517	510	Feb. 26, 1957	1.6	41.1	29,730	41.1	29,750
1958	1567	850	Feb. 25, 1958	3.2	63.6	46,020	63.6	46,060
1959	1637	120	May 15, 1959	1.3	25.6	18,520	26.2	19,000
1960	1717	215	June 2, 1960	1.4	33.5	24,310	-	-

2610. Little Weiser River near Indian Valley, Idaho

Location.--Lat 44°30', long 116°24', in NE¼ sec.1, T.13 N., R.1 W., on left bank 60 ft downstream from barn at Richardson Ranch, 1 mile upstream from diversion feeding into C. Ben Ross Reservoir, and 4¾ miles southeast of Indian Valley.

Drainage area.--81.9 sq mi. Mean altitude, 5,300 ft.

Records available.--June 1920 to February 1921, March to June 1923, February 1924 to October 1927, April 1938 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 3,250 ft (by barometer). Prior to Feb. 25, 1924, staff gage at approximately present site at different datum. Feb. 25 to Apr. 22, 1924, staff gage at Burger Ranch 1 mile downstream at different datum. Apr. 23, 1924, to Nov. 18, 1927, water-stage recorder or staff gage at site half a mile downstream at different datum. May 6, 1938, to Aug. 11, 1950, staff gage at present site and datum.

Average discharge.--25 years (1924-27, 1938-60), 105 cfs (76,020 acre-ft per year).

Extremes.--1920-21, 1923-27, 1938-60: Maximum discharge observed, about 1,840 cfs Feb. 4, 1925; minimum recorded, 2.9 cfs Dec. 8, 1956; minimum gage height, -0.19 ft Nov. 30, 1957.

Revisions.--The momentary maximum discharge for the water year 1942 published in WSP 1317 has been revised to 750 cfs.

Remarks.--One small diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	18.1	25.7	37.5	34.2	109	70.9	286	385	186	43.8	14.0	10.7	101
1952	47.5	54.2	83.5	37.1	58.1	73.8	489	601	322	65.6	18.1	13.5	155
1953	10.9	10.7	13.6	108	80.9	67.8	206	368	550	115	24.0	12.9	130
1954	12.7	18.3	24.5	49.1	82.6	96.8	254	411	234	56.4	14.9	9.90	105
1955	11.6	14.0	11.6	12.7	12.5	25.1	124	251	280	60.4	14.8	9.47	69.0
1956	12.9	23.6	149	114	50.2	106	269	468	271	51.1	16.5	10.0	129
1957	25.8	33.6	41.3	17.8	109	159	255	609	353	57.1	17.3	9.14	140
1958	15.3	14.2	22.3	29.9	138	80.9	220	549	296	50.1	16.0	10.2	120
1959	9.97	17.7	21.9	62.3	50.1	55.5	148	202	210	35.8	9.75	24.9	70.5
1960	41.7	27.4	19.3	15.5	46.8	151	216	304	245	32.7	11.8	7.40	93.2

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,110	1,530	2,310	2,100	6,030	4,360	17,000	23,680	11,090	2,690	861	635	73,400
1952	2,920	3,220	5,130	2,260	3,340	4,540	29,120	36,960	19,130	4,030	1,110	805	112,600
1953	668	635	839	6,650	4,490	4,170	12,250	22,650	32,720	7,060	1,470	766	94,370
1954	783	1,090	1,510	3,020	4,590	5,950	15,110	25,250	13,900	3,470	918	589	76,180
1955	714	833	710	783	694	1,540	7,400	15,440	16,630	3,710	912	564	49,930
1956	791	1,400	9,180	7,000	2,890	6,500	15,990	28,790	16,100	3,140	1,010	597	93,390
1957	1,590	2,000	2,540	1,100	6,030	9,770	15,180	37,420	20,980	3,510	1,060	544	101,700
1958	940	847	1,370	1,840	7,680	4,970	13,080	33,740	17,600	3,080	982	608	86,740
1959	613	1,050	1,340	3,830	2,780	3,410	8,820	12,390	12,490	2,200	600	1,480	51,000
1960	2,570	1,630	1,180	950	2,690	9,280	12,860	18,690	14,600	2,010	725	440	67,620

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	94.4	15.63	68,320
1951	1217	568	May 22, 1951	8.0	101	1.23	16.81	73,400	110	18.26	79,720
1952	1247	1,280	May 8, 1952	12	155	1.89	25.76	112,600	143	23.67	103,500
1953	1287	1,240	June 7, 1953	6.9	130	1.59	21.61	94,370	132	21.89	95,610
1954	1347	662	May 20, 1954	7.4	105	1.28	17.42	76,180	104	17.16	75,050
1955	1397	588	Apr. 22, 1955	6.0	69.0	.842	11.43	49,930	81.6	13.52	59,040
1956	1447	1,200	Dec. 22, 1955	5.4	129	1.58	21.38	93,390	121	20.18	88,150
1957	1517	1,750	May 14, 1957	7.8	140	1.71	23.28	101,700	136	22.60	98,750
1958	1567	950	May 19, 1958	8.0	120	1.47	19.85	86,740	120	19.82	86,580
1959	1637	455	Jan. 24, 1959	5.6	70.5	.861	11.69	51,000	73.8	12.22	53,380
1960	1717	684	June 3, 1960	5.3	93.2	1.14	15.49	67,620	-	-	-

2635. Weiser River above Crane Creek, near Weiser, Idaho

Location.--Lat 44°18'10", long 116°47'35", in sec.10, T.11 N., R.4 W., on left bank 1 mile upstream from Crane Creek and 9 miles northeast of Weiser.

Drainage area.--1,160 sq mi, approximately.

Records available.--July to September 1920, February 1921 to September 1952.

Gage.--Water-stage recorder. Altitude of gage is 2,270 ft (by barometer).

Average discharge.--31 years (1921-52), 891 cfs (645,100 acre-ft per year).

Extremes.--1920-52: Maximum discharge, 16,900 cfs Mar. 19, 1932 (gage height, 10.8 ft, from floodmarks), from rating curve extended above 9,000 cfs by logarithmic plotting; minimum, 5 cfs (estimated) Aug. 11 to Sept. 10, 1931.

Remarks.--Flow partly regulated by Lost Valley Reservoir and other reservoirs. Diversions above station for irrigation of about 22,000 acres.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	218	279	482	481	1,564	1,517	2,774	2,320	890	143	72.9	85.2	896
1952	375	610	1,511	714	1,079	2,067	7,121	4,609	1,851	420	94.1	129	1,711

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13,390	16,620	29,640	29,580	86,850	93,290	165,100	142,600	52,940	8,780	4,480	5,070	648,300
1952	23,050	36,290	92,910	43,930	62,050	127,100	423,700	283,400	110,100	25,800	5,790	7,680	1,242,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	995	720,200
1951	1217	4,320	Feb. 12, 1951	45	896	648,300	1,023	740,900
1952	1247	9,370	Apr. 7, 1952	75	1,711	1,242,000	-	-

2645. Crane Creek near Midvale, Idaho

Location.--Lat 44°21'20", long 116°37'05", in SE¼ sec.19, T.12 N., R.2 W., on left bank 400 ft downstream from Crane Creek Dam and 9½ miles southeast of Midvale.

Drainage area.--242 sq mi.

Records available.--October 1910 to September 1911, January 1912 to September 1915, January to April 1916, May 1924 to September 1960.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,140 ft (by barometer). Prior to May 1, 1924, staff gage at site 100 ft upstream at different datum. May 1, 1924, to Dec. 7, 1952, water-stage recorder on right bank at datum 1.54 ft higher.

Average discharge.--39 years (1912-15, 1924-60), 75.0 cfs (54,300 acre-ft per year).

Extremes.--1910-16, 1924-60: Maximum discharge observed, 4,750 cfs Dec. 3, 1910 (gage height, 9.4 ft, from floodmark, site and datum then in use), from rating curve extended above 3,500 cfs, maximum discharge observed since regulation began, 1,370 cfs Mar. 30, 31, Apr. 1, 1913; no flow at times in many years when gates in dam were closed.
Revisions.--The momentary maximum discharge for the water year 1911 published in WSP 1317 has been revised to 4,750 cfs.

Remarks.--Flow regulated since 1911 by Crane Creek Reservoir. No large diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11.0	2.94	0.22	0.05	128	159	67.5	42.9	8.35	134	173	82.5	67.3
1952	34.1	1.89	.20	189	638	228	521	12.3	12.6	55.7	160	178	167
1953	176	4.66	.41	2.97	191	35.5	68.9	50.6	190	82.3	167	110	89.1
1954	14.2	0	0	.003	0	7.17	44.0	19.0	6.12	127	182	74.4	40.0
1955	1.81	0	0	0	0	.03	26.3	112	27.0	93.1	186	79.7	44.3
1956	.71	0	152	421	164	39.7	8.02	16.5	7.47	141	182	85.9	102
1957	11.5	.02	0	0	145	812	167	328	18.9	127	215	116	163
1958	7.73	.003	.02	.01	257	180	241	36.3	14.4	122	195	100	94.8
1959	5.74	.13	.10	.27	.28	.95	15.5	14.4	21.9	180	217	60.1	43.6
1960	.003	0	0	0	0	325	56.7	5.91	15.5	204	192	120	77.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	677	175	13	3.4	7,120	9,780	4,020	2,640	497	8,250	10,620	4,910	48,710
1952	2,100	113	12	11,650	36,710	13,710	30,990	756	750	3,430	9,870	10,590	120,900
1953	10,840	277	25	182	10,590	2,180	4,100	3,110	11,280	5,060	10,250	6,570	64,460
1954	875	0	0	.2	0	441	2,620	1,170	364	7,840	11,220	4,430	28,960
1955	111	0	0	0	0	1.8	1,560	6,890	1,600	5,730	11,410	4,740	32,040
1956	44	0	9,350	25,870	9,450	2,440	477	1,010	444	8,660	11,200	5,110	74,060
1957	708	1.2	0	0	8,040	49,960	9,930	20,190	1,120	7,830	13,230	6,870	117,900
1958	475	.2	1.4	.6	14,270	11,070	14,320	2,230	859	7,500	11,970	5,970	68,670
1959	353	7.9	6.1	17	16	59	923	887	1,300	11,090	13,350	3,580	31,590
1960	.2	0	0	0	0	19,980	3,370	364	920	12,540	11,830	7,130	56,130

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	63.0	45,580
1951	1217	384	Mar. 27, 1951	0	67.3	48,710	69.2	50,070
1952	1247	824	Apr. 8-12, 1952	0	167	120,900	179	129,900
1953	1287	653	Oct. 12, 1953	0	89.1	64,460	74.9	54,200
1954	1347	218	July 28, 1954	0	40.0	28,960	38.9	28,200
1955	1397	348	(a)	0	44.3	32,040	57.1	41,330
1956	1447	706	Dec. 27, 1955	0	102	74,060	90.1	65,370
1957	1517	973	Mar. 2, 1957	0	163	117,900	163	117,600
1958	1567	930	Feb. 27, 1958	0	94.8	68,670	94.7	68,560
1959	1637	249	Aug. 7, 1959	0	43.6	31,590	43.1	31,220
1960	1717	884	Mar. 9, 1960	0	77.3	56,130	-	-

a Apr. 30 to May 4, 1955.

2655. Crane Creek at mouth, near Weiser, Idaho

Location.--Lat 44°17'30", long 116°46'50", in sec.14, T.11 N , R 4 W., on right bank just downstream from highway bridge at Harris Ranch, a quarter of a mile upstream from mouth and 10 miles northeast of Weiser.

Drainage area.--288 sq mi. Mean altitude, 3,340 ft.

Records available.--July to September 1920, February 1921 to September 1960.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2,240 ft (by barometer).

Average discharge.--39 years (1921-60), 83.6 cfs (60,520 acre-ft per year).

Extremes.--1920-60: Maximum discharge, 3,170 cfs Feb. 26, 1957 (gage height, 6.23 ft); no flow for part of May 1, 1956.

Remarks.--Flow regulated by Crane Creek Reservoir. Several small ditches divert above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	15.3	8.04	9.15	15.2	235	241	79.9	40.8	6.46	119	165	74.4	83.4
1952	36.7	17.2	23.2	200	759	313	643	11.4	7.86	44.6	148	169	195
1953	180	11.2	7.84	95.3	229	48.1	74.9	58.9	212	72.0	156	111	104
1954	20.2	6.24	7.54	31.8	16.0	22.4	49.1	14.3	8.08	114	168	67.7	44.1
1955	5.83	4.52	6.01	5.44	4.97	20.4	57.7	117	22.1	76.8	161	72.0	46.6
1956	3.42	5.63	237	506	213	62.1	10.9	12.8	5.90	123	164	78.7	119
1957	29.1	7.10	12.0	4.34	244	893	178	334	11.7	108	193	106	177
1958	12.9	5.67	8.11	18.4	377	202	248	38.4	11.6	100	170	97.7	106
1959	11.3	5.90	6.18	18.8	38.1	12.1	19.1	5.8	9.7	166	208	65.1	47.5
1960	6.76	5.66	11.3	6.05	42.5	442	69.9	4.36	8.29	185	181	113	90.4

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	942	478	563	937	13,060	14,840	4,760	2,510	385	7,320	10,180	4,430	60,400
1952	2,260	1,020	1,430	12,310	43,650	19,270	38,280	704	468	2,740	9,080	10,070	141,300
1953	11,040	668	482	5,860	12,710	2,960	4,450	3,620	12,620	4,430	9,600	6,600	75,040
1954	1,250	372	463	1,950	887	1,370	2,920	882	481	7,000	10,350	4,030	31,960
1955	358	269	370	334	276	1,250	3,430	7,210	1,320	4,720	9,910	4,290	33,740
1956	210	335	14,560	31,130	12,270	3,820	646	785	351	7,540	10,060	4,680	86,390
1957	1,790	422	735	267	13,560	54,950	10,570	20,520	695	6,640	11,890	6,330	128,300
1958	799	337	499	1,130	20,950	12,440	14,740	2,360	688	6,180	10,480	5,810	76,410
1959	697	351	380	1,160	2,110	748	1,130	358	575	10,220	12,800	3,880	34,410
1960	416	337	698	372	2,450	27,210	4,160	268	493	11,380	11,110	6,740	65,630

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	77.8	56,340
1951	1217	1,020	Mar. 15, 1951	1.0	83.4	60,400	87.2	63,130
1952	1247	1,410	Apr. 5, 1952	2.3	195	141,300	205	148,800
1953	1287	1,020	Jan. 18, 1953	6.2	104	75,040	89.7	64,940
1954	1347	715	Jan. 17, 1954	1.9	44.1	31,960	42.6	30,870
1955	1397	494	Apr. 22, 1955	1.5	46.6	33,740	66.1	47,840
1956	1447	1,780	Dec. 19, 1955	.2	119	86,390	102	74,230
1957	1517	3,170	Feb. 26, 1957	1.2	177	128,300	175	127,000
1958	1567	1,820	Feb. 25, 1958	5.3	106	76,410	105	76,210
1959	1637	505	Feb. 18, 1959	2	47.5	34,410	47.6	34,430
1960	1717	1,210	Mar. 19, 1960	1.0	90.4	65,630	-	-

2660. Weiser River near Weiser, Idaho

Location (revised).--Lat 44°16'25", long 116°46'25", in SE¼ sec.23, T.11 N., R.4 W., on right bank 0.4 mile upstream from county road bridge, 1¾ miles downstream from Crane Creek, and 10 miles east of Weiser.

Drainage area.--1,460 sq mi, approximately.

Records available.--March 1890 to June 1891, December 1894 to October 1896, April to September 1897, March 1898 to November 1899, March 1900 to December 1904, October 1910 to December 1914, October 1952 to September 1960. Published as "at Weiser" prior to 1900.

Gage.--Water-stage recorder. Altitude of gage is 2,220 ft (by barometer). Prior to October 1952, staff gages at several sites downstream within 1½ miles of present site at various datums.

Average discharge.--17 years (1895-96, 1898-99, 1900-1904, 1911-14, 1952-60), 1,209 cfs (875,300 acre-ft per year).

Extremes.--1890-91, 1894-1904, 1910-14, 1952-60: Maximum discharge observed, 19,900 cfs Dec. 23, 1955 (gage height, 11.06 ft); minimum observed, 14 cfs Aug. 7, 1911 (gage height, 2.80 ft, site and datum then in use).
Flood of Mar. 19, 1932, reached a discharge of about 17,500 cfs.

Remarks.--Flow partly regulated by Crane Creek Reservoir, Lost Valley Reservoir, and other small reservoirs. Diversions above station for irrigation of about 22,000 acres (1948 determination). Records of chemical analyses for the period November 1958 to September 1959 and of water temperatures for the period July 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	297	164	215	2,503	1,635	1,156	2,169	2,626	3,174	557	247	188	1,239
1954	140	202	319	987	1,532	1,313	2,318	2,321	1,050	304	234	155	901
1955	158	181	151	157	159	592	2,056	2,393	1,563	401	241	184	687
1956	136	299	2,920	2,050	1,269	2,037	2,762	2,800	1,325	337	256	190	1,368
1957	358	359	494	225	1,836	4,065	2,941	4,318	1,577	304	282	188	1,410
1958	167	166	410	392	3,709	2,114	3,183	4,277	1,860	329	277	210	1,406
1959	135	204	237	843	1,190	848	1,621	1,594	1,006	304	306	292	710
1960	324	214	178	180	584	3,262	2,317	2,057	1,248	300	271	201	929

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953	18,290	9,730	13,200	153,900	90,810	71,060	129,100	161,500	188,900	34,240	15,200	11,180	897,100
1954	8,630	12,020	19,610	60,670	85,080	80,760	137,900	142,700	62,460	18,720	14,360	9,230	652,100
1955	9,720	10,760	9,280	9,640	8,830	36,380	122,400	147,200	92,990	24,670	14,790	10,940	497,600
1956	8,390	17,780	179,600	126,000	72,990	125,300	164,300	172,200	78,820	20,720	15.720	11,300	993,100
1957	22,040	21,370	30,350	13,850	102,000	250,000	175,000	265,500	93,820	18,690	17,360	11,200	1,021,000
1958	10,270	9,910	25,240	24,080	206,000	130,000	189,400	263,000	110,700	20,240	17,010	12,470	1,018,000
1959	8,300	12,120	14,580	51,830	66,090	52,140	96,480	98,020	59,850	18,690	18.790	17,390	514,300
1960	19,930	12,740	10,970	11,090	33,590	200,600	137,900	126,500	74,250	18,450	16,660	11,940	674,600

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953	1287	13,000	Jan.18,19,1953	88	1,239	897,100	1,238	896,200
1954	1347	7,850	Jan. 17, 1954	98	901	652,100	886	641,600
1955	1397	6,170	Apr. 22, 1955	101	687	497,600	930	673,600
1956	1447	19,900	Dec. 23, 1955	95	1,368	993,100	1,186	861,100
1957	1517	19,000	Feb. 27, 1957	127	1,410	1,021,000	1,371	992,800
1958	1567	17,300	Feb. 25, 1958	110	1,406	1,018,000	1,392	1,008,000
1959	1637	6,630	Jan. 28, 1959	70	710	514,300	722	522,900
1960	1717	6,960	Mar. 22, 1960	140	929	674,600	-	-

2665. Galloway Canal near Weiser, Idaho
(Formerly published as Weiser Irrigation District Canal near Weiser)

Location.--Lat 44°14'35", long 116°50'00"(revised), in NE¼SE¼ sec.32, T.11 N., R.4 W., on left bank 3¼ miles downstream from headworks of canal and 7 miles east of Weiser.

Records available.--April 1920 to September 1960 (winter records fragmentary prior to 1950). Prior to October 1960, published as Weiser Irrigation District Canal near Weiser.

Gage.--Water-stage recorder. Altitude of gage is 2,160 ft (by barometer).

Extremes.--1920-60: Maximum daily discharge, 223 cfs June 24, 1957; no flow at times when gates were closed.

Remarks.--Canal diverts water from right bank of Weiser River in sec.35, T.11 N., R.4 W., for irrigation of about 11,700 acres (1953 determination), including about 1,200 acres irrigated from five diversions above station in projects of Weiser and Weiser Bench Irrigation Districts.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,740	75	51	55	71	73	7,090	9,070	10,880	11,870	11,330	7,900	63,200
1952	3,460	399	114	73	213	213	3,200	10,630	10,660	11,080	10,660	9,320	60,020
1953	5,960	851	667	444	189	98	4,520	10,690	9,630	12,540	12,090	9,130	66,810
1954	5,580	327	632	527	255	83	6,740	12,870	12,440	12,840	11,620	8,060	71,970
1955	3,500	1,050	577	123	67	103	2,920	8,530	12,580	12,540	11,420	8,340	61,750
1956	3,190	702	213	108	61	37	7,850	12,110	12,410	13,210	11,800	8,720	70,410
1957	2,410	41	31	13	34	46	3,000	10,970	12,650	12,010	12,250	9,200	62,660
1958	2,870	74	30	30	76	41	1,890	9,020	12,140	13,080	12,180	8,550	59,960
1959	3,730	60	34	27	27	118	9,700	12,120	12,610	13,250	12,180	7,250	71,110
1960	2,840	109	53	30	65	48	6,090	10,160	9,940	12,220	11,550	8,680	61,780

2670. Mann Creek near Weiser, Idaho

Location.--Lat 44°23'30", long 116°53'40", in NE¼ sec.11, T.12 N., R.5 W., on left bank 2 miles upstream from U. S. Highway 95, 10 miles northeast of Weiser, and 11½ miles upstream from mouth.

Drainage area.--56 sq mi, approximately. Mean altitude, 4,860 ft.

Records available.--March 1911 to September 1913, July to November 1920, April 1937 to September 1960.

Gage.--Staff gage. Crest-stage gage since July 16, 1957. Altitude of gage is 2,830 ft (from topographic map). Prior to Feb. 9, 1951, staff gages at sites within 1,000 ft upstream at different datums.

Average discharge.--25 years (1911-13, 1937-60), 40.8 cfs (29,540 acre-ft per year).

Extremes.--1911-13, 1920, 1937-60: Maximum discharge, 1,540 cfs May 27, 1940 (gage height, 5.45 ft, from floodmark, site and datum then in use), from rating curve extended above slope-area measurement at gage height 4.21 ft; no flow Aug. 18 to Sept. 22, 1937, July 31 to Sept. 13, 1939.

Remarks.--One diversion above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3.92	5.86	8.90	7.46	37.0	53.3	175	88.2	20.5	5.71	1.23	1.20	33.8
1952	6.18	13.3	26.9	7.73	9.28	74.7	405	228	38.2	10.8	3.67	2.83	68.7
1953	2.92	4.52	6.64	60.4	51.5	72.5	179	141	88.2	16.1	5.32	2.48	52.4
1954	3.91	6.20	6.85	19.3	37.4	71.6	109	44.4	16.0	5.18	1.55	1.67	26.8
1955	2.98	4.12	3.72	4.89	5.04	11.8	67.4	115	30.6	7.43	1.97	1.54	21.5
1956	3.52	5.82	49.9	44.5	28.6	96.2	197	79.9	22.8	8.88	3.04	2.04	45.1
1957	6.34	9.50	11.2	8.34	41.1	91.9	140	139	31.9	9.22	2.45	2.29	41.1
1958	4.28	5.19	10.4	14.4	93.4	101	184	238	41.0	12.3	4.74	3.37	59.1
1959	4.09	4.68	6.26	11.7	28.3	34.4	95.5	50.5	17.0	3.97	1.26	4.04	21.7
1960	6.30	6.28	8.91	9.20	18.4	93.5	142	81.0	18.5	6.09	3.27	2.31	33.0

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	241	349	547	459	2,060	3,270	10,430	5,420	1,220	351	76	72	24,500
1952	380	790	1,650	475	534	4,590	24,130	14,000	2,270	662	226	168	49,880
1953	180	269	408	3,710	2,860	4,450	10,640	8,680	5,250	991	327	147	37,910
1954	241	369	421	1,190	2,080	4,400	6,500	2,730	952	319	96	99	19,400
1955	183	245	228	300	280	726	4,010	7,070	1,820	457	121	92	15,530
1956	216	346	3,070	2,740	1,640	5,910	11,700	4,910	1,360	546	187	121	32,750
1957	390	565	687	513	2,280	5,650	8,330	8,580	1,900	567	150	136	29,750
1958	263	309	640	887	5,190	6,240	10,930	14,610	2,440	754	291	201	42,760
1959	252	278	385	718	1,570	2,120	5,680	3,100	1,010	244	78	241	15,680
1960	387	374	548	566	1,060	5,750	8,450	4,980	1,100	375	201	137	23,930

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	33.4	24,200
1951	1217	421	Apr. 5, 1951	0.3	33.8	24,500	36.2	26,180
1952	1247	756	Apr. 26, 1952	2.0	68.7	49,880	66.0	47,910
1953	1287	403	Apr. 26, 1953	1.4	52.4	37,910	52.6	38,090
1954	1347	560	Mar. 9, 1954	.6	26.8	19,400	26.3	19,020
1955	1397	372	Apr. 22, 1955	.4	21.5	15,530	25.6	18,510
1956	1447	550	Dec. 22, 1955	1.0	45.1	32,750	42.4	30,760
1957	1517	602	Feb. 26, 1957	1.1	41.1	29,750	40.5	29,320
1958	1567	679	Feb. 25, 1958	1.7	59.1	42,760	58.6	42,460
1959	1637	198	Apr. 26 or 27, 1959	.3	21.7	15,680	22.2	16,070
1960	1717	376	Apr. 5, 1960	1.6	33.0	23,930	-	-

2690. Snake River at Weiser, Idaho

Location.--Lat 44°14'40", long 116°58'25", in sec.31, T.11 N., R.5 W., on right bank a third of a mile upstream from highway bridge at Weiser and a third of a mile downstream from Weiser River.

Drainage area.--69,200 sq mi, approximately. Mean altitude, 5,400 ft.

Records available.--October 1910 to September 1960. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895. Monthly discharge only for October 1910, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 2,086.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1914, staff gage half a mile downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, staff gage at present site and datum.

Extremes.--1910-60: Maximum discharge, 84,500 cfs Apr. 29, 1952 (gage height, 14.67 ft); minimum observed, 5,100 cfs Aug. 5, 1924 (gage height, 1.35 ft).
Flood of Mar. 3, 1910, reached a stage of 17.1 ft, present site and datum, from reading on old U. S. Weather Bureau gage (discharge, 120,000 cfs). Flood in June 1894 was considerably higher.

Remarks.--Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. Diversions for irrigation of about 2,473,000 acres (1948 determination) above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	16,890	17,220	17,390	19,590	28,600	29,140	36,120	38,240	25,490	13,300	12,400	12,850	22,210
1952	18,640	17,990	20,250	20,540	24,020	31,810	68,570	51,690	31,410	16,340	11,770	13,950	27,200
1953	14,580	12,530	12,670	18,900	18,550	19,880	20,290	21,050	41,370	14,430	11,290	13,310	18,200
1954	14,360	14,170	14,430	15,160	16,790	18,290	23,300	22,340	20,190	12,280	11,260	12,830	16,260
1955	15,520	14,760	13,800	13,750	12,050	13,690	18,320	16,230	15,030	10,750	10,260	11,920	13,840
1956	13,680	13,200	19,470	19,790	20,620	28,890	34,230	35,960	37,840	11,590	12,020	13,450	21,700
1957	16,850	15,710	15,440	14,280	20,420	30,980	33,380	47,840	26,680	11,210	11,570	13,820	21,510
1958	15,710	13,770	14,660	14,690	22,860	22,270	33,080	34,410	24,220	11,170	12,160	13,850	19,360
1959	14,540	13,660	13,070	13,580	13,790	13,700	14,210	15,530	15,460	10,270	11,710	15,280	13,720
1960	15,660	13,270	13,040	12,110	14,350	18,530	18,590	17,380	15,890	10,210	11,770	12,760	14,460

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,039	1,025	1,069	1,205	1,588	1,791	2,149	2,351	1,517	817.6	762.0	764.6	16,080
1952	1,146	1,071	1,245	1,263	1,382	1,956	4,080	3,178	1,869	1,005	723.8	830.3	19,750
1953	896.5	745.8	778.9	1,162	1,030	1,222	1,207	1,294	2,462	887.0	694.0	792.0	13,170
1954	883.0	843.2	887.0	932.2	932.6	1,125	1,386	1,374	1,201	755.2	692.4	763.2	11,770
1955	954.0	878.5	848.5	845.8	669.4	841.6	1,090	997.9	894.3	661.0	631.1	709.1	10,020
1956	841.4	785.7	1,197	1,217	1,186	1,777	2,037	2,211	2,252	712.5	739.0	800.3	15,760
1957	1,036	934.6	949.1	878.1	1,134	1,905	1,985	2,941	1,588	689.1	711.3	822.5	15,570
1958	966.1	819.6	901.3	903.5	1,270	1,369	1,968	2,116	1,441	687.1	747.6	823.9	14,010
1959	894.1	813.0	803.9	835.0	765.8	842.2	845.8	954.6	920.1	631.3	720.2	909.2	9,935
1960	963.2	789.8	801.9	744.4	825.5	1,140	1,106	1,068	945.3	628.0	723.6	759.1	10,490

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	19,840	14,360,000
1951	1217	45,900	May 17, 1951	10,900	22,210	16,080,000	22,660	16,410,000
1952	1247	84,500	Apr. 29, 1952	11,000	27,200	19,750,000	25,770	18,710,000
1953	1287	56,900	June 14, 1953	9,680	18,200	13,170,000	18,460	13,360,000
1954	1347	30,000	Apr. 15, 1954	9,970	16,260	11,770,000	16,360	11,840,000
1955	1397	28,000	Apr. 23, 1955	9,260	13,840	10,020,000	14,040	10,160,000
1956	1447	56,400	June 6, 1956	10,300	21,700	15,760,000	21,840	15,850,000
1957	1517	66,400	May 24, 1957	10,200	21,510	15,570,000	21,190	15,340,000
1958	1567	43,100	Apr. 19, 1958	10,300	19,360	14,010,000	10,110	13,840,000
1959	1637	21,600	Sept.16, 1959	9,910	13,720	9,935,000	13,780	9,979,000
1960	1717	31,100	Apr. 10, 1960	9,550	14,460	10,490,000	-	-

2725. Unity Reservoir near Unity, Oreg.

Location.--Lat 44°30'20", long 118°11'00", in SW¼SE¼ sec.21, T.12 S., R.37 E., at Unity Dam on Burnt River, 500 ft downstream from Job Creek, 0.5 mile downstream from confluence of North, Middle, and South Forks of Burnt River, and 4½ miles north of Unity.

Drainage area.--309 sq mi.

Records available.--March 1938 to September 1960.

Gage.--Staff gage above elevation 3,803.3 ft; reference marks for lower readings. Datum of gage is at mean sea level, Bureau of Reclamation bench mark (to convert elevations to datum of 1929, add 0.12 ft). Prior to Nov. 4, 1941, reference mark or mercury pressure gage at same site and datum.

Extremes.--1938-60: Maximum contents observed, 25,770 acre-ft Apr. 13, 1942, May 4, 5, 8, 1960 (elevation, 3,820.60 ft); no contents Sept. 5 to Oct. 4, 1955.

Remarks.--Reservoir is formed by earthfill dam with concrete spillway and outlet works, completed by Bureau of Reclamation in 1937; storage began Feb. 19, 1938. Capacity, 25,220 acre-ft between elevations 3,776.5 (bottom of outlet gates) and 3,820.0 ft (top of radial gates on spillway when closed). Dead storage, 600 acre-ft below elevation 3,776.5 ft. Records given herein represent usable contents. Water used for irrigation in the Burnt River Irrigation District near Hereford and Bridgeport. Contents computed from capacity table based on surveys by Bureau of Reclamation.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	5,100	5,840	7,110	8,910	12,470	14,700	23,320	23,410	18,420	13,540	7,230	2,960
1952	2,480	3,300	4,550	5,420	5,900	6,950	16,840	24,130	19,580	13,030	6,720	3,040
1953	1,350	1,980	2,960	5,680	8,600	14,780	25,220	25,030	23,590	17,300	11,030	5,790
1954	1,650	1,440	2,030	3,430	8,470	15,370	25,220	20,600	18,590	14,420	8,410	3,840
1955	1,320	2,030	2,520	2,520	3,120	4,310	13,030	15,370	9,730	4,950	222	0
1956	870	1,890	11,700	12,440	12,960	18,260	24,560	24,850	20,170	14,120	7,750	3,650
1957	1,600	2,480	6,060	9,220	15,370	21,780	24,400	23,770	17,860	10,840	4,850	1,160
1958	3,970	5,160	5,790	6,500	12,260	12,120	22,120	23,820	20,600	15,370	8,410	3,250
1959	2,360	3,840	6,830	9,540	12,610	19,160	25,170	22,560	17,460	11,570	4,550	1,380
1960	1,100	1,910	3,160	5,100	7,000	17,800	25,570	22,940	16,530	10,040	4,040	1,310

2730. Burnt River near Hereford, Oreg.

Location.--Lat 44°30'20", long 118°10'50", in SE¼ sec.21, T.12 S., R.37 E., on left bank at entrance to canyon, 1,250 ft downstream from Unity Dam, 0.3 mile upstream from Van Cleve ditch, 0.7 mile downstream from South Fork, and 7 miles west of Hereford.

Drainage area.--309 sq mi.

Records available.--March to September 1915, April to September 1916, October 1928 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,756.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Mar. 16, 1915, to Sept. 4, 1916, staff gage at site 2 miles downstream at different datum. Oct. 22, 1928, to June 28, 1932, water-stage recorder at site 0.9 mile downstream at different datum. June 29, 1932, to Sept. 16, 1937, water-stage recorder at site 300 ft upstream at different datum. Sept. 17, 1937, to Sept. 30, 1943, water-stage recorder at present site at datum 3.29 ft higher.

Average discharge.--32 years (1928-60), 82.6 cfs (59,800 acre-ft per year).

Extremes.--1915-16, 1928-60: Maximum discharge, 2,220 cfs Apr. 17, 1943 (gage height, 7.35 ft, present datum), from rating curve extended above 1,300 cfs by logarithmic plotting; maximum gage height, 7.85 ft, Apr. 16, 1943, present datum, just before concrete control washed out; no flow at times; minimum discharge before construction of Unity Dam, 1.6 cfs Aug. 31, 1935.

Remarks.--Flow regulated since 1938 by Unity Reservoir (see preceding station). Diversions for irrigation of 8,700 acres above station. Eldorado ditch diverts as much as 34 cfs from several tributaries above station for irrigation in Willow Creek basin. A transmountain diversion from headwaters of John Day River delivers 12 cfs to North Fork Burnt River for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	55.1	38.3	47.2	27.9	38.3	145	392	153	105	81.6	104	73.0	105
1952	36.8	30.5	30.2	34.8	42.8	111	548	132	137	129	111	90.9	119
1953	61.7	25.8	28.7	32.9	39.1	93.1	230	268	326	124	122	95.1	121
1954	93.0	63.2	45.1	31.6	20.4	16.5	80.6	128	79.8	77.3	109	95.0	70.3
1955	68.3	33.5	24.1	26.3	11.5	1.42	.23	87.3	114	63.9	92.7	12.7	44.9
1956	2.59	3.95	3.49	65.1	82.9	249	515	271	138	108	123	68.1	136
1957	33.4	22.4	16.2	10.0	7.56	116	394	251	130	134	108	53.6	107
1958	5.89	14.6	33.5	50.0	74.7	198	469	393	140	110	136	92.2	143
1959	33.9	28.5	47.6	12.5	3.25	3.46	138	120	125	102	117	59.6	66.1
1960	63.1	43.1	19.2	9.80	9.90	20.1	193	145	135	109	92.5	51.7	74.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,390	2,280	2,900	1,720	2,130	8,890	23,330	9,390	6,280	5,020	6,410	4,340	76,080
1952	2,270	1,810	1,860	2,140	2,460	6,850	32,630	8,130	8,170	7,960	6,840	5,410	86,530
1953	3,790	1,530	1,770	2,020	2,170	5,730	13,680	16,490	19,420	7,640	7,480	5,660	87,380
1954	5,720	3,760	2,770	1,950	1,130	1,020	4,800	7,900	4,750	4,750	6,730	5,650	50,930
1955	4,200	1,990	1,480	1,610	636	87	13	5,370	6,770	3,910	5,700	754	32,520
1956	159	235	215	4,000	4,770	15,300	30,660	16,650	8,180	6,620	7,540	4,050	98,380
1957	2,050	1,330	998	615	420	7,150	23,440	15,430	7,750	8,270	6,610	3,190	77,250
1958	362	867	2,080	3,070	4,150	12,160	27,890	24,170	8,310	6,740	8,340	5,490	103,600
1959	2,080	1,690	2,930	767	181	213	8,230	7,370	7,450	6,250	7,170	3,540	47,870
1960	3,880	2,560	1,180	602	569	1,230	11,490	8,890	8,030	6,730	5,690	3,080	53,930

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	91.9	66,570
1951	1217	614	Apr. 22, 1951	0	105	76,080	101	73,450
1952	1247	842	Apr. 20, 1952	25	119	86,530	121	87,680
1953	1287	602	June 4,5,1953	8.3	121	87,380	128	92,540
1954	1347	336	Apr. 19, 1954	12	70.3	50,930	64.0	46,350
1955	1397	235	May 10, 1955	.1	44.9	32,520	35.2	25,460
1956	1447	1,110	Apr. 13, 1956	.4	136	98,380	141	102,100
1957	1517	795	Apr. 14, 1957	6.0	107	77,250	105	76,160
1958	1567	745	Apr. 29, 1958	1.8	143	103,600	148	107,000
1959	1637	270	Apr. 12, 1959	.7	66.1	47,870	67.4	48,790
1960	1717	715	Apr. 14, 1960	8.8	74.3	53,930	-	-

2742. Burnt River near Bridgeport, Oreg.

Location.--Lat 44°32'30", long 117°41'20", in SW¼ sec.3, T.12 S., R.41 E., on left bank 0.5 mile downstream from Dark Canyon, 4½ miles upstream from Deer Creek, and 5 miles northeast of Bridgeport.

Drainage area.--650 sq mi, approximately.

Records available.--October 1956 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,223.22 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--1956-60: Maximum discharge, 1,270 cfs Feb. 26, 1957 (gage height, 5.43 ft); minimum, 10 cfs Nov. 1, 2, 4, 1958.

Remarks.--Flow regulated by Unity Reservoir (see p. 206). Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	52.6	42.1	40.5	39.8	148	205	498	307	139	95.3	66.3	55.4	140
1958	43.0	34.7	53.1	66.7	159	265	666	596	200	109	106	97.7	200
1959	56.6	33.4	64.7	50.4	32.5	34.3	170	82.4	62.5	69.1	61.6	70.1	65.7
1960	76.6	40.9	28.5	18.2	24.0	88.9	264	118	92.1	76.2	66.3	46.5	78.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	3,240	2,500	2,490	2,450	8,240	12,620	29,630	18,870	8,250	5,860	4,070	3,300	101,500
1958	2,640	2,060	3,270	4,100	8,820	16,320	39,620	36,660	11,900	6,730	6,490	5,820	144,400
1959	3,480	1,990	3,980	3,100	1,800	2,110	10,100	5,060	3,720	4,250	3,790	4,170	47,550
1960	4,710	2,430	1,750	1,120	1,380	5,470	15,690	7,260	5,480	4,680	4,080	2,770	56,820

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1957	1517	1,270	Feb. 26, 1957	16	140	101,500	140	101,300
1958	1567	1,060	Apr. 26, 1958	28	200	144,400	202	145,900
1959	1637	252	Apr. 14, 1959	11	65.7	47,550	64.9	46,990
1960	1717	644	Apr. 12, 1960	14	78.3	56,820	-	-

2750. Burnt River at Huntington, Oreg.

Location.--Lat 44°21'30", long 117°16'20", in NE¼ sec.13, T.14 S., R.44 E., on right bank 0.5 mile northwest of Huntington and 3½ miles upstream from mouth.

Drainage area.--1,093 sq mi.

Records available.--September 1928 to September 1932, October 1956 to September 1959, water year 1960 (annual maximum).

Gage.--Crest-stage gage. Datum of gage is 2,104.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Sept. 13, 1928, to Sept. 30, 1932, staff gage at site 200 ft upstream at different datum. Oct. 1, 1956, to Sept. 30, 1959, water-stage recorder at present site and datum.

Average discharge.--7 years (1928-32, 1956-59), 116 cfs (83,980 acre-ft per year).

Extremes.--1928-32, 1956-60: Maximum discharge, 2,190 cfs Feb. 26, 1957 (gage height, 6.39 ft); no flow at times.

Remarks.--Flow regulated since 1938 by Unity Reservoir (see p. 206). Diversions for irrigation of 28,000 acres above station.

Corrections.--In WSP 1317, the water year and calendar year means for 1930 are listed in error; they should be 39.9 and 34.7 cfs, respectively.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	76.2	67.9	64.7	50.1	233	316	539	383	163	84.7	58.5	54.9	173
1958	63.0	70.7	85.6	97.4	370	422	898	766	271	121	99.2	112	280
1959	83.3	78.6	110	92.5	81.3	78.1	224	91.3	54.3	56.1	42.3	87.0	89.8

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	4,690	4,040	3,980	3,080	12,950	19,450	32,060	23,540	9,720	5,210	3,590	3,270	125,600
1958	3,870	4,200	5,260	5,990	20,570	25,970	53,420	47,110	16,130	7,410	6,100	6,650	202,700
1959	5,120	4,680	6,790	5,690	4,520	4,800	13,350	5,620	3,230	3,450	2,600	5,180	65,030

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1957	1517	2,190	Feb. 26, 1957	20	173	125,600	174	126,200
1958	1567	1,330	Apr. 22, 1958	41	280	202,700	284	205,900
1959	1637	329	Apr. 15, 1959	22	89.8	65,030	-	-
1960	-	745	Mar. 7, 1960	-	-	-	-	-

2755. Powder River near Baker, Oreg.

Location.--Lat 44°39'20", long 117°52'30", in NE¼ sec.36, T.10 S., R.39 E., on right bank 700 ft downstream from Stices Gulch and 8½ miles south of Baker.

Drainage area.--219 sq mi.

Records available.--December 1903 to August 1914, July 1926 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Published as "near Baker City" December 1903 to December 1905, and as "at Salisbury" January 1906 to August 1914 and October 1928 to September 1951.

Gage.--Water-stage recorder and concrete bag-filled control. Datum of gage is 3,632.31 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Dec. 20, 1903, to Feb. 29, 1912, staff gage at site 400 ft upstream at different datum. Mar. 1, 1912, to Aug. 1, 1914, and June 16, 1926, to Oct. 16, 1933, staff gage at site 0.4 mile downstream at different datum.

Average discharge.--43 years (1904-13, 1926-60), 113 cfs (81,810 acre-ft per year).

Extremes.--1903-14, 1926-60: Maximum discharge, 1,820 cfs Mar. 20, 1910 (gage height, 7.05 ft, site and datum then in use, from graph based on gage readings), from rating curve extended above 660 cfs; no flow Aug. 31, 1909, Sept. 7, 1931.

Remarks.--No regulation. Many small diversions for irrigation above station. At times Auburn ditch diverts water into basin above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	15.9	36.5	50.0	41.3	97.4	170	548	417	143	32.3	11.4	6.23	130
1952	14.4	21.0	33.0	27.4	41.0	120	636	503	251	54.6	17.3	9.02	144
1953	7.98	8.12	13.0	53.3	92.8	158	341	423	574	157	32.1	15.9	156
1954	18.7	30.2	40.9	36.3	71.1	118	205	263	125	42.2	13.9	9.82	81.1
1955	9.87	14.3	12.1	14.3	16.9	28.1	88.1	188	210	45.7	7.23	6.10	53.4
1956	10.5	25.1	114	84.3	64.4	267	592	627	286	51.4	17.7	9.47	179
1957	14.8	24.6	47.5	27.1	70.7	172	338	522	276	36.1	13.3	7.45	129
1958	21.7	25.7	31.0	38.5	139	145	462	833	344	57.0	15.2	10.5	177
1959	14.2	34.9	63.6	65.9	59.4	92.2	268	267	207	40.7	7.55	14.4	94.5
1960	35.0	38.6	30.5	21.4	29.9	220	350	236	219	26.2	9.45	6.87	102

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	976	2,170	3,080	2,540	5,410	10,430	32,640	25,660	8,490	1,990	702	371	94,460
1952	883	1,250	2,030	1,680	2,360	7,400	37,820	30,930	14,950	3,360	1,060	537	104,300
1953	491	483	801	3,280	5,160	9,720	20,290	25,980	34,160	9,680	1,980	946	113,000
1954	1,150	1,800	2,510	2,230	3,950	7,250	12,220	16,150	7,460	2,590	855	584	58,750
1955	607	851	745	879	938	1,730	5,240	11,550	12,520	2,810	444	363	38,680
1956	644	1,490	6,990	5,180	3,710	16,420	35,210	38,540	17,000	3,160	1,090	564	130,000
1957	908	1,460	2,920	1,670	3,930	10,610	20,140	32,080	16,400	2,220	815	444	93,600
1958	1,340	1,530	1,910	2,370	7,730	8,910	27,500	51,210	20,480	3,510	935	626	128,100
1959	871	2,080	3,910	4,050	3,300	5,670	15,970	16,400	12,330	2,500	464	854	68,400
1960	2,150	2,300	1,870	1,320	1,720	13,510	20,840	14,500	13,030	1,610	581	409	73,840

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	112	81,340
1951	1217	822	Apr. 6, 1951	4.9	130	94,460	128	92,400
1952	1247	1,090	Apr. 28, 1952	7.5	144	104,300	140	101,900
1953	1287	804	June 1, 1953	6	156	113,000	161	116,700
1954	1347	432	May 10, 1954	8.7	81.1	58,750	76.6	55,490
1955	1397	422	June 10, 1955	3.6	53.4	38,680	63.0	45,600
1956	1447	1,340	May 24, 1956	7.8	179	130,000	174	126,200
1957	1517	701	(a)	6.9	129	93,600	129	93,090
1958	1567	1,400	May 11, 1958	6.5	177	128,100	180	130,100
1959	1637	608	May 15, 1959	5.1	94.5	68,400	93.7	67,860
1960	1717	800	Mar. 25, 1960	5.8	102	73,840	-	-

a May 19, June 3, 1957.

2815. Powder River near Haines, Oreg.

Location.--Lat 44°56'30", long 117°56'40", in SW¼ sec.21, T.7 S., R.39 E., on left bank 0.1 mile upstream from Muddy Creek, 1 mile downstream from Rock Creek, and 1.7 miles north of Haines.

Drainage area.--572 sq mi.

Records available.--October 1946 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 3,293.94 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--7 years (1946-53), 132 cfs (95,560 acre-ft per year).

Extremes.--1946-53: Maximum discharge, 1,300 cfs June 8, 9, 1948 (gage height, 6.67 ft); no flow Aug. 13-29, 1952.

Remarks.--Many diversions above station for irrigation; one small ditch diverts water past station. Slight regulation by small diversion dams above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	19.2	57.3	83.0	65.2	157	217	518	329	61.7	12.8	3.15	5.50	127
1952	11.7	26.3	39.6	38.9	50.6	236	660	523	221	53.0	1.91	8.12	156
1953	10.5	13.2	21.6	119	148	187	286	362	839	86.6	12.2	15.6	174

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,180	3,410	5,100	4,010	8,690	13,320	30,800	20,210	3,670	786	193	327	91,700
1952	718	1,560	2,430	2,390	2,910	14,510	39,280	32,130	13,150	3,260	117	483	112,900
1953	645	783	1,330	7,300	8,200	11,520	17,010	22,280	49,950	5,320	749	928	126,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	98.6	71,410
1951	1217	761	Apr. 9, 1951	1.8	127	91,700	120	86,710
1952	1247	1,000	Mar. 26, 1952	0	156	112,900	153	111,000
1953	1287	1,260	June 8, 1953	4.0	174	126,000	-	-

2840. Wolf Creek near North Powder, Oreg.

Location.--Lat 45°03', long 118°01', in SE¼ sec.11, T.6 S., R.38 E., on left bank 5 miles northwest of North Powder and 6½ miles upstream from mouth.

Drainage area.--32.9 sq mi.

Records available.--September 1946 to September 1953. May 1913 to July 1914 at site 1⅔ miles upstream; records not equivalent.

Gage.--Water-stage recorder. Datum of gage is 3,577.36 ft above mean sea level (Bureau of Reclamation bench mark).

Average discharge.--7 years (1946-53), 25.7 cfs (18,610 acre-ft per year).

Extremes.--1946-53: Maximum discharge, 433 cfs May 23, 1948 (gage height, 4.46 ft); minimum, 0.2 cfs Sept. 12, 13, 14, 1948, Aug. 5, 1951.

Remarks.--No regulation. Diversions above station for irrigation of 100 acres above and 700 acres below station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2.91	4.66	5.18	4.71	6.81	17.2	121	94.3	10.9	3.02	0.93	1.04	22.7
1952	1.90	2.29	3.28	2.76	3.31	10.2	162	129	22.4	8.39	2.14	1.43	29.0
1953	1.38	1.96	2.32	5.84	9.24	19.4	85.2	147	70.0	7.45	2.70	1.33	29.5

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	179	277	319	290	378	1,060	7,220	5,800	647	186	57	62	16,480
1952	117	136	202	170	190	630	9,620	7,950	1,330	516	132	85	21,080
1953	85	117	143	359	513	1,190	5,070	9,040	4,160	458	166	79	21,380

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	24.5	17,720
1951	1217	212	Apr. 14, 1951	0.3	22.7	16,480	22.3	16,160
1952	1247	357	Apr. 25, 1952	1.0	29.0	21,080	28.9	20,970
1953	1287	307	Apr. 28, 1953	.8	29.5	21,380	-	-

2867. Powder River near Richland, Oreg.

Location.--Lat 44°46'40", long 117°17'30", in SE¼ sec.14, T.9 S., R.44 E., on left bank 0.4 mile upstream from Upper Timber Canyon and 6 miles west of Richland.

Drainage area.--1,310 sq mi, approximately.

Records available.--October 1957 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,277.42 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--1957-60: Maximum discharge, 2,210 cfs May 24, 1958 (gage height, 4.76 ft); maximum gage height, 4.87 ft Feb. 8, 1960 (ice jam); minimum discharge, 14 cfs Sept. 21-23, 1960.

Remarks.--Flow partly regulated by several reservoirs, the largest being Thief Valley Reservoir (capacity, 17,400 acre-ft). Many diversions above station for irrigation above and below station. Records of chemical analyses for water year 1960 and water temperatures for the period July 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	43.8	59.5	163	190	770	549	1,076	1,533	827	75.5	59.4	76.2	449
1959	56.3	55.3	144	371	335	307	509	259	161	50.9	53.0	60.5	196
1960	65.9	63.8	93.1	90.8	207	909	956	373	192	46.8	49.5	27.1	256

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	2,690	3,540	10,020	11,680	42,780	33,780	64,010	94,290	49,230	4,640	3,650	4,530	324,800
1959	3,460	3,290	8,830	22,820	18,580	18,870	30,320	15,900	9,570	3,130	3,260	3,600	141,600
1960	4,050	3,800	5,720	5,580	11,920	55,880	56,910	22,940	11,420	2,880	3,040	1,610	185,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1567	2,210	May 24, 1958	27	449	324,800	448	324,200
1959	1637	861	Apr. 6, 1959	26	196	141,600	193	139,600
1960	1717	1,790	Apr. 10, 1960	14	256	185,800	-	-

2882. Eagle Creek above Skull Creek, near New Bridge, Oreg.

Location.--Lat 44°52'50", long 117°15'10", in SE¼ sec.7, T.8 S., R.45 E., on left bank 0.5 mile upstream from Skull Creek and 6¼ miles northwest of New Bridge.

Drainage area.--156 sq mi.

Records available.--October 1957 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

Extremes.--1957-60: Maximum discharge, 2,690 cfs May 27, 1958 (gage height, 4.02 ft); minimum, 69 cfs Dec. 31, 1957.

Remarks.--No regulation. Some diversions above station for irrigation and one small interbasin diversion for irrigation supply. All diversions are small compared to flow at station during irrigation season. Records of water temperature for the period June 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	122	113	115	114	196	207	425	1,747	1,391	399	159	127	427
1959	115	197	211	170	137	141	500	808	1,233	336	135	171	346
1960	323	203	148	143	99.5	237	586	713	1,016	271	138	107	332

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	7,500	6,710	7,050	7,020	10,900	12,730	25,280	107,400	82,750	24,510	9,780	7,580	309,200
1959	7,050	11,700	12,980	10,450	7,580	8,690	29,780	49,650	73,360	20,670	8,300	10,160	250,400
1960	19,860	12,080	9,110	8,820	5,720	14,560	34,890	43,850	60,480	16,660	8,460	6,340	240,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1567	2,690	May 27, 1958	78	427	309,200	442	319,700
1959	1637	2,020	June 13, 1959	95	346	250,400	359	259,700
1960	1717	1,960	June 3, 1960	75	332	240,800	-	-

2895. Powder River near Robinette, Oreg.

Location.--Lat 44°46'10", long 117°04'10", in E½ sec.22, T.9 S., R.46 E., on left bank 2¼ miles northwest of Robinette and 2½ miles upstream from mouth.

Drainage area.--1,660 sq mi, approximately.

Records available.--September 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,937.01 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Aug. 24, 1936, staff gage at site half a mile upstream at different datum. Aug. 24, 1936, to Oct. 31, 1948, staff gage at site 50 ft upstream at present datum.

Average discharge.--29 years (1928-57), 534 cfs (386,600 acre-ft per year).

Extremes.--1928-57: Maximum discharge, 5,500 cfs May 27, 1956 (gage height, 6.38 ft); minimum observed, 18 cfs Sept. 2-10, 1931.

Remarks.--Flow partly regulated by several reservoirs, the largest being Thief Valley Reservoir (capacity, 17,400 acre-ft). Many diversions for irrigation above station. One canal with capacity of about 5 cfs diverts around station on left bank.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	205	232	320	204	547	631	1,702	1,693	786	300	106	103	568
1952	193	191	226	218	506	915	2,978	2,517	1,620	571	135	152	850
1953	133	157	159	373	640	671	1,242	1,731	2,953	1,106	253	163	796
1954	227	199	184	262	413	504	691	946	764	334	143	128	399
1955	145	166	150	156	145	174	379	722	986	327	88.2	101	295
1956	133	210	472	711	487	1,197	2,267	2,824	1,932	426	175	158	916
1957	189	170	191	237	673	1,075	1,395	2,381	1,583	280	120	109	699
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	12,620	13,780	19,670	12,540	30,360	38,820	101,300	104,100	46,790	18,460	6,530	6,120	411,100
1952	11,880	11,350	13,910	13,400	29,120	56,270	177,200	154,800	96,380	35,110	8,280	9,040	616,700
1953	8,180	9,350	9,780	22,930	35,530	41,260	73,930	106,400	175,700	68,010	15,570	9,670	576,300
1954	13,960	11,840	11,310	16,110	22,920	31,010	41,110	58,190	45,470	20,520	8,820	7,620	288,900
1955	8,910	9,910	9,220	9,600	8,060	10,720	22,540	44,420	58,670	20,100	5,420	5,990	213,600
1956	8,170	12,470	29,020	43,730	28,010	73,590	134,900	173,600	114,900	26,220	10,770	9,370	664,800
1957	11,630	10,100	11,740	14,540	37,360	66,090	83,030	146,400	94,210	17,200	7,390	6,510	506,200
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	544	393,900
1951	1217	2,450	Apr. 18, 1951	80	568	411,100	555	402,200
1952	1247	5,080	Apr. 28, 1952	95	850	616,700	836	606,900
1953	1287	4,210	June 15, 1953	104	796	576,300	810	586,100
1954	1347	1,700	May 19, 1954	95	399	288,900	386	279,800
1955	1397	1,870	June 12, 1955	71	295	213,600	325	235,200
1956	1447	5,500	May 27, 1956	94	916	664,800	894	648,600
1957	1517	4,570	May 18, 1957	93	699	506,200	-	-
1958								
1959								
1960								

2897. Brownlee Reservoir at Brownlee Dam, Idaho-Oregon State line

Location.--Lat 44°50'10", long 116°54'00", in SE¼ sec.2, T.17 N., R.5 W., at Brownlee Dam on Snake River near Idaho end of dam, 1.1 miles upstream from Wildhorse River, 3½ miles downstream from Brownlee Creek, 10½ miles east of Halfway, Oreg., and at mile 145.2 from Lewiston, Idaho.

Drainage area.--72,590 sq mi, approximately.

Records available.--May 1958 to September 1960. Published as "at Idaho-Oregon State line" 1958-59.

Gage.--Remote registering water-stage recorder checked periodically by levels to water surface. Datum of gage is at mean sea level, Idaho Power Co. datum. Prior to Feb. 2, 1959, staff gage or levels to water surface at same site and datum.

Extremes.--1958-60: Maximum contents, 1,435,700 acre-ft Aug. 2, 1960 (elevation, 2,077.64 ft); minimum since full capacity was attained, 758,800 acre-ft Apr. 17, 1959 (elevation, 2,017.0 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Normal operating elevations are from 1,976 to 2,077 ft, capacity, 446,450 to 1,426,700 acre-ft, respectively. Water is used for power generation.

Contents, in thousands of acre-feet, at 12 p.m. on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	-	-	-	-	-	-	-	379.0	396.0	598.0	838.0	808.0
1959	915.6	947.9	1,016.9	1,016.9	907.4	782.7	796.6	1,260.8	1,414.8	1,404.8	1,426.0	1,384.0
1960	1,314.4	1,293.7	1,220.9	950.4	840.8	1,035.1	1,328.9	1,387.5	1,373.1	1,428.5	1,400.0	1,372.0

Note.--12 p.m. readings for May to October 1958 interpolated.

2900. Snake River at Oxbow, Oreg.

Location.--Lat 44°57'30", long 116°51'00", in NW¼ sec.16, T.7 S., R.48 E., on left bank at Oxbow, five-eighths of a mile upstream from intake of diversion tunnel for former Oxbow powerplant, and 2½ miles upstream from Indian Creek.

Drainage area.--72,800 sq mi, approximately.

Records available.--May 1923 to March 1958.

Gage.--Water-stage recorder. Datum of gage is 1,696.71 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Dec. 20, 1923, staff gage at same site and datum.

Extremes.--1923-58: Maximum discharge, 89,700 cfs Apr. 28, 1952 (gage height, 23.10 ft); maximum gage height, about 29 ft (ice jam), from floodmark, sometime during period Jan. 17-27, 1949; minimum discharge, 4,890 cfs Aug. 6, 1924 (gage height, 6.30 ft).

Remarks.--Flow regulated by many reservoirs above station. Diurnal fluctuation caused by Swan Falls powerplant. Diversions for irrigation of about 2,609,000 acres (1948 determination) above station. Records of water temperatures for the period May 1956 to March 1958 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	16,910	17,430	17,970	20,040	29,200	29,600	38,060	39,690	26,390	13,650	12,350	12,770	22,780
1952	18,730	18,320	20,600	20,710	24,640	32,960	71,880	54,860	32,740	16,960	11,950	13,860	28,140
1953	14,640	12,880	13,150	19,800	19,620	20,500	22,050	23,380	44,150	15,260	11,540	13,340	19,150
1954	14,490	14,270	14,700	15,590	17,370	18,830	24,150	24,220	21,330	12,730	11,290	12,860	16,830
1955	15,610	14,910	13,850	13,770	12,240	14,050	18,860	17,400	16,230	11,280	10,340	12,120	14,220
1956	13,920	13,690	20,290	21,120	21,220	30,630	37,920	39,270	40,860	12,290	12,160	13,610	23,050
1957	17,050	15,920	15,730	14,380	20,960	33,130	35,750	50,770	29,140	11,580	11,700	13,950	22,510
1958	16,050	14,190	14,850	14,880	25,180	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,040	1,037	1,105	1,232	1,621	1,820	2,265	2,441	1,570	839.4	759.7	759.7	16,490
1952	1,152	1,090	1,267	1,274	1,417	2,027	4,277	3,373	1,948	1,043	734.7	824.7	20,430
1953	900.1	766.4	808.3	1,218	1,090	1,260	1,312	1,438	2,627	938.4	709.3	793.8	13,860
1954	891.2	849.3	904.1	958.6	964.8	1,158	1,458	1,489	1,269	782.9	694.0	765.2	12,180
1955	959.8	887.0	851.9	846.9	679.7	863.6	1,122	1,070	965.6	693.5	635.5	721.0	10,300
1956	855.9	814.8	1,248	1,299	1,221	1,883	2,256	2,415	2,431	755.5	747.8	810.0	16,740
1957	1,048	947.5	967.1	884.3	1,164	2,037	2,127	3,122	1,734	712.3	719.2	829.9	16,290
1958	986.8	844.4	912.8	915.0	1,398	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	20,350	14,730,000
1951	1217	47,500	May 18, 1951	11,100	22,780	16,490,000	23,230	16,820,000
1952	1247	89,700	Apr. 28, 1952	11,300	28,140	20,430,000	26,710	19,390,000
1953	1287	60,400	June 13, 1953	10,600	19,150	13,860,000	19,380	14,030,000
1954	1347	31,400	Apr. 16, 1954	9,890	16,830	12,180,000	16,910	12,240,000
1955	1397	28,400	Apr. 23, 1955	9,480	14,220	10,300,000	14,530	10,520,000
1956	1447	58,900	June 6, 1956	10,800	23,050	16,740,000	23,120	16,780,000
1957	1517	69,800	May 23, 1957	9,140	22,510	16,290,000	22,200	16,070,000
1958	1567	-	-	-	-	-	-	-

2902. Snake River below Pine Creek, at Oxbow, Oreg.

Location.--Lat 44°58'40", long 116°51'25", in NW¼NW¼ sec.9, T.7 S., R.48 E., on left bank at Oxbow, 0.1 mile upstream from Hansaker Creek, 0.1 mile north of Oxbow school, a third of a mile downstream from Pine Creek, 3.2 miles south of Homestead, and at mile 130.4 from Lewiston.

Drainage area.--73,150 sq mi, approximately.

Records available.--January 1958 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 1,668.34 ft above mean sea level, Idaho Power Co. datum.

Extremes.--1958-60: Maximum discharge, 48,600 cfs May 23, 1958 (gage height, 19.80 ft); minimum daily, 900 cfs Aug. 31, 1958, caused by closure of diversion tunnel at Oxbow Dam 2.8 miles upstream.

Remarks.--Flow regulated by Brownlee Reservoir (see p.213) and by many other reservoirs above station. Diversions for irrigation of about 2,628,000 acres (1958 determination) above station. Records of water temperatures for the period March 1958 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	-	25,870	24,950	37,590	35,600	28,330	8,319	8,524	14,340	-
1959	12,690	13,460	12,680	14,640	17,050	16,790	16,490	10,160	14,990	10,700	10,880	15,880	13,830
1960	17,180	13,820	14,460	16,510	17,020	18,110	17,330	19,110	18,220	9,316	12,010	13,080	15,500

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	-	1,437	1,534	2,237	2,189	1,686	511.5	524.1	853	-
1959	780.4	800.9	779.7	900.3	946.7	1,032	981.1	624.6	891.7	657.8	668.9	945.1	10,010
1960	1,056	822.5	889	1,015	979	1,114	1,031	1,175	1,084	572.8	738.4	778.1	11,250

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1567	48,600	May 23, 1958	900	-	-	-	-
1959	1637	21,900	July 22, 1959	3,900	13,830	10,010,000	14,390	10,420,000
1960	1717	22,000	June 6, 1960	6,580	15,500	11,250,000	-	-

2905. Snake River near Joseph, Idaho

Location.--Lat 45°49', long 116°45', in SW¼ sec.18, T.4 N., R.49 E., on left bank at China Gulch, a quarter of a mile downstream from Mountain Sheep damsite, 0.7 mile upstream from Imnaha River, 0.9 mile downstream from Divide Creek, 13 miles west of Joseph, 22 miles west of White Bird, and at mile 53.2 from Lewiston.

Drainage area.--73,800 sq mi, approximately.

Records available.--April 1955 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 940.54 ft (corrected) above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--5 years (1955-60), 19,640 cfs (14,220,000 acre-ft per year).

Extremes.--1955-60: Maximum discharge, 76,700 cfs about May 23, 1957 (gage height, 21.5 ft, from floodmarks); minimum daily, 1,050 cfs Sept. 1, 1958.

Remarks.--Flow regulated by Brownlee Reservoir (see p. 213) and by many other reservoirs above station. Diurnal fluctuation caused by Brownlee powerplant. Diversions for irrigation of about 2,628,000 acres (1948 determination) above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													-
1954													
1955	-	-	-	-	-	-	-	20,110	18,280	12,160	10,440	12,170	-
1956	14,110	14,040	21,500	22,210	21,800	31,500	39,300	41,260	43,300	13,110	12,400	13,720	23,990
1957	17,250	16,580	16,390	14,860	21,320	35,310	37,850	55,090	31,670	12,280	12,040	14,220	23,740
1958	16,190	14,390	15,240	15,320	26,130	25,190	37,870	36,720	29,420	8,574	8,778	14,300	20,600
1959	12,960	13,920	12,890	14,830	17,110	16,740	17,300	11,080	15,520	10,870	10,770	16,000	14,130
1960	17,380	13,870	14,530	16,740	17,080	18,540	18,170	19,570	18,890	9,345	11,940	13,160	15,760

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	1,236	1,088	747.8	641.7	724.2	-
1956	867.6	835.4	1,322	1,365	1,254	1,937	2,338	2,537	2,577	805.9	762.2	816.2	17,420
1957	1,060	986.6	1,008	913.8	1,184	2,171	2,252	3,388	1,885	755.1	740	846	17,190
1958	995.7	856.3	937	942.1	1,451	1,549	2,253	2,258	1,751	527.2	539.7	851.2	14,910
1959	797	828.1	792.8	912	950.5	1,029	1,029	681.4	923.6	668.6	662.4	952.1	10,230
1960	1,068	825.1	893.2	1,029	982.6	1,140	1,081	1,203	1,124	574.6	734.4	782.9	11,440

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954								
1955	1397	-	-	-	-	-	-	-
1956	1447	64,700	June 7, 1956	10,700	23,990	17,420,000	24,030	17,450,000
1957	1517	76,700	May 23, 1957[a]	10,500	23,740	17,190,000	23,380	16,920,000
1958	1567	51,700	May 23, 1958	1,050	20,600	14,910,000	20,080	14,540,000
1959	1637	21,800	Apr. 6, 1959	5,000	14,130	10,230,000	14,640	10,590,000
1960	1717	23,000	Mar. 31, 1960	5,700	15,760	11,440,000	-	-

a About.

2910. Imnaha River above Gumboot Creek, Oreg.

Location (revised).--Lat 45°10'50", long 116°52'15", in SW¼ sec.30, T.4 S., R.48 E., on left bank at downstream side of bridge, 0.1 mile upstream from Gumboot Creek and 5.6 miles northeast of Coverdale Forest guard station.

Drainage area.--99.6 sq mi (revised).

Records available.--October 1944 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 3,812.67 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--9 years (1944-53), 266 cfs (192,600 acre-ft per year).

Extremes.--1944-53: Maximum discharge, 2,400 cfs May 27, 1948 (gage height, 5.07 ft); minimum, 10 cfs Jan. 29, 1951 (gage height, 0.18 ft), result of freezeup; minimum daily, 20 cfs Dec. 17, 1948.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	109	124	107	71.1	104	94.4	429	794	697	405	142	80.8	264
1952	94.0	85.9	126	64.5	65.0	65.1	507	999	1,036	537	175	98.0	321
1953	70.2	56.8	66.4	83.5	80.0	114	344	629	880	784	242	113	290

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,720	7,390	6,550	4,370	5,790	5,810	25,550	48,790	41,470	24,890	8,710	4,810	190,800
1952	5,780	5,110	7,760	3,970	3,740	4,000	30,150	61,460	61,630	33,030	10,750	5,830	233,200
1953	4,320	3,380	4,080	5,130	4,440	7,010	20,470	38,710	52,370	48,180	14,880	6,740	209,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	255	34.70	184,400
1951	1217	1,320	May 27, 1951	32	264	2.65	35.93	190,800	261	35.55	188,800
1952	1247	2,090	June 6, 1952	45	321	‡3.22	‡43.90	233,200	312	‡42.61	226,300
1953	1287	1,390	July 8, 1953	36	290	‡2.91	‡39.48	209,700	-	-	-

‡ Not previously published.

2920. Imnaha River at Imnaha, Oreg.

Location.--Lat 45°33'45", long 116°50' 00", in SW¼ sec.16, T.1 N., R.48 E., on left bank at Imnaha, 0.4 mile downstream from Big Sheep Creek.

Drainage area.--622 sq mi (revised).

Records available.--June 1928 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 1,941.14 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Aug. 6, 1934, staff gage at site a quarter of a mile upstream at different datum.

Average discharge.--32 years (1928-60), 494 cfs (357,600 acre-ft per year).

Extremes.--1928-60: Maximum discharge, 6,650 cfs May 19, 1957 (gage height, 6.80 ft), from rating curve extended above 3,300 cfs; minimum observed, 16 cfs Nov. 22, 1931, result of freezeup; minimum daily, 25 cfs Nov. 22, 23, 1931.

Remarks.--Diversions for irrigation of 4,000 acres above station. Since 1934, one diversion of less than 10 cfs above station for irrigation below. Water is diverted from Big Sheep Creek and tributaries above station for irrigation of 6,500 acres in Wallowa River basin.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	226	296	303	193	318	303	1,147	1,515	972	493	173	122	505
1952	160	156	262	163	187	244	1,532	2,421	1,753	915	241	149	682
1953	123	113	148	237	229	330	943	1,544	1,881	1,120	306	155	595
1954	131	149	158	168	278	363	884	1,349	1,026	581	199	152	454
1955	142	146	114	117	111	141	512	1,505	1,386	522	169	132	417
1956	175	229	593	378	241	642	1,760	2,381	1,796	674	246	174	775
1957	190	203	218	155	351	475	815	2,661	1,394	435	183	134	603
1958	180	153	182	155	434	372	928	2,552	2,004	583	220	164	661
1959	155	212	227	362	254	307	989	1,482	1,550	500	200	214	538
1960	307	234	179	163	160	500	923	1,316	1,094	302	164	126	456

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	13,900	17,590	18,640	11,870	17,680	18,620	68,260	93,160	57,850	30,310	10,650	7,240	365,800
1952	9,820	9,260	16,140	10,000	10,750	15,010	91,160	148,900	104,300	56,250	14,790	8,890	495,300
1953	7,580	6,700	9,110	14,590	12,690	20,300	56,090	94,950	111,900	68,900	18,800	9,250	430,900
1954	8,070	8,890	9,730	10,320	15,460	22,330	52,580	82,970	61,080	35,730	12,250	9,050	328,500
1955	8,720	8,700	6,990	7,210	6,180	8,690	30,460	92,520	82,450	32,070	10,390	7,860	302,200
1956	10,740	13,620	36,490	23,270	13,830	39,450	104,700	146,400	106,800	41,460	15,150	10,340	562,200
1957	11,700	12,080	13,390	9,530	19,510	29,210	48,480	163,600	82,930	26,750	11,230	7,980	436,400
1958	11,080	9,110	11,210	9,500	24,120	22,890	55,220	156,900	119,200	35,840	13,620	9,770	478,500
1959	9,510	12,600	13,970	22,250	14,130	18,850	58,830	91,100	92,210	30,760	12,320	12,740	389,300
1960	18,890	13,910	11,030	10,010	9,200	30,720	54,950	80,890	65,070	18,550	10,080	7,510	330,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	520	376,800
1951	1217	2,140	May 7, 1951	95	505	365,800	485	350,900
1952	1247	3,930	Apr. 28, 1952	70	682	495,300	666	483,400
1953	1287	3,250	Apr. 28, 1953	52	595	430,900	600	434,200
1954	1347	2,160	May 10, 1954	100	454	328,500	451	326,200
1955	1397	2,740	May 21, 1955	58	417	302,200	468	338,700
1956	1447	4,650	May 27, 1956	110	775	562,200	742	538,600
1957	1517	6,650	May 19, 1957	84	603	436,400	595	430,600
1958	1567	3,910	May 21, 1958	106	661	478,500	667	483,100
1959	1637	2,790	May 15, 1959	120	538	389,300	548	397,000
1960	1717	2,280	May 13, 1960	75	456	330,800	-	-

2925. Salmon River near Obsidian, Idaho

Location.--Lat 43°58', long 114°48', in sec.3, T.7 N., R.14 E., on left bank three-eighths of a mile downstream from irrigation diversion dam, 1 mile upstream from Lost Creek, and 2½ miles southeast (revised) of Obsidian.

Drainage area.--94.7 sq mi. Mean altitude, 8,140 ft.

Records available.--November 1940 to January 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,950 ft (by barometer).

Average discharge.--11 years (1941-52), 81.1 cfs (58,710 acre-ft per year).

Extremes.--1940-53: Maximum discharge, 721 cfs about May 29, 1952 (gage height, 4.01 ft); maximum gage height, 5.50 ft probably between Jan. 27 and Mar. 1, 1949 (ice jam); minimum discharge, 2 cfs Sept. 7-11, 1942, Apr. 1, 1945.

Remarks.--Diversions above station for irrigation of about 1,700 acres (1948 determination).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	57.7	52.9	41.9	30.5	22.2	24.6	86.4	351	365	178	60.4	56.9	111
1952	58.3	59.4	46.3	40.0	38.0	35.0	88.6	427	335	74.8	9.35	25.7	103
1953	40.8	32.2	30.0	35.4	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,550	3,150	2,580	1,880	1,240	1,520	5,140	21,560	21,740	10,940	3,710	3,390	80,400
1952	3,590	3,530	2,850	2,460	2,190	2,150	5,270	26,260	19,940	4,600	575	1,530	74,940
1953	2,510	1,910	1,840	2,180	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	82.5	59,740
1951	1217	712	May 28, 1951	15	111	80,400	112	81,090
1952	1247	721	May 29, 1952a/	5.0	103	74,940	98.1	71,240
1953	1287	55	Jan. 13, 1953	-	-	-	-	-

a/ About.

2930. Alturas Lake Creek near Obsidian, Idaho

Location.--Lat 43°57', long 114°50', in SW¼ sec.9, T.7 N., R.14 E., on right bank 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 sq mi. Mean altitude, 8,110 ft.

Records available.--November 1940 to January 1953.

Gage.--Water-stage recorder. Altitude of gage is 7,000 ft (by barometer).

Average discharge.--11 years (1941-52), 75.6 cfs (54,730 acre-ft per year).

Extremes.--1940-53: Maximum discharge, 633 cfs June 7, 1952; maximum gage height, 5.41 ft June 9, 1948; minimum discharge recorded, 7.9 cfs Oct. 1, 1952; minimum gage height recorded, 1.83 ft Apr. 3, 1945.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	31.8	43.6	27.9	20.6	24.6	22.3	70.4	283	344	191	54.1	23.7	95.0
1952	29.5	25.4	25.8	23.4	21.7	18.0	50.1	276	369	112	29.2	11.2	82.6
1953	11.9	10.3	12.2	25.7	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,960	2,590	1,710	1,270	1,370	1,370	4,190	17,380	20,440	11,760	3,330	1,410	68,780
1952	1,810	1,510	1,580	1,440	1,250	1,110	2,980	16,950	21,930	6,910	1,800	668	59,940
1953	734	614	752	1,580	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	85.1	32.35	61,590
1951	1217	594	May 29, 1951	-	95.0	2.66	36.13	68,780	93.1	35.41	67,420
1952	1247	633	June 7, 1952	8.2	82.6	2.31	31.48	59,940	78.7	30.01	57,140
1953	2187	-	-	-	-	-	-	-	-	-	-

2950. Valley Creek at Stanley, Idaho

Location.--Lat 44°13', long 114°56', in SW¼ sec.3, T.10 N., R.13 E., on left bank a quarter of a mile upstream from mouth, three-eighths of a mile downstream from upper Stanley, and three-quarters of a mile upstream from lower Stanley.

Drainage area.--147 sq mi. Mean altitude, 7,400 ft.

Records available.--December 1910 to April 1911 (gage heights only), May 1911 to October 1913, May 1921 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 6,221.81 ft above mean sea level, datum of 1929. Prior to May 28, 1911, staff gage at site a quarter of a mile upstream and May 28, 1911, staff gage at site a quarter of a mile upstream and May 28, 1911, to Oct. 31, at site three-quarters of a mile upstream, at different datums. May 2, 1921, to Apr. 30, 1949, staff gage at present site and datum.

Average discharge.--41 years (1911-13, 1921-60), 198 cfs (143,300 acre-ft per year).

Extremes.--1910-13, 1921-60: Maximum discharge, 2,000 cfs May 24, 1956; maximum gage height, 4.4 ft May 29, 1921; minimum discharge, 40 cfs (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Remarks.--Diversions for irrigation of about 590 acres (1948 determination) above station. Records of chemical analyses and water temperatures for the period October 1958 to September 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	181	151	121	106	128	99.9	365	783	704	420	197	123	280
1952	154	118	110	105	97.7	91.5	264	784	714	294	121	92.9	246
1953	86.1	78.4	77.9	95.2	94.2	87.3	199	422	712	443	141	98.6	212
1954	93.5	100	91.5	82.9	88.4	89.4	263	676	609	433	143	106	232
1955	92.1	85.2	75.4	79.5	75.9	72.2	97.9	397	621	287	99.4	89.9	172
1956	102	115	160	134	94.4	105	358	1,026	1,025	399	163	117	317
1957	124	107	94.1	87.6	88.5	94.0	158	800	795	284	110	96.4	237
1958	104	87.6	88.5	80.8	76.1	75.9	123	828	713	213	109	92.8	217
1959	93.2	125	114	99.5	97.6	88.7	239	381	638	223	102	124	194
1960	145	111	83.1	77.2	80.1	88.0	222	372	533	156	87.0	86.6	170

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	9,880	8,970	7,410	6,530	7,110	6,140	21,700	48,170	41,880	25,800	12,090	7,310	203,000
1952	9,490	7,040	6,740	6,470	5,620	5,620	15,720	48,180	42,500	18,070	7,420	5,530	178,400
1953	5,290	4,660	4,790	5,850	5,230	5,370	11,860	25,940	42,350	27,250	8,650	5,870	153,100
1954	5,750	5,960	5,630	5,100	4,910	5,500	15,620	41,580	36,220	26,610	8,770	6,330	168,000
1955	5,660	5,070	4,640	4,890	4,210	4,440	5,230	24,410	36,950	17,630	6,110	5,350	124,600
1956	6,260	6,850	9,850	8,260	5,430	6,460	21,270	63,070	60,970	24,560	10,020	6,970	230,000
1957	7,650	6,340	5,790	5,390	4,910	5,780	9,390	49,190	47,300	17,440	6,790	5,730	171,700
1958	6,400	5,210	5,440	4,970	4,220	4,670	7,320	50,880	42,420	13,110	6,680	5,520	156,800
1959	5,730	7,430	7,010	6,120	5,420	5,450	14,200	23,420	37,990	13,690	6,240	7,390	140,100
1960	8,940	6,620	5,110	4,750	4,610	5,410	13,240	22,900	31,740	9,620	5,350	5,150	123,400

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	253	23.32	182,900
1951	1217	1,340	May 28, 1951	80	280	1.90	25.88	203,000	276	25.50	200,000
1952	1247	1,150	June 7, 1952	85	246	1.67	22.76	178,400	234	21.66	169,900
1953	1287	1,010	June 19, 1953	65	212	1.44	19.52	153,100	215	19.86	155,700
1954	1347	1,240	June 27, 1954	70	232	1.58	21.42	168,000	229	21.17	166,000
1955	1397	930	June 13, 1955	60	172	1.17	15.89	124,600	183	16.86	132,000
1956	1447	2,000	May 24, 1956	75	317	2.16	29.32	230,000	312	28.92	226,800
1957	1517	1,460	June 6, 1957	76	237	1.61	21.92	171,700	233	21.56	169,000
1958	1567	1,300	May 28, 1958	69	217	1.48	19.99	156,800	221	20.39	160,000
1959	1637	910	June 7, 1959	81	194	1.32	17.88	140,100	194	17.94	140,700
1960	1717	773	June 5, 1960	66	170	1.16	15.75	123,400	-	-	-

2955. Salmon River below Valley Creek, at Stanley, Idaho

Location.--Lat 44°14', long 114°55', in SE¼SE¼ sec.34, T.11 N., R.13 E., on left bank three-quarters of a mile downstream from Valley Creek and 1¼ miles northeast of upper Stanley.

Drainage area.--501 sq mi. Mean altitude, 7,800 ft.

Records available.--July 1925 to October 1960.

Gage.--Water-stage recorder. Datum of gage is 6,190.32 ft above mean sea level, datum of 1929. Prior to Oct. 13, 1925, staff gage at same site and datum.

Average discharge.--35 years (1925-60), 664 cfs (480,700 acre-ft per year).

Extremes.--1925-60: Maximum discharge, 5,070 cfs May 27, 1956 (gage height, 4.62 ft); minimum, 100 cfs (estimated) Nov. 20-30, 1929.

Remarks.--Diversions above station for irrigation of about 6,000 acres (1948 determination).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	613	585	468	386	437	401	1,039	2,307	2,340	1,618	814	511	963
1952	587	508	461	427	385	345	740	2,164	2,381	1,085	469	367	827
1953	369	335	324	400	352	324	555	1,138	2,093	1,557	503	393	696
1954	384	431	374	363	371	365	725	2,207	1,976	1,548	502	390	806
1955	372	377	337	313	301	312	318	1,141	2,138	1,043	374	317	612
1956	360	424	521	483	364	362	940	2,745	3,405	1,557	617	428	1,018
1957	487	460	407	355	380	392	478	2,196	2,627	1,125	417	370	809
1958	457	394	354	363	366	322	427	2,504	2,487	855	436	355	778
1959	378	478	441	400	375	348	716	1,083	2,109	833	405	463	669
1960	585	454	341	348	340	365	721	1,090	1,730	517	311	307	592
1961	336	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	37,670	34,830	28,780	23,710	24,270	24,670	61,830	141,900	139,300	99,470	50,020	30,420	696,900
1952	36,070	30,250	28,350	26,260	22,130	21,240	44,010	133,000	141,700	66,740	28,820	21,860	600,400
1953	22,680	19,950	19,950	24,620	19,540	19,940	33,040	69,990	124,500	95,710	30,910	23,360	504,200
1954	23,590	25,660	23,020	22,290	20,610	22,430	43,140	135,700	117,600	95,200	30,880	23,240	583,400
1955	22,870	22,410	20,740	19,220	16,700	19,160	18,900	70,160	127,200	64,130	23,000	18,880	443,400
1956	22,120	25,240	32,060	29,710	20,960	22,270	55,960	168,800	202,600	95,720	37,940	25,500	738,900
1957	29,950	27,360	25,050	21,800	21,130	24,080	28,430	135,100	156,300	69,170	25,670	21,990	586,000
1958	28,070	23,420	21,770	22,330	20,340	19,800	25,410	153,900	148,000	52,540	26,830	21,140	563,600
1959	23,250	28,440	27,120	24,620	20,820	21,410	42,600	66,570	125,500	51,220	24,910	27,540	484,000
1960	35,980	27,000	20,940	21,390	19,540	22,450	42,930	67,110	103,000	31,770	19,140	18,240	429,500
1961	20,630	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	832	22.52	601,900
1951	1217	4,090	May 28, 1951	300	963	1.92	26.07	696,900	953	25.82	690,300
1952	1247	3,750	June 7, 1952	310	827	1.65	22.47	600,400	783	21.28	568,300
1953	1287	3,200	June 19, 1953	180	696	1.39	18.88	504,200	710	19.23	513,900
1954	1347	4,280	June 27, 1954	330	806	1.61	21.82	583,400	797	21.60	577,100
1955	1397	3,070	June 13, 1955	270	612	1.22	16.62	443,400	631	17.11	456,800
1956	1447	5,070	May 27, 1956	300	1,018	2.03	27.63	738,900	1,022	27.74	741,800
1957	1517	4,480	June 6, 1957	280	809	1.61	21.92	586,000	797	21.58	576,900
1958	1567	4,360	May 28, 1958	308	778	1.55	21.09	563,600	786	21.29	569,100
1959	1637	2,800	June 22, 1959	330	669	1.34	18.10	484,000	676	18.30	489,100
1960	1717	2,410	June 5, 1960	268	592	1.18	16.07	429,500	-	-	-
1961	1717	-	-	-	-	-	-	-	-	-	-

2965. Salmon River below Yankee Fork, near Clayton, Idaho

Location.--Lat 44°16', long 114°44', in sec.20, T.11 N., R.15 E., on left bank a quarter of a mile downstream from Yankee Fork and 18 miles upstream from Clayton.

Drainage area.--802 sq mi. Mean altitude, 7,790 ft.

Records available.--October 1921 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 5,900 ft (by barometer). Prior to Oct. 3, 1926, staff gage at site 200 ft downstream at datum approximately 1.5 ft higher. Oct. 3, 1926, to Sept. 2, 1927, staff gage and Sept. 3, 1927, to Nov. 5, 1934, water-stage recorder, at site 200 ft downstream at approximately present datum.

Average discharge.--39 years (1921-60), 986 cfs (713,800 acre-ft per year).

Extremes.--1921-60: Maximum discharge, 10,300 cfs May 24, 1956 (gage height, 11.60 ft); minimum, 160 cfs (estimated) Nov. 25-30, 1929.

Remarks.--Diversions above station for irrigation of about 6,000 acres (1948 determination).

Correction.--In WSP 1317, the runoff in acre-feet for December 1927 and the annual runoff in acre-feet for 1931 and 1935 are listed in error; they should be 31,200, 413,300, and 576,400, respectively.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	751	742	563	487	530	482	1,676	4,066	3,902	2,207	992	634	1,423
1952	705	605	555	520	480	439	1,208	3,749	3,625	1,412	652	488	1,204
1953	488	437	433	500	447	436	885	1,843	3,940	2,310	730	519	1,082
1954	494	532	470	451	462	450	1,086	3,742	3,086	2,069	731	542	1,181
1955	519	504	416	403	386	410	436	1,809	3,384	1,390	549	451	889
1956	485	556	660	582	451	498	1,550	4,972	5,541	2,091	894	588	1,573
1957	666	600	539	454	469	472	700	3,682	4,208	1,468	595	509	1,199
1958	584	501	493	462	488	454	622	4,666	3,472	1,172	643	500	1,142
1959	483	624	584	483	456	439	1,038	1,808	3,514	1,173	570	584	979
1960	738	584	442	435	421	482	1,050	1,825	2,748	786	469	417	865

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	46,190	44,160	34,650	29,920	29,450	29,630	99,720	250,000	232,200	135,700	61,020	37,750	1,030,000
1952	43,320	35,980	34,140	32,000	27,630	27,010	71,870	230,500	215,700	86,840	40,070	29,010	874,100
1953	30,000	26,000	26,590	30,770	24,830	26,790	52,680	113,300	234,500	142,000	44,910	30,860	783,200
1954	30,360	31,680	28,930	27,760	25,670	27,680	64,590	230,100	183,600	127,200	44,930	32,240	854,700
1955	31,910	29,970	25,610	24,780	21,420	25,220	25,970	111,200	201,300	85,460	33,760	26,820	643,400
1956	29,800	33,060	40,580	35,760	25,950	30,600	92,230	305,700	329,700	128,600	54,980	35,010	1,142,000
1957	40,950	35,730	33,150	27,930	26,030	29,030	41,660	226,400	250,400	90,280	36,570	30,270	868,400
1958	35,890	29,830	30,290	28,420	27,110	27,920	37,040	282,300	206,600	72,030	39,570	29,750	826,800
1959	29,680	37,160	35,910	29,710	25,300	27,000	61,750	111,200	209,100	72,110	35,030	34,730	708,700
1960	45,370	34,720	27,160	26,730	24,240	29,630	62,460	112,200	163,500	48,340	28,820	24,790	628,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	1,242	21.02	899,600
1951	1217	7,140	May 28, 1951	360	1,423	1.77	24.09	1,030,000	1,407	23.82	1,019,000
1952	1247	5,960	June 7, 1952	400	1,204	1.50	20.44	874,100	1,162	19.72	843,200
1953	1287	5,720	June 19, 1953	250	1,082	1.35	18.31	783,200	1,093	18.51	791,600
1954	1347	6,550	May 21, 1954	400	1,181	1.47	19.98	854,700	1,176	19.90	851,300
1955	1397	5,090	June 13, 1955	330	889	1.11	15.05	643,400	911	15.42	659,400
1956	1447	10,300	May 24, 1956	370	1,573	1.96	26.73	1,142,000	1,582	26.89	1,148,000
1957	1517	7,670	June 5, 1957	340	1,199	1.50	20.30	868,400	1,180	19.97	854,600
1958	1567	7,160	May 24, 1958	428	1,142	1.42	19.33	826,800	1,151	19.48	833,500
1959	1637	4,770	June 15, 1959	399	979	1.22	16.54	708,700	985	16.65	713,200
1960	1717	4,020	June 4, 1960	360	865	1.08	14.67	628,000	-	-	-

2985. Salmon River near Challis, Idaho

Location.--Lat 44°23', long 114°15', in sec.7, T.12 N., R.19 E., on left bank 250 ft downstream from Bayhorse Creek and 9 miles south of Challis.

Drainage area.--1,800 sq mi, approximately. Mean altitude, 7,820 ft.

Records available.--October 1928 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 5,163.99 ft above mean sea level, datum of 1929.

Average discharge.--32 years (1928-60), 1,450 cfs (1,050,000 acre-ft per year).

Extremes.--1928-60: Maximum discharge, 15,400 cfs May 25, 1956 (gage height, 10.95 ft); minimum, 160 cfs Dec. 14, 1940.

Remarks.--No regulation. Diversions for irrigation of about 10,000 acres (1948 determination) above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,087	1,043	854	717	799	713	2,284	5,793	5,885	3,659	1,696	1,037	2,137
1952	1,073	909	819	774	705	654	1,620	4,893	5,134	2,207	1,031	766	1,717
1953	714	630	618	746	654	643	1,202	2,435	5,657	3,590	1,220	865	1,583
1954	786	811	692	665	667	651	1,467	5,081	4,357	3,082	1,154	827	1,693
1955	791	723	615	576	544	569	608	2,378	4,667	2,183	908	690	1,272
1956	752	805	1,011	804	628	817	2,155	7,102	8,405	3,274	1,412	951	2,344
1957	995	883	778	658	736	700	934	5,113	6,763	2,564	996	804	1,830
1958	868	724	695	632	688	598	828	6,392	5,522	2,019	1,048	795	1,740
1959	787	870	820	691	640	618	1,298	2,281	5,079	1,788	865	917	1,387
1960	1,053	828	595	589	598	721	1,416	2,460	3,933	1,183	685	616	1,221

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	66,820	62,040	52,490	44,110	44,380	43,820	135,900	356,200	350,200	225,000	104,300	61,690	1,547,000
1952	65,990	54,110	50,380	47,590	40,540	40,200	96,390	300,900	305,500	135,700	63,410	45,550	1,246,000
1953	43,930	37,470	38,000	45,880	36,340	39,550	71,500	149,700	336,600	220,800	75,020	51,470	1,146,000
1954	48,330	48,260	42,570	40,880	37,050	40,050	87,280	312,400	250,300	189,500	70,930	49,190	1,226,000
1955	48,650	43,020	37,810	35,390	30,240	34,980	36,160	146,200	277,700	134,200	55,820	41,030	921,200
1956	46,230	47,880	62,180	49,460	36,120	50,240	128,200	436,700	500,200	201,300	86,820	56,600	1,702,000
1957	61,150	52,530	47,820	40,440	40,880	43,060	55,580	314,400	402,400	157,600	61,260	47,820	1,325,000
1958	53,370	43,060	42,750	38,890	38,210	36,740	49,280	393,000	328,600	124,100	64,450	47,310	1,260,000
1959	48,400	51,780	50,430	42,470	35,570	38,010	77,260	140,300	302,200	109,900	53,160	54,570	1,004,000
1960	64,770	49,290	36,580	36,190	34,400	44,310	84,280	151,300	234,000	72,730	42,120	36,680	886,600

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	1,725	13.01	1,248,000
1951	1217	10,600	May 28, 1951	390	2,137	1.19	16.13	1,547,000	2,122	16.00	1,536,000
1952	1247	8,490	June 7, 1952	590	1,717	.954	12.96	1,246,000	1,646	12.44	1,195,000
1953	1287	8,640	June 19, 1953	347	1,583	.879	11.94	1,146,000	1,611	12.13	1,166,000
1954	1347	9,540	June 27, 1954	502	1,693	.941	12.76	1,226,000	1,680	12.67	1,216,000
1955	1397	7,140	June 13, 1955	410	1,272	.707	9.79	921,200	1,310	9.87	948,000
1956	1447	15,400	May 25, 1956	450	2,344	1.30	17.74	1,702,000	2,352	17.80	1,707,000
1957	1517	12,700	June 6, 1957	500	1,830	1.02	13.81	1,325,000	1,799	13.57	1,303,000
1958	1567	11,300	May 25, 1958	434	1,740	.967	13.10	1,260,000	1,756	13.22	1,271,000
1959	1637	7,210	June 15, 1959	326	1,387	.771	10.45	1,004,000	1,387	10.44	1,000,000
1960	1717	5,880	June 5, 1960	388	1,221	.678	9.24	886,600	-	-	-

2990. Challis Creek near Challis, Idaho

Location.--Lat 44°34'20", long 114°18'20" (revised), in sec.2, T.14 N., R.18 E., on left bank 0.1 mile downstream from Eddy Creek, 6 miles northwest of Challis, and 6¾ miles upstream from mouth.

Drainage area.--85 sq mi, approximately. Mean altitude, 7,830 ft.

Records available.--October 1943 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 5,369.3 ft (levels by Topographic Division). Prior to Sept. 27, 1944, staff gage and Sept. 27, 1944, to Nov. 10, 1948, water-stage recorder, at site 350 ft downstream at datum 0.64 ft lower. Nov. 11, 1948, to Aug. 11, 1956, water-stage recorder at present site at datum 0.64 ft lower.

Average discharge.--17 years (1943-60), 45.2 cfs (32,720 acre-ft per year).

Extremes.--1943-60: Maximum discharge, 508 cfs June 1, 1956; maximum gage height, 6.30 ft May 24, 1956; minimum discharge, 4.7 cfs Mar. 11, 1960 (gage height, 2.34 ft).

Remarks.--No regulation. Diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	28.2	20.4	17.1	15.2	17.1	16.4	49.0	193	213	95.9	54.5	31.2	62.7
1952	23.7	21.4	17.8	15.5	14.6	14.5	41.0	143	138	60.3	38.5	24.9	46.2
1953	19.2	16.1	15.3	14.7	11.5	11.5	22.8	66.9	220	117	56.0	32.8	50.4
1954	23.3	19.8	14.5	12.9	12.1	13.2	27.2	105	93.0	61.5	36.7	22.8	37.0
1955	18.8	15.2	13.6	11.3	8.8	9.5	10.9	53.8	136	63.1	42.8	25.9	34.2
1956	20.1	17.4	20.1	11.4	10.5	25.9	73.7	210	285	82.1	48.2	35.2	69.9
1957	23.7	17.3	11.8	10.5	9.83	11.9	19.1	133	241	79.6	44.2	32.3	53.0
1958	23.1	18.1	12.7	10.3	10.7	11.3	20.7	221	159	62.9	42.5	27.8	52.0
1959	19.6	17.9	18.6	16.4	14.6	16.4	31.7	56.3	136	61.9	41.1	30.6	38.4
1960	25.8	19.1	11.0	9.56	9.29	12.3	30.9	57.2	86.5	48.2	32.1	19.1	30.1

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,730	1,210	1,050	936	950	1,010	2,920	11,850	12,650	5,900	3,350	1,860	45,420
1952	1,460	1,270	1,090	950	839	889	2,440	8,810	8,230	3,710	2,370	1,480	33,540
1953	1,180	960	940	902	641	710	1,360	4,110	13,060	7,210	3,440	1,950	36,460
1954	1,430	1,180	895	791	674	809	1,620	6,440	5,530	3,780	2,260	1,360	26,770
1955	1,150	904	835	694	486	583	647	3,310	8,070	3,880	2,630	1,540	24,730
1956	1,240	1,040	1,240	702	605	1,590	4,390	12,890	16,940	5,050	2,970	2,100	50,760
1957	1,460	1,030	728	647	546	732	1,130	8,200	14,320	4,890	2,720	1,920	38,320
1958	1,420	1,080	781	635	595	692	1,230	13,600	9,460	3,870	2,610	1,660	37,630
1959	1,210	1,060	1,140	1,010	809	1,010	1,880	3,460	8,060	3,810	2,530	1,820	27,800
1960	1,580	1,140	678	588	535	759	1,840	3,520	5,150	2,960	1,970	1,140	21,860

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	45.3	32,810
1951	1217	345	May 28-29,1951	11	62.7	45,420	62.5	45,250
1952	1247	200	May 29, 1952	13	46.2	33,540	45.2	32,800
1953	1287	319	June 19, 1953	10	50.4	36,460	51.0	36,890
1954	1347	204	May 22, 1954	10	37.0	26,770	36.1	26,150
1955	1397	202	June 14, 1955	8	34.2	24,730	35.0	25,360
1956	1447	508	June 1, 1956	9.0	69.9	50,760	69.5	50,460
1957	1517	401	June 7, 1957	9.0	53.0	38,320	53.0	38,390
1958	1567	444	May 26, 1958	9.8	52.0	37,630	52.2	37,760
1959	1637	210	June 15,16,1959	12	38.4	27,800	38.4	27,790
1960	1717	131	June 5, 1960	8.0	30.1	21,860	-	-

3020. Pahsimeroi River near May, Idaho

Location.--Lat 44°41'20" (revised), long 114°02'35", in W½ sec.25, T.16 N., R.20 E., on right bank a quarter of a mile downstream from old highway bridge on Challis-Salmon River highway, a quarter of a mile upstream from mouth, and 10 miles northwest of May.

Drainage area.--845 sq mi, approximately.

Records available.--October 1929 to September 1959. Monthly discharge only for October 1929, published in WSP 1317.

Gage.--Staff gage. Datum of gage is 4,636.95 ft above mean sea level, adjustment of 1912.

Average discharge.--30 years (1929-59), 212 cfs (153,500 acre-ft per year).

Extremes.--1929-59: Maximum discharge observed, 796 cfs June 8, 1957; maximum gage height observed, 4.37 ft May 25, 1956 (backwater from Salmon River); minimum discharge observed, 74 cfs May 19, 1955 (gage height, 1.66 ft).

Remarks.--No regulation. Diversions for irrigation of about 12,500 acres (1946 determination) above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	292	303	291	251	255	284	228	127	165	158	195	201	227
1952	262	303	274	265	257	258	282	154	183	194	181	204	235
1953	297	328	283	312	294	286	215	137	247	175	173	199	245
1954	258	334	311	281	296	287	202	108	154	169	162	168	227
1955	217	254	245	233	231	251	244	119	130	167	135	163	199
1956	202	250	264	251	225	275	225	111	203	156	154	183	208
1957	256	267	239	220	235	251	234	145	389	215	169	217	236
1958	289	323	296	256	310	305	277	195	231	185	193	208	255
1959	271	310	356	317	316	308	216	111	141	167	153	200	238
1960	-	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	17,970	18,050	17,880	15,460	14,150	16,240	13,540	7,810	9,820	9,700	11,970	11,940	164,500
1952	16,140	18,010	16,850	16,300	14,810	15,850	16,770	9,450	10,880	11,950	11,140	12,170	170,300
1953	18,260	19,490	17,400	19,180	16,330	17,570	12,820	8,400	14,700	10,740	10,610	11,870	177,400
1954	15,850	19,900	19,090	17,270	16,450	17,640	12,030	6,650	9,190	10,370	9,930	9,970	164,300
1955	13,370	15,100	15,060	14,320	12,820	15,430	14,540	7,310	7,740	10,240	8,280	9,710	143,900
1956	12,410	14,900	16,210	15,440	12,930	16,930	13,390	6,830	12,070	9,590	9,480	10,900	151,100
1957	15,720	15,870	14,720	13,530	13,080	15,460	13,930	8,910	23,130	13,220	10,360	12,910	170,800
1958	17,740	19,210	18,200	15,760	17,200	18,770	16,510	11,970	13,740	11,390	11,850	12,360	184,700
1959	16,640	18,470	21,880	19,490	17,560	18,930	12,830	6,850	8,380	10,260	9,390	11,910	172,600
1960	-	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	224	162,400
1951	1217	333	Nov. 20, 1950	104	227	164,500	223	161,600
1952	1247	352	Mar. 28, 1952	103	235	170,300	240	174,500
1953	1287	356	Nov. 16, 1952	107	245	177,400	245	177,100
1954	1347	362	Nov. 24, 1953	84	227	164,300	211	153,000
1955	1397	296	Apr. 3, 1955	74	199	143,900	199	143,900
1956	1447	409	Dec. 23, 1955	90	208	151,100	212	153,900
1957	1517	796	June 8, 1957	111	236	170,800	248	179,700
1958	1567	415	May 28, 1958	89	255	184,700	258	186,500
1959	1637	436	Dec. 12, 1958	92	238	172,600	-	-
1960	-	-	-	-	-	-	-	-

3025. Salmon River at Salmon, Idaho

Location.--Lat 45°11'00", long 113°53'40", in NE¼ sec.6, T.21 N., R.22 E., on left bank 1,000 ft downstream from island, 0.4 mile upstream from Lemhi River, and 0.5 mile downstream from highway bridge at Salmon.

Drainage area.--3,760 sq mi, approximately. Mean altitude, 7,380 ft.

Records available.--April 1912 to September 1916, July 1919 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,911.14 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Oct. 21, 1929, staff gage at site 700 ft upstream at different datum.

Average discharge.--45 years (1912-16, 1919-60), 1,918 cfs (1,389,000 acre-ft per year).

Extremes.--1912-16, 1919-60: Maximum discharge, 16,500 cfs May 25, 1956 (gage height, 8.25 ft); maximum gage height, 9.62 ft Jan. 8, 1942 (ice jam); minimum discharge, 242 cfs Jan. 8, 1937 (gage height, 1.50 ft).

Remarks.--No regulation. Several diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,559	1,694	1,428	1,175	1,271	1,251	2,855	6,610	7,089	4,215	2,145	1,364	2,727
1952	1,602	1,496	1,315	1,262	1,202	1,165	2,230	5,725	6,091	2,682	1,328	1,026	2,261
1953	1,211	1,278	1,147	1,335	1,154	1,106	1,519	2,742	6,956	4,222	1,490	1,109	2,107
1954	1,159	1,399	1,271	1,188	1,179	1,126	1,674	5,258	4,764	3,579	1,378	1,087	2,094
1955	1,147	1,239	993	1,023	968	993	998	2,497	5,326	2,712	1,073	905	1,657
1956	1,136	1,374	1,556	1,325	1,059	1,533	2,883	7,951	9,611	3,570	1,612	1,268	2,907
1957	1,486	1,435	1,238	1,086	1,206	1,174	1,342	6,204	8,264	3,139	1,274	1,145	2,419
1958	1,448	1,378	1,274	1,081	1,303	1,154	1,309	7,087	6,309	2,415	1,342	1,116	2,273
1959	1,258	1,454	1,451	1,239	1,194	1,135	1,660	2,572	5,668	2,117	1,095	1,279	1,842
1960	1,637	1,454	1,143	1,069	1,061	1,211	1,931	2,630	4,418	1,409	899	906	1,645

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	95,860	100,800	87,810	72,220	70,590	76,900	169,900	406,400	421,800	259,200	131,900	81,180	1,975,000
1952	98,520	89,000	80,860	77,610	69,160	71,640	132,700	352,000	362,500	164,900	81,640	61,080	1,642,000
1953	74,440	76,040	70,550	82,100	64,090	68,030	90,390	168,600	413,900	259,600	91,640	66,010	1,525,000
1954	71,290	83,270	78,150	73,030	65,450	69,220	99,590	323,300	283,500	220,000	84,750	64,700	1,516,000
1955	70,550	73,750	61,030	62,880	53,730	61,040	59,390	153,500	316,900	166,700	65,950	53,830	1,199,000
1956	69,840	81,760	95,700	81,500	60,940	94,250	171,600	488,900	571,900	219,500	99,090	75,430	2,110,000
1957	91,380	85,370	76,130	66,800	66,980	72,160	79,870	381,500	491,700	193,000	78,350	68,150	1,751,000
1958	89,040	82,020	78,390	66,450	72,340	70,930	77,910	435,700	375,400	148,500	82,510	66,430	1,646,000
1959	77,340	86,520	89,240	76,160	66,310	69,820	98,780	158,100	337,300	130,200	67,350	76,090	1,333,000
1960	100,600	86,500	70,270	65,750	61,040	74,490	114,900	161,700	262,900	86,650	55,290	53,920	1,194,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	2,218	1,605,000
1951	1217	11,400	May 29, 1951	580	2,727	1,975,000	2,705	1,958,000
1952	1247	9,720	June 7, 1952	958	2,261	1,642,000	2,196	1,594,000
1953	1287	9,800	June 19, 1953	759	2,107	1,525,000	2,123	1,537,000
1954	1347	9,710	June 27, 1954	1,020	2,094	1,516,000	2,057	1,489,000
1955	1397	8,060	June 13, 1955	740	1,657	1,199,000	1,715	1,241,000
1956	1447	16,500	May 25, 1956	811	2,907	2,110,000	2,915	2,116,000
1957	1517	14,300	June 6, 1957	1,050	2,419	1,751,000	2,414	1,748,000
1958	1567	12,900	May 25, 1958	800	2,273	1,646,000	2,278	1,649,000
1959	1637	8,460	June 15, 1959	700	1,842	1,333,000	1,848	1,337,000
1960	1717	6,840	June 5, 1960	715	1,645	1,194,000	-	-

3030. Texas Creek near Leadore, Idaho

Location.--Lat 44°35'10", long 113°19'45", in NW¼SW¼ sec.35, T.15 N., R.26 E., on right bank 50 ft downstream from Nez Perce Creek, half a mile upstream from county road bridge, and 6½ miles south of Leadore.
Drainage area.--73 sq mi, approximately. At site November 1938 to July 1939, 74 sq mi (revised), approximately.
Records available.--June 1955 to September 1960. Records for November 1938 to July 1939 at site half a mile downstream not equivalent owing to diversions.
Gage.--Water-stage recorder. Altitude of gage is 6,280 ft (by barometer).
Average discharge.--5 years (1955-60), 23.6 cfs (17,090 acre-ft per year).
Extremes.--1955-60: Maximum discharge, 116 cfs Mar. 25, 1956 (gage height, 3.94 ft), from rating curve extended above 50 cfs by logarithmic plotting; maximum gage height, 4.40 ft Jan. 2, 1960 (ice jam); minimum discharge, 4.3 cfs Aug. 31, 1955 (gage height, 2.72 ft).
Remarks.--No regulation. Some diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	12.4	11.3	8.63	8.73	-
1956	14.9	25.5	28.4	23.5	23.0	36.3	31.2	13.9	20.1	11.4	10.6	9.17	20.6
1957	22.5	28.5	26.0	23.3	23.6	30.7	39.0	31.2	31.1	21.3	18.0	23.2	26.5
1958	34.6	32.5	30.6	29.4	34.7	32.9	37.4	20.3	20.6	15.2	13.2	17.4	26.5
1959	26.1	30.8	28.5	25.7	26.8	30.7	29.1	17.2	14.4	11.4	10.8	18.2	22.4
1960	30.1	29.0	25.2	25.3	26.1	33.6	29.0	17.1	9.94	11.6	12.9	12.9	21.9

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1955	-	-	-	-	-	-	-	-	740	693	531	519	-
1956	916	1,520	1,750	1,450	1,320	2,230	1,860	855	1,200	702	651	546	15,000
1957	1,380	1,690	1,600	1,430	1,310	1,890	2,320	1,920	1,850	1,310	1,100	1,380	19,180
1958	2,130	1,930	1,880	1,800	1,930	2,030	2,230	1,250	1,230	934	813	1,040	19,200
1959	1,600	1,830	1,760	1,580	1,490	1,890	1,730	1,060	860	702	664	1,080	16,250
1960	1,850	1,730	1,550	1,560	1,500	2,070	1,720	1,050	591	715	796	768	15,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1955	1397	53	June 29, 1955	4.9	-	-	-	-
1956	1447	116	Mar. 25, 1956	6.4	20.6	15,000	21.3	15,480
1957	1517	70	June 30, 1957	10	26.5	19,180	28.3	20,450
1958	1567	63	Oct. 15, 1957	7.0	26.5	19,200	25.5	18,450
1959	1637	a44	Apr. 2, 1959	5.8	22.4	16,250	22.3	16,190
1960	1717	a58	Mar. 25, 1960	7.8	21.9	15,900	-	-

a Maximum daily.

3042. Big Springs Creek near Leadore, Idaho

Location.--Lat 44°42'20", long 113°24'00", in NE¼ sec.19, T.16 N., R.26 E., on left bank just below culvert crossing on State Highway 28, 2.7 miles northwest of Leadore.
Records available.--July 1959 to September 1960.
Gage.--Water-stage recorder. Altitude of gage is 5,830 ft (by barometer).
Extremes.--1959-60: Maximum discharge, 58 cfs Sept. 20, 1959 (gage height, 2.37 ft); minimum, 23 cfs July 2, 19, 1960 (gage height, 1.45 ft).
Remarks.--No regulation. One small ranch diversion bypassing station has carried as much as 1.85 cfs at times.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	36.7	35.6	38.9	-
1960	34.0	30.5	28.7	27.1	29.3	30.9	30.5	33.5	33.1	26.5	29.6	34.1	30.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	2,260	2,190	2,310	-
1960	2,090	1,810	1,770	1,670	1,690	1,900	1,820	2,060	1,970	1,630	1,820	2,030	22,260

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1717	a58	Sept.20, 1959	-	-	-	-	-
1960	1717	40	(b)	24	30.7	22,260	-	-

a Maximum during period July to September.
b Occurred sometime during period Sept. 8-15, 1960.

3050. Lemhi River near Lemhi, Idaho

Location.--Lat 44°55'05", long 113°37'50"(revised), in sec. 4, T.18 N., R.24 E., near center of span on downstream side of private bridge on Langfitt Ranch, 3½ miles downstream from Hayden Creek and 4½ miles north of Lemhi.

Drainage area.--890 sq mi, approximately.

Records available.--November 1938 to August 1939, April 1955 to September 1960.

Gage.--Staff gage. Crest-stage gage since Apr. 29, 1955. Datum of gage is 4,971.7 ft above mean sea level, adjustment of 1929 (levels by Corps of Engineers).

Average discharge.--5 years (1955-60), 277 cfs (200,500 acre-ft per year).

Extremes.--1938-39, 1955-60: Maximum discharge, 1,840 cfs June 7, 1957 (gage height, 4.48 ft); minimum observed, 69 cfs Aug. 18, 1960 (gage height, 1.20 ft).

Remarks.--No regulation. Many diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	216	392	260	122	130	-
1956	190	215	218	216	189	262	272	457	633	264	151	155	268
1957	240	224	200	185	197	232	268	727	1,197	467	180	229	362
1958	395	308	256	237	275	268	283	514	516	252	151	160	293
1959	220	253	241	219	221	246	248	169	467	247	133	220	240
1960	293	269	214	205	209	280	270	255	305	125	118	149	224

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	13,300	23,330	15,970	7,490	7,720	-
1956	11,710	12,790	13,420	13,290	10,850	16,120	16,190	28,080	37,660	16,240	9,290	9,230	194,900
1957	14,760	13,340	12,330	11,390	10,940	14,260	15,960	44,670	71,250	28,680	11,040	13,630	262,200
1958	18,150	18,310	15,740	14,600	15,270	16,480	16,830	31,620	30,700	15,500	9,280	9,520	212,000
1959	13,550	15,080	14,790	13,460	12,290	15,150	14,760	10,380	27,820	15,170	8,160	13,120	173,700
1960	18,000	16,000	13,180	12,590	12,020	17,200	16,050	15,650	18,180	7,710	7,290	8,890	162,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954								
1955	1397	845	June 29, 1955	-	-	-	-	-
1956	1447	1,090	June 1, 1956	124	268	194,900	272	197,400
1957	1517	1,840	June 7, 1957	139	362	262,200	379	274,000
1958	1567	891	May 26, 1958	112	293	212,000	281	203,200
1959	1637	706	June 26, 1959	92	240	173,700	245	177,500
1960	1717	475	June 4, 1960	69	224	162,800	-	-

3065. Panther Creek near Shoup, Idaho

Location (revised).--Lat 45°18'20", long 114°23'30", in sec. 19, T.23 N., R.18 E., on right bank 100 ft downstream from bridge on private road, 1 mile upstream from mouth, and 7 miles southwest of Shoup.

Drainage area.--529 sq mi. Mean altitude, 7,030 ft.

Records available.--October 1944 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,264.96 ft (revised) above mean sea level, unadjusted (planetable survey). Prior to Nov. 6, 1959, staff gage 75 ft upstream at datum 0.94 ft higher.

Average discharge.--16 years (1944-60), 255 cfs (184,600 acre-ft per year).

Extremes.--1944-60: Maximum discharge observed, 2,740 cfs May 25, 1956 (gage height, 5.24 ft, present datum); maximum gage height observed, 5.34 ft Jan. 6, 1947, present datum (backwater from ice); minimum discharge observed, 22 cfs Nov. 17, 1958 (gage height, 0.57 ft, present datum).

Remarks.--No regulation. Diversions for irrigation of about 1,000 acres (1950 determination) above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	124	113	95.3	91.6	113	98.6	315	1,156	852	329	159	110	297
1952	111	98.3	93.3	90.5	93.8	91.0	262	867	695	233	125	88.9	238
1953	85.7	79.3	84.2	86.7	81.5	91.4	176	494	1,720	537	168	108	309
1954	102	103	78.7	81.8	79.2	88.9	205	726	559	294	133	91.5	213
1955	89.4	80.2	73.3	72.6	67.9	67.5	82.2	398	836	383	144	98.7	200
1956	98.6	103	105	85.3	71.5	106	366	1,333	1,040	265	151	110	320
1957	102	98.5	99.3	87.3	87.0	93.0	150	1,416	1,219	308	126	106	326
1958	106	96.0	91.3	80.8	85.6	90.3	150	1,043	729	254	128	92.0	247
1959	90.4	99.4	103	79.9	79.3	85.3	178	433	1,061	275	119	104	225
1960	142	112	134	101	106	127	230	622	852	184	118	107	236

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	7,610	6,720	5,860	5,630	6,250	5,940	18,730	71,050	50,710	20,250	9,800	6,540	215,100
1952	6,820	5,850	5,740	5,570	5,400	5,600	15,560	53,330	41,370	14,340	7,690	5,290	172,600
1953	5,270	4,720	5,170	5,330	4,530	5,620	10,480	30,360	102,300	33,040	10,320	6,450	223,600
1954	6,270	6,110	4,840	5,030	4,400	5,470	12,220	44,630	33,240	18,080	8,150	5,440	153,900
1955	5,490	4,770	4,510	4,470	3,770	4,150	4,890	24,450	49,770	23,580	8,870	5,880	144,600
1956	6,060	6,140	6,440	5,240	4,110	6,500	21,790	81,980	61,860	16,260	9,300	6,520	232,200
1957	6,300	5,860	6,110	5,370	4,830	5,720	8,940	87,040	72,560	18,940	7,740	6,330	235,700
1958	6,490	5,710	5,610	4,970	4,750	5,550	8,910	64,160	43,350	15,630	7,840	5,470	178,400
1959	5,560	5,910	6,330	4,910	4,400	5,240	10,620	26,620	63,160	16,900	7,310	6,180	163,100
1960	8,740	6,690	8,270	6,210	6,100	7,780	13,670	38,260	50,690	11,340	7,230	6,360	171,300

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	238	6.11	172,500
1951	1217	1,880	May 24, 1951	50	297	0.561	7.63	215,100	295	7.56	213,300
1952	1247	1,160	May 27,29, 1952	55	238	.450	6.12	172,600	233	6.01	169,300
1953	1287	2,640	June 13, 1953	32	309	.584	7.94	223,600	312	8.01	225,600
1954	1347	1,600	May 20, 1954	60	213	.403	5.45	153,900	209	5.36	151,400
1955	1397	1,250	June 13,14, 1955	50	200	.378	5.12	144,600	205	5.26	148,500
1956	1447	2,740	May 25, 1956	50	320	.605	8.24	232,200	319	8.23	231,800
1957	1517	2,490	June 4, 1957	70	326	.616	8.34	235,700	325	8.32	235,300
1958	1567	1,960	May 24, 1958	65	247	.467	6.33	178,400	246	6.33	178,400
1959	1637	1,960	June 10, 1959	22	225	.425	5.79	163,100	233	6.00	169,000
1960	1717	1,710	June 4, 1960	55	236	.446	6.09	171,300	-	-	-

3070. Salmon River near Shoup, Idaho

Location.--Lat 45°19'30", long 114°26'00", in NE¼SW¼ sec.14, T.23 N., R.17 E., on right bank 0.6 mile upstream from Owl Creek, 2.3 miles downstream from Panther Creek, and 9 miles southwest of Shoup.

Drainage area.--6,270 sq mi, approximately. Mean altitude, 7,140 ft.

Records available.--October 1944 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,153.7 ft above mean sea level, uradjusted. Prior to May 4, 1947, wire-weight gage at site 1.3 miles upstream at datum 3,168.89 ft above mean sea level, unadjusted. May 4, 1947, to Sept. 17, 1951, staff gage at site 200 ft downstream from wire-weight gage at datum 1.28 ft higher than datum of wire-weight gage.

Average discharge.--16 years (1944-60), 3,032 cfs (2,195,000 acre-ft per year).

Extremes.--1944-60: Maximum discharge, 24,900 cfs May 26, 1956 (gage height, 13.00 ft); minimum daily, 800 cfs Jan. 31, Feb. 1, 1951.

Remarks.--No regulation. Diversions for irrigation of about 88,000 acres (1948 determination) above station. Records of water temperatures for the period June 1955 to July 1958 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,225	2,317	1,940	1,636	1,914	1,924	4,099	9,579	9,445	5,387	2,852	1,871	3,774
1952	2,261	2,164	1,828	1,780	1,676	1,675	3,344	8,702	8,561	3,637	1,741	1,407	3,233
1953	1,666	1,755	1,639	1,675	1,631	1,643	2,171	4,095	11,270	5,757	1,947	1,527	3,082
1954	1,696	1,969	1,771	1,698	1,659	1,637	2,299	6,755	6,367	4,545	1,726	1,409	2,801
1955	1,614	1,742	1,483	1,585	1,496	1,492	1,516	3,425	7,536	3,873	1,426	1,296	2,374
1956	1,587	1,937	2,213	1,835	1,536	2,394	4,020	11,100	12,660	4,362	2,140	1,735	3,960
1957	2,113	2,029	1,747	1,521	1,792	1,850	2,000	9,687	11,970	4,079	1,666	1,655	3,513
1958	2,136	2,053	1,889	1,657	1,970	1,700	2,008	9,789	8,424	3,045	1,742	1,491	3,165
1959	1,745	2,030	1,987	1,733	1,649	1,645	2,340	3,585	8,476	3,067	1,473	1,808	2,625
1960	2,466	2,230	1,785	1,716	1,709	2,186	2,984	4,343	6,678	1,960	1,276	1,291	2,547

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	136,800	137,900	119,300	100,600	106,300	118,300	243,900	589,000	562,000	331,300	175,400	111,400	2,732,000
1952	139,000	128,800	112,400	109,500	96,400	103,000	199,000	535,100	509,400	223,700	107,000	83,740	2,347,000
1953	102,400	104,400	100,800	115,300	90,600	101,000	129,200	251,800	670,900	354,000	119,700	90,860	2,231,000
1954	104,300	117,100	108,900	104,400	92,150	100,700	136,800	415,400	378,900	279,500	106,100	83,840	2,028,000
1955	99,250	103,700	91,160	97,490	83,110	91,740	90,190	210,600	448,400	238,100	87,670	77,100	1,719,000
1956	97,610	115,200	136,000	112,900	88,320	147,200	239,200	682,200	753,300	268,200	131,600	103,200	2,875,000
1957	129,900	120,800	107,400	93,520	99,550	113,800	119,000	595,700	712,200	250,800	102,500	98,500	2,544,000
1958	131,300	122,100	116,100	101,900	109,400	104,500	119,500	601,900	501,300	187,300	107,100	88,740	2,291,000
1959	107,300	120,800	122,200	106,500	91,600	101,100	139,200	220,500	504,400	188,600	90,590	107,600	1,900,000
1960	151,600	132,700	109,700	105,500	98,300	134,400	176,400	267,000	397,400	120,500	78,450	76,800	1,849,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	3,049	2,207,000
1951	1217	15,400	May 29, 1951	800	3,774	2,732,000	3,755	2,718,000
1952	1247	13,300	June 8, 1952	1,300	3,233	2,347,000	3,133	2,274,000
1953	1287	15,800	June 14, 1953	1,160	3,082	2,231,000	3,113	2,254,000
1954	1347	12,200	June 28, 1954	1,340	2,801	2,028,000	2,751	1,992,000
1955	1397	11,600	June 14, 1955	1,050	2,374	1,719,000	2,450	1,773,000
1956	1447	24,900	May 26, 1956	1,130	3,960	2,875,000	3,973	2,884,000
1957	1517	20,900	June 9, 1957	1,200	3,513	2,544,000	3,529	2,555,000
1958	1567	18,000	May 26, 1958	1,200	3,165	2,291,000	3,138	2,272,000
1959	1637	11,900	June 16, 1959	900	2,625	1,900,000	2,685	1,944,000
1960	1717	10,400	June 5, 1960	990	2,547	1,849,000	-	-

3085. Middle Fork Salmon River near Cape Horn, Idaho

Location.--Lat 44°25', long 115°11', in sec.34, T 13 N., R.11 E., on left bank 1,100 ft downstream from Little Beaver Creek, half a mile downstream from confluence of Marsh and Beaver Creeks, and 2 miles northwest of Cape Horn.

Drainage area.--138 sq mi. Mean altitude, 7,370 ft.

Records available.--September 1928 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,435 ft (by barometer).

Average discharge.--32 years (1928-60), 236 cfs (170,900 acre-ft per year).

Extremes.--1928-60: Maximum discharge, 2,980 cfs May 24, 1956 (gage height, 6.96 ft); minimum recorded, 31 cfs Apr. 14, 1945 (gage height, 2.12 ft).

Remarks.--No regulation or diversion above station.

Correction.--In WSP 1317, the mean discharge, in cubic feet per second, for July 1945 is listed in error; it should be 241 cfs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	144	134	105	86.9	91.0	79.9	287	1,147	1,010	408	180	118	317
1952	134	97.2	89.5	80.3	74.1	71.3	207	1,179	1,017	307	146	106	293
1953	91.1	74.7	58.1	78.7	69.2	68.6	136	503	1,223	517	158	107	257
1954	97.4	94.2	79.3	67.6	67.4	67.8	170	1,048	828	376	153	108	264
1955	92.4	84.9	70.0	69.7	63.0	59.5	62.9	398	982	309	124	98.1	201
1956	93.6	94.2	127	101	65.4	72.1	249	1,395	1,463	403	170	118	363
1957	115	98.7	84.0	73.9	67.6	71.9	102	1,020	1,136	283	128	99.7	274
1958	98.4	77.9	71.7	68.0	67.8	61.8	87.7	1,121	960	247	128	101	259
1959	88.2	97.7	92.4	76.4	67.1	63.1	159	530	981	236	120	117	219
1960	136	104	72.3	64.3	62.6	62.9	172	564	771	183	108	95.7	199

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	8,870	7,970	6,460	5,350	5,050	4,920	17,060	70,560	60,100	25,110	11,060	7,020	229,500
1952	8,270	5,790	5,510	4,930	4,260	4,380	12,320	72,490	60,510	18,860	8,970	6,340	212,600
1953	5,600	4,450	3,570	4,840	3,840	4,220	8,110	30,940	72,790	31,790	9,710	6,390	186,200
1954	5,990	5,600	4,870	4,160	3,740	4,170	10,100	64,410	49,260	23,120	9,380	6,400	191,200
1955	5,680	5,050	4,310	4,290	3,500	3,660	3,740	24,450	58,450	19,020	7,650	5,840	145,600
1956	5,750	5,610	7,810	6,210	3,760	4,430	14,840	85,750	87,080	27,770	10,440	7,020	263,500
1957	7,080	5,880	5,170	4,540	3,750	4,420	6,080	62,690	67,570	17,430	7,860	5,930	198,400
1958	6,050	4,640	4,410	4,180	3,770	3,800	5,220	68,940	57,100	15,210	7,900	6,020	187,200
1959	5,420	5,820	5,680	4,700	3,730	3,880	9,430	32,570	58,350	14,520	7,370	6,950	158,400
1960	8,370	6,190	4,450	3,960	3,600	3,870	10,200	34,670	45,900	11,270	6,640	5,690	144,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	305	30.00	220,800
1951	1217	1,950	May 28, 1951	65	317	2.30	31.20	229,500	312	30.69	225,800
1952	1247	1,750	June 6, 1952	65	293	2.12	28.89	212,600	285	28.08	206,700
1953	1287	1,890	June 13, 1953	47	257	1.86	25.30	186,200	261	25.68	189,100
1954	1347	2,010	May 20, 1954	60	264	1.91	25.97	191,200	262	25.79	189,800
1955	1397	1,570	June 11,12,1955	55	201	1.46	19.79	145,600	207	20.34	149,800
1956	1447	2,980	May 24, 1956	58	363	2.63	35.79	263,500	361	35.65	262,400
1957	1517	2,270	June 4, 1957	60	274	1.99	26.97	198,400	270	26.56	195,400
1958	1567	2,440	May 28, 1958	55	259	1.88	25.45	187,200	261	25.70	189,100
1959	1637	1,510	June 7, 1959	47	219	1.59	21.53	158,400	222	21.81	160,500
1960	1717	1,420	June 4or5,1960	53	199	1.44	19.68	144,800	-	-	-

3090. Bear Valley Creek near Cape Horn, Idaho

Location.--Lat 44°26', long 115°17', in sec.29, T.13 N., R.10 E., on right bank 250 ft downstream from Fir Creek, 3 miles upstream from mouth, and 7 miles northwest of Cape Horn.

Drainage area.--180 sq mi, approximately. Mean altitude, 7,040 ft.

Records available.--September 1921 to September 1928 (fragmentary), October 1928 to October 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 6,340 ft (by barometer).

Average discharge.--32 years (1928-60), 290 cfs (210,000 acre-ft per year).

Extremes.--1921-60: Maximum discharge, 3,860 cfs May 27, 1956 (gage height, 5.87 ft), from rating curve extended above 2,300 cfs by logarithmic plotting; minimum recorded, 28 cfs Nov. 11, 1931 (gage height, 0.87 ft).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	183	179	137	114	119	113	409	1,522	1,218	409	197	142	396
1952	201	131	118	110	104	103	310	1,522	1,175	313	149	117	363
1953	105	89.2	78.3	99.3	99.1	99.1	203	759	1,689	545	166	118	337
1954	113	124	109	96.1	103	108	298	1,554	1,083	402	158	118	357
1955	110	102	94.5	94.8	88.0	84.4	88.4	605	1,034	306	122	107	236
1956	109	128	190	156	103	113	404	1,942	1,708	370	164	126	460
1957	138	114	96.6	94.4	92.3	102	156	1,460	1,327	269	129	112	342
1958	125	96.3	93.0	86.6	90.2	87.3	140	1,504	1,193	260	128	102	327
1959	99.7	140	126	109	97.1	105	249	793	956	226	132	164	267
1960	187	134	102	97.0	100	108	247	777	786	182	114	105	245
1961	104	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	11,240	10,630	8,450	7,000	6,620	6,960	24,340	93,600	72,460	25,130	12,120	8,480	287,000
1952	12,370	7,790	7,250	6,750	5,990	6,330	18,420	93,560	69,910	19,260	9,140	6,970	263,700
1953	6,480	5,310	4,810	6,100	5,500	6,090	12,100	56,690	100,500	33,480	10,190	7,020	244,300
1954	6,930	7,370	6,710	5,910	5,720	6,650	17,730	95,530	64,460	24,720	9,730	7,040	258,500
1955	6,740	6,080	5,810	5,830	4,890	5,190	5,260	37,180	61,550	18,830	7,480	6,360	171,200
1956	6,690	7,600	11,670	9,610	5,950	6,940	24,070	119,400	101,600	22,750	10,090	7,510	333,900
1957	8,490	6,790	5,940	5,800	5,130	6,260	9,280	89,770	78,970	16,560	7,920	6,660	247,600
1958	7,700	5,730	5,720	5,330	5,010	5,370	8,340	92,470	70,980	16,000	7,850	6,090	236,600
1959	6,130	8,310	7,740	6,710	5,390	6,430	14,830	48,770	56,880	13,890	8,090	9,780	193,000
1960	11,500	7,970	6,290	5,970	5,770	6,660	14,710	47,770	46,760	11,210	7,000	6,250	177,900
1961	6,420	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	369	27.84	267,200
1951	1217	2,560	May 27, 1951	85	396	2.20	29.91	287,000	392	29.61	284,100
1952	1247	2,030	(a)	95	363	2.02	27.48	263,700	348	26.34	252,900
1953	1287	2,800	June 13, 1953	65	337	1.87	25.43	244,300	344	25.90	248,700
1954	1347	3,100	May 21, 1954	85	357	1.98	26.93	258,500	354	26.68	256,100
1955	1397	1,560	June 12, 1955	70	236	1.31	17.83	171,200	247	18.60	178,500
1956	1447	3,860	May 27, 1956	85	460	2.56	34.78	333,900	453	34.28	329,100
1957	1517	2,700	June 5, 1957	80	342	1.90	25.78	247,600	339	25.57	245,500
1958	1567	3,270	May 28, 1958	70	327	1.82	24.64	236,600	331	24.97	239,600
1959	1637	1,600	June 6, 1959	60	267	1.48	20.12	193,000	271	20.49	196,500
1960	1717	1,830	May 13, 1960	86	245	1.36	18.53	177,900	-	-	-
1961	1717	-	-	-	-	-	-	-	-	-	-

a May 13 or 14 or June 6 or 7, 1952.

3100. Big Creek near Big Creek, Idaho

Location.--Lat 45°07', long 114°55', in NE¼ sec.36, T.21 N., R.12 E., on left bank three-quarters of a mile downstream from Cabin Creek, 1¾ miles southeast of Wallace Ranch, and 19 miles east of Big Creek Post Office.

Drainage area.--470 sq mi, approximately.

Records available.--September 1944 to October 1958.

Gage.--Water-stage recorder. Altitude of gage is 3,950 ft (from river-profile map). Prior to Oct. 22, 1948, staff gage at site a quarter of a mile downstream at different datum.

Average discharge.--14 years (1944-58), 509 cfs (368,500 acre-ft per year).

Extremes.--1944-58: Maximum discharge, 5,800 cfs June 3, 1948 (gage height, 7.12 ft, from floodmark, former site and datum), from rating curve extended above 3,000 cfs by logarithmic plotting; minimum, 48 cfs Dec. 14, 1955 (discharge measurement), but may have been less during period of ice effect.

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

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	276	269	197	159	193	170	824	1,916	1,682	781	283	193	580
1952	212	170	150	140	137	136	673	1,771	1,830	622	248	170	522
1953	143	124	123	138	135	152	438	1,003	2,304	1,051	293	180	507
1954	155	146	115	112	124	139	479	1,786	1,545	862	293	193	498
1955	165	146	122	119	109	110	164	925	2,073	826	257	185	434
1956	167	174	235	166	112	201	886	2,531	2,345	675	284	203	665
1957	186	173	151	126	143	158	295	2,288	2,060	545	237	188	548
1958	176	152	138	132	143	141	243	2,157	1,463	440	232	182	469
1959	161	-	-	-	-	-	-	-	-	-	-	-	-
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	16,950	16,010	12,140	9,790	10,720	10,470	49,050	117,800	100,100	48,050	17,420	11,460	420,000
1952	13,040	10,130	9,200	8,610	7,880	8,350	40,030	108,900	108,900	38,230	15,250	10,120	378,600
1953	8,790	7,370	7,580	8,510	7,510	9,370	26,040	61,650	137,100	64,630	18,020	10,680	367,200
1954	9,540	8,680	7,060	6,890	6,910	8,520	28,480	109,800	91,930	53,020	18,040	11,500	360,400
1955	10,150	8,710	7,510	7,290	6,060	6,740	9,760	56,910	123,400	50,770	15,790	11,000	314,100
1956	10,280	10,380	14,470	10,190	6,460	12,340	52,710	155,600	139,500	41,480	17,490	12,050	483,000
1957	11,440	10,310	9,250	7,760	7,930	9,700	17,540	140,700	122,600	33,490	14,550	11,190	396,500
1958	10,830	9,070	8,480	8,130	7,960	8,690	14,440	132,600	87,070	27,070	14,250	10,810	339,400
1959	9,925	-	-	-	-	-	-	-	-	-	-	-	-
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	560	16.18	405,600
1951	1217	3,600	May 28, 1951	100	580	1.23	16.76	420,000	562	16.25	107,200
1952	1247	3,490	June 7, 1952	90	522	1.11	15.09	378,600	510	14.74	370,000
1953	1287	4,060	June 13, 1953	90	507	1.08	14.65	367,200	509	14.72	368,800
1954	1347	4,070	May 21, 1954	80	498	1.06	14.39	360,400	499	14.43	361,500
1955	1397	3,580	June 13, 1955	80	434	.923	12.53	314,100	446	12.88	322,800
1956	1447	5,220	May 24, 1956	65	665	1.41	19.27	483,000	660	19.11	478,800
1957	1517	4,440	June 2, 1957	85	548	1.17	15.83	396,500	544	15.72	393,800
1958	1567	4,100	May 25, 1958	90	469	1.00	13.54	339,400	-	-	-
1959	1567	-	-	-	-	-	-	-	-	-	-
1960											

3105. South Fork Salmon River near Knox, Idaho

Location.--Lat 44°39'15", long 115°42'05", in NW¼ sec.11, T.15 N., R.6 E., on left bank 800 ft downstream from Curtis Creek, 1 mile upstream from Warm Lake Creek, 1½ miles southwest of Knox, and 21 miles northeast of Cascade.

Drainage area.--92 sq mi, approximately. Mean altitude, 6,630 ft.

Records available.--September 1928 to October 1960.

Gage.--Water-stage recorder. Datum of gage is 5,090.31 ft above mean sea level, unadjusted. Prior to Oct. 22, 1942, staff gage at site 800 ft downstream at datum 2.09 ft lower.

Average discharge.--32 years (1928-60), 145 cfs (105,000 acre-ft per year).

Extremes.--1928-60: Maximum discharge, 1,620 cfs May 27, 1956 (gage height, 6.33 ft); minimum recorded, 14 cfs Nov. 3, 1952 (gage height, 2.23 ft).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	79.2	86.8	72.3	56.3	72.6	69.4	311	667	513	168	66.0	46.5	184
1952	87.3	59.8	56.7	50.6	46.5	46.7	272	825	604	148	59.3	42.1	192
1953	35.0	34.2	37.7	53.4	48.4	50.7	174	372	759	276	72.3	44.3	163
1954	41.0	46.8	43.0	39.2	43.6	60.5	248	703	507	192	68.7	46.8	171
1955	40.6	40.9	33.8	33.2	32.9	36.6	57.6	298	599	148	49.0	41.4	118
1956	43.8	59.3	112	84.0	58.5	74.4	338	899	710	142	58.9	42.3	219
1957	47.4	47.7	44.5	39.1	47.6	54.2	140	804	716	136	52.0	42.2	181
1958	51.5	41.5	38.8	33.5	44.6	37.6	117	844	589	128	58.7	42.2	170
1959	40.4	60.1	62.6	50.6	46.0	44.3	175	399	551	116	56.0	68.9	139
1960	87.9	60.7	43.3	40.3	41.3	68.1	182	398	498	96.2	55.1	37.3	134
1961	37.8	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,870	5,160	4,440	3,460	4,030	4,270	18,490	41,030	30,540	10,310	4,060	2,770	133,400
1952	5,370	3,560	3,480	3,110	2,680	2,870	16,200	50,730	35,950	9,090	3,650	2,500	139,200
1953	2,150	2,040	2,320	3,280	2,690	3,120	10,360	22,900	45,170	16,960	4,440	2,640	118,100
1954	2,520	2,780	2,650	2,410	2,420	3,720	14,740	43,200	30,180	11,830	4,220	2,790	123,500
1955	2,500	2,430	2,080	2,040	1,830	2,250	3,430	18,350	35,620	9,090	3,010	2,470	85,100
1956	2,690	3,530	6,890	5,160	3,370	4,570	20,140	55,270	42,260	8,740	3,620	2,520	158,800
1957	2,910	2,840	2,730	2,400	2,640	3,330	8,330	49,450	42,600	8,360	3,200	2,510	131,300
1958	3,170	2,470	2,380	2,060	2,480	2,310	6,960	51,900	35,020	7,890	3,610	2,510	122,800
1959	2,490	3,580	3,850	3,110	2,550	2,720	10,420	24,550	32,770	7,110	3,450	4,100	100,700
1960	5,400	3,610	2,660	2,480	2,380	4,190	10,840	24,460	29,610	5,920	3,390	2,220	97,160
1961	2,320	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	182	26.92	132,000
1951	1217	1,080	May 28, 1951	38	184	2.00	27.18	133,400	181	26.76	131,400
1952	1247	1,140	June 7, 1952	36	192	2.09	28.37	139,200	184	27.17	133,300
1953	1287	1,260	June 13, 1953	26	163	1.77	24.09	118,100	165	24.38	119,500
1954	1347	1,340	May 20, 1954	30	171	1.86	25.15	123,500	169	24.96	122,500
1955	1397	1,040	June 13, 1955	26	118	1.28	17.34	85,100	126	18.58	91,200
1956	1447	1,620	May 27, 1956	30	219	2.38	32.34	158,800	212	31.40	154,100
1957	1517	1,510	June 3, 1957	30	181	1.97	26.76	131,300	181	26.67	130,800
1958	1567	1,480	May 28, 1958	27	170	1.85	25.03	122,800	172	25.41	124,700
1959	1637	885	June 6, 1959	28	139	1.51	20.52	100,700	142	20.88	102,400
1960	1717	915	June 4, 1960	32	134	1.46	19.78	97,160	-	-	-
1961	1717	-	-	-	-	-	-	-	-	-	-

3130. Johnson Creek at Yellow Pine, Idaho

Location.--Lat 44°57'40", long 115°30'00", in NE¼ sec. 29, T.19 N., R.8 E., on right bank 700 ft upstream from mouth and a quarter of a mile southwest of Yellow Pine.

Drainage area.--213 sq mi. Mean altitude, 7,170 ft.

Records available.--August 1928 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 4,657.70 ft above mean sea level, datum of 1929 (preliminary).

Average discharge.--32 years (1928-60), 340 cfs (246,100 acre-ft per year).

Extremes.--1928-60: Maximum discharge, 5,440 cfs May 27, 1956 (gage height, 7.64 ft); minimum, 21 cfs Nov. 30, 1954 (gage height, 0.66 ft).

Remarks.--No regulation. Small diversion from a tributary to Johnson Creek to Deadwood River basin for supplemental storage in Deadwood Reservoir. Records of water temperatures for the period October 1957 to July 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	172	210	156	119	131	111	535	1,705	1,333	468	148	95.1	433
1952	146	111	96.8	91.3	87.4	84.8	458	1,858	1,436	376	120	79.2	413
1953	65.0	57.2	62.0	79.0	73.2	73.8	231	868	1,989	723	161	89.2	373
1954	72.5	79.6	76.7	70.8	77.6	83.0	332	1,812	1,384	529	138	89.6	397
1955	81.3	76.7	65.6	66.7	61.8	60.6	75.6	670	1,589	420	111	84.2	280
1956	81.7	105	145	140	105	107	531	2,342	2,099	460	149	99.8	531
1957	103	96.7	86.8	74.9	73.9	81.1	167	1,834	1,851	366	115	86.2	413
1958	90.9	77.1	72.7	69.2	76.4	75.3	152	2,037	1,448	291	116	85.7	384
1959	79.8	117	115	93.8	85.0	83.8	309	1,051	1,617	314	118	133	343
1960	184	117	83.7	75.4	70.3	92.9	330	974	1,298	229	105	78.6	303

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	10,590	12,470	9,570	7,340	7,250	6,810	31,830	104,900	79,300	28,770	9,130	5,660	313,600
1952	8,990	6,600	5,950	5,620	5,030	5,210	27,270	114,300	85,460	23,140	7,390	4,710	299,700
1953	4,000	3,410	3,810	4,860	4,060	4,540	13,740	53,400	118,400	44,480	9,870	5,310	269,900
1954	4,460	4,740	4,720	4,350	4,310	5,110	19,740	111,400	82,350	32,560	8,500	5,330	287,600
1955	5,000	4,560	4,030	4,100	3,430	3,730	4,500	41,190	94,530	25,850	6,840	5,010	202,800
1956	5,030	6,260	8,940	8,640	6,060	6,580	31,610	144,000	124,900	28,280	9,190	5,940	385,400
1957	6,330	5,760	5,340	4,600	4,100	4,990	9,940	112,700	110,100	22,510	7,050	5,130	298,600
1958	5,590	4,590	4,470	4,250	4,240	4,630	9,070	125,200	86,150	17,880	7,130	5,100	278,300
1959	4,910	6,990	7,070	5,770	4,720	5,150	18,380	64,600	96,210	19,300	7,270	7,930	248,300
1960	11,340	6,970	5,150	4,640	4,050	5,710	19,660	59,870	77,230	14,070	6,480	4,680	219,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	436	27.76	315,400
1951	1217	3,030	May 28, 1951	79	433	2.03	27.60	313,600	418	26.62	302,500
1952	1247	2,800	June 6, 1952	68	413	1.94	26.36	299,700	399	25.46	289,400
1953	1287	3,680	June 13, 1953	43	373	1.75	23.77	269,900	376	24.01	272,600
1954	1347	4,170	May 20, 1954	51	397	1.86	25.33	287,600	397	25.29	287,200
1955	1397	2,930	June 11, 1955	34	280	1.31	17.85	202,800	289	18.44	209,400
1956	1447	5,440	May 27, 1956	56	531	2.49	33.92	385,400	527	33.68	382,600
1957	1517	4,210	June 2, 1957	61	413	1.94	26.31	298,600	409	26.05	295,800
1958	1567	4,290	May 23, 1958	51	384	1.80	24.48	278,300	390	24.86	282,600
1959	1637	2,880	June 6,11959	56	343	1.61	21.87	248,300	349	22.27	252,800
1960	1717	2,560	June 3, 1960	58	303	1.42	19.35	219,800	-	-	-

3135. Secesh River near Burgdorf, Idaho

Location.--Lat 45°14', long 115°49', in SW¼ sec.23, T.22 N., R.5 E., on left bank 760 ft upstream from Long Gulch Creek and 5¾ miles southeast of Burgdorf.

Drainage area.--104 sq mi.

Records available.--April 1943 to May 1952.

Gage.--Water-stage recorder. Altitude of gage is 5,690 ft (from river-profile map). Prior to Aug. 20, 1943, staff gage and Aug. 20, 1943, to Sept. 30, 1948, water-stage recorder at site 1 mile upstream at different datum.

Average discharge.--8 years (1943-51), 187 cfs (135,400 acre-ft per year).

Extremes.--1943-52: Maximum discharge, 2,500 cfs June 3, 1948 (gage height, 8.24 ft, site and datum then in use), by slope-area measurement of peak flow; minimum recorded, 23 cfs Oct. 31, 1951 (gage height, 1.72 ft).

Remarks.--No regulation or diversion above station.

Revisions.--The daily discharge for May 25, 1949, as published in WSP, is in error; it should be 932 cfs. Revised record for water year 1949, superseding those published in WSP 1153 and 1317, are given herewith:

Month	Cfs-days	Mean	Per square mile	Inches	Acre-feet
May 1949	29,474	951	9.14	10.54	54,460
Water year 1948-49	66,871	183	1.76	23.93	132,600
Calendar year 1949	66,468	182	1.75	23.79	131,800

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	135	145	98.5	72.8	69.0	52.9	256	781	631	251	80.4	52.6	219
1952	82.6	58.4	48.4	46.3	44.1	43.5	236	957	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	8,320	8,630	6,060	4,470	3,830	3,250	15,230	48,000	37,530	15,430	4,940	3,130	158,800
1952	5,080	3,480	2,980	2,850	2,540	2,680	14,020	58,850	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	236	30.83	171,000
1951	1217	1,330	May 28, 1951	44	219	2.11	28.64	158,800	204	26.58	147,400
1952	1247	1,360	June 6 or 7, 1952	-	-	-	-	-	-	-	-

3138. Tailholt Creek near Yellow Pine, Idaho

Location.--Lat 45°02'30", long 115°40'30", in SW¼ sec.25, T.20 N., R.6 E., on right bank 100 ft upstream from mouth, 6 miles northeast of Krassel ranger station, and 19½ miles northwest of Yellow Pine.

Drainage area.--2.6 sq mi, approximately.

Records available.--August 1959 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 3,590 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 6.4 cfs Apr. 6, 1960 (gage height, 1.14 ft); minimum, 0.4 cfs Jan. 2, 1960 (gage height, 0.79 ft).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	1.76	1.54	-
1960	1.29	1.21	1.10	0.81	0.81	2.01	4.11	3.62	3.01	2.36	1.56	1.28	1.93

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	108	91	-
1960	79	72	67	50	47	124	245	223	179	145	96	73	1,400

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1717	-	-	-	-	-	-	-
1960	1717	6.4	Apr. 6, 1960	0.6	1.93	1,400	-	-

3150. Salmon River near French Creek, Idaho

Location.--Lat 45°25'55", long 115°59'00", in sec.8, T.24 N., R.4 E., on left bank 100 ft downstream from Fall Creek, 2½ miles northeast of former French Creek Post Office, and 16 miles east of Riggins.

Drainage area.--12,270 sq mi, approximately.

Records available.--October 1944 to September 1956.

Gage.--Staff gage. Datum of gage is 1,908.92 ft above mean sea level, unadjusted. Since Jan. 31, 1952, supplementary staff gage 3 miles upstream.

Average discharge.--12 years (1944-56), 10,520 cfs (7,616,000 acre-ft per year).

Extremes.--1944-56: Maximum discharge observed, 88,600 cfs about May 24, 1956 (gage height, 34.85 ft, from floodmark); minimum observed, 1,790 cfs Dec. 27, 1952 (gage height, -1.30 ft, supplementary gage).

Remarks.--Amount of water diverted above station for irrigation is a negligible percentage of total flow.

Revisions.--Some periods for the water years 1947-50 were revised in WSP 1447; the resulting revised records as summarized herewith supersede those published in WSP 1317.

Month	Mean	Per square mile	Runoff		Momentary maximum		Minimum day
			Inches	Acre-feet	Discharge	Date	
May 1947	45,520	-	-	2,799,000	-	-	-
Water year 1946-47	11,480	0.936	12.71	8,314,000	73,200	May 29, 1947	3,000
Calendar year 1947	11,300	-	12.50	8,181,000	-	-	3,000
May 1948	34,490	-	-	2,121,000	-	-	-
June	49,410	-	-	2,940,000	-	-	-
Water year 1947-48	11,670	.951	12.93	8,470,000	82,800	May 29, 1948	2,600
Calendar year 1948	11,500	-	12.75	8,346,000	-	-	2,330
May 1949	40,720	-	-	2,504,000	-	-	-
Water year 1948-49	9,794	.798	10.84	7,091,000	64,700	May 16, 1949	2,330
Calendar year 1949	9,760	-	10.80	7,066,000	-	-	-
June 1950	45,860	-	-	2,729,000	-	-	-
Water year 1949-50	10,930	.891	12.09	7,913,000	59,900	June 21, 1950	2,400

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,570	6,361	5,102	4,034	5,119	4,658	15,836	39,540	33,740	15,380	6,695	4,463	12,230
1952	5,309	4,513	4,076	3,584	3,491	3,814	13,810	39,010	33,770	11,530	5,057	3,637	10,980
1953	3,597	3,464	3,240	4,068	3,690	3,920	8,472	19,920	46,480	19,920	5,837	3,991	10,550
1954	3,814	4,196	3,750	3,464	3,874	4,163	10,060	34,460	28,350	15,400	5,573	3,866	10,110
1955	3,863	3,900	3,012	3,174	3,027	3,221	4,312	17,520	38,000	14,240	4,833	3,696	8,569
1956	4,075	4,629	5,949	4,651	3,742	6,111	17,350	47,850	46,190	13,620	6,313	4,632	13,770

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	342.5	378.5	313.7	248	284.3	286.4	942.3	2,431	2,007	945.9	411.7	265.5	8,857
1952	326.4	268.6	250.6	220.4	200.8	234.5	821.9	2,399	2,009	709	310.9	216.4	7,968
1953	221.2	206.1	199.2	250.2	204.9	241	504.1	1,225	2,766	1,225	358.9	237.5	7,639
1954	234.5	249.7	230.6	213	215.1	256	598.8	2,119	1,687	946.8	342.7	230	7,323
1955	237.5	232	185.2	195.2	168.1	198	256.6	1,077	2,261	875.5	297.1	219.9	6,203
1956	250.6	275.4	365.8	286	215.3	375.8	1,033	2,942.3	2,748.3	837.3	388.2	275.6	9,994

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	11,360	12.56	8,222,000
1951	1217	60,300	May 28, 1951	2,200	12,230	0.997	13.55	8,857,000	11,970	13.26	8,668,000
1952	1247	53,800	June 7, 1952	2,500	10,980	.895	12.19	7,968,000	10,670	11.86	7,748,000
1953	1287	64,200	June 13, 1953	1,900	10,550	.860	11.67	7,639,000	10,670	11.80	7,727,000
1954	1347	62,300	May 21, 1954	2,440	10,110	.824	11.20	7,323,000	10.030	11.10	7,263,000
1955	1397	59,200	June 13, 1955	2,050	8,569	.698	9.48	6,203,000	8.896	9.85	6,440,000
1956	1447	88,600	May 24, 1956a/	2,600	13,770	1.12	15.27	9,994,000	-	-	-

a About.

3155. Mud Creek near Tamarack, Idaho

Location.--Lat 44°59'50", long 116°20'50", in sec.9, T.19 N., R.1 E., on left bank 0.5 mile upstream from Little Mud Creek, 3¼ miles northeast of Tamarack, and 5 miles upstream from mouth.

Drainage area.--15.8 sq mi.

Records available.--April 1937 to September 1939 (fragmentary), October 1939 to September 1943 (discharge measurements only), September 1945 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,990 ft (by barometer). Prior to Sept. 18, 1945, staff gage at site 40 ft downstream at datum 1.21 ft higher.

Average discharge.--14 years (1945-59), 19.2 cfs (13,900 acre-ft per year).

Extremes.--1937-38, 1945-59: Maximum discharge, 395 cfs Apr. 27, 1952 (gage height, 5.00 ft); maximum gage height recorded, 6.29 ft Feb. 27, 1957 (backwater from ice); minimum discharge recorded, 0.2 cfs Nov. 19, 20, 1952.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3.35	4.37	5.08	3.48	4.55	6.13	114	46.7	8.16	3.10	1.82	1.71	16.8
1952	4.36	6.03	16.5	5.68	5.00	6.92	156	111	11.5	4.32	2.25	2.21	27.6
1953	1.65	1.38	2.34	5.98	8.68	13.5	99.0	71.5	27.3	5.32	2.92	1.53	20.1
1954	1.77	2.19	2.23	2.56	6.04	22.7	116	49.9	13.8	3.90	1.93	2.22	18.7
1955	2.15	2.25	2.16	1.92	1.88	2.18	16.7	87.9	16.9	3.72	1.68	1.69	11.9
1956	2.52	3.68	29.6	9.65	5.09	25.8	123	88.5	9.60	3.34	2.00	1.36	25.4
1957	2.86	3.76	2.58	2.27	7.25	21.3	97.3	114	8.37	3.12	1.70	1.33	22.3
1958	2.13	1.83	3.03	2.31	8.14	16.3	82.8	116	12.6	3.54	2.01	1.53	21.1
1959	1.20	2.37	2.72	5.15	5.41	6.39	69.2	47.6	7.85	2.36	1.76	3.03	12.9
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	206	260	312	214	253	377	6,790	2,870	485	190	112	102	12,170
1952	268	359	1,020	349	288	425	9,290	6,840	682	266	138	131	20,060
1953	102	82	144	368	482	833	5,890	4,400	1,620	327	180	91	14,520
1954	109	130	137	157	335	1,400	6,890	3,070	820	240	118	132	13,540
1955	132	134	133	118	104	134	996	5,410	1,000	229	103	100	8,590
1956	155	219	1,820	594	293	1,590	7,320	5,440	571	205	123	81	18,410
1957	176	224	159	140	403	1,310	5,790	7,040	498	192	104	79	16,120
1958	131	109	186	142	452	1,000	4,930	7,110	750	217	123	91	15,240
1959	74	141	167	317	300	393	4,120	2,930	467	145	108	180	9,340
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	17.3	14.82	12,500
1951	1217	193	Apr. 14, 1951	1.4	16.8	1.06	14.45	12,170	18.0	15.49	13,040
1952	1247	395	Apr. 27, 1952	1.8	27.6	1.75	23.79	20,060	25.8	22.22	18,740
1953	1287	257	Apr. 28, 1953	1.0	20.1	1.27	17.24	14,520	20.1	17.29	14,570
1954	1347	213	Apr. 13, 1954	1.4	18.7	1.18	16.05	13,540	18.7	16.09	13,560
1955	1397	138	May 6, 1955	1.0	11.9	.753	10.20	8,590	14.4	12.32	10,390
1956	1447	393	Dec. 22, 1955	1.2	25.4	1.61	21.85	18,410	23.1	19.92	16,780
1957	1517	188	May 13, 1957	1.2	22.3	1.41	19.13	16,120	22.1	18.97	15,980
1958	1567	216	Apr. 17, 1958	1.2	21.1	1.34	18.11	15,240	21.0	18.05	15,200
1959	1637	110	May 1, 1959	1.0	12.9	.816	11.08	9,340	-	-	-
1960											

3165. Little Salmon River at Riggins, Idaho

Location.--Lat 45°24'50", long 116°19'30", in SE¼SW¼ sec.15, T.24 N., R.1 E., on right bank 250 ft upstream from highway bridge, half a mile upstream from mouth, and three-quarters of a mile southwest of Riggins.

Drainage area.--576 sq mi. Mean altitude, 5,430 ft.

Records available.--February 1951 to February 1955, September 1956 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 1,760 ft (from topographic map).

Average discharge.--7 years (1951-54, 1956-60), 842 cfs (609,600 acre-ft per year).

Extremes.--1951-55, 1956-60: Maximum discharge, 6,720 cfs May 20, 1958; maximum gage height, 7.39 ft June 13, 1953; minimum discharge, 116 cfs Feb. 20, 1955; minimum gage height observed, 0.38 ft Feb. 29, 1960.
Flood about June 1, 1948, reached an undetermined stage (discharge, 9,200 cfs by slope-area measurement).

Remarks.--No regulation. Diversions for irrigation of about 13,600 acres (1948 determination) above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	499	457	1,934	2,543	1,876	678	235	188	-
1952	365	325	534	279	300	307	2,481	4,042	3,203	1,026	307	229	1,116
1953	186	172	182	396	374	491	1,208	1,962	3,311	1,165	312	206	830
1954	185	202	200	257	474	684	1,548	2,656	2,212	853	266	223	814
1955	200	197	166	165	158	-	-	-	-	-	-	-	-
1956													
1957	256	276	246	198	362	743	1,413	3,167	2,379	496	212	154	826
1958	182	182	244	200	473	520	1,297	3,606	2,263	494	253	209	828
1959	190	265	254	379	334	406	1,195	1,840	2,837	567	250	379	724
1960	544	373	258	220	228	604	1,614	2,031	2,313	460	252	183	756

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	27,720	28,080	115,100	156,300	111,600	41,670	14,440	11,210	-
1952	22,460	19,340	32,810	17,160	17,280	18,880	147,600	248,500	190,600	63,080	18,880	13,650	810,200
1953	11,410	10,250	11,220	24,330	20,790	30,200	71,910	120,600	197,000	71,620	19,210	12,250	600,800
1954	11,350	11,990	12,290	15,820	26,350	42,090	92,090	163,300	131,600	52,450	16,470	13,280	589,100
1955	12,300	11,700	10,200	10,170	8,760	-	-	-	-	-	-	-	-
1956													
1957	15,760	16,410	15,100	12,160	20,130	45,690	84,100	194,800	141,500	30,470	13,030	9,140	598,300
1958	11,200	10,800	14,970	12,270	26,280	31,990	77,200	221,700	134,700	39,380	15,530	12,430	599,400
1959	11,690	15,740	15,650	23,320	18,540	24,950	71,130	113,200	156,900	34,850	15,380	22,550	523,900
1960	33,440	22,220	15,850	13,510	13,090	37,110	96,030	124,900	137,600	28,310	15,470	10,910	548,400

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	-	-	-	-	-	-	-
1952	1247	5,530	Apr. 28, 1952	197	1,116	810,200	1,059	768,500
1953	1287	5,650	June 13, 1953	140	830	600,800	834	603,500
1954	1347	5,060	May 20, 1954	165	814	589,100	812	587,600
1955	1397	356	Nov. 16, 1954	-	-	-	-	-
1956								
1957	1517	5,720	June 2, 1957	144	826	598,300	812	588,000
1958	1567	6,720	May 20, 1958	142	828	599,400	836	605,600
1959	1637	4,680	June 13, 1959	158	724	523,900	763	552,300
1960	1717	4,540	June 3, 1960	155	756	548,400	-	-

3168. North Fork Skookumchuck Creek near White Bird, Idaho

Location.--Lat 45°43', long 116°13', in SW¼ sec.33, T.28 N., R.2 E., on left bank 10 ft downstream from bridge, 2 miles upstream from South Fork Skookumchuck Creek, and 4¾ miles southeast of White Bird.

Drainage area.--15.6 sq mi.

Records available.--August 1959 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 104 cfs May 12, 1960 (gage height, 3.57 ft); minimum, 0.2 cfs Aug. 20, 1959, several days in July and August 1960; minimum gage height, 1.20 ft July 30, 1960.

Remarks.--No regulation. Ditch bypassing station diverts as much as 2.53 cfs at times from left bank a quarter of a mile above station. Records of water temperatures for the period August 1959 to May 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	2.26	-
1960	13.5	10.7	6.65	4.44	4.71	20.5	43.8	62.7	27.5	2.73	0.85	1.67	16.7

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	135	-
1960	831	636	409	273	271	1,260	2,600	3,860	1,640	168	52	100	12,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1717	-	-	-	-	-	-	-
1960	1717	104	May 12, 1960	0.2	16.7	12,100	-	-

3170. Salmon River at White Bird, Idaho

Location.--Lat 45°45', long 116°20', in sec.22, T.28 N., R.1 E., on left bank just upstream from White Bird Creek, half a mile downstream from Canfield-Joseph highway bridge and 1 mile southwest of White Bird. Records include flow of White Bird Creek.

Drainage area.--13,550 sq mi, approximately, includes that of White Bird Creek. Mean altitude, 6,720 ft.

Records available.--August 1910 to September 1917, October 1919 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 1,412.65 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 14, 1920, staff gages at site 600 ft downstream at different datum. Sept. 14, 1920, to Jan. 2, 1931, chain gage on highway bridge 200 ft upstream at datum 10 ft higher.

Average discharge.--48 years (1910-17, 1919-60), 10,900 cfs (7,891,000 acre-ft per year).

Extremes.--1910-17, 1919-60: Maximum discharge, 106,000 cfs May 24, 1956 (gage height, 33.05 ft); minimum, 1,580 cfs Dec. 11, 1932 (gage height, 10.23 ft), from rating curve extended below 2,200 cfs.
Maximum stage known, about 37.5 ft in June 1894, present datum (discharge, 120,000 cfs).

Remarks.--No regulation. Amount of water diverted above station for irrigation is a negligible percentage of total flow. Records of chemical analyses for the period October 1958 to September 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,399	7,219	5,851	4,618	5,886	5,412	18,180	44,030	37,190	16,750	7,224	4,856	13,660
1952	5,934	5,166	4,896	4,205	4,298	4,573	16,950	43,760	39,530	13,240	5,688	4,128	12,700
1953	3,927	3,808	3,711	4,755	4,292	4,743	10,430	23,080	53,440	22,790	6,410	4,349	12,140
1954	4,211	4,535	4,192	3,999	4,597	5,079	11,880	39,090	32,810	16,880	5,991	4,362	11,500
1955	4,264	4,249	3,344	3,462	3,321	3,516	5,460	20,420	43,190	16,480	5,423	4,127	9,775
1956	4,618	5,550	7,731	5,733	4,301	7,428	20,310	56,030	52,900	14,590	6,661	4,893	15,900
1957	5,185	5,250	4,639	3,710	4,760	6,203	9,385	51,440	47,170	12,820	5,282	4,417	13,390
1958	4,986	4,504	4,282	3,705	4,949	4,715	8,893	48,390	35,970	10,350	5,293	4,170	11,720
1959	4,392	5,416	5,233	4,601	4,604	4,792	11,290	25,390	45,310	12,130	4,967	5,413	11,120
1960	8,547	6,763	4,860	4,148	4,163	6,535	14,580	24,710	35,180	8,751	4,777	3,969	10,570

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	393.4	429.6	359.8	284.0	326.9	332.8	1,082	2,707	2,213	1,030	444.2	288.9	9,892
1952	364.9	307.4	301.1	258.6	247.2	281.2	1,008	2,691	2,352	814.2	349.7	245.6	9,221
1953	241.5	226.6	228.2	292.4	238.4	291.6	620.4	1,419	3,180	1,401	394.1	258.8	8,792
1954	258.9	269.9	257.7	245.9	255.3	312.3	706.9	2,403	1,953	1,038	363.4	259.5	8,329
1955	262.2	252.9	205.6	212.9	184.5	216.2	324.9	1,256	2,570	1,013	333.5	245.6	7,077
1956	283.9	330.2	475.4	352.5	247.4	456.7	1,209	3,445	3,148	897.2	409.5	291.1	11,550
1957	318.8	312.4	285.3	228.1	264.4	381.4	558.4	3,163	2,807	788.0	324.8	262.8	9,694
1958	306.6	268.0	263.3	227.8	274.9	289.9	529.2	2,975	2,140	636.4	325.5	248.1	8,485
1959	270.0	322.3	321.8	282.9	255.7	294.6	671.6	1,561	2,696	745.7	305.4	322.1	8,049
1960	525.5	402.4	298.8	255.0	239.5	401.8	867.9	1,520	2,093	538.1	293.7	236.2	7,672

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	12,680	12.70	9,180,000
1951	1217	69,000	May 28, 1951	2,410	13,660	1.01	13.62	9,892,000	13,370	13.34	9,682,000
1952	1247	63,300	June 7, 1952	2,900	12,700	.937	12.77	9,221,000	12,320	12.38	8,944,000
1953	1287	75,500	June 14, 1953	2,110	12,140	.896	12.16	8,792,000	12,270	12.19	8,882,000
1954	1347	71,700	May 21, 1954	3,010	11,500	.849	11.53	8,329,000	11,410	11.43	8,263,000
1955	1397	67,500	June 14, 1955	2,290	9,775	.721	9.79	7,077,000	10,280	10.31	7,446,000
1956	1447	106,000	May 24, 1956	2,920	15,900	1.17	15.98	11,550,000	15,670	15.73	11,370,000
1957	1517	82,400	June 6, 1957	2,500	13,390	.988	13.41	9,694,000	13,280	13.30	9,616,000
1958	1567	83,600	May 25, 1958	2,520	11,720	.865	11.73	8,485,000	11,830	11.85	8,561,000
1959	1637	64,200	June 15, 1959	2,290	11,120	.821	11.14	8,049,000	11,550	11.57	8,362,000
1960	1717	55,500	June 5, 1960	3,180	10,570	.780	10.62	7,672,000	-	-	-

3175. Deer Creek near Winchester, Idaho

Location.--Lat 46°07', long 116°45', in SE¼ sec.18, T.32 N., R.3 W., on right bank 300 ft downstream from proposed damsite, an eighth of a mile downstream from West Fork, 4½ miles upstream from East Fork, and 11 miles (corrected) southwest of Winchester.

Drainage area.--19.1 sq mi (revised).

Records available.--October 1951 to November 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,380 ft (by barometer).

Average discharge.--5 years (1951-56), 11.5 cfs (8,330 acre-ft per year).

Extremes.--1951-56: Maximum discharge, 209 cfs Apr. 16, 1956 (gage height, 3.75 ft); maximum gage height recorded, 5.03 ft Apr. 9, 1955 (backwater from ice); minimum discharge recorded, 0.2 cfs Sept. 23, Oct. 4, 1952 (gage height, 1.62 ft).

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952	1.35	1.21	2.65	1.19	1.86	2.31	63.2	48.4	10.4	8.65	0.97	0.51	11.9
1953	.54	.55	.51	.97	1.45	7.64	46.0	32.1	30.5	3.04	1.14	.63	10.4
1954	.66	1.55	1.63	.96	2.44	7.39	36.2	12.7	13.2	2.39	1.02	.71	6.70
1955	.90	1.20	.55	.40	.36	.40	8.09	91.3	14.4	4.54	.74	.73	10.4
1956	1.40	3.49	8.87	4.36	2.41	17.9	115	39.7	16.8	4.16	1.60	1.02	18.0
1957	.99	2.13	-	-	-	-	-	-	-	-	-	-	-
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952	83	72	163	73	107	142	3,760	2,970	621	532	60	31	8,610
1953	33	33	32	60	81	469	2,740	1,970	1,820	187	70	37	7,530
1954	41	92	100	59	135	454	2,150	783	783	147	63	42	4,850
1955	55	71	34	25	20	25	481	5,620	858	279	45	43	7,560
1956	86	208	546	268	138	1,100	6,840	2,440	999	256	98	60	13,040
1957	61	127	-	-	-	-	-	-	-	-	-	-	-
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950											
1951											
1952	1247	138	Apr. 18, 1952	0.3	11.9	0.623	8.45	8,610	11.6	8.23	8,390
1953	1287	146	Apr. 28, 1953	.4	10.4	.545	7.39	7,530	10.6	7.53	7,670
1954	1347	60	Apr. 14, 1954	.4	6.70	.351	4.76	4,850	6.60	4.68	4,780
1955	1397	175	May 13, 1955	.3	10.4	.545	7.38	7,560	11.4	8.05	8,240
1956	1447	209	Apr. 16, 1956	.6	18.0	.942	12.80	13,040	-	-	-
1957	1447	-	-	-	-	-	-	-	-	-	-
1958											
1959											
1960											

3185. Grande Ronde River near Hilgard, Oreg.

Location.--Lat 45°19', long 118°16', near center of sec.11, T.3 S., R.36 E., on right bank half a mile upstream from lower reservoir site of Bureau of Reclamation, three-quarters of a mile upstream from Spring Creek, and 3 miles southwest of Hilgard.

Drainage area.--505 sq mi (revised).

Records available.--January 1938 to September 1956. Monthly discharge only prior to October 1945, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,058.05 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 16, 1946, water-stage recorder at site 800 ft upstream at different datum.

Average discharge.--18 years (1938-56), 274 cfs (198,400 acre-ft per year).

Extremes.--1938-56: Maximum discharge, 5,060 cfs May 8, 1956 (gage height, 6.48 ft), from rating curve extended above 3,100 cfs; minimum, 6 cfs Aug. 10, 12-29, Sept. 1-4, 1940.

Remarks.--Several small diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 cfs for municipal use at Beaver Creek Reservoir (capacity, about 900 acre-ft).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	44.6	104	193	190	493	497	1,043	651	189	47.4	19.1	18.1	289
1952	37.9	37.7	48.6	47.1	63.3	323	814	899	262	89.0	24.1	18.7	222
1953	18.1	19.8	26.8	223	357	458	875	810	864	123	41.4	24.6	318
1954	29.5	41.6	116	85.3	274	278	603	405	374	88.9	31.5	24.6	195
1955	23.3	28.3	21.3	25.2	29.0	72.0	603	852	417	96.6	22.9	19.2	185
1956	29.0	81.5	467	301	179	791	1,590	1,608	512	92.9	40.4	27.6	478
1957													
1958													
1959													
1960													

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,740	6,210	11,890	11,680	27,380	30,540	62,050	40,010	11,230	2,910	1,170	1,080	208,900
1952	2,330	2,240	2,990	2,900	3,640	19,890	48,460	55,300	15,570	5,470	1,480	1,110	161,400
1953	1,110	1,180	1,650	13,700	19,830	28,170	52,080	49,810	51,400	7,590	2,540	1,460	230,500
1954	1,810	2,480	7,130	5,250	15,220	17,110	35,880	24,920	22,250	5,470	1,940	1,460	140,900
1955	1,430	1,680	1,310	1,550	1,610	4,430	35,890	52,410	24,830	5,940	1,410	1,140	133,600
1956	1,780	4,850	28,720	18,520	10,290	48,656	94,610	98,900	30,490	5,710	2,480	1,640	346,600
1957													
1958													
1959													
1960													

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	339	245,200
1951	1217	2,070	Feb. 12, 1951	14	289	208,900	270	195,600
1952	1247	3,780	Mar. 25, 1952	16	222	161,400	217	157,800
1953	1287	2,210	Apr. 28, 1953	11	318	230,500	329	238,000
1954	1347	1,310	Apr. 13, 1954	20	195	140,900	185	133,900
1955	1397	1,730	Apr. 10, 1955	10	185	133,600	227	164,600
1956	1447	5,060	May 8, 1956	18	478	346,600	-	-
1957								
1958								
1959								
1960								

3190. Grande Ronde River at La Grande, Oreg.

Location.--Lat 45°21', long 118°08', near center of sec.36, T.2 S., R.37 E., on left bank 2 miles northwest of La Grande and 5 miles downstream from Fivepoint Creek.

Drainage area.--678 sq mi (revised).

Records available.--October 1903 to September 1915, February 1918 to September 1923, October 1925 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Published as "at Hilgard" 1903-15.

Gage.--Water-stage recorder. Datum of gage is 2,830.86 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Nov. 6, 1903, to Sept. 30, 1915, staff gage at site 5 miles upstream, 1,000 ft downstream from Fivepoint Creek, at various datums. Feb. 16, 1918, to June 28, 1923, and Oct. 1, 1925, to Nov. 24, 1931, staff gage at site 1 mile downstream at various datums.

Average discharge.--52 years (1903-15, 1918-23, 1925-60), 387 cfs (280,200 acre-ft per year).

Extremes.--1903-15, 1918-23, 1925-60: Maximum discharge, 8,880 cfs Mar. 18, 1932 (gage height, 8.90 ft), from rating curve extended above 4,300 cfs; minimum, 3.9 cfs Aug. 26, 1940.

Remarks.--Since 1915, slight regulation by city of La Grande reservoir on Beaver Creek (capacity, about 900 acre-ft). Diversions for irrigation of about 400 acres above station. Since 1909, city of La Grande has diverted about 3 cfs from Beaver Creek above station for domestic water supply. Records of water temperatures for the period September 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	48.8	103	256	277	734	742	1,515	884	250	53.8	19.5	19.2	405
1952	42.8	49.3	73.4	55.8	77.6	516	1,346	1,211	317	107	28.5	23.2	321
1953	22.0	22.4	33.9	368	648	766	1,358	1,193	1,125	153	45.7	26.0	477
1954	33.2	49.1	167	127	429	413	909	511	452	104	34.5	24.2	269
1955	28.0	36.3	23.8	27.2	31.5	82.7	927	1,325	577	122	26.4	22.2	270
1956	33.1	108	627	444	277	1,249	2,379	2,202	707	115	45.6	32.2	686
1957	40.3	54.1	201	85.1	323	867	1,468	1,696	338	71.7	26.2	21.8	433
1958	53.3	53.3	244	189	1,379	512	1,888	1,592	484	122	27.4	23.3	540
1959	23.9	111	521	610	364	536	975	799	317	55.2	24.5	43.6	365
1960	119	172	89.5	43.4	79.4	1,035	1,172	1,283	456	60.5	32.5	25.8	382

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,000	6,110	15,740	17,050	40,760	45,630	90,170	54,370	14,870	3,310	1,200	1,140	293,400
1952	2,630	2,930	4,510	3,430	4,460	31,710	80,110	74,480	18,870	6,580	1,760	1,380	232,800
1953	1,350	1,330	2,080	22,610	35,960	47,090	80,820	73,360	66,950	9,440	2,810	1,550	345,400
1954	2,040	2,920	10,290	7,800	23,830	25,410	54,100	31,400	26,880	6,380	2,120	1,440	194,600
1955	1,720	2,160	1,460	1,670	1,750	5,090	55,160	81,450	34,320	7,520	1,620	1,320	195,300
1956	2,040	6,430	38,530	27,300	15,940	76,770	141,600	135,400	42,050	7,090	2,800	1,910	497,900
1957	2,480	3,220	12,360	5,230	17,960	53,330	87,370	104,300	20,120	4,410	1,610	1,300	313,700
1958	3,280	3,170	15,000	11,610	76,570	31,460	112,400	97,860	28,810	7,480	1,690	1,390	390,700
1959	1,470	6,590	32,050	37,490	20,220	32,950	58,020	49,120	18,850	3,390	1,510	2,600	264,300
1960	7,340	10,260	5,500	2,670	4,570	63,630	69,730	78,900	27,140	3,720	2,000	1,530	277,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	476	344,400
1951	1217	3,030	Feb. 11, 1951	16	405	293,400	385	278,600
1952	1247	5,160	Mar. 25, 1952	19	321	232,800	313	227,500
1953	1287	3,520	Mar. 25, 1953	11	477	345,400	492	355,800
1954	1347	2,220	Apr. 14, 1954	20	269	194,600	255	184,700
1955	1397	2,760	Apr. 10, 1955	14	270	195,300	327	236,900
1956	1447	6,360	May 8, 1956	22	686	497,900	646	468,900
1957	1517	4,850	Apr. 5, 1957	17	433	313,700	438	317,100
1958	1567	4,480	Apr. 21, 1958	17	540	390,700	565	409,400
1959	1637	5,100	Dec. 11, 1958	17	365	264,300	342	247,200
1960	1717	3,960	Mar. 23, 1960	19	382	277,000	-	-

3200. Catherine Creek near Union, Oreg.

Location.--Lat 45°09'20", long 117°46'40", in SE¼ sec.2, T.5 S., R.40 E., on right bank 3 miles downstream from Little Catherine Creek and 6 miles southeast of Union.

Drainage area.--105 sq mi.

Records available.--May 1906 to May 1907 (gage heights only), August 1911 to December 1912, March to September 1915, February 1918 to September 1919, October 1925 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 3,081.76 ft above mean sea level, datum of 1929, supplementary adjustment of 1947 (State Highway Department bench mark). Prior to Nov. 28, 1938, staff gages at several sites within 1½ miles of present site at various datums. Nov. 28, 1938, to May 16, 1939, water-stage recorder at site 400 ft downstream at datum 4.29 ft lower.

Average discharge.--37 years (1911-12, 1918-19, 1925-60), 121 cfs (87,600 acre-ft per year).

Extremes.--1911-12, 1915, 1918-19, 1925-60: Maximum discharge, 1,740 cfs May 27, 1948 (gage height, 4.57 ft); minimum, 6.5 cfs Feb. 4, 1955, result of freezeup; minimum daily, 8 cfs Nov. 7, 1925.

Remarks.--No regulation. Several small diversions for irrigation of about 130 acres above station. Since 1937, diversion to Big Creek in Powder River basin provides a small part of water used for irrigation of 3,300 acres in that basin.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	33.5	38.2	43.7	35.7	63.9	68.9	300	418	192	67.5	33.1	25.4	110
1952	42.7	39.3	47.8	44.9	38.6	70.8	445	586	292	102	42.0	31.8	149
1953	26.5	27.5	29.4	59.9	75.5	94.1	246	459	572	214	61.7	37.6	159
1954	35.9	37.6	38.9	37.9	56.8	67.7	176	313	198	81.5	39.9	27.8	92.6
1955	24.5	24.9	25.2	24.2	24.0	28.3	83.4	294	339	82.5	34.4	28.9	84.5
1956	30.2	42.5	64.3	71.9	42.9	110	366	576	305	96.3	40.8	29.5	148
1957	30.2	28.1	54.9	36.2	49.7	128	268	546	299	70.2	33.1	25.0	131
1958	34.8	29.4	42.5	38.1	126	92.5	218	686	343	82.8	40.3	32.6	147
1959	31.4	70.4	119	100	73.5	82.1	272	366	347	83.7	47.5	57.8	138
1960	138	100	71.7	45.9	52.4	170	303	322	288	69.2	38.5	30.9	136

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,060	2,280	2,690	2,200	3,550	4,230	17,840	25,730	11,450	4,150	2,040	1,510	79,730
1952	2,630	2,340	2,940	2,760	2,220	4,360	26,470	36,060	17,360	6,270	2,580	1,890	107,900
1953	1,630	1,640	1,810	3,680	4,200	5,780	14,620	28,240	34,020	13,150	3,800	2,240	114,800
1954	2,210	2,240	2,390	2,330	3,150	4,160	10,460	19,240	11,760	5,010	2,460	1,650	67,060
1955	1,510	1,480	1,550	1,490	1,330	1,740	4,960	18,070	20,150	5,080	2,120	1,720	61,200
1956	1,860	2,530	3,950	4,420	2,470	6,760	21,760	35,410	18,180	5,920	2,510	1,760	107,500
1957	1,860	1,670	3,370	2,230	2,760	7,870	15,930	33,570	17,790	4,310	2,040	1,490	94,890
1958	2,140	1,750	2,610	2,340	7,030	5,680	12,970	42,190	20,390	5,090	2,480	1,940	106,600
1959	1,930	4,190	7,330	6,160	4,080	5,050	16,180	22,510	20,630	5,150	2,920	3,440	99,570
1960	8,480	5,980	4,410	2,820	3,010	10,460	18,030	19,790	17,120	4,250	2,370	1,840	98,560

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	114	82,860
1951	1217	690	May 11, 1951	20	110	79,730	111	80,610
1952	1247	1,040	Apr. 28, 1952	25	149	107,900	145	105,000
1953	1287	872	June 13, 1953	19	159	114,800	161	116,600
1954	1347	548	May 9, 1954	24	92.6	67,060	89.4	64,760
1955	1397	655	June 10, 1955	16	84.5	61,200	89.8	65,000
1956	1447	1,060	May 23, 1956	11	148	107,500	146	106,100
1957	1517	946	May 18, 1957	18	131	94,890	130	94,490
1958	1567	1,200	May 21, 1958	20	147	106,600	157	113,600
1959	1637	715	May 15, 1959	26	138	99,570	145	105,000
1960	1717	670	Apr. 8, 1960	25	136	98,560	-	-

3235. Grande Ronde River near Elgin, Oreg.

Location.--Lat 45°31', long 117°56', in NW¼ sec.3, T.1 S., R.39 E., on right bank 700 ft upstream from bridge on State Highway 82, 1½ miles downstream from Willow Creek, and 3¾ miles south of Elgin.

Drainage area.--1,250 sq mi, approximately.

Records available.--August 1955 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,660.31 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--5 years (1955-60), 846 cfs (612,500 acre-ft per year).

Extremes.--1955-60: Maximum discharge, 5,220 cfs May 12, 1956 (gage height, 11.78 ft); minimum, 18 cfs Aug. 17, 1959.
Flood in May 1948 reached a stage of 2,672.9 ft on Corps of Engineers gage at bridge 700 ft downstream (discharge, 5,690 cfs, discharge measurement).
Floods in 1894 and 1917 were much higher, based on Corps of Engineers flood profiles.

Remarks.--No regulation. Many diversions for irrigation in valley above station. Records of chemical analyses for water year 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	-	-	-	39.4	28.5	-
1956	65.7	106	962	1,024	554	1,751	3,395	3,393	1,499	232	59.9	51.3	1,100
1957	93.4	147	420	201	534	1,884	2,485	2,928	950	117	36.2	26.9	820
1958	110	138	428	354	2,021	1,070	2,623	2,709	1,247	227	59.8	54.2	910
1959	82.7	231	807	1,084	872	862	1,730	1,555	878	120	32.3	101	694
1960	325	381	262	176	372	1,562	2,096	2,110	995	86.9	55.9	55.5	706

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951													
1952													
1953													
1954													
1955	-	-	-	-	-	-	-	-	-	-	2,420	1,690	-
1956	4,040	11,650	59,140	62,980	31,840	107,700	202,000	208,600	89,220	14,240	3,680	3,050	798,100
1957	5,740	8,730	25,810	12,350	29,660	115,800	147,900	180,000	56,520	7,200	2,230	1,600	593,500
1958	6,780	8,190	26,320	21,780	112,200	65,800	156,100	166,600	74,180	13,970	3,680	3,230	658,800
1959	5,090	13,770	49,600	66,670	48,410	53,020	102,900	95,600	52,250	7,390	1,990	6,000	502,700
1960	19,960	22,690	16,080	10,840	21,380	96,060	124,700	129,700	59,210	5,340	3,440	3,300	512,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950								
1951								
1952								
1953								
1954								
1955	1397	-	-	-	-	-	-	-
1956	1447	5,220	May 12, 1956	35	1,100	798,100	1,052	763,600
1957	1517	4,190	May 20, 1957	23	820	593,500	821	594,600
1958	1567	5,140	Apr. 22, 1958	37	910	658,800	948	686,000
1959	1637	3,460	Dec. 12, 1958	21	694	502,700	681	493,000
1960	1717	3,860	Mar. 26, 1960	31	706	512,700	-	-

3250. East Fork Wallowa River near Joseph, Oreg.

Location (revised).--Lat 45°16'20", long 117°12'35", in NE¼ sec.29, T.3 S., R.45 E., on left bank 0.2 mile upstream from confluence with West Fork, 1 mile upstream from Wallowa Lake, and 5½ miles south of Joseph.

Drainage area.--10.3 sq mi (revised).

Records available.--July 1924 to September 1960. Prior to October 1952, records published separately as East Fork Wallowa River near Joseph and Wallowa Falls powerplant tailrace near Joseph.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,517.69 ft above mean sea level, datum of 1929 (Pacific Power & Light Co. bench mark). Prior to Apr. 8, 1950, staff gage at same site and datum.

Average discharge.--36 years (1924-60), 21.3 cfs (15,420 acre-ft per year).

Extremes.--1924-60: Maximum discharge, 450 cfs July 25, 1937 (no flow in powerplant tailrace), from rating curve extended above 80 cfs by logarithmic plotting; minimum daily, 6.6 cfs Feb. 13, 1927.

Remarks.--All records presented herein include flow in Wallowa Falls powerplant tailrace of Pacific Power & Light Co. Most of low flow is diverted at dam 1.5 miles upstream into conduit 1.0 mile above Wallowa Falls powerhouse and discharged into West Fork 0.4 mile below powerhouse.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	17.6	16.3	13.8	12.5	11.3	10.6	14.8	30.1	40.1	38.6	21.1	16.8	20.3
1952	15.7	11.2	11.1	10.3	8.90	7.97	12.2	31.6	74.4	52.7	19.8	16.8	22.7
1953	14.4	14.0	14.2	13.4	11.5	11.8	14.7	23.8	52.9	87.4	37.3	20.5	26.4
1954	17.4	16.4	15.0	13.8	13.0	12.6	14.5	32.6	46.1	53.7	21.5	17.0	22.9
1955	14.9	13.7	12.6	11.6	10.9	10.9	10.2	18.5	67.0	41.8	18.2	14.2	20.4
1956	15.4	13.9	15.2	13.4	11.6	11.5	16.4	50.9	72.4	62.3	29.5	19.6	27.7
1957	18.7	16.7	15.4	13.7	13.1	12.6	12.9	49.6	75.1	36.5	20.9	16.7	25.2
1958	17.7	15.8	16.0	14.2	13.7	13.2	14.6	49.0	90.5	43.4	25.4	19.4	27.7
1959	20.0	20.0	16.5	15.5	13.6	12.8	16.2	24.9	68.8	44.8	22.8	21.3	24.8
1960	20.8	17.9	17.3	16.2	13.8	14.0	15.0	25.8	59.8	29.0	16.6	13.0	21.6

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,080	972	846	767	628	655	878	1,850	2,380	2,370	1,300	999	14,730
1952	964	665	685	632	512	490	725	1,940	4,430	3,240	1,220	1,000	16,510
1953	883	831	871	823	639	724	873	1,460	3,150	5,380	2,290	1,220	19,140
1954	1,070	978	922	847	722	774	861	2,010	2,750	3,300	1,320	1,010	16,560
1955	914	813	778	712	607	670	609	1,130	3,990	2,570	1,120	845	14,760
1956	946	827	928	821	668	706	976	3,130	4,310	3,830	1,820	1,170	20,130
1957	1,150	996	948	845	726	774	770	3,050	4,470	2,240	1,280	994	18,240
1958	1,090	942	984	871	760	809	869	3,010	5,390	2,670	1,560	1,150	20,100
1959	1,230	1,190	1,010	956	756	787	964	1,530	4,090	2,760	1,400	1,270	17,940
1960	1,280	1,070	1,060	998	793	859	893	1,590	3,560	1,780	1,020	774	15,680

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	22.0	28.98	15,920
1951	1217	55	July 4, 1951	9.0	20.3	1.97	26.81	14,730	19.5	25.76	14,150
1952	1247	136	June 24, 1952	7.2	22.7	2.20	30.05	16,510	23.1	30.56	16,770
1953	1287	164	July 14, 1953	10	26.4	2.56	34.84	19,140	27.0	35.54	19,530
1954	1347	81	June 26, 1954	11	22.9	2.22	30.15	16,560	22.2	29.30	16,100
1955	1397	130	June 11, 1955	9.9	20.4	1.98	26.86	14,760	20.7	27.22	14,950
1956	1447	119	May 31, 1956	9.8	27.7	2.69	36.63	20,130	28.3	37.35	20,520
1957	1517	188	June 5, 1957	12	25.2	2.45	33.22	18,240	25.0	33.08	18,160
1958	1567	169	June 12, 1958	12	27.7	2.69	36.59	20,100	28.3	37.35	20,520
1959	1637	112	June 21, 1959	12	24.8	2.41	32.68	17,940	24.8	32.63	17,920
1960	1717	97	June 16, 1960	12	21.6	2.10	28.54	15,680	-	-	-

3260. Wallowa Lake near Joseph, Oreg.

Location (revised).--Lat 45°20'10", long 117°13'15", in NW¼ sec.5, T.3 S., R.45 E., on trashrack structure near west end of Wallowa Lake Dam on Wallowa River, three-quarters of a mile southeast of Joseph.

Drainage area.--50.8 sq mi (revised).

Records available.--November 1903 to July 1906 (gage heights only), January 1912 to March 1914, May to September 1915 (gage heights and change in contents only), October 1925 to June 1926, December 1926 to September 1960. Month-end contents only for some periods, published in WSP 1317. November 1903 to March 1905, published as Wallowa River at Joseph. Change in contents for January 1912 to March 1914 and May to September 1915 published with records for Wallowa River at Joseph.

Gage.--Staff gage. Datum of gage is 4,355.66 ft above mean sea level, datum of 1929. Nov. 12, 1903, to July 28, 1906, Jan. 13, 1912, to Mar. 31, 1914, and May 21 to Sept. 25, 1915, staff gages at several sites within half a mile of present site at different datums.

Extremes.--1925-60: Maximum contents observed, 47,830 acre-ft June 5-7, 1957 (gage height, 29.85 ft); minimum observed, 4,790 acre-ft Oct. 10, 1929 (gage height, 3.10 ft).

Remarks.--Reservoir is formed by concrete dam. Capacity, 42,750 acre-ft between gage heights 0.0 (sill of outlet gates) and 26.8 ft (spillway crest). About 5,300 acre-ft dead storage above outlet gates, since channel is about 3.4 ft above outlet gates. Dead storage below outlet gates not known. Records are based on capacities above outlet gates.

Contents, in acre-feet, on last day of month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	16,020	18,700	19,970	18,700	18,230	17,910	21,240	24,120	19,500	13,350	6,810	7,430
1952	9,530	9,990	9,910	10,620	11,400	11,400	15,550	28,790	39,930	38,110	28,300	26,690
1953	26,210	25,560	25,640	27,330	27,820	27,820	29,760	34,160	41,840	41,750	33,840	33,670
1954	32,770	33,180	33,180	33,100	33,340	32,850	33,340	29,920	34,490	30,980	19,580	18,940
1955	18,380	18,230	17,830	17,830	17,910	18,380	19,100	23,000	23,240	28,460	14,610	14,220
1956	16,880	19,420	22,840	24,760	24,440	23,160	26,450	39,100	45,160	39,760	30,490	28,790
1957	30,570	31,960	32,940	33,420	34,330	35,640	37,950	46,320	42,500	28,620	20,050	19,810
1958	21,880	23,000	24,120	24,520	25,320	26,370	29,520	41,250	44,820	34,160	23,640	22,920
1959	24,040	27,900	31,630	33,840	33,760	34,080	37,200	39,520	41,090	29,600	18,540	22,280
1960	29,030	32,200	32,040	33,590	34,580	36,220	41,090	44,660	36,710	18,460	13,820	14,840

3265. Joseph powerplant tailrace at Joseph, Oreg.

Location.--Lat 45°20'55", long 117°13'50", in NE¼NE¼ sec.31, T.2 S., R.45 E., in powerhouse at Joseph, 300 ft upstream from mouth.

Records available.--October 1950 to September 1956 (monthly discharge only October 1952 to September 1956) in reports of Geological Survey. November 1929 to September 1941 in reports of State engineer and October 1941 to September 1950 in files of State engineer.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,187.32 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1943, water-stage recorder at present site at different datum. Oct. 1, 1943, to Sept. 30, 1944, water-stage recorder at present site at datum 1.06 ft higher and Oct. 1, 1944, to Sept. 30, 1954, at datum 0.94 ft higher.

Extremes.--1950-56: Maximum daily discharge, 133 cfs July 31 to Aug. 2, 1954; no flow at times.

Remarks.--Tailrace diverts from Wallowa Lake (see preceding station) in NW¼ sec.5, T.3 S., R.45 E., for generation of power at Joseph; water is returned to Wallowa River 300 ft below station. Powerplant destroyed and no diversion after July 29, 1956.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,870	2,020	2,370	3,700	3,080	2,830	2,790	4,320	3,800	3,780	2,470	1,210	34,250
1952	1,540	1,840	2,510	1,420	1,260	2,010	2,430	3,000	4,450	4,340	4,380	2,790	31,970
1953	2,020	1,510	1,130	1,040	1,400	1,840	1,960	3,490	4,300	5,970	5,890	2,830	33,380
1954	2,960	2,230	2,300	2,140	1,710	2,760	3,540	5,310	781	6,340	6,190	2,320	38,580
1955	2,000	1,530	1,550	1,310	1,150	1,380	1,690	2,290	4,080	4,500	4,910	1,390	27,780
1956	1,420	1,520	1,630	1,630	2,270	3,850	3,750	2,200	5,630	5,080	0	0	28,980
1957													
1958													
1959													
1960													

3270. Silver Lake Canal at Joseph, Oreg.

Location.--Lat 45°20'15", long 117°13'30", in NW¼ sec.5, T.3 S., R.45 E., 800 ft downstream from Wallowa Lake Dam and 0.8 mile south of Joseph.

Records only.--July to December 1905 (gage heights and discharge measurements only), May to September 1915, December 1926 to September 1960. Monthly discharge only December 1926 to September 1950 (published in WSP 1317) and October 1952 to September 1960. Published as Silver Lake ditch near Joseph 1905 and 1915.

Gage.--Water-stage recorder. Datum of gage is 4,352.90 ft above mean sea level, datum of 1929. Prior to Dec. 31, 1905, staff gage half a mile downstream at different datum. Apr. 16 to Sept. 3, 1915, staff gage a quarter of a mile downstream at different datum. December 1926 to July 18, 1957, water-stage recorder and July 19, 1957, to May 8, 1958, staff gage, at present site at datum 0.28 ft lower.

Extremes.--1915, 1926-60: Maximum daily discharge, 139 cfs Aug. 2, 1947; no flow at times in most years.

Remarks.--Canal diverts from Wallowa Lake (see p. 247) in NW¼ sec.5, T.3 S., R.45 E., for irrigation of about 4,900 acres below station and northeast of Joseph.

Cooperation.--Records for 1957-60, not previously published by Geological Survey, furnished by State engineer of Oregon.

Monthly and yearly diversion, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	946	436	450	403	363	257	200	1,540	5,280	4,370	3,360	776	18,380
1952	436	324	399	115	0	0	9.9	321	2,370	4,330	3,880	995	13,180
1953	946	415	313	371	336	404	346	645	2,880	6,140	4,580	714	18,090
1954	827	316	266	228	170	239	346	3,180	2,460	5,720	4,850	1,030	19,830
1955	541	417	422	393	261	131	157	157	4,570	3,260	4,450	1,290	16,050
1956	237	234	188	168	241	4.4	89	458	2,710	4,920	4,750	1,690	15,690
1957	254	274	237	216	193	194	162	217	4,230	6,200	4,550	894	17,620
1958	123	119	184	184	167	184	178	1,690	5,260	6,120	4,760	893	19,860
1959	427	299	182	359	224	431	253	635	5,040	6,780	4,890	529	20,050
1960	387	300	575	529	495	530	408	260	5,130	6,480	2,700	447	18,240

3275. Wallowa River at Joseph, Oreg.

Location.--Lat 45°20'15", long 117°13'35", in NW¼ sec.5, T.3 S., R.45 E., on left bank 1,000 ft downstream from Wallowa Lake Dam and 0.8 mile south of Joseph.

Drainage area.--50.9 sq mi (revised).

Records available.--November 1903 to August 1907, June 1908 to March 1914, May to September 1915, December 1926 to September 1960. Monthly discharge only for some periods, published in WSP 1317. Published as "near Joseph" 1911.

Gage.--Water-stage recorder. Datum of gage is 4,326.86 ft above mean sea level, datum of 1929. Nov. 12, 1903, to Sept. 25, 1915, staff gages at several sites at lake outlet or near present site at different datums.

Average discharge.--33 years (1927-60), 127 cfs (91,940 acre-ft per year), adjusted for storage and diversion.

Extremes.--1903-15, 1926-60: Maximum discharge, 1,200 cfs June 5, 1957 (gage height, 4.75 ft); no flow at times in some years.

Remarks.--Flow regulated by Wallowa Lake (see p. 247). Diversions from Wallowa Lake to powerplant at Joseph prior to August 1956 and by Silver Lake Canal for period of record (see p. 248). City of Joseph diverts less than 1 cfs from Wallowa Lake for municipal use.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	18.6	18.0	15.0	13.1	10.0	9.0	8.7	155	287	269	110	25.4	78.7
1952	23.8	22.2	14.8	9.7	7.3	6.6	6.8	71.8	23.7	300	172	40.7	76.4
1953	5.2	12.0	10.2	11.1	10.0	10.0	7.6	78.3	180	388	139	18.7	73.2
1954	10.7	10.6	11.0	9.5	5.9	5.0	7.4	222	201	248	129	16.6	73.8
1955	12.6	10.2	9.68	9.77	8.96	8.77	6.17	46.1	315	91.0	169	18.5	58.9
1956	16.1	8.93	5.39	6.36	18.4	6.95	8.00	128	347	321	210	71.5	95.9
1957	29.6	28.0	40.9	35.0	32.6	30.6	22.2	275	567	399	171	49.0	141
1958	27.4	28.1	32.0	27.1	23.4	19.0	13.9	219	478	339	196	52.5	122
1959	30.1	29.0	25.3	30.7	21.4	35.0	37.0	161	437	377	200	37.1	119
1960	28.9	28.2	55.3	21.4	21.7	26.0	20.9	150	515	418	102	31.6	118

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,140	1,070	922	805	553	551	520	9,510	17,060	16,540	6,790	1,510	56,970
1952	1,460	1,320	908	599	422	407	405	4,410	14,090	18,480	10,550	2,420	55,470
1953	319	714	625	680	555	615	454	4,810	10,730	23,830	8,560	1,110	53,000
1954	659	633	676	585	329	307	442	13,670	11,960	15,280	7,940	990	53,470
1955	778	607	595	601	498	540	367	2,840	18,730	5,600	10,370	1,100	42,630
1956	988	532	331	391	1,060	427	476	7,860	20,650	19,730	12,910	4,250	69,600
1957	1,820	1,670	2,520	2,150	1,810	1,880	1,320	16,900	33,720	24,550	10,540	2,920	101,800
1958	1,680	1,670	1,970	1,670	1,300	1,170	826	13,450	28,460	20,870	12,040	3,120	88,230
1959	1,850	1,720	1,550	1,890	1,190	2,150	2,200	9,900	25,980	23,160	12,330	2,210	86,130
1960	1,780	1,680	3,400	1,310	1,250	1,600	1,250	9,230	30,640	25,690	6,260	1,880	85,970

Year	WSP	Water year ending Sept. 30									Calendar year			
		Observed						Adjusted			Observed		Adjusted	
		Momentary maximum		Minimum day	Mean	Runoff in acre-feet		Mean	Per square mile	Runoff in inches	Mean	Runoff in acre-feet	Mean	Runoff in inches
		Discharge	Date											
1950	-	-	-	-	-	-		-	-	-	64.7	46,810	‡145	‡38.71
1951	1217	530	June 30, 1951	4	78.7	56,970		‡143	‡2.81	‡38.10	79.5	57,530	‡137	‡36.49
1952	1247	542	June 6, 1952	3	76.4	55,470		‡165	‡3.24	‡44.16	73.6	53,440	156	41.85
1953	1287	538	July 15, 1953	3	73.2	53,000		154	3.03	41.04	73.6	53,310	159	42.33
1954	1347	438	May 20, 1954	2	73.8	53,470		134	2.63	35.71	73.9	53,480	130	34.59
1955	1397	420	June 12, 1955	1.8	58.9	42,630		113	2.22	30.11	58.7	42,500	124	33.19
1956	1447	522	July 29, 1956	2.1	95.9	69,600		177	3.48	47.45	102	73,760	171	45.71
1957	1517	1,200	June 5, 1957	15	141	101,800		152	2.99	40.67	140	101,100	151	40.37
1958	1567	760	June 22, 1958	9.8	122	88,230		154	3.03	40.96	122	88,030	160	42.69
1959	1637	604	June 23, 1959	18	119	86,130		146	2.87	38.86	121	87,870	150	40.04
1960	1717	640	June 29, 1960	17	118	85,970		133	2.61	35.65	-	-	-	-

‡ Not previously published.

Note.--Figures adjusted for change in contents in Wallowa Lake and diversions by Silver Lake Canal and Joseph powerplant tailrace. No diversion to Joseph powerplant after July 1956.

3295. Hurricane Creek near Joseph, Oreg.

Location.--Lat 45°20'15", long 117°17'30", in NE¼ sec.3, T.3 S., R.44 E., on left bank 350 ft upstream from intake of Moonshine ditch and 3½ miles southwest of Joseph.

Drainage area.--29.6 sq mi (revised).

Records available.--April to September 1915, April 1924 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (by barometer). Apr. 27 to Sept. 3, 1915, staff gage at site 250 ft downstream at different datum. Apr. 23, 1924, to June 13, 1933, water-stage recorder at site 150 ft downstream from present site at different datum.

Average discharge.--36 years (1924-60), 73.1 cfs (52,920 acre-ft per year).

Extremes.--1915, 1924-60: Maximum discharge, 1,110 cfs June 9, 1948 (gage height, 3.55 ft); maximum gage height, 4.69 ft June 13, 1955 (backwater from debris); minimum discharge, 2.8 cfs Mar. 2, 1955, result of ice jam upstream; minimum daily, 6.0 cfs Jan. 6, Apr. 13, 1945.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	53.9	52.7	40.8	35.5	34.2	28.8	75.9	170	189	155	54.8	31.7	77.1
1952	33.8	31.5	28.8	24.1	22.2	20.5	72.3	205	313	213	72.8	36.0	89.6
1953	19.4	22.5	22.0	22.5	23.6	22.1	43.5	125	268	355	102	43.1	89.5
1954	27.6	23.4	21.0	19.8	18.8	19.5	37.6	193	187	199	58.2	33.8	70.3
1955	25.6	20.4	16.7	14.7	12.1	10.2	14.0	76.3	328	164	56.6	31.2	†64.2
1956	34.1	41.4	35.2	34.3	30.1	25.4	72.1	243	329	207	76.9	43.6	97.7
1957	29.9	24.9	27.4	25.3	18.4	19.4	32.9	257	313	154	53.8	27.2	82.3
1958	24.5	19.9	23.8	16.0	12.7	18.5	29.3	275	322	126	61.0	30.4	80.2
1959	32.2	65.6	66.9	44.4	30.1	18.0	49.5	122	360	167	66.1	55.4	89.8
1960	96.2	53.7	42.7	28.4	26.0	29.5	61.9	113	266	122	64.2	29.4	77.7

† Corrected.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,310	3,140	2,510	2,180	1,900	1,770	4,520	10,430	11,240	9,560	3,370	1,880	55,810
1952	2,080	1,870	1,770	1,480	1,280	1,260	4,300	12,610	18,640	13,130	4,480	2,140	65,040
1953	1,190	1,340	1,350	1,380	1,310	1,360	2,590	7,680	15,940	21,810	6,270	2,570	64,790
1954	1,700	1,390	1,290	1,220	1,050	1,200	2,240	11,840	11,130	12,260	3,580	2,010	50,910
1955	1,580	1,210	1,030	906	672	630	831	4,690	19,540	10,080	3,480	1,850	†46,500
1956	2,100	2,460	2,160	2,110	1,730	1,560	4,290	14,950	19,560	12,700	4,730	2,600	70,950
1957	1,840	1,480	1,680	1,560	1,020	1,190	1,960	15,790	18,620	9,490	3,310	1,620	59,560
1958	1,510	1,180	1,460	982	705	1,140	1,750	16,880	19,180	7,750	3,750	1,810	58,100
1959	1,980	3,900	4,110	2,730	1,670	1,110	2,940	7,530	21,400	10,260	4,070	3,300	65,000
1960	5,910	3,200	2,630	1,740	1,500	1,810	3,690	6,930	15,830	7,500	3,950	1,750	56,440

† Corrected.

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	77.1	35.35	55,820
1951	1217	360	June 15, 1951	25	77.1	2.60	35.35	55,810	72.6	33.30	52,570
1952	1247	590	June 5, 1952	20	89.6	3.03	41.20	65,040	87.1	40.03	63,200
1953	1287	1,010	July 12, 1953	18	89.5	3.02	41.04	64,790	90.2	41.35	65,290
1954	1347	458	May 19, 1954	17	70.3	2.38	32.23	50,910	69.5	31.88	50,350
1955	1397	850	June 11, 1955	8.4	†64.2	†2.17	†29.45	†46,500	66.9	31.59	49,870
1956	1447	659	May 31, 1956	21	97.7	3.30	44.94	70,950	95.4	43.86	69,230
1957	1517	816	June 5, 1957	9.2	82.3	2.78	37.72	59,560	81.1	37.18	58,710
1958	1567	575	May 23,27,1958	6.8	80.2	2.71	36.80	58,100	86.3	40.50	63,940
1959	1637	690	June 20, 1959	15	89.8	3.03	41.17	65,000	92.2	42.28	66,750
1960	1717	465	June 3, 1960	21	77.7	2.62	35.75	56,440	-	-	-

† Corrected.

3300. Lostine River near Lostine, Oreg.

Location.--Lat 45°26'20", long 117°25'35", in NW¼ sec.34, T.1 S., R. 43 E., on left bank 3½ miles south of Lostine and 9 miles upstream from mouth.

Drainage area.--70.9 sq mi (revised).

Records available.--August 1912 to March 1914, April to September 1915, July 1925 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,650 ft (by barometer). Aug. 27, 1912, to Sept. 25, 1915, staff gage at site 500 ft upstream at different datum. July 21, 1925, to Sept. 30, 1929, water-stage recorder at site 100 ft upstream at datum about 1.5 ft higher. Oct. 1, 1929, to Dec. 15, 1953, water-stage recorder at site 85 ft downstream at datum 1.00 ft higher.

Average discharge.--36 years (1912-13, 1925-60), 194 cfs (140,500 acre-ft per year).

Extremes.--1912-15, 1925-60: Maximum discharge observed, 2,540 cfs May 27, 1913 (gage height, 6.60 ft, site and datum then in use); minimum recorded, 10 cfs Nov. 28-30, 1936.

Remarks.--No regulation. Diversions for irrigation of about 130 acres of which about 20 acres is below station. Records of water temperatures for the water year 1958 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	96.9	89.1	86.4	71.2	64.8	55.2	201	576	585	336	73.5	43.8	191
1952	64.9	54.2	51.3	34.4	30.1	28.4	248	630	898	479	106	48.5	223
1953	35.3	26.2	25.0	44.4	51.6	47.7	147	370	744	839	171	65.5	215
1954	37.5	38.8	36.7	36.6	39.7	50.2	149	575	590	496	97.6	44.9	184
1955	38.8	33.5	23.8	21.0	15.9	16.3	48.0	298	852	381	87.5	51.9	156
1956	74.5	128	102	89.1	64.4	53.1	267	759	1,024	513	116	47.4	270
1957	45.7	46.0	64.6	44.5	50.9	63.7	127	745	956	361	74.3	41.6	219
1958	48.5	34.5	37.7	31.4	47.0	46.8	89.2	864	1,006	274	74.0	45.9	217
1959	59.6	198	212	95.5	63.3	49.5	158	362	988	378	82.4	99.1	229
1960	291	141	81.7	48.1	41.5	69.4	186	339	825	304	77.8	47.1	204

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	5,960	5,300	5,310	4,380	3,600	3,390	11,950	35,430	34,830	20,670	4,520	2,600	137,900
1952	3,990	3,220	3,150	2,110	1,730	1,750	14,770	38,760	53,410	29,470	6,500	2,890	161,800
1953	2,170	1,560	1,540	2,730	2,870	2,940	8,760	22,750	44,290	51,590	10,540	3,900	155,600
1954	2,300	2,310	2,260	2,250	2,210	3,090	8,850	35,350	35,130	30,510	6,000	2,670	132,900
1955	2,380	2,000	1,460	1,290	883	1,000	2,850	18,310	50,720	23,400	5,380	3,090	112,800
1956	4,580	7,620	6,290	5,480	3,710	3,260	15,890	46,640	60,960	31,540	7,130	2,820	195,900
1957	2,810	2,740	3,970	2,740	2,820	3,920	7,540	45,830	56,910	22,220	4,570	2,480	158,600
1958	2,980	2,050	2,320	1,930	2,610	2,880	5,310	53,110	59,880	16,860	4,550	2,730	157,200
1959	3,660	11,780	13,030	5,870	3,510	3,040	9,390	22,250	58,790	23,270	5,060	5,890	165,500
1960	17,900	8,410	5,020	2,960	2,390	4,270	11,080	20,820	49,070	18,700	4,780	2,800	148,200

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	226	163,300
1951	1217	1,250	May 27, 1951	28	191	137,900	182	131,700
1952	1247	1,700	June 6, 1952	22	223	161,800	216	156,700
1953	1287	1,620	July 12, 1953	20	215	155,600	217	157,200
1954	1347	1,340	June 27, 1954	25	184	132,900	182	131,900
1955	1397	1,690	June 12, 1955	13	156	112,800	173	125,400
1956	1447	1,880	June 1, 1956	37	270	195,900	258	187,000
1957	1517	2,170	June 2, 1957	34	219	158,600	215	156,400
1958	1567	1,740	May 28, 1958	22	217	157,200	246	178,300
1959	1637	1,780	June 20, 1959	33	229	165,500	233	168,400
1960	1717	1,410	June 15, 1960	30	204	148,200	-	-

3305. Bear Creek near Wallowa, Oreg.

Location.--Lat 45°32', long 117°33', in NE¼ sec.34, T.1 N., R.42 E., on right bank 30 ft downstream from highway bridge, 3 miles southwest of Wallowa, and 4½ miles upstream from mouth.

Drainage area.--68 sq mi, approximately.

Records available.--April to September 1915, April 1924 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 3,250 ft (by barometer). Apr. 13 to Sept. 16, 1915, staff gage at site 1 mile upstream at different datum. Apr. 22, 1924, to Nov. 2, 1931, water-stage recorder at site 1½ miles upstream at different datum.

Average discharge.--36 years (1924-60), 113 cfs (81,810 acre-ft per year).

Extremes.--1915, 1924-60: Maximum discharge, 1,620 cfs Apr. 22, 1936 (gage height, 3.82 ft, from floodmark), from rating curve extended above 930 cfs; minimum daily, 3 cfs Jan. 20, Feb. 1, 1937.

Remarks.--No regulation. Diversions for irrigation of about 43 acres above station. Water for irrigation of about 440 acres in Lostine River basin diverted from Little Bear Creek, a tributary above station, in sec.32, T.1 S., R.43 E.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	37.2	59.4	73.1	47.2	89.9	64.1	213	342	270	82.7	16.2	11.1	109
1952	36.7	40.6	41.3	24.1	27.3	33.2	254	430	436	163	22.9	12.4	127
1953	8.3	8.2	7.3	40.3	65.4	55.9	173	315	435	248	34.2	14.6	117
1954	10.5	19.3	36.8	27.2	51.6	63.9	167	373	329	145	25.6	16.4	106
1955	15.3	18.1	17.3	14.4	13.0	16.9	64.4	269	512	147	23.8	14.4	93.9
1956	28.8	65.7	87.6	72.2	56.5	88.4	283	531	452	133	23.5	13.2	153
1957	13.8	28.5	70.5	26.2	35.2	84.8	152	584	460	95.2	20.3	12.4	132
1958	16.1	16.9	23.5	24.2	82.9	49.9	157	580	489	66.6	18.1	14.0	128
1959	25.9	133	194	102	71.3	55.5	199	286	503	102	17.3	37.0	143
1960	158	83.4	46.8	27.9	29.7	86.9	171	273	351	71.2	17.5	15.6	111

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,290	3,540	4,490	2,900	4,990	3,940	12,680	21,050	16,040	5,090	996	659	78,660
1952	2,260	2,410	2,540	1,480	1,570	2,040	15,130	26,450	25,930	10,010	1,410	740	91,970
1953	508	488	448	2,480	3,630	3,440	10,320	19,360	25,890	15,240	2,100	869	84,770
1954	645	1,150	2,260	1,670	2,870	3,930	9,950	22,910	19,560	8,890	1,570	978	76,380
1955	938	1,080	1,060	885	722	1,040	3,830	16,570	30,490	9,060	1,470	859	68,000
1956	1,770	3,910	5,390	4,440	3,250	5,440	16,830	32,640	26,910	8,180	1,450	785	111,000
1957	851	1,690	4,340	1,610	1,960	5,220	9,030	35,910	27,350	5,850	1,250	738	95,800
1958	992	1,000	1,440	1,490	4,610	3,070	9,340	35,670	29,100	4,100	1,110	831	92,750
1959	1,590	7,900	11,930	6,250	3,960	3,410	11,820	17,590	29,920	6,260	1,060	2,200	103,900
1960	9,690	4,960	2,880	1,710	1,710	5,350	10,160	16,790	20,900	4,380	1,080	930	80,540

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	133	96,240
1951	1217	618	May 23, 1951	9	109	78,660	104	75,560
1952	1247	904	June 5, 1952	9	127	91,970	119	86,200
1953	1287	781	June 12, 1953	5	117	84,770	121	87,380
1954	1347	781	May 19, 1954	10	106	76,380	104	75,410
1955	1397	1,540	June 11, 1955	11	93.9	68,000	105	76,000
1956	1447	1,330	May 23, 1956	9.6	153	111,000	147	106,800
1957	1517	1,240	June 2, 1957	10	132	95,800	127	92,350
1958	1567	1,320	June 12, 1958	11	128	92,750	153	110,700
1959	1637	1,230	Dec. 11, 1958	12	143	103,900	138	100,000
1960	1717	632	June 3, 1960	11	111	80,540	-	-

3325. Grande Ronde River at Rondowa, Oreg.

Location.--Lat 45°44', long 117°47', in NW¼ sec.23, T.3 N., R.40 E., on right bank at Rondowa, 500 ft downstream from Wallowa River, 13 miles northeast of Elgin, and at mile 81.4 (river-profile survey).

Drainage area.--2,555 sq mi.

Records available.--October 1926 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 2,281.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--34 years (1926-60), 2,124 cfs (1,538,000 acre-ft per year).

Extremes.--1926-60: Maximum discharge, 19,900 cfs May 28, 1948 (gage height, 9.76 ft); minimum, 225 cfs Dec. 19, 1935.

Remarks.--Flow slightly regulated by Wallowa Lake (see p. 247) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Sheep Creek in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley. Records of water temperatures for the period June 1959 to September 1960 are published in reports of Geological Survey.

Revisions.--The period Apr. 26-30, 1927, was revised in WSP 1447; the resulting revised records as summarized herewith supersede those published in WSP 1317.

Month	Mean	Acre-feet
April 1927	3,647	217,200
Water year 1926-27	2,180	1,634,000
Calendar year 1927	2,630	1,903,000

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	786	1,033	1,386	1,420	3,008	2,569	5,605	5,654	3,227	1,339	537	493	2,245
1952	803	848	916	671	1,128	2,131	6,012	7,448	4,863	2,127	697	585	2,351
1953	475	479	499	1,730	2,584	2,575	4,254	5,981	7,159	3,450	942	571	2,552
1954	543	678	1,035	1,045	1,754	1,740	3,671	4,458	3,716	1,798	723	613	1,811
1955	557	577	504	511	559	854	3,176	5,127	5,556	2,092	490	505	1,710
1956	657	1,112	2,737	2,501	1,421	4,034	7,390	8,964	5,852	2,052	741	616	3,176
1957	616	694	1,402	719	1,687	4,103	5,168	8,771	4,819	1,450	615	511	2,551
1958	698	666	1,406	1,192	3,944	2,190	5,407	8,429	6,112	1,449	618	548	2,706
1959	643	1,584	3,169	2,974	2,284	2,234	4,292	4,712	5,200	1,497	608	888	2,504
1960	1,978	1,701	1,118	740	1,281	3,972	5,655	5,432	4,590	1,183	709	579	2,410

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	48,350	61,450	85,230	87,290	167,100	157,900	333,500	347,700	192,000	82,300	33,040	29,360	1,625,000
1952	49,390	50,450	56,320	41,230	64,870	131,000	357,700	457,900	289,400	130,800	42,860	34,820	1,707,000
1953	29,180	28,500	30,710	106,400	143,500	158,300	253,200	367,800	426,000	212,100	57,910	33,980	1,848,000
1954	33,370	40,340	63,660	64,250	97,430	107,000	218,400	274,100	221,100	110,500	44,460	36,480	1,311,000
1955	34,230	34,350	30,970	31,420	31,030	52,520	189,000	315,300	330,600	128,600	30,100	30,040	1,238,000
1956	40,410	66,180	168,300	153,800	81,720	248,000	439,700	551,100	348,200	126,200	45,570	36,650	2,306,000
1957	37,900	41,300	86,220	44,190	93,710	252,300	307,500	539,300	286,800	89,140	37,790	30,380	1,847,000
1958	42,900	39,610	86,430	73,310	219,000	134,700	321,800	518,300	363,700	89,110	37,980	32,590	1,959,000
1959	39,520	94,270	194,900	182,800	126,900	137,300	255,400	289,700	309,400	92,030	37,390	52,820	1,812,000
1960	121,600	101,200	68,740	45,510	73,660	244,200	336,500	334,000	273,100	72,760	43,620	34,470	1,749,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	2,604	1,885,000
1951	1217	8,250	Feb. 11, 1951	416	2,245	1,625,000	2,191	1,586,000
1952	1247	9,810	May 8, 1952	489	2,351	1,707,000	2,258	1,639,000
1953	1287	10,100	June 12, 1953	360	2,552	1,848,000	2,620	1,897,000
1954	1347	7,020	May 19, 1954	458	1,811	1,311,000	1,759	1,273,000
1955	1397	9,760	June 12, 1955	399	1,710	1,238,000	1,952	1,414,000
1956	1447	12,900	May 24, 1956	502	3,176	2,306,000	3,026	2,196,000
1957	1517	13,300	May 19, 1957	458	2,551	1,847,000	2,555	1,850,000
1958	1567	12,300	(a)	462	2,706	1,959,000	2,927	2,119,000
1959	1637	12,800	Dec. 12, 1958	519	2,504	1,812,000	2,452	1,775,000
1960	1717	9,500	Mar. 25, 1960	466	2,410	1,749,000	-	-

a Apr. 20, May 22, 1958.

3330. Grande Ronde River at Troy, Oreg.

Location.--Lat 45°57', long 117°27', in NW¼ sec.4, T.5 N., R.43 E., on downstream side of left end of bridge at Troy, 100 ft downstream from Wenaha River and at mile 45.4 (river-profile survey).

Drainage area.--3,275 sq mi.

Records available.--August 1944 to September 1960. Monthly discharge only for August 1944, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 1,587.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1949, wire-weight gage at same site at datum 12.00 ft lower.

Average discharge.--16 years (1944-60), 3,322 cfs (2,405,000 acre-ft per year).

Extremes.--1944-60: Maximum discharge observed, 30,000 cfs Dec. 15, 1946 (gage height, 11.20 ft, present datum); minimum, 434 cfs Nov. 29, 1952, result of freezeup; minimum daily, 470 cfs Sept. 11, 1944.

Remarks.--Flow slightly regulated by Wallowa Lake (see p. 247) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Big Sheep Creek and tributaries in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley. Records of water temperatures for the period May 1956 to September 1957 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,083	1,593	2,354	2,246	4,595	3,721	8,343	6,978	3,952	1,667	756	764	3,154
1952	1,253	1,352	1,584	1,139	1,843	3,051	9,205	9,615	5,671	2,675	987	860	3,266
1953	666	688	750	3,170	4,178	3,889	6,337	7,289	8,118	3,865	1,206	831	3,403
1954	821	1,059	1,651	1,592	2,837	2,701	5,724	5,568	4,519	2,409	988	874	2,554
1955	794	845	752	794	891	1,286	4,462	6,890	6,497	2,661	700	705	2,275
1956	910	1,540	4,189	3,494	2,085	5,652	10,780	11,790	7,543	2,667	961	808	4,372
1957	805	973	2,299	1,044	2,496	5,822	7,812	11,510	5,863	1,711	875	752	3,501
1958	960	942	1,987	1,698	5,544	3,028	7,934	10,060	6,641	1,862	859	747	3,500
1959	867	2,192	4,551	4,479	3,299	3,286	6,399	6,022	5,834	1,812	871	1,190	3,396
1960	2,559	2,332	1,594	1,061	1,849	5,105	6,852	6,409	5,182	1,477	944	768	3,009

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	66,580	94,790	144,700	138,100	255,200	228,800	496,400	429,100	235,200	102,500	46,480	45,460	2,283,000
1952	77,040	80,470	97,390	70,040	106,000	187,600	547,700	591,200	337,400	164,500	60,670	51,150	2,371,000
1953	40,950	40,920	46,140	194,900	232,000	239,100	377,100	448,200	483,000	237,600	74,130	49,430	2,463,000
1954	50,470	62,990	101,500	97,860	157,500	166,100	340,600	342,300	268,900	148,100	60,760	52,010	1,849,000
1955	48,800	50,260	46,210	48,850	49,500	79,050	265,500	423,700	386,600	163,600	43,020	41,970	1,647,000
1956	55,950	91,650	257,600	214,800	119,900	347,500	641,200	725,000	448,900	164,000	59,080	48,080	3,174,000
1957	49,500	57,890	141,400	64,200	138,800	358,000	464,800	707,900	348,900	105,200	53,790	44,740	2,535,000
1958	59,030	56,030	122,200	104,400	307,900	186,200	472,100	618,800	395,200	114,500	52,820	44,460	2,534,000
1959	53,330	130,400	279,800	275,400	183,200	202,100	380,800	370,300	347,200	111,400	53,570	70,810	2,458,000
1960	157,300	138,800	97,980	65,210	106,400	313,900	407,700	394,100	308,300	90,830	58,020	45,690	2,184,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30				Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	3,863	2,797,000
1951	1217	14,200	Feb. 12, 1951	600	3,154	2,283,000	3,083	2,232,000
1952	1247	15,700	May 9, 1952	720	3,266	2,371,000	3,092	2,244,000
1953	1287	13,400	Apr. 28, 1953	536	3,403	2,463,000	3,523	2,550,000
1954	1347	10,800	Apr. 14, 1954	730	2,554	1,849,000	2,458	1,780,000
1955	1397	11,200	June 12, 1955	546	2,275	1,647,000	2,634	1,907,000
1956	1447	26,400	Dec. 22, 1955	708	4,372	3,174,000	4,156	3,017,000
1957	1517	17,400	May 19, 1957	642	3,501	2,535,000	3,485	2,523,000
1958	1567	21,400	Apr. 21, 1958	650	3,500	2,534,000	3,812	2,760,000
1959	1637	18,800	Dec. 12, 1958	724	3,396	2,458,000	3,300	2,389,000
1960	1717	12,100	Mar. 26, 1960	671	3,009	2,184,000	-	-

3343. Snake River near Anatone, Wash.

Location.--Lat 46°05'55", long 116°58'30", in SE¼NE¼ sec.12, T.7 N., R.46 E., Willamette Base Line and Meridian, on left bank 1½ miles downstream from Grande Ronde River, 7.8 miles east of Anatone, 22 miles south of Clarkston, and at mile 28.4 from Lewiston.

Drainage area.--92,960 sq mi, approximately.

Records available.--July 1958 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 806.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--1958-60: Maximum discharge, 91,300 cfs June 7, 1959 (gage height, 14.21 ft); minimum, 6,010 cfs Sept. 2, 1958 (gage height, 1.29 ft).

Remarks.--Flow regulated by many powerplants and diversions upstream. Diversions for irrigation of about 2,837,000 acres (1948 determination) above station. Records of water temperatures for the period September 1959 to September 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	-	-	-	-	-	-	-	15,590	19,380	-
1959	18,670	22,070	23,840	25,580	26,240	26,140	38,080	45,170	68,600	25,640	17,560	23,270	30,020
1960	29,170	23,780	21,940	22,710	23,670	31,990	41,700	53,050	61,850	20,330	18,130	18,400	30,530

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	-	-	-	-	-	-	-	9584	1,153	-
1959	1,148	1,313	1,466	1,573	1,457	1,608	2,266	2,778	4,082	1,576	1,080	1,385	21,730
1960	1,794	1,415	1,349	1,396	1,362	1,967	2,482	3,262	3,681	1,250	1,115	1,095	22,170

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1567	-	-	-	-	-	-	-
1959	1637	91,300	June 7, 1959	9,710	30,020	21,730,000	30,890	22,360,000
1960	1717	89,300	June 5, 1960	12,100	30,530	22,170,000	-	-

3345. Asotin Creek near Asotin, Wash.

Location.--Lat 46°19'40", long 117°12'20", in SE¼ sec.20, T.10 N., R.45 E., on left bank 350 ft upstream from the Washington Power Co.'s diversion for water supply and irrigation, 5 miles upstream from George Creek, and 8 miles west of Asotin.

Drainage area.--156 sq mi.

Records available.--March to November 1904, April 1905 to February 1906, May to November 1906, August to September 1910, July to October 1911, August 1928 to November 1959. Published as "at Shelman's Ranch, near Asotin" 1904-5.

Gage.--Staff and crest-stage gages. Datum of gage is 1,435.78 ft above mean sea level (Washington Water Power Co.'s bench mark). Prior to Jan. 11, 1934, staff gages within 0.3 mile of present site at different datums. Jan. 11, 1934, to May 17, 1957, at site 0.3 mile upstream at same datum.

Average discharge.--31 years (1928-59), 68.4 cfs (49,520 acre-ft per year).

Extremes.--1904-6, 1910-11, 1928-59: Maximum discharge observed, 1,180 cfs Apr. 15, 1904 (gage height, 4.3 ft, site and datum then in use); minimum observed, 16 cfs Jan. 6, 1937.

Remarks.--No regulation. Several diversions for irrigation and domestic use above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	49.8	77.7	95.1	64.6	155	93.3	176	198	113	50.5	38.8	37.7	95.3
1952	46.0	47.5	65.4	47.2	78.0	70.1	205	244	113	63.8	42.3	39.5	88.4
1953	37.6	35.8	36.4	90.9	92.6	72.3	115	155	134	54.3	40.8	36.3	75.0
1954	37.2	43.0	54.9	53.1	122	84.5	151	166	96.7	51.3	43.8	40.6	78.2
1955	38.8	40.5	38.6	39.9	42.1	49.2	92.5	126	129	56.0	38.5	36.7	60.6
1956	37.4	44.6	130	80.3	44.1	142	245	317	139	54.4	42.6	39.6	110
1957	41.3	43.6	50.5	39.3	96.2	87.5	96.0	274	90.3	53.9	41.7	35.1	79.1
1958	40.5	38.0	44.2	43.8	77.9	67.5	141	170	90.8	52.9	37.7	37.0	70.0
1959	40.9	66.8	98.8	139	83.0	87.7	129	129	108	47.8	36.2	40.3	83.8
1960	52.4	55.9	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,060	4,630	5,850	3,970	8,630	5,740	10,480	12,160	6,750	3,100	2,390	2,240	69,000
1952	2,830	2,830	4,020	2,900	4,480	4,310	12,180	15,030	6,740	3,920	2,600	2,350	64,190
1953	2,310	2,130	2,240	5,590	5,150	4,440	6,870	9,550	7,990	3,340	2,510	2,160	54,280
1954	2,290	2,560	3,380	3,260	6,760	5,200	8,970	10,200	5,750	3,150	2,690	2,420	56,630
1955	2,390	2,410	2,370	2,450	2,340	3,020	5,500	7,750	7,670	3,440	2,370	2,180	43,890
1956	2,300	2,660	7,990	4,930	2,530	8,700	14,570	19,500	8,290	3,340	2,620	2,350	79,780
1957	2,540	2,590	3,100	2,420	5,340	5,380	5,710	16,830	5,370	3,320	2,570	2,090	57,260
1958	2,490	2,260	2,720	2,690	4,330	4,150	8,420	10,450	5,400	3,250	2,320	2,200	50,680
1959	2,510	3,970	6,080	8,550	4,610	5,390	7,660	7,960	6,410	2,940	2,230	2,400	60,710
1960	3,220	3,330	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	95.0	68,760
1951	1217	a490	Feb. 11, 1951	36	95.3	69,000	90.0	65,140
1952	1247	a360	Apr. 28, 1952	36	88.4	64,190	84.3	61,190
1953	1287	a270	Apr. 28, 1953	32	75.0	54,280	77.1	55,830
1954	1347	a315	Feb. 13, 1954	36	78.2	56,630	76.8	55,570
1955	1397	a215	June 11, 1955	34	60.6	43,890	68.6	49,670
1956	1447	1,040	Dec. 22, 1955	32	110	79,780	103	75,060
1957	1517	1,000	May 8, 1957	25	79.1	57,260	78.0	56,500
1958	1567	895	July 18, 1958	35	70.0	50,680	77.0	55,770
1959	1637	a370	Jan. 12, 1959	31	83.8	60,710	-	-
1960	1637	-	-	-	-	-	-	-

a Maximum observed.

3347. Asotin Creek below Kearney Gulch, near Asotin, Wash.

Location.--Lat 46°19'30", long 117°08'55", in SW¼SE¼ sec.22, T.10 N., R.45 E., on left bank 0.3 mile downstream from Kearney Gulch and 5 miles west of Asotin.

Drainage area.--170 sq mi.

Records available.--October 1959 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 1,090 ft (from topographic map).

Extremes.--Maximum discharge, 315 cfs Mar. 7, 1960 (gage height, 3.24 ft); minimum, 14 cfs Nov. 16, 1959 (gage height, 1.38 ft), result of freezeup.

Remarks.--No regulation. Several diversions for irrigation and domestic use. Prior to Nov. 20, 1959, the city of Asotin diverted about 30 cfs for municipal use. Natural low flows nearly equivalent to those of former station 2½ miles upstream.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1960	32.4	42.0	51.6	41.8	54.3	97.1	147	128	82.5	42.3	39.1	37.8	66.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1960	1,990	2,500	3,170	2,570	3,120	5,970	8,730	7,880	4,910	2,600	2,410	2,250	48,100

3365. Selway River near Lowell, Idaho

Location.--Lat 46°05', long 115°31', in NE¼ sec.25, T.32 N., R.7 E., on right bank a quarter of a mile upstream from O'Hara Creek and 7 miles upstream from Lowell.

Drainage area.--1,910 sq mi, approximately. Mean altitude, 5,640 ft.

Records available.--April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to September 1960. Monthly discharge only for October 1929, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 1,540 ft (from river-profile map). Apr. 11, to Sept. 2, 1911, staff gage at site 2 miles downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, staff or chain gages at nearby sites at different datum.

Average discharge.--31 years (1929-60), 3,691 cfs (2,672,000 acre-ft per year).

Extremes.--1929-60: Maximum discharge, 48,900 cfs May 29, 1948 (gage height, 16.04 ft); minimum, probably less than 100 cfs Jan. 8, 1937, during period of ice effect.

Remarks.--No regulation. Small diversions from headwaters. Records of water temperatures for the period August 1958 to July 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,645	2,330	2,241	1,687	2,923	1,790	7,818	15,440	10,620	3,646	961	627	4,311
1952	1,251	1,093	1,002	768	1,011	1,402	9,220	17,130	10,160	2,385	824	519	3,898
1953	417	414	456	1,132	1,446	1,438	4,305	10,210	16,400	4,782	920	509	3,532
1954	463	592	770	708	1,269	1,583	5,824	15,970	11,990	5,084	1,124	701	3,851
1955	708	762	707	689	668	692	2,580	11,830	18,860	6,268	1,256	735	3,818
1956	965	1,785	2,709	1,892	1,183	2,543	9,889	19,960	11,660	2,672	976	669	4,748
1957	773	982	1,304	775	1,198	2,369	4,747	18,820	12,380	2,441	797	526	3,940
1958	625	595	734	648	1,479	1,400	4,235	17,950	8,216	1,914	778	667	3,283
1959	1,060	2,868	3,641	2,335	1,922	2,366	6,728	13,220	17,610	3,460	946	1,352	4,791
1960	4,932	3,651	2,264	1,383	1,340	2,870	7,466	10,840	13,920	2,414	899	606	4,377

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	101,000	138,700	137,800	103,700	162,300	110,000	465,200	949,400	632,200	224,200	59,120	37,330	3,121,000
1952	76,890	65,060	61,640	47,230	58,140	86,210	548,600	1,053,000	604,800	146,600	50,640	30,890	2,830,000
1953	25,640	24,650	28,030	69,620	80,280	88,400	256,200	627,900	975,900	294,000	56,540	30,270	2,557,000
1954	28,480	35,240	47,330	43,560	70,500	97,330	346,600	981,900	713,300	312,600	69,120	41,720	2,788,000
1955	43,520	45,350	43,460	42,370	37,070	42,540	153,500	727,600	1,122,000	385,400	77,240	43,720	2,764,000
1956	59,350	106,200	166,600	116,300	68,030	156,400	588,400	1,227,000	694,100	164,300	60,000	39,780	3,446,000
1957	47,500	58,450	80,210	47,660	66,530	145,600	282,500	1,157,000	736,800	150,100	49,010	31,310	2,853,000
1958	38,440	35,390	45,140	39,820	82,140	86,080	252,000	1,104,000	488,900	117,700	47,840	39,670	2,377,000
1959	65,150	170,700	223,900	143,600	106,700	145,500	400,300	813,000	1,048,000	212,700	58,180	80,480	3,468,000
1960	303,300	217,300	139,200	85,030	77,070	176,400	444,300	666,300	828,600	148,400	55,290	36,040	3,177,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	4,977	35.37	3,603,000
1951	1217	23,100	May 24, 1951	524	4,311	2.26	30.64	3,121,000	4,071	28.94	2,947,000
1952	1247	24,200	Apr. 28, 1952	432	3,898	2.04	27.79	2,830,000	3,725	26.56	2,704,000
1953	1287	27,500	June 13, 1953	150	3,532	1.85	25.11	2,557,000	3,578	25.43	2,590,000
1954	1347	29,900	May 21, 1954	400	3,851	2.02	27.37	2,788,000	3,880	27.59	2,809,000
1955	1397	32,400	June 13, 1955	438	3,818	2.00	27.14	2,764,000	4,094	29.08	2,964,000
1956	1447	41,200	May 24, 1956	552	4,748	2.49	33.82	3,446,000	4,547	32.40	3,300,000
1957	1517	26,500	June 3, 1957	350	3,940	2.06	28.00	2,853,000	3,847	27.34	2,785,000
1958	1567	31,600	May 22, 1958	343	3,283	1.72	23.34	2,377,000	3,754	26.69	2,718,000
1959	1637	29,000	June 6, 1959	539	4,791	2.51	34.06	3,468,000	5,067	36.02	3,668,000
1960	1717	27,300	June 4, 1960	490	4,377	2.29	31.18	3,177,000	-	-	-

3368. Warm Springs Creek near Powell ranger station, Idaho

Location.--Lat 46°29', long 114°53', in sec.7, T.36 N., R.13 E. (unsurveyed), on right bank an eighth of a mile upstream from mouth and pack bridge across Lochsa River and 8½ miles southwest of Powell ranger station.

Drainage area.--74.7 sq mi.

Records available.--October 1956 to October 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,100 ft (from topographic map).

Extremes.--1956-59: Maximum discharge, 2,260 cfs June 13, 1959 (gage height, 4.40 ft); minimum, 4.7 cfs Nov. 3, 1957 (gage height, 0.69 ft).

Remarks.--No regulation or diversion above station. Records of water temperatures for the period January 1957 to October 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	20.7	29.6	34.9	23.8	25.0	45.6	102	892	690	119	32.7	14.8	170
1958	17.7	13.8	16.3	14.5	24.5	31.9	120	906	478	98.0	31.7	23.9	149
1959	31.9	104	129	96.8	64.1	57.3	184	554	1,180	198	40.8	49.1	224

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1957	1,280	1,760	2,140	1,470	1,390	2,810	6,060	54,850	41,040	7,310	2,010	879	123,000
1958	1,090	819	1,000	895	1,360	1,960	7,160	55,700	28,420	6,030	1,950	1,420	107,800
1959	1,960	6,180	7,940	5,950	3,560	3,520	10,930	34,040	70,240	12,190	2,510	2,920	161,900

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1957	1517	1,460	June 2, 1957	11	170	2.28	30.88	123,000	167	30.31	120,700
1958	1567	2,000	May 21, 1958	8.6	149	1.99	27.05	107,800	167	30.35	121,000
1959	1637	2,260	June 13, 1959	16	224	3.00	40.62	161,900	-	-	-

3369. Fish Creek near Lochsa ranger station, Idaho

Location.--Lat 46°20', long 115°21', in sec.33, T.35 N., R.9 E. (unsurveyed), on left bank 640 ft upstream from mouth, 1.3 miles southwest of Lochsa ranger station, and 18 miles northeast of Lowell.

Drainage area.--89.2 sq mi.

Records available.--September 1957 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 1,996.94 ft above mean sea level, datum of 1929.

Extremes.--1957-60: Maximum discharge, 1,720 cfs Apr. 20, 1958 (gage height, 5.07 ft); minimum, 17 cfs Nov. 9, 1957 (gage height, 0.98 ft).

Remarks.--No regulation or diversion above station. Records of water temperatures for the period September 1957 to December 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	40.6	40.8	53.3	44.1	143	157	629	1,122	312	91.7	40.6	42.0	227
1959	66.1	246	390	265	179	204	768	989	506	97.2	40.1	78.6	319
1960	245	282	175	103	105	244	691	881	467	82.4	45.3	32.5	279

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	2,500	2,430	3,280	2,710	7,970	9,670	37,430	68,960	18,560	5,640	2,500	2,500	164,200
1959	4,060	14,660	23,960	16,270	9,930	12,560	45,710	60,790	30,090	5,980	2,470	4,680	231,200
1960	15,050	16,780	10,750	6,320	6,040	15,000	41,130	54,140	27,770	5,060	2,780	1,930	202,800

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1958	1567	1,720	Apr. 20, 1958	23	227	2.54	34.49	164,200	274	41.74	198,600
1959	1637	1,530	May 1, 1959	34	319	3.58	48.59	231,200	319	48.57	231,100
1960	1717	1,490	May 12, 1960	27	279	3.13	42.61	202,800	-	-	-

3370. Lochsa River near Lowell, Idaho

Location.--Lat 46°09', long 115°35', in SW¼SE¼ sec.33, T.33 N., R.7 E., on right bank 0.7 mile upstream from Lowell, 0.9 mile upstream from mouth, 1.2 miles downstream from Pete King Creek, and 19 miles east of Kooskia.

Drainage area.--1,180 sq mi, approximately. Mean altitude, 5,250 ft.

Records available.--October 1910 to September 1912, October 1929 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Datum of gage is 1,452.98 ft above mean sea level, unadjusted. Prior to Nov. 21, 1930, staff gages at site 1 mile upstream at different datums.

Average discharge.--33 years (1910-12, 1929-60), 2,803 cfs (2,029,000 acre-ft per year).

Extremes.--1910-12, 1929-60: Maximum discharge, 34,800 cfs June 10, 1933 (gage height, 13.44 ft), from rating curve extended above 25,000 cfs; minimum, probably less than 100 cfs Jan. 8, 1937, during period of ice effect.

Remarks.--No regulation or diversion above station. Records of water temperatures for the period July 1956 to July 1959 are published in reports of Geological Survey.

Correction.--In WSP 1317, the annual runoff in acre-ft for 1938 is listed in error; it should be 1,891,000 acre-ft.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,467	2,316	2,306	1,777	2,548	1,584	6,237	11,570	7,488	2,649	684	466	3,424
1952	1,104	939	917	645	762	1,057	6,687	12,240	6,490	1,686	573	365	2,791
1953	287	289	330	1,006	1,356	1,241	3,401	7,748	10,920	3,035	667	374	2,551
1954	316	466	635	611	1,049	1,298	4,797	13,080	9,753	3,995	977	621	3,142
1955	587	680	621	551	564	597	2,124	9,089	13,610	4,082	875	534	2,829
1956	725	1,322	2,272	1,526	959	1,711	7,361	15,110	8,830	2,165	715	462	3,602
1957	590	881	1,237	674	969	1,963	4,239	14,800	8,742	1,738	587	388	3,079
1958	489	458	583	548	1,249	1,177	4,035	13,700	5,578	1,382	542	498	2,529
1959	790	2,560	3,276	2,379	1,689	1,895	5,995	10,420	12,440	2,509	677	1,164	3,815
1960	3,476	2,796	1,796	1,052	1,108	2,150	5,819	8,612	9,417	1,695	643	456	3,248

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	90,230	137,800	141,800	109,300	141,500	97,390	371,100	711,600	445,600	162,900	42,040	27,720	2,479,000
1952	67,880	55,880	56,410	39,690	43,840	65,020	397,900	752,800	386,200	103,700	35,200	21,700	2,026,000
1953	17,630	17,190	20,280	61,830	75,320	76,310	202,400	476,400	649,600	186,600	41,000	22,260	1,847,000
1954	19,420	27,710	39,060	37,550	58,250	79,830	285,500	804,300	580,300	245,700	60,080	36,970	2,275,000
1955	36,070	40,440	38,190	33,900	31,300	36,690	126,400	558,800	809,600	251,000	53,820	31,790	2,048,000
1956	44,590	78,670	139,700	93,830	55,150	105,200	438,000	929,400	525,400	133,100	43,980	27,470	2,614,000
1957	36,310	52,400	76,050	41,430	53,800	120,700	252,300	910,000	520,200	106,900	36,070	23,080	2,229,000
1958	30,060	27,280	35,870	33,700	69,350	72,360	240,100	842,200	331,900	84,960	33,300	29,630	1,831,000
1959	48,590	152,400	201,400	146,300	93,780	116,500	356,700	640,900	740,400	154,300	41,630	69,290	2,762,000
1960	213,700	166,400	110,400	64,670	63,740	132,200	346,200	529,500	560,300	104,200	39,530	27,120	2,358,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	3,983	45.82	2,884,000
1951	1217	16,100	May 24, 1951	364	3,424	2.90	39.40	2,479,000	3,162	36.40	2,289,000
1952	1247	17,700	Apr. 28, 1952	296	2,791	2.37	32.20	2,026,000	2,619	30.20	1,901,000
1953	1287	18,900	June 13, 1953	110	2,551	2.16	29.34	1,847,000	2,594	29.84	1,878,000
1954	1347	24,500	May 21, 1954	285	3,142	2.66	36.15	2,275,000	3,181	36.60	2,303,000
1955	1397	24,100	June 12, 1955	390	2,829	2.40	32.55	2,048,000	3,034	34.91	2,196,000
1956	1447	28,500	May 24, 1956	374	3,602	3.05	41.56	2,614,000	3,466	40.00	2,516,000
1957	1517	21,100	May 20, 1957	320	3,079	2.61	35.43	2,229,000	2,980	34.29	2,158,000
1958	1567	23,400	May 22, 1958	320	2,529	2.14	29.09	1,831,000	2,956	34.00	2,140,000
1959	1637	20,900	June 6, 1959	406	3,815	3.23	43.87	2,762,000	3,937	45.27	2,850,000
1960	1717	18,600	June 4, 1960	374	3,248	2.75	37.46	2,358,000	-	-	-

3375. South Fork Clearwater River near Elk City, Idaho

Location.--Lat 45°49', long 115°32', in NE¼ sec.25, T.29 N., R.7 E., on right bank just upstream from bridge on road to Orogrande, 0.2 mile upstream from Crooked River, and 4½ miles west of Elk City.

Drainage area.--261 sq mi. Mean altitude, 5,150 ft.

Records available.--September 1944 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 3,816.27 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to June 23, 1949, wire-weight gage at site 24 ft downstream at datum 6.14 ft lower.

Average discharge.--16 years (1944-60), 262 cfs (189,700 acre-ft per year).

Extremes.--1944-60: Maximum discharge observed, 3,700 cfs May 29, 1948 (gage height, 13.06 ft, site and datum then in use); minimum daily, 10 cfs Nov. 28, 29, 1952.

Remarks.--No regulation or diversion above station except for mining operations. Records of water temperatures for the period July 1956 to September 1957 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	67.8	94.8	119	93.2	144	120	722	839	310	108	43.1	30.4	224
1952	78.1	67.3	74.0	66.5	71.8	110	880	1,279	402	117	42.6	27.9	268
1953	24.9	29.1	30.7	59.9	72.8	114	462	834	721	118	43.6	24.7	211
1954	29.7	45.7	49.5	45.5	59.9	93.4	553	603	453	144	66.5	42.9	182
1955	51.1	55.0	42.6	36.9	42.5	48.5	226	1,200	946	364	79.0	47.7	263
1956	62.3	109	112	101	71.4	179	1,016	1,271	431	126	59.8	38.7	298
1957	56.7	79.7	84.3	55.7	77.5	205	664	1,495	413	118	47.5	34.6	279
1958	49.9	43.7	48.3	43.8	91.2	106	503	825	446	168	54.7	47.1	202
1959	60.3	127	285	176	156	202	770	1,173	617	134	48.5	105	322
1960	263	231	163	98.8	76.3	225	853	951	411	88.3	57.7	39.7	288

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	4,170	5,640	7,290	5,730	7,980	7,390	42,970	51,570	18,460	6,660	2,650	1,810	162,300
1952	4,800	4,000	4,550	4,090	4,130	6,760	52,350	78,650	23,930	7,210	2,620	1,660	194,800
1953	1,530	1,730	1,890	3,690	4,040	7,000	27,520	51,300	42,920	7,280	2,680	1,470	153,000
1954	1,830	2,720	3,050	2,800	3,330	5,740	32,930	37,080	26,960	8,870	4,090	2,550	132,000
1955	3,140	3,270	2,620	2,270	2,360	2,990	13,470	73,770	56,320	22,370	4,860	2,840	190,300
1956	3,830	6,470	6,910	6,230	4,110	11,000	60,430	78,130	25,670	7,760	3,680	2,300	216,500
1957	3,490	4,740	5,180	3,420	4,310	12,600	39,530	91,930	24,580	7,230	2,920	2,060	202,000
1958	3,070	2,600	2,970	2,690	5,070	6,500	29,910	50,730	26,570	10,310	3,360	2,800	146,600
1959	3,710	7,580	17,500	10,850	8,690	12,440	45,840	72,150	36,740	8,250	2,980	6,230	233,000
1960	16,170	13,760	10,030	6,070	4,390	13,820	50,760	58,490	24,460	5,430	3,550	2,360	209,300

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	281	14.61	203,200
1951	1217	1,280	May 12, 1951	25	224	0.858	11.66	162,300	219	11.40	158,600
1952	1247	1,740	Apr. 28, 1952	23	268	1.03	14.01	194,800	257	13.41	186,600
1953	1287	1,460	Apr. 28, 1953	10	211	.808	10.99	153,000	215	11.17	155,500
1954	1347	1,180	May 10, 1954	22	182	.697	9.48	132,000	184	9.56	133,400
1955	1397	1,980	May 21, 1955	25	263	1.01	13.67	190,300	274	14.26	198,500
1956	1447	2,200	Apr. 23 or 24, 1956	31	298	1.14	15.55	216,500	293	15.27	212,700
1957	1517	2,120	May 21, 1957	27	279	1.07	14.51	202,000	272	14.17	197,200
1958	1567	1,690	Apr. 20, 1958	27	202	.774	10.52	146,600	230	11.97	166,700
1959	1637	1,770	May 16, 1959	34	322	1.23	16.72	233,000	337	17.52	244,100
1960	1717	1,660	Apr. 9, 1960	31	288	1.10	15.04	209,300	-	-	-

3380. South Fork Clearwater River near Grangeville, Idaho

Location.--Lat 45°55', long 116°01', in SE¼NW¼ sec.30, T.30 N., R.4 E., on right bank just downstream from powerhouse of Washington Water Power Co., 6 miles east of Grangeville.

Drainage area.--865 sq mi. Mean altitude, 5,160 ft.

Records available.--November 1910 to January 1911, March to July 1911, October 1911 to September 1916, April 1923 to September 1960. Monthly discharge only for some periods, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 1,830 ft (from river-profile map). Nov. 14, 1910, to July 31, 1911, staff gage at datum 2.2 ft higher than present datum. Nov. 2, 1911, to Sept. 30, 1916, staff gage at datum 1.0 ft higher than present datum. Apr. 1, 1923, to Oct. 15, 1944, chain or staff gages at present datum.

Average discharge.--42 years (1911-16, 1923-60), 875 cfs (633,500 acre-ft per year).

Extremes.--1910-16, 1923-60: Maximum discharge observed, 12,600 cfs May 29, 1948 (gage height, 12.50 ft); no flow part of Aug. 27, 1947, Aug. 15, 1956; minimum daily, 29 cfs Nov. 23, 27, 29, 1952.
Flood of May 30, 1917, reached a stage of 13.6 ft (present datum), from stage record by powerplant operator (discharge, 15,000 cfs).

Remarks.--Diurnal fluctuation at low stages caused by powerplant just above station. No diversion for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	320	442	514	376	608	475	2,053	2,928	1,541	544	200	138	845
1952	282	242	231	209	226	322	2,293	4,116	2,109	688	222	140	924
1953	115	116	142	276	316	368	1,259	2,492	2,810	638	203	124	738
1954	143	182	194	165	243	311	1,387	2,177	2,164	760	285	190	684
1955	204	211	169	163	173	197	714	3,508	3,917	1,716	350	213	964
1956	261	417	520	480	322	700	3,052	4,484	2,245	603	256	169	1,126
1957	231	315	320	213	291	693	1,839	5,556	2,409	549	221	149	1,071
1958	191	171	190	173	322	335	1,490	3,340	2,050	638	234	190	779
1959	215	377	837	555	498	648	2,294	3,652	2,875	683	236	386	1,106
1960	1,032	891	594	389	356	902	2,572	3,171	1,983	414	243	166	1,060

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	19,700	26,290	31,580	23,100	33,750	29,230	122,200	180,000	91,710	33,460	12,280	8,200	611,500
1952	17,340	14,390	14,200	12,870	12,980	19,790	136,400	253,100	125,500	42,310	13,630	8,320	670,800
1953	7,090	6,920	8,760	16,960	17,570	22,640	74,900	153,200	167,200	39,210	12,470	7,370	534,300
1954	8,790	10,800	11,940	10,150	13,490	19,090	82,550	133,900	128,700	46,730	17,510	11,320	495,000
1955	12,520	12,560	10,390	9,990	9,590	12,140	42,480	215,700	233,100	105,500	21,490	12,650	698,100
1956	16,030	24,790	31,960	29,540	18,520	43,040	181,600	275,700	133,600	37,090	15,750	10,080	817,700
1957	14,210	18,730	19,660	13,110	16,140	42,610	109,400	341,700	143,300	33,780	13,570	8,860	775,100
1958	11,740	10,150	11,660	10,640	17,880	20,580	88,770	205,100	122,100	39,240	14,410	11,330	563,600
1959	13,200	22,450	51,490	34,100	27,640	39,830	136,500	224,600	171,100	42,030	14,520	22,950	800,400
1960	63,460	53,020	36,520	23,910	20,480	55,480	153,100	195,000	118,000	24,490	14,960	9,890	769,300

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	1,084	17.00	784,600
1951	1217	4,160	May 11, 1951	109	845	0.977	13.26	611,500	801	12.58	579,900
1952	1247	5,630	May 15, 1952	102	924	1.07	14.56	670,800	892	14.05	647,700
1953	1287	4,640	June 5, 1953	29	738	.853	11.57	534,300	750	11.76	543,000
1954	1347	3,710	May 10, 1954	75	684	.791	10.72	495,000	689	10.81	498,900
1955	1397	6,570	May 21, 1955	76	964	1.11	15.14	698,100	1,016	15.95	735,400
1956	1447	6,770	May 24, 1956	141	1,126	1.30	17.73	817,700	1,099	17.30	797,500
1957	1517	8,910	May 20, 1957	110	1,071	1.24	16.80	775,100	1,044	16.37	756,000
1958	1567	4,770	May 12, 1958	106	779	.901	12.22	563,600	853	13.40	617,200
1959	1637	6,140	May 15, 1959	141	1,106	1.28	17.36	800,400	1,196	18.78	866,300
1960	1717	5,010	May 11, 1960	129	1,060	1.23	16.67	769,300	-	-	-

3390. Clearwater River at Kamiah, Idaho

Location.--Lat 46°14', long 116°01', in sec.1, T.33 N., R.3 E., on left bank a quarter of a mile downstream from highway bridge at Kamiah, three-quarters of a mile downstream from Lawyer Creek, and 6 miles downstream from South Fork.

Drainage area.--4,850 sq mi, approximately. Mean altitude, 5,010 ft.

Records available.--August 1910 to September 1960.

Gage.--Water-stage recorder. Datum of gage is 1,162.52 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 2, 1934, staff or chain gages at site 300 ft downstream at same datum.

Average discharge.--50 years (1910-60), 8,180 cfs (5,922,000 acre-ft per year).

Extremes.--1910-60: Maximum discharge, 99,000 cfs May 29, 1948 (gage height, 19.22 ft); minimum, 179 cfs about Dec. 1, 1952 (gage height, 1.98 ft).

Remarks.--Some diurnal regulation at low stages caused by powerplant on South Fork. Records of water temperatures for the period June 1956 to July 1959 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,469	5,518	5,609	4,222	6,828	4,733	17,340	31,520	20,280	6,959	1,885	1,246	9,131
1952	2,690	2,384	2,376	1,779	2,373	3,398	19,550	36,210	19,730	4,980	1,692	1,121	8,194
1953	917	918	1,027	2,870	3,836	3,600	9,986	22,230	32,220	8,824	1,850	1,071	7,436
1954	1,021	1,391	1,804	1,629	3,003	3,599	12,910	32,460	25,080	10,240	2,551	1,613	8,126
1955	1,587	1,788	1,492	1,484	1,555	1,623	6,887	25,830	37,460	12,780	2,640	1,551	8,067
1956	2,036	3,994	6,441	4,729	2,775	6,736	22,170	40,950	23,780	5,919	2,040	1,397	10,260
1957	1,727	2,321	3,115	1,808	3,046	6,766	12,510	42,730	25,170	5,158	1,714	1,197	8,972
1958	1,455	1,417	1,735	1,557	3,536	3,234	11,670	35,560	16,200	4,080	1,662	1,507	6,989
1959	2,228	6,279	8,664	6,151	5,057	6,012	15,870	28,010	33,130	6,876	2,010	3,063	10,280
1960	9,891	7,871	4,915	2,936	3,451	7,051	17,170	23,680	25,650	4,787	1,898	1,386	9,214

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	213.3	328.3	344.9	259.6	379.2	291	1,032	1,938	1,207	427.9	115.9	74.14	6,611
1952	165.4	141.9	146.1	109.4	136.5	208.9	1,163	2,226	1,174	306.2	104	66.73	5,948
1953	56.36	54.6	63.17	176.4	213	221.4	594.2	1,367	1,917	542.6	113.8	63.73	5,383
1954	62.78	82.8	110.9	100.2	166.8	221.3	767.9	1,996	1,492	629.3	156.9	95.98	5,883
1955	97.57	106.4	91.73	91.26	86.36	99.79	409.8	1,588	2,229	785.7	162.3	92.29	5,840
1956	125.2	237.7	396	290.8	159.6	414.2	1,319	2,518	1,415	363.9	125.4	83.15	7,448
1957	106.2	138.1	191.5	111.2	169.2	416.1	744.7	2,627	1,498	317.2	105.4	71.21	6,496
1958	89.45	84.32	106.7	95.73	196.4	198.8	694.6	2,187	964.2	250.8	102.2	89.65	5,060
1959	137	373.6	532.7	378.2	280.8	369.7	944.4	1,722	1,971	422.8	123.6	182.2	7,438
1960	608.2	468.3	302.2	180.5	198.5	433.5	1,022	1,456	1,526	294.4	116.7	82.49	6,689

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	10,680	29.90	7,734,000
1951	1217	44,200	May 24, 1951	1,000	9,131	1.88	25.55	6,611,000	8,533	23.88	6,178,000
1952	1247	49,200	Apr. 28, 1952	944	8,194	1.69	23.00	5,948,000	7,810	21.92	5,669,000
1953	1287	53,100	June 13, 1953	224	7,436	1.53	20.81	5,383,000	7,549	21.13	5,466,000
1954	1347	58,800	May 21, 1954	654	8,126	1.68	22.75	5,883,000	8,180	22.90	5,922,000
1955	1397	64,100	June 12, 1955	696	8,067	1.66	22.58	5,840,000	8,707	24.37	6,303,000
1956	1447	77,800	May 24, 1956	1,180	10,260	2.12	28.78	7,448,000	9,815	27.53	7,125,000
1957	1517	71,200	May 20, 1957	783	8,972	1.85	25.12	6,496,000	8,757	24.53	6,340,000
1958	1567	59,600	May 22, 1958	846	6,989	1.44	19.58	5,060,000	8,043	22.52	5,823,000
1959	1637	55,100	June 6, 1959	1,250	10,280	2.12	28.75	7,438,000	10,740	30.05	7,773,000
1960	1717	49,600	May 13, 1960	1,140	9,214	1.90	25.87	6,689,000	-	-	-

3405. North Fork Clearwater River at Bungalow ranger station, Idaho

Location.--Lat 46°38', long 115°30', in sec.18, T.38 N., R.8 E., on left bank at Bungalow ranger station, 300 ft downstream from mouth of Orogrande Creek, 1,000 ft downstream from highway bridge, and 17 miles northeast of Pierce.

Drainage area.--996 sq mi. Mean altitude, 4,930 ft.

Records available.--September 1944 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 2,240 ft (from river-profile map).

Average discharge.--16 years (1944-60), 2,923 cfs (2,116,000 acre-ft per year).

Extremes.--1944-60: Maximum discharge, 27,400 cfs May 29, 1948 (gage height, 11.13 ft); minimum daily, 180 cfs Nov. 29, 1952.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,432	2,115	2,325	1,732	3,207	1,668	6,792	9,799	5,603	1,907	800	626	3,160
1952	1,240	1,009	1,163	831	1,061	1,493	7,357	10,970	4,979	1,625	782	572	2,758
1953	476	429	509	1,230	1,464	1,238	3,393	7,547	8,249	2,218	861	583	2,348
1954	500	664	816	793	1,312	1,504	5,324	12,010	8,520	3,535	1,204	891	3,096
1955	831	880	706	628	638	633	1,944	8,494	10,650	3,501	1,100	773	2,570
1956	1,015	1,596	2,717	1,725	1,103	1,742	7,346	13,630	7,525	2,390	1,024	748	3,552
1957	796	985	1,248	766	1,158	1,883	4,287	12,210	6,291	1,585	805	608	2,728
1958	651	590	691	594	1,242	1,225	4,262	11,870	4,409	1,398	768	710	2,375
1959	989	2,894	3,083	2,662	1,704	1,794	6,023	9,269	8,660	2,020	909	1,354	3,447
1960	2,738	2,851	1,870	1,367	1,167	2,217	5,588	7,871	7,246	1,657	910	667	3,011

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	88,050	125,900	142,900	106,500	178,100	102,600	404,200	602,500	633,400	117,300	49,160	37,230	2,288,000
1952	76,240	60,040	71,500	51,110	61,050	91,780	437,800	674,200	296,300	99,890	48,100	34,040	2,002,000
1953	29,300	25,530	31,300	75,610	81,330	76,110	201,900	464,000	490,900	136,300	52,940	34,660	1,700,000
1954	30,770	39,530	50,150	48,790	72,850	92,490	316,800	738,300	507,000	217,400	74,000	53,040	2,241,000
1955	51,110	52,380	43,400	38,620	35,420	38,900	115,700	522,300	633,600	215,300	67,640	46,000	1,860,000
1956	62,400	94,970	167,100	106,000	63,470	107,100	437,100	838,300	447,800	147,000	62,980	44,500	2,579,000
1957	48,910	58,610	76,740	47,130	64,280	115,800	255,100	750,700	374,300	97,490	49,470	36,190	1,975,000
1958	40,020	35,100	42,490	36,550	68,980	75,290	253,600	729,600	262,400	85,950	47,210	42,260	1,719,000
1959	60,820	172,200	189,500	163,700	94,610	110,300	358,400	570,000	515,300	124,200	55,910	80,560	2,496,000
1960	168,400	169,600	115,000	84,060	67,150	136,300	332,500	483,900	431,100	101,900	55,970	39,690	2,186,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	3,682	50.18	2,665,000
1951	1217	13,600	May 11, 1951	530	3,160	3.17	43.07	2,288,000	2,954	40.27	2,139,000
1952	1247	15,300	Apr.27 or 28,1952	450	2,758	2.77	37.70	2,002,000	2,590	35.40	1,880,000
1953	1287	12,900	June 13, 1953	180	2,348	2.36	32.00	1,700,000	2,395	32.64	1,734,000
1954	1347	20,800	May 19, 1954	476	3,096	3.11	42.17	2,241,000	3,132	42.68	2,268,000
1955	1397	18,300	June 11, 1955	450	2,570	2.58	35.03	1,860,000	2,815	38.37	2,038,000
1956	1447	22,600	May 20, 1956	642	3,552	3.57	48.56	2,579,000	3,359	45.91	2,439,000
1957	1517	16,300	May 20, 1957	375	2,728	2.74	37.17	1,975,000	2,636	35.92	1,908,000
1958	1567	18,500	May 24, 1958	450	2,375	2.38	32.38	1,719,000	2,796	38.13	2,024,000
1959	1637	14,100	May 14, 1959	606	3,447	3.46	46.99	2,496,000	3,489	47.55	2,526,000
1960	1717	14,100	May 12, 1960	579	3,011	3.02	41.14	2,186,000	-	-	-

3410. North Fork Clearwater River near Ahsahka, Idaho

Location.--Lat 46°31', long 116°18', in SE¼ sec.26, T.37 N., R.1 E., on right bank at Bruce's Eddy, 1½ miles northeast of Ahsahka and 2 miles upstream from mouth.
Drainage area.--2,440 sq mi, approximately. Mean altitude, 4,220 ft.
Records available.--August 1926 to September 1960.
Gage.--Water-stage recorder. Datum of gage is 969.82 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 29, 1930, staff gage at site 300 ft upstream at different datum.
Average discharge.--34 years (1926-60), 5,719 cfs (4,140,000 acre-ft per year).
Extremes.--1926-60: Maximum discharge, 100,000 cfs Dec. 23, 1933 (gage height, 35.5 ft, from floodmarks), from rating curve extended above 24,000 cfs by logarithmic plotting; minimum, probably less than 250 cfs Jan. 8, 1937, during period of ice effect.
Remarks.--No regulation or diversion above station. Records of water temperatures for the period October 1957 to September 1960 are published in reports of Geological Survey.
Revisions.--A period for water year 1932 was revised in WSP 1637; the resulting revised records as summarized herewith supersede those published in WSP 1317.

Month	Mean	Per square mile	Inches	Acre-feet
May 1932.....	26,800	11.0	12.64	1,645,000
Water year 1931-32....	6,212	2.55	34.63	4,505,000
Calendar year 1932....	6,462	-	36.04	4,690,000

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	2,980	4,650	6,135	4,448	7,625	4,542	15,470	17,980	9,555	3,559	1,597	1,320	6,636
1952	3,145	2,665	3,236	1,903	2,627	3,125	15,670	20,570	9,503	3,479	1,535	1,167	5,719
1953	953	938	1,036	4,232	4,974	4,095	8,626	15,260	15,070	4,521	1,716	1,144	5,202
1954	1,027	1,489	2,210	2,040	4,177	4,814	13,360	22,750	15,150	6,601	2,344	1,765	6,481
1955	1,708	2,119	1,784	1,623	1,685	1,630	6,491	17,950	18,240	6,712	2,128	1,574	5,314
1956	2,313	4,124	7,608	4,841	2,832	5,330	19,130	26,960	13,880	4,650	2,021	1,494	7,941
1957	1,672	2,063	3,135	1,788	2,923	6,198	12,490	24,860	11,740	3,175	1,618	1,156	6,086
1958	1,365	1,353	1,795	1,767	5,501	4,263	12,260	21,860	8,965	2,710	1,421	1,403	5,381
1959	2,022	6,160	7,351	7,965	4,474	5,364	13,890	18,130	15,950	4,184	1,744	2,936	7,515
1960	5,832	6,814	4,392	2,763	3,558	6,895	13,600	15,190	12,820	3,292	1,791	1,299	6,514

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	183,200	276,700	377,200	273,500	423,500	279,300	920,700	1,106,000	568,600	218,900	98,180	78,530	4,804,000
1952	193,400	158,600	199,000	117,000	151,100	192,100	932,400	1,265,000	565,400	213,900	94,370	69,460	4,152,000
1953	58,610	55,790	63,690	260,200	276,200	251,800	513,300	938,200	896,600	278,000	105,500	68,070	3,766,000
1954	63,170	88,620	135,900	125,500	232,000	296,000	795,200	1,399,000	901,700	405,900	144,100	105,000	4,692,000
1955	105,000	126,100	109,700	99,770	93,600	100,200	386,200	1,104,000	1,085,000	412,700	130,800	93,640	3,847,000
1956	142,200	245,400	467,800	297,600	162,900	327,700	1,138,000	1,658,000	826,000	285,900	124,300	88,920	5,765,000
1957	102,800	122,800	192,800	109,900	162,300	381,100	743,500	1,529,000	698,400	195,200	99,490	68,770	4,406,000
1958	83,900	80,490	110,400	108,600	305,500	262,100	729,800	1,344,000	533,500	166,600	87,370	83,480	3,896,000
1959	124,300	366,600	452,000	489,800	248,500	329,800	826,700	1,115,000	949,200	257,200	107,200	174,700	5,441,000
1960	358,600	405,400	270,000	169,900	204,700	424,000	809,400	934,000	763,100	202,400	110,100	77,320	4,729,000

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	8,103	45.08	5,866,000
1951	1217	24,900	May 12, 1951	1,060	6,636	2.72	36.91	4,804,000	6,240	34.71	4,518,000
1952	1247	31,900	Apr. 28, 1952	1,040	5,719	2.34	31.91	4,152,000	5,205	29.04	3,779,000
1953	1287	24,800	Apr. 28, 1953	280	5,202	2.13	28.94	3,766,000	5,353	29.78	3,876,000
1954	1347	37,700	May 20, 1954	960	6,481	2.66	36.05	4,692,000	6,555	36.46	4,745,000
1955	1397	31,800	May 21, 1955	1,150	5,314	2.18	29.57	3,847,000	6,025	33.52	4,361,000
1956	1447	42,800	May 21, 1956	1,320	7,941	3.25	44.30	5,765,000	7,339	40.94	5,328,000
1957	1517	40,600	May 20, 1957	750	6,086	2.49	33.85	4,406,000	5,887	32.75	4,262,000
1958	1567	32,500	May 24, 1958	990	5,381	2.21	29.93	3,896,000	6,304	35.07	4,564,000
1959	1637	26,400	May 15, 1959	1,170	7,515	3.08	41.79	5,441,000	7,641	42.50	5,532,000
1960	1717	26,500	May 13, 1960	1,070	6,514	2.67	36.36	4,729,000	-	-	-

3412. East Fork Potlatch River below Mallory Creek, near Bovill, Idaho

Location.--Lat 46°51'30", long 116°17'20", in NW¼ sec.36, T.41 N., R.1 E., on right bank 2 miles downstream from Mallory Creek and 5 miles east of Bovill.

Drainage area.--18.2 sq mi.

Records available.--August 1959 to October 1960.

Gage.--Water-stage recorder. Altitude of gage is 3,000 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 196 cfs Mar. 27, 1960 (gage height, 3.96 ft); minimum, 5.0 cfs for several days in September and October 1960 (gage height, 1.45 ft).

Remarks.--No regulation or diversion above station. Records of water temperatures for the period August 1959 to October 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	15.8	-
1960	24.0	40.6	27.4	18.4	24.7	67.7	106	52.1	21.7	11.3	8.50	6.29	34.0
1961	3.32	-	-	-	-	-	-	-	-	-	-	-	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	938	-
1960	1,480	2,420	1,680	1,130	1,420	4,160	6,340	3,210	1,290	693	523	374	24,720
1961	511	-	-	-	-	-	-	-	-	-	-	-	-

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1959	1717	-	-	-	-	-	-	-	-	-	-
1960	1717	196	Mar. 27, 1960	5.2	34.0	1.87	25.46	24,720	-	-	-
1961	1717	-	-	-	-	-	-	-	-	-	-

3413. Bloom Creek near Bovill, Idaho

Location.--Lat 46°51'30", long 116°17'30", in NE¼ sec.35, T.41 N., R.1 E., on right bank 200 ft upstream from mouth and 4.8 miles east of Bovill.

Drainage area.--3.66 sq mi.

Records available.--August 1959 to September 1960.

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

Extremes.--1959-60: Maximum discharge, 49 cfs Mar. 30, 1960; maximum gage height, 2.85 ft Jan. 2 (ice jam); minimum discharge, 0.8 cfs Sept. 8-22, 27-30, 1960 (gage height, 1.71 ft).

Remarks.--No regulation or diversion above station. Records of water temperatures for the period August 1959 to December 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	3.00	-
1960	4.20	7.35	3.98	2.79	4.79	13.4	15.8	7.62	3.32	1.74	1.23	.92	5.58

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	179	-
1960	258	438	245	172	276	825	938	468	198	107	76	55	4,060

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1959	1717	-	-	-	-	-	-	-	-	-	-
1960	1717	49	Mar. 30, 1960	0.8	5.58	1.52	20.76	4,060	-	-	-

3414. East Fork Potlatch River near Bovill, Idaho

Location.--Lat 46°50'06", long 116°23'30", in SW¼ sec.6, T.40 N., R.1 E., on left bank 60 ft upstream from highway bridge and 1½ miles south of Bovill.

Drainage area.--42.5 sq mi.

Records available.--September 1959 to September 1960.

Gage.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

Extremes.--1959-60: Maximum discharge, 666 cfs Mar. 30, 1960; maximum gage height, 4.91 ft Feb. 7, 1960 (backwater from ice jam); minimum discharge, 7.2 cfs Aug. 22, 1960 (gage height, 1.60 ft).

Remarks.--No regulation or diversion above station. Records of water temperatures for the period September 1959 to December 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	24.5	-
1960	43.3	86.4	52.1	38.3	56.7	194	206	91.5	33.3	11.8	10.3	8.72	69.3

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	-	-	-	-	-	-	-	-	-	-	-	1,500	-
1960	2,660	5,140	3,200	2,350	3,260	11,900	12,280	5,620	1,980	728	631	519	50,270

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1959	1717	-	-	-	-	-	-	-	-	-	-
1960	1717	666	Mar. 30, 1960	7.4	69.3	1.63	22.19	50,270	-	-	-

3415. Potlatch River at Kendrick, Idaho

Location.--Lat 46°37', long 116°39', in NW¼ sec.25, T.38 N., R.3 W., near center of main span on upstream side of Mill Street Bridge in Kendrick, 0.9 mile downstream from Bear Creek and 3.2 miles upstream from Middle Potlatch Creek.

Drainage area.--425 sq mi. Mean altitude, 2,980 ft.

Records available.--October 1945 to September 1960. Published as Potlatch Creek at Kendrick prior to October 1958.

Gage.--Wire-weight gage. Datum of gage is 1,178.20 ft above mean sea level, datum of 1929, supplementary adjustments of 1947 and 1960. Aug. 17, 1957, to Jan. 31, 1960, wire-weight gage and crest-stage gage.

Average discharge.--15 years (1945-60), 427 cfs (309,100 acre-ft per year).

Extremes.--1945-60: Maximum discharge, 13,000 cfs Feb. 26, 1948 (gage height, 12.6 ft, from floodmarks), result of slope-area measurement of peak flow; minimum observed, 4.3 cfs Aug. 25, 1946; minimum gage height observed, 3.28 ft Oct. 12-16, 1945.

Remarks.--No regulation or diversion above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	50.6	149	569	527	1,290	913	868	218	85.8	22.1	9.35	8.56	386
1952	83.2	99.1	167	103	454	1,116	2,080	415	102	47.6	11.3	10.4	388
1953	9.41	13.5	23.2	893	1,001	812	534	560	228	29.0	13.3	9.24	340
1954	13.3	45.6	256	426	1,075	699	1,060	220	97.4	28.1	16.6	15.6	323
1955	22.9	54.8	34.6	45.1	89.0	222	1,869	708	105	71.9	14.2	16.0	270
1956	64.7	291	1,125	768	265	1,675	1,931	532	144	35.5	15.7	13.1	573
1957	35.1	47.3	231	645	418	1,599	1,500	1,030	133	28.3	14.0	10.4	426
1958	25.6	43.4	87.5	303	1,857	589	1,448	263	77.0	24.6	9.92	18.3	383
1959	31.2	212	620	1,580	590	1,047	1,012	497	166	28.6	11.8	71.7	489
1960	139	512	193	134	839	1,342	1,190	364	88.0	21.6	17.3	15.5	402

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	3,110	8,840	34,960	32,390	71,660	56,150	51,320	13,400	5,110	1,360	575	509	279,400
1952	5,120	5,900	10,290	6,330	26,110	68,630	123,800	25,550	6,070	2,930	697	616	282,000
1953	578	803	1,430	54,900	55,600	49,900	31,770	34,400	13,580	1,790	821	550	246,100
1954	815	2,710	15,740	26,180	59,700	43,000	63,060	13,510	5,800	1,730	1,020	928	234,200
1955	1,410	3,260	2,130	2,770	4,940	13,640	111,200	43,510	6,240	4,420	875	951	195,300
1956	3,980	17,310	69,170	47,220	15,240	103,000	114,900	32,720	8,570	2,180	967	780	416,000
1957	2,160	2,810	14,230	3,960	23,220	98,320	89,280	63,300	7,920	1,740	860	619	308,400
1958	1,570	2,580	5,380	18,600	103,200	36,220	86,190	16,140	4,580	1,510	610	1,090	277,700
1959	1,920	12,610	38,090	97,140	32,780	64,370	60,210	30,580	9,890	1,760	727	4,270	354,300
1960	8,530	30,490	11,880	8,260	48,280	82,490	70,830	22,390	5,240	1,330	1,060	922	291,700

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30							Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	572	16.89	413,900
1951	1217	8,550	Feb. 12, 1951	5.9	386	0.839	11.40	279,400	351	10.35	253,800
1952	1247	4,630	Apr. 7, 1952	8.4	388	.843	11.50	282,000	363	10.74	63,540
1953	1287	4,540	Jan. 23, 1953	6.0	340	.739	10.02	246,100	363	10.69	262,600
1954	1347	3,090	Mar. 10, 1954	6.9	323	.702	9.54	234,200	306	9.04	221,700
1955	1397	5,380	Apr. 10, 1955	7.8	270	.587	7.96	195,300	385	11.37	279,000
1956	1447	7,000	Dec. 22, 1955	7.1	573	1.25	16.95	416,000	475	14.04	344,800
1957	1517	8,500	May 20, 1957	9.0	426	.926	12.58	308,400	413	13.18	298,700
1958	1567	4,720	Apr. 20, 1958	8.2	383	.901	12.25	277,700	443	14.15	320,800
1959	1637	8,740	Jan. 24, 1959	8.4	489	1.15	15.64	354,300	487	15.57	352,600
1960	1717	5,750	Mar. 30, 1960	10	402	.946	12.87	291,700	-	-	-

3422. Twenty One Ranch Spring near Waha, Idaho

Location.--Lat 46°14', long 116°51', in sec.4, T.33 N., R.4 W., in spring shelter 1 mile north of Waha and 15 miles southeast of Lewiston.

Records available.--January 1958 to September 1960.

Gage.--Water-stage recorder and concrete broad-crested weir. Altitude of gage is 2,780 ft (from topographic map).

Extremes.--1958-60: Maximum daily discharge, 12 cfs May 12-27, 1959; maximum gage height, 4.26 ft Sept. 19, 20, 1959; minimum daily discharge, 2.6 cfs Feb. 26 to Mar. 6, 1960 (gage height, 3.32 ft).

Remarks.--Station is bypassed by flow through a 3-inch pipe which at times actuates a hydraulic ram. No regulation. Records of water temperatures for the period January 1958 to June 1960 are published in reports of Geological Survey.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	-	3.02	2.93	3.41	6.63	9.78	9.57	8.44	6.70	-
1959	5.41	4.50	4.12	3.83	4.21	4.60	6.14	11.1	10.2	9.65	8.53	9.78	6.85
1960	5.26	3.07	2.82	2.81	2.78	2.76	3.79	7.75	8.32	9.81	9.32	8.86	5.62

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1958	-	-	-	-	168	180	203	407	582	588	519	399	-
1959	333	268	253	235	234	283	365	681	606	593	524	582	4,960
1960	323	183	174	173	160	170	226	477	495	603	573	527	4,080

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Maximum daily		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1958	1567	-	-	-	-	-	-	-
1959	1637	12	May 12-27,1959	3.7	6.85	4,960	6.61	4,780
1960	1717	11	July 23, 1960	2.6	5.62	4,080	-	-

3425. Clearwater River at Spalding, Idaho

Location.--Lat 46°27'05", long 116°49'25", in lot 22, sec.22, T.36 N., R.4 W., on right bank a quarter of a mile downstream from Lapwai Creek, three-eighths of a mile northwest of Spalding Post Office, and 2,300 ft downstream from bridge on U. S. Highway 95.
Drainage area.--9,570 sq mi, approximately. Mean altitude, 4,360 ft.
Records available.--August 1910 to October 1913, October to December 1924, May 1925 to September 1960. Prior to October 1926, published as "near Lewiston."
Gage.--Water-stage recorder. Altitude of gage is 770.5 ft (estimated from datum of gage 2,300 ft upstream). Aug. 23, 1910, to Oct. 31, 1913, staff gage at datum about 731.5 ft and Oct. 2, 1924, to Sept. 30, 1926, water-stage recorder at datum 730.23 ft, at sites 7 miles downstream. Oct. 1, 1926, to Sept. 21, 1928, staff gage at highway bridge 2,300 ft upstream from present gage at datum 772.49 ft above mean sea level (datum of 1929, supplementary adjustment of 1947). Staff or wire-weight gage at bridge site at datum 2,300 ft upstream used as supplementary gage since 1928.
Average discharge.--38 years (1910-13, 1925-60), 15,260 cfs (11,050,000 acre-ft per year).
Extremes.--1910-13, 1924-60: Maximum discharge, 177,000 cfs May 29, 1948 (gage height, 23.76 ft); maximum gage height, 25.6 ft Jan. 5, 1928 (present site and datum), from floodmark (ice jam); minimum daily discharge, 500 cfs Jan. 9, 1937, Dec. 1, 1952.
Flood in June 1894 reached a stage of 20.8 ft, site and datum in use 1924-26 (discharge, 136,000 cfs).
Remarks.--Small diversions from tributaries; slight diurnal fluctuation at times caused by powerplant on South Fork. Records of water temperatures for the period September 1959 to September 1960 are published in reports of Geological Survey.
Correction.--In WSP 1317 the monthly runoff in acre-feet for November 1927, January 1935, and October 1943 are listed in error; they should be 2,310,000, 317,400, and 180,500 acre-feet, respectively.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	6,755	11,130	13,660	10,630	18,770	11,650	36,710	53,180	31,030	10,860	3,578	2,658	17,510
1952	6,154	5,416	6,285	4,142	6,788	9,534	40,510	61,630	30,640	9,148	3,372	2,387	15,500
1953	1,893	1,941	2,126	8,767	11,050	9,792	20,700	39,600	49,130	13,480	3,763	2,233	13,680
1954	2,116	3,105	4,695	4,535	9,657	10,030	29,060	57,530	40,660	17,420	5,161	3,581	15,640
1955	3,417	4,056	3,431	3,288	3,545	3,868	18,790	47,400	57,200	20,150	4,902	3,198	14,460
1956	4,632	9,430	17,420	12,210	7,084	17,520	48,040	71,470	39,230	10,890	4,260	3,062	20,460
1957	3,658	4,929	7,228	4,009	7,296	17,610	28,980	72,500	37,480	8,542	3,407	2,443	16,560
1958	3,054	3,115	4,384	4,263	13,440	9,382	29,100	58,560	25,630	7,327	3,171	3,028	13,690
1959	4,532	13,470	18,780	19,120	12,600	15,020	33,940	49,170	50,940	11,620	3,851	6,434	19,950
1960	17,160	16,700	10,470	6,570	10,140	18,330	35,140	41,410	40,150	8,454	3,822	2,682	17,560

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	415.4	662.2	840.1	653.8	1,042	716.2	2,184	3,270	1,846	668.1	220	158.2	12,680
1952	378.4	322.3	386.5	254.7	390.5	586.2	2,411	3,789	1,823	562.5	207.4	142	11,250
1953	116.4	115.5	130.7	539.1	613.9	602.1	1,232	2,435	2,924	828.7	231.4	132.9	9,902
1954	130.1	184.8	288.7	278.9	536.3	616.8	1,729	3,537	2,419	1,071	317.4	213.1	11,320
1955	210.1	241.4	211	202.2	196.9	237.8	1,118	2,915	3,404	1,239	301.4	190.3	10,470
1956	284.8	561.1	1,071	750.9	407.5	1,077	2,859	4,394	2,334	669.7	261.9	182.2	14,850
1957	224.9	293.3	444.5	246.5	405.2	1,083	1,724	4,458	2,230	525.2	209.5	145.3	11,990
1958	187.8	185.3	269.5	262.1	746.3	576.9	1,731	3,601	1,525	450.5	195	180.2	9,911
1959	278.6	801.6	1,155	1,176	699.8	923.3	2,020	3,023	3,031	714.4	236.8	382.8	14,440
1960	1,055	993.6	643.8	404	583.1	1,127	2,091	2,546	2,389	519.8	235	159.6	12,750

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30								Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff		Mean	Runoff	
		Discharge	Date				Inches	Acre-feet		Inches	Acre-feet
1950	-	-	-	-	-	-	-	-	21,110	29.95	15,280,000
1951	1217	73,800	May 12, 1951	2,140	17,510	1.83	24.84	12,680,000	16,360	23.21	11,850,000
1952	1247	89,900	Apr. 28, 1952	1,980	15,500	1.62	22.05	11,250,000	14,500	20.64	10,530,000
1953	1287	81,100	June 13, 1953	500	13,680	1.43	19.40	9,902,000	14,010	19.86	10,140,000
1954	1347	104,000	May 20, 1954	1,960	15,640	1.63	22.19	11,320,000	15,720	22.30	11,380,000
1955	1397	101,000	June 12, 1955	1,850	14,460	1.51	20.51	10,470,000	16,190	22.98	11,720,000
1956	1447	121,000	May 24, 1956	2,630	20,460	2.14	29.10	14,850,000	19,150	27.22	13,900,000
1957	1517	143,000	May 20, 1957	1,600	16,560	1.73	23.47	11,990,000	16,120	22.85	11,670,000
1958	1567	91,200	May 22, 1958	2,190	13,690	1.43	19.41	9,911,000	15,890	22.53	11,500,000
1959	1637	84,000	June 6, 1959	2,420	19,950	2.08	28.29	14,440,000	20,580	29.19	14,900,000
1960	1717	79,000	May 13, 1960	2,200	17,560	1.83	24.98	12,750,000	-	-	

3435. Snake River near Clarkston, Wash.

Location.--Lat 46°25'30", long 117°10'30", on lot 1, sec.16, T.11 N., R.45 E., on right bank 2 miles upstream from Alpowa Creek, 7 miles downstream from Clarkston, and 134 miles upstream from mouth.

Drainage area.--103,200 sq mi, approximately. At site prior to October 1935, 104,000 sq mi, approximately.

Records available.--October 1915 to September 1960 in reports of Geologcial Survey. Monthly discharge only for some periods, published in WSP 1317. October 1909 to September 1953 (monthly discharge only) in State Water-Supply Bulletin 6. Prior to October 1935, published as "at Riparia." Gage-height records collected at Riparia, 1900-16 (fragmentary), 1935-48, are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 670 ft above mean sea level (Corps of Engineers bench mark). Prior to Sept. 12, 1917, staff gage and Sept. 12, 1917, to Sept. 30, 1922, and Aug. 6, 1928, to Sept. 30, 1935, chain gage, at Riparia 66 miles downstream at different datum.

Extremes.--1915-60: Maximum discharge, 369,000 cfs May 29, 1948 (gage height, 40.36 ft, from high-water mark in well); minimum, 6,660 cfs Sept. 2, 1958 (gage height, 6.79 ft). Maximum stage known, 24.7 ft June 5, 1894, Riparia site and datum, determined from floodmarks by U. S. Weather Bureau (discharge, 409,000 cfs).

Remarks.--Over 2,840,000 acres are irrigated above station from numerous large irrigation projects. Regulation from many storage reservors above station and fluctuations during low-water periods from powerplants on Clearwater River at Lewiston, Idaho, and Snake River at Brownlee Dam. Records of water temperatures for the period November 1951 to September 1955 are published in reports of Geological Survey.

Revisions.--The momentary maximum discharges for the water years 1931 and 1934 published in WSP 1317 have been revised to 116,000 cfs Apr. 1, 1931, and 164,000 cfs Dec. 23, 1933, respectively.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	31,920	39,320	42,290	39,300	61,770	54,020	106,600	146,200	102,800	45,700	24,180	20,890	59,480
1952	33,120	31,560	35,970	31,950	40,490	52,520	149,000	185,000	118,300	47,250	23,220	22,150	64,170
1953	22,110	20,670	20,960	40,400	43,350	41,690	63,930	101,600	164,600	60,750	24,320	21,860	52,090
1954	22,630	23,970	26,590	26,950	37,540	39,690	74,100	131,300	103,500	52,240	24,330	22,460	48,790
1955	22,770	25,100	22,200	22,050	20,780	23,330	51,980	99,740	128,600	51,520	21,550	20,070	42,670
1956	23,640	29,560	52,170	44,420	35,340	64,300	125,000	186,500	149,300	42,330	25,040	23,280	66,750
1957	27,400	28,100	30,850	23,960	36,500	66,650	86,180	199,300	127,600	35,930	21,860	22,120	58,980
1958	25,560	23,570	26,550	25,630	51,050	44,460	87,790	161,400	104,000	30,200	19,210	22,580	51,760
1959	23,540	36,150	43,530	45,420	39,760	42,040	72,570	95,320	121,300	38,450	21,690	30,390	50,780
1960	46,930	40,790	32,700	28,830	33,890	50,730	77,620	94,560	102,500	29,530	22,380	21,700	48,460

Monthly and yearly discharge, in thousands of acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	1,963	2,340	2,601	2,417	3,431	3,322	6,342	8,989	6,116	2,810	1,487	1,243	43,060
1952	2,037	1,878	2,212	1,964	2,329	3,229	8,868	11,380	7,039	2,905	1,428	1,318	46,590
1953	1,359	1,230	1,289	2,484	2,408	2,563	3,804	6,248	9,792	3,735	1,495	1,301	37,710
1954	1,391	1,427	1,635	1,657	2,085	2,440	4,409	8,071	6,159	3,212	1,496	1,336	35,320
1955	1,523	1,494	1,365	1,356	1,154	1,435	3,093	6,132	7,654	3,168	1,325	1,194	30,890
1956	1,453	1,759	3,208	2,731	2,033	3,953	7,436	11,470	8,886	2,603	1,540	1,385	48,460
1957	1,685	1,672	1,897	1,474	2,027	4,098	5,128	12,260	7,591	2,209	1,344	1,316	42,700
1958	1,572	1,403	1,633	1,576	2,835	2,734	5,224	9,924	6,191	1,857	1,181	1,344	37,470
1959	1,448	2,151	2,676	2,793	2,208	2,585	4,318	5,861	7,218	2,364	1,334	1,808	36,760
1960	2,886	2,427	2,010	1,773	1,949	3,119	4,619	5,814	6,098	1,816	1,376	1,291	35,180

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	61,400	44,460,000
1951	1217	182,000	May 24, 25, 1951	19,200	59,480	43,060,000	58,400	42,280,000
1952	1247	250,000	(a)	20,700	64,170	46,590,000	61,070	44,340,000
1953	1287	232,000	June 13, 1953	15,600	52,090	37,710,000	52,880	38,280,000
1954	1347	210,000	May 21, 1954	20,500	48,790	35,320,000	48,690	35,250,000
1955	1397	204,000	June 13, 1955	17,500	42,670	30,890,000	45,490	32,930,000
1956	1447	292,100	May 24, 1956	20,400	66,750	48,460,000	65,140	47,290,000
1957	1517	322,900	May 20, 1957	18,300	58,980	42,700,000	58,080	42,060,000
1958	1567	247,600	May 22, 1958	9,320	51,760	37,470,000	54,060	39,140,000
1959	1637	171,400	June 6, 1959	13,400	50,780	36,760,000	52,230	37,810,000
1960	1717	163,500	June 4, 1960	15,900	48,460	35,180,000	-	-

a Apr. 29 or 30, 1952.

3445. Tucannon River near Starbuck, Wash.

Location.--Lat 46°30'20", long 118°03'55", in NE¼SW¼ sec.21, T.12 N., R.38 E., on right bank 180 ft downstream from county road bridge, 3 miles east of Starbuck, and 3½ miles downstream from Pataha Creek.

Drainage area.--431 sq mi.

Records available.--October 1914 to September 1917, August 1928 to September 1931, October 1958 to September 1960. Monthly discharge only for October and November 1914, published in WSP 1317.

Gage.--Water-stage recorder. Altitude of gage is 730 ft (from topographic map). Nov. 8, 1914, to Sept. 30, 1917, staff gage at site 2⅝ miles upstream at different datum. Aug. 9, 1928, to Sept. 30, 1931, staff gages at site 2½ miles upstream at various datums.

Average discharge.--8 years (1914-17, 1928-31, 1958-60), 167 cfs (120,900 acre-ft per year).

Extremes.--1914-17, 1928-31, 1958-60: Maximum discharge, 6,000 cfs Feb. 2, 1930 (gage height, 8.08 ft, from floodmarks), from rating curve extended above 350 cfs on basis of slope-area measurement of peak flow; minimum, 15 cfs July 11, 12, 1930 (gage height, 1.12 ft).

Remarks.--No regulation. Many small diversions for irrigation above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	72.5	173	319	334	260	233	280	265	219	83.9	72.3	96.0	200
1960	125	137	132	107	183	237	290	249	160	71.7	67.1	69.3	152

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1959	4,450	10,300	19,630	20,560	14,440	14,320	16,670	16,270	13,020	5,100	4,450	5,710	144,900
1960	7,700	8,160	8,110	6,580	10,530	14,570	17,260	15,330	9,540	4,410	4,130	4,120	110,400

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1959	1637	1,040	Dec. 12, 1958	60	200	144,900	186	134,500
1960	1717	516	Mar. 7, 1960	50	152	110,400	-	-

3460. Palouse River near Colfax, Wash.

Location.--Lat 46°55'30", long 117°19'10", in NW¼SW¼ sec.31, T.17 N., R.44 E., on right bank 3½ miles northeast of Colfax and 4 miles upstream from mouth of South Fork.
Drainage area.--491 sq mi.
Records available.--September 1955 to September 1960.
Gage.--Water-stage recorder. Altitude of gage is 2,010 ft (from topographic map).
Average discharge.--5 years (1955-60), 357 cfs (258,500 acre-ft per year).
Extremes.--1955-60: Maximum discharge, 6,310 cfs Jan. 25, 1959 (gage height, 8.18 ft); minimum, 2.7 cfs Aug. 23, 1958 (gage height, 1.30 ft).
Remarks.--Small diversions for irrigation and domestic use above station. Slight regulation by millponds above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1956	49.8	189	725	695	310	1,286	1,404	616	150	33.1	13.7	12.2	458
1957	31.4	53.8	169	54.5	407	1,116	1,021	862	145	21.9	9.49	4.46	324
1958	18.4	40.5	174	412	1,536	451	1,167	322	71.2	24.4	5.63	11.1	343
1959	22.0	140	346	1,449	579	837	817	415	125	28.7	8.53	27.2	399
1960	67.7	168	99.5	126	668	814	801	292	85.1	12.4	8.86	9.42	260

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1956	3,060	11,240	44,550	42,750	17,840	79,050	83,560	37,850	8,920	2,040	840	727	332,400
1957	1,930	3,200	10,410	3,350	22,590	68,600	60,740	53,020	8,610	1,350	584	265	234,600
1958	1,130	2,410	10,690	25,330	85,310	27,720	69,420	19,770	4,240	1,500	348	660	248,500
1959	1,350	8,310	21,250	89,070	32,150	51,450	48,610	25,500	7,470	1,760	524	1,620	289,100
1960	4,160	9,970	6,120	7,780	38,440	50,060	47,660	17,970	5,060	764	545	561	189,100

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1956	1447	4,790	Dec. 22, 1955	7.4	458	332,400	398	289,100
1957	1517	4,280	May 21, 1957	3.2	324	234,600	322	233,300
1958	1567	2,950	Feb. 13, 1958	3.2	343	248,500	366	265,200
1959	1637	6,310	Jan. 25, 1959	5.3	399	289,100	385	278,400
1960	1717	2,990	Apr. 1, 1960	4.7	260	189,100	-	-

3480. South Fork Palouse River at Pullman, Wash.

Location.--Lat 46°43'50", long 117°11'00", in NE¼ sec.6, T.14 N., R.45 E., on right bank at State Street crossing in Pullman, 600 ft upstream from Missouri Flat Creek.
Drainage area.--132 sq mi.
Records available.--February 1934 to September 1942, December 1959 to September 1960.
Gage.--Water-stage recorder. Concrete control since December 1959. Altitude of gage is 2,350 ft (from topographic map). Prior to Mar. 19, 1934, staff gage at site 30 ft upstream.
Average discharge.--8 years (1934-42), 28.4 cfs (20,560 acre-ft per year).
Extremes.--1934-42, 1959-60: Maximum discharge, 968 cfs Mar. 21, 1939 (gage height, 4.01 ft); minimum, 0.1 cfs Sept. 23, 1942 (gage height, 0.50 ft).
Maximum stage known since 1910, 9.5 ft Feb. 26, 1948 (discharge, 5,000 cfs). Flood of Jan. 24, 1959, reached a stage of 6.5 ft, from floodmarks (discharge, 1,860 cfs). Flood of Dec. 22, 1933, reached a stage of 6.0 ft, from gage readings furnished by Washington State University (discharge, 1,800 cfs).
Remarks.--Minor diversions for domestic use above station. Slight regulation caused by pondage at Robinson Park Dam on headwaters and by Moscow sewage disposal plant on Paradise Creek.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1960	-	-	-	19.8	99.7	90.8	53.5	19.6	6.43	1.80	2.13	1.88	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1960	-	-	-	1,220	5,730	5,580	3,180	1,200	383	111	131	112	-

3485. Missouri Flat Creek at Pullman, Wash.

Location.--Lat 46°43'50", long 117°11'00", in NE¼ sec.6, T.14 N., R.45 E., on left bank at State Street crossing in Pullman, 600 ft upstream from mouth.
Drainage area.--27.1 sq mi.
Records available.--February 1934 to September 1940, January to September 1960.
Gage.--Water-stage recorder and concrete control with 2-foot Parshall flume. Altitude of gage is 2,350 ft (from topographic map). Prior to Mar. 15, 1934, staff gage at site 20 ft upstream.
Average discharge.--6 years (1934-40), 6.00 cfs (4,340 acre-ft per year).
Extremes.--1934-40, 1960: Maximum discharge, 432 cfs Mar. 19, 1939 (gage height, 3.25 ft); practically no flow for long periods in each year.
Flood of Feb. 26, 1948, reached a stage of 6.3 ft (discharge, 1,500 cfs by slope-area measurement, 0.9 mile upstream). Flood of Jan. 24, 1959, reached a stage of 4.57 ft, from floodmarks (discharge, 870 cfs by slope-area measurement, 0.25 mile upstream from gage).
Remarks.--No regulation or diversion.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1960	-	-	-	4.13	28.8	18.9	8.35	2.44	0.57	0.46	0.25	0.16	-

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1960	-	-	-	254	1,660	1,160	497	150	34	28	15	9.5	-

3505. Union Flat Creek near Colfax, Wash.

Location.--Lat 46°49'00", long 117°26'05", in SW¼SW¼ sec.5, T.15 N., R.43 E., on right bank upstream from county highway bridge, 5½ miles southwest of Colfax.
Drainage area.--189 sq mi.
Records available.--July 1953 to September 1960.
Gage.--Water-stage recorder. Artificial channel since Nov. 12, 1957, and concrete control since Aug. 20, 1958. Altitude of gage is 1,865 ft (from topographic map).
Average discharge.--7 years (1953-60), 41.3 cfs (29,900 acre-ft per year).
Extremes.--1953-60: Maximum discharge, 2,080 cfs Feb. 13, 1958 (gage height, 5.52 ft, see Gage); maximum gage height, 8.04 ft Jan. 27, 1959; no flow Aug. 15 to Sept. 13, 1955.
Remarks.--No known regulation. Small diversions above station for irrigation.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1953	-	-	-	-	-	-	-	-	-	-	1.07	.61	-
1954	1.90	5.44	25.4	50.9	78.5	35.7	24.7	9.72	7.87	1.94	.74	1.53	19.9
1955	2.42	4.31	13.4	26.1	66.6	141	82.3	14.4	3.64	1.35	.18	.18	29.4
1956	2.68	27.6	140	154	75.5	454	68.7	44.4	12.7	4.00	2.09	1.48	83.0
1957	3.62	5.73	23.5	10.8	85.4	148	53.7	35.5	10.2	2.12	.76	1.07	31.4
1958	2.67	6.18	32.3	72.1	165	52.1	105	30.0	8.98	3.99	.75	1.31	39.1
1959	3.06	17.7	76.6	231	177	109	35.8	28.0	14.4	4.04	2.15	4.12	58.1
1960	7.12	15.1	8.20	17.8	103	102	51.5	22.9	6.28	1.44	1.13	2.06	27.9

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1953	-	-	-	-	-	-	-	-	-	-	66	36	-
1954	117	324	1,560	3,130	4,360	2,200	1,470	598	468	119	45	91	14,480
1955	149	257	822	1,600	3,700	8,640	4,900	887	217	83	11	11	21,280
1956	165	1,640	8,630	9,430	4,340	27,930	4,090	2,730	757	246	129	88	60,240
1957	223	341	1,440	667	4,740	9,110	3,190	2,180	605	130	47	63	22,740
1958	164	368	1,990	4,430	9,180	3,200	6,250	1,840	535	245	46	78	28,330
1959	188	1,050	4,710	14,190	9,830	6,730	2,130	1,720	855	248	132	245	42,030
1960	438	900	504	1,100	5,920	6,270	3,060	1,410	374	88	69	123	20,260

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30						Calendar year		
		Momentary maximum		Minimum day	Mean	Per square mile	Runoff	Mean	Runoff	
		Discharge	Date				Inches / Acre-feet		Inches	Acre-feet
1953	1347	-	-	-	-	-	-	-	-	-
1954	1347	509	Dec. 19, 1953	0.2	19.9	-	- 14,480	18.9	-	13,710
1955	1397	926	Feb. 9, 1955	0	29.4	-	- 21,280	42.1	-	30,480
1956	1447	1,790	Dec. 21, 1955	.5	83.0	-	- 60,240	71.4	5.13	51,800
1957	1517	826	Feb. 27, 1957	.4	31.4	0.166	2.25 22,740	32.1	2.32	23,250
1958	1567	2,080	Feb. 13, 1958	.4	39.1	.207	2.81 28,330	43.9	3.14	31,750
1959	1637	1,730	Jan. 27, 1959	1.2	58.1	.307	4.15 42,030	52.4	3.74	37,920
1960	1717	564	Feb. 7, 1960	.5	27.9	.148	2.01 20,260	-	-	-

3510. Palouse River at Hooper, Wash.

Location.--Lat 46°45'30", long 118°08'50", in SE¼ sec.27, T.15 N., R.37 E., on left bank 150 ft downstream from bridge on State Highway 11B at Hooper and 0.4 mile upstream from Cow Creek.
Drainage area.--2,540 sq mi, approximately.
Records available.--April to August 1897 (gage heights only), September 1897 to December 1899, April 1900 to April 1907, June 1908 to July 1912, March 1913 to March 1916, February 1951 to September 1960. Prior to 1904, sometimes published as "near Hooper."
Gage.--Water-stage recorder. Altitude of gage is 1,040 ft (from topographic map). Apr. 1 to Aug. 31, 1897, staff gage at site 2½ miles upstream at different datum. Sept. 9, 1897, to Mar. 31, 1916, various staff gages at site 1½ miles upstream from present site at different datums. Feb. 8 to Mar. 28, 1951, staff gage at present site and datum.
Average discharge.--22 years (1897-99, 1900-1906, 1908-11, 1913-15, 1951-60), 625 cfs (452,500 acre-ft per year).
Extremes.--1897-1916, 1951-60: Maximum discharge, 29,800 cfs Mar. 2, 1910 (gage height, 22.00 ft, from graph based on gage readings, site and datum then in use); no flow for part of June 25, 1910.
Remarks.--No regulation. Diversions above station for irrigation and domestic and municipal use.
Revisions.--Some periods for the water year 1910 were revised in WSP 1447; the resulting revised records as summarized herewith supersede those published in WSP 1317.

Month	Mean	Runoff in acre-feet
January 1910	1,220	75,000
February	1,940	108,000
Water year 1909-10	1,050	762,000
Calendar year 1910	1,040	752,000

Corrections.--In WSP 1317, the following are listed in error; they should be as follows: The date of maximum discharge for water year 1906 is Feb. 21, 1906; there is no maximum for water year 1908; maximum for 1909 is 17,700 cfs.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	-	1,845	1,104	431	252	72.5	22.5	26.7	-
1952	117	158	354	329	2,791	2,634	2,345	715	198	135	52.9	40.6	813
1953	44.9	64.1	118	1,960	2,029	1,291	790	736	376	85.0	36.5	29.5	622
1954	45.9	99.4	392	675	1,809	1,135	970	417	254	81.3	36.7	59.9	489
1955	72.5	120	153	513	754	896	1,528	898	226	80.8	16.7	21.2	437
1956	92.6	349	2,101	2,145	1,181	3,488	2,051	961	282	93.8	35.4	38.2	1,072
1957	75.9	119	283	146	1,469	2,191	1,451	1,335	319	71.5	31.0	20.4	621
1958	60.7	89.1	311	862	2,687	1,036	2,042	648	174	63.7	12.8	17.9	651
1959	59.1	224	723	3,014	1,707	1,844	1,204	672	258	62.8	29.1	72.3	819
1960	151	319	251	270	1,324	1,273	1,252	492	182	34.8	15.6	34.5	462

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	-	113,400	65,690	26,520	15,010	4,460	1,380	1,590	-
1952	7,170	9,410	21,760	20,250	160,500	161,900	139,600	43,980	11,790	8,280	3,250	2,420	590,300
1953	2,760	3,810	7,250	120,500	112,700	79,410	47,020	45,280	22,390	5,220	2,250	1,750	450,300
1954	2,820	5,910	24,080	41,470	100,500	69,760	57,730	25,660	15,130	5,000	2,260	3,560	353,900
1955	4,460	7,110	9,390	31,550	41,890	55,120	90,930	55,190	13,450	4,970	1,030	1,260	316,400
1956	5,690	20,770	129,200	131,900	67,950	214,500	122,100	59,120	16,760	5,770	2,180	2,280	778,200
1957	4,670	7,060	17,400	9,000	81,610	134,700	86,320	82,090	18,970	4,400	1,910	1,210	449,300
1958	3,730	5,300	19,100	53,020	149,200	63,700	121,500	39,820	10,370	3,920	786	1,070	471,500
1959	3,630	13,340	44,440	185,300	94,790	113,400	71,650	41,310	15,360	3,860	1,790	4,300	593,200
1960	9,310	18,970	15,450	16,580	76,190	78,300	74,520	30,260	10,830	2,140	960	2,050	335,600

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1950	-	-	-	-	-	-	-	-
1951	1217	a9,540	Mar. 16, 1951	-	-	-	-	-
1952	1247	12,000	Feb. 5, 1952	36	813	590,300	779	565,800
1953	1287	6,920	Jan. 23, 1953	25	622	450,300	648	469,300
1954	1347	4,260	Jan. 31, 1954	23	489	353,900	472	342,000
1955	1397	4,140	Feb. 8, 1955	6.3	437	316,400	623	451,200
1956	1447	15,200	Dec. 22, 1955	23	1,072	778,200	898	651,700
1957	1517	11,100	Feb. 27, 1957	15	621	449,300	619	448,300
1958	1567	7,760	Feb. 13, 1958	6.6	651	471,500	697	504,800
1959	1637	11,400	Jan. 28, 1959	15	819	593,200	795	575,500
1960	1717	3,990	Feb. 9, 1960	7.4	462	335,600	-	-

a Maximum during period February to September.

3525. Cow Creek at Hooper, Wash.

Location.--Lat 46°45'57", long 118°08'45", NW¼ sec.26, T.15 N., R.37 E., on left bank at downstream side of highway bridge, half a mile upstream from mouth and half a mile north of Hooper.

Drainage area.--670 sq mi, approximately.

Records available.--February 1951 to December 1953.

Gage.--Water-stage recorder. Altitude of gage is 1,070 ft (from topographic map).

Extremes.--1951-53: Maximum discharge, 1,250 cfs (revised) Feb. 5, 1952 (gage height, 6.62 ft), from rating curve extended above 350 cfs; no flow July 27 to Aug. 3, 1951, Sept. 29, 1952.

Remarks.--No regulation. Probably some small diversions for domestic use above station.

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	43.3	81.5	109	85.0	53.7	19.9	4.59	4.04	-
1952	8.44	7.49	10.7	22.1	*139	71.3	131	94.2	51.1	20.5	8.54	5.10	*47.0
1953	6.56	8.65	16.6	24.4	24.6	21.9	56.0	20.3	18.6	16.1	8.11	9.48	19.2
1954	8.23	10.7	-	-	-	-	-	-	-	-	-	-	-

* Revised.

Monthly and yearly discharge, in acre-feet

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1951	-	-	-	-	2,400	5,010	6,470	5,220	3,200	1,230	282	240	-
1952	519	445	659	1,360	*8,020	4,390	7,810	5,790	3,040	1,260	525	303	*34,120
1953	404	515	1,020	1,500	1,370	1,340	3,330	1,250	1,100	993	499	564	13,880
1954	506	635	-	-	-	-	-	-	-	-	-	-	-

* Revised.

Yearly discharge, in cubic feet per second

Year	WSP	Water year ending Sept. 30					Calendar year	
		Momentary maximum		Minimum day	Mean	Acre-feet	Mean	Acre-feet
		Discharge	Date					
1951	1217	a136	Feb. 9, 1951	-	-	-	-	-
1952	1247	*1,250	Feb. 5, 1952	0.4	*47.0	*34,120	*47.4	*34,440
1953	1287	79	Apr. 13, 1953	3.5	19.2	13,880	-	-
1954	1287	-	-	-	-	-	-	-

* Revised.
a Maximum for period February to September.
Note.--Figures of daily discharge for Feb. 4, 5, 1952, have been revised to 886 and 536 cfs, respectively.

1840. Owyhee River near Owyhee, Oreg.

Revisions.--The momentary maximum discharge for water year 1910 and for the period of record has been revised to 35,000 cfs Mar. 2, 1910 (gage height, 14.0 ft).

2160. Malheur River at Riverside, Oreg.

Revisions.--The momentary maximum discharge for water year 1912 has been revised to 3,330 cfs Apr. 26, 1912 (gage height, 5.3 ft).

3180. Meadow Creek near Starkey, Oreg.

Revisions.--The drainage area has been revised to 160 sq mi, approximately.

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